

James J. Meehan P.E.  
1221 SW 96<sup>th</sup> Street  
Gainesville, Fl. 32607  
(352) 215-2548, FAX (352) 332-0431  
jjmeehanjr@yahoo.com

RECEIVED

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Per \_\_\_\_\_

***BENTON HILLS***

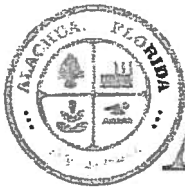


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jjmeehanjr@yahoo.com

***APPLICATION  
AERIAL (PLANTED PINES)  
LOCATION MAPS  
PROOF OF OWNERSHIP  
TAXES PAID RECEIPTS  
AUTHORIZED AGENT AFF.***







City of  
**ALACHUA**

THE GOOD LIFE COMMUNITY

FOR PLANNING USE ONLY

Case #: \_\_\_\_\_  
Application Fee: \$ \_\_\_\_\_  
Filing Date: \_\_\_\_\_  
Acceptance Date: \_\_\_\_\_  
Review Type: P&Z; CC; Admin

## Subdivision Application

Reference City of Alachua Land Development Regulations Article 2.4.10

- ☐ **Major Subdivision** – complete application and provide copy of original application with each type of submission.  
☐ **Minor Subdivision** – refer only to Final Plat section of this application.

**A. PROJECT**

1. Project Name: Benton Hills
2. Address of Subject Property: CR 235A @ US 441
3. Parcel ID Number(s): 03044-011-001, 03044-011-002, 03044-011-003, 03044-010-003
4. Existing Use of Property: Agriculture - tree farm
5. Future Land Use Map Designation: Single Family
6. Zoning Designation: RSF1
7. Acreage: 74

**B. APPLICANT**

1. Applicant's Status: Owner (title holder) ☒ Agent
2. Name of Applicant(s) or Contact Person(s): JAMES MEERHAN Title: ENGINEER  
Company (if applicable): \_\_\_\_\_  
Mailing address: 1221 SW 96th St.  
City: Gainesville State: FL ZIP: 32607  
Telephone: (352) 215-2548 FAX: (352) 332-0431 e-mail: JMEERHANJR@YAHOO.COM
3. If the applicant is agent for the property owner:  
Name of Owner (title holder): Parker Land Co. (Golden Pond Farms Inc)  
Mailing Address: PO Box 357133  
City: Gainesville State: FL ZIP: 32607

\* Must provide executed Property Owner Affidavit authorizing the agent to act on behalf of the property owner.

**C. ADDITIONAL INFORMATION**

1. Is there any additional contact for sale of, or options to purchase, the subject property? ☐ Yes ☒ No  
If yes, list names of all parties involved: \_\_\_\_\_  
If yes, is the contract/option contingent or absolute? ☐ Contingent ☐ Absolute

**D. ATTACHMENTS**

**Preliminary Plat Attachments:**

1. Plans, to include but not limited to:
  - a. Scale: at least 1 inch = 200 ft;
  - b. Proposed name of subdivision.
  - c. Name, address, and telephone number of the subdivider and agent of subdivider.
  - d. Name, address, telephone number and registration number of surveyor or engineer.
  - e. Date of boundary survey, north arrow, graphic scale, date of plat drawing, and space for revision dates.
  - f. Vicinity map - indicating general location of the site and all abutting streets and properties, section lines and quarter section lines, etc., total acreage of the subdivision and total number of lots. The vicinity map shall be drawn to show clearly the information required, but not less than one (1) inch to 2,000 feet. USGS Maps may be used as a reference guide for the vicinity map.
  - g. Legal description of the property to be subdivided.

City of Alachua ♦ Planning and Community Development Department  
PO Box 9 ♦ Alachua, FL 32616 ♦ (386) 418-6121

Revised 4/1/2012

- h. Names of owners of adjoining land with their approximate acreage or, if developed, names of abutting subdivisions.
- i. Preliminary layout including streets and easements with dimensions, lot lines with approximate dimensions, land to be reserved or dedicated for public or common uses, and any land to be used for purposes other than single-family dwellings.
- j. Block letters and lot numbers, lot lines, and scaled dimensions.
- k. Zoning district boundaries on abutting properties.
- l. Proposed method of water supply, sewage disposal, and drainage, and electric service.
- m. Minimum building setback lines as required by the Land Development Regulations.
- n. Natural features, including lakes, marshes or swamps, water courses, wooded areas, and land subject to the 100-year flood as defined by FEMA official flood maps.
- o. Surface drainage and direction of flow and method of disposition and retention indicated.
- p. Inscription stating "NOT FOR FINAL RECORDING".
- q. Tree location survey in conformance with LDR Article 6.2.1(G).
- r. Any other information that may be considered necessary by either the subdivider, the Planning and Zoning Board or the City Commission for full and proper consideration of the proposed subdivision.

**Sheet Size: 24" X 36" with 3" left margin and ½" top, bottom, and right margins**

- 2. Concurrency Impact Analysis showing the impact on public facilities, including potable water, sanitary sewer, transportation, solid waste, recreation, stormwater, and public schools in accordance with Article 2.4.14 of the Land Development Regulations.
- 3. Analysis of Consistency with the City of Alachua Comprehensive Plan (analysis must identify specific Goals, Objectives, and Policies and describe in detail how the application complies with the noted Goal, Objective, or Policy.)
- 4. Existing and/or proposed covenants and restrictions.
- 5. Two (2) sets of labels for all property owners within 400 feet of the subject property boundaries – even if property within 400 feet falls outside of City limits. (Obtain from the Alachua County Property Appraiser).
- 6. Neighborhood Meeting Materials, including:
  - i. Copy of the required published notice (advertisement) – must be published in a newspaper of general circulation, as defined in Article 10 of the City's Land Development Regulations
  - ii. Copy of written notice (letter) sent to all property owners within 400 feet, and mailing labels or list of those who received written notice
  - iii. Written summary of meeting – must include (1) those in attendance; (2) a summary of the issues related to the development proposal discussed; (3) comments by those in attendance about the development proposal; and, (4) any other information deemed appropriate.
- 7. City of Alachua Public School Student Generation Form
- 8. Legal description with tax parcel number.
- 9. Proof of ownership.
- 10. Proof of payment of taxes.
- 11. Environmental Resource Permit (or Letter of Exemption) from the Suwannee River Water Management District.
- 12. If access is from a County Road, access management permit from Alachua County Public Works (or documentation providing evidence that a permit application has been submitted).
- 13. If access is from a State Road, access management permit from Florida Department of Transportation (or documentation providing evidence that a permit application has been submitted).
- 14. **Fee.** Please see fee schedule for fee determination. No application shall be accepted for processing until the required application fee is paid in full by the applicant. Any necessary technical review or additional reviews of the application beyond will be billed to the applicant at the rate of the reviewing entity. The invoice shall be paid in full prior to any legislative and/or quasi-judicial action of any kind on the petition, appeal, or development application.

**All 14 attachments are required for a complete application. A completeness review of the application will be conducted within five (5) business days of receipt. If the application is determined to be incomplete, the application will be returned to the applicant.**

**Within twelve (12) months of the approval of the Subdivision Preliminary Plat, Construction Plans must be reviewed and approved in accordance with LDR Article 2.4.10(G)(3).**

**Construction Plans Attachments:**

1. A copy of this original application must accompany the submission.
2. Plans, to include but not limited to:
  - a. Scale: 1inch=200 ft.
  - b. A topographic map of the subdivision with maximum contour intervals of one foot where overall slopes are zero percent to two percent, two feet where slopes are over two percent, based on U.S. Coastal and Geographic Datum. This topographic map must be prepared by a land surveyor.
  - c. A contour drainage map of the stormwater basins. The outlines and sizes, measured in acres, of all existing and proposed drainage areas shall be shown and related to corresponding points of flow concentration. Each drainage area shall be clearly delineated. Flow paths must be indicated throughout. Any existing and proposed structures affecting the drainage must be shown.
  - d. Plans showing proposed design features and typical sections of canals, swales and all other open channels, storm sewers, all drainage structures and other proposed subdivision improvements.
  - e. Plans and profiles for all proposed streets and curbs. Where proposed streets intersect existing streets, elevations and other pertinent details shall be shown for existing streets for a distance of 300 feet from point of intersection.
  - f. Plans of any proposed water distribution system and sanitary sewer collection system showing pipe sizes and location of valves, pumping stations and fire hydrants, where installation of such facilities are required by these LDRs.
  - g. Plans for all road and street signs and street names signs showing the location of such signage and any other traffic safety control devices that is required or proposed. In addition, the specifications for such signage shall be provided as part of this plan, which shall detail in diagram form as necessary the size, material, color, and specifications for installation of such signage.
  - h. Other information on the construction plans as may be required by the Land Development Regulations Administrator and Public Services Director.

**Sheet Size: 24" X 36" with 3" left margin and ½" top, bottom, and right margins**

3. Concurrency Impact Analysis showing the impact on public facilities, including potable water, sanitary sewer, transportation, solid waste, recreation, stormwater, and public schools in accordance with Article 2.4.14 of the Land Development Regulations.
4. Analysis of Consistency with the City of Alachua Comprehensive Plan (analysis must identify specific Goals, Objectives, and Policies and describe in detail how the application complies with the noted Goal, Objective, or Policy.)
5. Legal description with tax parcel number.
6. Proof of ownership.
7. Proof of payment of taxes.
8. Environmental Resource Permit (or Letter of Exemption) from the Suwannee River Water Management District.
9. If access is from a County Road, access management permit from Alachua County Public Works (or documentation providing evidence that a permit application has been submitted).
10. If access is from a State Road, access management permit from Florida Department of Transportation (or documentation providing evidence that a permit application has been submitted).

**All 10 attachments are required for a complete application. A completeness review of the application will be conducted within 5 business days of receipt. If the application is determined to be incomplete, the application will be returned to the applicant.**

**Within six (6) months of the approval of Construction Plans, the applicant must submit an application for Final Plat for review. Concurrently with the review of the Final Plat, a Subdivider Agreement shall be prepared. The applicant must also provide a surety device for the public improvements in accordance with LDR Article 7.4, Improvement Guarantees for Public Improvements.**

### **Final Plat Attachments:**

1. A copy of this original application must accompany the submission.
2. Plans, to include but not limited to:
  - a. Scale: at least 1 inch = 200 ft.
  - b. Name of subdivision shall be shown in bold legible letters, as stated in Chapter 177, Florida Statutes. The name of the subdivision shall be shown on each sheet included and shall have legible lettering of the same size and type including the words "section," "unit," "replat," "amended," etc.
  - c. Name and address of subdivider.
  - d. North arrow, graphic scale, and date of plat drawing.
  - e. Vicinity map showing location with respect to existing streets, landmarks, etc., and total acreage of the subdivision and total number of lots. The vicinity map shall be drawn to show clearly the information required, but not less than one (1) inch to 2,000 feet. USGS Maps may be used as a reference guide for the vicinity map.
  - f. Exact boundary line of the tract, determined by a field survey, giving distances to the nearest one-hundredth foot and angles to the nearest minute, shall be balanced and closed with an apparent error of closure not to exceed one in 5,000.
  - g. Legal description of the property to be subdivided.
  - h. Names of owners of adjoining lands with their approximate acreage or, if developed, names of abutting subdivisions.
  - i. Location of streams, lakes and swamps, and land subject to the 100-year flood as defined by the Federal Emergency Management Agency, official flood maps.
  - j. Bearing and distance to permanent points on the nearest existing street lines of bench marks or other permanent monuments (not less than three (3)) shall be accurately described on the plat.
  - k. Municipal lines shall be accurately tied to the lines of the subdivision by distance and angles when such lines traverse or are reasonably close to the subdivision.
  - l. The closest land lot corner shall be accurately tied to the lines of the subdivision by distance and angles.
  - m. Location, dimensions, and purposes of any land reserved or dedicated for public use.
  - n. Exact locations, width, and names of all streets within and immediately adjoining the proposed subdivision.
  - o. Street right-of-way lines must show deflection angles of intersection, radii, and lines of tangents.
  - p. Lot lines, dimensions, and bearings must be shown to the nearest one hundredth (1/100) foot.
  - q. Lots must be numbered in numerical order and blocks lettered alphabetically.
  - r. Accurate location and description of monuments and markers.
  - s. Minimum building front yard setback lines as required by the Land Development Regulations as determined by the property's zoning.
  - t. Reference to recorded subdivision plats of adjoining platted land shall be shown by recorded names, plat book, and page number.
  - u. Covenants and restrictions notice in accordance with Chapter 177.091(28), Florida Statutes.
  - v. Dedication to the public by the owners of the land involved of all streets, drainage easements, and other rights-of-way however designated and shown on the plat for perpetual use for public purposes, including vehicular access rights where required. If the property is encumbered by a mortgage, the owner of the mortgage shall join in the dedication or in some other manner subordinate the mortgagee's interest to the dedication of public right-of-way.
  - w. Certification that all payable taxes have been paid and all tax sales against the land redeemed.
  - x. Title certification as required by Chapter 177, Florida Statutes.

### **Sheet Size: 24" X 36" with 3" left margin and ½" top, bottom, and right margins**

3. Concurrency Impact Analysis showing the impact on public facilities, including potable water, sanitary sewer, transportation, solid waste, recreation, stormwater, and public schools in accordance with Article 2.4.14 of the Land Development Regulations.
4. Analysis of Consistency with the City of Alachua Comprehensive Plan (analysis must identify specific Goals, Objectives, and Policies and describe in detail how the application complies with the noted Goal, Objective, or Policy.)
5. Legal description with tax parcel number.
6. City of Alachua Public School Student Generation Form.
7. One (1) set (two [2] sets for Minor Subdivisions) of labels for all property owners within 400 feet of the subject property boundaries – even if property within 400 feet falls outside of City limits. (Obtain from the Alachua County Property Appraiser).

8. Proof of ownership.
9. Proof of payment of taxes.
10. Environmental Resource Permit (or Letter of Exemption) from the Suwannee River Water Management District.
11. If access is from a County Road, access management permit from Alachua County Public Works (or documentation providing evidence that a permit application has been submitted).
12. If access is from a State Road, access management permit from Florida Department of Transportation (or documentation providing evidence that a permit application has been submitted).
13. **For Minor Subdivisions: Fee.** Please see fee schedule for fee determination. No application shall be accepted for processing until the required application fee is paid in full by the applicant. Any necessary technical review will be billed to the applicant at the rate of the reviewing entity. The invoice shall be paid in full prior to any legislative and/or quasi-judicial action of any kind on the petition, appeal, or development application.

**All 12/13 attachments are required for a complete application. A completeness review of the application will be conducted within five (5) business days of receipt. If the application is determined to be incomplete, the application will be returned to the applicant.**

I/We certify and acknowledge that the information contained herein is true and correct to the best of my/our knowledge.

James Meehan  
Signature of Applicant

\_\_\_\_\_  
Signature of Co-applicant

JAMES MEEHAN - Engineer  
Typed or printed name and title of applicant

\_\_\_\_\_  
Typed or printed name of co-applicant

State of Florida County of Alachua

The foregoing application is acknowledged before me this 5 day of January, 2015 by James  
Meehan, who is/are personally known to me, or who has/have produced FL DL  
as identification.

P. Ward Meehan  
Signature of Notary Public, State of FL





# DEVELOPMENT REVIEW TEAM SUMMARY

Sept. 3

**PROJECT NAME:** Benton Hills

**APPLICATION TYPE:** Preliminary Plat

**APPLICANT/AGENT:** James M. Meehan, PE

**PROPERTY OWNER:** Golden Pond Farms Inc. & Florida Timber Co.

**DRT MEETING DATE:** August 12, 2015

**DRT MEETING TYPE:** Applicant

**FLUM DESIGNATION:** Moderate Density Residential

**ZONING:** Residential Single Family – 4 (RSF-4)

**OVERLAY:** N/A

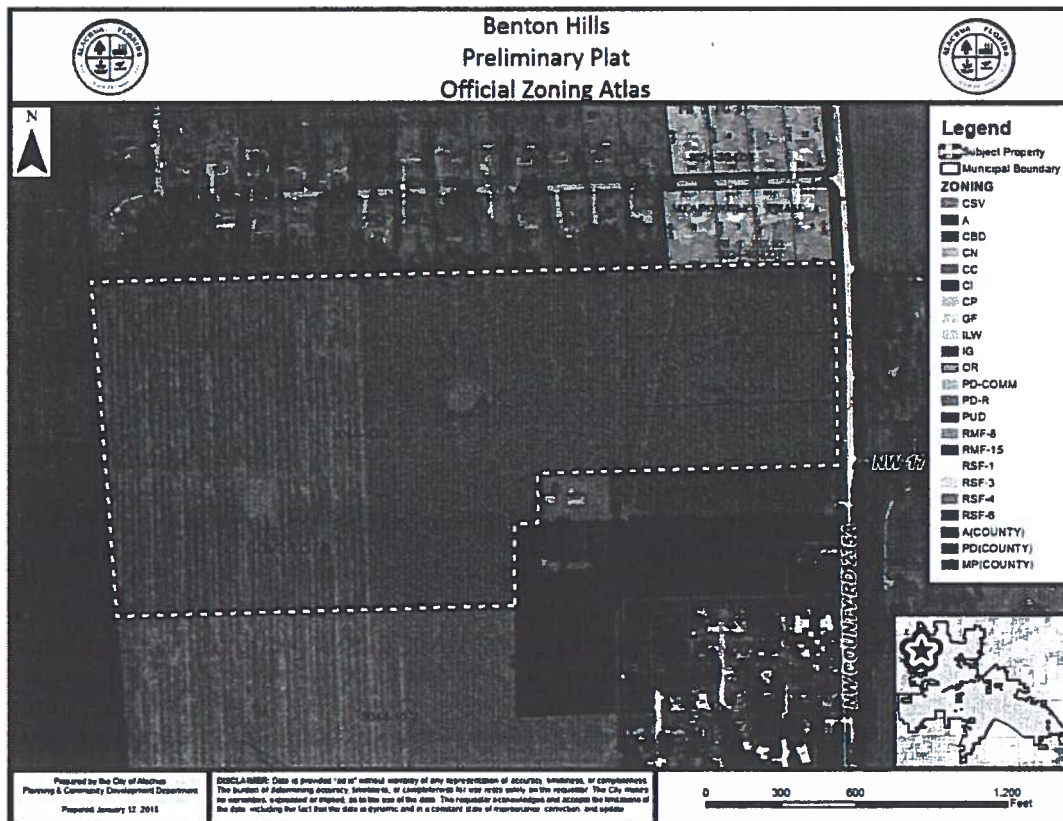
**DEVELOPMENT AREA ACREAGE:** ±73.80 acres

**PARCEL:** Tax Parcel Nos. 03044-011-001, 0344-011-002; 03044-011-003; 03044-010-003

**PROJECT LOCATION:** Approximately 2,800 feet north of the intersection of NW US Highway 441 and CR 235A and west of CR 235 A, south of the Meadowglen subdivision

**PROJECT SUMMARY:** A request for a Preliminary Plat for the subdivision of a ±73.80 acre tract into a total of 210 lots

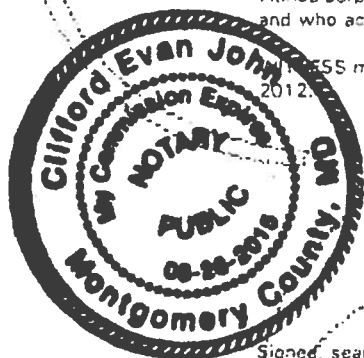
**RESUBMISSION DUE DATE:** All data, plans, and documentation addressing the insufficiencies identified below must be received by the Planning Department on or before 4:00 PM on Thursday, September 3, 2015.



STATE OF Maryland  
COUNTY OF Montgomery

I HEREBY CERTIFY that on this day, before me, an officer duly authorized to administer oaths and take acknowledgments, personally appeared LISA PARKER EHRLICH, as Vice-President of PARKER LAND CO., a Florida corporation, known to me to be the person described in and who executed the foregoing instrument and who acknowledged before me that she executed the same. Said person is personally known to me.

WITNESS my hand and official seal in the County and State last aforesaid this 21st day of December, 2012.



[Signature]  
NOTARY PUBLIC

My commission expires

8-24-15

Signed, sealed and delivered in the presence of:

[Signature]  
Witness Signature

CARL L JOHNSON  
Printed Name

[Signature]  
Witness Signature

[Signature]  
Printed Name

PARKER LAND CO

BY [Signature]

ERIC J. PARKER Pres.

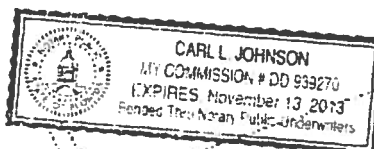
STATE OF FLORIDA  
COUNTY OF ALACHUA

I HEREBY CERTIFY that on this day, before me, an officer duly authorized to administer oaths and take acknowledgments, personally appeared ERIC J. PARKER, as President of PARKER LAND CO., a Florida corporation, known to me to be the person(s) described in and who executed the foregoing instrument and who acknowledged before me that he executed the same. Said person is personally known to me.

WITNESS my hand and official seal in the County and State last aforesaid this 26th day of December, 2012.

[Signature]  
NOTARY PUBLIC

My commission expires



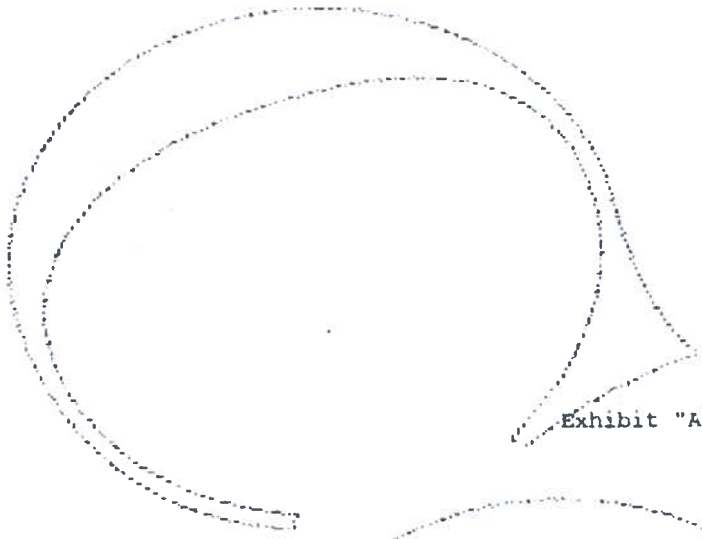

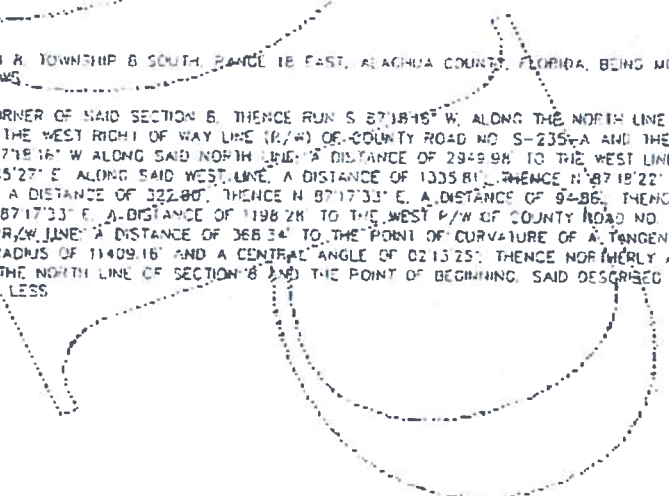



Exhibit "A"

A TRACT OF LAND LYING IN SECTION 8, TOWNSHIP 6 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID SECTION 8, THENCE RUN S 87°18'45" W, ALONG THE NORTH LINE OF SAID SECTION, A DISTANCE OF 58.60' TO THE WEST RIGHT OF WAY LINE (R/W) OF COUNTY ROAD NO. S-235-A AND THE POINT OF BEGINNING, THENCE CONTINUING S 87°18'45" W ALONG SAID NORTH LINE, A DISTANCE OF 2949.98' TO THE WEST LINE OF THE EAST HALF OF SECTION 8, THENCE S 05°35'27" E ALONG SAID WEST LINE, A DISTANCE OF 1335.81', THENCE N 87°18'22" E, A DISTANCE OF 1577.01', THENCE N 01°47'45" W, A DISTANCE OF 322.80', THENCE N 87°17'33" E, A DISTANCE OF 94.86', THENCE N 01°47'45" W, A DISTANCE OF 200.00', THENCE N 87°17'33" E, A DISTANCE OF 1198.28' TO THE WEST R/W OF COUNTY ROAD NO. S-235-A, THENCE N 01°47'45" W ALONG SAID R/W LINE, A DISTANCE OF 368.34' TO THE POINT OF CURVATURE OF A TANGENT CURVE, CONCAVE TO THE WEST, HAVING A RADIUS OF 11409.16' AND A CENTRAL ANGLE OF 02°15'25"; THENCE NORTHERLY ALONG SAID R/W CURVE, A DISTANCE OF 442.77' TO THE NORTH LINE OF SECTION 8 AND THE POINT OF BEGINNING, SAID DESCRIBED TRACT CONTAINING 74.141 ACRES, MORE OR LESS.



Prepared by and return to:  
CARL L. JOHNSON  
Law Office of Carl L. Johnson  
4421 N.W. 35th Avenue, Bldg. 1 Suite 2  
Gainesville, FL 32605

Parcel No. C3044-010-003

Grantee: TIN

Doc Stamp-Dues \$0.70



**THIS SPECIAL WARRANTY DEED**, made this 21<sup>st</sup> day of December, 2012, by PARKER LAND CO., a Florida corporation, hereinafter called the Grantor, whose post office address is: P.O. Box 357133, Gainesville, FL 32635, to GOLDEN POND FARMS, INC., a Florida corporation, hereinafter called the Grantee, whose post office address is: P.O. Box 357135, Gainesville, FL 32635.

(Wherever used herein the terms "Grantor" and "Grantee" includes all the parties to this instrument and 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 considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the Grantee all that certain land, situate in Alachua County, State of Florida, viz:

Property described in the legal description attached as Exhibit "A" and made a part hereof.

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

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

**AND** the Grantor hereby covenants with said Grantee that the Grantor is lawfully seized of said land in fee simple, that the Grantor has good right and lawful authority to sell and convey said land, and hereby warrants the title to said land and will defend the same against the lawful claims of all persons claiming by, through or under Grantors.

**IN WITNESS WHEREOF**, the said Grantor has caused these presents to be executed on the day and year first above written.

Signed, sealed and delivered in the presence of:

[Signature]  
Witness Signature

Clifford Johnson  
Printed Name

[Signature]  
Witness Signature

Michael Bennett  
Printed Name

PARKER LAND CO.

By:

[Signature]  
LISA PARKER EHRMICH, Vice-Pres.

RECORDED IN OFFICIAL RECORDS  
INSTRUMENT # 2761645 3 PGS  
December 27 2012 03 25 50 PM  
Book 4160 Page 1932  
J K IRBY Clerk of Circuit Court  
ALACHUA COUNTY, Florida

Doc Stamp-Deed \$0.70

Prepared by and return to:  
CARL L. JOHNSON  
Law Office of Carl L. Johnson  
4421 NW 39th Avenue, Bldg. 1, Suite 2  
Gainesville, FL 32605

Parcel No. C3044-010-003

Grantee(s) T/W

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**WITNESSETH**, That the Grantor, for and in consideration of the sum of \$10.00 and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the Grantee all that certain land, situate in Alachua County, State of Florida, viz:

Property described in the legal description attached as Exhibit "A" and made a part hereof.

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

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Signed, sealed and delivered in the presence of:

[Signature]  
Witness Signature

Clifford J. Johnson  
Printed Name

[Signature]  
Witness Signature

Michael Bennett  
Printed Name

PARKER LAND CO.

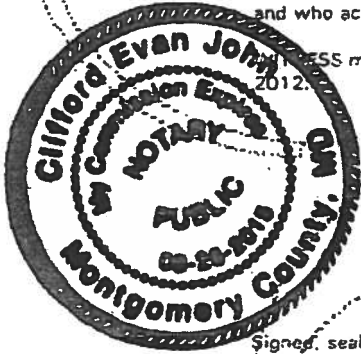
By:

[Signature]  
LISA PARKER EHRLICH, Vice-Pres.

STATE OF Maryland  
COUNTY OF Montgomery

I HEREBY CERTIFY that on this day, before me, an officer duly authorized to administer oaths and take acknowledgments, personally appeared LISA PARKER, EHRlich, as Vice-President of PARKER LAND CO., a Florida corporation, known to me to be the person described in and who executed the foregoing instrument and who acknowledged before me that she executed the same. Said person is personally known to me.

WITNESS my hand and official seal in the County and State last aforesaid this 21st day of December, 2012.



NOTARY PUBLIC

My commission expires: 8-24-15

Signed, sealed and delivered in the presence of:

Witness Signature

Printed Name

Witness Signature

Printed Name

PARKER LAND CO.

By:

ERIC J. PARKER, Pres.

STATE OF FLORIDA  
COUNTY OF ALACHUA

I HEREBY CERTIFY that on this day, before me, an officer duly authorized to administer oaths and take acknowledgments, personally appeared ERIC J. PARKER, as President of PARKER LAND CO., a Florida corporation, known to me to be the person(s) described in and who executed the foregoing instrument and who acknowledged before me that he executed the same. Said person is personally known to me.

WITNESS my hand and official seal in the County and State last aforesaid this 26th day of December, 2012.

NOTARY PUBLIC

My commission expires:

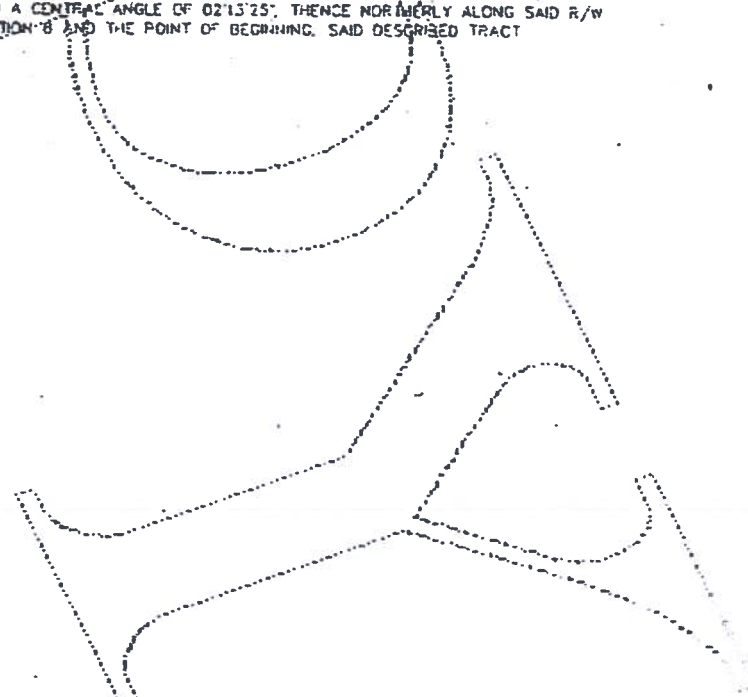




Exhibit "A"

A TRACT OF LAND LYING IN SECTION 8, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID SECTION 8, THENCE RUN S 87°18'16" W, ALONG THE NORTH LINE OF SAID SECTION, A DISTANCE OF 58.80' TO THE WEST RIGHT OF WAY LINE (R/W) OF COUNTY ROAD NO. S-235-A AND THE POINT OF BEGINNING; THENCE CONTINUING S 87°18'16" W ALONG SAID NORTH LINE, A DISTANCE OF 2949.98' TO THE WEST LINE OF THE EAST HALF OF SECTION 8; THENCE S 05°35'27" E ALONG SAID WEST LINE, A DISTANCE OF 1335.81'; THENCE N 87°18'22" E, A DISTANCE OF 1577.01'; THENCE N 01°47'45" W, A DISTANCE OF 322.80'; THENCE N 87°17'33" E, A DISTANCE OF 94.86'; THENCE N 01°47'45" W, A DISTANCE OF 200.00'; THENCE N 87°17'33" E, A DISTANCE OF 1198.28' TO THE WEST R/W OF COUNTY ROAD NO. S-235-A; THENCE N 01°47'45" W, ALONG SAID R/W LINE, A DISTANCE OF 368.34' TO THE POINT OF CURVATURE OF A TANGENT CURVE, CONCAVE TO THE WEST, HAVING A RADIUS OF 11409.16' AND A CENTRAL ANGLE OF 02°13'25"; THENCE NORMALLY ALONG SAID R/W CURVE, A DISTANCE OF 442.77' TO THE NORTH LINE OF SECTION 8 AND THE POINT OF BEGINNING, SAID DESCRIBED TRACT CONTAINING 74.141 ACRES, MORE OR LESS.



## 2014 PAID REAL ESTATE NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS

| ACCOUNT NUMBER | ESCROW CD | MILLAGE CD |
|----------------|-----------|------------|
| 03044 011 001  |           | 1700       |

UNKNOWN

GOLDEN POND FARMS INC  
PO BOX 357133  
GAINESVILLE, FL 32635

COM NE COR SEC W 58.76 FT POB SLY ALG  
CURVE 275 FT W 832.88 FT N 275  
See Additional Legal on Tax Roll

| AD VALOREM TAXES               |              |                |              |               |              |
|--------------------------------|--------------|----------------|--------------|---------------|--------------|
| TAXING AUTHORITY               | MILLAGE RATE | ASSESSED VALUE | EXEMPTION(S) | TAXABLE VALUE | TAXES LEVIED |
| BOARD OF COUNTY COMMISSIONERS  |              |                |              |               |              |
| CNTY GENERAL                   | 8.7990       | 1,200          | 0            | 1,200         | 10.56        |
| BOCC CNTY DEBT LL              | 0.2500       | 1,200          | 0            | 1,200         | 0.30         |
| ALACHUA CNTY LIBRARY DISTRICT  |              |                |              |               |              |
| LIBRARY BONDS                  | 0.0950       | 1,200          | 0            | 1,200         | 0.11         |
| LIBRARY GENERAL                | 1.3638       | 1,200          | 0            | 1,200         | 1.64         |
| SCHOOL BOARD OF ALACHUA COUNTY |              |                |              |               |              |
| SCHL CAP30 PROJECT (S01)       | 1.5000       | 1,200          | 0            | 1,200         | 1.80         |
| SCHL DISCRNRY & CN (S01)       | 0.7480       | 1,200          | 0            | 1,200         | 0.90         |
| SCHL GENERAL                   | 5.1620       | 1,200          | 0            | 1,200         | 6.19         |
| SCHOOL VOTED (S01)             | 1.0000       | 1,200          | 0            | 1,200         | 1.20         |
| SUWANNEE RIVER WATER MGT DIST  | 0.4141       | 1,200          | 0            | 1,200         | 0.50         |
| 17 CITY OF ALACHUA             | 5.5000       | 1,200          | 0            | 1,200         | 6.60         |
| TOTAL MILLAGE                  |              |                |              |               | 24.8319      |
| AD-VALOREM TAXES               |              |                |              |               | \$29.80      |

| NON-AD VALOREM ASSESSMENTS |      |        |
|----------------------------|------|--------|
| LEVYING AUTHORITY          | UNIT | AMOUNT |
| NON-AD VALOREM ASSESSMENTS |      | \$0.00 |

|                                |                        |         |                      |  |   |
|--------------------------------|------------------------|---------|----------------------|--|---|
| COMBINED TAXES AND ASSESSMENTS |                        | \$29.80 | PAY ONLY ONE AMOUNT. |  | See reverse side for important information. |
| If Postmarked By<br>Please Pay | Nov 30, 2014<br>\$0.00 |         |                      |  |   |

**ALACHUA COUNTY  
TAX COLLECTOR**

**2014 PAID REAL ESTATE**  
**NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS**

**PLEASE PAY IN U.S. FUNDS (NO POSTDATED CHECKS) TO ALACHUA COUNTY TAX COLLECTOR • PO BOX 142340 • GAINESVILLE, FL 32614-2340**

|                         |                     |  |  |  |  |
|-------------------------|---------------------|--|--|--|--|
| <b>If Postmarked By</b> | <b>Nov 30, 2014</b> |  |  |  |  |
| <b>Please Pay</b>       | <b>\$0.00</b>       |  |  |  |  |

GOLDEN POND FARMS INC  
PO BOX 357133  
NORFOLK, VA 23505

1011287



| ACCOUNT NUMBER | ESCROW CD | MILLAGE CD |
|----------------|-----------|------------|
| 03044 011 001  |           | 1700       |

Receipt # 14-0018297

**\$28.61**

Paid 11/17/2014

**Please Retain this Portion for your Records**

**2014 PAID REAL ESTATE  
NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS**

UNKNOWN

COM NE COR SEC W 58.74 FT SLY ALG  
CURVE 275 FT POB SLY ALG CURVE 167  
See Additional Legal on Tax Roll

**Please Retain this Application for your Records.**

|                                       |                     |                |                             |  |  |  |
|---------------------------------------|---------------------|----------------|-----------------------------|--|--|--|
| <b>COMBINED TAXES AND ASSESSMENTS</b> |                     | <b>\$29.80</b> | <b>PAY ONLY ONE AMOUNT.</b> |  |  | <b>See reverse side for important information.</b> |
| <b>If Postmarked By</b>               | <b>Nov 30, 2014</b> |                |                             |  |  |  |
| <b>Please Pay</b>                     | <b>\$0.00</b>       |                |                             |  |  |  |

**2014 PAID REAL ESTATE**  
**NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS**

**PLEASE PAY IN U.S. FUNDS (NO POSTDATED CHECKS) TO ALACHUA COUNTY TAX COLLECTOR • PO BOX 142340 • GAINESVILLE, FL 32614-2340**

GOLDEN POND FARMS INC  
PO BOX 357133  
GAINESVILLE, FL 32635

1011288

Receipt # 14-0018297

**\$28.61**

Paid 11/17/2014

**2014 PAID REAL ESTATE  
NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS**

|                |           |            |
|----------------|-----------|------------|
| ACCOUNT NUMBER | ESCROW CD | MILLAGE CD |
| 03044 011 003  |           | 1700       |

UNKNOWN

GOLDEN POND FARMS INC  
PO BOX 357133  
GAINESVILLE, FL 32635

COM NE COR SEC W 58.76 FT SLY ALG  
CURVE 442.88 S 107.12 FT POB S 261  
See Additional Legal on Tax Roll

| AD VALOREM TAXES               |              |                |              |               |              |
|--------------------------------|--------------|----------------|--------------|---------------|--------------|
| TAXING AUTHORITY               | MILLAGE RATE | ASSESSED VALUE | EXEMPTION(S) | TAXABLE VALUE | TAXES LEVIED |
| BOARD OF COUNTY COMMISSIONERS  |              |                |              |               |              |
| CNTY GENERAL                   | 8.7990       | 1,100          | 0            | 1,100         | 9.68         |
| BOCC CNTY DEBT LL              | 0.2500       | 1,100          | 0            | 1,100         | 0.28         |
| ALACHUA CNTY LIBRARY DISTRICT  |              |                |              |               |              |
| LIBRARY BONDS                  | 0.0950       | 1,100          | 0            | 1,100         | 0.10         |
| LIBRARY GENERAL                | 1.3638       | 1,100          | 0            | 1,100         | 1.50         |
| SCHOOL BOARD OF ALACHUA COUNTY |              |                |              |               |              |
| SCHL CAP30 PROJECT (S01)       | 1.5000       | 1,100          | 0            | 1,100         | 1.65         |
| SCHL DISCRNRY & CN (S01)       | 0.7480       | 1,100          | 0            | 1,100         | 0.82         |
| SCHL GENERAL                   | 5.1620       | 1,100          | 0            | 1,100         | 5.68         |
| SCHOOL VOTED (S01)             | 1.0000       | 1,100          | 0            | 1,100         | 1.10         |
| SUWANNEE RIVER WATER MGT DIST  | 0.4141       | 1,100          | 0            | 1,100         | 0.46         |
| 17 CITY OF ALACHUA             | 5.5000       | 1,100          | 0            | 1,100         | 6.05         |
| TOTAL MILLAGE                  |              |                |              |               | 24.8319      |
| AD-VALOREM TAXES               |              |                |              |               | \$27.32      |

| NON-AD VALOREM ASSESSMENTS |      |        |
|----------------------------|------|--------|
| LEVYING AUTHORITY          | UNIT | AMOUNT |
| NON-AD VALOREM ASSESSMENTS |      | \$0.00 |

|                                |                        |         |                      |  |   |
|--------------------------------|------------------------|---------|----------------------|--|---|
| COMBINED TAXES AND ASSESSMENTS |                        | \$27.32 | PAY ONLY ONE AMOUNT. |  | See reverse side for important information. |
| If Postmarked By<br>Please Pay | Nov 30, 2014<br>\$0.00 |         |                      |  |   |

**ALACHUA COUNTY  
TAX COLLECTOR**

**2014 PAID REAL ESTATE**  
**NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS**

**PLEASE PAY IN U.S. FUNDS (NO POSTDATED CHECKS) TO ALACHUA COUNTY TAX COLLECTOR • PO BOX 142340 • GAINESVILLE, FL 32614-2340**

|                         |                     |  |  |  |  |
|-------------------------|---------------------|--|--|--|--|
| <b>If Postmarked By</b> | <b>Nov 30, 2014</b> |  |  |  |  |
| <b>Please Pay</b>       | <b>\$0.00</b>       |  |  |  |  |

GOLDEN POND FARMS INC  
PO BOX 357133  
NESVILLE, FL 32635

1011289



|                |           |   |
|----------------|-----------|---|
| ACCOUNT NUMBER | ESCROW CD | MILLAGE CD                                  |
| 03044 011 003  |           | APPLICABLE VALUES AND EXEMPTIONS ABOVE 1700 |

Receipt # 14-0018297

**\$26.23**

Paid 11/17/2014

**Please Retain this Portion for your Records.**



**2014 PAID REAL ESTATE  
NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS**

UNKNOWN

COM NE COR SEC W 58.60 FT POB W  
2949.98 FT TO W LINE OF E1/2 SEC S 5  
See Additional Legal on Tax Roll

**Please Retain this Information for your Records**

**2014 PAID REAL ESTATE**  
**NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS**

**PLEASE PAY IN U.S. FUNDS (NO POSTDATED CHECKS) TO ALACHUA COUNTY TAX COLLECTOR • PO BOX 142340 • GAINESVILLE, FL 32614-2340**

1011283



Paid 11/17/2014





City of  
**ALACHUA**

THE GOOD LIFE COMMUNITY

## Authorized Agent Affidavit

**A. PROPERTY INFORMATION**

Address of Subject Property: CR 235A @ US 441  
Parcel ID Number(s): 03044-011-001, 03044-011-002, 03044-011-003, 03044-010-003  
Acreage: Phase 1 Area = 26.3 acres Total Area = 74 acres

**B. PERSON PROVIDING AGENT AUTHORIZATION**

Name: ERIC PARKER Title: PRESIDENT  
Company (if applicable): GOLDEN POND FARMS, INC.  
Mailing Address: P.O. BOX 357133  
City: GAINESVILLE State: FL ZIP: 32635  
Telephone: 352-318-8880 FAX: \_\_\_\_\_ e-mail: EPARKER84@GMAIL.COM

**C. AUTHORIZED AGENT**

Name: JAMES MEEHAN Title: \_\_\_\_\_  
Company (if applicable): \_\_\_\_\_  
Mailing address: 1221 SW 96th Street  
City: GAINESVILLE State: FL ZIP: 32607  
Telephone: 352-218-2548 FAX: 352 332-0431 e-mail: JMEEHANJR@YAHOO.COM

**D. REQUESTED ACTION:**

Review of proposed subdivision - Benton Hills

I hereby certify that I am the property owner of record, or I have received authorization from the property owner of record to file an application for a development permit related to the property identified above. I authorize the agent listed above to act on my behalf for purposes of this application.

Eric J. Parker

Signature of Applicant

ERIC J. PARKER

Typed or printed name and title of applicant

Signature of Co-applicant

Typed or printed name of co-applicant

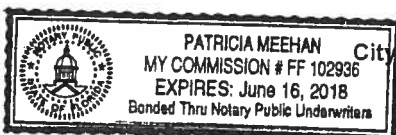
State of Florida County of Alachua

The foregoing application is acknowledged before me this 30 day of April, 2015 by Eric

Parker, who is/are personally known to me, or who has/have produced FL DL  
as identification.

