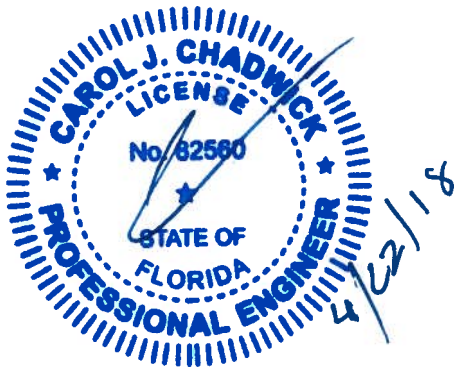
CAROL CHADWICK, P.E.
Civil Engineer
1208 S.W. Fairfax Glen
Lake City, FL 32025
307.680.1772
ccpewyo@gmail.com

April 23, 2018

ONE FOOT RISE CERTIFICATION

Owner:	Larry & Nandea Skinner
Property Address:	853 SE Julia Terrace Lake City, FL 32024
Property Description:	Lot 15, Hawks Ridge Acres Phase 2 Section 26, Township 6 South, Range 17 East Columbia County, Florida
Structure in Floodway:	40' x 40' 2-story home
River Mile:	RS 33.57
Elevation of 100-year flood:	54.0 feet
Community Panel:	120070 0512C

I hereby certify that the construction of the proposed residence will not obstruct flow or cause more than a 1.00 foot rise in the 100-year flood elevation of the Santa Fe River.



Carol Chadwick, P.E.

CC Job FL18008

ONE FOOT RISE REPORT

Prepared for:

LARRY & NANSEA SKINNER

853 S.E. Julia Terrace
Lake City, FL

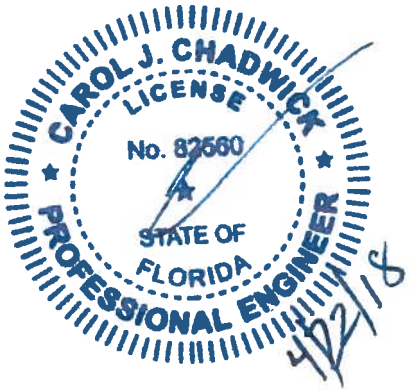
Lot 15, Hawks Ridge Acres Phase 2
Section 26, Township 6 South, Range 17 East

Columbia County, Florida

April 20, 2018

Prepared by:

Carol Chadwick, P.E.
307.680.1772
ccpewyo@gmail.com



This document was originally issued and sealed by Carol Chadwick, P.E., registration number 82560 on the date shown and the original document is stored at her office.

CC Job FL18008

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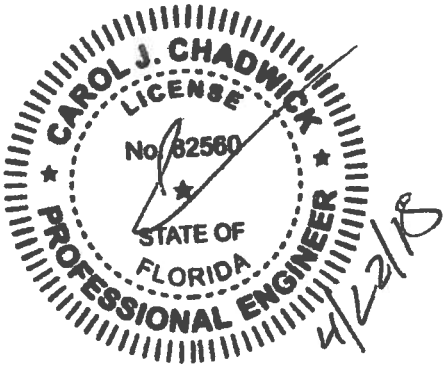


PROJECT DESCRIPTION

Larry and Nansea Skinner would like to permit improvements to Lot 15, Hawks Ridge Acres Phase 2 located in Section 26, Township 6 South, Range 157 East, Columbia County, Florida. Propoerty address is 853 S.E. Julia Terrace, Lake City, FL. The parcel number for the property is 26-6s-17-09859-815. The permit will be for the construction of a new two- story home. The home will be 40' by 40'. A Location Map and Architectural Plans are attached. The proposed structure is not located within 75 feet of the Santa Fe River.

The river station (RS) was determined by approximating the river centerline from a combination of the GIS property lines and an aerial image. The stationing was verified by comparing the I-75 bridge at RS 37.165 in the HEC-RAS model obtained from SRWMD to the river station obtained from the estimated river centerline.

The proposed structure will be built northeast of the benchmark shown on the survey with the front of the home directly east of the benchmark. The elevation of the proposed building site has an approximate elevation of 57.0. The base flood elevation is 54.0 per the Columbia County Flood map. The structure will automatically have a lowest finished floor elevation that exceeds the minimum of 55.00. In the future, the owners may elect to file a LOMA with FEMA to have the portion of the lot with elevation greater than the BFE removed from the floodplain.

Photo 1. Benchmark shown on survey.

CAROL J. CHADWICK LICENSE No. 82560 STATE OF FLORIDA PROFESSIONAL ENGINEER

5/22/18

Photo 2. Building site taken from benchmark.

Photo 3. Building site looking northwest.

CAROL J. CHADWICK
LICENSE
NO. 82580
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
4/22/18

ANALYSIS

A One Foot Rise Certification with supporting documentation is attached. A new cross-section was interpolated from existing cross-sections and is shown on the Site Plan. The following steps were executed in performing the zero rise calculations:

1. Run the model with Suwannee River Water Management District (SRWMD) existing cross-sections. Verify that the model matches the original flood study results.

   The output from the run using the existing cross-sections matched the original flood study. The HEC-RAS model was obtained from SRWMD.

2. Interpolate between existing cross-sections and add a new cross-section at the site location.

   The closest existing cross-section is at RS 35.57. Directly downstream from this cross-section is the swallet and the nearest cross-section after that is RS 33.85. No new cross-section was created due to the distance. Runs are included for RS 35.57, RS 35.58 and RS 37.07.

3. Verify the run using by confirming that the additional cross-section matches the original output.

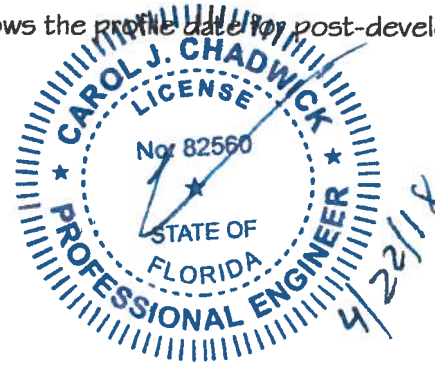
   The interpolated cross-section was calculated using HEC-RAS 5.0.3 from the model obtained from SRWMD so the 100-year flood levels are consistent with the current flood study.

4. Add obstructions along the new cross-section to model the new development.

   A 40' obstruction was added at cross-section RS 33.57 to model the proposed structure. The obstruction was added as far as possible from the river in the cross-section so that it could be modeled even though the actual location is past the cross-section reach.

5. Verify the run including the obstacles does not obstruct flows or cause more than a 1.00 foot rise in the 100-year flood elevations of the Santa Fe River.

   Calculations show no obstruction of flow and the water surface elevations for all three runs show no more than a 1.00 foot increase, therefore a zero rise is Table 1 shows the profile data for pre-development conditions and Table 2 shows the profile data for post-development conditions.



Profile Output Table - Standard Table 1

File Options Std. Tables Locations Help

HEC-RAS Plan: FW Locations: User Defined

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Santa Fe	Main	37.07	100 Year	32569.00	30.94	54.53		54.59	0.000067	2.61	56444.23	4392.82	0.10
Santa Fe	Main	37.07	FW	32569.00	30.94	55.38		55.43	0.000067	2.63	51175.63	3538.00	0.10
Santa Fe	Main	35.58	100 Year	32569.00	29.84	53.92		54.01	0.000117	3.16	46474.15	6110.48	0.13
Santa Fe	Main	35.58	FW	32569.00	29.84	54.78		54.87	0.000108	3.13	43371.51	5126.48	0.13
Santa Fe	Main	35.57	100 Year	32569.00	29.84	53.92		54.01	0.000117	3.16	46459.44	6109.61	0.13
Santa Fe	Main	35.57	FW	32569.00	29.84	54.78		54.87	0.000109	3.13	43360.13	5126.37	0.13

Table 1. Pre-development profile data.

Profile Output Table - Standard Table 1

File Options Std. Tables Locations Help

HEC-RAS Plan: FW Locations: User Defined

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Santa Fe	Main	37.07	100 Year	32569.00	30.94	54.53		54.59	0.000067	2.61	56444.23	4392.82	0.10
Santa Fe	Main	37.07	FW	32569.00	30.94	55.38		55.43	0.000067	2.63	51175.63	3538.00	0.10
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Santa Fe	Main	35.58	FW	32569.00	29.84	54.78		54.87	0.000108	3.13	43371.51	5126.48	0.13
Santa Fe	Main	35.57	100 Year	32569.00	29.84	53.92		54.01	0.000117	3.16	46391.48	6070.53	0.13
Santa Fe	Main	35.57	FW	32569.00	29.84	54.78		54.87	0.000109	3.13	43360.13	5126.37	0.13

Table 2. Post-development profile data.

CONCLUSION

Calculations show no obstruction of flow and the water surface elevations for all three runs show no increase; therefore, there will be no rise in the base flood elevation and a zero rise is acheived.

CAROL J. CHADWICK
LICENSE
No. 82560
STATE OF FLORIDA
PROFESSIONAL ENGINEER
4/22/18

WARRANTY DEED

&

COLUMBIA COUNTY PROPERTY APPRAISER MAP

Inst. Number: 201812005126 Book: 1355 Page: 1080 Page 1 of 2 Date: 03/14/2018 Time: 10:09 AM
P. DeWitt Cason Clerk of Courts, Columbia County, Florida Doc Deed: 245.00

Prepared by and return to:
Lizete M. Raiford

Community Title, LLC
175 NW 138th Ter., Ste. 100
Newberry, FL 32669
352-331-0817
File Number: **CT-18-1092**
Will Call No.:

Parcel Identification No. **26-6S-17-09859-815**

[Space Above This Line For Recording Data]

Warranty Deed

(STATUTORY FORM - SECTION 689.02, F.S.)

This Indenture made this **2nd** day of **March, 2018** between **Juliana Moore** whose post office address is **420 SW 254th St, Newberry, FL 32669** of the County of **Alachua**, State of **Florida**, grantor*, and **Larry Skinner and Nansea Skinner, husband and wife** whose post office address is **1801 Kinard Rd, Bryceville, FL** of the County of **Suwannee**, State of **Florida**, grantee*,

Witnesseth that said grantor, for and in consideration of the sum of TEN AND NO/100 DOLLARS ($10.00) and other good and valuable considerations to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the said grantee, and grantee's heirs and assigns forever, the following described land, situate, lying and being in **Columbia County, Florida**, to-wit:

Begin at the NW corner of SW 1/4 of SW 1/4 of Section 26, Township 6 South, Range 17 East, thence run North 88° 10' 07" East, along the North line of SW 1/4 of SW 1/4 a distance of 654.04 feet, thence South 02° 52' 16" East, 704.20 feet, thence South 88° 15' 51" West, 654.06 feet to a point on the West line of said SW 1/4 of SW 1/4, thence North 02° 52' 16" West, along said west line, 703.11 feet to the Point of Beginning,

Also Known as LOT 15, HAWKS RIDGE ACRES PHASE 2, Unrecorded Subdivision. IN COLUMBIA COUNTY, FLORIDA.

Grantor warrants that at the time of this conveyance, the subject property is not the Grantor's homestead within the meaning set forth in the constitution of the state of Florida, nor is it contiguous to or a part of homestead property.

Subject to taxes for 2018 and subsequent years; covenants, conditions, restrictions, easements, reservations and limitations of record, if any.

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

* "Grantor" and "Grantee" are used for singular or plural, as context requires.

In Witness Whereof, grantor has hereunto set grantor's hand and seal the day and year first above written.

Signed, sealed and delivered in our presence:

Witness Name: Carol Matto

Witness Name: Lizete Raiford

Juliana Moore

State of Florida
County of Alachua

The foregoing instrument was acknowledged before me this 2nd day of March, 2018 by Juliana Moore, who [_] is personally known or [X] has produced a driver's license as identification.

[Notary Seal]

LIZETE M. RAIFORD
NOTARY PUBLIC
STATE OF FLORIDA
Comm# FF120580
Expires 6/14/2018

Notary Public

Printed Name: Lizete Raiford

My Commission Expires: _____

Columbia County Property Appraiser

updated: 3/7/2018

2017 Tax Year

Parcel: 26-6S-17-09859-815

<< Next Lower Parcel | Next Higher Parcel >>

Tax Collector | Tax Estimator | Property Card | Parcel List Generator

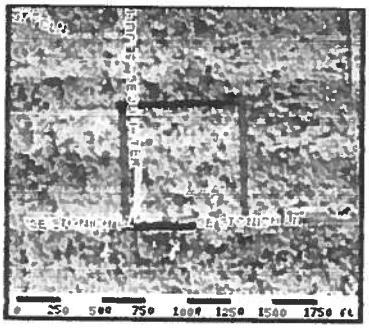
2017 TRIM (pdf) | Interactive GIS Map | Print

Search Result: 1 of 1

Owner & Property Info

Owner's Name	MOORE JULIANA		
Mailing Address	420 SW 254TH ST NEWBERRY, FL 32669		
Site Address	853 SE JULIA TER		
Use Desc. (code)	VACANT (000000)		
Tax District	3 (County)	**Neighborhood**	35617
Land Area	10.560 ACRES	**Market Area**	02
Description	NOTE: This description is not to be used as the Legal Description for this parcel in any legal transaction.		

AKA LOT 15 HAWKS RIDGE ACRES UNREC: BEG NW COR OF SW1/4 OF SW1/4, RUN E 654.04 FT, S 2 DEG E 704.20 FT, W 654.06 FT, N 2 DEG W 703.11 FT TO POB. ORB 919-80, WD 1274-650.



Property & Assessment Values

2017 Certified Values		
Mkt Land Value	cnt: (0)	$12,182.00
Ag Land Value	cnt: (1)	$0.00
Building Value	cnt: (0)	$0.00
XFOB Value	cnt: (0)	$0.00
Total Appraised Value		$12,182.00
Just Value		$12,182.00
Class Value		$0.00
Assessed Value		$12,182.00
Exempt Value		$0.00
Total Taxable Value		Cnty: $12,182 Other: $12,182 | Schl: $12,182

2018 Working Values		
Mkt Land Value	cnt: (0)	$13,400.00
Ag Land Value	cnt: (1)	$0.00
Building Value	cnt: (0)	$0.00
XFOB Value	cnt: (0)	$0.00
Total Appraised Value		$13,400.00
Just Value		$13,400.00
Class Value		$0.00
Assessed Value		$13,400.00
Exempt Value		$0.00
Total Taxable Value		Cnty: $13,400 Other: $13,400 | Schl: $13,400

NOTE: **2018 Working Values are NOT certified values and therefore are subject to change before being finalized for ad valorem assessment purposes.**

Sales History

Show Similar Sales within 1/2 mile

Sale Date	OR Book/Page	OR Code	Vacant / Improved	Qualified Sale	Sale RCode	Sale Price
4/30/2014	1274/650	WD	V	Q	01	$12,500.00
1/26/2001	919/80	WD	V	Q		$18,500.00