NOTARY SEAL

Patricia Meehan  
Signature of Notary Public, State of Florida



City of Alachua ♦ Planning and Community Development Department  
PO Box 9 ♦ Alachua, FL 32616 ♦ (386) 418-6121  
Revised 9/30/2014



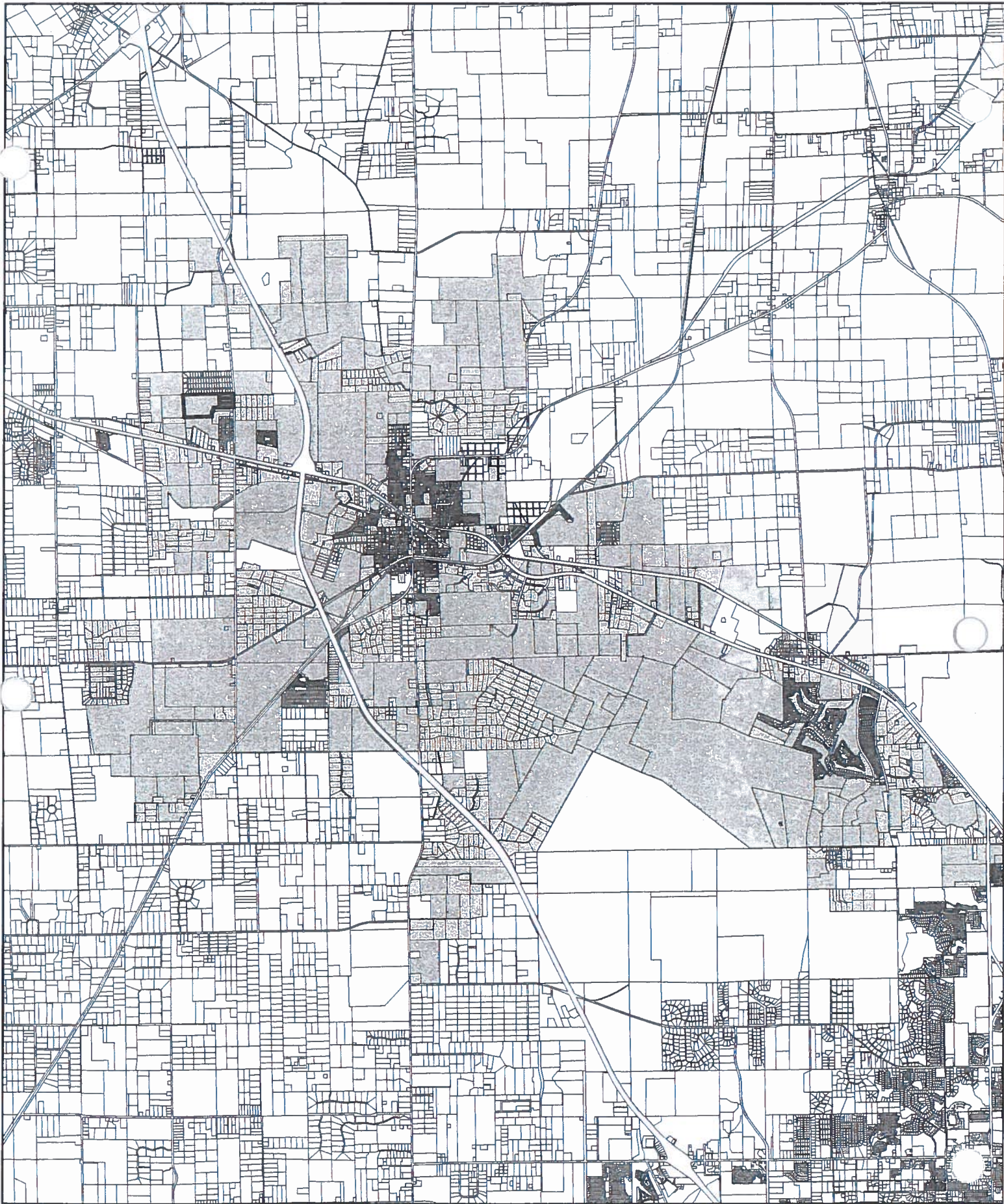
James J. Meehan P.E.  
1221 SW 96<sup>th</sup> Street  
Gainesville, Fl. 32607  
(352) 215-2548, FAX (352) 332-0431  
jjmeehanjr@yahoo.com

***NEIGHBORHOOD MEETING  
PUBLIC NOTICE ADD  
NEWSPAPER ADD  
PROP. APPRAISER LIST  
MEETING NOTES  
ATTENDEES***



**James J. Meehan P.E.  
1221 SW 96<sup>th</sup> Street  
Gainesville, Fl. 32607  
(352) 215-2548, FAX (352) 332-0431  
[jjmeehanjr@yahoo.com](mailto:jjmeehanjr@yahoo.com)**

A neighborhood meeting is to be held concerning tax parcel #'s 03044-010-003, 03044-11-1, 03044-11-2, and 03044-11-3 which are located approx. 2,800 ft north of US 441 on County Road 235A. This is not a public hearing. The purpose of the meeting is to inform neighboring property owners of the nature of the proposal and seek their comments. The meeting will be held Wed. , Oct. 29<sup>th</sup> @ the Alachua Public Library @ 6:00 pm.  
Contact person - James Meehan @ 352-215-2548  
e-mail [jjmeehanjr@yahoo.com](mailto:jjmeehanjr@yahoo.com)



ALACHUA COUNTY  
**PROPERTY  
APPRAISER**





# PUBLIC NOTICE

A neighborhood meeting is to be held concerning tax parcel #'s 030444-010-003, 030444-11-1, 030444-11-2, and 030444-11-3 which are located approx. 2,800 ft north of US 441 on County Road 235A. This is not a public hearing. The purpose of the meeting is to inform neighboring property owners of the nature of the proposal and seek their comments. The meeting will be held Wed., Oct. 29th @ the Alachua Public Library @ 6:00 pm. Contact person - James Meehan @ 352-215-2548 e-mail [jimeehanjr@yahoo.com](mailto:jimeehanjr@yahoo.com)

(Published: Alachua County Today - Oct. 16,  
2014)

## BACK MOTO SCHOOL



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running as slow as  
**MOLASSES?**

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- Laptop Repairs
- Students & Senior Discounts
- Network & Business Solutions

**FREE  
DIAGNOSIS**

15281 NW US 441  
Alachua, Florida

**386.462.3766**

## PUBLIC NOTICE

A neighborhood meeting is to be held concerning tax parcel #'s 03044-010-003, 03044-11-1, 03044-11-2, and 03044-11-3 which are located approx. 2,800 ft north of US 441 on County Road 235A. This is not a public hearing. The purpose of the meeting is to inform neighboring property owners of the nature of the proposal and seek their comments. The meeting will be held Wed., Oct. 29th @ the Alachua Public Library @ 6:00 pm. Contact person - James Meehan @ 352-215-2548 e-mail [jmeehanjr@yahoo.com](mailto:jmeehanjr@yahoo.com)

(Published: Alachua County Today - Oct. 16, 2014)





OFFICE OF ED CRAPO, ALACHUA COUNTY  
**PROPERTY APPRAISER**  
 KNOWLEDGE • COMMITMENT • TEAMWORK • CUSTOMER FOCUS

**James J. Meehan P.E.  
1221 SW 96<sup>th</sup> Street  
Gainesville, FL. 32607  
(352) 215-2548, FAX (352) 332-0431  
jjmeehanjr@yahoo.com**

#### **Benton Hills Neighborhood Meeting**

Attached is a list of the neighbors who attended the meeting held in the Alachua library @ 6:00 pm. Also included is a copy of the add that ran in the Alachua Today Newspaper two weeks prior to the meeting.

The neighbors were concerned about the size of the lots backing up to their lots. They were also concerned about the price of the proposed homes to be built. The developer indicated that the price of the new homes would most likely be more than the existing homes in Meadowglen. They mentioned the size of the lots proposed in the previous development , and we stated that the old plan was a Planned Development and now the owner was using the existing zoning on the property, and that we are allowed 4 units/acre and we are only proposing 3 units/acre.

Also of concern was the entrance on CR 235A. At the meeting we indicated the by pass lane would be constructed as part of this project, and that we had no other location to access the property.

**James Meehan P.E.**

Wendy & Steve Elicati (Meadow Glen) 386-462-2775

Carla Lofthouse 386-462-7214

Neri Warrington 386-462-4933

Sandra & Bud Roberts - 386-462-7961

Maude & Angelo Paganò - 386-418-4607

Carmen & Carlos González 787-798-2206

CETARA MICHAN 386 418 3722

TOM & CAROL BOCHANN - MEADOW GLEN

Linda Davis 386-418-8344 "

Denise Mongiardo - Hartley Bros - Realtor

Jim. Mahan - engineer 215-2548

Kate Hagley - Hagley Brothers

Cheryl Hartley - Hartley Bros. - Realtor

ERIC Parker - 318-8880



James J. Meehan P.E.  
1221 SW 96<sup>th</sup> Street  
Gainesville, Fl. 32607  
(352) 215-2548, FAX (352) 332-0431  
jjmeehanjr@yahoo.com

***CONCURRENCY  
PUBLIC SCHOOL GENERATION  
ROADWAY  
WASTWATER  
WATER  
RECREATION  
SOLID WASTE***





City of  
**ALACHUA**

THE GOOD LIFE COMMUNITY

FOR PLANNING USE ONLY

Case #: \_\_\_\_\_  
Application Fee: \$ \_\_\_\_\_  
Filing Date: \_\_\_\_\_  
Acceptance Date: \_\_\_\_\_  
Review Type: Admin

## Public School Student Generation Form for Residential Development in the City of Alachua

### A. APPLICANT

1. Applicant's Status (check one):

☐ Owner (title holder) ☒ Agent

2. Name of Applicant(s) or Contact Person(s): JAMES MEEHAN Title: Engineer/Agent

Company (if applicable): \_\_\_\_\_

Mailing address: 1221 SW 92TH ST

City: GAINESVILLE State: FL ZIP: 32607

Telephone: 352-215-2548 FAX: 352-332-0431 e-mail: JMEEHANJR@YAHOO.COM

3. If the applicant is agent for the property owner\*:

Name of Owner (title holder): MR ERIC PARKA

Mailing Address: P.O. Box 357193

City: GAINESVILLE State: FL ZIP: 32653

\* Must provide executed Property Owner Affidavit authorizing the agent to act on behalf of the property owner.

### B. PROJECT

1. Project Name: Benton Hills
2. Address of Subject Property: CR 235A @ US 441
3. Parcel ID Number(s): 03044-011-001, 03044-011-002, 03044-011-003, 03044-010-003
4. Section 9 Township 8 Range 18 Grant \_\_\_\_\_ Acreage: Phase 1-26.3 ac
5. Existing Use of Property: Timber Farm
6. Future Land Use Map Designation: Single Family
7. Zoning Designation: R3F(1)
8. Development Data (check all that apply):
- ☒ Single Family Residential Number of Units 210
- ☐ Multi-Family Residential Number of Units \_\_\_\_\_
- ☐ Exempt (see exempt developments on page 2)

9. Review Type:

**Preliminary Development Order**

☐ Comprehensive Plan Amendment

☐ Large Scale

☐ Small Scale

☐ Site Specific Amendment to the Official Zoning Atlas (Rezoning)

☐ Revised

**Final Development Order**

☒ Preliminary Plat

☐ Final Plat

☐ Site Plan

10. School Concurrency Service Areas (SCSA): Based on the project location, identify the corresponding SCSA for each school type. Maps of the SCSAs can be obtained from the Alachua County Growth Management Department Map Gallery by clicking on the "Public Schools" tab: [http://growth-management.alachuacounty.us/gis\\_services/map\\_gallery/](http://growth-management.alachuacounty.us/gis_services/map_gallery/)

Elementary: Alachua ES

Middle: Mebane

High: Santa Fe

City of Alachua • Planning and Community Development Department  
PO Box 9 • Alachua, FL 32616 • (386) 418-6121

Revised April 30, 2014

**Explanation of Student Generation Calculation:** Student Generation is calculated based on the type of residential development and the type of schools. The number of students stations (by school type – Elementary, Middle and High School) used for calculating the school concurrency impacts is equal to the number of dwelling units by housing type multiplied by the student generation multiplier (for housing type & school type) established by the School Board. Calculations are rounded to the nearest whole number. Student Generation for each school type is calculated individually, in order to correctly assess the impact on the School Concurrency Service Area (SCSA) for each school type (Elementary, Middle and High School).

# of Elementary School Student Stations = # of housing units x Elementary school student generation multiplier  
 # of Middle School Student Stations = # of housing units x Middle school student generation multiplier  
 # of High School Student Stations = # of housing units x High school student generation multiplier

**Student Generation Calculations: Single Family Residential Development**

|                   |            |       |   |             |                               |             |                    |
|-------------------|------------|-------|---|-------------|-------------------------------|-------------|--------------------|
| Elementary School | <u>210</u> | units | x | <u>.154</u> | Elementary School Multiplier* | <u>33.4</u> | Student Stations** |
| Middle School     | <u>210</u> | units | x | <u>.080</u> | Middle School Multiplier*     | <u>16.8</u> | Student Stations** |
| High School       | <u>210</u> | units | x | <u>.112</u> | High School Multiplier*       | <u>23.5</u> | Student Stations** |

**Student Generation Calculations: Multi-Family Residential Development**

|                   |       |       |   |       |                               |       |                    |
|-------------------|-------|-------|---|-------|-------------------------------|-------|--------------------|
| Elementary School | _____ | units | x | _____ | Elementary School Multiplier* | _____ | Student Stations** |
| Middle School     | _____ | units | x | _____ | Middle School Multiplier*     | _____ | Student Stations** |
| High School       | _____ | units | x | _____ | High School Multiplier*       | _____ | Student Stations** |

\* Student generation multipliers may be obtained from SBAC at:

[http://www.sbac.edu/pages/ACPS/Departments\\_Programs/DepartmentsAF/D\\_thru\\_F/FacilitiesMainConstr/Local\\_Certification\\_Packets/City\\_of\\_Alachua](http://www.sbac.edu/pages/ACPS/Departments_Programs/DepartmentsAF/D_thru_F/FacilitiesMainConstr/Local_Certification_Packets/City_of_Alachua)

\*\* Round to the nearest whole number

**EXEMPT DEVELOPMENTS (check all that apply):**

- ☐ Existing legal lots eligible for a building permit.
- ☐ Development that includes residential uses that has received final development plan approval prior to the effective date for public school concurrency, or has received development plan approval prior to June 24, 2008, provided the development approval has not expired.
- ☐ Amendments to final development orders for residential development approved prior to the effective date of public school concurrency, and which do not increase the number of students generated by the development.
- ☐ Age-restricted developments that prohibit permanent occupancy by persons of school age, provided this condition is satisfied in accordance with the standards of the Public Schools Facilities Element or the ILA.
- ☐ Group quarters that do not generate public school students, as described in the ILA.

A completeness review of the application will be conducted within 5 business days of receipt. If the application is determined to be incomplete, the application will be returned to the applicant.

I/We certify and acknowledge that the information contained herein is true and correct to the best of my/our knowledge.

James Meehan  
 Signature of Applicant

\_\_\_\_\_  
 Signature of Co-applicant

JAMES MEEHAN  
 Typed or printed name and title of applicant

\_\_\_\_\_  
 Typed or printed name of co-applicant

State of Florida County of Alachua

The foregoing application is acknowledged before me this 30 day of April, 2015 by James

Meehan Jr. who is/are personally known to me or who has/have produced FL DL  
 as identification.

NOTARY SEAL

Patricia Meehan  
 Signature of Notary Public, State of Florida



City of Alachua ♦ Planning and Community Development Department  
 PO Box 9 ♦ Alachua, FL 32616 ♦ (386) 418-6121



James J. Meehan P.E.  
1221 SW 96<sup>th</sup> Street  
Gainesville, Fl. 32607  
(352) 215-2548, FAX (352) 332-0431  
jjmeehanjr@yahoo.com

**BENTON HILLS CONCURRENCY DETERMINATION  
( WATER, WASTEWATER, AND ROADWAY)**

**Roadway -**

Within ½ mile of the entrance to Benton Hills S/D are no other roadway segments other than CR 235A - North

75 lots proposed for Phase 1 of Benton Hills:

AADT - 9.52 trips/day x 75 lots = 714 new trips/day (ITE Manual 9<sup>th</sup> ed.)

PM peak hr adj. - 1.01 trips/hr x 75 lots = 76 trips/hr(ITE Manual 9<sup>th</sup> ed.)

210 lots proposed total lots - all phases

AADT - 9.52 trips/day x 210 lots = 1,999 new trips/day (ITE Manual 9<sup>th</sup> ed)

PM Peak hr adj. - 1.01 trips/hr x 210 lots = 212 trips/hr (ITE Manual 9<sup>th</sup> ed.)

**Roadway Segment CR 235A - North**

|         | Level of<br>service 'D' | exist.<br>traffic | Reserved<br>trips | available<br>capacity | proposed<br>Phase 1 | total w/<br>Phase 1 | available<br>after Phase 1 | proposed<br>all phases | total w/all<br>phases | available<br>after all phase |
|---------|-------------------------|-------------------|-------------------|-----------------------|---------------------|---------------------|----------------------------|------------------------|-----------------------|------------------------------|
| AADT    | 14,580                  | 1,589             | 107               | 12,884                | 714                 | 2,410               | 12,170                     | 1,999                  | 3,695                 | 10,885                       |
| Peak Hr | 1,314                   | 151               | 10                | 1,163                 | 76                  | 237                 | 1,077                      | 212                    | 373                   | 941                          |

**Wastewater -**

Benton Hills Phase 1 - 250 GPD/lot x 75 lots = 18,750 gpd

Permitted capacity 5,100,000 gpd

Existing plant capacity 1,500,000 gpd

Exist plant flow 627,000 gpd

Reserved capacity 70,905 gpd

Available capacity 802,095 gpd

Benton Hills Phase 1 18,750 gpd

Remaining Capacity 783,345 gpd

Benton Hills all Phases - 250 GPD/lot x 210 lots = 52,500 gpd

Remaining capacity 749,595 gpd

The proposed lift station shall be sized for the flow from Benton Hills and the surrounding area which will eventually flow to the lift station. The lift station shall pump into the dead end gravity sewer in US 441 in front of Santa Fe High School. The lift station and force main shall be sized in such a way to not overload the gravity sewer into which it is discharging.

## **Water -**

Phase 1 - 75 lots @ 275 gpd = 20,625 gpd

|                      |               |
|----------------------|---------------|
| Permitted Capacity   | 2,300,000 gpd |
| Existing Plant Flow  | 1,131,000 gpd |
| Reserved Capacity    | 109,355 gpd   |
| Available Capacity   | 1,059,645 gpd |
| Benton Hills Phase 1 | 20,625 gpd    |
| Remaining Capacity   | 1,039,020 gpd |

All Phases - 210 lots @ 275 gpd = 57,750 gpd

Remaining capacity 1,001,895 gpd

## **Recreational impacts -**

|  |          |
|--|----------|
| Existing public recreation acreage         | 88.6 ac  |
| Required acreage to serve exist pop.       | 47.4 ac  |
| Reserved capacity                          | .45 ac   |
| Available acreage                          | 40.75 ac |
| Required to serve Benton Hills Phase 1     | .89 ac   |
| (2.37 people /house x 75 (5ac/1000 people) |          |
| Remaining capacity                         | 39.87 ac |
| Required to serve all phases               | 2.49 ac  |
| Remaining capacity                         | 38.26 ac |

## **Solid Waste -**

Existing demand - 37,916 lbs/day = 6,920 tons/year

Reserves capacity - 4,339.5 lbs/day = 791.96 tons/year

**SBAC 2013-2014 ELEMENTARY CAPACITY ENROLLMENT  
CITY OF ALACHUA ELEMENTARY**

**Alachua Elementary Concurrency Service Area**

Alachua Elementary

Irby Elementary

AQ Jones, Lanier & Prairie View prorated

**Jurisdictions**

City of Alachua, Town of LaCrosse, Alachua County

**ALACHUA ELEMENTARY CSA**

|                           | SGM   | 2013-2014 | 2015-2016 | 2017-2018 |
|---------------------------|-------|-----------|-----------|-----------|
| AVAILABLE CAPACITY        |       | 304       | 283       | 255       |
| EQUIVALENT SINGLE FAMILY  | 0.159 | 1,912     | 1,781     | 1,807     |
| EQUIVALENT MULTI FAMILY   | 0.042 | 7,239     | 6,744     | 6,083     |
| ADJACENT CSAs             |       |           |           |           |
| HIGH SPRINGS CSA          |       | 76        | 63        | 45        |
| NEWBERRY CSA              |       | 50        | 38        | 22        |
| WEST URBAN CSA            |       | 247       | 180       | 91        |
| NORTHWEST GAINESVILLE CSA |       | 230       | 174       | 100       |
| EAST GAINESVILLE CSA      |       | 601       | 556       | 495       |
| TOTAL ADJACENCY           |       | 1,204     | 1,011     | 753       |
| EQUIVALENT SINGLE FAMILY  | 0.159 | 7,571     | 6,357     | 4,738     |
| EQUIVALENT MULTI FAMILY   | 0.042 | 28,663    | 24,066    | 17,937    |

**SBAC 2013-2014 MIDDLE CAPACITY ENROLLMENT  
CITY OF ALACHUA MIDDLE**

**Mebane Middle Concurrency Service Area**

Mebane Middle School

AQ Jones, Horizon & Lanier prorated

**Jurisdictions**

City of Alachua, Alachua County

**MEBANE MIDDLE CSA**

|                          | SGM   | 2013-2014 | 2015-2016 | 2017-2018 |
|--------------------------|-------|-----------|-----------|-----------|
| AVAILABLE CAPACITY       |       | 408       | 446       | 443       |
| EQUIVALENT SINGLE FAMILY | 0.08  | 5,095     | 5,572     | 5,533     |
| EQUIVALENT MULTI FAMILY  | 0.016 | 25,477    | 27,858    | 27,664    |
| ADJACENT CSAs            |       |           |           |           |
| OAK VIEW MIDDLE CSA      |       | 100       | 166       | 160       |
| HIGH SPRINGS MIDDLE CSA  |       | 97        | 127       | 125       |
| FORT CLARKE MIDDLE CSA   |       | 78        | 160       | 153       |
| BISHOP MIDDLE CSA        |       | 396       | 465       | 459       |
| TOTAL ADJACENCY          |       | 671       | 918       | 898       |
| EQUIVALENT SINGLE FAMILY | 0.08  | 8,391     | 11,472    | 11,221    |
| EQUIVALENT MULTI FAMILY  | 0.016 | 41,956    | 57,362    | 56,103    |

**SBAC 2013-2014 HIGH CAPACITY ENROLLMENT  
CITY OF ALACHUA HIGH**

**Santa Fe High Concurrency Service Area**

Santa Fe High

AQ Jones, Lanier, Horizon and Lofton prorated

**Jurisdictions**

City of Alachua, City of High Springs, Town of LaCrosse, Alachua County

**SANTA FE HIGH CSA**

|                          | SGM   | 2013-2014 | 2015-2016 | 2017-2018 |
|--------------------------|-------|-----------|-----------|-----------|
| AVAILABLE CAPACITY       |       | 568       | 674       | 720       |
| EQUIVALENT SINGLE FAMILY | 0.112 | 5,075     | 6,016     | 6,431     |
| EQUIVALENT MULTI FAMILY  | 0.016 | 35,525    | 42,112    | 45,020    |
| ADJACENT CSAs            |       |           |           |           |
| NEWBERRY HIGH CSA        |       | 159       | 221       | 248       |
| BUCHHOLZ HIGH CSA        |       | 344       | 563       | 659       |
| EASTSIDE HIGH CSA        |       | 892       | 1,032     | 1,093     |
| GAINESVILLE HIGH CSA     |       | 280       | 479       | 567       |
| TOTAL ADJACENCY          |       | 1,675     | 2,294     | 2,567     |
| EQUIVALENT SINGLE FAMILY | 0.112 | 14,959    | 20,482    | 22,921    |
| EQUIVALENT MULTI FAMILY  | 0.016 | 104,712   | 143,376   | 160,444   |

**Table 6. Solid Waste Impacts**

| System Category                                      | Lbs Per Day | Tons Per Year |
|--|-------------|---------------|
| Existing Demand <sup>1</sup>                         | 37,200.00   | 6,789.00      |
| Reserved Capacity <sup>2</sup>                       | 5,284.50    | 964.42        |
| New River Solid Waste Facility Capacity <sup>3</sup> | 50 years    |               |

1. Bureau of Economic & Business Research, University of Florida, *Estimates of Population by County and City in Florida*, January 15, 2014; Policy 2.1.a, CFNGAR Element

Formula: 9,300 persons x 0.73 tons per year

2. Table 1

3. Darrell O'Neal, Executive Director, New River Solid Waste Association, April 2013

Tan cell is automatically updated from Table 1 data

**Table 1. Final Development Orders with Valid Concurrency Reservations**  
 Current Through December 5, 2014 Planning & Transit Board Meeting

| Project                          | Final Development Order Granted (Date Issued) | Project Status (See Notes)      | CO Issued? | Water (GPD)    | Sewer (GCP)   | Traffic (AADT)*   | Solid Waste (Tons/Day) | Drainage | Parks (acres) | Routes (See Notes) |
|----------------------------------|---|---------------------------------|------------|----------------|---------------|---|------------------------|----------|---------------|--------------------|
| <b>All Projects</b>              |   |                                 |            | <b>168,775</b> | <b>83,324</b> |   |                        |          | <b>0.5</b>    |                    |
| OKC City SP                      | May 8, 2012                                   | Certificate of Occupancy issued | Issued     | 0              | 0             | 610 (1)   | 37 (5)                 | OK       | 0.0           | No impact          |
| Sevens Park & Powerhouse SP      | June 12, 2012                                 | Certificate of Occupancy issued | Not Issued | 0              | 0             | 118 (5)   | 203 (3)                | OK       | 0.0           | No impact          |
| Marshall Square Mall Subdivision | July 23, 2012                                 | Final Plan Resubmitted          | Not Issued | 0              | 0             | 38,254 (254) (104)  | 41 (2)                 | OK       | 0.0           | No impact          |
| Parsons Technology Inc. SP       | August 6, 2012                                | Certificate of Occupancy issued | Issued     | 810            | 810           | 151 (7)   | 214 (3)                | OK       | 0.0           | No impact          |
| James SP                         | February 12, 2013                             | Certificate of Occupancy issued | Issued     | 18,630         | 12,800        | 109 (11) (40) (7) (187) (3)   | 251 (5)                | OK       | 0.0           | No impact          |
| OKC 2012/13 447 Common Water SP  | June 11, 2013                                 | Certificate of Occupancy issued | Issued     | 810            | 810           | 121 (5) (21) (1)  | 159 (2)                | OK       | 0.0           | No impact          |
| Stromberg Process C/P Plant SP   | August 14, 2013                               | Final Plan Resubmitted          | Not Issued | 18,430         | 8,200         | 235 (24) (34) (5) (8) (3) (38) (5)  | 257 (5)                | OK       | 0.0           | No impact          |
| Marathon Service SP              | September 23, 2013                            | Building Permit issued          | Not Issued | 75,000         | 44,500        | 332 (28) (304) (1)  | 1,660                  | OK       | 0.0           | No impact          |
| Recovery SP                      | October 8, 2013                               | Certificate of Occupancy issued | Issued     | 425            | 425           | 223 (24) (1) (40) (5) (31) (5) (22) (1) (140) (8) (74) (9) (30) (23) (16) (110) (CR) (25) (4) (5) | 34                     | OK       | 0.0           | No impact          |
| West Industrial Park Lot 1 SP    | August 13, 2014                               | No Action                       | Not Issued | 1,840          | 1,840         | 15 (3)  | 220 (3)                | OK       | 0.0           | No impact          |
| West Industrial Park Lot 2 SP    | September 8, 2014                             | No Action                       | Not Issued | 1,000          | 1,000         | 58 (2)  | 150                    | OK       | 0.0           | No impact          |
| Alachua Market Place SP          | November 18, 2014                             | No Action                       | Not Issued | 4,295          | 4,295         | 77 (1) (15) (3) (2,361) (5) (7) (CR) (23) (4) (4) (CR) (24) (5)                                   | 672                    | OK       | 0.0           | No impact          |
| Timber Mill Subdivision SP       | November 18, 2014                             | No Action                       | Not Issued | 1,812          | 1,812         | 181 (24) (22) (3) (21) (3) (21) (3)   | 324 (3)                | OK       | 0.0           | No impact          |
| Alachua Research Park SP         | December 8, 2014                              | No Action                       | Not Issued | 8,319          | 8,319         | 262 (34) (48) (24) (24) (4)   | 310                    | OK       | 0.0           | No impact          |

Source: City of Alachua Final Development Orders (Project Staff Reports)

\*City Camp Plan Segments and other roads shown in parentheses (See Tables 5a and 5b for aggregate impacts by segment)

†1999 Urban Road and Drainage Study, including all other roads. ‡Quantity for water, solid waste, and drainage are estimates based on use of the same data.

**Table 3. Potable Water Impacts**

| System Category   | Gallons Per Day  |
|---|------------------|
| Current Permitted Capacity <sup>1</sup>                 | 2,300,000        |
| Less Actual Potable Water Flows <sup>1</sup>            | 1,140,000        |
| Reserved Capacity <sup>2</sup>                          | 108,775          |
| <b>Residual Capacity</b>                                | <b>1,051,225</b> |
| <b>Percentage of Permitted Design Capacity Utilized</b> | <b>54.29%</b>    |

**Sources:**

1. City of Alachua Public Services Department, April 2014

2. Table 1

Table cell is automatically updated from Table 1 data; reserved flows are subject to change

**Table 4. Sanitary Sewer Impacts**

| <b>System Category</b>                                  | <b>Gallons Per Day</b> |
|---|------------------------|
| Treatment Plant Current Permitted Capacity              | 1,230,000              |
| Less Actual Treatment Plant Flows <sup>1</sup>          | 595,000                |
| Reserved Capacity <sup>2</sup>                          | 82,325                 |
| <b>Residual Capacity</b>                                | <b>552,675</b>         |
| <b>Percentage of Permitted Design Capacity Utilized</b> | <b>55.07%</b>          |

**Sources:**

1. City of Alachua Public Services Department, April 2014

2. Table 1

Tan cell is automatically updated from Table 1 data; reserved flows are subject to change



**Table 5a. Recreational Impacts**

| System Category  | Acreage      |
|--|--------------|
| Existing City of Alachua Recreation Acreage <sup>1</sup>   | 88.60        |
| Acreage Required to Serve Existing Population <sup>2</sup> | 46.50        |
| Reserved Capacity <sup>3</sup>                             | 0.50         |
| <b>Available Recreation Acreage</b>                        | <b>41.60</b> |

1. Table 5c. Recreational Facilities

2. Bureau of Economic & Business Research, University of Florida, Estimates of Population by County and City in Florida, January 15, 2014; Policy 1.2.b, Recreation Element

Formula: 9,300 persons / (5 acres / 1,000 persons)

3. Table 1

†An cell is automatically updated from Table 1 data

**Table 5b. Improved Passive Park Space Analysis**

| System Category  | Acreage |
|--|---------|
| Minimum Improved Passive Park Space Required to Serve Existing Population & Reserved Capacity <sup>1</sup> | 9.40    |
| Existing Improved Passive Park Space Provided <sup>2</sup>   | 27.73   |
| Improved Passive Park Space Utilized by Existing Population & Reserved Capacity <sup>3</sup>               | 33.90%  |

1. Policy 1.2.b, Recreation Element, Table 5a. Recreational Impacts

2. Area consists all improved passive lands which are part of San Felasco Conservation Corridor

3. Formula: Total Improved, Passive Park Space / Acreage Required to Serve Existing Population + Projected Impacts from Recent Development Orders

**Table 5c. Recreational Facilities**

| Facility Name                               | Acreage      |
|---|--------------|
| City of Alachua Hal Brady Recreation Center | 24.60        |
| Cleather Hathcock Community Center          | 0.84         |
| Swick House                                 | 5.04         |
| Downtown Theater Park                       | 0.07         |
| Criswell Park                               | 0.39         |
| F.E. Welch Park                             | 1.37         |
| Maude Lewis Park                            | 0.99         |
| Skinner Field & Downtown City Park          | 4.28         |
| Mebane Middle School                        | 7.49         |
| Alachua Elementary School                   | 11.65        |
| Kingsland Pocket Park                       | 0.65         |
| San Felasco Conservation Corridor           | 31.23        |
| <b>Total</b>                                | <b>88.60</b> |

Table 2. Traffic Impacts

| Table 2. Traffic Impacts                             |                               |                |                 |                    |                |                      |                                 |
|--|-------------------------------|----------------|-----------------|--------------------|----------------|----------------------|---------------------------------|
| Roadway Segment<br>(FDOT Segment #, CoA Comp Plan #) | Segment Description           | AADT/Peak Hour | Comp Plan MSV** | Existing Traffic** | Reserved Trips | Available Capacity** | Percentage of Capacity Utilized |
| Interstate   |                               |                |                 |                    |                |                      |                                 |
| I-75 (7, 1)  | From NCL of Alachua to US 441 | AADT           | 85,600          | 35,505             | 657            | 49,438               | 42.25%                          |
|  |                               | Peak Hour      | 7,710           | 3,728              | 55             | 3,927                | 46.07%                          |
|  |                               | AADT           | 85,600          | 58,000             | 1,183          | 26,407               | 66.81%                          |
|  |                               | Peak Hour      | 7,710           | 5,860              | 103            | 1,747                | 77.66%                          |
| State Road   |                               |                |                 |                    |                |                      |                                 |
| U.S. Hwy 441 (16, 3/4)                               | From NW 128th to SR 235       | AADT           | 35,500          | 17,445             | 1,331          | 16,674               | 83.03%                          |
|  |                               | Peak Hour      | 3,200           | 1,662              | 166            | 1,370                | 87.19%                          |
|  |                               | AADT           | 35,500          | 23,000             | 6,665          | 5,635                | 84.13%                          |
|  |                               | Peak Hour      | 3,200           | 2,165              | 610            | 465                  | 87.34%                          |
| U.S. Hwy 441 (13 & 14 & 15, 5)                       | From SR 235 to NCL of Alachua | AADT           | 35,500          | 17,445             | 392            | 17,113               | 51.79%                          |
|  |                               | Peak Hour      | 3,200           | 1,662              | 85             | 1,465                | 54.50%                          |
|  |                               | AADT           | 35,500          | 19,200             | 1,378          | 14,924               | 57.96%                          |
|  |                               | Peak Hour      | 3,200           | 1,728              | 131            | 1,341                | 58.09%                          |
| U.S. Hwy 441 (17, 7)                                 | From MPO Boundary to CR 25A   | AADT           | 13,300          | 9,495              | 456            | 3,349                | 74.62%                          |
|  |                               | Peak Hour      | 1,200           | 902                | 43             | 255                  | 78.76%                          |
|  |                               | AADT           | 13,300          | 8,653              | 361            | 6,286                | 52.88%                          |
|  |                               | Peak Hour      | 1,200           | 832                | 37             | 531                  | 55.79%                          |
| County Road  |                               |                |                 |                    |                |                      |                                 |
| CR 2054 West   | West of SR 235                | AADT           | 14,580          | 4,326              | 36             | 10,218               | 28.93%                          |
|  |                               | Peak Hour      | 1,314           | 411                | 4              | 869                  | 31.56%                          |
|  |                               | AADT           | 14,580          | 2,042              | 416            | 12,122               | 18.67%                          |
|  |                               | Peak Hour      | 1,314           | 194                | 83             | 1,037                | 18.58%                          |
| CR 2054 East   | East of SR 235                | AADT           | 14,580          | 4,642              | 817            | 9,321                | 38.07%                          |
|  |                               | Peak Hour      | 1,314           | 441                | 55             | 818                  | 37.75%                          |
|  |                               | AADT           | 14,580          | 1,589              | 0              | 12,991               | 10.90%                          |
|  |                               | Peak Hour      | 1,314           | 151                | 0              | 1,163                | 11.48%                          |
| CR 235A South  | South of US 441               | AADT           | 14,580          | 4,200              | 0              | 10,380               | 28.81%                          |
|  |                               | Peak Hour      | 1,314           | 399                | 0              | 915                  | 30.37%                          |
| CR 235A North  | North of US 441               | AADT           | 14,580          | 6,632              | 0              | 7,948                | 45.48%                          |
|  |                               | Peak Hour      | 1,314           | 600                | 0              | 564                  | 47.55%                          |
| CR 235   | SCL to CR 241                 | AADT           | 14,580          | 4,326              | 36             | 10,218               | 28.93%                          |
|  |                               | Peak Hour      | 1,314           | 411                | 4              | 869                  | 31.56%                          |
| CR 241   | SCL to CR 235                 | AADT           | 14,580          | 4,326              | 36             | 10,218               | 28.93%                          |
|  |                               | Peak Hour      | 1,314           | 411                | 4              | 869                  | 31.56%                          |

\* Florida State Highway System Level of Service Report 2013, Florida Department of Transportation, District Two (published August 2014)

\* Formula: Comp Plan MSV - (Existing Traffic + Reserved Trips from Development Orders with Concurrency Reservations)

\* County Facility AADT counts provided by Alachua County Public Works, April 2013 (count estimate of existing traffic in 2010). Existing Peak Hour has been calculated using a Standard K value of 0.095.

\*\*AADT: 2013 OLOS Handbook, Table 2, Generalized Annual Average Daily Volumes for Florida's Transitioning Areas and Areas Over 5,000 Not in Urbanized Areas; Peak Hour: 2013 OLOS Handbook, Table 3, Generalized Peak Hour Two-Way Volumes for Florida's Transitioning and Areas Over 5,000 Not in Urbanized Areas.

Reserved Trips are automatically updated if any data input from Table 2, Generalized Annual Average Daily Volumes for Florida's Transitioning Areas and Areas Over 5,000 Not in Urbanized Areas, is updated.



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## **COMP. PLAN**

**HOUSING ELEMENT**

**TRANSPORTATION ELEMENT**

**FUTURE LAND USE**

**OPEN SPACE**

**COMMUNITY FACILITIES & GROUNDWATER**

**WASTEWATER**

**SOLID WASTE**

**STORMWATER**

**POTABLE WATER**

**GROUNDWATER RECCHARGE**

**CONSERVATION & OPEN SPACE**

**OPEN & GREEN SPACE**

**WATER RESOURCES**

**ENERGY CONSERVATION**

**RECREATION**

**PUBLIC SCHOOL FACILITIES**

**SOLID WASTE**

**SCHOOL CAPACITY**



## **HOUSING ELEMENT**

### **GOALS, OBJECTIVES AND POLICIES**

**GOAL 1:** To facilitate the provision of safe, sanitary, healthy and affordable, quality housing for all present and future City residents, while preserving and enhancing the community's physical and social fabric, and cultural diversity, and while protecting the interests of special needs groups, and very low and low, and moderate-income households.

**OBJECTIVE 1.1:** Provision of Safe, Affordable, Quality Housing

The City shall facilitate the provision of safe, sanitary, healthy and affordable, quality housing, to accommodate all present and future residents at all income and age levels, including those with special needs, through a variety of housing types, preferably within mixed-income neighborhoods.

**Policy 1.1.a:** The City shall encourage development of a variety of housing types including conventional single family homes, accessory dwelling units, multi-family units, group homes, assisted living facilities, foster care facilities, mobile homes and manufactured housing, and shall ensure that appropriate land use designations and zoning districts exist to accommodate each type.

**Policy 1.1.b:** The City shall consider incentives to promote affordable housing, which may include: offering density bonuses and streamlined permitting at a reduced cost, to encourage private sector participation in the development of affordable housing.

**Policy 1.1.c:** The City may work in conjunction with the Alachua County Housing Authority to provide affordable public housing to City residents.

**Policy 1.1.d:** The City shall encourage the rehabilitation of older housing stock into affordable housing.

- Policy 1.1.e: The City shall stimulate the development of affordable housing by converting vacant and underutilized city-owned property to surplus property, when feasible, and making appropriate surplus inventory available for the development of affordable housing.
- Policy 1.1.f: The City shall identify and improve housing and neighborhoods of historical significance by promoting innovative approaches such as adaptive reuse, wherever possible.
- Policy 1.1.g: The City shall provide information to the public about affordable housing, on its website, in brochures or through public presentations.
- Policy 1.1.h: The City shall explore partnership opportunities with the Alachua-Bradford One-Stop, Santa Fe College, the University of Florida and the Florida Department of Education Vocational Rehabilitation Services, to address labor related housing affordability issues.
- Policy 1.1.i: The City shall establish land use designations and zoning districts that accommodate mixed-use development consisting of residential with commercial and/or retail.
- Policy 1.1.j: The City shall consider providing incentives for mixed-use development that includes housing for extremely low, very low and low-income residents. The City recognizes that mixed-use development reduces transportation costs by placing necessary shopping within close proximity to housing.

**OBJECTIVE 1.2: Needs of the Homeless Population**

The City shall recognize and address the needs of its present and future homeless populations.

- Policy 1.2 a: The City should consider establishing formal procedures, if warranted, for assisting homeless persons seeking shelter and food.
- Policy 1.2.b: The City should participate with the City of Gainesville, Alachua County, local food banks and soup kitchens, and regional homeless shelters to provide emergency care to homeless persons, if warranted.



Policy 1.2.c: The City may work with the Alachua County Coalition for the Homeless and Hungry to conduct "point-in-time" surveys to assess the size and needs of the homeless population.

Policy 1.2. d: The City may coordinate with federal, state and local social service providers to establish protocol for meeting the special needs of homeless persons, such as medical and mental health care.

Policy 1.2.e: The City may address existing codes which could impact the essential needs of the homeless population, when warranted.

Policy 1.2.f: The City may provide educational materials to the public regarding homelessness.

**OBJECTIVE 1.3: Special Needs Households**

The City shall coordinate with other government agencies, and private and non-profit entities to ensure the availability of adequate, affordable housing for special needs households, within residential areas or areas of residential character, including group homes or foster care facilities as licensed or funded by the Florida Department of Children and Families.

Policy 1.3.a The City shall permit homes of more than six residents which meet the definition of a community residential home as provided in Chapter 419, Florida Statutes

(a) The City shall approve the siting of a community residential home, unless the City determines that the siting of the home at the site selected:

- (1) does not meet applicable licensing criteria established and determined by the Florida Department of Health and Rehabilitative Services, including requirements that the home be located to assure the safe care and supervision of all clients in the home;
- (2) would result in such a concentration of community residential homes in the area in proximity to the site selected, or would result in a combination of such homes with other residences in the community, such that the nature and character of the area would be substantially altered.

(A home that would be located within a radius of 1,200 feet of another existing community residential home shall be considered to be an over-concentration of such homes that substantially alters the nature and character of the area. A home that would be located within a radius of 500 feet of a low- or moderate-density residential land use category shall be considered to substantially alter the nature and character of the area.).

Policy 1.3.b: The City shall ensure that appropriate land use designations and zoning districts exist to facilitate the provision of adequate sites for the location of foster care facilities and group homes for elderly, non-violent mentally disabled, and physically and/or developmentally disabled residents.

Policy 1.3.c: The City shall ensure that services and facilities are available to accommodate the needs of special needs populations. The City shall encourage the placement of public and special needs housing in close proximity to conveniences such as grocery and drug stores, and major travel routes.

Policy 1.3.d: The City, through its building permit process, shall ensure the compliance of housing projects with the Americans with Disabilities Act (ADA).

Policy 1.3.e: The City shall coordinate with the Florida Department of Economic Opportunity, and the U.S. Department of Agriculture Rural Development, and the U.S. Department of Housing and Urban Development to investigate the need for rural and farm worker housing in Alachua. If the need is indicated, the City will subsequently institute regulations to provide for such housing.

**OBJECTIVE 1.4: Meeting Very-Low, Low and Moderate-Income Housing Needs**

The City may partner with external government agencies and the private and non-profit sectors to meet the need for affordable housing for the City's very low, low and moderate-income households.

- Policy 1.4.a: The City shall, through public and private partnerships, facilitate that the provision of quality, affordable rental and owner-occupied housing is available to meet the needs of very low, low and moderate-income renters.
- Policy 1.4.b: The City shall apply for or assist private and non-profit entities in applying for State Housing Initiatives Partnership (SHIP) funding, Community Development Block Grants (CDBG), Section 8 funding, State Apartment Incentive Loans (SAIL), Home Investment Partnership (HOME) grants. Funding priorities include down payment assistance, single and multiple family affordable housing development, and energy efficiency.
- Policy 1.4.c: The City shall consider the adoption of affordable housing incentive strategies as specified in Section 420.9076, Florida Statutes, and may appoint a committee to be known as the "Affordable Housing Advisory Committee".
- Policy 1.4.d: The City shall ensure that appropriate departments-coordinate affordable housing measures and internal funding and planning activities for the provision of affordable housing.
- Policy 1.4.e: The City shall work with the Florida Housing Coalition, 1000 Friends of Florida, the local legislative delegation, the Florida Housing Finance Corporation and local government bodies to protect dedicated affordable housing revenues as provided by the Sadowski Act and funded through the State and Local Government Housing Trust Funds.
- Policy 1.4.f: The City shall facilitate the provision of adequate sites to meet the housing needs of extremely low, very low, low and moderate-income households.
- Policy 1.4.g: The City shall offer density bonuses to developers who include on-site housing for extremely low, very low, low and moderate income households, within mixed income developments that include housing priced above the moderate-income range, or contribute to a fund for offsite development of affordable housing.

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Policy 1.4.h: The City shall encourage the development of affordable housing for very low, low and moderate-income households by creating regulations that provides flexible standards for setbacks, lot size regulations, densities, and auxiliary housing units.

Policy 1.4.i: The City shall permit the construction of government subsidized housing only within areas which are served by public facilities which meet or exceed the adopted level of service standards established in the other elements of this Comprehensive Plan.

GOAL 2:

To provide safe, sanitary, affordable housing that maximizes resource efficiency while reducing the environmental and sociological impacts of relocation, construction, restoration, rehabilitation and building removal.

OBJECTIVE 2.1: Resource Efficiency

The City shall maximize resource efficiency in the built environment, by establishing a green building program.

Policy 2.1.a: The City shall consider establishing a green building incentive program based on the best available science. The City may work with Alachua County, the University of Florida, Gainesville Regional Utilities, the Florida Green Building Coalition, the Florida Solar Energy Center, the US Green Building Council, the U.S. Department of Energy, and the U.S. Environmental Protection Agency (EPA) to determine the best available science. Green building certification shall consider environmental protection, resource conservation and human health considerations over the lifecycle of the development. Dependent on a project's certification, the incentive program may allow for fee relief, expedited permitting and development review, relaxed lot size and setback requirements.

Policy 2.1.b: The City shall actively seek rebates to offer to residential consumers of alternative and efficient energy design, construction and operation technologies and methods.

**Policy 2.1.c:**

The City shall promote the incorporation of US EPA Energy Star Building and Appliances programs into construction and rehabilitation practices. The City may make literature regarding US EPA Energy Star Building and Appliances programs available to developers, contractors and the general citizenry. The City shall promote US EPA Green Building, Comprehensive Procurement Guidelines for Recycled Content Materials, and Construction and Demolition (C&D) Waste Management Program.

**Policy 2.1.d:**

The City should educate the public about the economic and environmental benefits of resource efficient design, construction and deconstruction.

**Policy 2.1.e:**

The City may consider providing low cost energy audits to consumers.

**OBJECTIVE 2.2: Materials Conservation**

The City shall conserve the embodied energy of the current housing stock by employing innovative preservation, restoration, renovation, deconstruction, and when otherwise unavoidable, demolition techniques.

**Policy 2.2.a:**

The City shall establish materials conservation criteria for methods of altering the current housing stock.

**Policy 2.2.b:**

The City shall promote materials conservation, including materials reuse, construction and demolition materials recycling, and use of recycled content materials, as a method for providing quality affordable housing in partnership with the private and non-profit sectors.

**Policy 2.2.c:**

The City should consider implementing code enforcement procedures for demolition to include a review process to determine whether a proposed project meets the threshold.

**Policy 2.2.d:**

The City should consider establishing threshold criteria for deconstruction, in lieu of demolition, and institute a process to determine whether a proposed project meets the threshold.

**Policy 2.2.e:**

The City shall establish and make available best management practices for the otherwise unavoidable elimination of housing stock.

**OBJECTIVE 2.3: Elimination of Substandard Housing**

The City shall provide for the elimination of substandard housing through code enforcement based on established guidelines for conservation, rehabilitation and deconstruction.

- Policy 2.3.a:** The City shall consider adopting regulations to include evaluation criteria for determining the best approach for eliminating substandard housing. For example, housing with only slight defects, deemed "standard", would be conserved; housing with major deficiencies that could be repaired economically, would be considered "substandard" and would be rehabilitated; and housing with gross deficiencies that would not be economically sensible to repair would be considered "substandard irreparable", and would be removed from the housing stock, with a preference for deconstruction in lieu of demolition.
- Policy 2.3.b:** The City shall monitor the inventory of substandard housing as warranted.
- Policy 2.3.c:** The City's Code Enforcement staff shall conduct annual housing stock inspections in areas where code violations are most prevalent, and in the City's most blighted neighborhoods.
- Policy 2.3.d:** The City shall cooperate with the Alachua County Housing Authority to eliminate substandard housing within the City.
- Policy 2.3.e:** The City shall continue to pursue federal, state and local funding, including Community Development Block Grant (CDBG) funding, for elimination of substandard housing. The City may choose to operate a low interest revolving loan fund for rehabilitation of housing meeting criteria provided in Policy 2.3.a.
- Policy 2.3.f:** The City shall consider implementing a neighborhood planning program that will establish protocol for stabilizing, improving and sustaining at risk neighborhoods. The program may address issues such as safety, mobility and access, beautification, historic preservation, traffic, culture and character. The City shall actively pursue funding and other assistance from sources such as the US Department of Justice (DOJ) Weed and Seed Program, to aid in achieving neighborhood planning goals.



#### **OBJECTIVE 2.4: Relocation Housing**

The City shall minimize displacement impacts caused by public action, particularly on very low and low-income residents.

**Policy 2.4.a:** The City shall ensure that affordable, temporary substitute housing, or funding for such housing, is available to low and very-low income residents displaced by public rehabilitation, and condemnation action based solely on the elimination of substandard housing.

**Policy 2.4.b:** The City shall assist in the relocation of displaced residents by directing affected persons to affordable relocation housing, and pursuing all funding possibilities to cover the temporary and permanent relocation costs of low and very-low income residents. The City may choose to establish a loan fund to subsidize displacement housing costs for low and very low-income persons.

**Policy 2.4.c:** The City shall protect against the disruption of the neighborhood fabric and community character when providing permanent relocation housing. Every effort shall be made to house displaced residents within the neighborhood they had been living in.

**Policy 2.4.d:** The City shall work with the private and non-profit sectors to provide relocation housing. The City may offer streamlined permitting at a reduced cost to encourage the provision of acceptable relocation housing.

#### **OBJECTIVE 2.5 Historically Significant Housing**

The City shall encourage the preservation, restoration or rehabilitation for adaptive reuse of historically significant housing as appropriate.

**Policy 2.5.a:** The City shall conduct studies as necessary to determine the historical significance of its housing stock.

**Policy 2.5.b:** The City shall conduct a periodic inventory of its historically significant housing.

**Policy 2.5.c:**

The City shall establish a review process including design criteria for the alteration, restoration or deconstruction of historically significant housing. Review criteria will take into consideration the impact of proposed alterations on the property itself, the surrounding properties, and the historic fabric of the community.

**Policy 2.5.d:**

The City shall assist residents and developers in locating grant funding for historically significant properties. When feasible, the City may apply for or assist others in applying for grants.

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**CITY OF ALACHUA-GOALS, OBJECTIVES & POLICIES - HOUSING ELEMENT**

**Objective 1.1**

*The City shall facilitate safe, sanitary, healthy and affordable, quality housing ...*

Benton Hills is zoned RSF(4) which allows 4 units/acre. The subdivision as proposed calls for less than 3 units/acre. The homes are to be approx. 1750 sf heated and cooled. The homes are to be affordable. Curb and gutter streets with sidewalks and street lights shall be installed making the development safe. Central water and sewer are to be installed making it sanitary. Jogging trails are to be constructed connecting all the green areas helping to make it healthy as well. The developers, the Hartley Brothers have been building quality homes in Alachua County for many years.

Policy 1.1a Benton Hills is to consist of affordable single family housing which is permitted in this zoning

Policy 1.1b Benton Hills will have affordable homes in line with adjacent properties

Policy 1.1c Not applicable - no public housing anticipated at this time

Policy 1.1d No rehabilitation of existing housing on this site

Policy 1.1e No City owned property on site

Policy 1.1f Benton hills is not an historic neighborhood

Policy 1.1g Not relevant

Policy 1.1h Not relevant

Policy 1.1i Benton Hills is to be a single family development additional lands owned by the same developer located adjacent to Benton Hills will be developed as multi-family and commercial adjacent to US 441

**Objective 1.2 Needs of the homeless ( not applicable)**

**Objective 1.3 Special Needs Households**

Many of the single family homes are to be designed for the individual owner and will be handicap accessible and/or constructed for the special needs of the individual home buyer

Policy 1.3a,b,c The owners do not anticipate a group home to be located in Benton Hills at this time.

Policy 1.3d The homes within Benton Hills will comply with the ADA

Policy 1.3e Not anticipated at this time

**Objective 1.4**

The owners do not anticipate partnering with the City to provide very low income housing in Benton Hills at this time

Policy 1.4a - i The owners do not anticipate very low income housing at this time

**Objective 2.1**

The City shall maximize resource efficiency in the built environment, by establishing a green building program

Policy 2.1a-c Refer to attached documents from Hartley Brothers with respect to energy efficiency and green buildings

**Objective 2.2**

Benton Hills will not be deconstructing or demolishing any existing housing stock - the owners are open to any conserved materials provided by the city which might be incorporated into the new construction in Benton Hills

**Objective 2.3**

Benton Hills will not eliminate any substandard housing but will create affordable standard housing.

**Objective 2.4**

No structures or homes are to be relocated or demolished as part of this construction

**Objective 2.5**

No historical structures are located on this site. Site is presently a tree farm.

# **HARTLEY BROTHERS, INC. USES HIGH PERFORMANCE AND GREEN PRODUCTS AND PROCEDURES IN THE CONSTRUCTION OF ALL NEW HOMES .**

- High performance, Vinyl framed, Low E, windows
- Energy Efficient Appliances
- Air Tight sealing package to reduce infiltration
- High-efficiency HVAC equipment
- Premium insulation
- Water saving plumbing fixtures
- Improved indoor air quality and ventilation
- Energy efficient lighting
- Construction waste reduction and recycled product content
- Low or no VOC paints and sealants
- Advanced framing techniques, pre-assembled components and value engineered methods
- Low VOC-off gassing products
- Landscaping with drought tolerant plants and turf and low chemical requirements
- Universal design concepts



## ENERGY EFFICIENCY

At Hartley Brothers, Inc., we know that energy efficiency is a **system** of products, techniques and features. No single item will make a home energy efficient. If you are not using the “**systems**” approach to energy efficiency,

**YOU ARE NOT GETTING AN EFFICIENT HOME.**

- Air Tight Construction
- Sealed Ducts
- Premium Insulation
- Quality A/C Equipment in a Conditioned Location
- High Performance, Low E Windows
- Pressure Balancing
- Fresh Air Ventilation
- Insulated Fiberglass Exterior Doors

At today's interest rates, paying \$50.00 more per month on your electric bill is like adding \$10,482.00 (at 4.0% interest for 30 years) more on your mortgage. Energy efficiency pays from the day you move in.



CGC-1520103

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## **TRANSPORTATION ELEMENT**

### **GOAL, OBJECTIVES AND POLICIES**

**GOAL 1:** Provide for a traffic circulation system, which serves existing and future land uses.

**Objective 1.1:** Level of Service

The City shall establish a safe, convenient and efficient level of service standard for all motorized and non-motorized transportation systems.

**Policy 1.1a:** Establish the Level of Service Standards as noted below at peak hour for the following roadway segments within the City.

| Segment Number | Segment Description                               | Lanes    | Functional Classification | Area Type   | Existing LOS (2012) | Projected 2025 LOS |
|----------------|---|----------|---------------------------|-------------|---------------------|--------------------|
| 1              | I-75 (From NCL of Alachua to US 441)              | 6/D      | Freeway                   | COMM        | C                   | C                  |
| 2              | 1-75 (From US 441 to SCL of Alachua)              | 6/D      | Freeway                   | COMM        | B                   | C                  |
| 3              | US 441 (From NW 126 <sup>th</sup> Ave to CR 2054) | 4/D      | Principle Arterial        | Urban Trans | C                   | D                  |
| 4              | US 441 (From CR 2054 to SR 235)                   | 4/D      | Principle Arterial        | Urban Trans | C                   | D                  |
| 5              | US 441 (From SR 235 to NCL of Alachua)            | 4/D      | Principle Arterial        | Urban Trans | C                   | E                  |
| 6              | US 441 (From CR 25A to NW 126 <sup>th</sup> Ave)  | 4/D      | Principle Arterial        | Urban Trans | B                   | D                  |
| 7              | US 441 (From MPO Boundary to CR 25A)              | 4/D      | Principle Arterial        | Urban       | B                   | D                  |
| 8              | SR 235 (From 235/241 intersection to US 441)      | 2/U Bays | Major Collector           | Comm        | C                   | D                  |
| 9              | SR 235 (From US 441 to NCL of Alachua)            | 2/U Bays | Major Collector           | Comm        | C                   | D                  |



County-maintained minor arterials (urban and rural): LOS D

County-maintained collectors (urban): LOS D

County-maintained collectors (rural): LOS C

**Objective 1.2: Access Management**

The City shall establish access management standards and coordinate with Alachua County and the Florida Department of Transportation to maintain access management standards, which promote safe and efficient travel.

**Policy 1.2.a:** The City shall control the number and frequency of connections and access points of driveways and streets to arterial and collector streets by requiring access points for state roads to be in conformance with Chapter 14-96 and 14-97, Florida Administrative Code, or subsequent provision,

**Policy 1.2.b:** The City shall establish the following access point requirements for City streets:

1. permitting 1 access point for ingress and egress purposes to a single property or development;
2. permitting 2 access points for ingress and egress to a single property or development if the minimum distance between the two access points exceeds 20 feet for a single residential lot or 100 feet for nonresidential development and new residential subdivisions;
3. permitting 3 access points for ingress and egress to a single property or development if the minimum distance between each access point is at least 100 feet for residential and non-residential development; or
4. permitting more than 3 access points for ingress and egress to a single property or development where a minimum distance of 1000 feet is maintained between each access point.

**Policy 1.2.c** The City of Alachua will incorporate within the Land Development Regulations provisions, which address the following:

1. frontage road requirements
2. mandatory off-street loading and parking, including ADA requirements

3. distance requirements for access cuts near intersections and interchanges
4. building setback requirements
5. design standards (i.e., acceleration and deceleration lanes, turning radii, signalization, etc.)
6. intersection spacing standards
7. minimum maintenance responsibility requirements
8. sight distance standards
9. incentives to mitigate poor traffic access/hazardous situations
10. standards to eliminate traffic conflicts between vehicular traffic and bicyclists and pedestrians
11. highway safety
12. commercial signage/utilities restrictions within rights-of-way
13. FDOT Access Management Classification System and Standards
14. traffic calming methods
15. placement of street trees

**Objective 1.3: Parking**

The City shall require innovative parking lot design for multiple-family and non-residential developments, including the provision of bicycle parking, pedestrian-friendly design, and landscaping.

**Policy 1.3.a:** The City shall establish minimum and maximum parking standards in order to avoid excessive amounts of underutilized parking areas.

**Policy 1.3.b:** The City shall establish standards that emphasize shared parking and deferred parking facilities to provide flexibility for businesses and to discourage excessive parking areas.

**Policy 1.3.c:** The City shall establish incentives for the use of pervious surfaces in parking lot design for parking which exceeds the minimum parking standards.

**Policy 1.3.d:** The City shall require landscaping within parking areas, with an emphasis on canopy trees. The City shall consider establishing incentives for landscaping in excess of minimum standards.

Policy 1.3.e: The City shall establish standards for parking facility design that adequately separates pedestrians from vehicular traffic and delineates pedestrian crossing zones.

Policy 1.3.f: The City shall establish bicycle parking facility standards based on type of use within developments.

Policy 1.3.g: The City shall require spaces to accommodate persons with physical disabilities as required by the Americans with Disabilities Act.

Objective 1.4: Bicycle and Pedestrian Standards

The City shall work to develop a network of bicycle and pedestrian facilities which connect all areas of the City.

Policy 1.4.a: The City shall require any development which must obtain site plan or subdivision approval to provide additional right-of-way width for bicycle and pedestrian ways along all proposed collector and arterial streets.

Policy 1.4.b: The City shall consider establishing regulations to encourage multimodal transportation facilities, including bicycle lanes, pedestrian pathways, trails, and multiple-purpose pathways.

Policy 1.4.c: The City shall require pedestrian paths within subdivisions and within new developments to be connected to paths outside the development.

Policy 1.4.d: The City shall work with the Suwannee River Water Management District, Alachua County, and other public or private entities to implement regional trail systems and other transportation plans related to non-vehicular transportation.

Objective 1.5: Linking Land Use and Transportation

The City shall require that all traffic circulation improvements be consistent with and complement the future land uses on the Future Land Use Map.

**Policy 1.5.a:** The City shall, as part of the capital improvement scheduling of roadway improvements, review all proposed roadway improvements to determine if such improvement will further the direction of the Future Land Use Element. Where the roadway is operated and maintained by another jurisdictional authority, the City shall notify such jurisdiction, in writing, if any identified roadway improvement plans are not consistent with the provisions of the Future Land Use Element.

**Policy 1.5.b:** In order to establish the link between land use and transportation; the City shall establish the following roadway classifications and develop design standards for development along each type of roadway. These design classifications will also guide highway and roadway beautification projects.

1. **Alleys:** One-way or two-way service corridors providing access to the rear of residential lots or commercial buildings. Alleys can be up to 30' in width.
2. **Neighborhood Streets:** Two-way vehicular movements. Parallel parking and sidewalks are allowed on one or both sides of the street. Neighborhood streets can be from 30' to 60'.
3. **Drives:** These roadways separate a developed area from undeveloped area. May have curb and gutter on developed side and swale on undeveloped side. Right of way width varies on number of travel lanes.
4. **Roads:** These roadways provide access to residential neighborhoods. May have an urban or rural cross-section.
5. **Avenues:** (Equivalent of collector streets) These roadways consist of more than one travel lane. The design should emphasize medians with landscaping and sidewalks should be located on both sides of the roadway, separated from travel lanes by parking or plantings. Sidewalks and bike lanes may be included when right of way widths permit.
6. **Boulevard:** (Equivalent of arterial streets) These roadways are large, multi-lane roadways. The design should emphasize wide, planted medians, with sidewalks separated by a planting verge.



**Policy 1.5.c:** To the extent feasible, the City shall require new developments which are compatible with adjacent existing development to interconnect with one another through one of the following methods:

1. Through the extension of a public street from one project to another;
2. Through the extension of a sidewalk from one project to another;
3. Through the extension of a multi-purpose trail from one project to another.

**Objective 1.6:** Coordination with State and County Transportation Plans

The City shall coordinate its traffic circulation planning efforts with the Florida Department of Transportation and Alachua County for consistency with their Transportation Improvement Plans.

**Policy 1.6.a:** The City shall, during the capital improvements planning process for roadway improvements, review the proposed roadway improvements that will be completed as part of the implementation of the Florida Department of Transportation 5 - Year Transportation Plan so that such capital project planning is consistent with the state roadway improvement planning.

**Policy 1.6.b:** The City shall coordinate with Alachua County to ensure that necessary improvements to county-maintained roadways with the City limits are reviewed and scheduled in the County's Transportation Improvement Plan.

**Policy 1.6.c:** The City shall review the Alachua County Corridor Design Manual for its impact on the design and construction of roadways within the City limits. The City may consider and adopt appropriate design standards from the Corridor Design Manual.

**Objective 1.7:** Right of way

The City shall provide for the protection of future rights of way and seek out rights of ways for new corridors as necessary.

**Policy 1.7.b:** The City shall maintain a Future Traffic Circulation Map that delineates approximate locations for new roadway corridors to accommodate future growth and development, while enhancing the traffic circulation system.

**Goal 2:** Protect and enhance the long-term viability of the roadway network in the City of Alachua.

**Objective 2.1:**

The City of Alachua shall continue the application of proportionate share payments, encourage the use of parallel transportation facilities and the use of Transportation Demand Management and Transportation System Management (TDM & TSM) programs to protect and enhance the long-term viability of the roadway networks of the City of Alachua, Alachua County, and the State of Florida.

**Policy 2.1.1:** Through continued coordination with public and private development, the City of Alachua will incorporate TDM and TSM elements into the provision of establishing multi-modal transportation opportunities where practicable and appropriate.

**Policy 2.1.2:** TDM strategies shall focus on transportation alternatives, including but not limited to, rail lines, ride sharing, flextime, increased transit usage, walking, and bicycling.

**Policy 2.1.3:** TSM strategies shall focus on increasing the efficiency, safety, and capacity of existing transportation systems. Techniques to achieve TSM shall include facility design treatments, access management programs, high occupancy vehicle (HOV) lanes, targeted traffic enforcement, and intelligent transportation systems (ITS).

**Policy 2.1.4:** All modes of transportation shall be analyzed, during the planning and design review stages, for practicability and appropriateness for inclusion in new development and redevelopment opportunities.

## **Vision Statement**

As the city of Alachua continues to grow it is essential that the City offers convenient affordable housing. This site is convenient to downtown, the business centers along US 441 south of town, and I-75. Schools are also located close to the development. The owners plan to build high quality affordable homes.

The owners are local and have built many homes in and around the City of Alachua. As local builders it is important to the owners to maintain a solid reputation for building quality, energy efficient homes.

## **Transportation element**

Policy 1.2 a&b - This project will have one main access point and one emergency access as required by the City of Alachua.

Policy 1.2c - The access point is located 150 ft from the nearest roadway access opposite the entrance to Benton Hills. A by pass lane with left turn has been submitted to ACPW for review. The access point shall meet all ACPW standards and City of Alachua Standards

Policy 1.4a - Sidewalks for both pedestrians and bikes are to be provided in this subdivision.

Policy 1.4c - A pedestrian trail is to be provided throughout this project

Policy 1.5c - Where possible this project has extended the roadways to the property lines to provide interconnectivity

## **Future land use element**

Policy 1.2a - This is a moderate density single family detached housing subdivision (0-4 u/ac) with conventional dwellings ( 1500-2500 sf) with garages

Policy 2.4c - This site was previously used as a pine tree farm, thus, severely limiting the size and number of hardwoods and other desirable trees. Numerous trees along the proposed r/w's and in the lots are to be provided. Trees, bushes and berm are to be installed/constructed as a buffer along CR 235A. The retention pond is to be planted with numerous water tolerant trees along its perimeter along with bushes and additional landscaping.

## **Open Space**

Policy 2.5a - Open space shall be provided in excess 30%, usable open space(non retention) shall be in excess of 20%

Policy 2.5b - Open spaces have been located where ever possible adjacent to the back yards of lots, making the open spaces very usable by the lot owners. A trail system shall interconnect all the green spaces and buffers making a long

usable hiking/jogging trail.

Policy 5.1c - There is no flood plain on this property

Policy 5.1d - There are no wetlands on this property

**Availability of Services**

Policy 5.2a - Roadway LOS, water, wastewater, schools, storm water, solid waste, and recreation are all in conformance with the adopted LOS for the City of Alachua

Policy 9.2 - This project is to connect to the central water system



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Community Facilities and Natural Groundwater Aquifer element:

**Goal 1 Wastewater**

Policy 1.1a - Existing treatment plant is operating well within it's permitted capacity.

Policy 1.1b - The existing treatment plant is operating within its permitted capacity for all new planned projects.

Policy 1.1d - The existing wastewater plant meets all minimum standards for quality and quantity. This project adds an additional 250 gpd for each new ERU and does not exceed the projected level of service after completion of this project.

Policy 1.2a - Wastewater service is available to this project, and this site will be connecting to the City wastewater collection system. This property will be served by a force main extension which will connect to the City system @ the SE corner of US 441 and CR 235A.

Policy 1.2c - This project will have no septic tanks as part of its wastewater system.

Policy 1.2f - The owner/engineer is working with the City Public Services Dept. to provide and coordinate wastewater service to the site.

Policy 1.2g - The owner is funding all on site and offsite wastewater facilities.

Policy 1.4a - This project is to connect to the City central sewer system.

**Goal 2 Solid waste**

Policy 2.1a The City landfill is operating within permitted levels and will be operating within permitted levels at the completion of this job.

Policy 2.2a - This project will be part of the City recycling program

**Goal 3 Stormwater**

Policy 3.1a - This project's storm water system shall conform to all the requirements of the City of Alachua and the SRWMD. The storm water system has been designed to accommodate the 100yr critical storm event with no discharge. The LOS for water quality shall meet the design and performance

standards as established by the SRWMD and the City of Alachua.

Policy 3.1b - The proposed roadways follow the existing grades and naturally flow to the proposed retention area.

Policy 3.1c - The engineer shall be responsible for incorporating erosion and sediment control measures during construction. Erosion and sediment control shall be part of the SRWMD approval.

Policy 3.3a - The storm water basin is to have a natural bottom along the northern 1/3 of the basin saving existing trees in this area. The remainder of the basin is to be planted in trees and landscaping to make it aesthetically pleasing.

Policy 3.4a - This project will employ BMP's during construction to limit the removal of topsoil and limit the runoff of silt and sediment.

Policy 3.5a - 1. No discharge to sinkholes  
5. Retention is located in natural low  
7&8. Retention maintenance plan as required by SRWMD shall schedule regular inspection and maintenance plan. Any repairs shall meet SRWMD requirements.

#### **Goal 4**

##### **Potable water**

Policy 4.1b - Water is available to the site along CR 235A

Policy 4.1c - The City water quality and quantity is within the approved permitted limits prior to and at the completion of this project

#### **Goal 5**

##### **Natural Groundwater Aquifer Recharge**

Policy 5.1a - The owner shall have additional updated soil bores in addition to those already completed in the areas of the retention ponds

Policy 5.1c - The SRWMD shall review all storm water

Policy 5.2c - The proposed basin is to be shallow - 0 ft excavated in the northern 1/3 and approx. avg. 3 ft in the remainder. The retention pond is to be inspected as required by the SRWMD for the occurrence of solution holes and sink holes, and repaired as required by the SRWMD requirements.

Policy 5.2d - BMP's shall be used in the open spaces to promote natural vegetation.

#### **Conservation & Open Space Element**

Policy 1.2j - This project has incorporated large green /common areas in each phase adjacent to most lots.

Policy 1.3d - This site has been used as a pine tree farm for the past 25yrs

Policy 1.4c - This site is to be interconnected with jogging trail throughout.

Policy 1.5a - BMP's shall be used during construction of this project

Policy 1.5 b&e - Land clearing shall be phased along with construction

Policy 1.7a - Solution holes an remnant sinks shall be protected in Ret. No. 2 by creating an island around the disturbed area.

Policy 1.7c - The srwmd shall be notified of all solution holes/ sink holes that open up in the project

Policy 1.10a - No wetlands on site

### **Open and Green Space**

Policy 1.11a - This project has considerably more green/common area than that required by the City

Policy 1.11c - The green/common areas are to be maintained by the HOA

### **Water resources**

Policy 1.12e - No designated flood plain on property

### **Energy Conservation**

Policy 1.13a - The owners promote and construct green/energy star construction on all homes

Policy 1.13b - Sidewalks to be provided along all r/w's within the project. A trail system is planned throughout the project.

### **Recreation**

Policy 1.3d - The owner is open to connecting to offsite trail system

### **Public School facilities**

Policy 2.4e - There is sufficient school capacity for all school servicing this site

### **Solid Waste -**

Existing demand - 37,916 lbs/day = 6,920 tons/year

Reserves capacity - 4,339.5 lbs/day = 791.96 tons/year

Benton Hills Phase 1 Solid waste generated - 711 lbs/day = 129.75 tons/year

Remaining capacity - 662.21 tons/year

Benton Hills - all phases - 1,991 lbs/day = 363.3 tons/year

Remaining capacity = 428.7 tons/year

The New River Solid waste facility has a 50 yr capacity and Benton Hills does not exceed the adopted LOS in the comprehensive plan

### **School capacity -**

Elementary school capacity - for 2015-2016 = 283 students

Equiv. single family = 1,781

Additional students from Benton Hills Phase 1 - 12 student stations < 283

75 single family homes < 1,781

Additional students from all phases - 34 student stations < 283

210 single family homes < 1,781

Middle school capacity - for 2015-2016 = 446 students

Equiv. single family = 5,572

Additional students from Benton Hills Phase1 - 6 student stations < 446

75 single family homes < 5,572

Additional students from all phases - 17 student stations < 446

210 single family homes < 5,572

High school capacity - for 2015-2016 = 674 students

Equiv. single family = 6,016

Additional students from Benton Hills Phase1 - 9 student stations

75 single family homes < 6,016

Additional students from all phases - 25 student stations < 6,016

210 single family homes < 6016

Benton Hills does not exceed the capacity from any school, elementary, middle or high school.

**James J. Meehan P.E.  
1221 SW 96<sup>th</sup> Street  
Gainesville, Fl. 32607  
(352) 215-2548, FAX (352) 332-0431  
jjmeehanjr@yahoo.com**

## ***WATER MGT. & DRAINAGE***



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# JOINT APPLICATION FOR INDIVIDUAL ENVIRONMENTAL RESOURCE PERMIT/ AUTHORIZATION TO USE STATE-OWNED SUBMERGED LANDS/ FEDERAL DREDGE AND FILL PERMIT

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FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION/  
WATER MANAGEMENT DISTRICTS/  
U.S. ARMY CORPS OF ENGINEERS

Effective October 1, 2013



**US Army Corps  
of Engineers**

## Section A: General Information for All Activities

### PART 1: NAME, APPLICATION TYPE, LOCATION, AND DESCRIPTION OF ACTIVITY

A. Name of project, including phase if applicable: *Benton Hills - Phase 1*

B. This is for (check all that apply):

- ☒ Construction or operation of **new** works, activities and/ or a stormwater management system
- ☐ **Conceptual Approval** of proposed works, activities and/ or a stormwater management system
- ☐ Modification or Alteration of **existing** works activities and / or a stormwater management system. Provide the existing DEP or WMD permit #, if known: \_\_\_\_\_ Note: Minor modifications do not require completion of this form, and may instead be requested by letter.
- ☐ **Maintenance or repair** of works, activities and/ or stormwater management system previously permitted by the DEP or WMD Provide existing permit #, if known: \_\_\_\_\_
- ☐ Abandonment or removal of works, activities and/ or stormwater management system Provide existing DEP or WMD permit #, if known: \_\_\_\_\_
- ☐ Operation of an **existing unpermitted** stormwater management system.
- ☐ Construction of additional phases of a permitted work, activity and/ or stormwater management system. Provide the existing DEP or WMD permit #, if known: \_\_\_\_\_

C. **List the type of activities proposed. Check all that apply, and provide the supplemental information requested in each of the referenced application sections. Please also reference Applicant's Handbooks I and II for the type of information that may be needed.**

- ☐ Activities associated with one single-family residence, duplex, triplex, or quadruplex that do not qualify for an exemption or a General Permit: **Provide the information requested in Section B. Do not complete Section C.**
- ☐ Activities within wetlands or surface waters, or within 25 feet of a wetland or surface water, (not including the activities associated with an individual residence). *Examples include dredging, filling, outfall structures, docks, piers, over-water structures, shoreline stabilization, mitigation, reclamation, restoration/enhancement. Provide the information requested in Section C.*
- ☐ Activities within navigable or flowing surface waters such as a multi-slip dock or marina, dry storage facility, dredging, bridge, breakwaters, reefs, or other offshore structures: **In addition to Section C, also provide the information requested in Section D.**
- ☐ Activities that are (or may be) located within, on or over state-owned submerged lands (See Chapter 18-21, F.A.C. <https://www.flrules.org/gateway/ChapterHome.asp?Chapter=18-21>): **In addition to Section B or C, also provide the information requested in Section F**



☒ Construction or alteration of a stormwater management system serving residential, commercial, transportation, industrial, agricultural, or other land uses, or a solid waste facility (excluding mines that are regulated by DEP). **Provide the information requested in Section E.**

☐ Creation or modification of Mitigation Bank (refer to Chapter 62-342, F.A.C. <https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-342>): **Provide the information requested in Section G.**

☐ Mines (as defined in Section 2.0 of Applicant's Handbook Volume I) that are regulated by the DEP: **Provide the information requested in Section H.**

☐ Other, describe: Please contact the Agency to determine which additional sections of the application are needed. See Attachment 1 for Agency contacts.

D. Describe in general terms the proposed project, system, works, or other activities. For permit modifications, please briefly describe the changes requested to the permit: *Construct single family Subdivision with on site Retention of 100 yr Critical Storm with no effluent*

E. For activities in, on, or over wetlands or other surface waters, check the type of federal dredge and fill permit requested (if known): ☐ Individual ☐ Programmatic General permit #: SAJ ☐ General ☐ Nationwide permit #: NWP ☒ Not Applicable ☐ Not sure

F. Project/Activity Street/Road Address or other location (if applicable):

City: *Alachua* County(ies): *Alachua* Zip:  
*CR 235A @ US 441 (NW)*

Note: For utility, road, or ditch/canal activities, provide a starting and ending point using street names and nearest house numbers or provide length of project in miles along named streets or highways.

G. Project location map and Section, Township, and Range information (use additional sheets if needed):

**Please attach a location map showing the location and boundaries of the proposed activity in relation to major intersections or other landmarks. The map should also contain a north arrow and a graphic scale; show Section(s), Township(s), and Range(s); and must be of sufficient detail to allow a person unfamiliar with the site to find it.**

Section(s): *8* Township: *8* Range: *18* Land Grant name, if applicable:  
Section(s): Township: Range:  
Section(s): Township: Range:

H. Latitude (DMS) *29 ° 48 ' 50 "* Longitude (DMS) *82 ° 32 ' 00 "* (Taken from central location of the activity). Explain source for obtaining latitude and longitude (i.e. U.S.G.S. Quadrangle Map GPS, online resource):

I. Tax Parcel Identification Number(s): *03044-011-001, 03044-011-002, 03044-001-003*  
*03044-010-003*

[Number may be obtained from property tax bill or from the county property appraiser's office; if on multiple parcels, provide multiple Tax Parcel Identification Numbers]

J. Directions to Site (from major roads; include distances and landmarks as applicable): *1600' North from intersection of CR 235A and US 441 on west side of CR 235A*

K. Project area or phase area: *74 acres total*  
*27 acres phase 1*

L. Name of waterbody(ies) (if known) in which activities will occur or into which the system will discharge:  
*onside unnamed low area*

**The following questions (M-O) are not applicable to activities related to a single-family residence, including private single-family residential docks, piers, seawalls or boat ramps.**

M. Is it part of a larger plan of development or sale? ☐ yes ☐ no

N. Impervious or semi-impervious area excluding wetlands and other surface waters (if applicable):  
acres or square feet

O. Volume of water the system is capable of impounding (if applicable): acre-feet.

## PART 2: SUPPLEMENTAL INFORMATION, AND PERMIT HISTORY

- A. Is this an application to modify an existing Environmental Resource Permit, or to construct or implement part of a multi-phase project, such as a project with a Conceptual Approval permit? ☐ Yes ☒ No *If you answered "yes", please provide permit numbers below:*

| AGENCY | DATE | PERMIT/APPLICATION NO. | PROJECT NAME |
|--------|------|------------------------|--------------|
|        |      |                        |              |
|        |      |                        |              |
|        |      |                        |              |
|        |      |                        |              |
|        |      |                        |              |

- B. Indicate if there have been any **pre-application meeting(s)** or other discussions about the proposed project, system or activity. If so, please provide the date(s), location(s) of the meeting, and the name(s) of Agency staff that attended the meeting(s): *NO*

| AGENCY | DATE | LOCATION | MEETING ATTENDEES |
|--------|------|----------|-------------------|
|        |      |          |                   |
|        |      |          |                   |
|        |      |          |                   |
|        |      |          |                   |

- C. **Attach a depiction (plan and section views), which clearly shows the works or other activities proposed to be constructed.** Use multiple sheets, if necessary, a scale sufficient to show the location and type of works, and include a north arrow and a key to any symbols used. **Specific information to be included in the plans is based on the activities proposed and is further described in Sections B-H.** However, supplemental information may be required based on the specific circumstances or location of the proposed works or other activities.
- D. **Processing Fee: Please submit the application processing fee along with this application form and supplemental information.** Processing fees vary based on the size of the activity, the type of permit applied for, and the reviewing Agency. Please reference Attachment 3 to determine the appropriate fee.

### PART 3: APPLICANT AND ASSOCIATED PARTIES INFORMATION

Instructions: Permits are only issued to entities having sufficient real property interest as described in Section 4.2.3 (d) of Applicant's Handbook Volume I. Please attach evidence of sufficient real property interest over the land upon which the activities subject to the application will be conducted, including mitigation (if applicable). Refer to Section 4.2.3 (d) for acceptable ownership or real property interest documentation. For corporations, list a person who is a registered agent or officer of the corporation who has the legal authority to bind the corporation.

|  |                               |                 |                        |
|--|-------------------------------|-----------------|------------------------|
| <b>A. APPLICANT (ENTITY MUST HAVE SUFFICIENT REAL PROPERTY INTEREST)</b>   |                               |                 |                        |
| <input type="checkbox"/> THIS IS A CONTACT PERSON FOR ADDITIONAL INFORMATION   |                               |                 |                        |
| Name: Last   | ERIC PARKER                   | First           | Middle:                |
| Title:   | OWNER / president             | Company:        | Golden Pond Farms Inc  |
| Address: P.O. Box 357133   |                               |                 |                        |
| City:  | Gainesville                   | State:          | FL Zip: 32653          |
| Home Telephone:  |                               | Work Telephone: | 352-318-8880           |
| Cell Phone:  | 352-318-8880                  | Fax:            |                        |
| E-mail Address: ERIC.PARKER84@gmail.com  |                               |                 |                        |
| Correspondence will be sent via email. Check here to receive correspondence via US Mail: <input type="checkbox"/>            |                               |                 |                        |
| <b>B. LAND OWNER(S) (IF DIFFERENT OR IN ADDITION TO APPLICANT)</b>   |                               |                 |                        |
| <input type="checkbox"/> CHECK HERE IF LAND OWNER IS ALSO A CO-APPLICANT   |                               |                 |                        |
| Name: Last   |                               | First           | Middle:                |
| Title:   |                               | Company:        |                        |
| Address:   |                               |                 |                        |
| City:  |                               | State:          | Zip:                   |
| Home Telephone:  |                               | Work Telephone: |                        |
| Cell Phone:  |                               | Fax:            |                        |
| E-mail Address:  |                               |                 |                        |
| Correspondence will be sent via email. Check here to receive correspondence via US Mail: <input type="checkbox"/>            |                               |                 |                        |
| <b>C. OPERATION AND MAINTENANCE ENTITY (see Applicant's Handbook I, Section 12.3)</b>  |                               |                 |                        |
| Entity Name:   | Benton Hills Homeowners Assn. | Contact Last    | PARKER                 |
| Title:   | President                     | First           | ERIC                   |
| Address: P.O. Box 357133   |                               | Middle:         |                        |
| City:  | Gainesville                   | Company:        | Golden Pond Farms Inc. |
| State:   | FL                            | Zip:            | 32655                  |
| Home Telephone:  | 352-318-8880                  | Work Telephone: |                        |
| Cell Phone:  |                               | Fax:            |                        |
| E-mail Address: EPARKER84@gmail.com  |                               |                 |                        |
| Correspondence will be sent via email. Check here to receive correspondence via US Mail: <input checked="" type="checkbox"/> |                               |                 |                        |

|  |  |                                     |                   |
|--|--|-------------------------------------|-------------------|
| <b>D. CO-APPLICANT (IF DIFFERENT OR IN ADDITION TO APPLICANT AND OWNER)</b>  |  |                                     |                   |
| Name: Last:  |  | First:                              | Middle:           |
| Title:   |  | Company:                            |                   |
| Address:   |  |                                     |                   |
| City:  |  | State:                              | Zip:              |
| Home Telephone:  |  | Work Telephone:                     |                   |
| Cell Phone:  |  | Fax:                                |                   |
| E-mail Address:  |  |                                     |                   |
| Correspondence will be sent via email. Check here to receive correspondence via US Mail: <input type="checkbox"/>  |  |                                     |                   |
| <b>E. ENGINEERING CONSULTANT <input type="checkbox"/> THIS IS A CONTACT PERSON FOR ADDITIONAL INFORMATION</b>  |  |                                     |                   |
| Name: Last: <i>MERHAN</i>  |  | First: <i>JAMES</i>                 | Middle:           |
| Title: <i>OWNER</i>  |  | Company: <i>JAMES MERHAN P.E.</i>   |                   |
| Address: <i>1221 SW 96th St</i>  |  |                                     |                   |
| City: <i>Gainesville</i>   |  | State: <i>FL</i>                    | Zip: <i>32607</i> |
| Home Telephone: <i>352-332-0431</i>  |  | Work Telephone: <i>352-215-2548</i> |                   |
| Cell Phone: <i>352-215-2548</i>  |  | Fax: <i>352-332-0431</i>            |                   |
| E-mail Address: <i>J. MERHAN JR @ YAHOO.COM</i>  |  |                                     |                   |
| Correspondence will be sent via email. Check here to receive correspondence via US Mail: <input checked="" type="checkbox"/>                               |  |                                     |                   |
| <b>F. ENVIRONMENTAL CONSULTANT <input type="checkbox"/> THIS IS A CONTACT PERSON FOR ADDITIONAL INFORMATION</b>  |  |                                     |                   |
| Name: Last:  |  | First:                              | Middle:           |
| Title:   |  | Company:                            |                   |
| Address:   |  |                                     |                   |
| City:  |  | State:                              | Zip:              |
| Home Telephone:  |  | Work Telephone:                     |                   |
| Cell Phone:  |  | Fax:                                |                   |
| E-mail Address:  |  |                                     |                   |
| Correspondence will be sent via email. Check here to receive correspondence via US Mail: <input type="checkbox"/>  |  |                                     |                   |
| <b>G. AGENT AUTHORIZED TO SECURE PERMIT (IF DIFFERENT FROM CONSULTANT)</b><br><input type="checkbox"/> THIS IS A CONTACT PERSON FOR ADDITIONAL INFORMATION |  |                                     |                   |
| Name: Last:  |  | First:                              | Middle:           |
| Title:   |  | Company:                            |                   |
| Address:   |  |                                     |                   |
| City:  |  | State:                              | Zip:              |
| Home Telephone:  |  | Work Telephone:                     |                   |
| Cell Phone:  |  | Fax:                                |                   |
| E-mail Address:  |  |                                     |                   |
| Correspondence will be sent via email. Check here to receive correspondence via US Mail: <input type="checkbox"/>  |  |                                     |                   |

If necessary, please add additional pages for other contacts and property owners related to this project.

#### PART 4: SIGNATURES AND AUTHORIZATION TO ACCESS PROPERTY

Instructions: For multiple applicants please provide a separate Part 4 for each applicant. For corporations, the application must be signed by a person authorized to bind the corporation. A person who has sufficient real property interest (see Section 4.2.3 (d) of Applicant's Handbook Volume I) is required in (B) to authorize access to the property, except when the applicant has the power of eminent domain.

A. By signing this application form, I am applying for the permit and any proprietary authorizations identified above, according to the supporting data and other incidental information filed with this application. I am familiar with the information contained in this application and represent that such information is true, complete and accurate. I understand this is an application and not a permit, and that work prior to approval is a violation. I understand that this application and any permit issued or proprietary authorization issued pursuant thereto, does not relieve of any obligation for obtaining any other required federal, state, water management district or local permit prior to commencement of construction. I agree to operate and maintain the permitted system unless the permitting agency authorizes transfer of the permit to a different responsible operation and maintenance entity. I understand that knowingly making any false statement or representation in this application is a violation of Section 373.430, F.S. and 18 U.S.C. Section 1001.

|   |  |          |
|---|--|----------|
| JAMES MEEHAN  | James Meehan   | 11/25/14 |
| Typed/Printed Name of Applicant or Applicant's Authorized Agent | Signature of Applicant or Applicant's Authorized Agent | Date     |

Engineer/Agent  
(Corporate Title if applicable)

Letter of Authorization included

#### B. CERTIFICATION OF SUFFICIENT REAL PROPERTY INTEREST AND AUTHORIZATION FOR STAFF TO ACCESS THE PROPERTY:

I certify that:

☒ I possess sufficient real property interest in or control, as defined in Section 4.2.3 (d) of Applicant's Handbook Volume I, over the land upon which the activities described in this application are proposed and I have legal authority to grant permission to access those lands. I hereby grant permission, evidenced by my signature below, for staff of the Agency and the U.S. Army Corps of Engineers to access, inspect, and sample the lands and waters of the property as necessary for the review of the proposed works and other activities specified in this application. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review, inspection, and/ or sampling. Further, I agree to provide entry to the project site for such agents or personnel to monitor and inspect permitted work if a permit is granted.