Building Characteristics

Bldg Item	Bldg Desc	Year Blt	Ext. Walls	Heated S.F.	Actual S.F.	Bldg Value
NONE						

Extra Features & Out Buildings

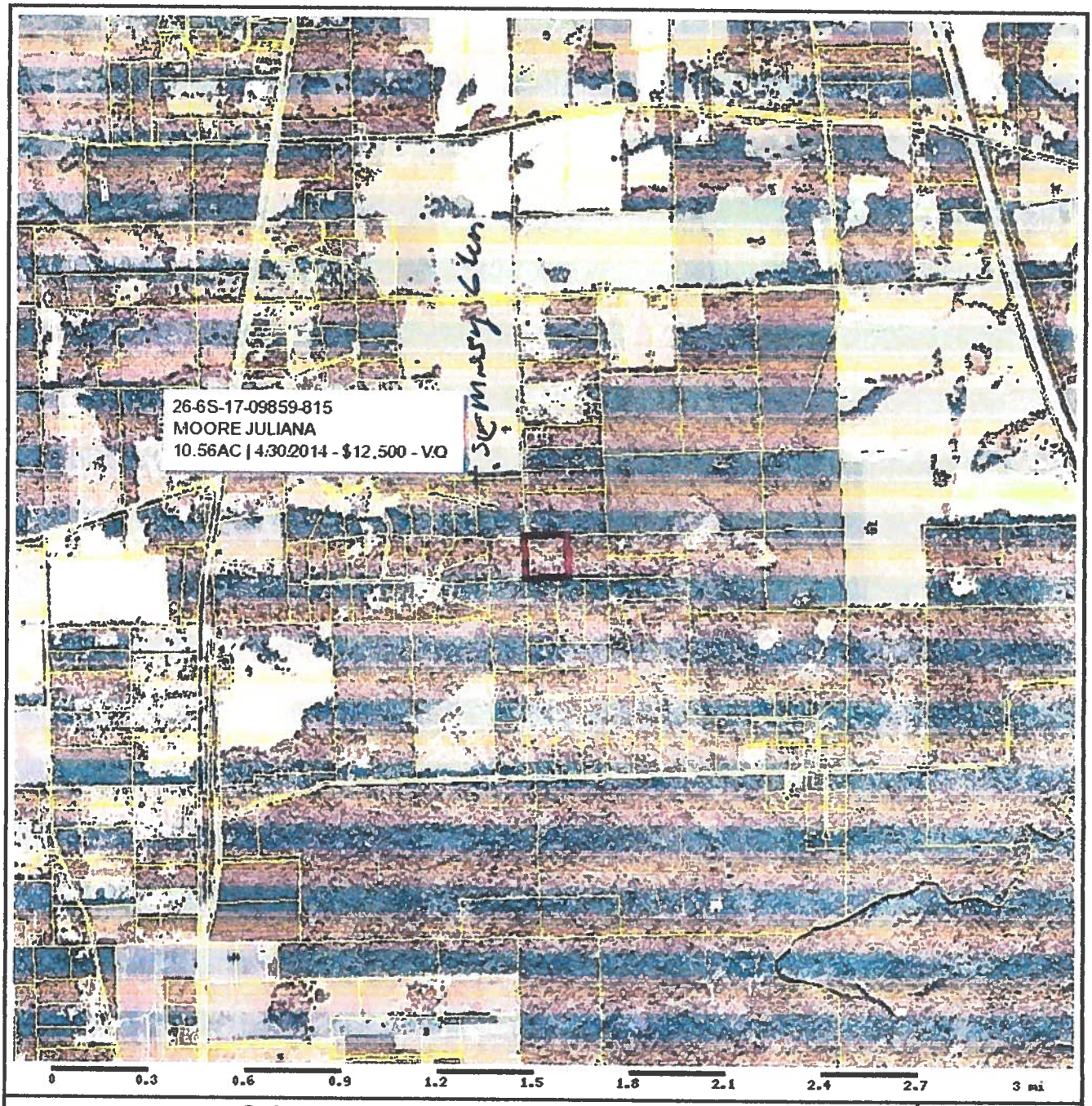
Code	Desc	Year Blt	Value	Units	Dims	Condition (% Good)
NONE						

Land Breakdown

Lnd Code	Desc	Units	Adjustments	Eff Rate	Lnd Value
000000	VAC RES (MKT)	10.56 AC	1.00/1.00/0.50/0.80	$1,268.94	$13,400.00

Columbia County Property Appraiser

updated: 3/7/2018



Columbia County Property Appraiser

Jeff Hampton - Lake City, Florida 32055 | 386-758-1083

PARCEL: 26-6S-17-09859-815 - VACANT (000000)

AKA LOT 15 HAWKS RIDGE ACRES UNREC: BEG NW COR OF SW1/4 OF SW1/4, RUN E 654.04 FT, S 2 DEG E 704.20 FT, W 654.06 FT, N 2 DEG W 703.11 FT TO POB. ORB 9

Name:	MOORE JULIANA		
Site:	853 SE JULIA TER		
Mail:	420 SW 254TH ST NEWBERRY, FL 32669		
Sales	4/30/2014	$12,500.00	V / Q
Info	1/26/2001	$18,500.00	V / Q

2017 Certified Values

Land	$12,182.00
Bldg	$0.00
Assd	$12,182.00
Exmpt	$0.00
Taxbl	Cnty: $12,182 Other: $12,182 | Schl: $12,182

NOTES:

ONE FOOT RISE CERTIFICATION

CAROL CHADWICK, P.E.
Civil Engineer
1208 S.W. Fairfax Glen
Lake City, FL 32025
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I hereby certify that the construction of the proposed residence will not obstruct flow or cause more than a 1.00 foot rise in the 100-year flood elevation of the Santa Fe River.

CAROL J. CHADWICK LICENSE No. 82860 STATE OF FLORIDA PROFESSIONAL ENGINEER

4/22/18

Carol Chadwick, P.E.

CC Job FL18008

LOCATION MAP

LOCATION MAP

CAROL J. CHADWICK LICENSE No. 82560 STATE OF FLORIDA PROFESSIONAL ENGINEER

4/22/18

SCALE 1" = 1500'
0 750 1500

PROJECT NO. FL18008	SKINNER HOUSE LOCATION MAP 853 SE JULIA TERRACE, LAKE CITY, FL	PREPARED FOR LARRY & NANSEA SKINNER 853 SW JULIA TERRACE LAKE CITY, FL
DATE APR. 22, 2018		
REVISION DATE		
SHEET 1 OF 1		

DATE | REVISION DESCRIPTION

CAROL CHADWICK P.E.

WYOMING • MONTANA • NEVADA • IDAHO
FLORIDA • OREGON • CALIFORNIA

FEMA FIRM & FIRMETTE

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Lambert Conformal Conic Florida North Zone. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

Spatial Reference System Division
National Geodetic Survey, NOAA
Silver Spring Metro Center
1315 East-West Highway
Silver Spring, Maryland 20910
(301) 713-3191

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from Florida Department of Transportation aerials produced at a scale of 1:200 from photography dated 2006.

This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables for Suwannee River and Santa Fe River in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

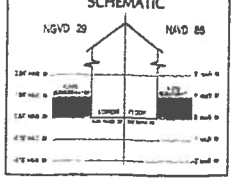
Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

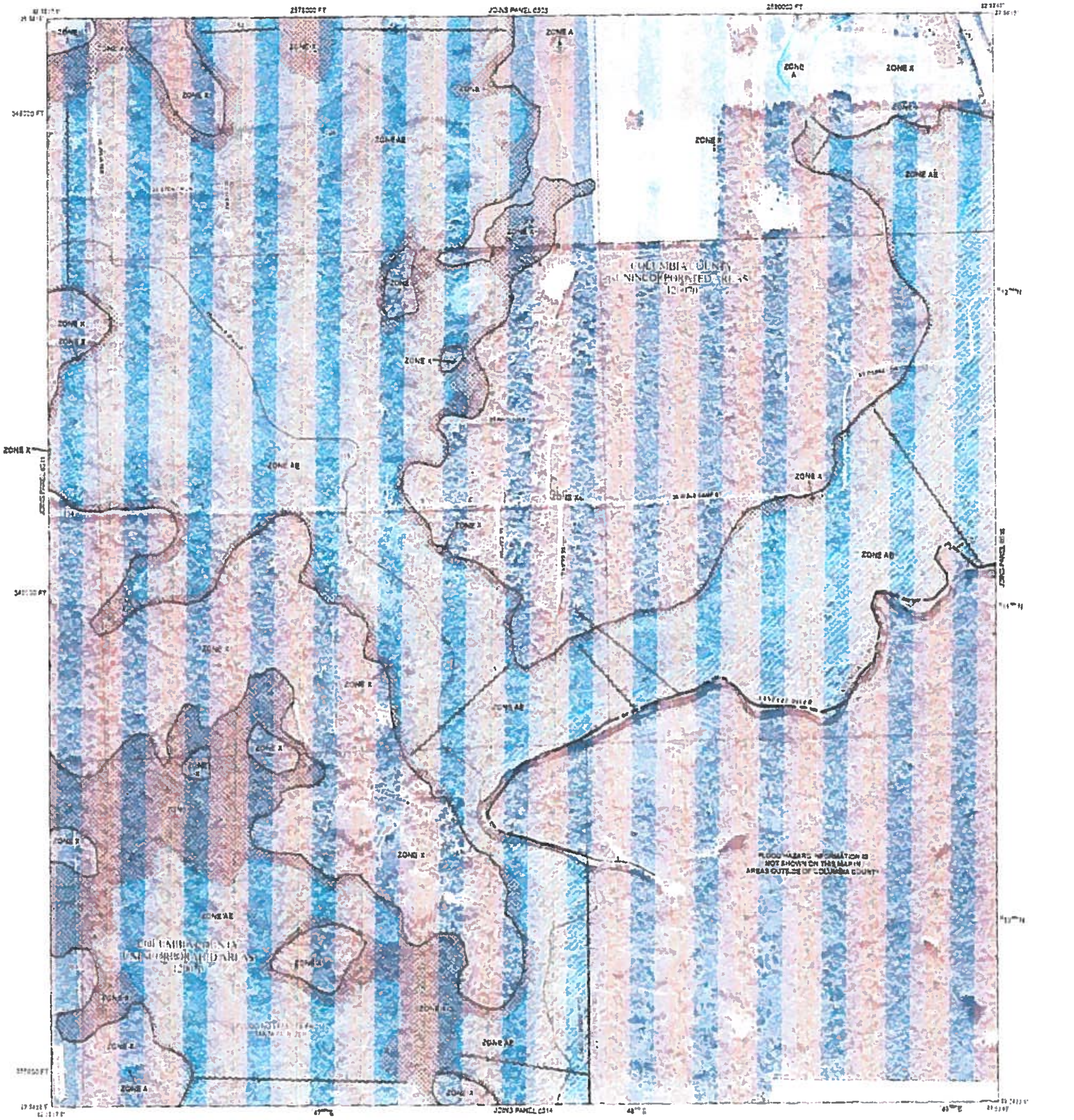
Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels, community map repository addresses, and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://www.msc.fema.gov.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA MAP (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.

DATUM CONVERSION SCHEMATIC





LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

ZONE A
ZONE AE
ZONE AH
ZONE AO
ZONE AR
ZONE A99
ZONE V
ZONE VE

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

ZONE X

OTHER AREAS

ZONE X
ZONE D

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

MAP SCALE 1" = 500'

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0512C

FIRM
FLOOD INSURANCE RATE MAP

COLUMBIA COUNTY, FLORIDA
AND INCORPORATED AREAS

PANEL 512 OF 662

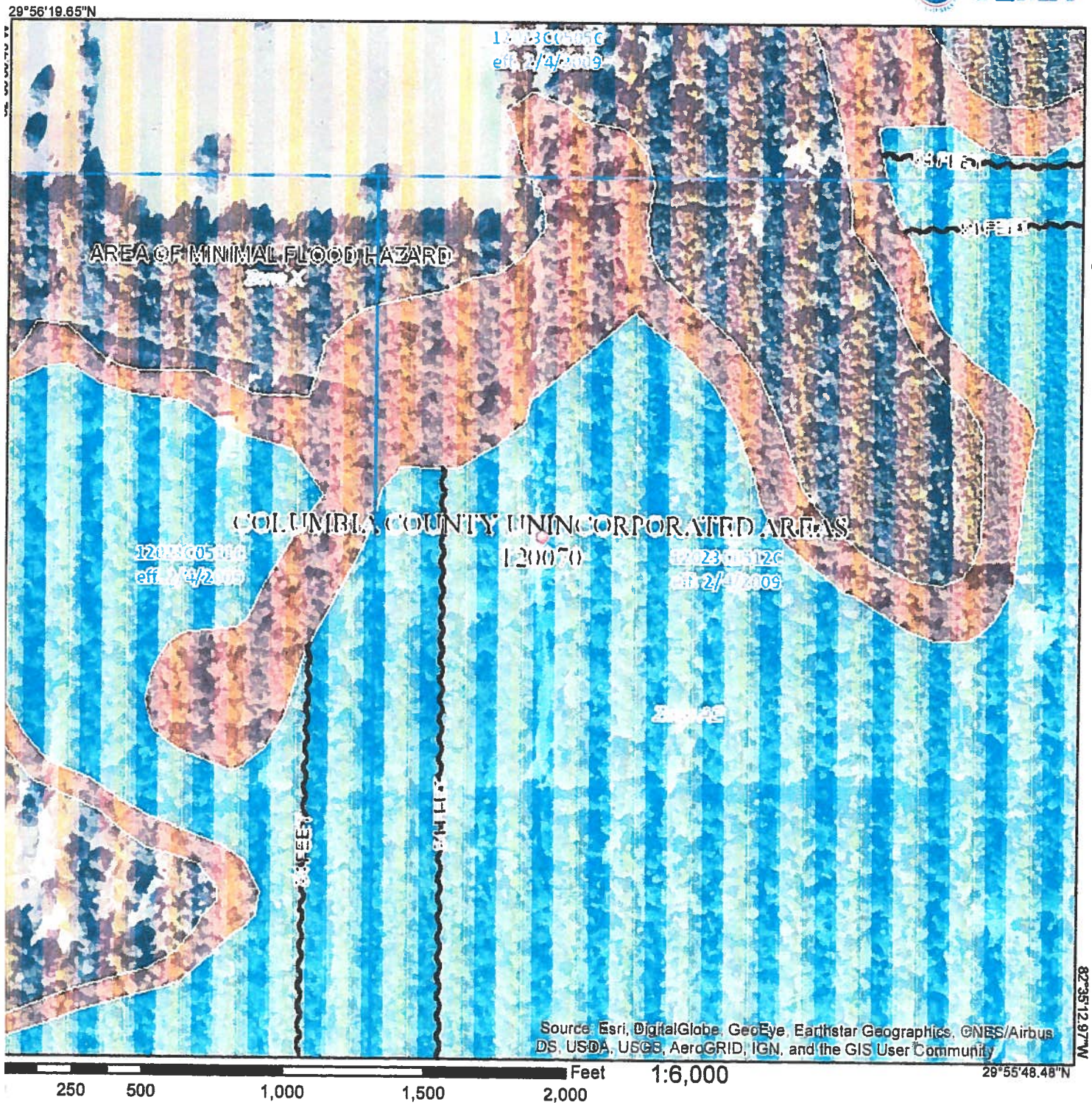
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

MAP NUMBER
12023C0512C

EFFECTIVE DATE
FEBRUARY 4, 2009

Federal Emergency Management Agency

National Flood Hazard Layer FIRMette



FEMA

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- **SPECIAL FLOOD HAZARD AREAS**
  - Without Base Flood Elevation (BFE) Zone A, V, A99
  - With BFE or Depth
  - Regulatory Floodway Zone AE, AO, AH, VE, AR
- **OTHER AREAS OF FLOOD HAZARD**
  - 0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
  - Future Conditions 1% Annual Chance Flood Hazard Zone X
  - Area with Reduced Flood Risk due to Levee. See Notes. Zone X
  - Area with Flood Risk due to Levee Zone D
- **OTHER AREAS**
  - NO SCREEN Area of Minimal Flood Hazard Zone X
  - Effective LOMRs
  - Area of Undetermined Flood Hazard Zone D
- **GENERAL STRUCTURES**
  - Channel, Culvert, or Storm Sewer
  - Levee, Dike, or Floodwall
- **OTHER FEATURES**
  - 20.2 Cross Sections with 1% Annual Chance
  - 17.5 Water Surface Elevation
  - Coastal Transect
  - Base Flood Elevation Line (BFE)
  - Limit of Study
  - Jurisdiction Boundary
  - Coastal Transect Baseline
  - Profile Baseline
  - Hydrographic Feature
- **MAP PANELS**
  - Digital Data Available
  - No Digital Data Available
  - Unmapped

N

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The base map shown complies with FEMA's base map accuracy standards