OR

☐ I represent an entity having the power of eminent domain and condemnation authority, and I/we shall make appropriate arrangements to enable staff of the Agency and the U.S. Army Corps of Engineers to access, inspect, and sample the property as described above.

|                    |              |          |
|--------------------|--------------|----------|
| JAMES MEEHAN       | James Meehan | 11/25/14 |
| Typed/Printed Name | Signature    | Date     |

Engineer/Agent  
(Corporate Title if applicable)

**C. DESIGNATION OF AUTHORIZED AGENT (IF APPLICABLE):**

I hereby designate and authorize \_\_\_\_\_ to act on my behalf, or on behalf of my corporation, as the agent in the processing of this application for the permit and/or proprietary authorization indicated above; and to furnish, on request, supplemental information in support of the application. In addition, I authorize the above-listed agent to bind me, or my corporation, to perform any requirements which may be necessary to procure the permit or authorization indicated above. I understand that knowingly making any false statement or representation in this application is a violation of Section 373.430, F.S. and 18 U.S.C. Section 1001.

| Typed/Printed Name of Applicant | Signature of Applicant | Date |
|---------------------------------|------------------------|------|
|                                 |                        |      |

(Corporate Title if applicable)

*Letter of Authorization attached*

**James J. Meehan P.E.**  
**1221 SW 96<sup>th</sup> Street**  
**Gainesville, Fl. 32607**  
**(352) 215-2548, FAX (352) 332-0431**  
**jjmeehanjr@yahoo.com**

**Project:** Benton Hills

**Owner:** Golden Pond Farms Inc.  
P.O. Box 357133  
Gainesville, Fl. 32653  
(352) 318-8880

**Developer:** Hartley Brothers  
1353 NW 53<sup>rd</sup> Avenue  
Gainesville, Fl. 32669  
(352) 332-2112

**Brief Description:**

Benton Hills is a proposed single family subdivision located in the City of Alachua. The site is in Section 8, Township 8, Range 18 of Alachua County. The property is bounded on the north by Meadowglen Subdivision an existing development which consists of one acre lots, and on the west and south by undeveloped lands. The eastern boundary consists of CR 235A.

The property is presently in planted pines over its entire area. The land slopes from east to west with two low areas in the northwest and southwest corners. Soils underlying the site are predominantly well drained sandy soils which have been classified as hydrologic group 'A' by the USDA Conservation Soil maps. Onsite soil bores in the retention areas has confirmed these soil types.

The project is to consist of approx. 74 lots in phase one with an overall count of approx. 214 in future phases. Lots are to be a minimum of 7500 sf with a maximum lot size of around 10,000 sf. The site is to be served with central water and sewer. Streets are to be publicly maintained with pavement and curb & gutter. Storm sewers shall route the storm water runoff to the proposed retention areas.

The retention areas are existing low areas without any discharge except through percolation. Therefore the ponds have been sized to accommodate the 100yr critical storm without offsite discharge.

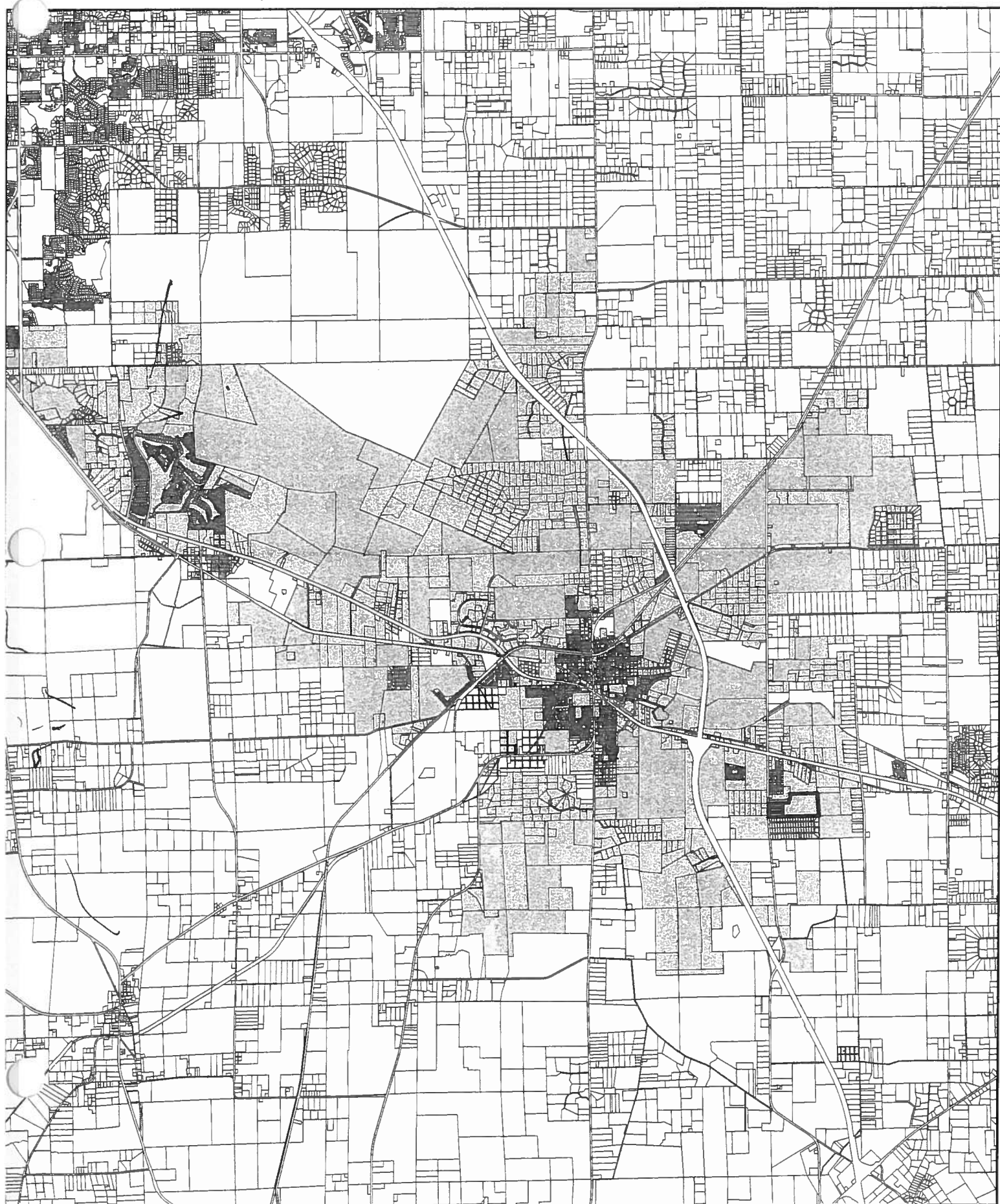


Retention no. 1

|                  |                        |
|------------------|------------------------|
| Basin top        | 85.0'                  |
| Basin bottom     | 78.0' (natural bottom) |
| Excavated bottom | 80.0'                  |
| Critical storm   | 100yr/24 hr event      |
| DHW              | 84.2'                  |

Retention no. 2

|                |                 |
|----------------|-----------------|
| Basin top      | 90.0'           |
| Basin bottom   | 85.0'           |
| Critical storm | 100yr/8hr storm |
| DHW            | 87.2'           |



Prepared by and return to:  
CARL L. JOHNSON  
Law Office of Carl L. Johnson  
4421 N.W. 39th Avenue, Bldg. 1, Suite 2  
Gainesville, FL 32605

Parcel No. C3044-010-003

Grantee(s) TIN

Doc Stamp-Deed \$0.70



THIS SPECIAL WARRANTY DEED, made this 21st day of December, 2012, by PARKER LAND CO., a Florida corporation, hereinafter called the Grantor, whose post office address is: P.O. Box 357133, Gainesville, FL 32635, to GOLDEN POND FARMS, INC., a Florida corporation, hereinafter called the Grantee, whose post office address is: P.O. Box 357135, Gainesville, FL 32635.

(Wherever used herein the terms "Grantor" and "Grantee" includes all the parties to this instrument and 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 considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the Grantee all that certain land, situate in Alachua County, State of Florida, viz:

Property described in the legal description attached as Exhibit "A" and made a part hereof.

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

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

AND the Grantor hereby covenants with said Grantee that the Grantor is lawfully seized of said land in fee simple; that the Grantor has good right and lawful authority to sell and convey said land, and hereby warrants the title to said land and will defend the same against the lawful claims of all persons claiming by, through or under Grantors.

IN WITNESS WHEREOF, the said Grantor has caused these presents to be executed on the day and year first above written.

Signed, sealed and delivered in the presence of:

Witness Signature

Printed Name

Witness Signature

Printed Name

PARKER LAND CO.

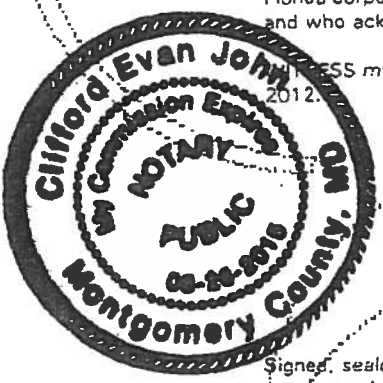
By:

LISA PARKER EHRLICH, Vice-Pres.

STATE OF Maryland  
COUNTY OF Montgomery

I HEREBY CERTIFY that on this day, before me, an officer duly authorized to administer oaths and take acknowledgments, personally appeared LISA PARKER EHRlich, as Vice-President of PARKER LAND CO., a Florida corporation, known to me to be the person described in and who executed the foregoing instrument and who acknowledged before me that she executed the same. Said person is personally known to me.

WITNESS my hand and official seal in the County and State last aforesaid this 21st day of December, 2012.



[Signature]  
NOTARY PUBLIC  
My commission expires: 8-24-15

Signed, sealed and delivered in the presence of:

[Signature]  
Witness Signature

CARL L JOHNSON  
Printed Name

[Signature]  
Witness Signature

[Signature]  
Printed Name

PARKER LAND CO.  
By: [Signature]  
ERIC J. PARKER, Pres.

STATE OF FLORIDA  
COUNTY OF ALACHUA

I HEREBY CERTIFY that on this day, before me, an officer duly authorized to administer oaths and take acknowledgments, personally appeared ERIC J. PARKER, as President of PARKER LAND CO., a Florida corporation, known to me to be the person(s) described in and who executed the foregoing instrument and who acknowledged before me that he executed the same. Said person is personally known to me.

WITNESS my hand and official seal in the County and State last aforesaid this 21st day of December, 2012.

[Signature]  
NOTARY PUBLIC  
My commission expires:

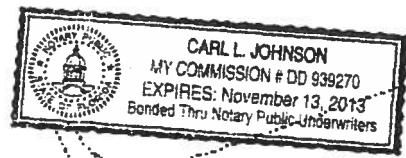
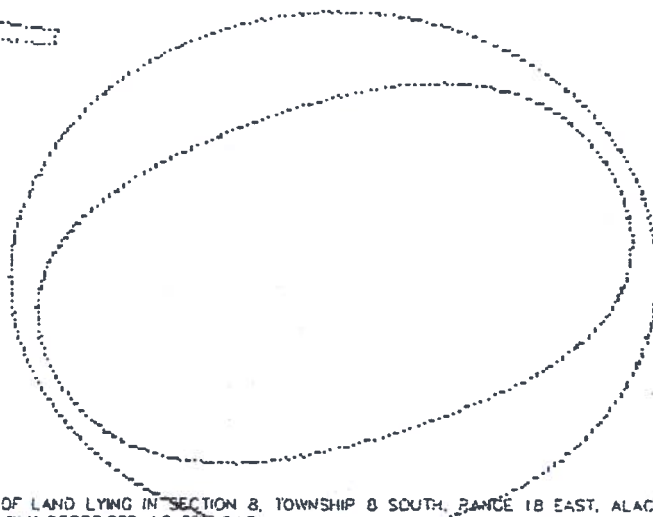



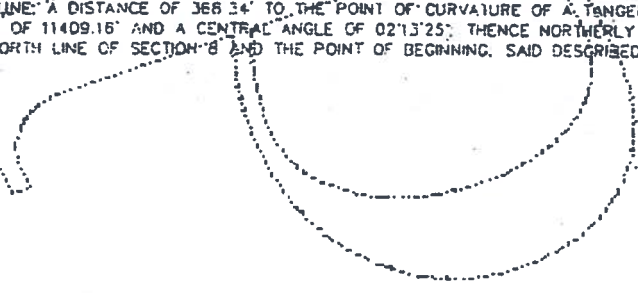


Exhibit "A"

A TRACT OF LAND LYING IN SECTION 8, TOWNSHIP 8 SOUTH, RANGE 18 EAST, ALACHUA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:



COMMENCING AT THE NORTHEAST CORNER OF SAID SECTION 8, THENCE RUN S 87°18'45" W, ALONG THE NORTH LINE OF SAID SECTION, A DISTANCE OF 58.60' TO THE WEST RIGHT OF WAY LINE (R/W) OF COUNTY ROAD NO. S-235-A AND THE POINT OF BEGINNING; THENCE CONTINUING S 87°18'16" W ALONG SAID NORTH LINE, A DISTANCE OF 2949.98' TO THE WEST LINE OF THE EAST HALF OF SECTION 8, THENCE S 05°35'27" E, ALONG SAID WEST LINE, A DISTANCE OF 1335.81', THENCE N 87°18'22" E, A DISTANCE OF 1577.01', THENCE N 01°47'45" W, A DISTANCE OF 322.80', THENCE N 87°17'33" E, A DISTANCE OF 94.86', THENCE N 01°47'45" W, A DISTANCE OF 200.00', THENCE N 87°17'33" E, A DISTANCE OF 1198.28' TO THE WEST P/W OF COUNTY ROAD NO. S-235-A, THENCE N 01°47'45" W ALONG SAID R/W LINE, A DISTANCE OF 366.34' TO THE POINT OF CURVATURE OF A TANGENT CURVE, CONCAVE TO THE WEST, HAVING A RADIUS OF 11409.16' AND A CENTRAL ANGLE OF 02°13'25"; THENCE NORTHERLY ALONG SAID R/W CURVE, A DISTANCE OF 442.77' TO THE NORTH LINE OF SECTION 8 AND THE POINT OF BEGINNING, SAID DESCRIBED TRACT CONTAINING 74.141 ACRES, MORE OR LESS.



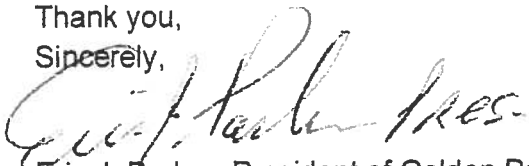
November 18, 2014

To James Meehan and Suwannee River Water Management District:

I, Eric J. Parker, President of Golden Pond Farms, Inc. and owner of tax parcel numbers 03044-011-001, 03044-011-002, 03044-011-003 and 03044-010-003 in Section 8, Township 8, Range 18, Alachua County, Florida, authorize James Meehan to act as my agent to secure an ERP, Environmental Resource Permit from the Suwannee Water River Management District on the above described tax parcel numbers.

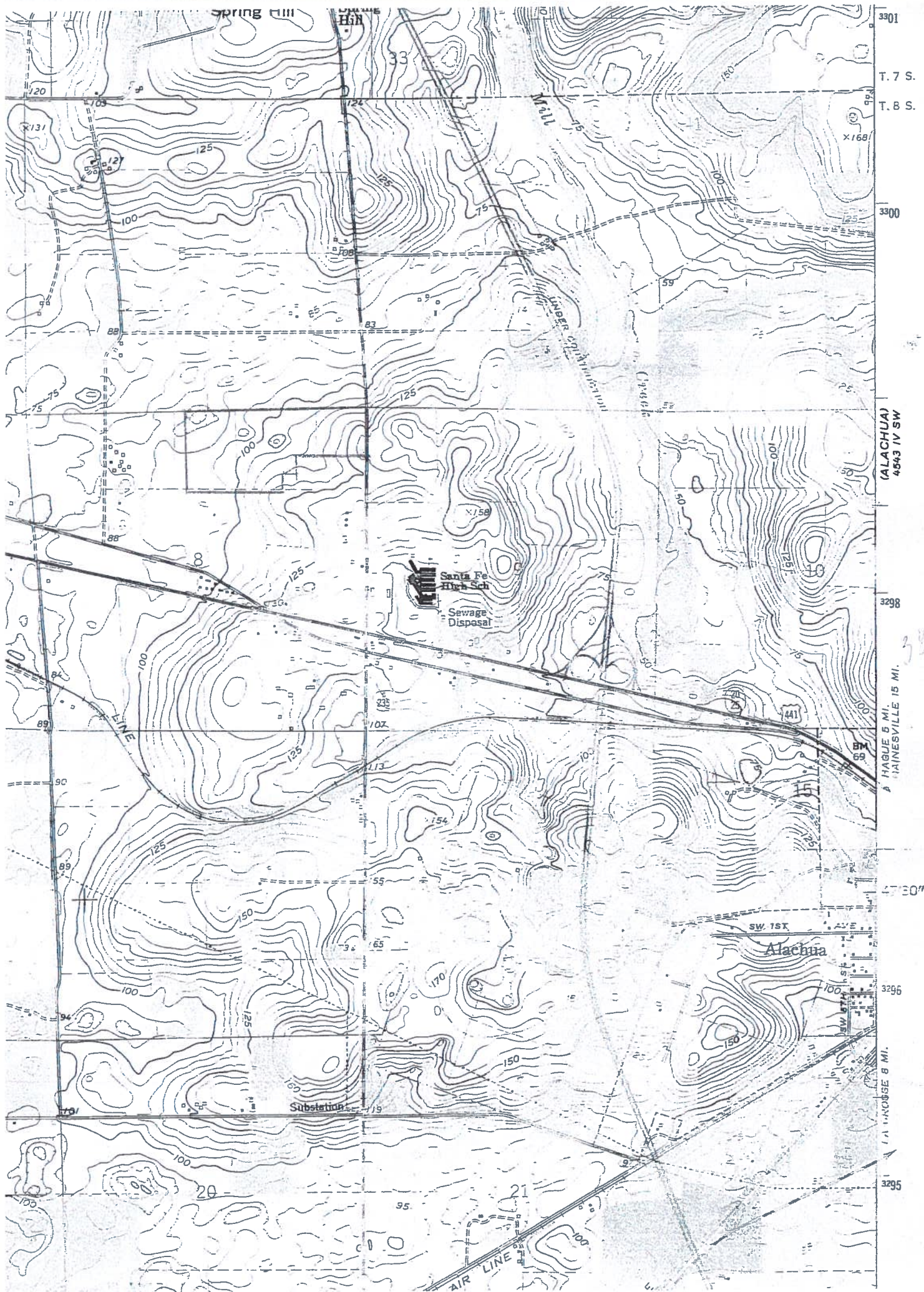
A deed is attached showing proof of ownership.

Thank you,  
Sincerely,

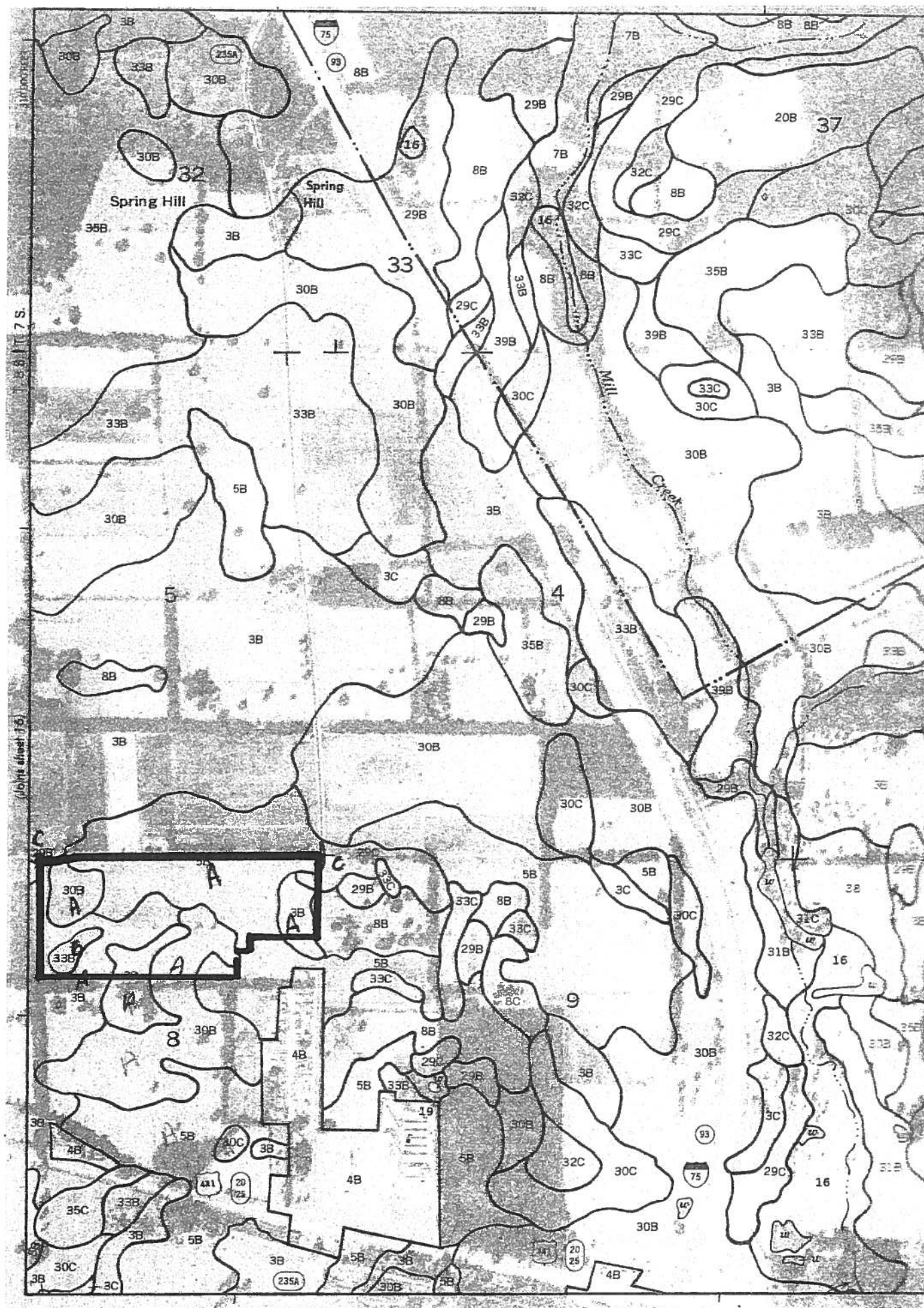
A handwritten signature in cursive script, appearing to read "Eric J. Parker Pres.", written in dark ink.

Eric J. Parker, President of Golden Pond Farms, Inc.









## Alachua County Florida

TABLE 16.--SOIL AND WATER FEATURES--Continued

| Map symbol and<br>soil name | Hydrologic<br>group | Flooding  |          |         | High water table |         |           | Bedrock  |             | Subsidence |                   | Risk of corrosion |  |
|-----------------------------|---------------------|-----------|----------|---------|------------------|---------|-----------|----------|-------------|------------|-------------------|-------------------|--|
|                             |                     | Frequency | Duration | Depth   | Kind             | Months  | Depth     | Hardness | In-<br>tial | Total      | Uncoated<br>steel | Concrete          |  |
| 19##<br>Monteocha           | D                   | None      | ---      | +2-0    | Apparent         | Jun-Feb | In<br>>60 | ---      | In<br>---   | ---        | Moderate          | High.             |  |
| 20B<br>Tavares              | A                   | None      | ---      | 3.5-6.0 | Apparent         | Jun-Dec | >60       | ---      | ---         | ---        | Low               | High.             |  |
| 21<br>Newnan                | C                   | None      | ---      | 1.5-2.5 | Apparent         | Aug-Feb | >60       | ---      | ---         | ---        | Low               | High.             |  |
| 22##<br>Floridana           | D                   | None      | ---      | +2-1.0  | Apparent         | Jun-Feb | >60       | ---      | ---         | ---        | Moderate          | Low.              |  |
| 23<br>Mulatt                | D                   | Rare      | ---      | 0-1.0   | Apparent         | Dec-Jun | >60       | ---      | ---         | ---        | High              | High.             |  |
| 24##<br>Pomona              | D                   | None      | ---      | +2-1.0  | Apparent         | Jun-Feb | >60       | ---      | ---         | ---        | High              | High.             |  |
| 26##<br>Samsula             | B/D                 | None      | ---      | +2-1.0  | Apparent         | Jan-Dec | >60       | ---      | 16-20       | 30-36      | High              | High.             |  |
| 27#<br>Urban land           |                     |           |          |         |                  |         |           |          |             |            |                   |                   |  |
| 28<br>Chipley               | C                   | None      | ---      | 2.0-3.0 | Apparent         | Dec-Apr | >60       | ---      | ---         | ---        | Low               | High.             |  |
| 29B, 29C<br>Lochloosa       | C                   | None      | ---      | 2.5-5.0 | Apparent         | Jul-Oct | >60       | ---      | ---         | ---        | High              | High.             |  |
| 30B, 30C<br>Kendrick        | A                   | None      | ---      | >6.0    | ---              | ---     | >60       | ---      | ---         | ---        | Moderate          | High.             |  |
| 31A, 31B, 31C<br>Blichton   | D                   | None      | ---      | 0-1.0   | Apparent         | Jun-Sep | >60       | ---      | ---         | ---        | High              | High.             |  |
| 32B, 32C, 32D<br>Bivans     | D                   | None      | ---      | 0-1.0   | Perched          | Jun-Dec | >60       | ---      | ---         | ---        | High              | Moderate.         |  |
| 33B, 33C<br>Norfolk         | B                   | None      | ---      | 4.0-6.0 | Apparent         | Jan-Mar | >60       | ---      | ---         | ---        | Moderate          | High.             |  |
| 34##<br>Placid              | D                   | None      | ---      | +2-1.0  | Apparent         | Jun-Mar | >60       | ---      | ---         | ---        | High              | High.             |  |
| 35B, 35C<br>Gainesville     | A                   | None      | ---      | >6.0    | ---              | ---     | >60       | ---      | ---         | ---        | Low               | High.             |  |
| 36#<br>Arents               |                     |           |          |         |                  |         |           |          |             |            |                   |                   |  |
| 37<br>Zolfo                 | C                   | None      | ---      | 2.0-3.5 | Apparent         | Jun-Nov | >60       | ---      | ---         | ---        | Low               | Moderate.         |  |

See footnotes at end of table.

TABLE 16.--SOIL AND WATER FEATURES

["Flooding" and "water table" and terms such as "rare," "brier," "apparent," and "perched" are explained in the text. The symbol means more than. Absence of an entry indicates that the feature is not a concern or that data were not estimated.]

| Map symbol and soil name                    | Hydrologic group | Flooding  |          | High water table |          |         | Bedrock   |          | Subsidence |       | Risk of corrosion |           |
|---|------------------|-----------|----------|------------------|----------|---------|-----------|----------|------------|-------|-------------------|-----------|
|   |                  | Frequency | Duration | Depth            | Kind     | Months  | Depth     | Hardness | Ini-tial   | Total | Uncoated steel    | Concrete  |
| 2B, 2C-----<br>Candler                      | A                | None----- | ---      | >6.0             | ---      | ---     | In<br>>60 | ---      | In<br>---  | ---   | Low-----          | High.     |
| 3B, 3C-----<br>Arredondo                    | A                | None----- | ---      | >6.0             | ---      | ---     | >60       | ---      | ---        | ---   | Moderate          | High.     |
| 4B*:-----<br>Arredondo-----<br>Urban land.  | A                | None----- | ---      | >6.0             | ---      | ---     | >60       | ---      | ---        | ---   | Moderate          | High.     |
| 5B-----<br>Fort Meade                       | A                | None----- | ---      | >6.0             | ---      | ---     | >60       | ---      | ---        | ---   | Low-----          | High.     |
| 6B, 6C-----<br>Apopka                       | A                | None----- | ---      | >6.0             | ---      | ---     | >60       | ---      | ---        | ---   | Moderate          | High.     |
| 7B-----<br>Kanapaha                         | B/D              | None----- | ---      | 0-1.0            | Apparent | Jul-Sep | >60       | ---      | ---        | ---   | High-----         | High.     |
| 8B, 8C-----<br>Millhopper                   | A                | None----- | ---      | 3.5-6.0          | Perched  | Aug-Feb | >60       | ---      | ---        | ---   | Low-----          | Moderate. |
| 9B*:-----<br>Millhopper-----<br>Urban land. | A                | None----- | ---      | 3.5-6.0          | Perched  | Aug-Feb | >60       | ---      | ---        | ---   | Low-----          | Moderate. |
| 11-----<br>Riviera                          | D                | None----- | ---      | 0-1.0            | Apparent | Jun-Dec | >60       | ---      | ---        | ---   | High-----         | High.     |
| 13-----<br>Pelham                           | B/D              | None----- | ---      | 0.5-1.5          | Apparent | Jan-Apr | >60       | ---      | ---        | ---   | High-----         | High.     |
| 14-----<br>Pomona                           | B/D              | None----- | ---      | 0-1.0            | Apparent | Jul-Sep | >60       | ---      | ---        | ---   | High-----         | High.     |
| 15-----<br>Pompano                          | B/D              | None----- | ---      | 0-1.0            | Apparent | Jun-Nov | >60       | ---      | ---        | ---   | High-----         | Moderate. |
| 16-----<br>Surrency                         | D                | None----- | ---      | 0-0.5            | Apparent | Dec-Apr | >60       | ---      | ---        | ---   | High-----         | High.     |
| 17-----<br>Wauchula                         | B/D              | None----- | ---      | 0-1.0            | Apparent | Jun-Feb | >60       | ---      | ---        | ---   | High-----         | High.     |
| 18*:-----<br>Wauchula-----<br>Urban land.   | B/D              | None----- | ---      | 0-1.0            | Apparent | Jun-Feb | >60       | ---      | ---        | ---   | High-----         | High.     |

See footnotes at end of table.



**Engineering & Consulting, Inc.**

**SUMMARY REPORT OF A  
GEOTECHNICAL SITE EXPLORATION**

**BONAVENTURE SUBDIVISION SITE  
ALACHUA, ALACHUA COUNTY, FLORIDA**

**GSE PROJECT NO. 10176**

Prepared For:  
**VENTURE REALTY**  
JANUARY 2008

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### **Figure**

1. Project Site Location Map
2. Site Plan Showing Approximate Locations of Field Tests

## **APPENDIX**

### **Key to Soil Classifications**

## **1.0 INTRODUCTION**

### **1.1 General**

GSE Engineering & Consulting, Inc. (GSE) has completed this geotechnical exploration of the proposed storm water management facilities for the Bonaventure Subdivision site located in Alachua, Alachua County, Florida. Our exploration was performed in accordance with GSE Proposal No. 2007-167 dated November 26, 2007. Our services were authorized by Ms. Garland Pla of Venture Realty on November 27, 2007.

### **1.2 Project Description**

The site is generally located at the northwest corner of US Highway No. 441 and County Road No. 235A in Alachua, Alachua County, Florida. A project site location map is provided in Figure 1. The site is currently undeveloped land planted in pine.

Mr. James J. Meehan P.E. provided a site plan indicating the layout of the proposed development and provided the general area of two storm water management facilities. We understand the site will be developed into a residential subdivision. This exploration is limited to the storm water management facilities.

### **1.3 Purpose**

The purpose of this geotechnical exploration was to determine the general subsurface conditions, evaluate these conditions with respect to the proposed construction, and prepare geotechnical recommendations to assist in the design of the storm water management facilities.



## **2.0 FIELD AND LABORATORY TESTS**

### **2.1 General Description**

The procedures used for field sampling and testing are in general accordance with industry standards of care and established geotechnical engineering practices for this geographic region. Our exploration consisted of performing twelve auger borings to a depth of 15 feet below land surface (bls) in the area of the planned storm water management facilities. The soil borings were performed at the approximate locations as shown on Figure 2. We located the borings at the site using the provided site plan, a global positioning system device, estimated property lines, and other obvious site features as reference. The soil borings were performed on December 11, 2007.

### **2.2 Auger Borings**

The auger borings were performed in accordance with ASTM Specification D-1452. The borings were performed with flight auger equipment that was rotated into the ground in a manner that reduces soil disturbance. After penetrating to the required depth, the auger was retracted and the soils collected on the auger flights were field classified and placed in sealed containers. Representative samples of each stratum were retained from the auger borings. Results from the auger borings are provided in Section 5.1.

### **2.3 Soil Laboratory Tests**

The soil samples recovered from the soil borings were returned to our laboratory, and examined to confirm the field descriptions. Representative samples were then selected for laboratory testing. The laboratory tests consisted of fifteen percent fines passing the No. 200-sieve determinations with natural moisture contents, and five constant head permeability tests. These tests were performed in order to aid in classifying the soils and to further evaluate their engineering properties. The laboratory tests are provided in Section 5.2.

## **3.0 FINDINGS**

### **3.1 Surface Conditions**

The site is planted in pine. The surface is generally covered by rows of pine trees, grass and weeds, and shrubs. Lanes between the pine rows were cleared to provide access to our drilling equipment. Surface topography generally slopes down towards the western portions of the site. Alachua County Growth Management topographic information indicates site elevations range from 78 to 124 feet NGVD. The planned stormwater management areas are located in broad depressions with noted bottom elevation on the order of 78 feet (northwestern area) and 84 feet (western central area) NGVD. No standing water was observed on-site during our site visits.

Several clustered depressions were noted near the central portion of the planned western central stormwater management facility. These appear to be localized relatively recently formed (i.e. less than 100 years) sinkholes. The Alachua County Soil Survey identifies these as sinkhole features. The site is located within an area of Alachua County where sinkholes can occur.

Some limestone and concrete rubble boulders were noted within the depressions. Five individual depressions were identified with two of the larger depressions being interconnected. The three smaller depressions range in size from 10 to 20 feet in diameter and were 2 to 5 feet deep. These features were generally circular. The two larger interconnected depressions had irregular elliptical shapes and estimated to be on the order of 60 by 25 feet in plan and 8 to 15 feet deep. Outcropping limestone, limestone sides, or open chimneys were not apparent within the depressions.

### **3.2 Subsurface Conditions**

The locations of the auger borings are provided on Figure 2. Complete logs for the borings are provided in Sections 5.1. Descriptions for the soils encountered are accompanied by the Unified Soil Classification System symbol (SM, SP-SM, etc.) and are based on visual examination of the recovered soil samples and the laboratory tests performed. Stratification boundaries between the soil types should be considered approximate, as the actual transition between soil types may be gradual.

The auger borings conducted within the planned stormwater management areas indicate that soil conditions across this portion of the project site are relatively consistent, generally penetrating interbedded variable layers of sand, sand with silt, silty sand (SP-SM, SM) and clayey sand (SC) underlain by clayey to very clayey sand (SC) and some interbedded clay (CL/CH). The surficial more permeable sand layer ranged from about 3 to 13 feet deep. The groundwater table was not encountered in the borings at the time of our exploration.

### 3.3 Review of Published Data

The Soil Conservation Service (SCS) Soil Survey for Alachua County<sup>1</sup> maps four soil series in the area where the borings were conducted. The following soil descriptions are from the Soil Survey.

**Arredondo fine sand, 0 to 5 percent slopes** - This nearly level to gently sloping, well drained soil is in both small and large areas of uplands. Slopes are smooth to convex. The areas are irregular in shape and range from about 10 to 160 acres in size.

Typically, the surface layer is dark grayish brown fine sand about 8 inches thick. The subsurface layer is fine sand to a depth of 49 inches. The upper 23 inches is yellowish brown, and the lower 18 inches is brownish yellow. The subsoil extends to a depth of 86 inches or more. The upper 5 inches is yellowish brown loamy sand; the next 10 inches is yellowish brown sandy clay loam, and the lower 22 inches is dark yellowish brown sandy clay and sandy clay loam.

Included with this soil in mapping are small depressional areas of soils that have a very dark gray or black surface layer 8 to 24 inches thick. This layer overlies gray sandy material. These areas are shown by wet spot symbols. Also included are small areas of Fort Meade, Gainesville, Kendrick, and Millhopper soils. A few areas of this soil include Arredondo soils that have 5 to 8 percent slopes. Some areas of this soil in the western part of the county have small spots of strongly acid to medium acid soil material 40 to 70 inches deep to calcareous limestone. Limestone boulders, fragments of limestone, and sinkholes are in some areas of this soil, mainly in the limestone plain sections of the western part of the county. Most of these boulders are siliceous. The sinkholes and the boulders are shown by appropriate map symbols. Total included areas are about 15 percent.

In this Arredondo soil, the available water capacity is low in the sandy surface and subsurface layers and low to medium in the loamy subsoil. Permeability is rapid in the surface and subsurface layers and moderately slow to moderate in the loamy subsoil. Natural fertility is low in the sandy surface and subsurface layers and medium in the finer textured subsoil. Organic matter content is low. The water table in this soil is at a depth of more than 72 inches. Surface runoff is slow.

**Fort Meade fine sand, 0 to 5 percent slopes** - This nearly level to gently sloping, well drained soil is in both small and large areas on the gently rolling uplands. The areas are mostly irregular in shape and range from about 10 to 400 acres.

Typically, the surface layer is fine sand about 14 inches thick. The upper 10 inches is very dark brown, and the lower 4 inches is very dark grayish brown. The underlying layer is fine sand to a depth of 80 inches or more. In sequence from the top, the upper 20 inches is dark brown; the next 9 inches is dark yellowish brown; the next 28 inches is yellowish brown, and the lower 14 inches is dark brown.

---

<sup>1</sup> Soil Survey of Alachua County, Florida. Soil Conservation Service, U.S. Department of Agriculture.

Included with this soil in mapping are small areas of Arredondo, Gainesville, Kendrick, and Millhopper soils. Also included are small areas of soils which are similar to the Fort Meade soil but which have only 6 to 10 inches of a very dark gray or very dark grayish brown surface layer over a fine sand or loamy sand underlying layer. Total included areas are less than 15 percent.

In this Fort Meade soil, the available water capacity is low to medium. The permeability is rapid. Surface runoff is slow. The water table is more than 72 inches below the surface.

**Kendrick sand, 2 to 5 percent slopes** - This gently sloping, well drained soil is in both small and large areas on the gently rolling uplands.

Typically, the surface layer is dark grayish brown sand about 9 inches thick. The subsurface layer is yellowish brown loamy sand to a depth of 26 inches. The subsoil extends to a depth of 90 inches or more. The upper 5 inches is yellowish brown fine sandy loam; the next 20 inches is dark yellowish brown, mottled sandy clay loam; the next 22 inches is dark yellowish brown sandy clay loam; the next 10 inches is yellowish brown, mottled fine sandy loam; and the lower 7 inches is yellowish brown sandy clay loam.

Included with this soil in mapping are some small areas of soils that have similar characteristics to the Kendrick soils except that they have loamy sand surface and subsurface layers less than 20 inches thick over a sandy clay loam subsoil. Small areas of soils that are similar to the Kendrick soils but have fine sand surface and subsurface layers or have a subsoil that is sandy clay throughout are included. A few areas of Kendrick soils have 0 to 2 percent slopes or 5 to 8 percent slopes. Sinkholes and limestone boulders are in some areas and are shown by appropriate symbols.

In this Kendrick soil, the available water capacity is low in the surface and subsurface layers, medium in the upper 5 inches of the subsoil, and medium to high below this depth. Permeability is rapid in the surface and subsurface layers. Permeability is moderate to moderately rapid in the upper 5 inches of the subsoil, moderately slow to moderate in the next 42 inches, and slow in the lower 17 inches. The water table is found at a depth of more than 72 inches bls.

**Norfolk loamy fine sand, 2 to 5 percent slopes** - This gently sloping, well drained soil is in relatively small areas on the rolling uplands. Slopes are slightly convex.

Typically, the surface layer is dark grayish brown loamy fine sand about 9 inches thick. The subsoil extends to a depth of 62 inches. The upper 6 inches is yellowish brown fine sandy loam; the next 26 inches is dark yellowish brown sandy clay loam, the next 14 inches is dark yellowish brown clay that has gray mottles. Between depths of 62 and 80 inches, the underlying material is light gray, mottled clay.

This Norfolk soil has a water table that is at a depth of about 48 to 72 inches for 1 to 3 months during most years. Surface runoff is medium. The available water capacity is low in the surface

layer and medium to high in the subsoil. Permeability is rapid in the surface layer, moderately slow to moderate in the upper part of the subsoil, and very slow to slow in the lower part.

The soil survey shows a sinkhole as being located in the general area observed during our site visit.

The soils encountered by borings are generally consistent with the mapped soil series.

### **3.4 Laboratory Soil Analysis**

Selected soil samples recovered from the soil borings were analyzed for natural moisture content, the percent fines passing the No. 200 sieve, and vertical permeability. Selected soil samples were collected from depths ranging from 1 to 5.5 feet bls. These tests were performed to confirm visual soil classification and evaluate their engineering properties. The complete laboratory report is provided in Section 5.2.

The laboratory tests indicate the near surface soils generally consist of interbedded sand with silt, silty sand, and clayey sand (SP-SM, SM, SC) with about 7 to 30 percent soil fines passing the No. 200 sieve.

The constant head permeability tests results indicate the upper layers of sand with silt, silty sand, and clayey sand have vertical coefficients of permeability ranging between 6 and 16 feet per day ( $2.01 \times 10^{-3}$  cm/sec to  $5.55 \times 10^{-3}$  cm/sec). Permeability tests were not conducted on the some of the near surface clayey and silty sand soils due to the limitations of the test method on soils having moderate to high fines content, but some of these soils are expected to have permeability values at least one order of magnitude less that the surficial sands.

## **4.0 EVALUATION AND RECOMMENDATIONS**

### **4.1 General**

The soil conditions at the site are relatively uniform with a surficial sand layer generally overlying layers of clayey sand and some clay. In this section of the report, we present our recommendations for storm water retention design.

The following recommendations are made based upon our understanding of the proposed construction, a review of the attached soil borings and laboratory test data, and experience with similar projects and subsurface conditions. If plans or the location of proposed construction change from those discussed previously, we request the opportunity to review and possibly amend our recommendations with respect to those changes.

### **4.2 Groundwater**

Groundwater was not encountered within the depths explored. The normal seasonal high water table is expected to range between 4.5 and 12 feet bls at the site perched on the underlying heavier clay rich soils.

### **4.3 Storm Water Retention Basins**

The soil conditions at the storm water management facilities were relatively consistent with interbedded layers of sand, sand with silt, sand with clay, silty sand, and clayey sand overlying clayey to very clayey sand and some interbedded clay. The clayey to very clayey sands are generally friable, and are not considered true confining soils, although these soils will have permeability characteristics at least one order of magnitude lower than the surficial sands.

The water table was not encountered within the explored depth of 15 feet bls at the storm water management facility location. We estimate the seasonal high water table ranges between 4.5 and 12 feet bls, perched on the clay rich soils. The laboratory permeability tests indicate the surficial layer of sand with silt, clayey sand, and silty sand has vertical coefficients of permeability of 6 to 16 feet per day.

If the excavation of the storm water management facility encounters the clayey sand soils with fines content in excess of 15 percent, we recommend these soils be undercut and replaced with the clean overburden sand having less than 12 percent fines passing the No. 200 sieve to a minimum depth of 1 foot below the basin bottom, and to 1 foot deep on the basin side slopes. The intent of this remediation is to provide a more uniform sand layer beneath the basin that will allow the migration and infiltration of water to the deeper deposits of sand. This will also reduce the potential for silt and clay fines leaching out of the soil that can cover the basin bottom and reduce its effectiveness. Prior to fill placement, the exposed clayey sand soils in the basins should be scarified such that the more clay rich soils are not compacted or "sealed" resulting in less permeability.

Based upon our findings and test results, our recommended soil parameters for the storm water management area designs are presented below. The recommended parameters consider the



results of the permeability tests and wash 200 determinations, the expected permeability characteristics of the underlying clayey sand and clay, our experience with these types of soils in this area of Alachua County, and above recommended remedial measures for the basins.

We recommend you consider the following soil parameters for storm water management area design for the **Northwestern Stormwater Management Area** (B-1 through B-4):

1. Base elevation of effective or mobilized aquifer (average depth of confining layer) equal to 7 feet bls.
2. Unsaturated vertical infiltration rate of 6 feet per day.
3. Unsaturated horizontal hydraulic conductivity of 10 feet per day.
4. Specific yield (fillable porosity) of 25 percent.
5. Normal seasonal high groundwater table depth equal to 6 feet bls.

We recommend you consider the following soil parameters for storm water management area design for the **Central Western Stormwater Management Area** (B-5 through B-12):

1. Base elevation of effective or mobilized aquifer (average depth of confining layer) equal to 10 feet bls.
2. Unsaturated vertical infiltration rate of 6 feet per day.
3. Unsaturated horizontal hydraulic conductivity of 10 feet per day.
4. Specific yield (fillable porosity) of 25 percent.
5. Normal seasonal high groundwater table depth equal to 8 feet bls.

A factor of safety of 2 should be applied to the infiltration and hydraulic conductivity values provided.

#### **4.4 Fill Suitability**

Most of the upper layer of sandy soils (with exception of topsoil) excavated from the basin locations (SP-SM) should be suitable for use as structural fill, assuming it has less than 5 percent organic material and is free of roots and other deleterious debris. Some of the higher fines silty and clayey sand near soils encountered (i.e. fines in excess of 15 percent) may be more difficult to work and compact due to their moisture sensitive nature.

Most of the clayey sand (SC) and silty sand (SM) soils are also considered suitable for use as structural fill or as stabilized subgrade material for proposed pavements, but may be a less desirable source of fill, as these soils are moisture sensitive and can be difficult to compact unless they are worked at close to optimum moisture. Silty sands should preferably have less



than 25 percent fines. If clay-rich soils are utilized, we recommend that they contain less than 30 percent fines (passing the No. 200 sieve) with a Plasticity Index less than 15 and Liquid Limit less than 45. Mixing of soils with higher fines content with those with less fines content may increase their overall workability.

The very clayey (greater than 30 percent fines content) sand (SC) sandy clay (CL/CH) encountered is not considered a suitable source of structural fill.

#### **4.5 Sinkhole Considerations and Remediation**

The apparent sinkhole features identified within the central western stormwater area needs to be considered in the design. These features need to be backfilled and as part of the planned stormwater management area improvements. Soils encountered in other areas of the management area may be utilized for this purpose, preferably soils with fines contents in excess of 15 percent fines.

The area should be backfilled and proof-compacted with rubber tired equipment (such as a loaded truck or front end loader). Active compaction using a vibratory roller is not recommended. The area should be monitored for subsequent indications of subsidence, especially following periods of heavy rainfall. Additional remedial measures may be appropriate if recurring depressions develop post construction in this area.

There were no indications to suggest that the limestone formation outcrops in this area. This suggests the sinkhole feature has collapsed at a deeper depth. Limestone is typically encountered more than 30 feet bls in this area of Alachua County. Remediation to address near surface limestone is not anticipated. However, if encountered the limestone formation should be maintained a minimum of 3 feet below the planned basin bottom. If encountered, the formation should be removed and replaced with the soils and methods described above to maintain this separation. If open chimney chutes are encountered during excavation, we recommend these be remediation through placement of boulders and gravel prior to placing the sandier fill.



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CLIENT Venture Realty

PROJECT NAME Bonaventure Subdivision

PROJECT LOCATION Alachua, Alachua County, Florida

PROJECT NUMBER 10176

DATE PERFORMED 12/11/2008 **BORING NUMBER B-1**

DRILLING CONTRACTOR Whitaker Drilling

GROUND WATER LEVELS: LOGGED BY GW

AT TIME OF DRILLING CHECKED BY JBN

ESTIMATED SEASONAL HIGH 6.0 ft

NOTES Groundwater not encountered

DATE PERFORMED 12/11/2008 **BORING NUMBER B-2**

DRILLING CONTRACTOR Whitaker Drilling

GROUND WATER LEVELS: LOGGED BY GW

AT TIME OF DRILLING CHECKED BY JBN

ESTIMATED SEASONAL HIGH 9.0 ft

NOTES Groundwater not encountered

DATE PERFORMED 12/11/2008 **BORING NUMBER B-3**

DRILLING CONTRACTOR Whitaker Drilling

GROUND WATER LEVELS: LOGGED BY GW

AT TIME OF DRILLING CHECKED BY JBN

ESTIMATED SEASONAL HIGH 4.5 ft

NOTES Groundwater not encountered

AB 3 LANDSCAPE - GINT STD US GDT - 12/08 10-44 - USER: VER11GSE\GENERAL\PROJECTS\10176 BONAVENTURE SUBDIVISION\10176 BORINGS\10176 AUGER BORINGS.GPJ

| DEPTH<br>(@)<br>LOG | SAMPLE<br>NUMBER | MATERIAL DESCRIPTION   | DEPTH<br>(@)<br>LOG | SAMPLE<br>NUMBER | MATERIAL DESCRIPTION           | DEPTH<br>(@)<br>LOG | SAMPLE<br>NUMBER | MATERIAL DESCRIPTION                        |
|---------------------|------------------|--|---------------------|------------------|--------------------------------|---------------------|------------------|---|
| 0                   | AU 1             | (SM) Gray to brown silty SAND                                | 0                   | AU 1             | (SP) Tan to gray SAND          | 0                   | AU 1             | (SM) Tan to gray silty SAND                 |
| 2.5                 | AU 2             | (SP-SM) Light brown to tan SAND with silt                    | 2.5                 | AU 2             | (SC) Tan to orange clayey SAND | 3.0                 | AU 2             | (SC) Gray to tan clayey to very clayey SAND |
| 6.0                 | AU 3             | (SC) Tan to orange clayey SAND                               | 5                   | AU 3             |                                | 6.0                 | AU 3             | (CL/CH) Gray, tan and orange sandy CLAY     |
| 8.5                 | AU 4             | (CL/CH) Orange to tan CLAY with trace of limestone fragments | 10                  |                  |                                | 10                  |                  |   |
| 11.5                |                  | (CH) Tan, orange and gray CLAY                               | 12.0                |                  |                                | 13.0                | AU 4             | (CH) Green, orange and gray CLAY            |
| 15                  | AU 5             |  | 15.0                |                  |                                | 15.0                |                  | Bottom of borehole at 15.0 feet.            |

(Continued Next Page)



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PROJECT NAME Bonaventure Subdivision

PROJECT NUMBER 10176

PROJECT LOCATION Alachua, Alachua County, Florida

DATE PERFORMED 12/11/2008 **BORING NUMBER B-4**

DRILLING CONTRACTOR Whitaker Drilling

GROUND WATER LEVELS: LOGGED BY GW

AT TIME OF DRILLING CHECKED BY JBN

☒ ESTIMATED SEASONAL HIGH 5.0 ft

NOTES Groundwater not encountered

DATE PERFORMED 12/11/2008 **BORING NUMBER B-5**

DRILLING CONTRACTOR Whitaker Drilling

GROUND WATER LEVELS: LOGGED BY GW

AT TIME OF DRILLING CHECKED BY JBN

☒ ESTIMATED SEASONAL HIGH 6.0 ft

NOTES Groundwater not encountered

DATE PERFORMED 12/11/2008 **BORING NUMBER B-6**

DRILLING CONTRACTOR Whitaker Drilling

GROUND WATER LEVELS: LOGGED BY GW

AT TIME OF DRILLING CHECKED BY JBN

☒ ESTIMATED SEASONAL HIGH 11.0 ft

NOTES Groundwater not encountered

| DEPTH<br>(ft) | GRAPHIC<br>LOG | SAMPLE<br>NUMBER | MATERIAL DESCRIPTION                               | DEPTH<br>(ft) | GRAPHIC<br>LOG | SAMPLE<br>NUMBER | MATERIAL DESCRIPTION                                 | DEPTH<br>(ft) | GRAPHIC<br>LOG | SAMPLE<br>NUMBER | MATERIAL DESCRIPTION                |
|---------------|----------------|------------------|--|---------------|----------------|------------------|--|---------------|----------------|------------------|-------------------------------------|
| 0             |                | AU 1             | (SP-SM) Tan to brown SAND with silt                | 0             |                | AU 1             | (SP-SM) Brown to tan SAND with silt                  | 0             |                | AU 1             | (SP-SM) Tan to brown SAND with silt |
| 5             |                | AU 2             | (SC) Tan to orange clayey SAND                     | 5             |                | AU 2             | (SC) Tan to orange clayey SAND                       | 5             |                | AU 2             | (SC) Tan to orange clayey SAND      |
| 10            |                | AU 3             | (CH) Gray, tan and orange CLAY                     | 10            |                | AU 3             | (SC) Gray, tan and orange clayey to very clayey SAND | 10            |                | AU 3             | (SC) Gray to tan clayey SAND        |
| 15            |                | AU 4             | (SC/CL) Tan to gray very clayey SAND to sandy CLAY | 15            |                | AU 4             | (SC/CL) Gray to tan very clayey SAND to sandy CLAY   | 15            |                | AU 4             | (SC) Gray to tan clayey SAND        |
| 15            |                | AU 5             | (CL/CH) Gray to tan silty CLAY                     | 15            |                | AU 5             |  | 11.5          |                |                  |                                     |
| 15            |                | AU 6             |  | 15.0          |                |                  | Bottom of borehole at 15.0 feet.                     | 15.0          |                |                  | Bottom of borehole at 15.0 feet.    |

(Continued Next Page)



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PROJECT NAME Bonaventure Subdivision

PROJECT NUMBER 10176

PROJECT LOCATION Alachua, Alachua County, Florida

DATE PERFORMED 12/11/2008 **BORING NUMBER B-7**

DRILLING CONTRACTOR Whitaker Drilling

GROUND WATER LEVELS: LOGGED BY GW

AT TIME OF DRILLING \_\_\_\_\_ CHECKED BY JBN

ESTIMATED SEASONAL HIGH 12.0 ft

NOTES Groundwater not encountered

DATE PERFORMED 12/11/2008 **BORING NUMBER B-8**

DRILLING CONTRACTOR Whitaker Drilling

GROUND WATER LEVELS: LOGGED BY GW

AT TIME OF DRILLING \_\_\_\_\_ CHECKED BY JBN

ESTIMATED SEASONAL HIGH 11.0 ft

NOTES Groundwater not encountered

DATE PERFORMED 12/11/2008 **BORING NUMBER B-9**

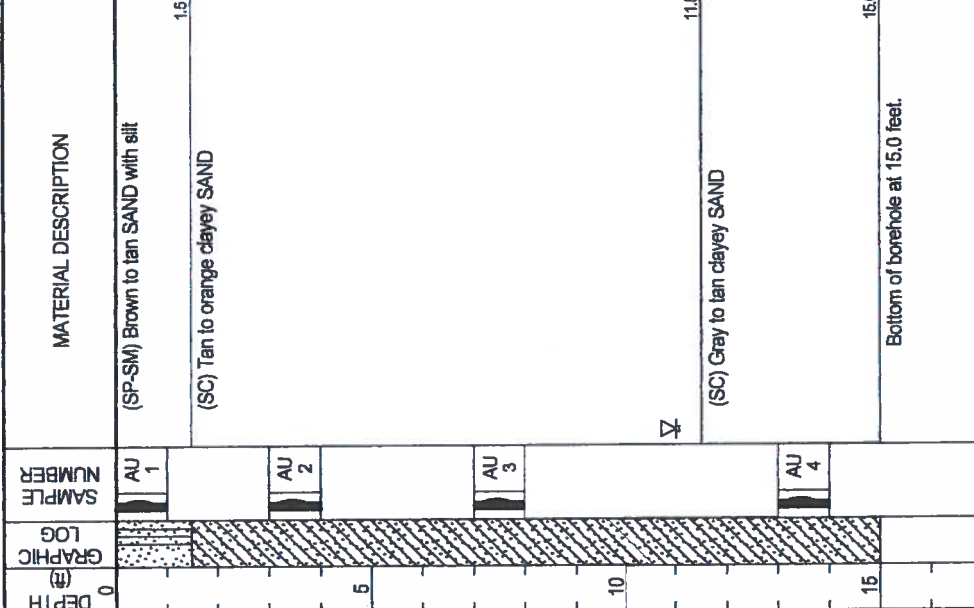
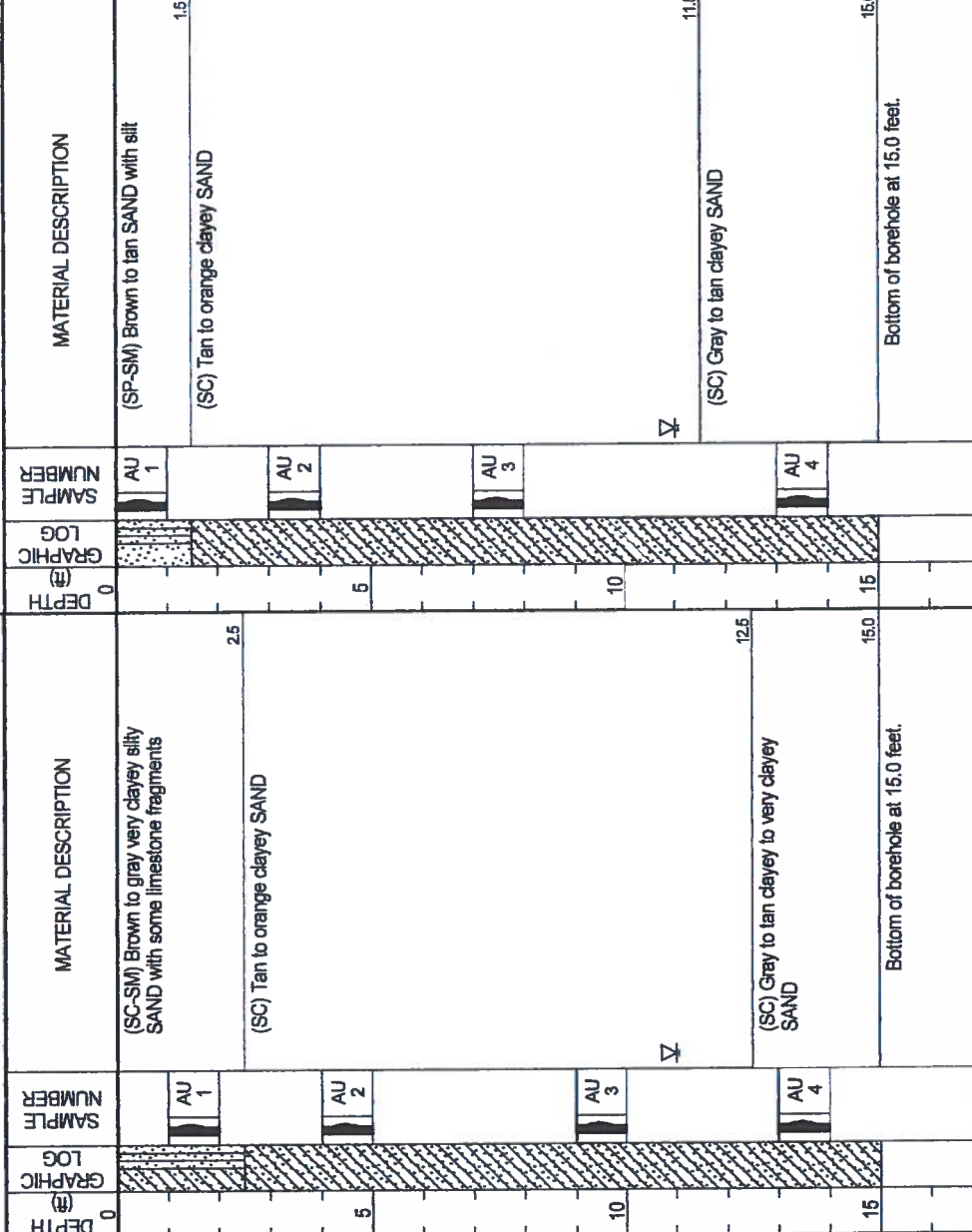
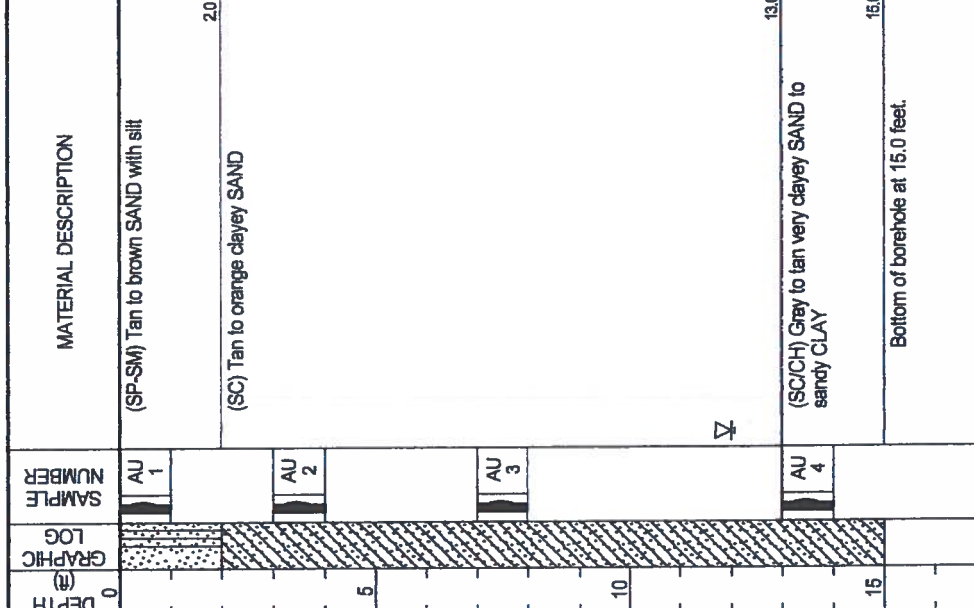
DRILLING CONTRACTOR Whitaker Drilling

GROUND WATER LEVELS: LOGGED BY GW

AT TIME OF DRILLING \_\_\_\_\_ CHECKED BY JBN

ESTIMATED SEASONAL HIGH 11.0 ft

NOTES Groundwater not encountered



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PROJECT NAME Bonaventure Subdivision

PROJECT LOCATION Alachua, Alachua County, Florida

PROJECT NUMBER 10176

CLIENT Venture Realty

DATE PERFORMED 12/11/2008 **BORING NUMBER B-10**

DRILLING CONTRACTOR Whitaker Drilling

GROUND WATER LEVELS: LOGGED BY GW

AT TIME OF DRILLING: CHECKED BY JBN

ESTIMATED SEASONAL HIGH 10.0 ft

NOTES Groundwater not encountered

DATE PERFORMED 12/11/2008 **BORING NUMBER B-11**

DRILLING CONTRACTOR Whitaker Drilling

GROUND WATER LEVELS: LOGGED BY GW

AT TIME OF DRILLING: CHECKED BY JBN

ESTIMATED SEASONAL HIGH 7.5 ft

NOTES Groundwater not encountered

DATE PERFORMED 12/11/2008 **BORING NUMBER B-12**

DRILLING CONTRACTOR Whitaker Drilling

GROUND WATER LEVELS: LOGGED BY GW

AT TIME OF DRILLING: CHECKED BY JBN

ESTIMATED SEASONAL HIGH 6.0 ft

NOTES Groundwater not encountered

| DEPTH (ft) | GRAPHIC LOG | SAMPLE NUMBER | MATERIAL DESCRIPTION  |
|------------|-------------|---------------|---|
| 0          |             |               |   |
| 5          |             | AU 1          | (SP-SM) Tan to gray SAND with silt                              |
| 10         |             | AU 2          | (SC) Tan to orange clayey SAND                                  |
| 10.5       |             | AU 3          | (SC) Gray to tan clayey to very clayey SAND                     |
| 15         |             | AU 4          | (CH) Gray, tan and orange CLAY                                  |
| 15.0       |             |               | Bottom of borehole at 15.0 feet.                                |
| 0          |             |               |   |
| 5          |             | AU 1          | (SP-SC) Tan to orange SAND with clay                            |
| 10         |             | AU 2          | (SC) Tan to orange clayey SAND                                  |
| 10.5       |             | AU 3          | (SC) Gray to tan clayey to very clayey SAND                     |
| 15         |             | AU 4          | (CLCH) Gray to tan sandy CLAY with trace of limestone fragments |
| 15.0       |             | AU 5          | (SC) Gray to tan clayey SAND                                    |
| 15.0       |             |               | Bottom of borehole at 15.0 feet.                                |



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## SUMMARY REPORT OF LABORATORY TEST RESULTS

Project Number: 10176

Project Name: Bonaventure Subdivision

| Boring Number | Depth (ft) | Soil Description                  | Natural Moisture Content (%) | Liquid Limit | Plastic Limit | Plasticity Index | Percent Passing No. 200 Sieve | Organic Content (%) | Unified Soil Classification |
|---------------|------------|-----------------------------------|------------------------------|--------------|---------------|------------------|-------------------------------|---------------------|-----------------------------|
| B-1           | 1-2.5      | Gray to Brown silty SAND          | 6.9                          |              |               |                  | 17.0                          |                     | SM                          |
| B-1           | 4-6        | Light Brown to Tan SAND With Silt | 2.8                          |              |               |                  | 6.6                           |                     | SP-SM                       |
| B-2           | 3-5        | Tan to Orange Clayey SAND         | 8.4                          |              |               |                  | 28.9                          |                     | SC                          |
| B-3           | 1.5-3      | Tan to Gray Silty SAND            | 7.6                          |              |               |                  | 24.1                          |                     | SM                          |
| B-4           | 3-5        | Tan to Orange Clayey SAND         | 12.0                         |              |               |                  | 30.3                          |                     | SC                          |
| B-4           | 4-5.5      | Tan to Orange Clayey SAND         | 11.5                         |              |               |                  | 29.0                          |                     | SC                          |
| B-5           | 2-4        | Tan to Orange Clayey SAND         | 8.6                          |              |               |                  | 28.7                          |                     | SC                          |
| B-6           | 5-7        | Tan to Orange Clayey SAND         | 4.5                          |              |               |                  | 14.9                          |                     | SC                          |
| B-7           | 3-5        | Tan to Orange Clayey SAND         | 4.9                          |              |               |                  | 13.4                          |                     | SC                          |
| B-8           | 3-5        | Tan to Orange Clayey SAND         | 5.1                          |              |               |                  | 15.9                          |                     | SC                          |
| B-9           | 3-5        | Tan to Orange Clayey SAND         | 7.3                          |              |               |                  | 22.0                          |                     | SC                          |
| B-10          | 2-4        | Tan to Orange Clayey SAND         | 4.1                          |              |               |                  | 19.9                          |                     | SC                          |
| B-10          | 4-5.5      | Tan to Orange Clayey SAND         | 9.7                          |              |               |                  | 26.1                          |                     | SC                          |
| B-11          | 4-6        | Tan to Orange Clayey SAND         | 4.3                          |              |               |                  | 14.4                          |                     | SC                          |
| B-12          | 3-5        | Tan to Orange Clayey SAND         | 7.6                          |              |               |                  | 21.8                          |                     | SC                          |





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### Constant Head Permeability Test Results

|                   |                         |           |            |
|-------------------|-------------------------|-----------|------------|
| Project:          | Bonaventure Subdivision | Test Date | 12/13/2007 |
| Project No.:      | 10176                   | Tested By | CM         |
| Boring No.:       | B-1                     |           |            |
| Sample Depth:     | 4'-6'                   |           |            |
| Soil Description: |                         |           |            |

|  |        |                    |
|--|--------|--------------------|
| Length Between Manometer Outlets       | 7.62   | cm                 |
| Diameter of Soil Specimen              | 7.62   | cm                 |
| Cross Section Area of Specimen         | 45.60  | cm                 |
| Height of Specimen ( $H_1$ )           | 2.5    | cm                 |
| Height of Specimen ( $H_2$ )           | 14.9   | cm                 |
| Volume of Specimen ( $H_1 - H_2 * A$ ) | 565.44 | cm <sup>3</sup>    |
| Mass of Air Dry Soil                   | 1068.0 | g                  |
| Mass of Unused Soil                    | 229.7  | g                  |
| Mass of Soil Specimen                  | 838.3  | g                  |
| Unit Weight of Soil Specimen (air dry) | 92.51  | lb/ft <sup>3</sup> |
| Water Content                          | 2.80   | percent            |
| Dry Unit Weight of Soil                | 89.99  | lb/ft <sup>3</sup> |

| Trial No. | Manometer Readings |       | Head | Q     | Time (sec) | Temp | Permeability |
|-----------|--------------------|-------|------|-------|------------|------|--------------|
|           | $H_1$              | $H_2$ |      |       |            |      |              |
| 1         | 70.8               | 28.4  | 42.4 | 39.37 | 30.0       |      | 5.17E-03     |
| 2         | 71.0               | 28.4  | 42.6 | 40.05 | 31.0       |      | 5.07E-03     |
| 3         | 71.1               | 28.6  | 42.5 | 39.45 | 30.0       |      | 5.17E-03     |
| 4         | 71.2               | 29.6  | 41.6 | 39.54 | 30.0       |      | 5.29E-03     |

Average Permeability = 5.18E-03 cm/sec

15 ft/day





Engineering & Consulting, Inc.

### Constant Head Permeability Test Results

|                   |                         |           |            |
|-------------------|-------------------------|-----------|------------|
| Project:          | Bonaventure Subdivision | Test Date | 12/13/2007 |
| Project No.:      | 10176                   | Tested By | CM         |
| Boring No.:       | B-2                     |           |            |
| Sample Depth:     | 3'-5'                   |           |            |
| Soil Description: |                         |           |            |

|  |         |                    |
|--|---------|--------------------|
| Length Between Manometer Outlets       | 7.62    | cm                 |
| Diameter of Soil Specimen              | 7.62    | cm                 |
| Cross Section Area of Specimen         | 45.60   | cm                 |
| Height of Specimen ( $H_1$ )           |         | cm                 |
| Height of Specimen ( $H_2$ )           |         | cm                 |
| Volume of Specimen ( $H_1 - H_2 * A$ ) | 0.00    | cm <sup>3</sup>    |
| Mass of Air Dry Soil                   |         | g                  |
| Mass of Unused Soil                    |         | g                  |
| Mass of Soil Specimen                  | 0.0     | g                  |
| Unit Weight of Soil Specimen (air dry) | #DIV/0! | lb/ft <sup>3</sup> |
| Water Content                          | 8.40    | percent            |
| Dry Unit Weight of Soil                | #DIV/0! | lb/ft <sup>3</sup> |

| Trial No. | Manometer Readings | Head  | Q   | Time (sec) | Temp | Permeability |
|-----------|--------------------|-------|-----|------------|------|--------------|
|           | $H_1$              | $H_2$ |     |            |      |              |
| 1         |                    |       | 0.0 |            |      | #DIV/0!      |
| 2         |                    |       | 0.0 |            |      | #DIV/0!      |
| 3         |                    |       | 0.0 |            |      | #DIV/0!      |
| 4         |                    |       | 0.0 |            |      | #DIV/0!      |

Average Permeability = #DIV/0! cm/sec

no flow #DIV/0! ft/day



Engineering & Consulting, Inc.

### Constant Head Permeability Test Results

|                   |                         |           |            |
|-------------------|-------------------------|-----------|------------|
| Project:          | Bonaventure Subdivision | Test Date | 12/13/2007 |
| Project No.:      | 10176                   | Tested By | CM         |
| Boring No.:       | B-3                     |           |            |
| Sample Depth:     | 1.5'-3'                 |           |            |
| Soil Description: |                         |           |            |

|  |        |                    |
|--|--------|--------------------|
| Length Between Manometer Outlets       | 7.62   | cm                 |
| Diameter of Soil Specimen              | 7.62   | cm                 |
| Cross Section Area of Specimen         | 45.60  | cm                 |
| Height of Specimen ( $H_1$ )           | 2.5    | cm                 |
| Height of Specimen ( $H_2$ )           | 15.4   | cm                 |
| Volume of Specimen ( $H_1 - H_2 * A$ ) | 588.24 | cm <sup>3</sup>    |
| Mass of Air Dry Soil                   | 1034.6 | g                  |
| Mass of Unused Soil                    | 166.3  | g                  |
| Mass of Soil Specimen                  | 868.3  | g                  |
| Unit Weight of Soil Specimen (air dry) | 92.11  | lb/ft <sup>3</sup> |
| Water Content                          |        | percent            |
| Dry Unit Weight of Soil                | 92.11  | lb/ft <sup>3</sup> |

| Trial No. | Manometer Readings |       | Head | Q | Time (sec) | Temp | Permeability |
|-----------|--------------------|-------|------|---|------------|------|--------------|
|           | $H_1$              | $H_2$ |      |   |            |      |              |
| 1         |                    |       | 0.0  |   |            |      | #DIV/0!      |
| 2         |                    |       | 0.0  |   |            |      | #DIV/0!      |
| 3         |                    |       | 0.0  |   |            |      | #DIV/0!      |
| 4         |                    |       | 0.0  |   |            |      | #DIV/0!      |

Average Permeability = #DIV/0! cm/sec

no flow #DIV/0! ft/day



Engineering & Consulting, Inc.

### Constant Head Permeability Test Results

|                   |                         |           |            |
|-------------------|-------------------------|-----------|------------|
| Project:          | Bonaventure Subdivision | Test Date | 12/13/2007 |
| Project No.:      | 10176                   | Tested By | CM         |
| Boring No.:       | B-6                     |           |            |
| Sample Depth:     | 5'-7'                   |           |            |
| Soil Description: |                         |           |            |

|  |        |                    |
|--|--------|--------------------|
| Length Between Manometer Outlets       | 7.62   | cm                 |
| Diameter of Soil Specimen              | 7.62   | cm                 |
| Cross Section Area of Specimen         | 45.60  | cm                 |
| Height of Specimen ( $H_1$ )           | 2.5    | cm                 |
| Height of Specimen ( $H_2$ )           | 15.1   | cm                 |
| Volume of Specimen ( $H_1 - H_2 * A$ ) | 574.56 | cm <sup>3</sup>    |
| Mass of Air Dry Soil                   | 1135.0 | g                  |
| Mass of Unused Soil                    | 250.2  | g                  |
| Mass of Soil Specimen                  | 884.8  | g                  |
| Unit Weight of Soil Specimen (air dry) | 96.09  | lb/ft <sup>3</sup> |
| Water Content                          | 4.50   | percent            |
| Dry Unit Weight of Soil                | 91.96  | lb/ft <sup>3</sup> |

| Trial No. | Manometer Readings |       | Head | Q     | Time (sec) | Temp | Permeability |
|-----------|--------------------|-------|------|-------|------------|------|--------------|
|           | $H_1$              | $H_2$ |      |       |            |      |              |
| 1         | 65.6               | 24.4  | 41.2 | 48.34 | 35.0       |      | 5.60E-03     |
| 2         | 65.7               | 24.5  | 41.2 | 44.47 | 32.0       |      | 5.64E-03     |
| 3         | 65.9               | 24.5  | 41.4 | 44.07 | 33.0       |      | 5.39E-03     |
| 4         | 66.2               | 24.8  | 41.4 | 41.37 | 30.0       |      | 5.57E-03     |

Average Permeability = 5.55E-03 cm/sec

16 ft/day



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### Constant Head Permeability Test Results

|                   |                         |           |            |
|-------------------|-------------------------|-----------|------------|
| Project:          | Bonaventure Subdivision | Test Date | 12/13/2007 |
| Project No.:      | 10176                   | Tested By | CM         |
| Boring No.:       | B-7                     |           |            |
| Sample Depth:     | 3'-5'                   |           |            |
| Soil Description: |                         |           |            |

|  |        |                    |
|--|--------|--------------------|
| Length Between Manometer Outlets       | 7.62   | cm                 |
| Diameter of Soil Specimen              | 7.62   | cm                 |
| Cross Section Area of Specimen         | 45.60  | cm                 |
| Height of Specimen ( $H_1$ )           | 2.5    | cm                 |
| Height of Specimen ( $H_2$ )           | 15.3   | cm                 |
| Volume of Specimen ( $H_1 - H_2 * A$ ) | 583.68 | cm <sup>3</sup>    |
| Mass of Air Dry Soil                   | 1045.6 | g                  |
| Mass of Unused Soil                    | 106.6  | g                  |
| Mass of Soil Specimen                  | 939.0  | g                  |
| Unit Weight of Soil Specimen (air dry) | 100.39 | lb/ft <sup>3</sup> |
| Water Content                          | 4.90   | percent            |
| Dry Unit Weight of Soil                | 95.70  | lb/ft <sup>3</sup> |

| Trial No. | Manometer Readings |       | Head | Q     | Time (sec) | Temp | Permeability |
|-----------|--------------------|-------|------|-------|------------|------|--------------|
|           | $H_1$              | $H_2$ |      |       |            |      |              |
| 1         | 72.2               | 27.5  | 44.7 | 34.49 | 30.0       |      | 4.30E-03     |
| 2         | 72.4               | 27.5  | 44.9 | 34.79 | 30.0       |      | 4.32E-03     |
| 3         | 72.4               | 27.5  | 44.9 | 34.60 | 30.0       |      | 4.29E-03     |
| 4         | 72.6               | 27.6  | 45.0 | 35.33 | 31.0       |      | 4.23E-03     |

Average Permeability = 4.28E-03 cm/sec

12 ft/day



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### Constant Head Permeability Test Results

|                   |                         |           |            |
|-------------------|-------------------------|-----------|------------|
| Project:          | Bonaventure Subdivision | Test Date | 12/13/2007 |
| Project No.:      | 10176                   | Tested By | CM         |
| Boring No.:       | B-8                     |           |            |
| Sample Depth:     | 3'-5'                   |           |            |
| Soil Description: |                         |           |            |

|  |        |                    |
|--|--------|--------------------|
| Length Between Manometer Outlets       | 7.62   | cm                 |
| Diameter of Soil Specimen              | 7.62   | cm                 |
| Cross Section Area of Specimen         | 45.60  | cm                 |
| Height of Specimen ( $H_1$ )           | 2.5    | cm                 |
| Height of Specimen ( $H_2$ )           | 15.1   | cm                 |
| Volume of Specimen ( $H_1 - H_2 * A$ ) | 574.56 | cm <sup>3</sup>    |
| Mass of Air Dry Soil                   | 1099.0 | g                  |
| Mass of Unused Soil                    | 178.3  | g                  |
| Mass of Soil Specimen                  | 920.7  | g                  |
| Unit Weight of Soil Specimen (air dry) | 99.99  | lb/ft <sup>3</sup> |
| Water Content                          | 5.10   | percent            |
| Dry Unit Weight of Soil                | 95.14  | lb/ft <sup>3</sup> |

| Trial No. | Manometer Readings |       | Head | Q     | Time (sec) | Temp | Permeability |
|-----------|--------------------|-------|------|-------|------------|------|--------------|
|           | $H_1$              | $H_2$ |      |       |            |      |              |
| 1         | 76.5               | 22.4  | 54.1 | 42.68 | 65.0       |      | 2.03E-03     |
| 2         | 76.9               | 22.4  | 54.5 | 39.43 | 60.0       |      | 2.01E-03     |
| 3         | 77.2               | 22.6  | 54.6 | 39.34 | 60.0       |      | 2.01E-03     |
| 4         | 77.3               | 22.6  | 54.7 | 39.27 | 60.0       |      | 2.00E-03     |

Average Permeability = 2.01E-03 cm/sec

6 ft/day



Engineering & Consulting, Inc.

### Constant Head Permeability Test Results

|                   |                         |           |            |
|-------------------|-------------------------|-----------|------------|
| Project:          | Bonaventure Subdivision | Test Date | 12/13/2007 |
| Project No.:      | 10176                   | Tested By | CM         |
| Boring No.:       | B-11                    |           |            |
| Sample Depth:     | 4'-6'                   |           |            |
| Soil Description: |                         |           |            |

|  |        |                    |
|--|--------|--------------------|
| Length Between Manometer Outlets       | 7.62   | cm                 |
| Diameter of Soil Specimen              | 7.62   | cm                 |
| Cross Section Area of Specimen         | 45.60  | cm                 |
| Height of Specimen ( $H_1$ )           | 2.5    | cm                 |
| Height of Specimen ( $H_2$ )           | 15.2   | cm                 |
| Volume of Specimen ( $H_1 - H_2 * A$ ) | 579.12 | cm <sup>3</sup>    |
| Mass of Air Dry Soil                   | 1049.3 | g                  |
| Mass of Unused Soil                    | 109.2  | g                  |
| Mass of Soil Specimen                  | 940.1  | g                  |
| Unit Weight of Soil Specimen (air dry) | 101.30 | lb/ft <sup>3</sup> |
| Water Content                          | 4.30   | percent            |
| Dry Unit Weight of Soil                | 97.12  | lb/ft <sup>3</sup> |

| Trial No. | Manometer Readings |       | Head | Q     | Time (sec) | Temp | Permeability |
|-----------|--------------------|-------|------|-------|------------|------|--------------|
|           | $H_1$              | $H_2$ |      |       |            |      |              |
| 1         | 58.2               | 17.8  | 40.4 | 34.56 | 60.0       |      | 2.38E-03     |
| 2         | 58.2               | 17.8  | 40.4 | 40.47 | 70.0       |      | 2.39E-03     |
| 3         | 58.5               | 17.8  | 40.7 | 34.92 | 60.0       |      | 2.39E-03     |
| 4         | 58.7               | 17.8  | 40.9 | 35.17 | 60.0       |      | 2.39E-03     |

Average Permeability = 2.39E-03 cm/sec

7 ft/day



## **6.0 LIMITATIONS**

### **6.1 Warranty**

This report has been prepared for our client for his exclusive use, in accordance with generally accepted soil and foundation engineering practices, and makes no other warranty either expressed or implied as to the professional advice provided in the report.

### **6.2 Standard Penetration Test Borings**

The determination of soil type and conditions was performed from the ground surface to the maximum depth of the borings, only. Any changes in subsurface conditions that occur between or below the borings would not have been detected or reflected in this report.

Soil classifications that were made in the field are based upon identifiable textural changes, color changes, changes in composition or changes in resistance to penetration in the intervals from which the samples were collected. Abrupt changes in soil type, as reflected in boring logs and/or cross sections may not actually occur, but instead, be transitional.

Depth to the water table is based upon observations made during the performance of the SPT borings. This depth is an estimate and does not reflect the annual variations that would be expected in this area due to fluctuations in rainfall and rates of evapotranspiration.

### **6.3 Site Figures**

The measurements used for the preparation of the figures in this report were made with a fiberglass tape and by estimating distances from existing structures and site features. Figures in this report were not prepared by a licensed land surveyor and should not be interpreted as such.

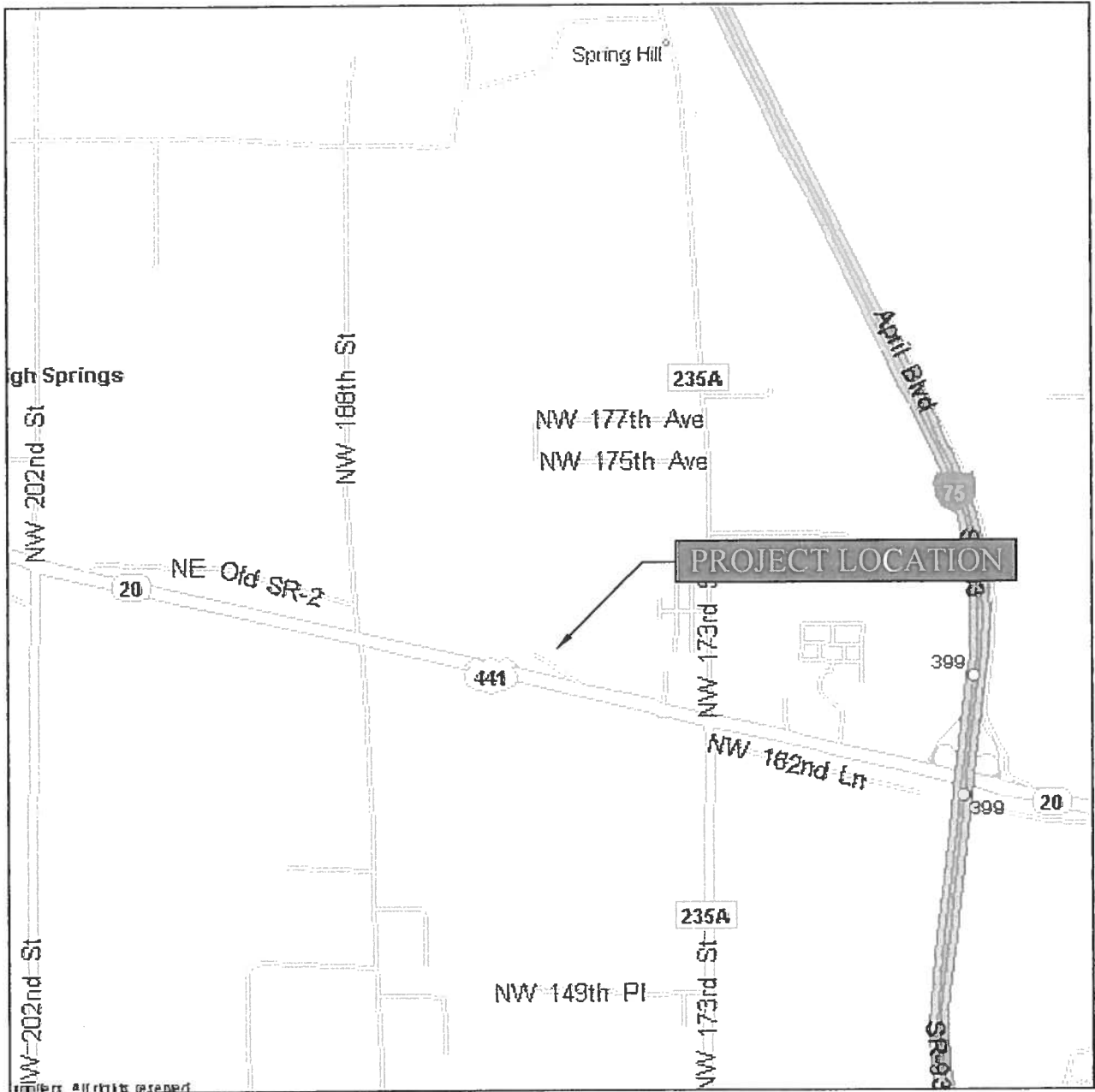
### **6.4 Unanticipated Soil Conditions**

The analysis and recommendations submitted in this report are based upon the data obtained from soil borings performed at the locations indicated on the Boring Location Plan. This report does not reflect any variations that may occur between these borings.

The nature and extent of variations between borings may not become known until excavation begins. If variations appear, we may have to re-evaluate our recommendations after performing on-site observations and noting the characteristics of any variations.

### **6.5 Misinterpretation of Soil Engineering Report**

GSE Engineering & Consulting, Inc. is responsible for the conclusions and opinions contained within this report based upon the data relating only to the specific project and location discussed herein. If others make the conclusions or recommendations based upon the data presented, those conclusions or recommendations are not the responsibility of GSE.