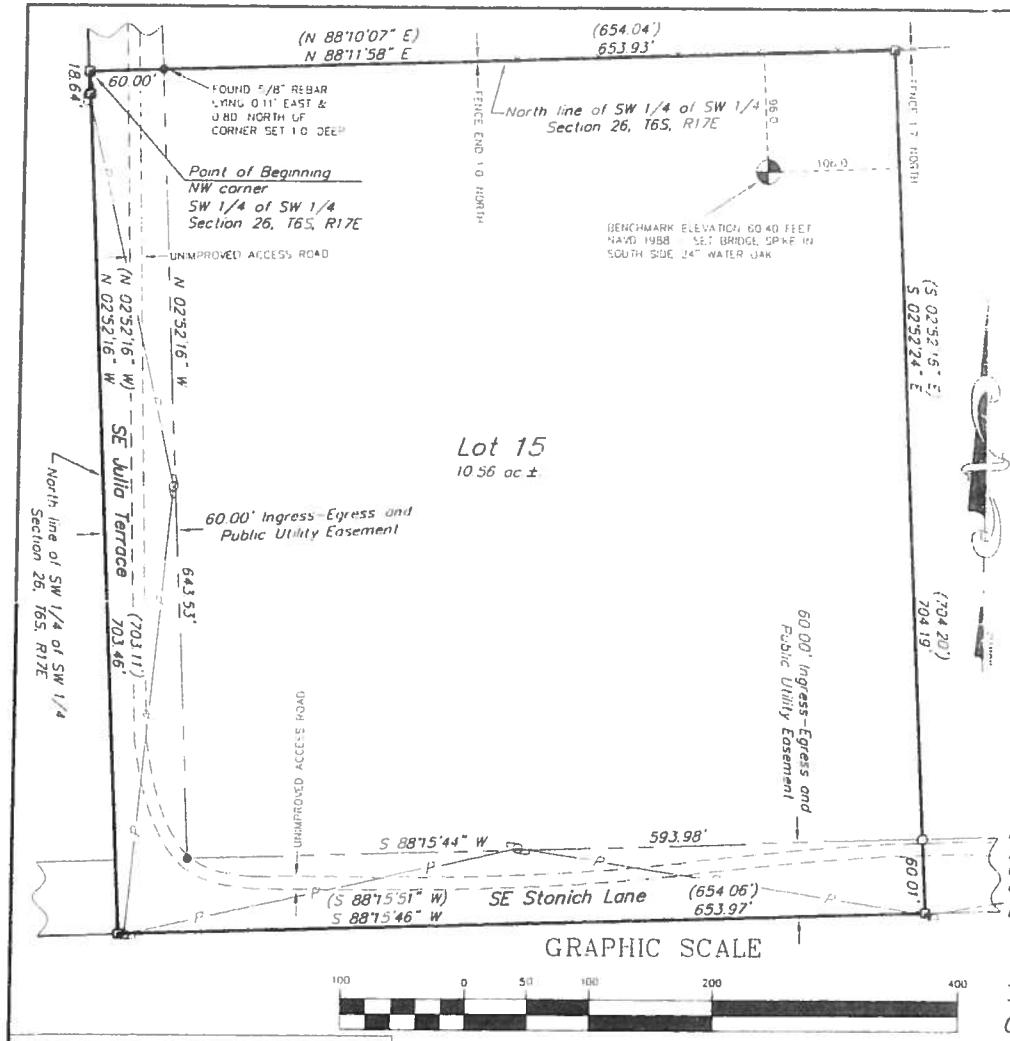
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/20/2018 at 4:36:21 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

SURVEY BY PARRISH LAND SURVEYING

A Boundary Survey In
Section 26, Township 6 South, Range 17 East
Columbia County, Florida

For: Juliana Moore



GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft

Description:

(Official Records Book 919, Page 80)
Columbia County, Florida - Section 26, Township 6 South, Range 17 East

Begin at the Northwest corner of SW 1/4 of SW 1/4 of said Section 26, run N 88°10'07" E, along the North line of SW 1/4 of SW 1/4, a distance of 654.04 feet, thence S 02°52'16" E, 704.20 feet; thence S 88°15'51" W, 654.06 to a point on the West line of said SW 1/4 of SW 1/4, thence N 02°52'16" W, along said West line, 703.11 feet to the POINT OF BEGINNING. Also known as Lot 15, Hawks Ridge Acres, Phase II, an unrecorded subdivision.

SUBJECT TO Declaration of Covenants and Restrictions as recorded in Official Records Book 887, pages 2312-2319, public records of Columbia County, Florida.

ALSO SUBJECT TO Road Maintenance Agreement as recorded in Official Records Book 887, pages 2313-2319, public records of Columbia County, Florida.

ALSO SUBJECT TO local building and zoning regulations, land use regulations, and road rights-of-way.

Surveyor's Notes:

1.) Bearings referenced to the West line of the SW 1/4 of SW 1/4, Section 26, T6S, R17E, (N 02°52'16" W) based on an assumed meridian.
2.) Below ground foundations not located.
3.) Improvements do not exist.
4.) Below ground utilities not located.
5.) Comparison of field measurements to deed calls are shown hereon with deed calls being shown in parentheses ( ).
6.) Boundary determined from existing and locally accepted monumentation.
7.) Except as specifically stated or shown on this plat, this survey does not purport to reflect any of the following which may be applicable to the subject real estate: easements, other than possible easements that were visible at the time of making of this survey, building setback lines, restrictive covenants, subdivision restrictions, zoning or other land use regulations, and any other facts that an accurate and current title search may disclose.
8.) DECLARATION is made solely to those that this survey is certified to. It is not transferable to additional institutions or subsequent owners.
9.) Survey "Not valid without the signature and original raised seal of a Florida Surveyor and Mapper." Additions or deletions to survey maps or reports by other than the signing party or parties is prohibited without written consent of the signing party or parties.
10.) Certification of survey data shown upon this plat is valid as per the field work completion date and not as per signature date.
11.) Parcel Identification No. 26-6S-17-09859-815, Property Address - 974 SE Julia Terrace, Lake City, Florida, 32025.
12.) Elevations referenced to North American Vertical Datum of 1988 (NAVD 1988). Benchmark used - Designation 175 B 2, PID AR0116, Quad Mikesville (1993), Elevation = 172.99 feet.

Flood Zone Statement:

Based upon examination of Flood Insurance Rate Map (FIRM) Number 12023C0512C, effective date February 4, 2009, Columbia County, Florida, this property lies in ZONE AE, Special flood hazard areas subject to inundation by the 1% annual chance flood. Base flood elevation = 54 feet, North American Vertical Datum 1988.

Legend:

- ◪ Denotes 4"x 4" concrete monument found - PLS 3628
- ● Denotes 5/8" rebar set - PSM 4929
- ○ Denotes 1/2" rebar found - PSM 5757
- Ø Denotes power pole
- ——P—— Denotes aerial electric line
- ——x—— Denotes existing wire fence

Certificate:

I hereby certify that this is a true and correct representation of a survey made under my responsible direction and supervision, that meets the minimum technical standards set forth by the Board of Professional Surveyors and Mappers in Chapter 5J-17, Florida Administrative Code, pursuant to Section 472.027, Florida Statutes.

11/4/15
Dated

Ronald E. Parrish, PSM Cert. No. 4929

Field work completed 4/15/2014 - Job No. G-92-14 - Field Book 2014-CGP - Drawn by REP
Revised 11/4/2015 to add benchmark. Fieldwork completed 4/15/2015.

Parrish Land Surveying
Ronald E. Parrish - PSM 4929
Licensed Business No. 7472
305 S. Main St.
Trenton, Florida 32693
Phone (352) 463-2938 * Fax (352) 463-8163

Certified To:

Juliana Moore
Florida Credit Union
American Title Services of Lake City, Inc
Fidelity National Title Insurance Company

COLUMBIA COUNTY FLOOD MAP

Legend

Parcels

BaseFloodElevations
- DEFAULT
- Base Flood Elevations

Centerlines
- Roads
- others
- Dirt
- Interstate
- Main
- Other
- Paved
- Private

Flood Zones
- 0.2 PCT ANNUAL CHANCE
- A
- AE
- AH

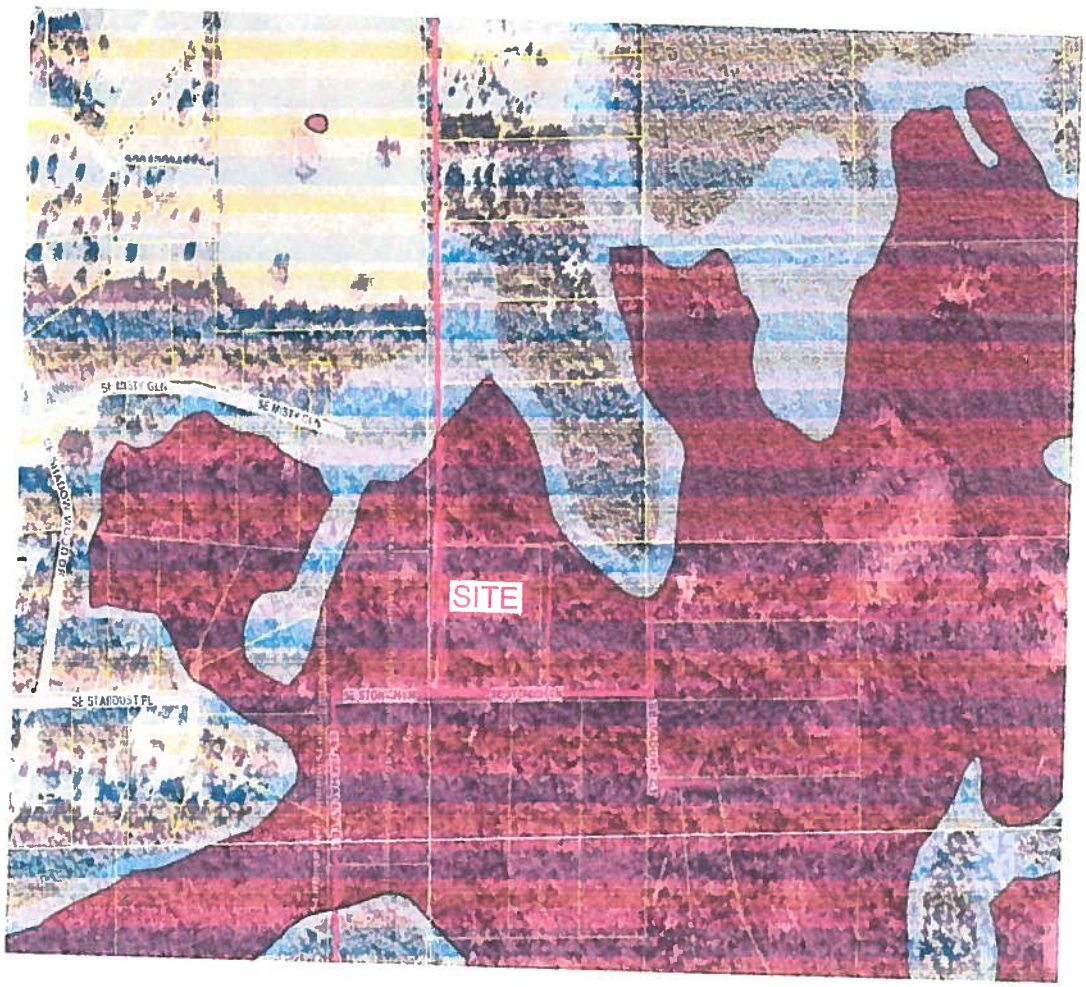
2016Aerials

SectionTownshipAndRange

Flood Zones
- 0.2 PCT ANNUAL CHANCE
- A
- AE
- AH

Columbia County, FLA - Building & Zoning Property Map

Printed: Thu Apr 12 2018 12:37:21 GMT-0400 (Eastern Daylight Time)



Parcel Information

Parcel No: 26-6S-17-09859-815

Owner: MOORE JULIANA

Subdivision: HAWKS RIDGE ACRES UNR

Lot: 15

Acres: 11.193778

Deed Acres: 10.56 Ac

District: District 4 Everett Phillips

Future Land Uses: Environmentally Sensitive Areas -1

Flood Zones: AE

Official Zoning Atlas: A-3, ESA-2

PRE-DEVELOPMENT ANALYSIS RESULTS & CROSS-SECTIONS

Pre-Development

Plan: FW Santa Fe Main RS: 37.07 Profile: 100 Year

E.G. Elev (ft)	54.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.05	Wt. n-Val.	0.200	0.035	0.200
W.S. Elev (ft)	54.53	Reach Len. (ft)	4700.00	7867.00	5400.00
Crit W.S. (ft)		Flow Area (sq ft)	13491.89	6065.08	36887.27
E.G. Slope (ft/ft)	0.000067	Area (sq ft)	13491.89	6065.08	36887.27
Q Total (cfs)	32569.00	Flow (cfs)	4771.48	15840.26	11957.27
Top Width (ft)	4392.82	Top Width (ft)	995.31	291.00	3106.50
Vel Total (ft/s)	0.58	Avg. Vel. (ft/s)	0.35	2.61	0.32
Max Chl Dpth (ft)	23.59	Hydr. Depth (ft)	13.56	20.84	11.87
Conv. Total (cfs)	3983009.0	Conv. (cfs)	583525.4	1937176.0	1462308.0
Length Wtd. (ft)	6559.94	Wetted Per. (ft)	1000.20	293.92	3107.20
Min Ch El (ft)	30.94	Shear (lb/sq ft)	0.06	0.09	0.05
Alpha	10.14	Stream Power (lb/ft s)	0.02	0.22	0.02
Frctn Loss (ft)	0.57	Cum Volume (acre-ft)	49210.21	22591.21	57814.96
C & E Loss (ft)	0.00	Cum SA (acres)	5712.81	1007.42	5054.15

Plan: FW Santa Fe Main RS: 35.58 Profile: 100 Year

E.G. Elev (ft)	54.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.09	Wt. n-Val.	0.200	0.035	0.200
W.S. Elev (ft)	53.92	Reach Len. (ft)	20.00	20.00	20.00
Crit W.S. (ft)		Flow Area (sq ft)	35618.96	6163.56	4691.63
E.G. Slope (ft/ft)	0.000117	Area (sq ft)	35618.96	6163.56	4691.63
Q Total (cfs)	32569.00	Flow (cfs)	11684.07	19455.59	1429.34
Top Width (ft)	6110.48	Top Width (ft)	5045.33	339.00	726.15
Vel Total (ft/s)	0.70	Avg. Vel. (ft/s)	0.33	3.16	0.30
Max Chl Dpth (ft)	24.08	Hydr. Depth (ft)	7.06	18.18	6.46
Conv. Total (cfs)	3006323.0	Conv. (cfs)	1078513.0	1795873.0	131937.1
Length Wtd. (ft)	20.00	Wetted Per. (ft)	5051.28	342.81	726.27
Min Ch El (ft)	29.84	Shear (lb/sq ft)	0.05	0.13	0.05
Alpha	12.21	Stream Power (lb/ft s)	0.02	0.42	0.01
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	46560.75	21486.96	55237.75
C & E Loss (ft)	0.00	Cum SA (acres)	5386.93	950.53	4816.59

Errors Warnings and Notes

Warning:	Divided flow computed for this cross-section.

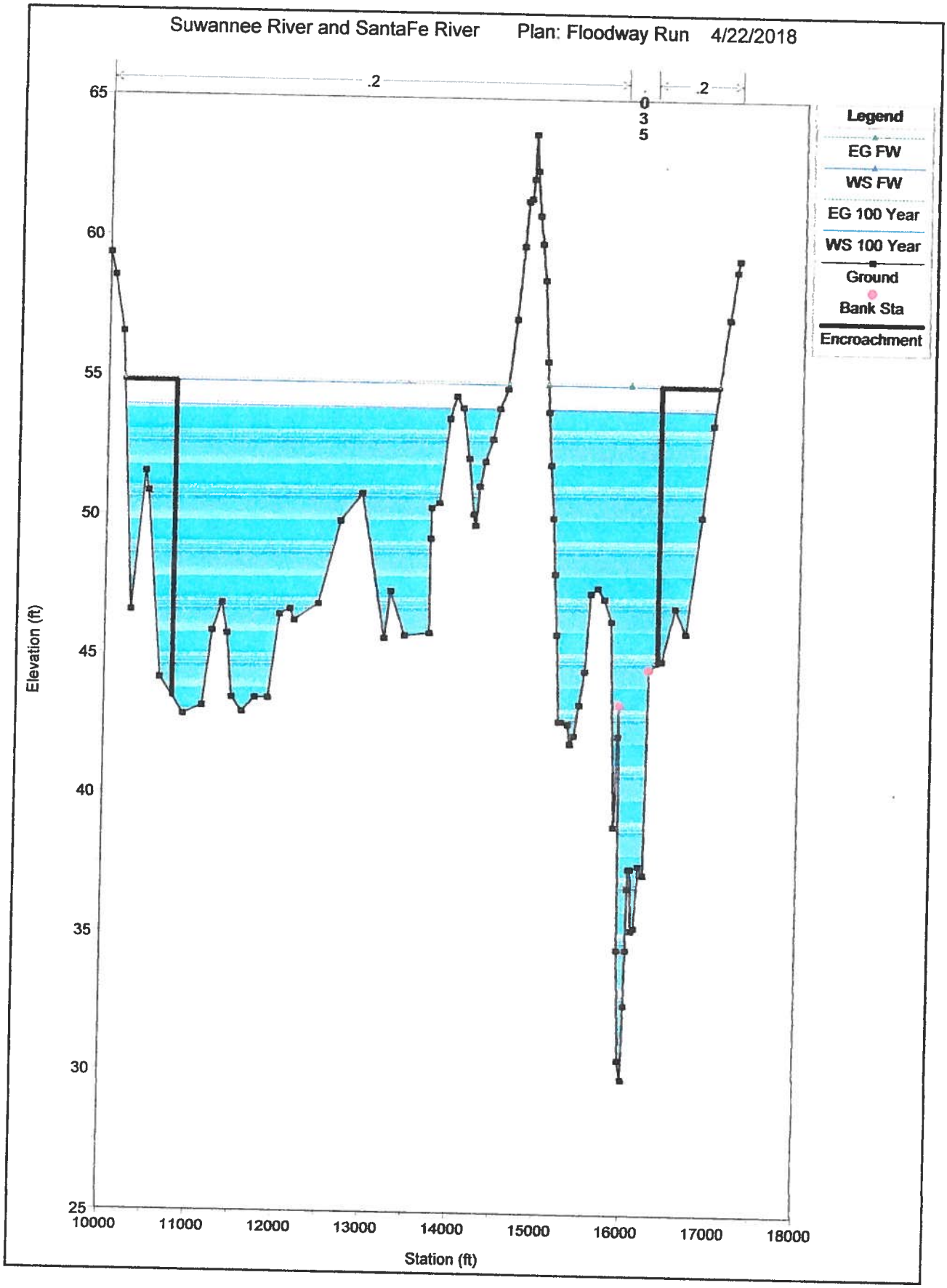
Plan: FW Santa Fe Main RS: 35.57 Profile: 100 Year