NOT TO SCALE

BONAVENTURE  
ALACHUA, ALACHUA COUNTY, FLORIDA  
PROJECT No. 101176

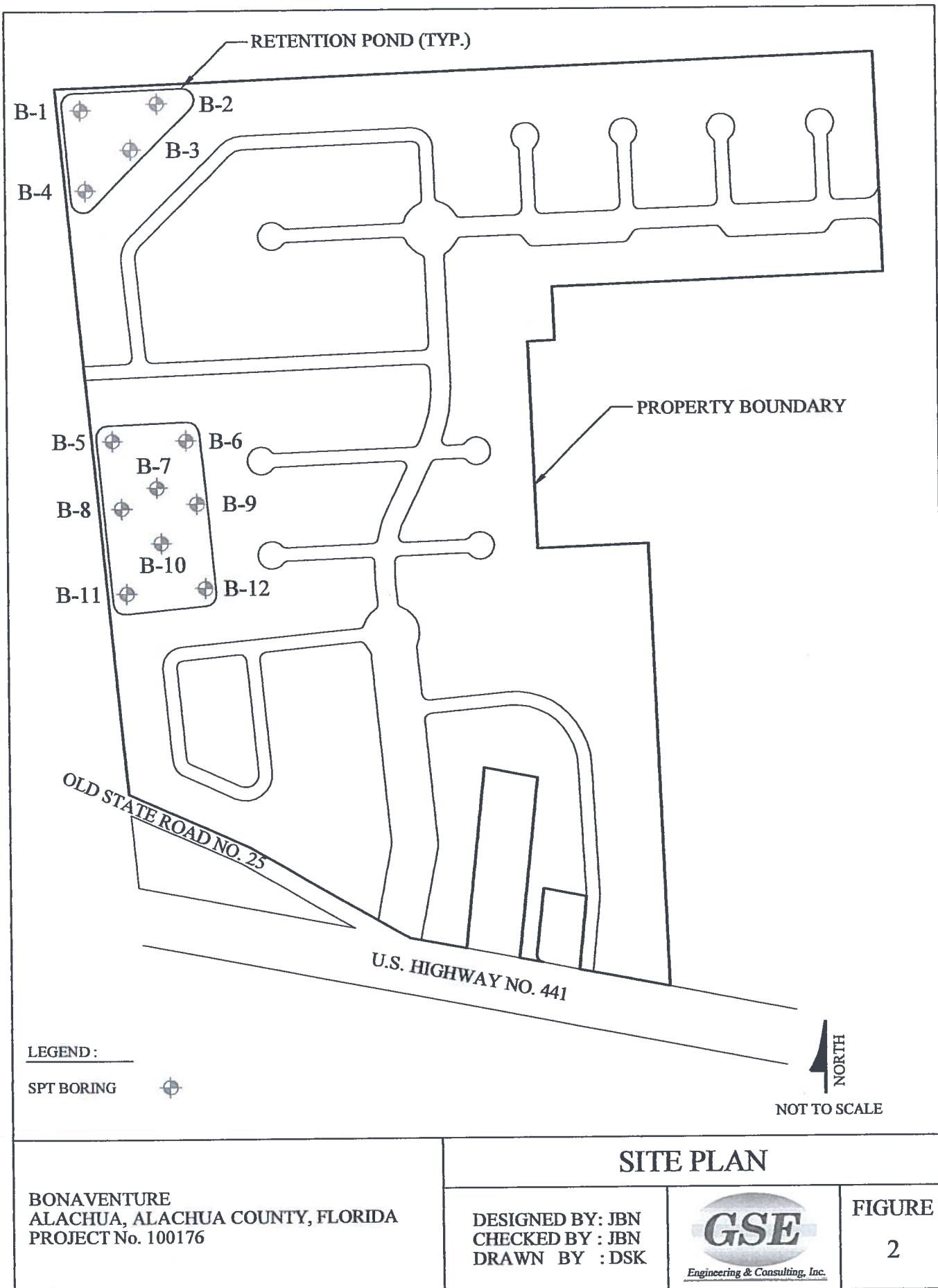
## PROJECT SITE LOCATION MAP

DESIGNED BY: JBN  
CHECKED BY: JBN  
DRAWN BY: DSK



FIGURE

1



## KEY TO SOIL CLASSIFICATION CHART

| MAJOR DIVISIONS   |   |   | SYMBOLS |        | TYPICAL DESCRIPTIONS   |
|---|---|---|---------|--------|--|
|   |   |   | GRAPH   | LETTER |  |
| COARSE GRAINED SOILS<br><br>MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE | GRAVEL AND GRAVELLY SOILS<br><br>MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE | CLEAN GRAVELS<br><br>(LITTLE OR NO FINES)               |         | GW     | WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES  |
|   |   |   |         | GP     | POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES  |
|   |   | GRAVELS WITH FINES<br><br>(APPRECIABLE AMOUNT OF FINES) |         | GM     | SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES   |
|   |   |   |         | GC     | CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES  |
|   | SAND AND SANDY SOILS<br><br>MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE       | CLEAN SANDS<br><br>(LITTLE OR NO FINES)                 |         | SW     | WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES  |
|   |   |   |         | SP     | POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES   |
|   |   | SANDS WITH FINES<br><br>(APPRECIABLE AMOUNT OF FINES)   |         | SM     | SILTY SANDS, SAND - SILT MIXTURES  |
|   |   |   |         | SC     | CLAYEY SANDS, SAND - CLAY MIXTURES   |
| FINE GRAINED SOILS<br><br>MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE  | SILTS AND CLAYS<br><br>LIQUID LIMIT LESS THAN 50  |   |         | ML     | INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY |
|   |   |   |         | CL     | INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS                  |
|   |   |   |         | OL     | ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY  |
|   | SILTS AND CLAYS<br><br>LIQUID LIMIT GREATER THAN 50                                       |   |         | MH     | INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS  |
|   |   |   |         | CH     | INORGANIC CLAYS OF HIGH PLASTICITY   |
|   |   |   |         | OH     | ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS  |
|   | HIGHLY ORGANIC SOILS  |   |         | PT     | PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS  |

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

### CORRELATION OF PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY

| NO. OF BLOW, N |         | RELATIVE DENSITY | NO. OF BLOWS, N |         | CONSISTENCY |
|----------------|---------|------------------|-----------------|---------|-------------|
| SANDS:         | 0 - 4   | Very Loose       |                 | 0 - 2   | Very Soft   |
|                | 5 - 10  | Loose            |                 | 3 - 4   | Soft        |
|                | 11 - 30 | Medium dense     | SILTS           | 5 - 8   | Firm        |
|                | 31 - 50 | Dense            | &               | 9 - 15  | Stiff       |
|                | OVER 50 | Very Dense       | CLAYS:          | 16 - 30 | Very Stiff  |
|                |         |                  |                 | 31 - 50 | Hard        |
|                |         |                  |                 | OVER 50 | Very Hard   |

### PARTICLE SIZE IDENTIFICATION

|                |                              |
|----------------|------------------------------|
| BOULDERS:      | Greater than 300 mm          |
| COBBLES:       | 75 mm to 300 mm              |
| GRAVEL:        | 19.0 mm to 75 mm             |
|                | Fine - 4.75 mm to 19.0 mm    |
| SANDS:         | Coarse - 2.00 mm to 4.75 mm  |
|                | Medium - 0.425 mm to 2.00 mm |
|                | Fine - 0.075 mm to 0.425 mm  |
| SILTS & CLAYS: | Less than 0.075 mm           |

### SAMPLE LEGEND



Location of SPT sample



Location of Auger sample

### District Rainfall Distribution Data

#### Values for $P_{\text{total}}$ (inches)<sup>1</sup>

For the counties of Madison, Hamilton, Suwannee, Columbia, Baker and Union.

| Frequency<br>(years) | Duration (hours) |      |      |      |      |       |       |       |
|----------------------|------------------|------|------|------|------|-------|-------|-------|
|                      | 1                | 2    | 4    | 8    | 24   | 72    | 168   | 240   |
| 3                    | 2.50             | 2.64 | 3.08 | 3.52 | 4.56 | 5.80  | 7.30  | 8.00  |
| 10                   | 3.05             | 3.70 | 4.40 | 5.12 | 6.72 | 8.30  | 10.10 | 11.80 |
| 25                   | 3.45             | 4.30 | 5.12 | 6.00 | 7.92 | 10.00 | 12.30 | 14.00 |
| 100                  | 4.20             | 5.10 | 6.08 | 7.36 | 9.84 | 12.40 | 14.00 | 16.10 |

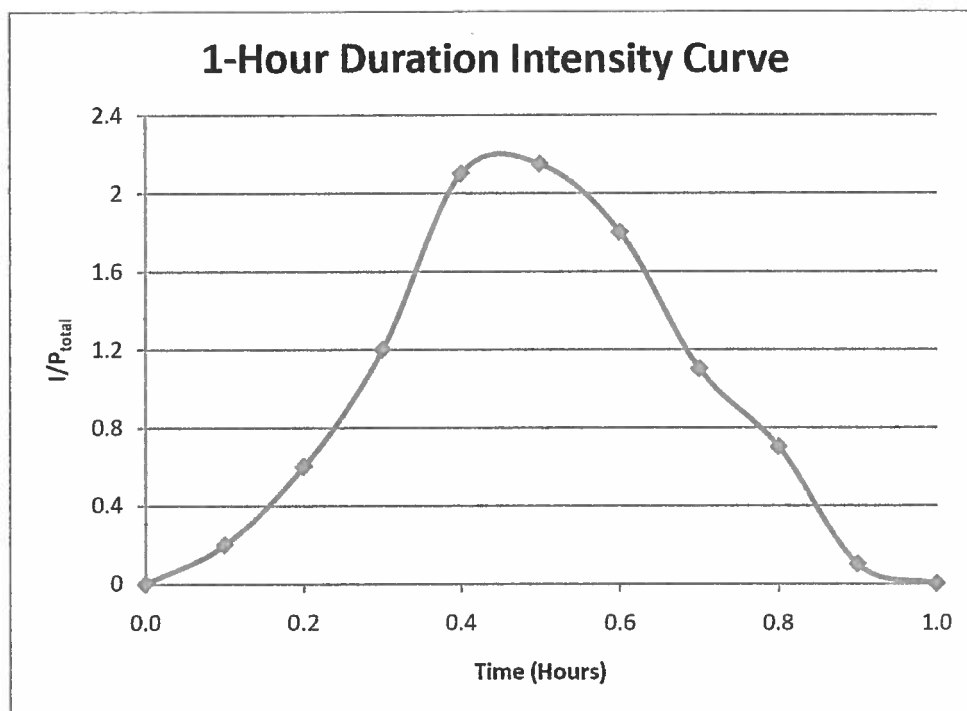
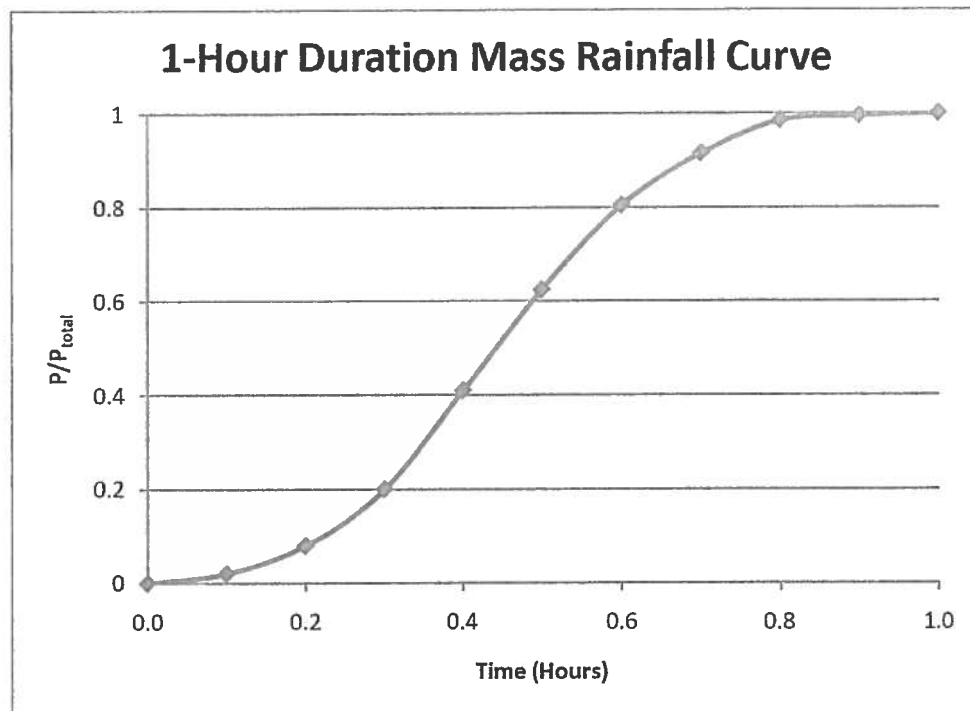
For the counties of Taylor, Lafayette, Dixie, Gilchrist, Levy, Alachua and Bradford.

| Frequency<br>(years) | Duration (hours) |      |      |      |       |       |       |       |
|----------------------|------------------|------|------|------|-------|-------|-------|-------|
|                      | 1                | 2    | 4    | 8    | 24    | 72    | 168   | 240   |
| 3                    | 2.60             | 3.20 | 3.80 | 4.48 | 6.00  | 7.60  | 9.50  | 10.80 |
| 10                   | 3.20             | 4.00 | 4.80 | 5.84 | 7.92  | 8.90  | 11.00 | 12.50 |
| 25                   | 3.60             | 4.40 | 5.28 | 6.56 | 8.64  | 11.00 | 13.00 | 15.00 |
| 100                  | 4.40             | 5.40 | 6.72 | 8.00 | 11.04 | 13.80 | 16.00 | 18.00 |

#### 1-HOUR DURATION

| T(hrs) | $P/P_{\text{total}}$ | $I/P_{\text{total}}$ |
|--------|----------------------|----------------------|
| 0      | 0                    | 0                    |
| .1     | .020                 | .200                 |
| .2     | .080                 | .600                 |
| .3     | .200                 | 1.200                |
| .4     | .410                 | 2.100                |
| .5     | .625                 | 2.150                |
| .6     | .805                 | 1.800                |
| .7     | .915                 | 1.100                |
| .8     | .985                 | 0.700                |
| .9     | .995                 | 0.100                |
| 1.0    | 1.000                | 0                    |

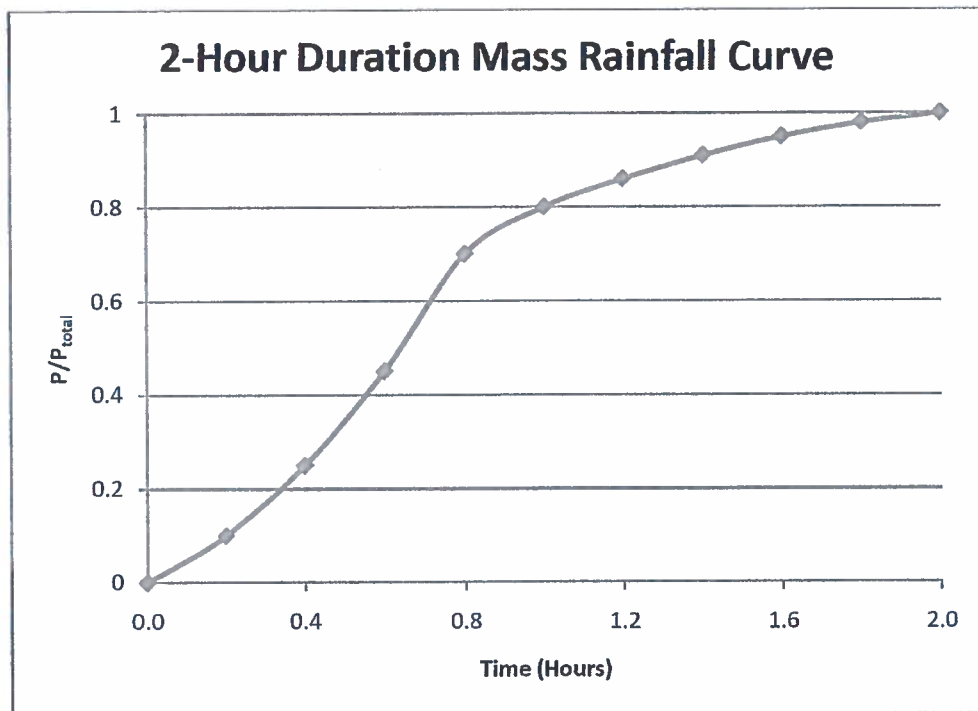
<sup>1</sup> Values for durations through 24 hours were taken from Florida Department of Transportation intensity curves. Values for durations greater than 24 hours were taken from National Weather Service Technical Paper No. 49, 1964.

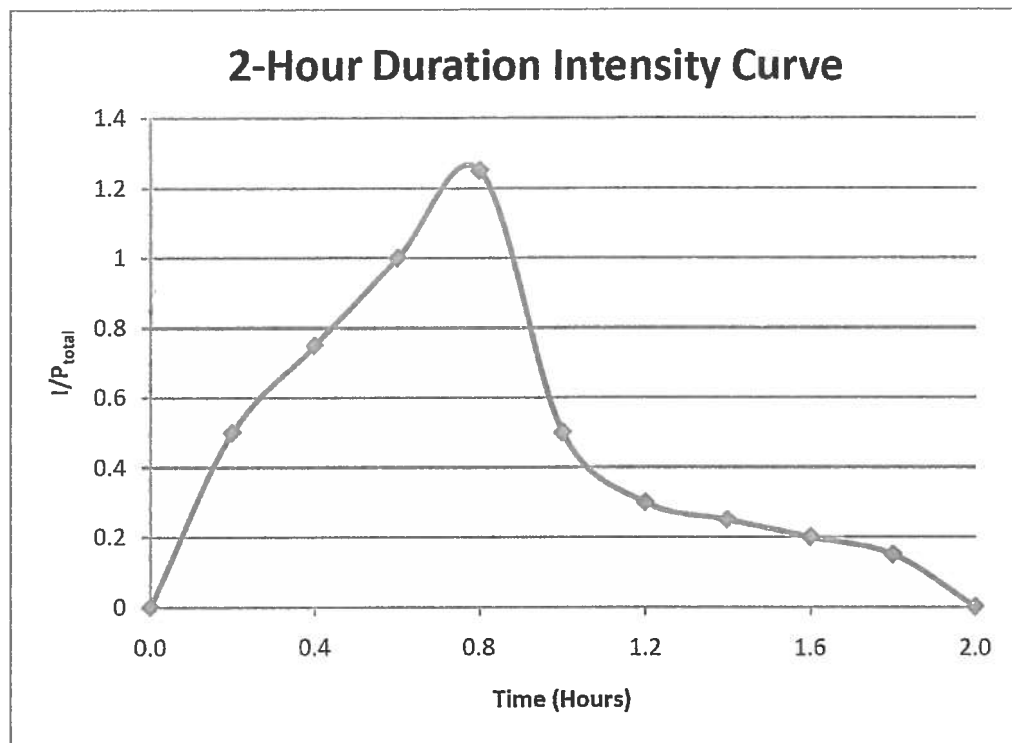




## 2-HOUR DURATION

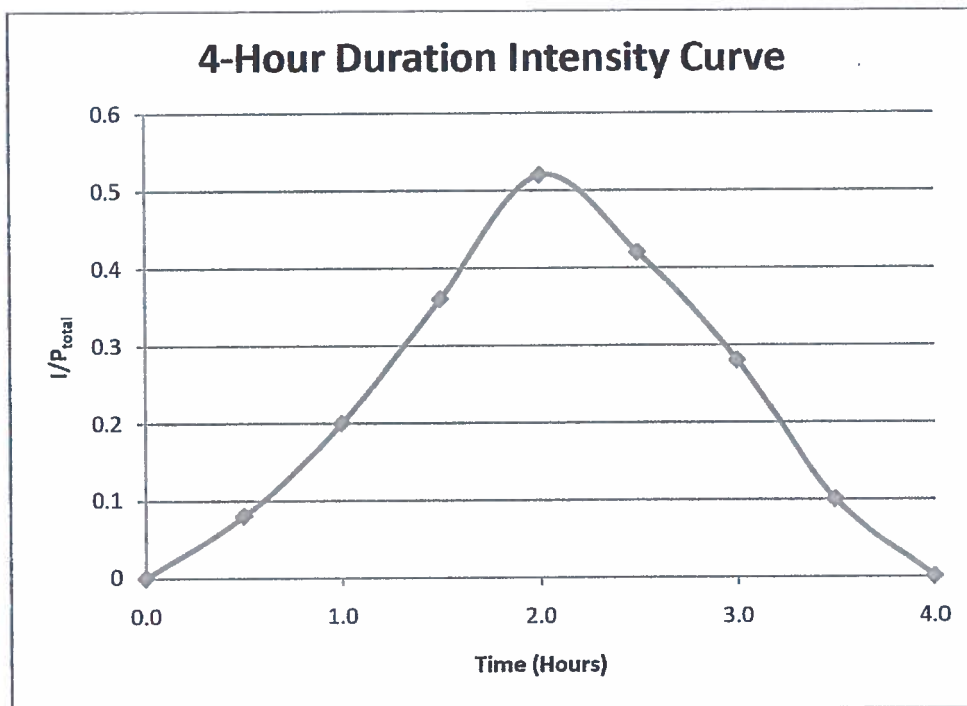
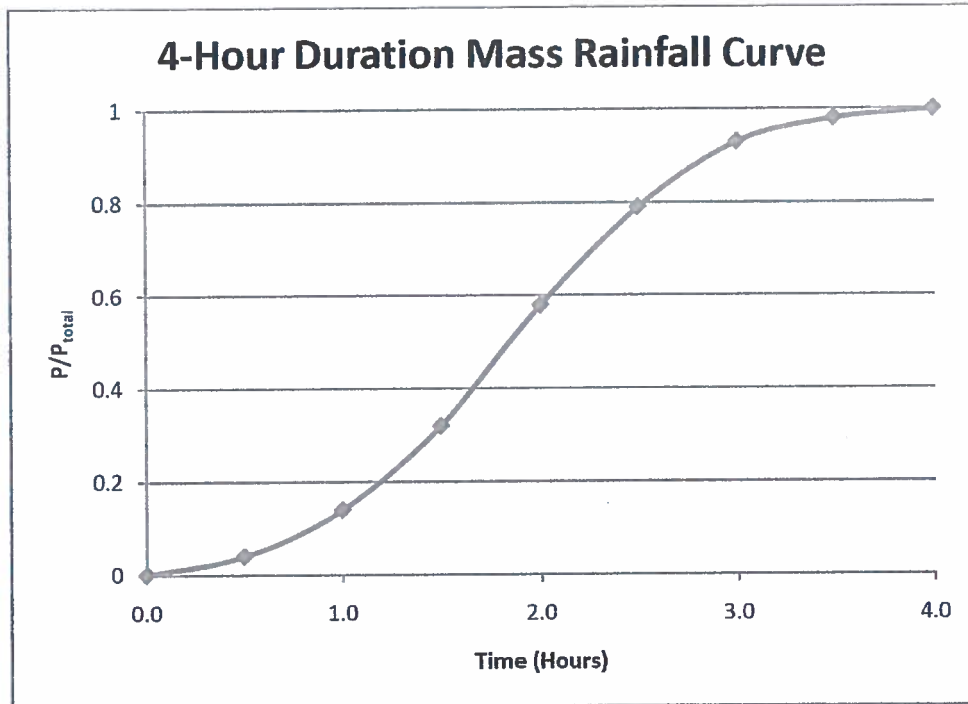
| T(hrs) | P/P <sub>total</sub> | I/P <sub>total</sub> |
|--------|----------------------|----------------------|
| 0      | 0                    | 0                    |
| .2     | .100                 | .500                 |
| .4     | .250                 | .750                 |
| .6     | .450                 | 1.000                |
| .8     | .700                 | 1.250                |
| 1.0    | .800                 | .500                 |
| 1.2    | .860                 | .300                 |
| 1.4    | .910                 | .250                 |
| 1.6    | .950                 | .200                 |
| 1.8    | .980                 | .150                 |
| 2.0    | 1.000                | 0                    |





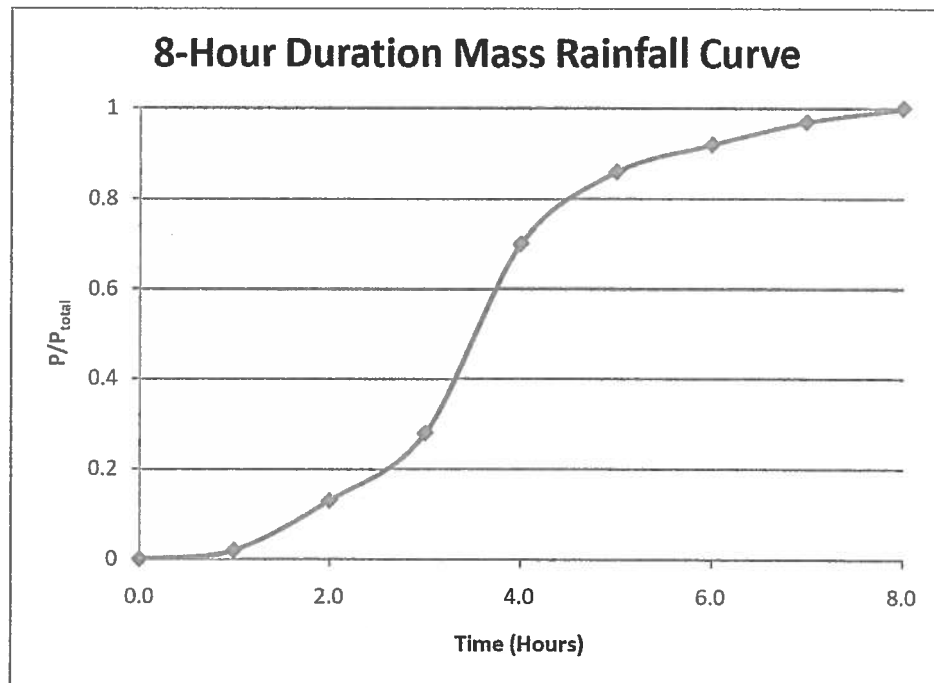
### 4-HOUR DURATION

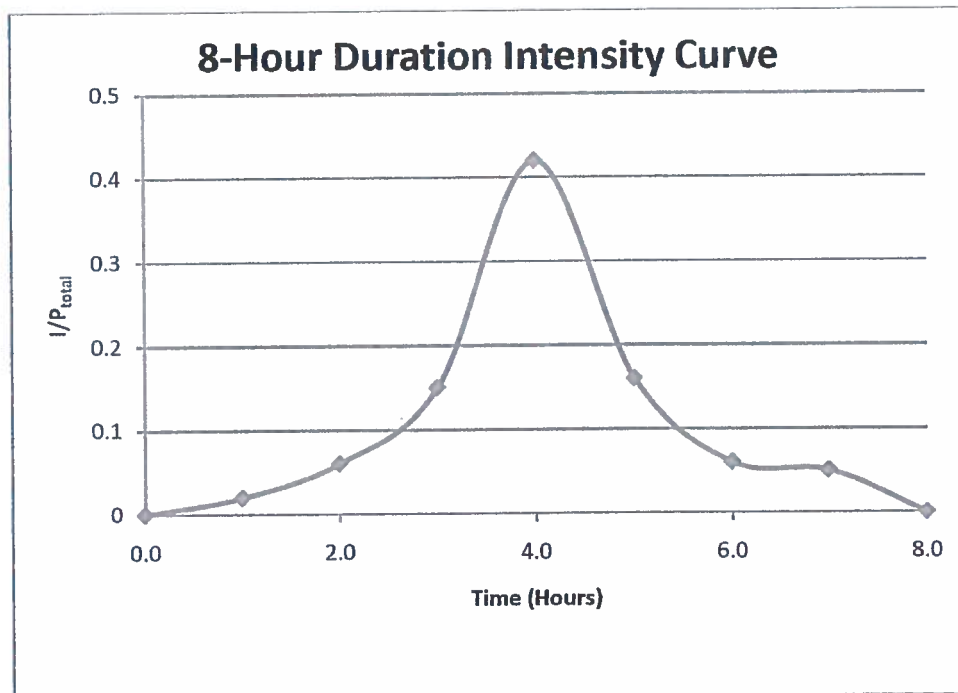
| T(hrs) | P/P <sub>total</sub> | I/P <sub>total</sub> |
|--------|----------------------|----------------------|
| 0      | 0                    | 0                    |
| 0.5    | 0.040                | 0.080                |
| 1.0    | 0.140                | 0.200                |
| 1.5    | 0.320                | 0.360                |
| 2.0    | 0.580                | 0.520                |
| 2.5    | 0.790                | 0.420                |
| 3.0    | 0.930                | 0.280                |
| 3.5    | 0.980                | 0.100                |
| 4.0    | 1.000                | 0                    |



### 8-HOUR DURATION

| T(hrs) | P/P <sub>total</sub> | I/P <sub>total</sub> |
|--------|----------------------|----------------------|
| 1      | .020                 | .020                 |
| 2      | .130                 | .060                 |
| 3      | .280                 | .150                 |
| 4      | .700                 | .420                 |
| 5      | .860                 | .160                 |
| 6      | .920                 | .060                 |
| 7      | .970                 | .050                 |
| 8      | 1.000                | 0                    |

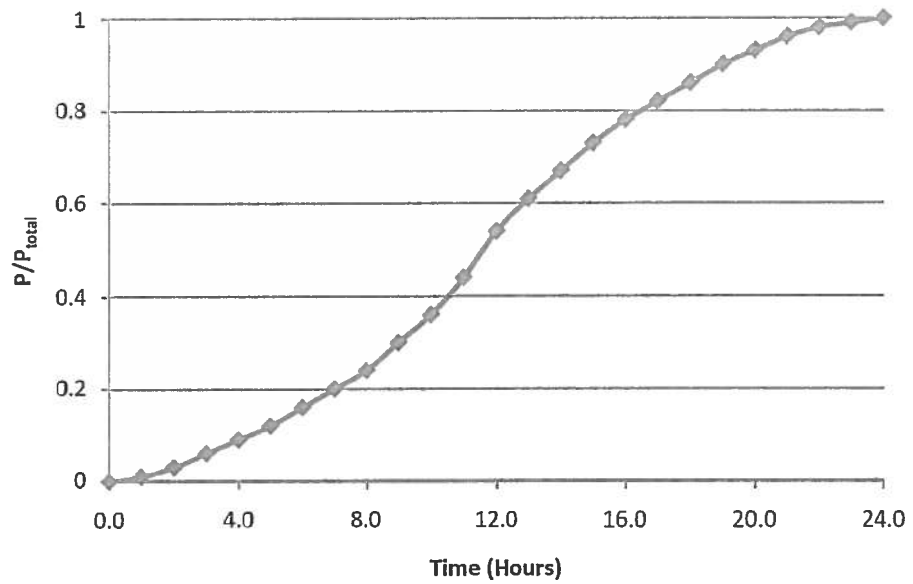




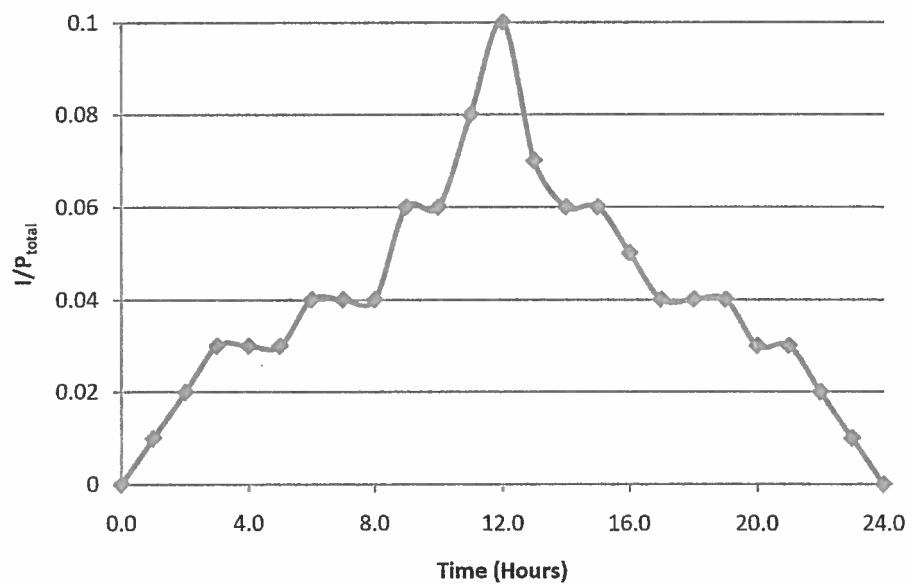
### 24-HOUR DURATION

| T(hrs) | P/P <sub>total</sub> | I/P <sub>total</sub> |
|--------|----------------------|----------------------|
| 0      | 0                    | 0                    |
| 1      | .010                 | .010                 |
| 2      | .030                 | .020                 |
| 3      | .060                 | .030                 |
| 4      | .090                 | .030                 |
| 5      | .120                 | .030                 |
| 6      | .160                 | .040                 |
| 7      | .200                 | .040                 |
| 8      | .240                 | .040                 |
| 9      | .300                 | .060                 |
| 10     | .360                 | .060                 |
| 11     | .440                 | .080                 |
| 12     | .540                 | .100                 |
| 13     | .610                 | .070                 |
| 14     | .670                 | .060                 |
| 15     | .730                 | .060                 |
| 16     | .780                 | .050                 |
| 17     | .820                 | .040                 |
| 18     | .860                 | .040                 |
| 19     | .900                 | .040                 |
| 20     | .930                 | .030                 |
| 21     | .960                 | .030                 |
| 22     | .980                 | .020                 |
| 23     | .990                 | .010                 |
| 24     | 1.000                | 0                    |

### 24-Hour Duration Mass Rainfall Curve



### 24-Hour Duration Intensity Curve



# Benton Hills / Doraventure

## Drainage Area No. 1

Total Drainage Area On site & offsite = 4,048,600 SF = 92.9

total lots draining to Retention = 165 lots

165 bldgs @ 2250 SF each = 371,250 SF  
 165 driveways @ 800 SF each = 132,000 SF  
 165 concrete @ 200 SF each = 33,000 SF  
 7750 ft R/W @ 33' = 255,750 SF (incl. s/w of culb, gutter)

total impervious = 792,000 SF @  $C_n = 98$   
 Retention area = 170,900 SF @  $C_n = 100$

Green Area = 3085,700 SF @  $C_n = 39$  (A'soil)

$C_{n\text{avg}} = 49$

Runoff = .32

Retention calculations - perc. in/day =  $6.94 \times 10^{-5}$  cfs

Elevation

percolation

|      |                  |            |           |
|------|------------------|------------|-----------|
| 78.0 | 12,000           | 0          | .83 cfs   |
| 79.0 | 25,000           | 18,750     | 1.73 cfs  |
| 80.0 | (39,000) 133,125 | (51,000)   | 9.24 cfs  |
| 81.0 | 140,625          | 187,875    | 9.72 cfs  |
| 82.0 | 148,125          | 332,250    | 10.24 cfs |
| 83.0 | 155,625          | 484,125    | 10.76 cfs |
| 84.0 | 163,125          | 643,500    | 11.28 cfs |
| 85.0 | 167,000          | 726,201    | 11.55 cfs |
| 85.0 | 170,900          | 811,062 CF | 11.82 cfs |

Note: 78-80 is natural ground



| elevation | area    | volume  | discharge | 25/25+0<br>0.1/ht | .5ht  |    |
|-----------|---------|---------|-----------|-------------------|-------|----|
| 78.0      | 12,000  | 0       | .83       | .83               | .83   | .  |
| 79.0      | 25,000  | 18,750  | 1.73      | 105               | 22.5  | 1  |
| 80.0      | 39,000  | 51,000  | 2.70      | 286.5             | 59.4  | 3  |
| 80.0      | 133,125 | 0       | 9.24      | 292.6             | 65.9  | 3  |
| 81.0      | 140,625 | 187,875 | 9.22      | 1053.5            | 218.5 | 10 |
| 82.0      | 148,125 | 332,250 | 10.24     | 1856.0            | 339.4 | 10 |
| 83.0      | 155,625 | 484,125 | 10.76     | 2700              | 548.7 | 20 |
| 84.0      | 163,125 | 643,500 | 11.28     | 3586.             | 726   | 30 |
| 84.5      | 167,000 | 726,281 | 11.55     | 4046              | 818   | 41 |
| 85.0      | 170,900 | 811,062 | 11.82     | 4518              | 913   | 46 |

# Route 100 yr 1hr Storm

$$i = 4.4''$$

$$C_r = 50 \quad \text{Runoff} = .73''$$

$$\text{Area} = 92.9$$

| L   | I/ptotal | I <sub>1</sub> | I <sub>1</sub> + I <sub>2</sub> | 25/240 | -20,  | 25/240 | 21           | 0,   |
|-----|----------|----------------|---------------------------------|--------|-------|--------|--------------|------|
| .1  | .2       | 13.6           | 13.6                            | 0      | 0     | 13.6   | 28.1         | 1.0  |
| .2  | .6       | 40.7           | 54.3                            | 13.6   | -2.0  | 65.9   | 78.2         | 1.2  |
| .3  | 1.2      | 81.3           | 122.0                           | 65.9   | -2.4  | 185.5  | 79.2         | 2.0  |
| .4  | 2.1      | 142.4          | 223.7                           | 185.5  | -4.0  | 405.2  | 80.08        | 9.5  |
| .5  | 2.15     | 145.8          | 288.2                           | 405.2  | -19.0 | 674.4  | 80.5         | 9.6  |
| .6  | 1.8      | 122.1          | 267.9                           | 674.4  | -19.2 | 923.1  | 80.8         | 9.65 |
| .7  | 1.1      | 74.6           | 196.7                           | 923.1  | -19.3 | 1100.5 | 81.05        | 9.8  |
| .8  | .7       | 47.5           | 122.1                           | 1100.5 | -19.6 | 1203   | 81.2         | 9.9  |
| .9  | .1       | 6.8            | 54.3                            | 1203   | -19.8 | 1237.5 | <u>81.25</u> | 9.9  |
| 1.0 | 0        | 0              | 6.8                             | 1237.5 | -19.8 |        |              |      |

# Route 100 9R 2hr storm

$i = 5.4''$

$Q_m = 50$

$area = 92.9 ac$

Runoff = 1.1''

| $T$ | $Q/P_{total}$ | $I_1$ | $R_1 + I_2$ | $Q_5/4+10$ | $-20$ | $Q_5/4+10$ | $Q_1$       | $O_1$ |
|-----|---------------|-------|-------------|------------|-------|------------|-------------|-------|
| .1  | .3            | 30.6  | 30.6        | 0          | 0     | 30.6       | 78.2        | 1.2   |
| .2  | .5            | 51.1  | 81.7        | 30.6       | -2.4  | 109.9      | 79.0        | 1.8   |
| .3  | .64           | 65.4  | 116.5       | 109.9      | -3.6  | 222.8      | 79.6        | 2.3   |
| .4  | .75           | 76.6  | 142         | 222.8      | -4.6  | 360.2      | 80.1        | 2.4   |
| .5  | .87           | 88.9  | 165.5       | 360.2      | -18.8 | 506.9      | 80.3        | 2.6   |
| .6  | 1.0           | 102.2 | 191.1       | 506.9      | -19.2 | 678.8      | 80.5        | 2.6   |
| .7  | 1.14          | 116.5 | 218.7       | 678.8      | -19.2 | 876.3      | 80.8        | 2.7   |
| .8  | 1.25          | 127.7 | 234.2       | 876.3      | -19.4 | 1093.1     | 81.05       | 2.8   |
| .9  | .88           | 98.0  | 217.7       | 1093.1     | -19.6 | 1291.2     | 81.3        | 10.0  |
| 1.0 | .50           | 51.1  | 141.1       | 1291.2     | -20.0 | 1412.3     | 81.4        | 10.0  |
| 1.1 | .36           | 36.8  | 87.9        | 1412.3     | -20.0 | 1480.2     | 81.55       | 10.0  |
| 1.2 | .30           | 30.6  | 67.4        | 1480.2     | -20.0 | 1527.6     | 81.6        | 10.0  |
| 1.3 | .28           | 28.6  | 59.2        | 1527.6     | -20.0 | 1566.8     | 81.6        | 10.0  |
| 1.4 | .25           | 25.5  | 54.1        | 1566.8     | -20.0 | 1600.9     | 81.65       | 10.0  |
| 1.5 | .22           | 22.5  | 48.0        | 1600.9     | -20.0 | 1628.9     | 81.65       | 10.0  |
| 1.6 | .20           | 20.4  | 42.9        | 1628.9     | -20.0 | 1651.8     | 81.67       | 10.0  |
| 1.7 | .18           | 18.4  | 38.0        | 1651.8     | -20.0 | 1670.6     | 81.70       | 10.1  |
| 1.8 | .15           | 15.3  | 33.7        | 1670.6     | -20.2 | 1684.1     | 81.80       | 10.1  |
| 1.9 | .10           | 10.2  | 25.5        | 1684.1     | -20.2 | 1689.4     | <u>81.8</u> | 10.1  |
| 2.0 | 0             | 0     | 10.2        | 1688.4     | -20.2 |            |             |       |

Route 100 yr 4hr storm

$$i = 6.72$$

$$A = 92.9$$

$$C_n = 50$$

$$\text{Runoff} = 1.96''$$

| $t$ | $I/P_{total}$ | $I_1$ | $I_1 + I_2$ | $2S_{at+0}$ | $-20,$ | $2S_{at+0}$ | $c.f.$      | $0,$  |
|-----|---------------|-------|-------------|-------------|--------|-------------|-------------|-------|
| .5  | .08           | 14.6  | 14.6        | 0           | 0      | 14.6        | 78.5        | 1.4   |
| 1.0 | .2            | 36.4  | 51.0        | 14.6        | -2.8   | 62.8        | 80.0        | 2.5   |
| 1.5 | .36           | 65.5  | 101.9       | 62.8        | -5.0   | 159.7       | 80.6        | 9.6   |
| 2.0 | .52           | 94.7  | 160.2       | 159.7       | -19.2  | 300.7       | 81.45       | 16.0  |
| 2.5 | .42           | 76.5  | 171.2       | 300.7       | -20.0  | 451.9       | 82.4        | 10.4  |
| 3.0 | .28           | 51.0  | 126.5       | 451.9       | -20.8  | 557.6       | 83.0        | 10.8  |
| 3.5 | .10           | 18.2  | 69.2        | 557.6       | -21.6  | 605.2       | <u>83.3</u> | -10.8 |
| 4.0 | 0             | 0     | 18.2        | 605.2       | -20.8  |             |             |       |

# Route 100 yr 8hr storm

$i = 8.00"$   
 $C_m = 50$  Runoff =  $2.76"$   
 $Area = 92.9 ac$

| $t$ | $I/P_{total}$ | $I_1$ | $I_1 + I_2$ | $2S/\Delta t + 10$        | $-20$ | $2S/\Delta t + 20$ | $\Sigma I$  | $Q$  |
|-----|---------------|-------|-------------|---------------------------|-------|--------------------|-------------|------|
| .5  | .01           | 2.6   | 2.6         | 0                         | 0     | 2.6                | 78.0        | .9   |
| 1.0 | .02           | 5.1   | 7.7         | 2.6                       | -1.8  | 8.5                | 78.2        | 1.1  |
| 1.5 | .04           | 10.3  | 15.4        | 8.5                       | -2.2  | 21.7               | 79.0        | 1.8  |
| 2.0 | .06           | 15.4  | 25.7        | 21.7                      | -3.6  | 43.8               | 79.6        | 2.4  |
| 2.5 | .10           | 25.6  | 41.0        | 43.8                      | -4.8  | 80.5               | 80.0        | 2.6  |
| 3.0 | .15           | 38.5  | 64.1        | 80.5                      | -5.2  | 139.4              | 80.4        | 9.6  |
| 3.5 | .29           | 74.4  | 112.9       | 139.4                     | -19.2 | 233.1              | 81.1        | 9.8  |
| 4.0 | .42           | 107.7 | 182.1       | 233.1                     | -19.6 | 395.6              | 82.1        | 10.3 |
| 4.5 | .24           | 74.4  | 182.1       | 395.6                     | -20.6 | 557.1              | 83.0        | 10.8 |
| 5.0 | .16           | 41.0  | 115.4       | 557.1                     | -21.6 | 650.9              | 83.55       | 11.0 |
| 5.5 | .09           | 23.1  | 64.1        | 650.9                     | -22.0 | 693                | 83.80       | 11.2 |
| 6.0 | .06           | 15.4  | 38.5        | 693                       | -22.4 | 709.1              | 83.9        | 11.2 |
| 6.5 | .055          | 14.1  | 29.5        | <del>709.1</del><br>709.1 | -22.4 | 716.2              | 83.92       | 11.2 |
| 7.0 | .05           | 12.8  | 26.9        | 716.2                     | -22.4 | 720.7              | <u>84.0</u> | 11.2 |
| 7.5 | .03           | 7.7   | 20.5        | 720.7                     | -22.4 |                    |             |      |
| 8.0 | 0             | 0     | 7.7         |                           |       |                    |             |      |

# Route 100 yr 24 hr storm

$C = 11.04''$

$C_n = 50$  Runoff = 4.3''

Area = 92.9

| $t$ | $I/P_{total}$ | $I_1$ | $I_1 + I_2$ | $2S/\Delta t + 0$ | $-20$ | $2S/\Delta t + 0$ | $e/$        | $0$  |
|-----|---------------|-------|-------------|-------------------|-------|-------------------|-------------|------|
| 1   | .01           | 4.0   | 4           | 0                 | 0     | 4                 | 78.4        | 1.2  |
| 2   | .02           | 8.0   | 12          | 4                 | -2.4  | 13.6              | 79.1        | 1.9  |
| 3   | .03           | 12.0  | 20          | 13.6              | -3.8  | 29.8              | 80.0        | 2.6  |
| 4   | .03           | 12.0  | 24          | 29.8              | -5.2  | 48.6              | 80.1        | 9.4  |
| 5   | .03           | 12.0  | 24          | 48.6              | -18.8 | 53.8              | 80.2        | 9.4  |
| 6   | .04           | 16.0  | 28          | 53.8              | -18.8 | 63.0              | 80.3        | 9.5  |
| 7   | .04           | 16.0  | 32          | 63.0              | -19.0 | 76.0              | 80.5        | 9.6  |
| 8   | .04           | 16.0  | 32          | 76                | -19.2 | 88.8              | 80.6        | 9.6  |
| 9   | .06           | 24.0  | 40          | 88.8              | -19.2 | 109.6             | 80.9        | 9.7  |
| 10  | .06           | 24.0  | 48          | 109.6             | -19.4 | 138.2             | 81.3        | 16.0 |
| 11  | .08           | 32.0  | 56          | 138.2             | -20.0 | 174.2             | 81.7        | 10.1 |
| 12  | .10           | 40.0  | 72          | 174.2             | -20.2 | 226               | 82.3        | 10.4 |
| 13  | .07           | 28    | 68          | 226               | -20.8 | 273.2             | 82.9        | 10.7 |
| 14  | .06           | 24    | 52          | 273.2             | -21.4 | 303.8             | 83.3        | 10.9 |
| 15  | .06           | 24    | 48          | 303.8             | -21.8 | 330               | 83.5        | 11.0 |
| 16  | .05           | 20    | 44          | 330               | -22   | 352               | 83.8        | 11.2 |
| 17  | .04           | 16    | 36          | 352               | -22.4 | 365.6             | 83.9        | 11.2 |
| 18  | .04           | 16    | 32          | 365.6             | -22.4 | 375.2             | 84.05       | 11.3 |
| 19  | .04           | 16    | 32          | 375.2             | -22.6 | 384.6             | 84.1        | 11.3 |
| 20  | .03           | 12    | 28          | 384.6             | -22.6 | 390               | 84.2        | 11.3 |
| 21  | .03           | 12    | 24          | 390               | -22.6 | 391.4             | <u>84.2</u> | 11.3 |
| 22  | .02           | 8     | 20          | 391.4             | -22.6 |                   |             |      |
| 23  | .01           | 4     | 12          |                   |       |                   |             |      |
| 24  | 0             | 0     | 4           |                   |       |                   |             |      |

5000

Storage / Indication

25/Δt × 10 Δt = 1 hr

4000

3000

2000

1000

78

79

80

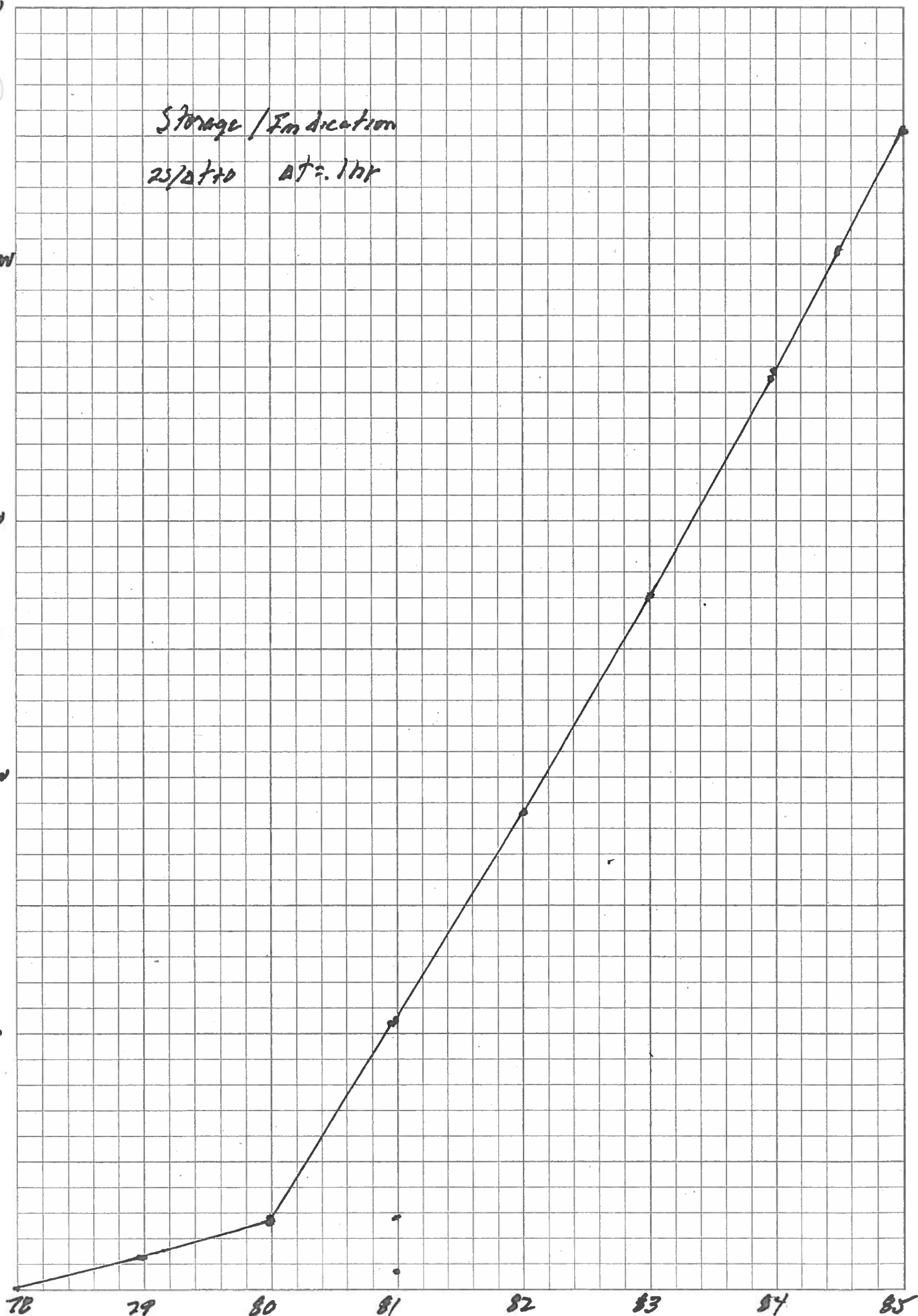
81

82

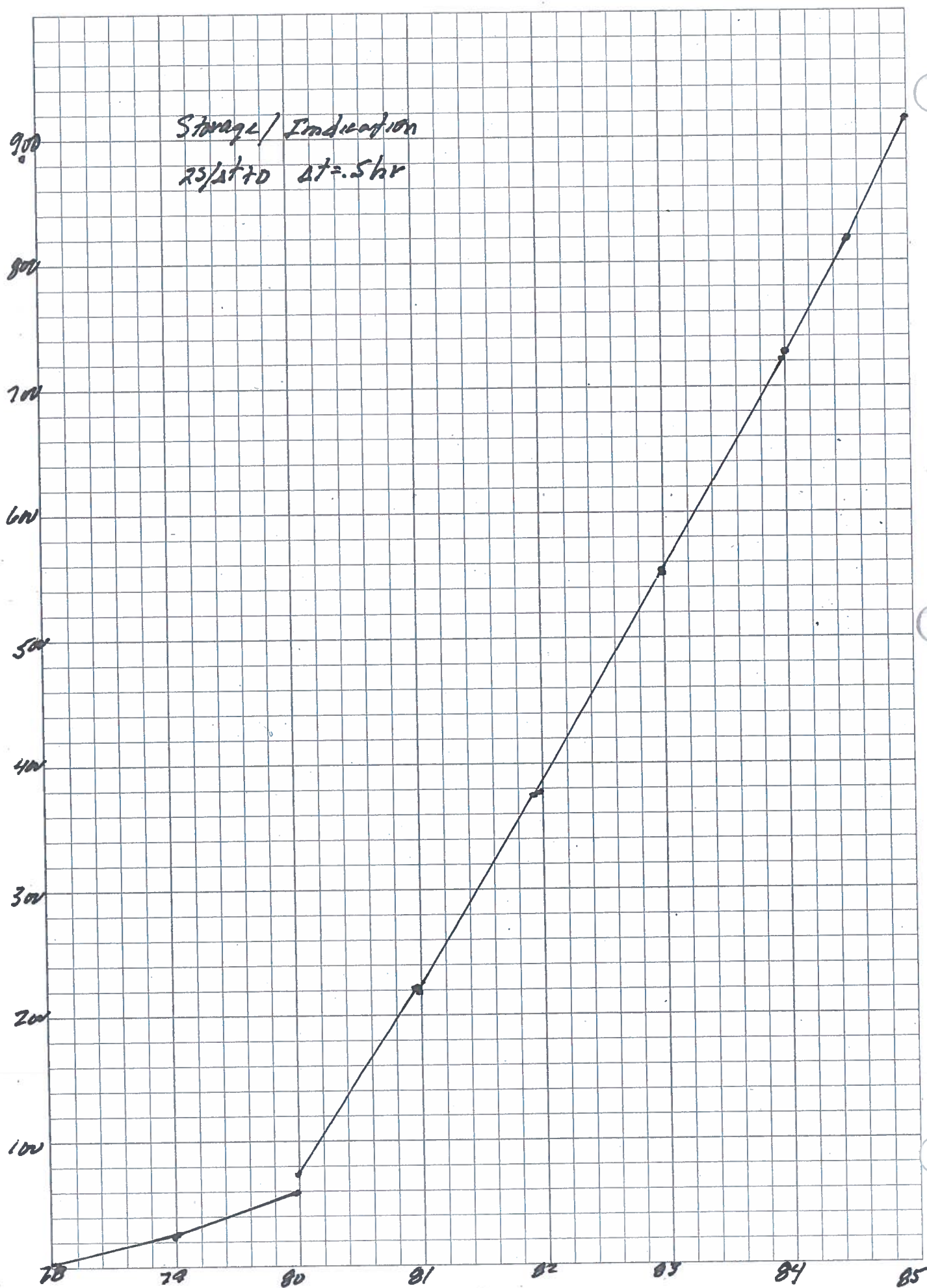
83

84

85







500

Storage / Indication  
25/s to  $\Delta t = 1hr$

400

300

200

100

78

79

80

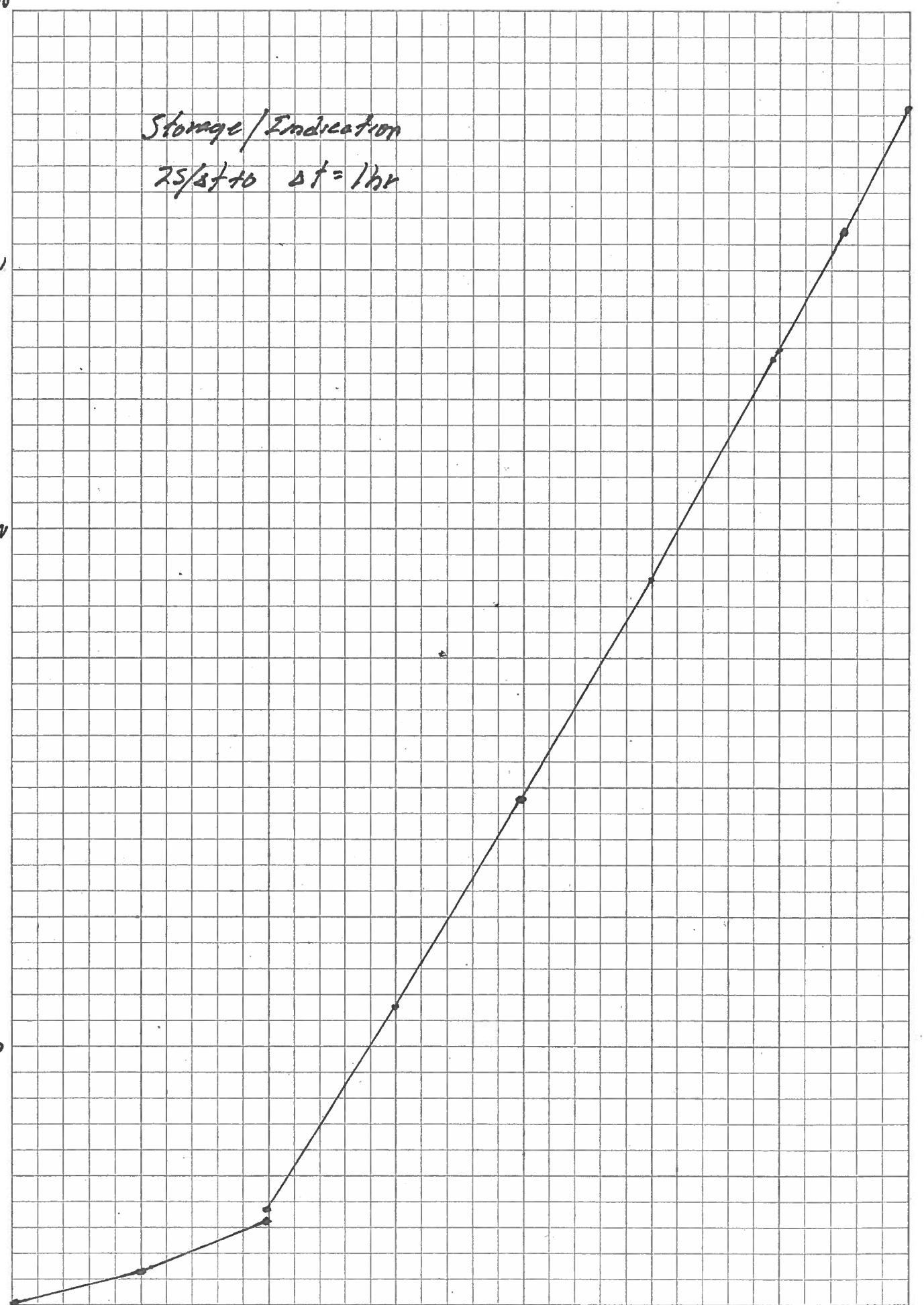
81

82

83

84

85



Stage / discharge

Discharge

12

10

8

6

4

2

78

79

80

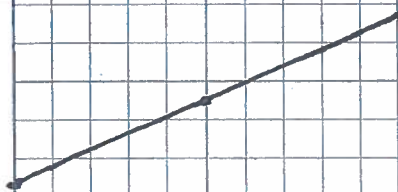
81  
ELEVATION

82

83

84

85



# Benton Hills / Benarentine

Retention No. 2

Drainage Area = 4,250,000 - 97.56 ac

on site - 14.7 acres

off site - 82.86 acres

47 lots @ 2250<sup>#</sup> = 105,750<sup>#</sup> Cn = 98

47 driveways @ 800<sup>#</sup> = 37,600<sup>#</sup> Cn = 98

47 concrete @ 200<sup>#</sup> = 9,400<sup>#</sup> Cn = 98

2280 ft of R/W @ 33' = 75,240<sup>#</sup> Cn = 98

Retention - 314,300<sup>#</sup> Cn = 100

Future dev. area = 1,785,000<sup>#</sup> Cn = 77

Santa Fe Hills = 720,000 Cn = 50

green = 1,202,470<sup>#</sup> Cn = 39 Cn avg = 59

prec = 6"/day = 2.94 ft/sec x 10<sup>-5</sup>

Retention

25/6/10

| elev. | Area    | volume    | precipitation | Δt = 1hr | Δt = 5hr | Δt   |
|-------|---------|-----------|---------------|----------|----------|------|
| 85    | 270,300 | 0         | 18.8          | 18.8     | 18.8     | 18.8 |
| 86    | 278,852 | 274,576   | 19.4          | 1545     | 324      | 17   |
| 87    | 287,532 | 557,032   | 20.0          | 3119     | 640      | 33   |
| 88    | 296,340 | 849,960   | 20.6          | 4743     | 965      | 49   |
| 89    | 305,276 | 1,151,152 | 21.2          | 6416     | 1300     | 64   |
|       | 309,500 | 1,304,550 | 21.5          | 7269     | 1471     | 74   |
| 90    | 314,500 | 1,462,000 | 21.8          | 8144     | 1646     | 83   |

Route 100 yr 1 hr storm

$C = 4.4''$

$C_n = 59$

Runoff = .97

area = 97.56 ac

| $t$ | $I/P_{total}$ | $I_1$ | $I_1 + I_2$ | $2S/\Delta t + U$ | $-20$ | $2S/\Delta t + U$ | $ed$         | $D_1$ |
|-----|---------------|-------|-------------|-------------------|-------|-------------------|--------------|-------|
| .1  | .2            | 18.9  | 18.9        | 0                 | 0     | 18.9              | 85           | 19    |
| .2  | .6            | 56.8  | 25.7        | 18.9              | -38   | 56.6              | 85           | 19    |
| .3  | 1.2           | 113.6 | 170.4       | 56.6              | -38   | 189               | 85.2         | 19    |
| .4  | 2.1           | 198.7 | 312.3       | 189               | -38   | 501.3             | 85.3         | 19    |
| .5  | 2.15          | 203.5 | 402.2       | 501.3             | -38   | 865.5             | 85.6         | 19    |
| .6  | 1.8           | 170.3 | 373.8       | 865.5             | -38   | 1201.3            | 85.9         | 19.5  |
| .7  | 1.1           | 104.1 | 274.4       | 1201.3            | -39   | 1434.7            | 86.0         | 19.5  |
| .8  | .7            | 66.2  | 170.3       | 1434.7            | -39   | 1568.0            | 86.0         | 19.5  |
| .9  | .1            | 9.5   | 25.7        | 1568              | -39   | 1604.7            | <u>86.05</u> | 19.5  |
| 1.0 | 0             | 0     | 9.5         | 1604.7            | -39   |                   |              |       |

# Route 1009R/2hr Storm

$t = 5.4$   
 $Q_n = 59$  Runoff = 1.55"  
 $Area = 97.56$

| t   | I/P total | I     | I <sub>1</sub> + I <sub>2</sub> | 25/dt + 0 | -20   | 25/dt + 0 | 2/          | 0     |
|-----|-----------|-------|---------------------------------|-----------|-------|-----------|-------------|-------|
| .1  | .3        | 45.3  | 45.3                            | 0         | 0     | 45.3      | 85          | 19    |
| .2  | .5        | 75.6  | 120.9                           | 45.3      | -38   | 128.2     | 85.1        | 19    |
| .3  | .64       | 96.8  | 172.4                           | 128.2     | -38   | 262.6     | 85.2        | 19    |
| .4  | .75       | 113.4 | 210.2                           | 262.6     | -38   | 434.8     | 85.3        | 19    |
| .5  | .87       | 131.6 | 245.0                           | 434.8     | -38   | 641.8     | 85.45       | 19    |
| .6  | 1.0       | 151.2 | 282.8                           | 641.8     | -38   | 924.6     | 85.6        | 19    |
| .7  | 1.14      | 172.4 | 323.6                           | 924.6     | -38   | 1248.2    | 85.8        | 19    |
| .8  | 1.25      | 189.0 | 361.4                           | 1248.2    | -38   | 1571.6    | 86.0        | 19.5  |
| .9  | .98       | 153.1 | 322.1                           | 1571.6    | -39   | 1854.7    | 86.2        | 19.5  |
| 1.0 | .50       | 75.6  | 208.7                           | 1854.7    | -39   | 2024.4    | 86.3        | 19.75 |
| 1.1 | .36       | 54.4  | 130.0                           | 2024.4    | -39.5 | 2114.9    | 86.35       | 19.75 |
| 1.2 | .30       | 45.4  | 99.8                            | 2114.9    | -39.5 | 2175.2    | 86.4        | 19.75 |
| 1.3 | .28       | 42.3  | 87.7                            | 2175.2    | -39.5 | 2225.4    | 86.4        | 19.75 |
| 1.4 | .25       | 37.8  | 80.1                            | 2225.4    | -39.5 | 2264      | 86.45       | 19.75 |
| 1.5 | .22       | 33.3  | 71.8                            | 2264      | -39.5 | 2295.6    | 86.45       | 19.75 |
| 1.6 | .20       | 30.2  | 63.5                            | 2295.6    | -39.5 | 2319.6    | 86.5        | 19.7  |
| 1.7 | .18       | 27.2  | 57.4                            | 2319.6    | -39.5 | 2337.5    | 86.5        | 19.7  |
| 1.8 | .15       | 22.7  | 50.1                            | 2337.5    | -39.5 | 2348.1    | <u>86.5</u> | 19.5  |
| 1.9 | .10       | 15.1  | 37.8                            | 2348.1    | -39.5 |           |             |       |
| 2.0 | 0         | 0     | 18.1                            |           |       |           |             |       |

Route 10092 4hr storm

$C = 6.72$

$C_m = 59$

Runoff = 2.41"

$a = 97.56$  at

| $t$ | $F/P_{total}$ | $P_1$ | $P_1 + P_2$ | $2S/P_{total} + 0$ | $-D_2$ | $2S/P_{total} + 0$ | $L1$ | $D1$  |
|-----|---------------|-------|-------------|--------------------|--------|--------------------|------|-------|
| .5  | .00           | 11.8  | 11.8        | 0                  | 0      | 11.8               | 85   | 19    |
| 1.0 | .2            | 47.0  | 58.8        | 11.8               | -38    | 32.6               | 85.1 | 19    |
| 1.5 | .36           | 94.6  | 131.6       | 32.6               | -38    | 126.2              | 85.2 | 19    |
| 2.0 | .52           | 122.3 | 206.9       | 126.2              | -38    | 295.1              | 86.0 | 19.5  |
| 2.5 | .42           | 98.8  | 221.1       | 295.1              | -39    | 477.2              | 86.5 | 19.75 |
| 3.0 | .28           | 65.8  | 164.6       | 477.2              | -39.5  | 602.3              | 86.9 | 20.0  |
| 3.5 | .10           | 23.5  | 89.3        | 602.3              | -40    | <u>651.6</u>       | 87.1 | 20.0  |
| 4.0 | 0             | 0     | 23.5        | 651.6              | -40    |                    |      |       |



Route 100 yr 8hr

$i = 8.00''$

$C_n = 59$  Runoff = 3.30

Area = 97.86 ac

| L   | F/Total | $I_1$ | $I_1 + I_2$ | 25/67+0 | -20   | 25/67+0 | L           | D    |
|-----|---------|-------|-------------|---------|-------|---------|-------------|------|
| .5  | .01     | 3.2   | 3.2         | 0       | 0     | 3.2     | 85.0        | 19.0 |
| 1.0 | .02     | 6.4   | 9.6         | 3.2     | 38.0  | 0       | 85.0        | 19.0 |
| 1.5 | .04     | 12.8  | 19.3        | 0       | -38.0 | 0       | 85.0        | 19.0 |
| 2.0 | .06     | 19.3  | 32.2        | 0       | -38.0 | 0       | 85.0        | 19.0 |
| 2.5 | .10     | 32.2  | 51.5        | 0       | -38.0 | 13.5    | 85.0        | 19.0 |
| 3.0 | .15     | 48.3  | 80.5        | 13.5    | -38.0 | 56      | 85.2        | 19.0 |
| 3.5 | .29     | 93.4  | 141.7       | 56      | -38.0 | 154.7   | 85.5        | 19.0 |
| 4.0 | .42     | 135.2 | 228.6       | 159.7   | -38.0 | 350.3   | 86.1        | 19.5 |
| 4.5 | .29     | 93.4  | 228.6       | 350.3   | -39   | 539.9   | 86.7        | 19.5 |
| 5.0 | .16     | 51.5  | 144.9       | 539.9   | -39   | 645.8   | 87.1        | 20.0 |
| 5.5 | .09     | 29.0  | 80.5        | 645.8   | -40   | 686.3   | 87.2        | 20.0 |
| 6.0 | .06     | 19.3  | 48.3        | 686.3   | -40   | 694.6   | <u>87.2</u> | 20.0 |
| 6.5 | .055    | 17.7  | 37.0        | 694.6   | -40   |         |             |      |
| 7.0 | .05     | 16.1  | 35.3        |         |       |         |             |      |
| 7.5 | .03     | 9.6   | 25.7        |         |       |         |             |      |
| 8.0 | 0       | 0     | 9.6         |         |       |         |             |      |

Route 100 yr 24 hr

$$L = 11.04$$

$$C_n = 59$$

$$R_{wdf} = 5.70$$

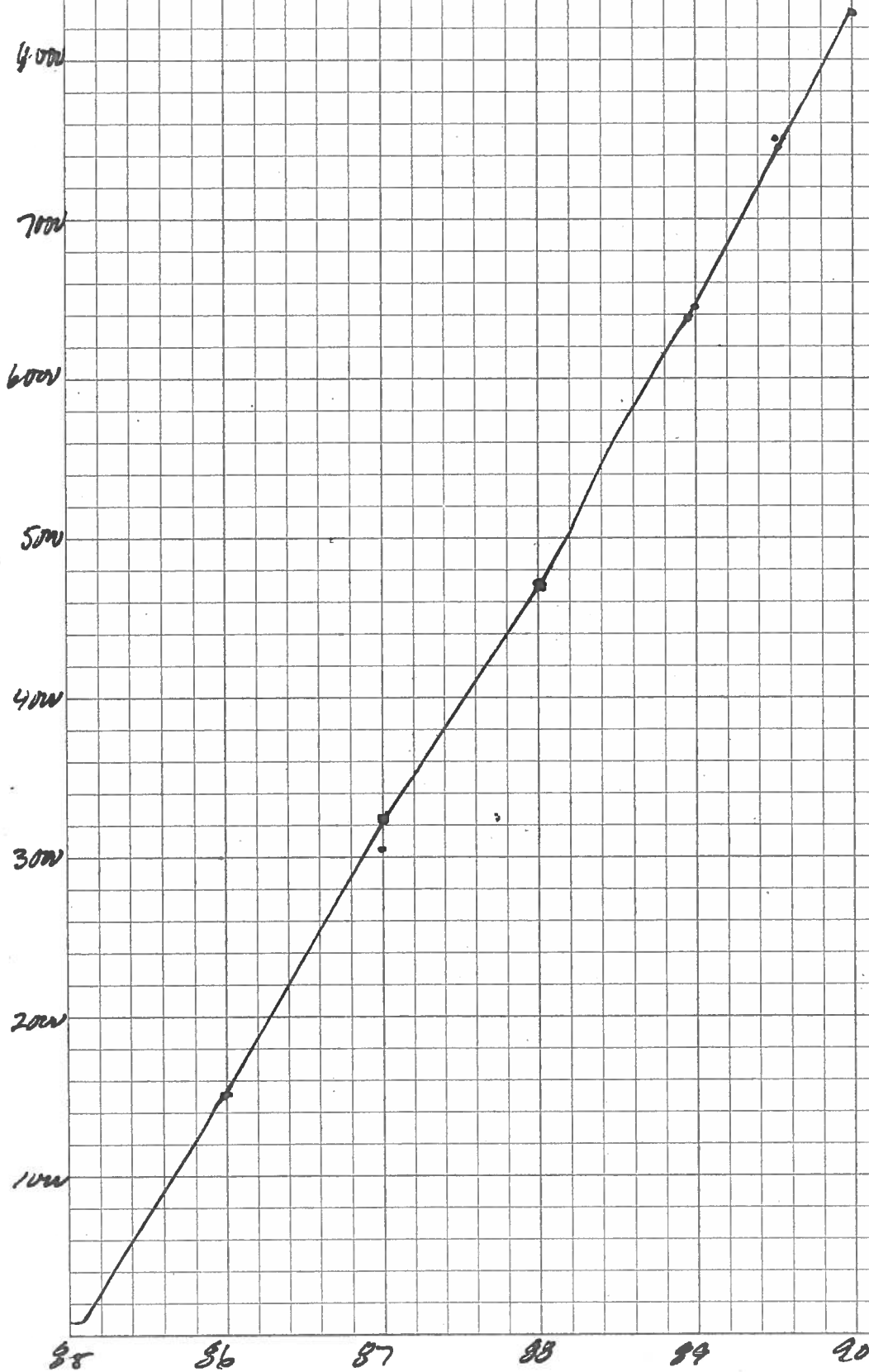
$$Q = 97.56$$

| $x$ | $FIP_{total}$ | $I_1$ | $I_1 + I_2$ | $25/\Delta t_{10}$ | $-20,$ | $25/\Delta t_{10}$ | $L/$        | $O,$ |
|-----|---------------|-------|-------------|--------------------|--------|--------------------|-------------|------|
| 1   | .01           | 5.6   | 5.6         | 0                  | 0      | 5.6                | 85.0        | 19   |
| 2   | .02           | 11.1  | 16.7        | 5.6                | -38    | 0                  | 85.0        | 19   |
| 3   | .03           | 16.7  | 27.8        | 0                  | -38    | 0                  | 85.0        | 19   |
| 4   | .03           | 16.7  | 33.4        | 0                  | -38    | 0                  | 85.0        | 19   |
| 5   | .03           | 16.7  | 33.4        | 0                  | -38    | 0                  | 85.0        | 19   |
| 6   | .04           | 22.2  | 38.9        | 0                  | -38    | .9                 | 85.0        | 19   |
| 7   | .04           | 22.2  | 44.4        | .9                 | -38    | 15.4               | 85.0        | 19   |
| 8   | .04           | 22.2  | 44.4        | 15.4               | -38    | 21.8               | 85.0        | 19   |
| 9   | .04           | 33.3  | 58.5        | 21.8               | -38    | 39.3               | 85.2        | 19   |
| 10  | .06           | 33.3  | 66.6        | 39.3               | -38    | 67.9               | 85.35       | 19   |
| 11  | .08           | 44.5  | 77.8        | 67.9               | -38    | 107.7              | 85.6        | 19   |
| 12  | .10           | 55.6  | 100.1       | 107.7              | -38    | 169.8              | 86.0        | 19.5 |
| 13  | .07           | 38.9  | 94.5        | 169.8              | -39    | 225.3              | 86.4        | 19.9 |
| 14  | .06           | 33.3  | 72.2        | 225.3              | -39.8  | 257.7              | 86.6        | 19.9 |
| 15  | .06           | 33.3  | 66.6        | 257.7              | -39.8  | 284.5              | 86.75       | 20.0 |
| 16  | .05           | 27.8  | 67.1        | 284.5              | -40    | 305.6              | 86.85       | 20.0 |
| 17  | .04           | 22.2  | 50          | 305.6              | -40    | 315.6              | 86.9        | 20.0 |
| 18  | .04           | 22.2  | 44.4        | 315.6              | -40    | 320                | 87.0        | 20.0 |
| 19  | .04           | 22.2  | 44.4        | 320                | -40    | 324.4              | <u>87.0</u> | 20.0 |
| 20  | .03           | 16.7  | 38.9        | 324.4              | -40    |                    |             |      |
| 21  | .03           | 16.7  | 33.4        |                    |        |                    |             |      |
| 22  | .02           | 11.1  | 27.8        |                    |        |                    |             |      |
| 23  | .01           | 5.6   | 16.7        |                    |        |                    |             |      |
| 24  | 0             | 0     | 5.6         |                    |        |                    |             |      |

Storage / Indication

Drt No. 2

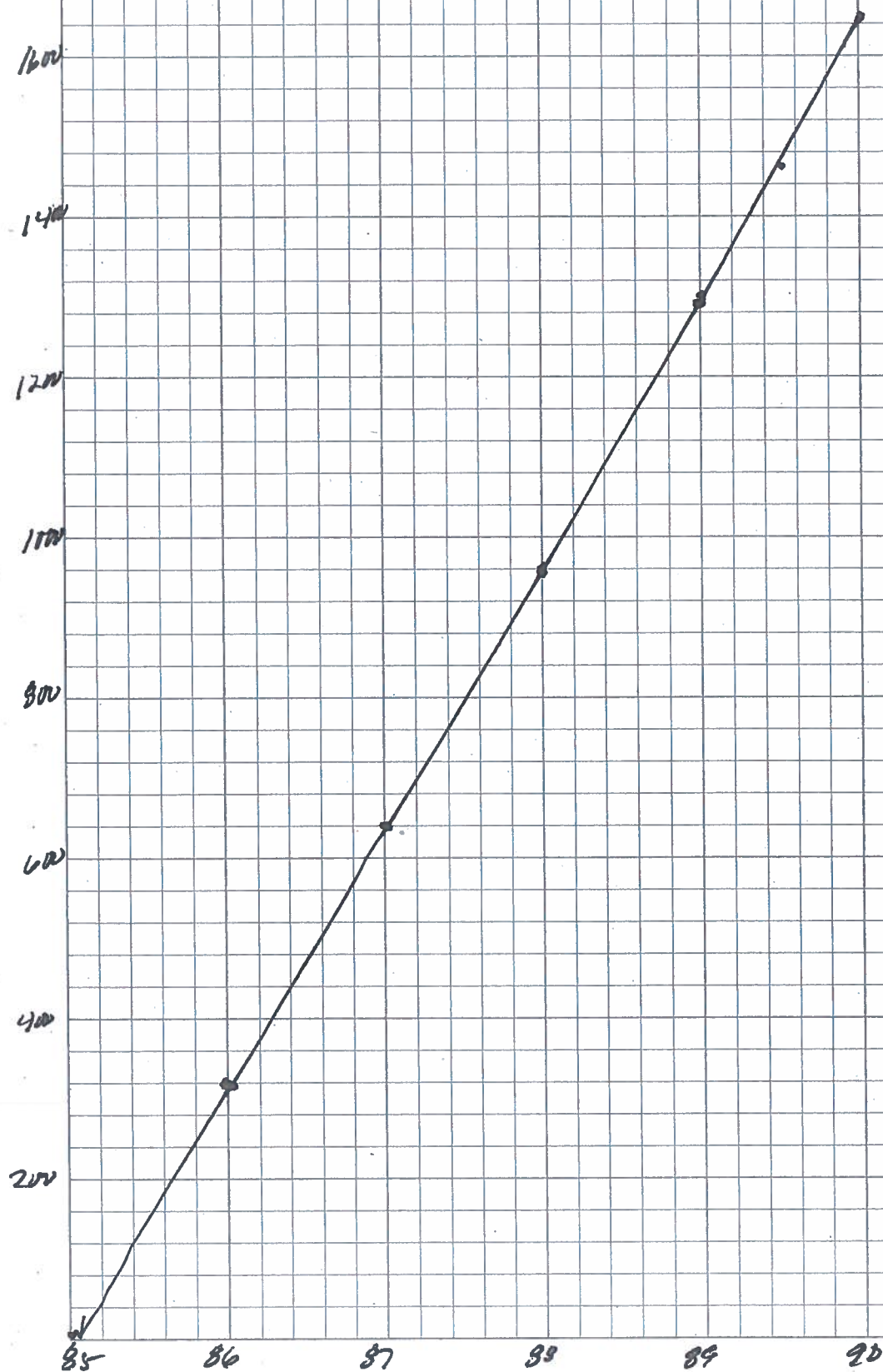
25/2/70 At 2.126



Ref No. 2

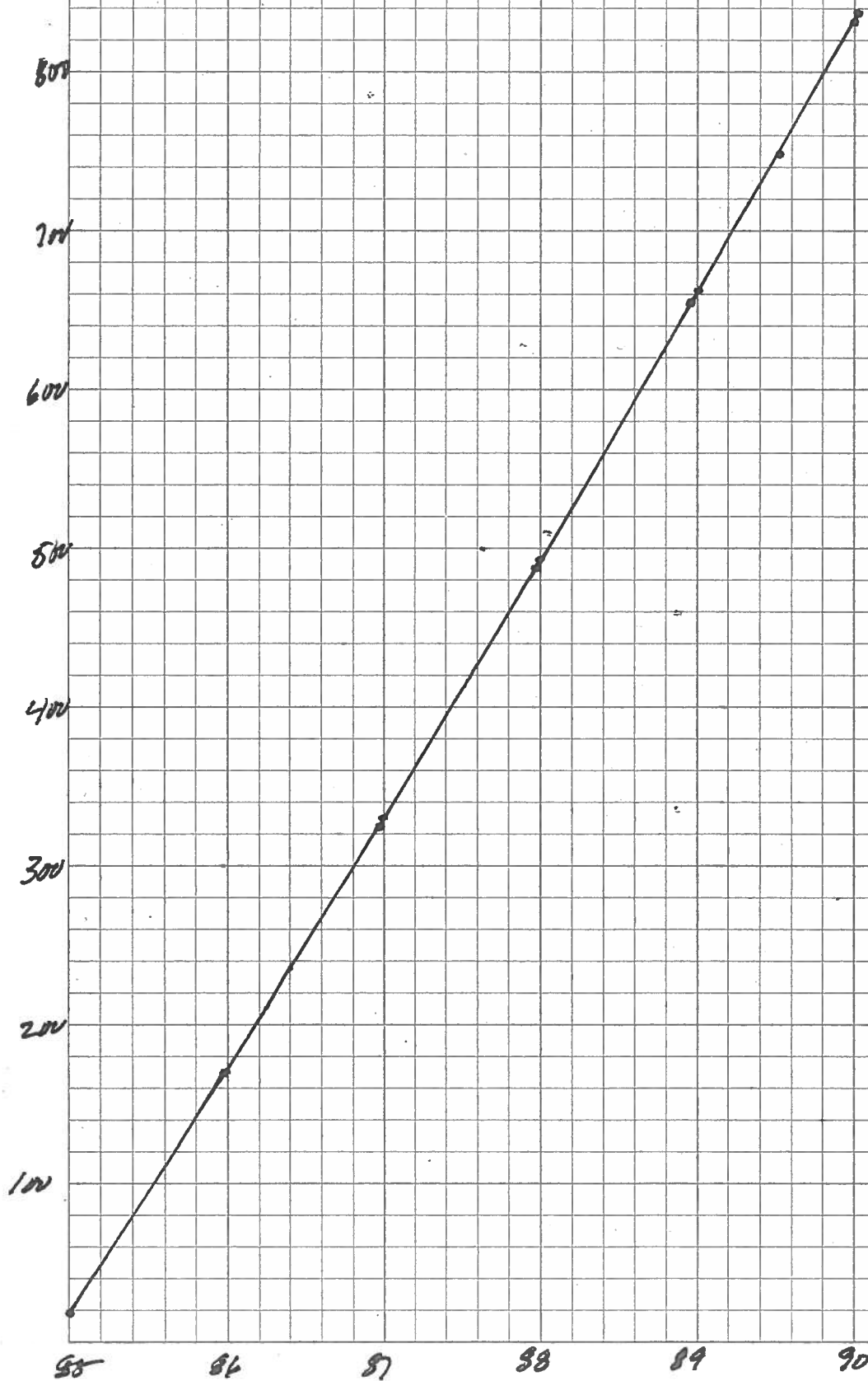
Storage / Indication

$\Delta S / \Delta t = 0.5 \text{ hr}$



Ref No. 2

Storage / Indication  
25/2710  $\Delta T = 1/hr$



Ref. No. 2

Stage/discharge

30

20

10

85

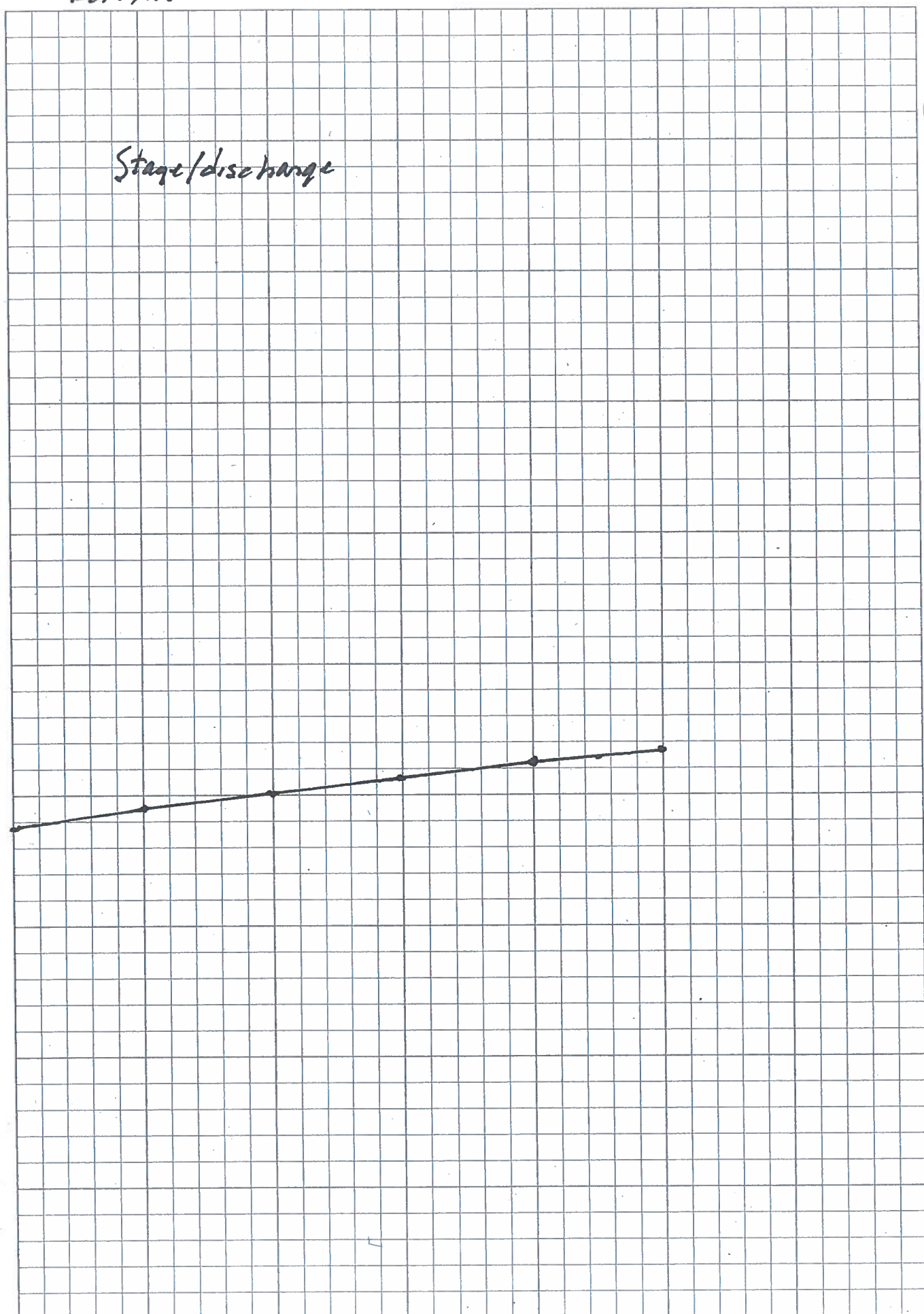
86

87

88

89

90



# Plot Area No. 3

$$\text{Area} = 199,500 \text{ SF} = 4.6 \text{ ac}$$

$$\text{houses} = 14 @ 2250^{\text{sq}} = 31,500^{\text{sq}} \quad C = .95$$

$$\text{driveways} = 14 @ 320^{\text{sq}} = 4480^{\text{sq}} \quad C = .95$$

$$\text{concrete} = 14 @ 200^{\text{sq}} = 2800^{\text{sq}} \quad C = .95$$

$$\text{Retention} = 22,180 @ C = 1.0$$

$$\text{Green} = 125,370 @ C = .15$$

$$\text{percolation} = 6'/\text{day} \quad C_{avg} = .45$$

## Retention

| elev. | area   | volume | perc. | 25/0 to 0 to 25 ft |
|-------|--------|--------|-------|--------------------|
| 90.0  | 1000   | 0      | .07   | .07                |
| 91.0  | 10,500 | 5750   | .73   | 7.1                |
| 92.0  | 22300  | 22,150 | 1.55  | 26.7               |
| 92.8  | 29350  | 35,050 | 2.04  | 34.6               |
| 93.0  | 36,400 | 51,488 | 2.52  | 59.7               |

$$199,500^{\text{sq}} \times .45 \times \frac{4.4}{12} = 32,918 < 51,488$$

$$199,500^{\text{sq}} \times .45 \times 5.7/12 = 40,344 < 51,488$$

No need to Route 100yr 1hr & 2hr storm as <sup>total</sup> Runoff Volume is less than storage volume.