E.G. Elev (ft)	54.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.09	Wt. n-Val.	0.200	0.035	0.200
W.S. Elev (ft)	53.92	Reach Len. (ft)	6500.00	9134.00	7700.00
Crit W.S. (ft)		Flow Area (sq ft)	35606.82	6162.74	4689.88
E.G. Slope (ft/ft)	0.000117	Area (sq ft)	35606.82	6162.74	4689.88
Q Total (cfs)	32569.00	Flow (cfs)	11682.17	19457.80	1429.03
Top Width (ft)	6109.81	Top Width (ft)	5044.76	339.00	726.04
Vel Total (ft/s)	0.70	Avg. Vel. (ft/s)	0.33	3.16	0.30
Max Chl Dpth (ft)	24.08	Hydr. Depth (ft)	7.06	18.18	6.46
Conv. Total (cfs)	3005317.0	Conv. (cfs)	1077977.0	1795476.0	131863.9
Length Wtd. (ft)	8002.48	Wetted Per. (ft)	5050.72	342.81	726.16
Min Ch El (ft)	29.84	Shear (lb/sq ft)	0.05	0.13	0.05
Alpha	12.21	Stream Power (lb/ft s)	0.02	0.42	0.01
Frctn Loss (ft)	0.94	Cum Volume (acre-ft)	46544.40	21484.13	55235.60
C & E Loss (ft)	0.03	Cum SA (acres)	5384.61	950.37	4816.26

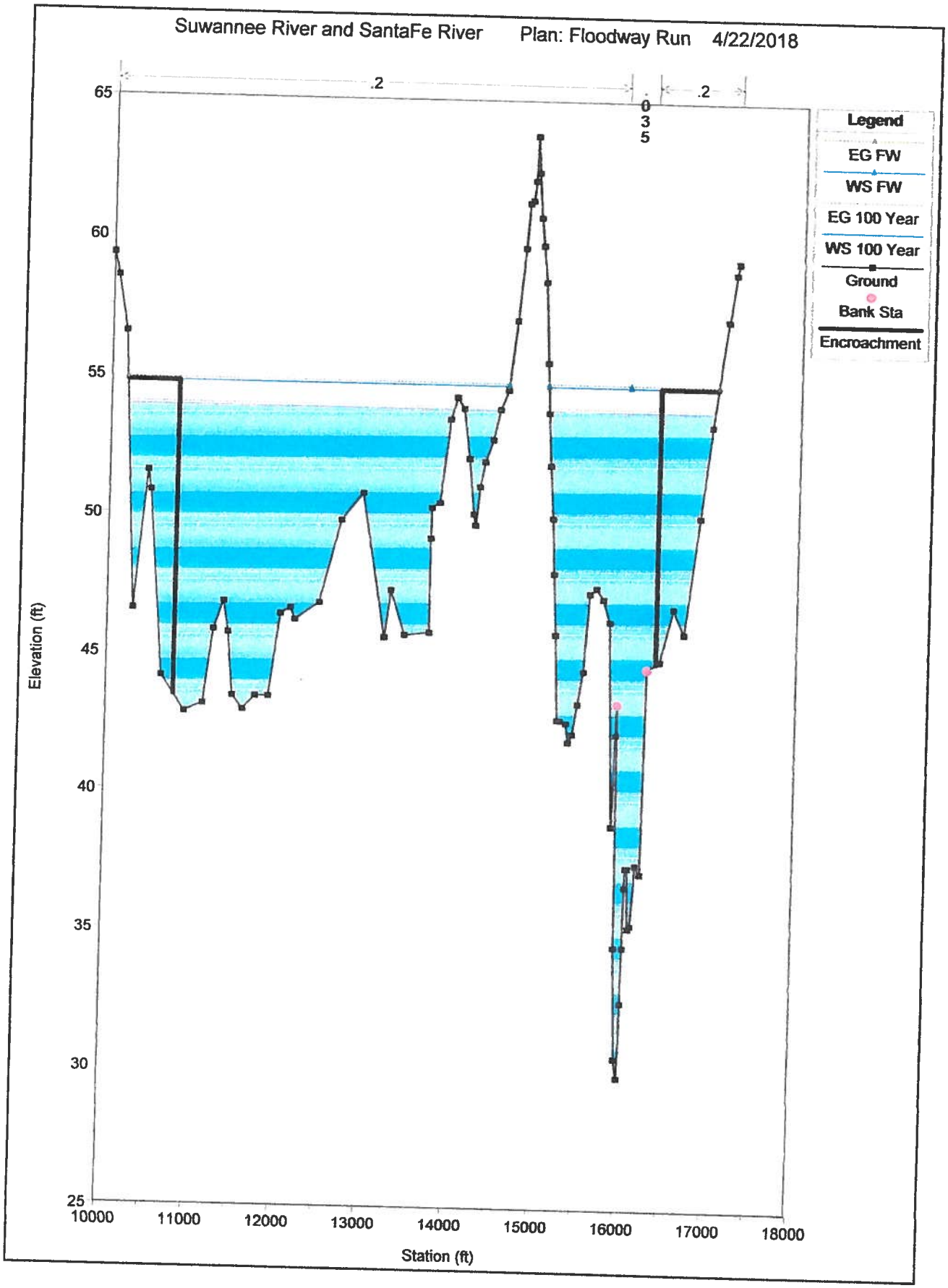
Errors Warnings and Notes

Warning:	Divided flow computed for this cross-section.

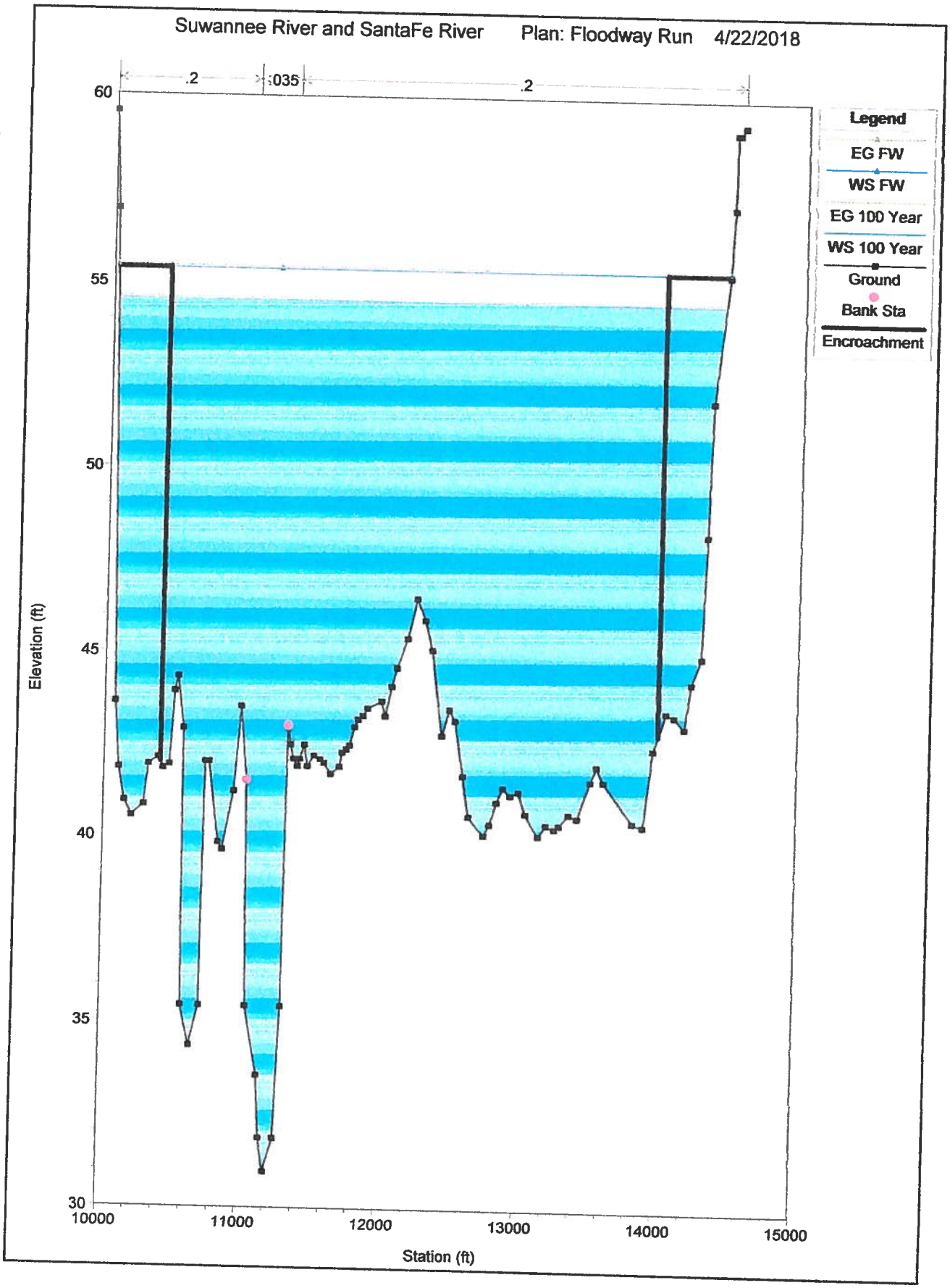
Pre-Development RS 35.57



Pre-Development RS 35.58



Pre-Development RS 37.67



POST-DEVELOPMENT ANALYSIS RESULTS & CROSS-SECTIONS

Post Development

Plan: FW Santa Fe Main RS: 37.07 Profile: 100 Year

E.G. Elev (ft)	54.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.05	Wt. n-Val.	0.200	0.035	0.200
W.S. Elev (ft)	54.53	Reach Len. (ft)	4700.00	7867.00	5400.00
Crit W.S. (ft)		Flow Area (sq ft)	13491.90	6065.08	36887.30
E.G. Slope (ft/ft)	0.000067	Area (sq ft)	13491.90	6065.08	36887.30
Q Total (cfs)	32569.00	Flow (cfs)	4771.48	15840.25	11957.27
Top Width (ft)	4392.82	Top Width (ft)	995.31	291.00	3106.50
Vel Total (ft/s)	0.58	Avg. Vel. (ft/s)	0.35	2.61	0.32
Max Chl Dpth (ft)	23.59	Hydr. Depth (ft)	13.56	20.84	11.87
Conv. Total (cfs)	3983013.0	Conv. (cfs)	583526.1	1937177.0	1462310.0
Length Wtd. (ft)	6559.94	Wetted Per. (ft)	1000.20	293.92	3107.20
Min Ch El (ft)	30.94	Shear (lb/sq ft)	0.06	0.09	0.05
Alpha	10.14	Stream Power (lb/ft s)	0.02	0.22	0.02
Frctn Loss (ft)	0.57	Cum Volume (acre-ft)	49205.13	22591.21	57814.96
C & E Loss (ft)	0.00	Cum SA (acres)	5709.87	1007.42	5054.15

Plan: FW Santa Fe Main RS: 35.58 Profile: 100 Year

E.G. Elev (ft)	54.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.09	Wt. n-Val.	0.200	0.035	0.200
W.S. Elev (ft)	53.92	Reach Len. (ft)	20.00	20.00	20.00
Crit W.S. (ft)		Flow Area (sq ft)	35619.07	6163.56	4691.64
E.G. Slope (ft/ft)	0.000117	Area (sq ft)	35619.07	6163.56	4691.64
Q Total (cfs)	32569.00	Flow (cfs)	11684.09	19455.57	1429.34
Top Width (ft)	6110.48	Top Width (ft)	5045.33	339.00	726.15
Vel Total (ft/s)	0.70	Avg. Vel. (ft/s)	0.33	3.16	0.30
Max Chl Dpth (ft)	24.08	Hydr. Depth (ft)	7.06	18.18	6.46
Conv. Total (cfs)	3006331.0	Conv. (cfs)	1078518.0	1795876.0	131937.7
Length Wtd. (ft)	20.00	Wetted Per. (ft)	5051.29	342.81	726.27
Min Ch El (ft)	29.84	Shear (lb/sq ft)	0.05	0.13	0.05
Alpha	12.21	Stream Power (lb/ft s)	0.02	0.42	0.01
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	46555.66	21486.96	55237.75
C & E Loss (ft)	0.00	Cum SA (acres)	5383.99	950.53	4816.59

Errors Warnings and Notes

Warning:	Divided flow computed for this cross-section.

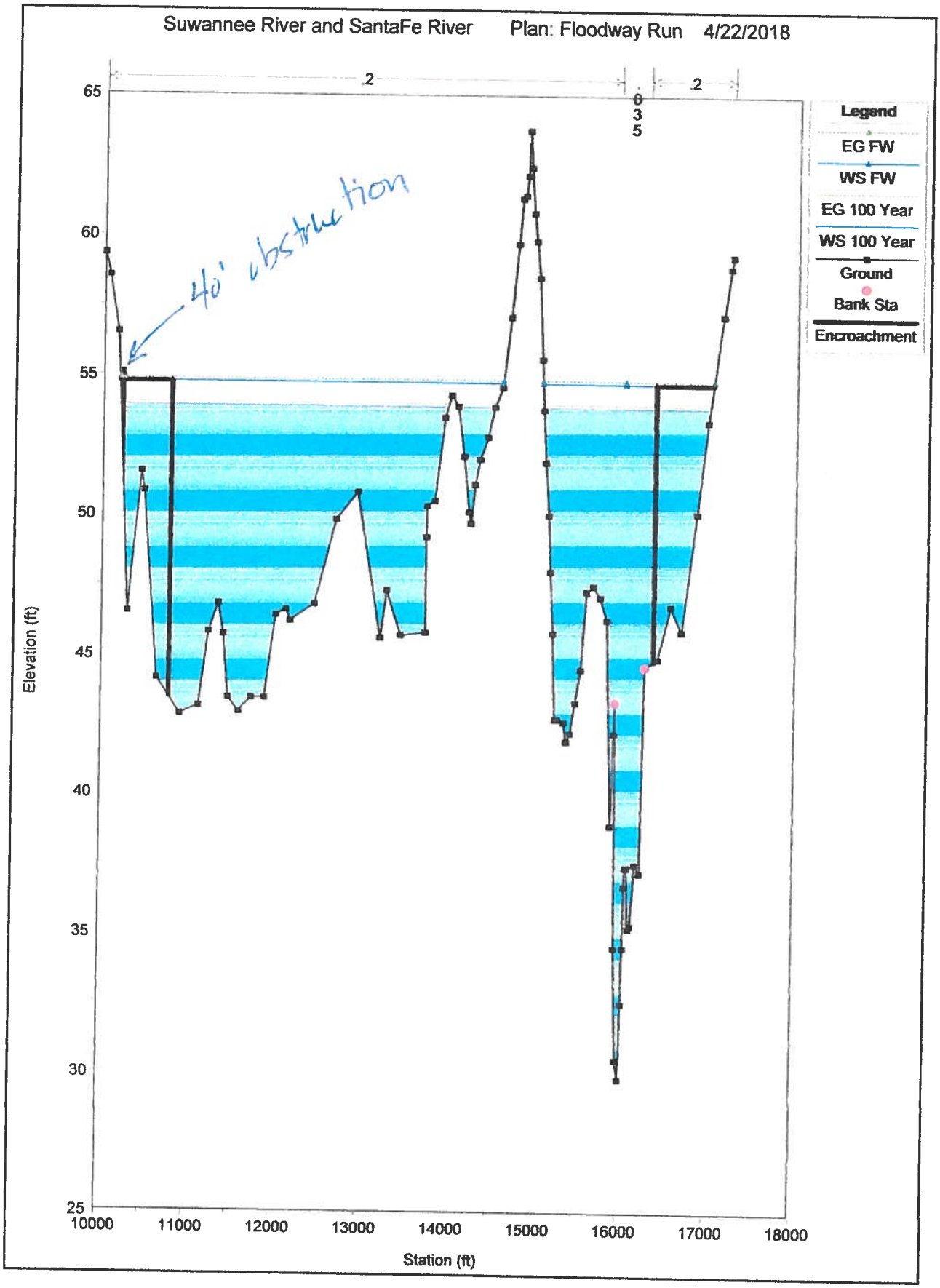
Plan: FW Santa Fe Main RS: 35.57 Profile: 100 Year

E.G. Elev (ft)	54.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.09	Wt. n-Val.	0.200	0.035	0.200
W.S. Elev (ft)	53.92	Reach Len. (ft)	6500.00	9134.00	7700.00
Crit W.S. (ft)		Flow Area (sq ft)	35538.84	6162.74	4689.89
E.G. Slope (ft/ft)	0.000117	Area (sq ft)	35538.84	6162.74	4689.89
Q Total (cfs)	32569.00	Flow (cfs)	11681.90	19458.05	1429.05
Top Width (ft)	6070.58	Top Width (ft)	5005.54	339.00	726.04
Vel Total (ft/s)	0.70	Avg. Vel. (ft/s)	0.33	3.16	0.30
Max Chl Dpth (ft)	24.08	Hydr. Depth (ft)	7.10	18.18	6.46
Conv. Total (cfs)	3005282.0	Conv. (cfs)	1077939.0	1795478.0	131864.3
Length Wtd. (ft)	8002.49	Wetted Per. (ft)	5014.85	342.81	726.16
Min Ch El (ft)	29.84	Shear (lb/sq ft)	0.05	0.13	0.05
Alpha	12.17	Stream Power (lb/ft s)	0.02	0.42	0.01
Frctn Loss (ft)	0.94	Cum Volume (acre-ft)	46539.33	21484.13	55235.60
C & E Loss (ft)	0.03	Cum SA (acres)	5381.68	950.37	4816.26

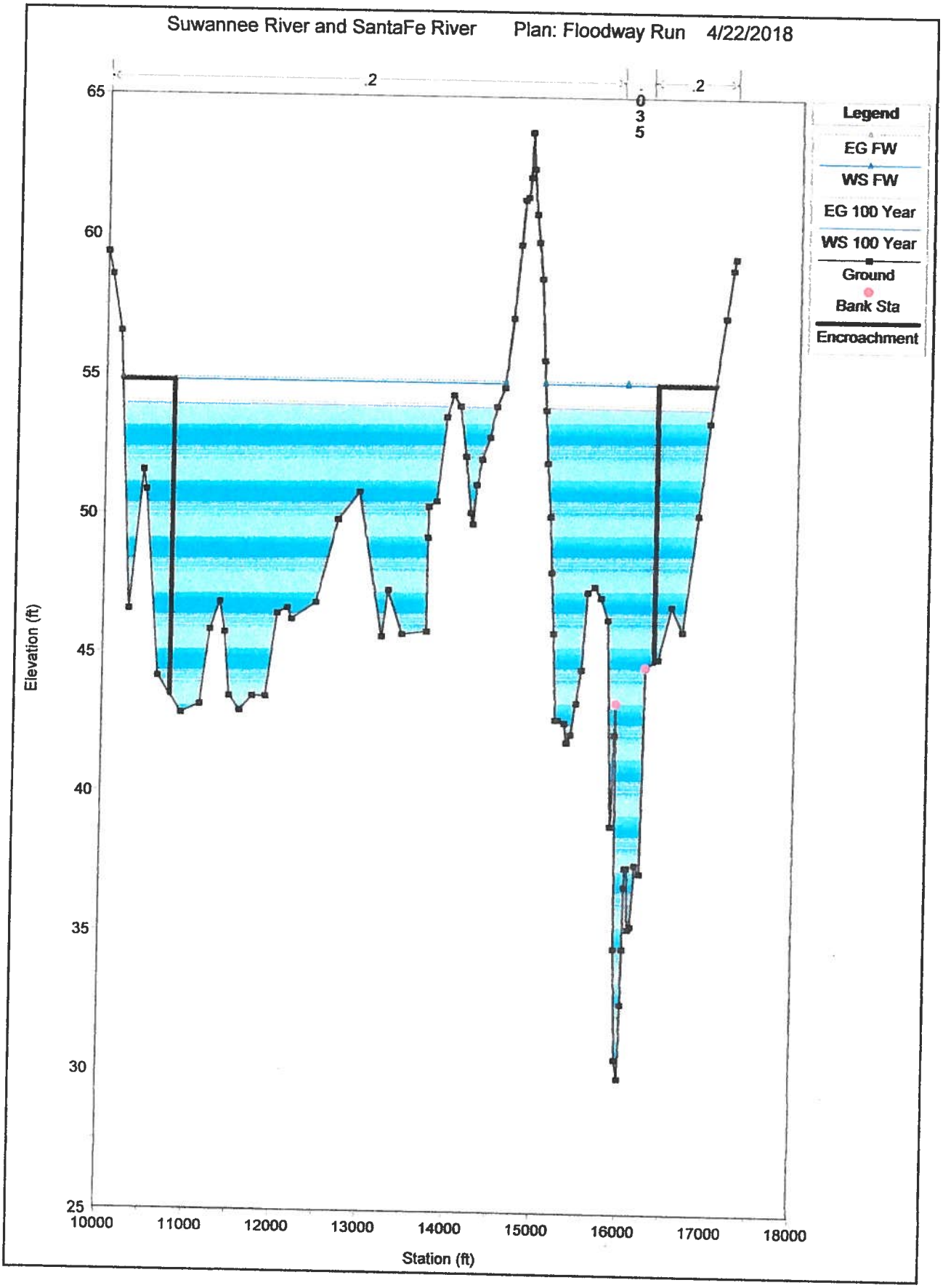
Errors Warnings and Notes

Warning:	Divided flow computed for this cross-section.

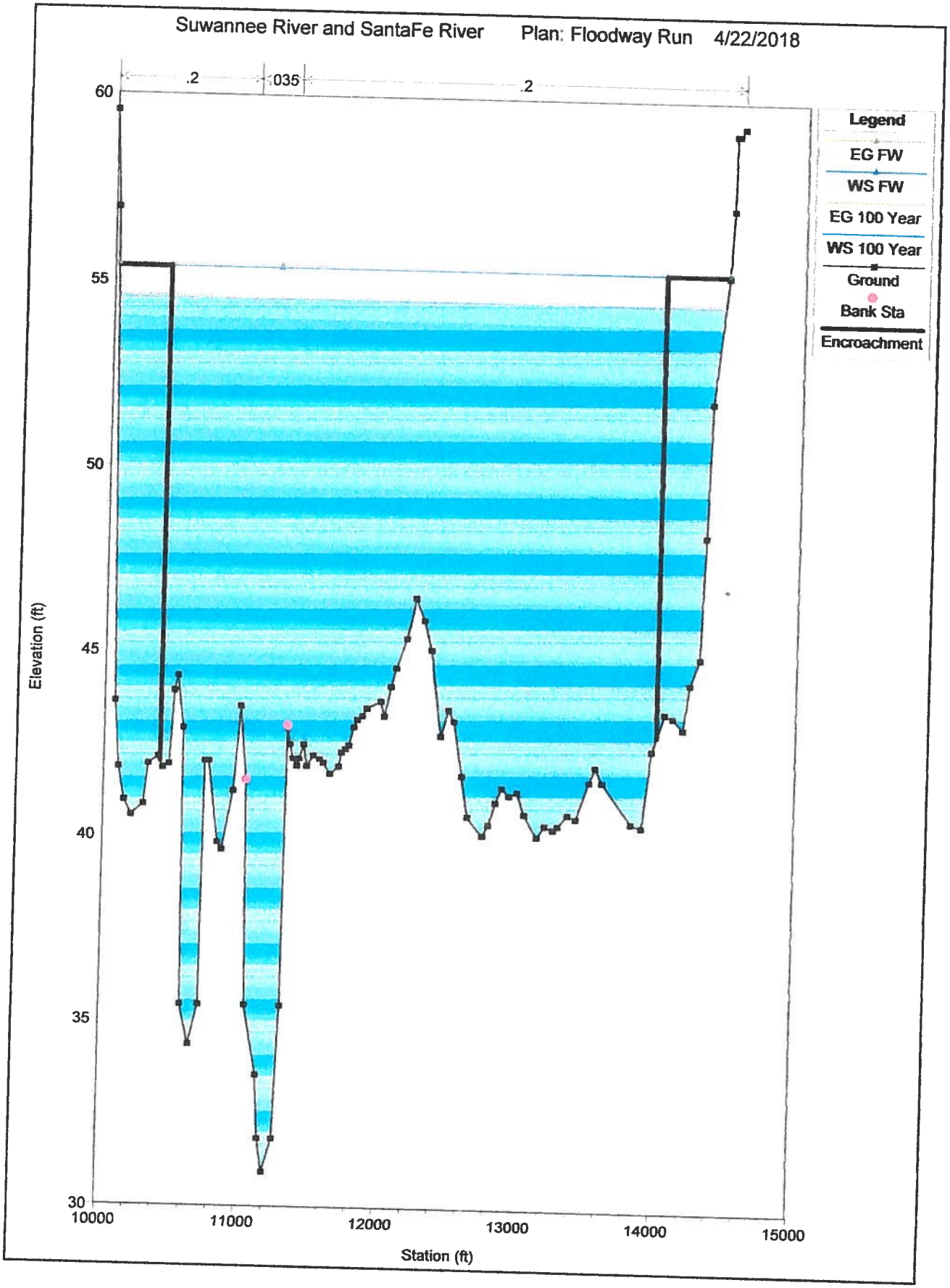
Post Development RS 35.57



Post Development RS 35.58



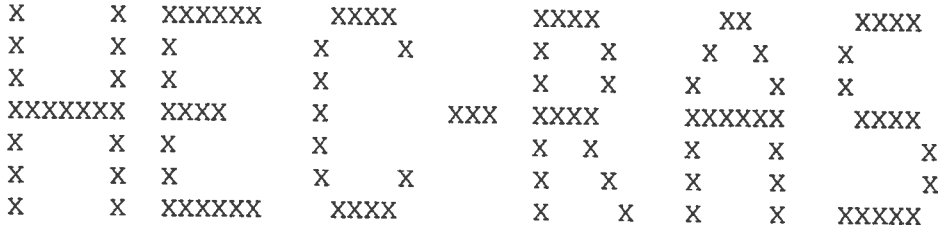
Post Development RS 37.07



HEC-RAS ANALYSIS & RESULTS

PRE-DEVELOPMENT

HEC-RAS HEC-RAS 5.0.3 September 2016
U.S. Army Corps of Engineers
Hydrologic Engineering Center
609 Second Street
Davis, California



PROJECT DATA
Project Title: Suwannee River and SantaFe River
Project File : Suwanee.prj
Run Date and Time: 4/22/2018 12:50:38 PM

Project in English units

Project Description:
Upper Suwannee River Floodplain Model 10, 50, 100, 500
Taylor
Engineering
Adapted from HEC-2 Provided by SRWMD

Model was truncated to
only include: Dixie, Gilchrist and LaFayette Counties. Converted to HEC-RAS
3.1.3, with some updates to structures and adjacent cross sections August 2005
by Dewberry and Davis LLC - Atlanta Office

The flodoway did not require any
adjustments to width following updated survey data. Floodway stations were
moved to account for new stationing on some sections.

PLAN DATA

Plan Title: Floodway Run

Plan File : C:\CONSULTING\JOB FILES\INSPECTIONS\FLORIDA\FL18008\DWGS\HEC-RAS\PRE-DEVELOPMENT\Suwanee.p02

Geometry Title: Updated 2005
Geometry File : C:\CONSULTING\JOB FILES\INSPECTIONS\FLORIDA\FL18008\DWGS\HEC-RAS\PRE-DEVELOPMENT\Suwanee.g01

Flow Title : Floodway
Flow File : C:\CONSULTING\JOB FILES\INSPECTIONS\FLORIDA\FL18008\DWGS\HEC-RAS\PRE-DEVELOPMENT\Suwanee.f02

Plan Summary Information:

Number of:	Cross Sections	= 297	Multiple Openings	=	0
	Culverts	= 0	Inline Structures	=	0
	Bridges	= 27	Lateral Structures	=	0

Computational Information

Water surface calculation tolerance	= 0.003
Critical depth calculation tolerance	= 0.003
Maximum number of iterations	= 20
Maximum difference tolerance	= 0.1
Flow tolerance factor	= 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: Between every coordinate point (HEC2 Style)
Friction Slope Method: Average Conveyance
Computational Flow Regime: Subcritical Flow

Encroachment Data
Equal Conveyance = True
Left Offset = 0
Right Offset = 0

River = Santa Fe Reach = Main

RS	Profile	Method	Value1	Value2
79.85	FW	1	11748	13914
79.1	FW	1	11751	14501
78.16	FW	1	11175	14425
76.67	FW	1	11077	12902
75.55	FW	1	13117	13450
75.15	FW	1	13519	13841
75	FW	1	13519	13691
74.98	FW	1	13730	13798
74.97	FW	1	13730	13798
74.92	FW	1	12760	13058
74.35	FW	1	13535	13911
74.3	FW	1	13778	14066
74.28	FW	1	12900	13101
74.27	FW	1	12900	13101
74.23	FW	1	13778	14066

74.04	FW	1	13578	14216
73.94	FW	1	13528	14446
73.36	FW	1	11527	13077
73.32	FW	1	11906.2	13864.7
73.31	FW	1	11092.3	11363
73.3	FW	1	10888.7	12618.1
73.27	FW	1	10888.7	12618.1
72.59	FW	1	10388	11224
71.46	FW	1	11917	12761
70.18	FW	1	10513.9	11110.1
69.45	FW	1	10622.3	10950.5
69.38	FW	1	11550	11652
69.37	FW	1	11550	11652
69.22	FW	1	10831	11293
68.72	FW	1	10736	11214
67.83	FW	1	11957.3	12768.6
67.11	FW	1	10562	11152
65.99	FW	1	10799	11834.2
65.97	FW	1	10996.4	11617
65.96	FW	1	11085.6	11617
65.89	FW	1	10903.2	11798.1
65.86	FW	1	10910.1	11796.1
64.57	FW	1	10976.2	11472.7
63.6	FW	1	10143	11830
62.24	FW	1	10171	12971
61.02	FW	1	10591	13058
59.68	FW	1	11827.6	12959.4
59.66	FW	1	10865	11065
59.65	FW	1	10865	11065
59.57	FW	1	11834.8	12950.8
59.26	FW	1	11560	12380
58.81	FW	1	11510	12035
58.79	FW	1	10315	10479
58.78	FW	1	10315	10476
58.7	FW	1	11510	12335
58.15	FW	1	11398	12448
57.21	FW	1	10927	11727
56.22	FW	1	11067	11967
55.99	FW	1	11067	11967
55.96	FW	1	12460	13610
55.95	FW	1	12460	13610
55.83	FW	1	10813	12613
54.27	FW	1	11100	12385
53.44	FW	1	10333	11733
51.87	FW	1	11150	13550
49.61	FW	1	12785	14322
49.48	FW	1	13817	15609
49.46	FW	1	13901	15349
49.45	FW	1	13901	15349
49.38	FW	1	13817	15609
49.31	FW	1	13817	15609
49.29	FW	1	14693	16393
49.28	FW	1	14693	16393
49.19	FW	1	14839.3	16588.4

48.04	FW	1	16259 17693.5
46.59	FW	1	12394.1 14173.5
45.48	FW	1	10484.9 12085.4
44.02	FW	1	11805 13551
42.54	FW	1	10083 14281
41.67	FW	1	11164 14130
41.63	FW	1	11164 14130
41.62	FW	1	11321 14621
41.61	FW	1	11321 14621
41.56	FW	1	10640 14637
40.91	FW	1	10572 12069
39.81	FW	1	11200 12953
39.02	FW	1	10108 10730
37.98	FW	1	10982 13472
37.25	FW	1	10533 13666
37.19	FW	1	10533 13666
37.17	FW	1	10550 13865
37.16	FW	1	10550 13865
37.07	FW	1	10406 13994
35.58	FW	1	10782 16371
35.57	FW	1	10782 16371
33.85	FW	1	10981 15203
33.09	FW	1	11012 13334
32.18	FW	1	11413 13528
30.42	FW	1	10675 17380
28.94	FW	1	10136 14876
27.82	FW	1	10997 13555
27.79	FW	1	10997 13555
27.77	FW	1	10897 13384
27.76	FW	1	10897 13384
27.68	FW	1	10373 12821
26.52	FW	1	9800 12900
25.19	FW	1	11176 11726
24.54	FW	1	10906 11301
24.52	FW	1	10906 11301
24.51	FW	1	11125 11595
24.5	FW	1	11125 11595
24.49	FW	1	10906 11301
24.48	FW	1	11678 12222
24.47	FW	1	11678 12222
24.44	FW	1	10942 11309
24.15	FW	1	10471 11010
23.82	FW	1	10508 10999
23.14	FW	1	10720 11461
22.24	FW	1	10634 11158
21.59	FW	1	12184 12725
20.44	FW	1	10537 11905
19.62	FW	1	10940 12164
18.49	FW	1	10716 12303
17.78	FW	1	11513 13128
17.28	FW	1	10213 11698
16.53	FW	1	11939 13607
15.75	FW	1	13828 15755
15.72	FW	1	13974.5 15901.5

15.7	FW	1	13800.25	15570.25
15.66	FW	1	14195	15938
15.08	FW	1	10868	12511
14.08	FW	1	11417	13300
13.03	FW	1	12170	14002
11.3	FW	1	11380	12995
10.06	FW	1	10391	11608
8.43	FW	1	12043	14142
7.64	FW	1	11909	13603
6.46	FW	1	13592	15193
4.73	FW	1	10932	12384
3.6	FW	1	10109	11719
2.88	FW	1	10951	12711
2.5	FW	1	11586	13299
2.46	FW	1	10705	12409
2.42	FW	1	10471.66	12121.66
2.39	FW	1	11054	12568
1.61	FW	1	10219	11589

FLOW DATA

Flow Title: Floodway
Flow File : C:\CONSULTING\JOB FILES\INSPECTIONS\FLORIDA\FL18008\DWGS\HEC-RAS\PRE-DEVELOPMENT\Suwanee.f02

Flow Data (cfs)

River	Reach	RS	100 Year
Santa Fe	Main	79.85	374
FW			
Santa Fe	Main	73.36	2965
374			
Santa Fe	Main	67.11	4665
2965			
Santa Fe	Main	57.21	8767
4665			
Santa Fe	Main	49.61	25162
8767			
Santa Fe	Main	44.02	23767
25162			
Santa Fe	Main	39.81	32800
23767			
Santa Fe	Main	37.25	32569
32800			
Santa Fe	Main	33.85	24427
32569			
Santa Fe	Main	28.94	23206
24427			
Santa Fe	Main	27.79	20910
23206			
Santa Fe	Main	27.79	20910

Santa Fe	Main	25.19	19587
19587			
Santa Fe	Main	19.62	16717
16717			
Santa Fe	Main	15.66	16359
16359			
Suwannee	WtoSF	127.51	76500
76500			
Suwannee	WtoSF	124.93	71400
71400			
Suwannee	WtoSF	112.92	69500
69500			
Suwannee	WtoSF	106.69	67800
67800			
Suwannee	WtoSF	101.82	66300
66300			
Suwannee	WtoSF	98.23	64900
64900			
Suwannee	WtoSF	91.48	63900
63900			
Suwannee	WtoSF	86.73	63250
63250			
Suwannee	WtoSF	82.16	62950
62950			
Suwannee	WtoSF	76.12	62100
62100			
Suwannee	WtoSF	70.98	62100
62100			
Suwannee	BelowSF	65.66	67300
67300			

Boundary Conditions

River	Reach	Profile	Upstream
Downstream			
Suwannee	BelowSF	100 Year	
Known WS = 1.87			
Suwannee	BelowSF	FW	
Known WS = 1.87			

Observed Water Surface Marks

River	Reach	RS	100 Year
FW			
RIVER-1	Reach-1	97	58
RIVER-1	Reach-1	96	58
RIVER-1	Reach-1	95	57
RIVER-1	Reach-1	94	56.9
RIVER-1	Reach-1	93	56.9
RIVER-1	Reach-1	92	56.9
RIVER-1	Reach-1	91	56.8

RIVER-1	Reach-1	90	56.8
RIVER-1	Reach-1	89	56.8
RIVER-1	Reach-1	88	56.8
RIVER-1	Reach-1	87	56.7
RIVER-1	Reach-1	86	56.6
RIVER-1	Reach-1	85	56.5
RIVER-1	Reach-1	84	56.3
RIVER-1	Reach-1	83	56
RIVER-1	Reach-1	82	55.8
RIVER-1	Reach-1	81	55.2
RIVER-1	Reach-1	80	55
RIVER-1	Reach-1	79	54.7
RIVER-1	Reach-1	78	54.2
RIVER-1	Reach-1	77	54
RIVER-1	Reach-1	76	53.8
RIVER-1	Reach-1	75	53.3
RIVER-1	Reach-1	74	53
RIVER-1	Reach-1	73	52.9
RIVER-1	Reach-1	72	52.5
RIVER-1	Reach-1	71	52.1
RIVER-1	Reach-1	70	52
RIVER-1	Reach-1	69	51.5
RIVER-1	Reach-1	68	51.2
RIVER-1	Reach-1	67	51
RIVER-1	Reach-1	66	51
RIVER-1	Reach-1	65	50.8
RIVER-1	Reach-1	64	50.2
RIVER-1	Reach-1	63	49.9
RIVER-1	Reach-1	62	49.8
RIVER-1	Reach-1	61	49.6
RIVER-1	Reach-1	60	49.6
RIVER-1	Reach-1	59	49.5
RIVER-1	Reach-1	58	48.8
RIVER-1	Reach-1	57	47.8
RIVER-1	Reach-1	56	47.2
RIVER-1	Reach-1	55	47.1
RIVER-1	Reach-1	54	47.1
RIVER-1	Reach-1	53	46.2
RIVER-1	Reach-1	52	45.8
RIVER-1	Reach-1	51	45.3
RIVER-1	Reach-1	50	45
RIVER-1	Reach-1	49	44.2
RIVER-1	Reach-1	48	43.8
RIVER-1	Reach-1	47	43
RIVER-1	Reach-1	46	42.2
RIVER-1	Reach-1	45	42
RIVER-1	Reach-1	44	41.5
RIVER-1	Reach-1	43	41.2
RIVER-1	Reach-1	42	40.8
RIVER-1	Reach-1	41	40.1
RIVER-1	Reach-1	40	39.5
RIVER-1	Reach-1	39	38.9
RIVER-1	Reach-1	38	38.5
RIVER-1	Reach-1	37	38.2

RIVER-1	Reach-1	36	37.8
RIVER-1	Reach-1	35	37.3
RIVER-1	Reach-1	34	37
RIVER-1	Reach-1	33	36.8
RIVER-1	Reach-1	32	36.5
RIVER-1	Reach-1	31	36.2
RIVER-1	Reach-1	30	36
RIVER-1	Reach-1	29	36
RIVER-1	Reach-1	28	35.9
RIVER-1	Reach-1	27	35.7
RIVER-1	Reach-1	26	35.6
RIVER-1	Reach-1	25	35.2
RIVER-1	Reach-1	24	35.1
RIVER-1	Reach-1	23	35.1
RIVER-1	Reach-1	22	35
RIVER-1	Reach-1	21	35
RIVER-1	Reach-1	20	35
RIVER-1	Reach-1	19	34.9
RIVER-1	Reach-1	18	34.8
RIVER-1	Reach-1	17	34.6
RIVER-1	Reach-1	16	34.2
RIVER-1	Reach-1	15	34
RIVER-1	Reach-1	14	33.9
RIVER-1	Reach-1	13	33.4

CROSS SECTION

RIVER: Santa Fe
REACH: Main RS: 37.17

INPUT
Description:
Station Elevation Data num= 26

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
10000	59.94	11000	59.9	11100	62.1	11142	60.42	11166	46.04
11219	37.34	11240	34.94	11270	32.14	11283	32.54	11291	32.74
11308	33.54	11333	31.84	11373	30.94	11375	30.94	11383	30.74
11413	30.34	11438	31.84	11453	33.14	11463	37.34	11472	43.54
11482	45.74	11510	59.04	11515	62.04	11559	59.84	11600	59.9
15000	59.9								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
10000	.2	11100	.035	11515	.2

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr. Expan.
11100	11515	72	72	.3 .5

CROSS SECTION OUTPUT Profile #100 Year

E.G. Elev (ft)	54.90	Element	Left OB Channel Right OB
Vel Head (ft)	0.40	Wt. n-Val.	0.035
W.S. Elev (ft)	54.50	Reach Len. (ft)	1.00 1.00 1.00
Crit W.S. (ft)	40.78	Flow Area (sq ft)	6416.34
E.G. Slope (ft/ft)	0.000304	Area (sq ft)	6416.34
Q Total (cfs)	32569.00	Flow (cfs)	32569.00
Top Width (ft)	348.54	Top Width (ft)	348.54
Vel Total (ft/s)	5.08	Avg. Vel. (ft/s)	5.08
Max Chl Dpth (ft)	24.16	Hydr. Depth (ft)	18.41
Conv. Total (cfs)	1868902.0	Conv. (cfs)	1868902.0
Length Wtd. (ft)	1.00	Wetted Per. (ft)	357.05
Min Ch El (ft)	30.34	Shear (lb/sq ft)	0.34
Alpha	1.00	Stream Power (lb/ft s)	1.73
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	49279.75 22668.93 58005.07
C & E Loss (ft)	0.02	Cum SA (acres)	5717.94 1011.45 5070.16

CROSS SECTION OUTPUT Profile #FW

E.G. Elev (ft)	55.71	Element	Left OB Channel Right OB
Vel Head (ft)	0.37	Wt. n-Val.	0.035
W.S. Elev (ft)	55.35	Reach Len. (ft)	1.00 1.00 1.00
Crit W.S. (ft)	40.78	Flow Area (sq ft)	6714.27
E.G. Slope (ft/ft)	0.000265	Area (sq ft)	6714.27
Q Total (cfs)	32569.00	Flow (cfs)	32569.00

Top Width (ft)	351.76	Top Width (ft)	351.76
Vel Total (ft/s)	4.85	Avg. Vel. (ft/s)	4.85
Max Chl Dpth (ft)	25.01	Hydr. Depth (ft)	19.09
Conv. Total (cfs)	2002178.0	Conv. (cfs)	2002178.0
Length Wtd. (ft)	1.00	Wetted Per. (ft)	360.69
Min Ch El (ft)	30.34	Shear (lb/sq ft)	0.31
Alpha	1.00	Stream Power (lb/ft s)	1.49
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	40216.92
C & E Loss (ft)	0.01	Cum SA (acres)	3383.72
1011.77 2717.64			

BRIDGE

RIVER: Santa Fe
REACH: Main RS: 37.165

INPUT
Description: Bridge #6
Distance from Upstream XS = 1
Deck/Roadway Width = 70
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
11100	62.1	62.1	11142	62.1	60.42	11283	62.54	59.54
11383	62.54	59.54	11510	62.04	59.04	11515	62.04	62.04

Upstream Bridge Cross Section Data
Station Elevation Data num= 26

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
10000	59.94	11000	59.9	11100	62.1	11142	60.42	11166	46.04
11219	37.34	11240	34.94	11270	32.14	11283	32.54	11291	32.74
11308	33.54	11333	31.84	11373	30.94	11375	30.94	11383	30.74
11413	30.34	11438	31.84	11453	33.14	11463	37.34	11472	43.54
11482	45.74	11510	59.04	11515	62.04	11559	59.84	11600	59.9
15000	59.9								

Manning's n Values num= 3

```
     Sta   n Val      Sta   n Val      Sta   n Val
   10000      .2   11100    .035   11515      .2

Bank Sta: Left   Right    Coeff Contr.   Expan.
         11100   11515             .3       .5

Downstream  Deck/Roadway Coordinates
    num=       6
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
   11100    62.1    62.1   11142    62.1   60.42   11283   62.54   59.54
   11383   62.54   59.54   11510   62.04   59.04   11515   62.04   62.04

Downstream Bridge Cross Section Data
Station Elevation Data    num=      26
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
   10000   59.94   11000    59.9   11100    62.1   11142   60.42   11166
46.04
   11219   37.34   11240   34.94   11270   32.14   11283   32.54   11291
32.74
   11308   33.54   11333   31.84   11373   30.94   11375   30.94   11383
30.74
   11413   30.34   11438   31.84   11453   33.14   11463   37.34   11472
43.54
   11482   45.74   11510   59.04   11515   62.04   11559   59.84   11600
59.9
   15000    59.9

Manning's n Values        num=       3
     Sta   n Val      Sta   n Val      Sta   n Val
   10000      .2   11100    .035   11515      .2

Bank Sta: Left   Right    Coeff Contr.   Expan.
         11100   11515             .3       .5

Upstream Embankment side slope                =       0 horiz. to 1.0
vertical
Downstream Embankment side slope              =       0 horiz. to 1.0
vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins           =
Energy head used in spillway design           =
Spillway height used in design                =
Weir crest shape                              = Broad Crested

Number of Piers =  2

Pier Data
Pier Station     Upstream=   11287    Downstream=   11287
Upstream     num=       2
    Width   Elev    Width   Elev
        8   -.66        8   59.54
Downstream     num=       2
    Width   Elev    Width   Elev
```

```
       8     -.66        8    59.54

Pier Data
Pier Station      Upstream=    11379    Downstream=    11379
Upstream      num=         2
    Width    Elev     Width    Elev
       8     -.66        8    59.54
Downstream      num=         2
    Width    Elev     Width    Elev
       8     -.66        8    59.54

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
Selected Low Flow Methods = Energy

High Flow Method
       Energy Only

Additional Bridge Parameters
       Add Friction component to Momentum
       Do not add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the upstream end
       Criteria to check for pressure flow = Upstream energy grade line

CROSS SECTION


RIVER: Santa Fe
REACH: Main                RS: 37.16

INPUT
Description:          I-75 BRIDGE
Station Elevation Data    num=      26
     Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev      Sta
Elev
   10000    59.94    11000     59.9    11100     62.1    11142    60.42    11166
46.04
   11219    37.34    11240    34.94    11270    32.14    11283    32.54    11291
32.74
   11308    33.54    11333    31.84    11373    30.94    11375    30.94    11383
30.74
   11413    30.34    11438    31.84    11453    33.14    11463    37.34    11472
43.54
   11482    45.74    11510    59.04    11515    62.04    11559    59.84    11600
59.9
   15000     59.9

Manning's n Values         num=       3
     Sta    n Val      Sta    n Val      Sta    n Val
   10000       .2    11100     .035    11515       .2
```

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr. Expan.
11100	11515	449	474	449 .3 .5

CROSS SECTION OUTPUT Profile #100 Year

E.G. Elev (ft)	54.82	Element	Left OB Channel Right OB
Vel Head (ft)	0.40	Wt. n-Val.	0.035
W.S. Elev (ft)	54.42	Reach Len. (ft)	449.00 474.00 449.00
Crit W.S. (ft)		Flow Area (sq ft)	6388.42
E.G. Slope (ft/ft)	0.000308	Area (sq ft)	6388.42
Q Total (cfs)	32569.00	Flow (cfs)	32569.00
Top Width (ft)	348.24	Top Width (ft)	348.24
Vel Total (ft/s)	5.10	Avg. Vel. (ft/s)	5.10
Max Chl Dpth (ft)	24.08	Hydr. Depth (ft)	18.34
Conv. Total (cfs)	1856557.0	Conv. (cfs)	1856557.0
Length Wtd. (ft)	467.58	Wetted Per. (ft)	356.71
Min Ch El (ft)	30.34	Shear (lb/sq ft)	0.34
Alpha	1.00	Stream Power (lb/ft s)	1.75
Frctn Loss (ft)	0.06	Cum Volume (acre-ft)	49279.75
C & E Loss (ft)	0.18	Cum SA (acres)	5717.94

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than
1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #FW

E.G. Elev (ft)	55.64	Element	Left OB Channel Right OB
Vel Head (ft)	0.37	Wt. n-Val.	0.035
W.S. Elev (ft)	55.28	Reach Len. (ft)	449.00 474.00 449.00
Crit W.S. (ft)		Flow Area (sq ft)	6689.43

E.G. Slope (ft/ft)	0.000268	Area (sq ft)	6689.43
Q Total (cfs)	32569.00	Flow (cfs)	32569.00
Top Width (ft)	351.49	Top Width (ft)	351.49
Vel Total (ft/s)	4.87	Avg. Vel. (ft/s)	4.87
Max Chl Dpth (ft)	24.94	Hydr. Depth (ft)	19.03
Conv. Total (cfs)	1990968.0	Conv. (cfs)	1990968.0
Length Wtd. (ft)	467.99	Wetted Per. (ft)	360.39
Min Ch El (ft)	30.34	Shear (lb/sq ft)	0.31
Alpha	1.00	Stream Power (lb/ft s)	1.51
Frctn Loss (ft)	0.06	Cum Volume (acre-ft)	40216.92
C & E Loss (ft)	0.15	Cum SA (acres)	3383.72

23558.84 39911.91
1011.21 2717.64

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than
1.4. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: Santa Fe
REACH: Main RS: 37.07

INPUT
Description:
Station Elevation Data num= 93

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
10000	59.54	10024	56.94	10072	43.64	10106	41.84	10150	40.94
10204	40.54	10290	40.84	10320	41.94	10390	42.14	10425	41.84
10470	41.94	10499	43.94	10524	44.34	10567	42.94	10584	35.44
10650	34.34	10714	35.44	10728	42.04	10756	42.04	10829	39.84
10861	39.64	10938	41.24	10981	43.54	11028	41.54	11050	35.44
11141	33.54	11166	31.84	11202	30.94	11268	31.84	11304	35.44
11319	43.04	11339	42.54	11363	42.14	11391	41.94	11406	42.14

```
   11438   42.54   11463   41.94   11509   42.24   11553   42.14   11583
42.04
   11631   41.74   11694   41.94   11714   42.34   11741   42.44   11764
42.54
   11798   43.04   11823   43.24   11860   43.34   11892   43.54   11990
43.74
   12018   43.34   12061   44.14   12096   44.64   12170   45.44   12234
46.54
   12296   45.94   12351   45.14   12429   42.84   12482   43.54   12525
43.24
   12587   41.74   12633   40.64   12744   40.14   12787   40.44   12834
41.04
   12877   41.44   12933   41.24   12991   41.34   13045   40.74   13139
40.14
   13197   40.44   13256   40.34   13291   40.44   13355   40.74   13417
40.64
   13509   41.64   13551   42.04   13605   41.64   13822   40.54   13898
40.44
   13960   42.54   14049   43.54   14109   43.44   14181   43.14   14226
44.34
   14294   45.04   14323   48.34   14350   51.94   14449   55.34   14475
57.14
   14485   59.14   14503   59.14   14540   59.34

Manning's n Values          num=        3
     Sta   n Val      Sta   n Val      Sta   n Val
   10000      .2   11028    .035   11319      .2

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
         11028   11319             4700    7867    5400            .1
.3

CROSS SECTION OUTPUT  Profile #100 Year

  E.G. Elev (ft)              54.59    Element                 Left OB
Channel   Right OB
  Vel Head (ft)                0.05    Wt. n-Val.               0.200
0.035      0.200
  W.S. Elev (ft)              54.53    Reach Len. (ft)         4700.00
7867.00    5400.00
  Crit W.S. (ft)                       Flow Area (sq ft)       13491.89
6065.08   36887.27
  E.G. Slope (ft/ft)       0.000067    Area (sq ft)            13491.89
6065.08   36887.27
  Q Total (cfs)            32569.00    Flow (cfs)               4771.48
15840.26   11957.27
  Top Width (ft)            4392.82    Top Width (ft)           995.31
291.00    3106.50
  Vel Total (ft/s)             0.58    Avg. Vel. (ft/s)            0.35
2.61       0.32
  Max Chl Dpth (ft)           23.59    Hydr. Depth (ft)           13.56
20.84      11.87
```

Conv. Total (cfs)	3983009.0	Conv. (cfs)	583525.4
1937176.0 1462308.0			
Length Wtd. (ft)	6559.94	Wetted Per. (ft)	1000.20
293.92 3107.20			
Min Ch El (ft)	30.94	Shear (lb/sq ft)	0.06
0.09 0.05			
Alpha	10.14	Stream Power (lb/ft s)	0.02
0.22 0.02			
Frctn Loss (ft)	0.57	Cum Volume (acre-ft)	49210.21
22591.21 57814.96			
C & E Loss (ft)	0.00	Cum SA (acres)	5712.81
1007.42 5054.15			

CROSS SECTION OUTPUT Profile #FW

E.G. Elev (ft)	55.43	Element	Left OB
Channel Right OB			
Vel Head (ft)	0.06	Wt. n-Val.	0.200
0.035 0.200			
W.S. Elev (ft)	55.38	Reach Len. (ft)	4700.00
7867.00 5400.00			
Crit W.S. (ft)		Flow Area (sq ft)	9418.69
6310.09 35446.84			
E.G. Slope (ft/ft)	0.000067	Area (sq ft)	9418.69
6310.09 35446.84			
Q Total (cfs)	32569.00	Flow (cfs)	3536.25
16910.33 12122.42			
Top Width (ft)	3588.00	Top Width (ft)	622.00
291.00 2675.00			
Vel Total (ft/s)	0.64	Avg. Vel. (ft/s)	0.38
2.68 0.34			
Max Chl Dpth (ft)	24.44	Hydr. Depth (ft)	15.14
21.68 13.25			
Conv. Total (cfs)	3985534.0	Conv. (cfs)	432738.4
2069351.0 1483444.0			
Length Wtd. (ft)	6638.41	Wetted Per. (ft)	638.70
293.92 2687.66			
Min Ch El (ft)	30.94	Shear (lb/sq ft)	0.06
0.09 0.05			
Alpha	9.35	Stream Power (lb/ft s)	0.02
0.24 0.02			
Frctn Loss (ft)	0.56	Cum Volume (acre-ft)	40168.38
23488.11 39729.23			
C & E Loss (ft)	0.00	Cum SA (acres)	3380.52
1007.72 2703.86			

CROSS SECTION

RIVER: Santa Fe
REACH: Main RS: 35.58

INPUT
Description:
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
10000	59.34	10057	58.54	10162	56.54	10295	46.54	10444	51.54
10479	50.84	10637	44.14	10909	42.84	11122	43.14	11230	45.84
11343	46.84	11401	45.74	11461	43.44	11582	42.94	11727	43.44
11879	43.44	12000	46.44	12115	46.64	12168	46.24	12444	46.84
12688	49.84	12933	50.84	13206	45.64	13275	47.34	13442	45.74
13728	45.84	13728	49.24	13732	49.24	13733	50.34	13824	50.54
13930	53.54	14005	54.34	14084	53.94	14159	52.14	14220	50.14
14242	49.74	14285	51.14	14342	52.04	14427	52.84	14505	53.94
14594	54.64	14683	57.14	14763	59.74	14801	61.34	14840	61.44
14864	62.14	14882	63.74	14901	62.44	14935	60.84	14972	59.84
15010	58.54	15049	55.64	15075	53.84	15105	51.94	15145	50.04
15169	48.04	15201	45.84	15236	42.74	15267	42.74	15342	42.64
15368	41.94	15413	42.24	15469	43.34	15527	44.54	15586	47.34
15665	47.54	15748	47.14	15828	46.34	15891	38.94	15922	42.24
15932	43.34	15950	34.54	15983	30.54	16020	29.84	16035	32.54
16048	34.54	16061	36.74	16072	37.44	16089	37.44	16109	35.24
16136	35.34	16182	37.54	16235	37.24	16271	44.64	16415	44.94
16563	46.84	16689	45.94	16855	50.14	16977	53.44	17137	57.24
17141	57.24	17147	57.24	17223	58.94	17247	59.34		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
10000	.2	15932	.035	16271	.2

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr. Expan.
15932	16271	20	20	.1 .3

CROSS SECTION OUTPUT Profile #100 Year

E.G. Elev (ft)	54.01	Element	Left OB
Channel Right OB			
Vel Head (ft)	0.09	Wt. n-Val.	0.200
0.035 0.200			
W.S. Elev (ft)	53.92	Reach Len. (ft)	20.00
20.00 20.00			
Crit W.S. (ft)		Flow Area (sq ft)	35618.96
6163.56 4691.63			
E.G. Slope (ft/ft)	0.000117	Area (sq ft)	35618.96
6163.56 4691.63			
Q Total (cfs)	32569.00	Flow (cfs)	11684.07
19455.59 1429.34			
Top Width (ft)	6110.48	Top Width (ft)	5045.33
339.00 726.15			
Vel Total (ft/s)	0.70	Avg. Vel. (ft/s)	0.33
3.16 0.30			
Max Chl Dpth (ft)	24.08	Hydr. Depth (ft)	7.06
18.18 6.46			
Conv. Total (cfs)	3006323.0	Conv. (cfs)	1078513.0
1795873.0 131937.1			
Length Wtd. (ft)	20.00	Wetted Per. (ft)	5051.28
342.81 726.27			
Min Ch El (ft)	29.84	Shear (lb/sq ft)	0.05
0.13 0.05			
Alpha	12.21	Stream Power (lb/ft s)	0.02
0.42 0.01			
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	46560.75
21486.96 55237.75			
C & E Loss (ft)	0.00	Cum SA (acres)	5386.93
950.53 4816.59			

Warning: Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #FW

E.G. Elev (ft)	54.87	Element	Left OB
Channel Right OB			
Vel Head (ft)	0.10	Wt. n-Val.	0.200
0.035 0.200			
W.S. Elev (ft)	54.78	Reach Len. (ft)	20.00
20.00 20.00			
Crit W.S. (ft)		Flow Area (sq ft)	35913.05
6455.04 1003.42			
E.G. Slope (ft/ft)	0.000108	Area (sq ft)	35913.05
6455.04 1003.42			
Q Total (cfs)	32569.00	Flow (cfs)	12025.96
20203.88 339.16			
Top Width (ft)	5126.48	Top Width (ft)	4687.48
339.00 100.00			
Vel Total (ft/s)	0.75	Avg. Vel. (ft/s)	0.33
3.13 0.34			
Max Chl Dpth (ft)	24.94	Hydr. Depth (ft)	7.66
19.04 10.03			

Conv. Total (cfs)	3126736.0	Conv. (cfs)	1154533.0
1939642.0 32560.4			
Length Wtd. (ft)	20.00	Wetted Per. (ft)	4704.29
342.81 109.93			
Min Ch El (ft)	29.84	Shear (lb/sq ft)	0.05
0.13 0.06			
Alpha	10.85	Stream Power (lb/ft s)	0.02
0.40 0.02			
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	37722.79
22335.41 37469.91			
C & E Loss (ft)	0.00	Cum SA (acres)	3094.08
950.83 2531.85			

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: Santa Fe
REACH: Main RS: 35.57

INPUT
Description:
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
10000	59.34	10057	58.54	10162	56.54	10295	46.54	10444	51.54
10479	50.84	10637	44.14	10909	42.84	11122	43.14	11230	45.84
11343	46.84	11401	45.74	11461	43.44	11582	42.94	11727	43.44
11879	43.44	12000	46.44	12115	46.64	12168	46.24	12444	46.84
12688	49.84	12933	50.84	13206	45.64	13275	47.34	13442	45.74
13728	45.84	13728	49.24	13732	49.24	13733	50.34	13824	50.54
13930	53.54	14005	54.34	14084	53.94	14159	52.14	14220	50.14
14242	49.74	14285	51.14	14342	52.04	14427	52.84	14505	53.94
14594	54.64	14683	57.14	14763	59.74	14801	61.34	14840	61.44
14864	62.14	14882	63.74	14901	62.44	14935	60.84	14972	59.84
15010	58.54	15049	55.64	15075	53.84	15105	51.94	15145	50.04
15169	48.04	15201	45.84	15236	42.74	15267	42.74	15342	42.64
15368	41.94	15413	42.24	15469	43.34	15527	44.54	15586	47.34

15665	47.54	15748	47.14	15828	46.34	15891	38.94	15922
42.24								
15932	43.34	15950	34.54	15983	30.54	16020	29.84	16035
32.54								
16048	34.54	16061	36.74	16072	37.44	16089	37.44	16109
35.24								
16136	35.34	16182	37.54	16235	37.24	16271	44.64	16415
44.94								
16563	46.84	16689	45.94	16855	50.14	16977	53.44	17137
57.24								
17141	57.24	17147	57.24	17223	58.94	17247	59.34	

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
10000	.2	15932	.035	16271	.2

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr. Expan.
15932	16271	6500	9134	7700 .1 .3

CROSS SECTION OUTPUT Profile #100 Year

E.G. Elev (ft)	54.01	Element	Left OB Channel Right OB
Vel Head (ft)	0.09	Wt. n-Val.	0.200 0.035 0.200
W.S. Elev (ft)	53.92	Reach Len. (ft)	6500.00 9134.00 7700.00
Crit W.S. (ft)		Flow Area (sq ft)	35606.82 6162.74 4689.88
E.G. Slope (ft/ft)	0.000117	Area (sq ft)	35606.82 6162.74 4689.88
Q Total (cfs)	32569.00	Flow (cfs)	11682.17 19457.80 1429.03
Top Width (ft)	6109.81	Top Width (ft)	5044.76 339.00 726.04
Vel Total (ft/s)	0.70	Avg. Vel. (ft/s)	0.33 3.16 0.30
Max Chl Dpth (ft)	24.08	Hydr. Depth (ft)	7.06 18.18 6.46
Conv. Total (cfs)	3005317.0	Conv. (cfs)	1077977.0 1795476.0 131863.9
Length Wtd. (ft)	8002.48	Wetted Per. (ft)	5050.72 342.81 726.16
Min Ch El (ft)	29.84	Shear (lb/sq ft)	0.05 0.13 0.05
Alpha	12.21	Stream Power (lb/ft s)	0.02 0.42 0.01
Frctn Loss (ft)	0.94	Cum Volume (acre-ft)	46544.40 21484.13 55235.60
C & E Loss (ft)	0.03	Cum SA (acres)	5384.61 950.37 4816.26

Warning: Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #FW

E.G. Elev (ft)	54.87	Element	Left OB
Channel	Right OB		
Vel Head (ft)	0.10	Wt. n-Val.	0.200
0.035	0.200		
W.S. Elev (ft)	54.78	Reach Len. (ft)	6500.00
9134.00	7700.00		
Crit W.S. (ft)		Flow Area (sq ft)	35902.65
6454.29	1003.19		
E.G. Slope (ft/ft)	0.000109	Area (sq ft)	35902.65
6454.29	1003.19		
Q Total (cfs)	32569.00	Flow (cfs)	12024.28
20205.59	339.13		
Top Width (ft)	5126.37	Top Width (ft)	4687.37
339.00	100.00		
Vel Total (ft/s)	0.75	Avg. Vel. (ft/s)	0.33
3.13	0.34		
Max Chl Dpth (ft)	24.94	Hydr. Depth (ft)	7.66
19.04	10.03		
Conv. Total (cfs)	3125865.0	Conv. (cfs)	1154051.0
1939266.0	32548.8		
Length Wtd. (ft)	8035.66	Wetted Per. (ft)	4704.18
342.81	109.93		
Min Ch El (ft)	29.84	Shear (lb/sq ft)	0.05
0.13	0.06		
Alpha	10.85	Stream Power (lb/ft s)	0.02
0.40	0.02		
Frctn Loss (ft)	0.85	Cum Volume (acre-ft)	37706.30
22332.45	37469.45		
C & E Loss (ft)	0.03	Cum SA (acres)	3091.92
950.67	2531.81		

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: Santa Fe
REACH: Main RS: 33.85

INPUT
Description:
Station Elevation Data num= 36

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
10000	59.34	10072	57.74	10154	55.24	10283	52.14	10374	50.34
10499	48.84	10722	45.74	10787	44.54	10865	44.54	11053	44.94

11216	44.94	11491	44.54	11546	44.54	11747	44.74	11846
43.94								
11973	43.04	12036	42.04	12120	41.14	12204	40.94	12244
41.34								
12391	43.04	12506	42.64	12672	43.54	12754	43.64	12801
39.24								
12928	39.34	13082	39.84	13503	39.64	13644	42.34	13746
41.64								
13895	41.34	14050	39.34	14350	39.34	15100	44.34	15320
49.34								
15750	54.34							

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
10000	.2	12801	.1	13503	.2

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr. Expan.
12801	13503	4000	4013	3200 .1 .3

CROSS SECTION OUTPUT Profile #100 Year

E.G. Elev (ft)	53.04	Element	Left OB Channel Right OB
Vel Head (ft)	0.01	Wt. n-Val.	0.200 0.100 0.200
W.S. Elev (ft)	53.04	Reach Len. (ft)	4000.00 4013.00 3200.00
Crit W.S. (ft)		Flow Area (sq ft)	21305.68 9415.40 20973.87
E.G. Slope (ft/ft)	0.000117	Area (sq ft)	21305.68 9415.40 20973.87
Q Total (cfs)	24427.00	Flow (cfs)	7422.66 8551.82 8452.52
Top Width (ft)	5392.39	Top Width (ft)	2555.37 702.00 2135.02
Vel Total (ft/s)	0.47	Avg. Vel. (ft/s)	0.35 0.91 0.40
Max Chl Dpth (ft)	13.80	Hydr. Depth (ft)	8.34 13.41 9.82
Conv. Total (cfs)	2255866.0	Conv. (cfs)	685493.0 789772.1 780601.3
Length Wtd. (ft)	3793.87	Wetted Per. (ft)	2555.68 702.00 2135.16
Min Ch El (ft)	39.24	Shear (lb/sq ft)	0.06 0.10 0.07
Alpha	1.71	Stream Power (lb/ft s)	0.02 0.09 0.03
Frctn Loss (ft)	0.56	Cum Volume (acre-ft)	42298.17 19850.85 52967.34
C & E Loss (ft)	0.00	Cum SA (acres)	4817.57 841.23 4563.39

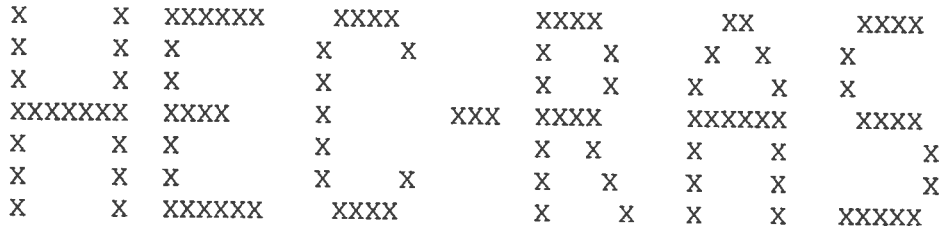
CROSS SECTION OUTPUT Profile #FW

E.G. Elev (ft)	54.00	Element	Left OB
Channel	Right OB		
Vel Head (ft)	0.01	Wt. n-Val.	0.200
0.100	0.200		
W.S. Elev (ft)	53.99	Reach Len. (ft)	4000.00
4013.00	3200.00		
Crit W.S. (ft)		Flow Area (sq ft)	19003.13
10085.88	21421.30		
E.G. Slope (ft/ft)	0.000101	Area (sq ft)	19003.13
10085.88	21421.30		
Q Total (cfs)	24427.00	Flow (cfs)	6815.75
8901.27	8709.98		
Top Width (ft)	4222.00	Top Width (ft)	1820.00
702.00	1700.00		
Vel Total (ft/s)	0.48	Avg. Vel. (ft/s)	0.36
0.88	0.41		
Max Chl Dpth (ft)	14.75	Hydr. Depth (ft)	10.44
14.37	12.60		
Conv. Total (cfs)	2430589.0	Conv. (cfs)	678195.6
885713.6	866679.8		
Length Wtd. (ft)	3771.30	Wetted Per. (ft)	1829.45
702.00	1707.40		
Min Ch El (ft)	39.24	Shear (lb/sq ft)	0.07
0.09	0.08		
Alpha	1.62	Stream Power (lb/ft s)	0.02
0.08	0.03		
Frctn Loss (ft)	0.55	Cum Volume (acre-ft)	33609.80
20598.31	35487.49		
C & E Loss (ft)	0.00	Cum SA (acres)	2606.41
841.53	2372.71		

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than
1.4. This may indicate the need for additional cross sections.

POST-DEVELOPMENT

HEC-RAS HEC-RAS 5.0.3 September 2016
U.S. Army Corps of Engineers
Hydrologic Engineering Center
609 Second Street
Davis, California



PROJECT DATA
Project Title: Suwannee River and SantaFe River
Project File : Suwanee.prj
Run Date and Time: 4/22/2018 2:14:22 PM

Project in English units

Project Description:
Upper Suwannee River Floodplain Model 10, 50, 100, 500
Taylor
Engineering
Adapted from HEC-2 Provided by SRWMD

Model was truncated to
only include: Dixie, Gilchrist and LaFayette Counties. Converted to HEC-RAS
3.1.3, with some updates to structures and adjacent cross sections August 2005
by Dewberry and Davis LLC - Atlanta Office

The flodoway did not require any
adjustments to width following updated survey data. Floodway stations were
moved to account for new stationing on some sections.

PLAN DATA

Plan Title: Floodway Run

Plan File : C:\CONSULTING\JOB FILES\INSPECTIONS\FLORIDA\FL18008\DWGS\HEC-RAS\POST-DEVELOPMENT\Suwanee.p02

Geometry Title: Updated 2005
Geometry File : C:\CONSULTING\JOB FILES\INSPECTIONS\FLORIDA\FL18008\DWGS\HEC-RAS\POST-DEVELOPMENT\Suwanee.g01

Flow Title : Floodway
Flow File : C:\CONSULTING\JOB FILES\INSPECTIONS\FLORIDA\FL18008\DWGS\HEC-RAS\POST-DEVELOPMENT\Suwanee.f02

Plan Summary Information:

Number of:	Cross Sections	= 297	Multiple Openings	=	0
	Culverts	= 0	Inline Structures	=	0
	Bridges	= 27	Lateral Structures	=	0

Computational Information

Water surface calculation tolerance	= 0.003
Critical depth calculation tolerance	= 0.003
Maximum number of iterations	= 20
Maximum difference tolerance	= 0.1
Flow tolerance factor	= 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: Between every coordinate point (HEC2 Style)
Friction Slope Method: Average Conveyance
Computational Flow Regime: Subcritical Flow

Encroachment Data
Equal Conveyance = True
Left Offset = 0
Right Offset = 0

River = Santa Fe Reach = Main

RS	Profile	Method	Value1	Value2
79.85	FW	1	11748	13914
79.1	FW	1	11751	14501
78.16	FW	1	11175	14425
76.67	FW	1	11077	12902
75.55	FW	1	13117	13450
75.15	FW	1	13519	13841
75	FW	1	13519	13691
74.98	FW	1	13730	13798
74.97	FW	1	13730	13798
74.92	FW	1	12760	13058
74.35	FW	1	13535	13911
74.3	FW	1	13778	14066
74.28	FW	1	12900	13101
74.27	FW	1	12900	13101
74.23	FW	1	13778	14066

74.04	FW	1	13578	14216
73.94	FW	1	13528	14446
73.36	FW	1	11527	13077
73.32	FW	1	11906.2	13864.7
73.31	FW	1	11092.3	11363
73.3	FW	1	10888.7	12618.1
73.27	FW	1	10888.7	12618.1
72.59	FW	1	10388	11224
71.46	FW	1	11917	12761
70.18	FW	1	10513.9	11110.1
69.45	FW	1	10622.3	10950.5
69.38	FW	1	11550	11652
69.37	FW	1	11550	11652
69.22	FW	1	10831	11293
68.72	FW	1	10736	11214
67.83	FW	1	11957.3	12768.6
67.11	FW	1	10562	11152
65.99	FW	1	10799	11834.2
65.97	FW	1	10996.4	11617
65.96	FW	1	11085.6	11617
65.89	FW	1	10903.2	11798.1
65.86	FW	1	10910.1	11796.1
64.57	FW	1	10976.2	11472.7
63.6	FW	1	10143	11830
62.24	FW	1	10171	12971
61.02	FW	1	10591	13058
59.68	FW	1	11827.6	12959.4
59.66	FW	1	10865	11065
59.65	FW	1	10865	11065
59.57	FW	1	11834.8	12950.8
59.26	FW	1	11560	12380
58.81	FW	1	11510	12035
58.79	FW	1	10315	10479
58.78	FW	1	10315	10476
58.7	FW	1	11510	12335
58.15	FW	1	11398	12448
57.21	FW	1	10927	11727
56.22	FW	1	11067	11967
55.99	FW	1	11067	11967
55.96	FW	1	12460	13610
55.95	FW	1	12460	13610
55.83	FW	1	10813	12613
54.27	FW	1	11100	12385
53.44	FW	1	10333	11733
51.87	FW	1	11150	13550
49.61	FW	1	12785	14322
49.48	FW	1	13817	15609
49.46	FW	1	13901	15349
49.45	FW	1	13901	15349
49.38	FW	1	13817	15609
49.31	FW	1	13817	15609
49.29	FW	1	14693	16393
49.28	FW	1	14693	16393
49.19	FW	1	14839.3	16588.4

48.04	FW	1	16259	17693.5
46.59	FW	1	12394.1	14173.5
45.48	FW	1	10484.9	12085.4
44.02	FW	1	11805	13551
42.54	FW	1	10083	14281
41.67	FW	1	11164	14130
41.63	FW	1	11164	14130
41.62	FW	1	11321	14621
41.61	FW	1	11321	14621
41.56	FW	1	10640	14637
40.91	FW	1	10572	12069
39.81	FW	1	11200	12953
39.02	FW	1	10108	10730
37.98	FW	1	10982	13472
37.25	FW	1	10533	13666
37.19	FW	1	10533	13666
37.17	FW	1	10550	13865
37.16	FW	1	10550	13865
37.07	FW	1	10406	13994
35.58	FW	1	10782	16371
35.57	FW	1	10782	16371
33.85	FW	1	10981	15203
33.09	FW	1	11012	13334
32.18	FW	1	11413	13528
30.42	FW	1	10675	17380
28.94	FW	1	10136	14876
27.82	FW	1	10997	13555
27.79	FW	1	10997	13555
27.77	FW	1	10897	13384
27.76	FW	1	10897	13384
27.68	FW	1	10373	12821
26.52	FW	1	9800	12900
25.19	FW	1	11176	11726
24.54	FW	1	10906	11301
24.52	FW	1	10906	11301
24.51	FW	1	11125	11595
24.5	FW	1	11125	11595
24.49	FW	1	10906	11301
24.48	FW	1	11678	12222
24.47	FW	1	11678	12222
24.44	FW	1	10942	11309
24.15	FW	1	10471	11010
23.82	FW	1	10508	10999
23.14	FW	1	10720	11461
22.24	FW	1	10634	11158
21.59	FW	1	12184	12725
20.44	FW	1	10537	11905
19.62	FW	1	10940	12164
18.49	FW	1	10716	12303
17.78	FW	1	11513	13128
17.28	FW	1	10213	11698
16.53	FW	1	11939	13607
15.75	FW	1	13828	15755
15.72	FW	1	13974.5	15901.5

15.7	FW	1	13800.25	15570.25
15.66	FW	1	14195	15938
15.08	FW	1	10868	12511
14.08	FW	1	11417	13300
13.03	FW	1	12170	14002
11.3	FW	1	11380	12995
10.06	FW	1	10391	11608
8.43	FW	1	12043	14142
7.64	FW	1	11909	13603
6.46	FW	1	13592	15193
4.73	FW	1	10932	12384
3.6	FW	1	10109	11719
2.88	FW	1	10951	12711
2.5	FW	1	11586	13299
2.46	FW	1	10705	12409
2.42	FW	1	10471.66	12121.66
2.39	FW	1	11054	12568
1.61	FW	1	10219	11589

FLOW DATA

Flow Title: Floodway
Flow File : C:\CONSULTING\JOB FILES\INSPECTIONS\FLORIDA\FL18008\DWGS\HEC-RAS\POST-DEVELOPMENT\Suwanee.f02

Flow Data (cfs)

River	Reach	RS	100 Year
Santa Fe	Main	79.85	374
Santa Fe	Main	73.36	2965
Santa Fe	Main	67.11	4665
Santa Fe	Main	57.21	8767
Santa Fe	Main	49.61	25162
Santa Fe	Main	44.02	23767
Santa Fe	Main	39.81	32800
Santa Fe	Main	37.25	32569
Santa Fe	Main	33.85	24427
Santa Fe	Main	28.94	23206
Santa Fe	Main	27.79	20910

Santa Fe	Main	25.19	19587
19587			
Santa Fe	Main	19.62	16717
16717			
Santa Fe	Main	15.66	16359
16359			
Suwannee	WtoSF	127.51	76500
76500			
Suwannee	WtoSF	124.93	71400
71400			
Suwannee	WtoSF	112.92	69500
69500			
Suwannee	WtoSF	106.69	67800
67800			
Suwannee	WtoSF	101.82	66300
66300			
Suwannee	WtoSF	98.23	64900
64900			
Suwannee	WtoSF	91.48	63900
63900			
Suwannee	WtoSF	86.73	63250
63250			
Suwannee	WtoSF	82.16	62950
62950			
Suwannee	WtoSF	76.12	62100
62100			
Suwannee	WtoSF	70.98	62100
62100			
Suwannee	BelowSF	65.66	67300
67300			

Boundary Conditions

River	Reach	Profile	Upstream
Downstream			
Suwannee	BelowSF	100 Year	
Known WS = 1.87			
Suwannee	BelowSF	FW	
Known WS = 1.87			

Observed Water Surface Marks

River	Reach	RS	100 Year
FW			
RIVER-1	Reach-1	97	58
RIVER-1	Reach-1	96	58
RIVER-1	Reach-1	95	57
RIVER-1	Reach-1	94	56.9
RIVER-1	Reach-1	93	56.9
RIVER-1	Reach-1	92	56.9
RIVER-1	Reach-1	91	56.8

RIVER-1	Reach-1	90	56.8
RIVER-1	Reach-1	89	56.8
RIVER-1	Reach-1	88	56.8
RIVER-1	Reach-1	87	56.7
RIVER-1	Reach-1	86	56.6
RIVER-1	Reach-1	85	56.5
RIVER-1	Reach-1	84	56.3
RIVER-1	Reach-1	83	56
RIVER-1	Reach-1	82	55.8
RIVER-1	Reach-1	81	55.2
RIVER-1	Reach-1	80	55
RIVER-1	Reach-1	79	54.7
RIVER-1	Reach-1	78	54.2
RIVER-1	Reach-1	77	54
RIVER-1	Reach-1	76	53.8
RIVER-1	Reach-1	75	53.3
RIVER-1	Reach-1	74	53
RIVER-1	Reach-1	73	52.9
RIVER-1	Reach-1	72	52.5
RIVER-1	Reach-1	71	52.1
RIVER-1	Reach-1	70	52
RIVER-1	Reach-1	69	51.5
RIVER-1	Reach-1	68	51.2
RIVER-1	Reach-1	67	51
RIVER-1	Reach-1	66	51
RIVER-1	Reach-1	65	50.8
RIVER-1	Reach-1	64	50.2
RIVER-1	Reach-1	63	49.9
RIVER-1	Reach-1	62	49.8
RIVER-1	Reach-1	61	49.6
RIVER-1	Reach-1	60	49.6
RIVER-1	Reach-1	59	49.5
RIVER-1	Reach-1	58	48.8
RIVER-1	Reach-1	57	47.8
RIVER-1	Reach-1	56	47.2
RIVER-1	Reach-1	55	47.1
RIVER-1	Reach-1	54	47.1
RIVER-1	Reach-1	53	46.2
RIVER-1	Reach-1	52	45.8
RIVER-1	Reach-1	51	45.3
RIVER-1	Reach-1	50	45
RIVER-1	Reach-1	49	44.2
RIVER-1	Reach-1	48	43.8
RIVER-1	Reach-1	47	43
RIVER-1	Reach-1	46	42.2
RIVER-1	Reach-1	45	42
RIVER-1	Reach-1	44	41.5
RIVER-1	Reach-1	43	41.2
RIVER-1	Reach-1	42	40.8
RIVER-1	Reach-1	41	40.1
RIVER-1	Reach-1	40	39.5
RIVER-1	Reach-1	39	38.9
RIVER-1	Reach-1	38	38.5
RIVER-1	Reach-1	37	38.2

RIVER-1	Reach-1	36	37.8
RIVER-1	Reach-1	35	37.3
RIVER-1	Reach-1	34	37
RIVER-1	Reach-1	33	36.8
RIVER-1	Reach-1	32	36.5
RIVER-1	Reach-1	31	36.2
RIVER-1	Reach-1	30	36
RIVER-1	Reach-1	29	36
RIVER-1	Reach-1	28	35.9
RIVER-1	Reach-1	27	35.7
RIVER-1	Reach-1	26	35.6
RIVER-1	Reach-1	25	35.2
RIVER-1	Reach-1	24	35.1
RIVER-1	Reach-1	23	35.1
RIVER-1	Reach-1	22	35
RIVER-1	Reach-1	21	35
RIVER-1	Reach-1	20	35
RIVER-1	Reach-1	19	34.9
RIVER-1	Reach-1	18	34.8
RIVER-1	Reach-1	17	34.6
RIVER-1	Reach-1	16	34.2
RIVER-1	Reach-1	15	34
RIVER-1	Reach-1	14	33.9
RIVER-1	Reach-1	13	33.4

GEOMETRY DATA

Geometry Title: Updated 2005
Geometry File : C:\CONSULTING\JOB FILES\INSPECTIONS\FLORIDA\FL18008\DWGS\HEC-RAS\POST-DEVELOPMENT\Suwanee.g01

Reach Connection Table

River	Reach	Upstream Boundary	Downstream Boundary
Santa Fe	Main		Santa Fe
Suwannee	WtoSF		Santa Fe
Suwannee	BelowSF	Santa Fe	

JUNCTION INFORMATION

Name: Santa Fe
Description: Sante Fe confluence with Suwannee
Energy computation Method

Length across Junction Tributary

```
     River           Reach                River           Reach
Length   Angle
Suwannee        WtoSF            to Suwannee        BelowSF
4260
Santa Fe