# Route 110 yr 4hr event

$$a = 4.6 \text{ m}$$

$$c = .45$$

$$z = 6.72''$$

| I   | I/phtd | I <sub>1</sub> | I <sub>2</sub> I <sub>3</sub> | 25/Δt+0 | -20  | 25/Δt+0 | 1/           | 0    |
|-----|--------|----------------|-------------------------------|---------|------|---------|--------------|------|
| .5  | .08    | 1.1            | 1.1                           | 0       | 0    | 1.1     | 90.1         | .1   |
| 1.0 | .2     | 2.8            | 3.9                           | 1.1     | -.2  | 4.8     | 90.7         | .6   |
| 1.5 | .36    | 5.0            | 7.8                           | 4.8     | -1.2 | 11.4    | 91.3         | .95  |
| 2.0 | .52    | 7.2            | 12.2                          | 11.4    | -1.9 | 21.7    | 91.9         | 1.5  |
| 2.5 | .42    | 5.8            | 13.0                          | 21.7    | -3.0 | 30.7    | 92.9         | 1.8  |
| 3.0 | .28    | 3.9            | 9.7                           | 30.7    | -3.6 | 36.8    | 92.55        | 2.05 |
| 3.5 | .10    | 1.4            | 5.3                           | 36.8    | -4.1 | 38.0    | <u>92.55</u> | 2.05 |
| 4.0 | 0      | 0              | 1.4                           | 38.0    | -4.1 |         |              |      |

# Route 100 gr shr

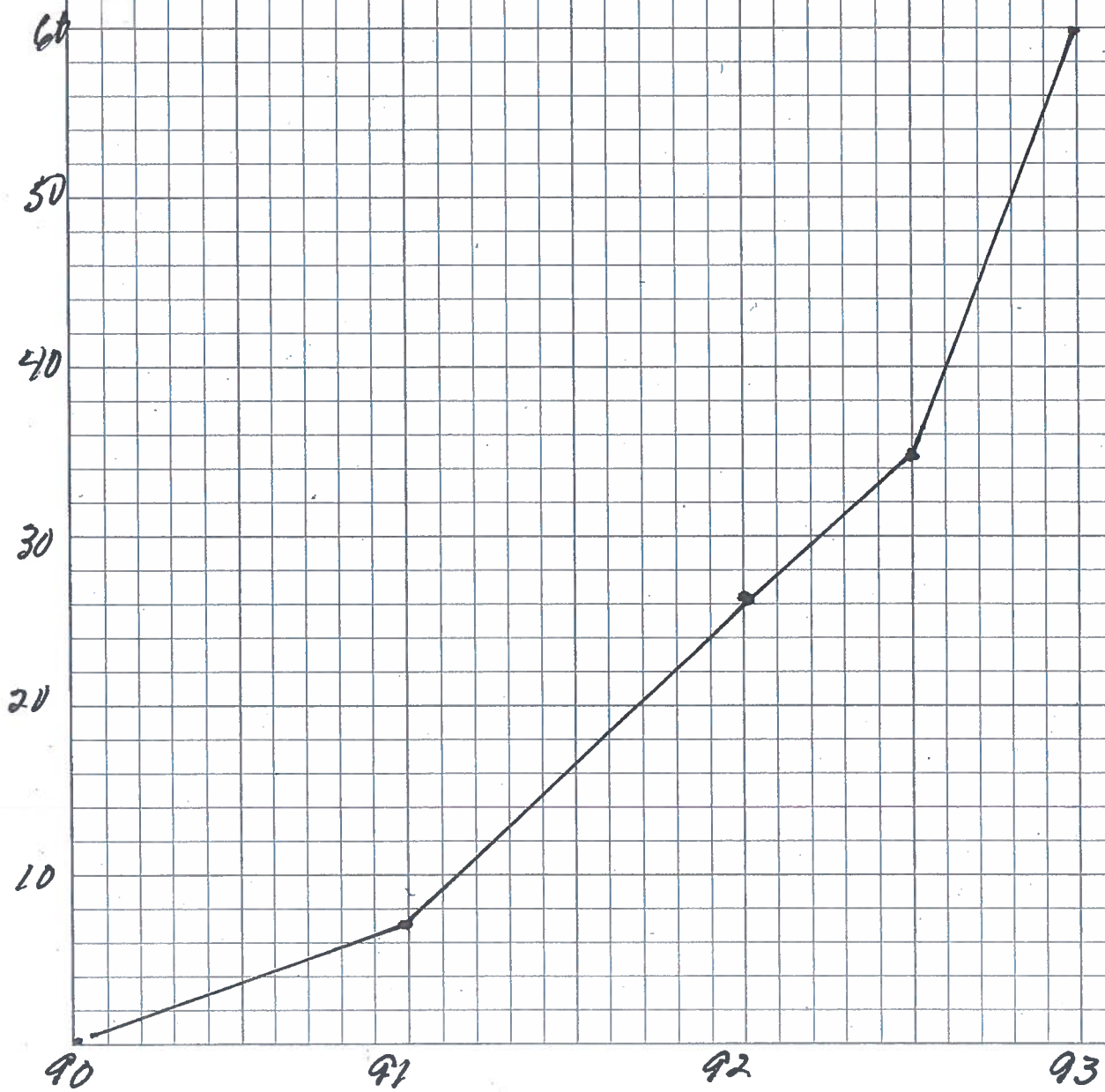
$i = 8.0''$   
 $C = .45$   
 $Q = 4.6 \text{ ac}$

| $E$ | $F/P_{\text{total}}$ | $F_1$ | $F_1 + F_2$ | $2S \Delta h_0$ | $2Q_1$ | $2S/P_{\text{total}}$ | $e$          | $D$  |
|-----|----------------------|-------|-------------|-----------------|--------|-----------------------|--------------|------|
| .5  | .01                  | .17   | .17         | 0               | 0      | .17                   | 90.1         | .1   |
| 1.0 | .02                  | .33   | .50         | .17             | -.2    | .47                   | 90.1         | .1   |
| 1.5 | .04                  | .66   | .99         | .47             | -.2    | 1.26                  | 90.2         | .12  |
| 2.0 | .06                  | 1.0   | 1.66        | 1.26            | -.24   | 2.68                  | 90.35        | .30  |
| 2.5 | .10                  | 1.6   | 2.6         | 2.68            | -.68   | 4.6                   | 90.65        | .4   |
| 3.0 | .15                  | 2.5   | 4.1         | 4.6             | -.80   | 7.9                   | 91.05        | .75  |
| 3.5 | .29                  | 4.8   | 7.3         | 7.9             | -1.5   | 13.7                  | 91.3         | 1.0  |
| 4.0 | .42                  | 7.0   | 11.8        | 13.7            | -2.0   | 23.5                  | 91.85        | 1.5  |
| 4.5 | .29                  | 4.8   | 11.8        | 23.5            | -3.0   | 32.3                  | 92.35        | 1.85 |
| 5.0 | .16                  | 2.6   | 7.4         | 32.3            | -3.7   | 36.0                  | <u>92.55</u> | 2.05 |
| 5.5 | .09                  | 1.5   | 4.1         | 36              | -4.1   | 36.0                  | 92.55        | 2.05 |
| 6.0 | .06                  | 1.0   | 2.5         | 36.0            | -4.1   | 34.4                  |              |      |
| 6.5 | .05                  | .9    | 1.9         |                 |        |                       |              |      |
| 7.0 | .05                  | .83   | 1.73        |                 |        |                       |              |      |
| 7.5 | .03                  | .5    | 1.33        |                 |        |                       |              |      |
| 8.0 | 0                    | 0     | .5          |                 |        |                       |              |      |

Ret. No. 3

Storage/Indication

$25/\Delta t + 0$   $\Delta t = 5 \text{ hr}$



Ref No 3

stage / discharge

3

2

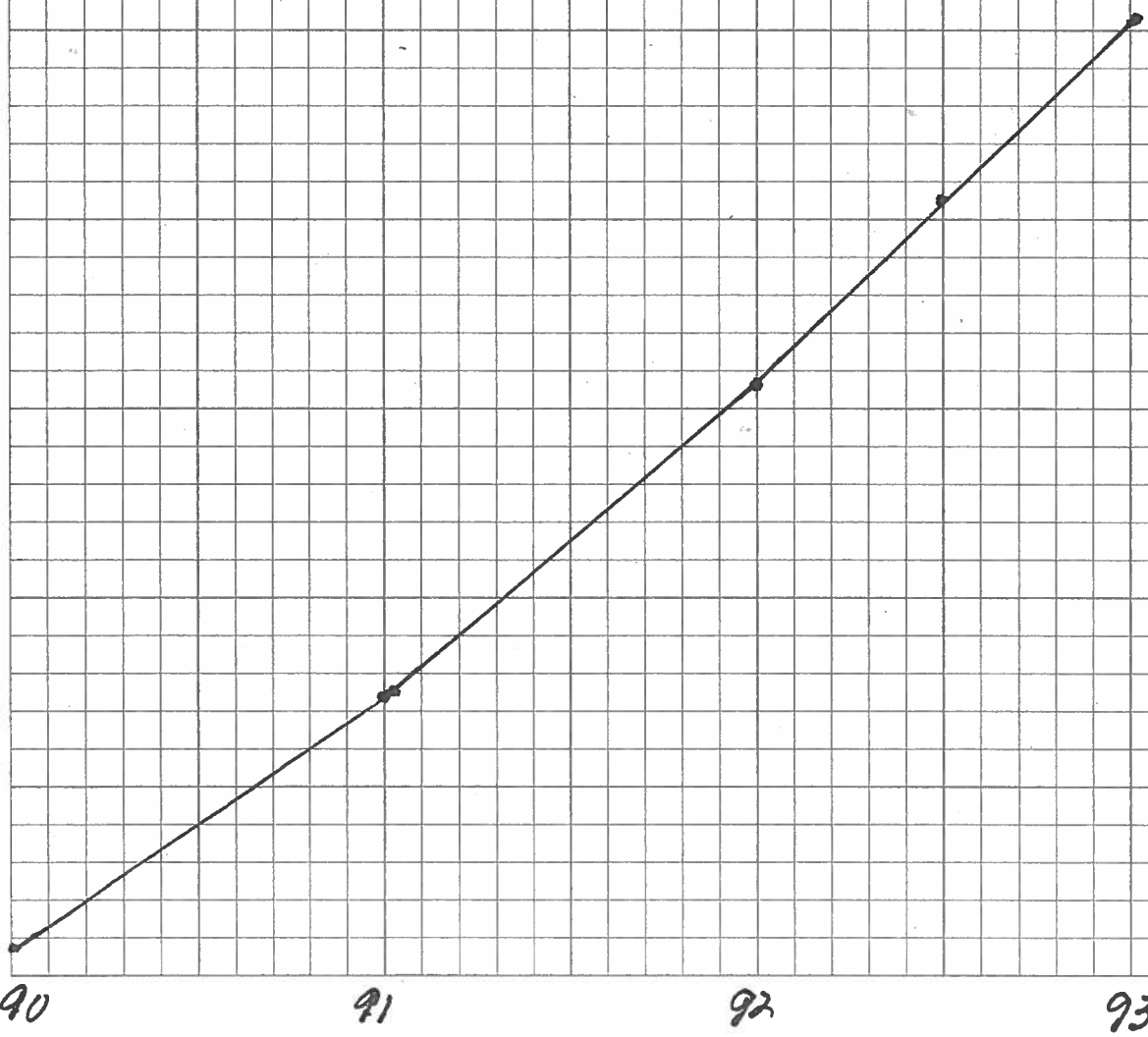
1

90

91

92

93





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***FIRE FLOW ANALYSIS  
HYDRANT FLOW TESTS***





## ISO Needed Fire Flow (NFF) Worksheet

(Page references are to the appropriate sections in the ISO Guide for Determination of Needed Fire Flow)

Petition Number: \_\_\_\_\_

Date: \_\_\_\_\_

Project: Benton Hills

Engineer: James McLean

Checked \_\_\_\_\_

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

Location: Tax parcel # 03044-011-001, 03044-011-002, 03044-011-003  
03044-010-003

### Subject Building

Construction Class (p. 4): Class 1 construction coefficient (F) (p. 2): 1.5

Area of largest floor in the building (if modifications are made for division walls (p. 8), the division walls must be shown on the site plan.): 3000 sq. ft.

Total area of all other floors (if modifications are made for division walls (p. 8), the division walls must be shown on the site plan.): \_\_\_\_\_ sq. ft.

Effective Area ( $A_i$ ) (p. 9): 3000 sq. ft. (Show calculations below)

Needed Fire Flow attributed to construction ( $C_i$ ) (per formula (p. 2) or table (p. 28)): 1500

(Round to the nearest 250 gpm. See p. 10 for maximum and minimum values of  $C_i$ )

Type of Occupancy: single family Occupancy Factor ( $O_i$ ) (p. 11): .85

### Exposures (p. 16)

**Front:** construction of facing wall of exposure building (p. 4):

Class 1 90'

Distance (ft.) to the exposure building: 90' Length of exposure wall: 50

Number of stories of exposure wall: 1 Length x number of stories: 50

Opening protection in exposure

wall: .08  
Factor for exposure ( $X_i$ ) from Table 330.A (p.  
17): .08

**Back:** construction of facing wall of exposure building (p. 4):

Class 1  
Distance (ft.) to the exposure building: 40' Length of exposure wall:  
50  
Number of stories of exposure wall: 1 Length x number of  
stories: 50  
Opening protection in exposure wall:

Factor for exposure ( $X_i$ ) from Table 330.A (p.  
17): .12

**Left:** construction of facing wall of exposure building (p. 4):

Class 1  
Distance (ft.) to the exposure building: 40 Length of exposure wall:  
60  
Number of stories of exposure wall: 1 Length x number of  
stories: 60  
Opening protection in exposure  
wall: .12

Factor for exposure ( $X_i$ ) from Table 330.A (p.  
17):

**Right:** construction of facing wall of exposure building (p. 4):

Class 1  
Distance (ft.) to the exposure building: 40 Length of exposure wall:  
60  
Number of stories of exposure wall: 1 Length x number of  
stories: 60  
Opening protection in exposure  
wall: .12

Factor for exposure ( $X_i$ ) from Table 330.A (p.  
17): .12

(over)

### Communications (p. 18)

Description of protection of passageway openings:

Construction class of communication (Table 330.B) (check one):

Combustible                      Noncombustible Slow burning                      Fire Resistive  
Is communication open or enclosed? \_\_\_\_\_  
Length of communication (in feet): \_\_\_\_\_  
Factor for Communications ( $P_i$ ) from Table 330.B on p.19):  
\_\_\_\_\_

### Calculation of Needed Fire Flow (p. 1)

$NFF = (C_i)(O_i)[1.0 + (X + P)_i]$  (substitute values as determined above. For exposures and communications use the single side with the highest charge.)

$$NFF = (1500)(.85)[1.0 + (.12 + 0)]$$

$$NFF = 1428 \text{ gpm}$$

$$NFF = 1500 \text{ gpm (rounded to the nearest 250 gpm per ISO requirements)}$$

Note: ISO evaluates hydrant distribution by examining the number and type of hydrants within 1,000 feet of each representative building. They also look at the distance from each such hydrant to the subject building, measured as apparatus can lay hose.

Hydrants with at least one large pumper outlet may receive credit for up to 1,000 gpm. Hydrants with at least two hose outlets, but no pumper outlet, may receive credit for up to 750 gpm. And hydrants with only one hose outlet may receive credit for up to 500 gpm.

Hydrants within 300 feet of the subject building may receive credit for up to 1,000 gpm (but not more than the credit that would apply based on the number and type of outlets). Hydrants from 301 feet to 600 feet from the subject building may receive credit for up to 670 gpm (but not more than the credit that would apply based on the number and type of outlets). And hydrants from 601 feet to 1,000 feet from the subject building receive credit for 250 gpm. Under certain circumstances, when all fire department pumpers carry sufficient large-diameter hose, ISO may allow maximum credit for hydrants up to 1,000 feet from the subject building.

More than one fire hydrant may be required for proper distribution of water per ISO requirements.

# Hydrant Flow Test Report

Test Date 11/24/2014

Test Time 2:15 PM

## Location

NW 174th Drive (Hydrant 3)  
N US 441 (Hydrant 4)  
Alachua, FL 32615

## Tested by

Gator Fire Equipment  
1032 S. Main Street  
Gainesville, FL 32601

Tester: Max Hogg

## Notes

Flowing/Pitot: Hydrant #996G  
Static/Residual: Hydrant #16931

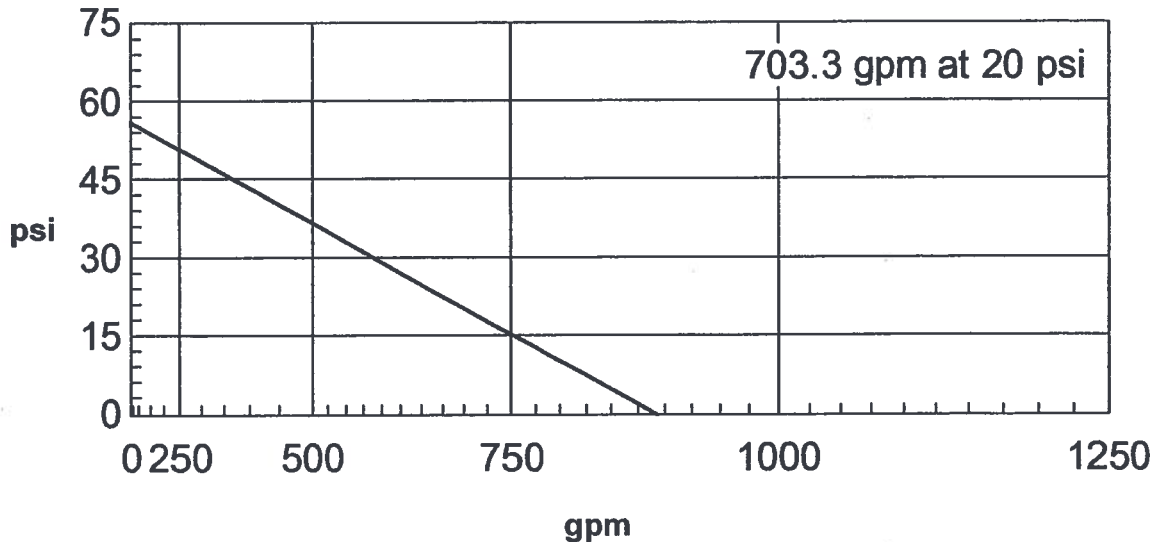
## Read Hydrant

56 psi static pressure  
23 psi residual pressure  
0 ft hydrant elevation

## Flow Hydrant(s)

| Outlet | Elev | Size | C  | Pitot Pressure | Flow    |
|--------|------|------|----|----------------|---------|
| #1     | 0    | 2.5  | .9 | 16             | 671 gpm |

## Flow Graph



# Hydrant Flow Test Report

Test Date 11/24/14

Test Time 1:30 pm

## Location

NW Int of CR235A and  
NW 171 Place (Hyd 1) and NW Int of  
CR235A and NW 168 Ave (Hyd 2)  
Alachua, FL 32615

## Tested by

Gator Fire Equipment  
1032 S. Main Street  
Gainesville, FL 32601

Tester: Max Hogg

## Notes

Flowing/Pitot: Hydrant #16691  
Static/Residual: Hydrant #16692

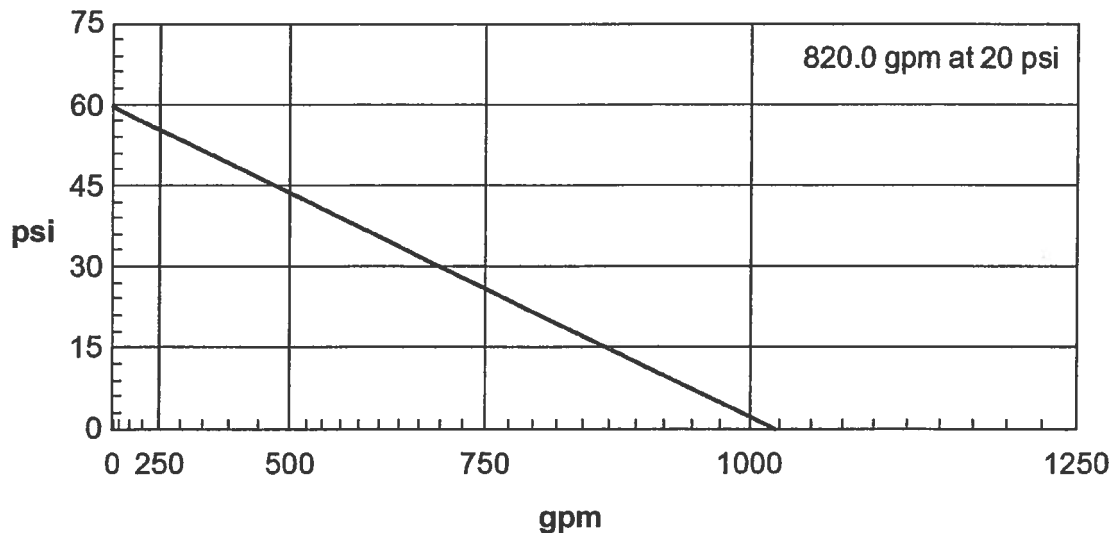
## Read Hydrant

60 psi static pressure  
26 psi residual pressure  
0 ft hydrant elevation

## Flow Hydrant(s)

| Outlet | Elev | Size | C  | Pitot Pressure | Flow    |
|--------|------|------|----|----------------|---------|
| #1     | 0    | 2.5  | .9 | 20             | 751 gpm |

## Flow Graph





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***PRELIMINARY HOME OWNERS  
DOCUMENTS***





**DECLARATION  
OF COVENANTS, CONDITIONS AND RESTRICTIONS  
FOR  
BENTON HILLS**

THIS DECLARATION, made on the date hereinafter set forth by GOLDEN POND FARMS, INC., hereinafter referred to as "Declarant".

**W I T N E S S E T H**

WHEREAS, Declarant is the owner of certain property in the County of Alachua, State of Florida, which is more particularly described as:

Lots One (1) through Seventy-five (75) of Benton Hills, Phase 1, as per plat thereof recorded in Plat Book \_\_\_\_\_, Pages \_\_\_\_\_, of the Public Records of Alachua County, Florida, together with Common Area shown on said Plat.

NOW THEREFORE, Developer hereby declares that all of the properties above shall be held, sold, and conveyed subject to the following easements, restrictions, covenants, and conditions, which are for the purpose of protecting the value and desirability of, and which shall run with, the real property and be binding on all parties having any right, title or interest in the described properties or any part thereof, their heirs, successors and assigns, and shall inure to the benefit of each owner thereof.

**ARTICLE I  
DEFINITIONS**

Section 1. "Association" shall mean and refer to BENTON HILLS HOMEOWNERS ASSOCIATION, INC., its successors and assigns. The Association shall be a Florida not-for-profit corporation and shall be established prior to any lots being sold.

Section 2. "Owner" shall mean and refer to the record owner, whether one or more persons or entities, of a fee simple title to any Lot which is a part of the Properties, including contract sellers, but excluding those having such interest merely as security for the performance of an obligation.

Section 3. "Properties" shall mean and refer to that certain real property hereinbefore described, and such additions thereto as may hereafter be brought within the jurisdiction of the Association.

Section 4. "Association Property" shall mean all real property (including the improvements thereto) owned by the Association for the common use and enjoyment of the owners. It does not include any platted Lot in Willow Oak Plantation. "Association Property" includes, without limitation, any platted parcel, or portion thereof, which is part of The Property and which is designated on the plat for ownership and maintenance by the Association or as "Open Space" or as "Conservation Easement" or as a "Common Open Space" or as a "Drainage Easement."

Section 5. "Lot" shall mean and refer to any numbered plot of land shown upon any recorded subdivision map of the Properties.

Section 6. "Declarant" shall mean and refer to Golden pond Farms, Inc., and its successors or assigns if they should acquire more than one undeveloped Lot from the original Declarant for the purposes of development.

Section 7. "Surface Water or Stormwater Management System" means a system which is designed and constructed or implemented to control discharges of stormwater runoff which are necessitated by rainfall events, incorporating methods to collect, convey, store, absorb, inhibit, treat, use or reuse stormwater runoff to prevent or reduce flooding, over-drainage, environmental degradation, and water pollution or otherwise affect the quantity and quality of discharge from the system. Any reference in the Declaration to the Suwannee River Water Management District shall also include its successors if it ceases to exist.

Section 8. "Defensible Space" shall mean a "clean" zone between wildfire fuels and structures (typically a width of 30 feet or more) where fuels have been cleared, reduced or changed

so as to act as a barrier between wildfire and the structure.

## **ARTICLE II PROPERTY RIGHTS**

Section 1. Owner's Easement of Enjoyment. Every owner shall have a right and easement of enjoyment in and to the Association Property which shall be appurtenant to and shall pass with the title to every Lot, subject to the following provisions:

(a) The right of the Association to charge reasonable admission and other fees for the use of any recreational facility situated upon the Association Property;

(b) The right of the Association to suspend the voting rights and right to use of the recreational facilities by an owner for any period during which an assessment against his Lot remains unpaid; and for any period not to exceed 60 days for any infraction of its published rules and regulations;

(c) The right of the Association to dedicate or transfer all or any part of the Association Property to any public agency, authority, or utility for such purposes and subject to such conditions as may be agreed to by a majority of the voting members.

(d) The right of the Association to collect money for the maintenance and repair of stormwater management and surface water facilities.

(e) The requirements of the Open Space and Gopher Tortoise Conservation Area Plans included in Exhibit B.

Section 2. Use. Each owner shall have the right to use and enjoy any Association Property for any purpose not inconsistent with this Declaration, the Articles of Incorporation, the By-Laws and rules and regulations of the Association, or governmental regulations. The use and enjoyment of all common property is subject to the requirements of the Open Space and Gopher Tortoise Conservation Area Plans included in Exhibit B. The Association shall be responsible for the management and control of the Association Property.

Section 3. Delegation of Use. Any owner may delegate, in accordance with the By-Laws, his right of enjoyment to the Association Property and facilities to the members of his family, his tenants, or contract purchasers who reside on the property.

Section 4. City Liability. The City of Alachua does not provide any liability insurance for any common areas or recreational facilities.

## **ARTICLE III MEMBERSHIP AND VOTING RIGHTS**

Section 1. Every owner of a lot which is subject to assessment shall be a member of the Association. Membership shall be appurtenant to and may not be separated from ownership of any Lot which is subject to assessment.

Section 2. The Association shall have two classes of voting membership;

Class A. Class A members shall be all Owners, with the exception of the Declarant, and shall be entitled to one vote for each Lot owned. When more than one person holds an interest in any Lot, all such persons shall be members. The vote for such Lot shall be exercised as they determine, but in no event shall more than one vote be cast with respect to any Lot.

Class B. Class B members shall be the Declarant and shall be entitled to three (3) votes for each Lot owned. The Class B membership shall cease and be converted to Class "A" membership on the happening of either of the following events, whichever occurs earlier:

(a) when the total votes outstanding in the Class A membership equal the total votes outstanding in the Class B membership, or

(b) on December 31, 2022, or

(c) when Declarant decides to turn over control to the Class A members.

Section 3. In all elections involving general membership voting, the total vote will be the combined vote of all Class A and B shares voted. Each Class B vote shall be equivalent with, and participate in all voting on a basis equivalent to, one Class A vote.

**ARTICLE IV  
COVENANT FOR MAINTENANCE ASSESSMENTS**

Section 1. Creation of the Lien and Personal Obligation of Assessments. The Declarant, for each Lot owned within the Properties, hereby covenants, and each Owner of any Lot by acceptance of a deed therefore, whether or not it shall be so expressed in such deed, is deemed to covenant and agree to pay to the Association: (1) annual assessments or charges, (2) special assessments for capital improvements, such assessments to be established and collected as hereinafter provided. The annual and special assessments, together with interest, costs and reasonable attorney's fees, shall be a charge on the land and shall be a continuing lien upon the property against which each such assessment is made. Each such assessment, together with interest, costs, and reasonable attorney's fees, shall be the personal obligation of the person who was the Owner of such property at the time when the assessment fell due. The personal obligation for delinquent assessments shall not pass to his successors in title unless expressly assumed by them.

Section 2. Purpose of Assessments. The assessments levied by the Association shall be used exclusively to promote the recreation, health, safety, and welfare of the residents in the Properties and for the improvement and maintenance of the Association Property.

Assessments shall also be used for the maintenance and repair of the surface water or stormwater management systems including, but not limited to, work within retention areas, drainage structures and drainage easements.

Section 3. Maximum Annual Assessments. Until January 1 of the year immediately following the conveyance of the first Lot to an Owner, the maximum annual assessment shall be \$\_\_\_\_\_ per Lot.

(a) From and after January 1 of the year immediately following the conveyance of the first Lot to an Owner, the maximum annual assessment may be increased each year not more than \_\_\_\_% above the maximum assessment for the previous year without a vote of the membership.

(b) From and after January 1 of the year immediately following the conveyance of the first Lot to an Owner, the maximum annual assessment may be increased above \_\_\_\_% by a vote of two-thirds (2/3) of each class of members who are voting in person or by proxy, at a meeting duly called for this purpose.

(c) The Board of Directors may fix the annual assessment and establish an initial working capital fee not to exceed \$\_\_\_\_\_ per lot.

(d) The Board of Directors are required to establish annual assessments at a rate sufficient to cover annual maintenance. If annual assessments are insufficient, the Board of Directors shall have authority to require a special assessment sufficient to cover such shortfall or to amend the adopted budget by noticing the members according to Florida Statutes..

(e) The Board of Directors shall establish the appropriate levels of maintenance.

(f) The Board of Directors may establish fees for the use of various facilities.

Section 4. Special Assessments for Capital Improvements. In addition to the annual assessment authorized above, the Association may levy, in any assessment year, a special assessment applicable to that year only for the purpose of defraying, in whole or in part, the cost of any construction, reconstruction, repair or replacement of a capital improvement upon the Association Property, including fixtures and personal property related thereto, provided that any such assessment shall have the assent of two-thirds (2/3) of the votes of each class of members who are voting in person or by proxy at a meeting duly called for this purpose. Special assessments made for the purpose of complying with the Suwannee River Water Management District permit are not conditioned on lot owner approval or limited in amount.

Section 5. Notice and Quorum for Any Action Authorized Under Sections 3 and 4. Written notice of any meeting called for the purpose of taking any action authorized under Section 3 or 4 shall be sent to all members not less than 30 days nor more than 60 days in advance of the meeting. At such meeting, the presence of members or of proxies entitled to cast majority of all the votes of each class of membership shall constitute a quorum.

Section 6. Uniform Rate of Assessment. Both annual and special assessments must be fixed at a uniform rate for all Lots and may be collected on a monthly basis, except that the Board

may establish a lower assessment for lots for which a Certificate of Occupancy has not been issued for improvements to that lot.

**Section 7. Date of Commencement of Annual Assessments: Due Dates.** The annual assessments provided for herein shall commence as to all Lots on the first day of the month following the conveyance of the Association Property. The first annual assessments shall be adjusted according to the number of the months remaining in the calendar year. The Board of Directors shall fix the amount of the annual assessment against each Lot at least thirty (30) days in advance of each annual assessment period. Written notice of the annual assessment shall be sent to every Owner subject thereto. The due dates shall be established by the Board of Directors. The Association shall, upon demand, and for a reasonable charge, furnish a certificate signed by an Officer of the Association setting forth whether the assessment on a specified Lot have been paid. A properly executed certificate of the Association as to the status of assessments on a Lot is binding upon the Association as of the date of its issuance.

**Section 8. Effect of Non-payment of Assessments; Remedies of the Association.** Any assessment not paid within thirty (30) days after the due date shall bear interest from the due date at the rate of 18% per annum or a late fee may be established by the Board of Directors. The Association may bring action at law against the Owner personally obligated to pay the same, or foreclose the lien against the property. No owner may waive or otherwise escape liability for the assessment provided for herein by non-use of the Association Property or abandonment of his Lot.

**Section 9. Subordination of the Lien to Mortgage.** The lien of the assessment provided for herein shall be subordinate to the lien of any first mortgage. Sale or transfer of any Lot shall not affect the assessment lien. However, the sale and transfer of any Lot pursuant to mortgage foreclosure or any proceeding in lieu thereof, shall extinguish the lien of such assessment as to payments which became due prior to such sale or transfer. No sale or transfer shall relieve such Lot from liability for any assessments thereafter becoming due or from the lien thereof.

## **ARTICLE V ARCHITECTURAL CONTROL**

**Section 1.** No building, fence, wall or other structure shall be commenced, erected, or maintained upon the Properties, nor shall any exterior addition to or change or alteration therein be made until the plans and specifications showing the nature, kind, shape, height, materials, and location of the same shall have been submitted to and approved in writing as to harmony of external design and location in relation to surrounding structures and topography by the Board of Directors of the Association, or by an architectural committee composed of three (3) or more representatives appointed by the Board. In the event said Board, or its designated committee, fails to approve or disapprove such design and location within thirty (30) days after said plans and specifications have been submitted to it, approval will not be required and this Article will be deemed to have been fully complied with. No dwelling of one story structure shall be permitted on any of the lots which contain less than 1550 square feet of ground floor area, exclusive of porches and garages. All lots shall have setbacks as shown on the Plat.

## **ARTICLE VI RESTRICTIONS ON USE OF PREMISES**

In addition to the rules and regulations which may be established by the Association, the following restrictions are placed upon the Property:

- (1) Each lot shall be used for residential purposes only. Each residential unit must be built with a two car garage. Carports are not acceptable.
- (2) Owners cannot convert garage area to living area.
- (3) Boats, trailers, recreation vehicles, commercial trucks or vehicles, or other transportable personal property will not be permitted in the open parking areas or drive, but must be stored only within garages or in enclosures in the back yard.
- (4) Mechanical work on any type of vehicle must be done in the garage only. No disabled or unlicensed vehicles may be kept parked in front of any house.
- (5) No motor vehicles shall be parked in the front or side yards except on an improved parking space or driveway.
- (6) Access to common and conservation areas is limited to members of the Association and immediate members or their family and to those persons maintaining any drainage or public

utility easements or structures within such areas.

(7) Members of the Association may bring guests into the Association Property provided such guests are accompanied by a member.

(8) Members who bring non-members onto the common/conservation areas are required to assume full responsibility and liability for their acts, safety, and well-being.

(9) Members who bring non-members into the common/conservation areas agree to hold the Association harmless for any injuries a non-member guest receives.

(10) Persons not permitted access under 1 or 2 above are not allowed in the common/conservation areas and are to be considered trespassers on the property.

(11) The Association Board of Directors shall establish restrictions on hours of use of various parts of the common/conservation and recreation facilities.

(12) Minor age children whose parents are not members of the Association may not occupy the Association Property at anytime except in the company of a member of the Association who assumes guardian responsibility for all acts or injuries that might result from use of these areas.

(13) Each member of the Association and all members of their family with legal authority to use common/conservation areas must do so at their own risk. The Association cannot assume responsibility for safety and security of members usage. A member of the Association does hereby waive all claim of liability against the Association and holds the Association harmless for all usages members make of the common/conservation area.

(14) No swings, ropes, ladders, tree houses, or structures may be erected or attached to any trees in the common/conservation area.

(15) No one may climb trees or inflict damage to trees in the common/conservation area.

(16) No weapons may be brought onto common/conservation areas by members or non-members. This shall include, but is not limited to, all air guns, BB guns, knives, clubs, sling shots, bow & arrows, darts, or any device that is primarily a weapon or tool for hunting.

(17) No hunting, trapping or fishing is allowed in the common/conservation areas.

(18) No unauthorized removal or cutting of any plants or trees in the common/conservation area is permitted.

(19) The Board may set regulations restricting the hours when garbage cans and trash containers may be set out in front of a residence for garbage/trash collection.

(20) Fences may not be constructed in the front yard of a residence.

(21) All fencing location size, and materials shall be allowed only with the approval of the Board or the Architectural Review Committee which may prohibit the use of certain fencing.

(22) No satellite dishes, antennas, or such other electronic transmitting or receiving devices may be installed anywhere outside a house on a lot unless approved by the Architectural Control Committee.

(23) Outside storage buildings can only be in the back yard and subject to the architectural review of the Association. Basketball goals must not be located in easement areas.

(24) If grass is left uncut, or other yard maintenance effecting appearance of the neighborhood is left undone by any member on a private residence, or if such residence is unoccupied or in foreclosure, the Association may arrange for cutting whenever the grass is in excess of 8 inches tall or have needed maintenance done and may bill the property owner. Such bill shall become a lien against the property if left unpaid for thirty days.

(25) No signs are permitted on the private property or Association Properties other than For Sale, Garage Sale and political candidate signs; messages are limited to necessary information only. Signs must be removed promptly when the occasion has ended. This restriction does not supersede Article VII Section 7.

(26) The exterior improvements on each lot must be kept in good repair at all times. If damaged by accident or the elements, repairs must be commenced within ninety (90) days and



completed in a timely manner.

(27) No business that requires on-site employees, visits by clients and/or related business traffic may be operated out of any house/garage unless approved by the Architectural Control Committee.

(28) No noxious, offensive, or hazardous activity shall be maintained upon Properties, nor shall anything be allowed thereupon which may be or may become an annoyance or nuisance.

(29) No clear cutting shall be allowed on any portion of a lot which is designated on the plat as A low density buffer@.

(30) All trees (8' diameter or larger) located within the rear or side building setback as shown on the plat shall not be removed without the permission of the Architectural Review Committee..

## **ARTICLE VII GENERAL PROVISIONS**

Section 1. Enforcement. The Association, or any Owner, shall have the right to enforce, by any proceeding at law or in equity, all restrictions, conditions, covenants, reservations, liens and charges now or hereafter imposed by the provisions of this Declaration. Failure by the Association or by any Owner to enforce any covenant or restriction herein contained shall in no event be deemed a waiver of the right to do so thereafter. The Association or any Owner incurring legal expenses or litigation costs related to successful enforcement of any covenant, restriction, or above items may recover such expenses or costs from the losing party, whether decided in court or settled out of court. The St. Johns River Water Management District and local governing agency shall have the right to enforce, by a proceeding at law or in equity, the provisions contained in the Covenants, Conditions and Restrictions which relate to the maintenance, operation and repair of the surface water or stormwater management system.

Section 2. Severability. Invalidation of any one of these covenants or restrictions by judgment or court order shall in no wise affect any other provisions which shall remain in full force and effect.

Section 3. Amendment. The covenants and restrictions of this Declaration shall run with and bind the land, for a term of twenty (20) years from the date this Declaration is recorded, after which time the shall be automatically extended for successive periods of ten (10) years. This Declaration may be amended during the first twenty (20) year period by an instrument signed by not less than sixty-seven percent (67%) of the Lot Owners, and thereafter by an instrument signed by not less than seventy-five percent (75%) of the Lot Owners. Any amendment to the Covenants, Conditions and Restrictions which alter any provision relating to the surface water or storm water management system, beyond maintenance in its original condition, including the water management portions of the Association Properties, must have the prior approval of the Suwannee River Water Management District and local governing agency.

Section 4. Annexation. Additional residential property and Association Property may be annexed to the Properties with the consent of two-thirds (2/3) of the combined vote of both Class A and B members who are voting in person or by proxy. Additional land within Section 8, Township 8 South, Range 18 East, Alachua County, Florida, may be annexed to the Properties by the Declarant without the consent of members.

Section 5. Surface Water or Stormwater Management System. The Association shall be responsible for the maintenance, operation and repair of the surface water or stormwater management system. Maintenance of the surface water or stormwater management system(s) shall mean the exercise of practices which allow the systems to provide drainage, water storage, conveyance or other surface water or stormwater management capabilities as permitted by the Suwannee River Water Management District, and local government jurisdiction. The Association shall be responsible for such maintenance and operation. More specifically, said maintenance and repair for each retention facility shall include, but is not limited to, the following: mow grass, inspect the discharge structures, keep ponds free of trash and debris, inspect beams for washout or erosion, fill and sod any washout or erosion within one week, inspect vertical volume recovery structures for sediment build up and keep free of obstruction, any fences around ponds are to be inspected for continuity and promptly repaired if necessary. Said inspections shall be done on a monthly basis. Any repair or reconstruction of the surface water or stormwater management system shall be as permitted or, if modified, as approved by the Suwannee River Water Management District, and local government jurisdiction.

Section 6. Flood Prone Areas.



Properties which have natural ground elevations less than the 100-year flood elevation as shown on the Plat are prone to severe flooding. Development on such properties is subject to special regulation (based on the minimum standards of the Federal Emergency Management Agency, National Flood Insurance Program) by Alachua County. Any development within areas designated as flood prone is subject to all development restrictions outlined in Alachua County's Flood Hazard Area Ordinance. Such development may require special surveying, engineering, or architectural design to insure that flood hazard is not increased by the development.

Properties which have natural ground elevations less than the 10-year flood elevation as shown on the Plat, if any is shown, are subject to common and frequent flooding (a ten percent probability of flooding in any year). Such properties may not be suitable or eligible for permits for onsite sewage disposal systems (septic tanks).

Section 7. Declarant shall have the right to erect and maintain signs and a model or models for sales purposes anywhere on the property.

Section 8. Conservation Management. The Association shall be responsible for the management of the conservation areas including tortoises areas pursuant to the Conservation Management Plan approved by the County.

Section 9. Disclosures. Periodic prescribed burning is a recognized land management tool and a recommended method of fuel management in this area for minimizing wildfire hazards. Prescribed burning may result in the periodic occurrence of temporary smoke and ash. Reference the Wildfire Mitigation section within the Common Open Space Easement Management Plan as well as Policy 5.6.8 of the Conservation and Open Space Element of the adopted Alachua County Comprehensive Plan for additional details.

#### **ARTICLE VIII RULES AND REGULATIONS**

Section 1. Compliance. Every Owner shall comply with the restrictions and covenants set forth herein and any and all reasonable rules and regulations which may from time to time be adopted by the Board of Directors of the Association. No such rules or regulations shall vary the assessment obligation set forth in Article IV.

Section 2. Enforcement. Failure of an Owner to comply with such restrictions, covenants, rules and regulations shall be grounds for action which may include without limitation any action to recover sums due for damages, injunctive relief, or any combination thereof and the Association shall have the right to suspend voting rights and use of Association Property as it shall determine.

Section 3. Fines. In addition to all other remedies in the sole discretion of the Board of Directors of the Association a fine or fines may be imposed upon an Owner for failure of an Owner, his family, guests, invitees or employees to comply with any covenant, restrictions, rules or regulations providing the following procedures are followed:

(a) Notice. The Association shall notify the Owner of the infraction or infractions. Included in the notice shall be the date and time of the next Board of Directors meeting at which time the Owner shall present reasons why penalties should not be imposed.

(b) Hearing. The noncompliance shall be presented to the Board of Directors after which the Board of Directors shall hear reasons why penalties should not be imposed. Any party charged shall be entitled to cross examine witnesses and may be represented by counsel. A written decision of the Board of Directors shall be submitted to the Owner not later than twenty-one (21) days after the Board of Directors meeting.

(c) Fines. The Board of Directors may impose special assessments against the Lot owned by the Owner as follows:

- (1) First non-compliance or violation: a fine not in excess of One Hundred Dollars (\$100.00)
- (2) Second non-compliance or violation: a fine not in excess of Five Hundred Dollars (\$500.00)
- (3) Third and subsequent non-compliance or violation or violations which are of a continuing nature: a fine not in excess of One Thousand Dollars (\$1,000.00)

(d) Payment of Fines. Fines shall be paid not later than thirty (30) days after notice of the imposition or assessment of the penalties.

(e) Collection of Fines. All monies received from fines shall be allocated as directed by the Board of Directors.

(f) Non-exclusive Remedy. These fines shall not be construed to be exclusive and shall exist in addition to all other rights and remedies to which the Association may be otherwise legally entitled.

**IN WITNESS WHEREOF**, the undersigned, being the Declarant herein, has hereunto signed this Declaration this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signed, sealed and delivered  
in our presence as witnesses:

\_\_\_\_\_  
Witness

GOLDEN POND FARMS, INC.

\_\_\_\_\_  
Witness

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

STATE OF FLORIDA  
COUNTY OF ALACHUA

I HEREBY CERTIFY that on this day, before me, an officer duly authorized to administer oaths and take acknowledgments, personally appeared ERIC J. PARKER, as President of Golden Pond Farms, Inc., to me known to be the person described in and who executed the foregoing instrument, who acknowledged before me that he executed the same, and an oath was not taken.  
(Check one) \_\_\_\_\_ Said person is personally known to me or \_\_\_\_\_ has provided the following type of identification: \_\_\_\_\_

WITNESS my hand and official seal in the County and State last aforesaid this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

\_\_\_\_\_  
NOTARY PUBLIC  
My Commission Expires: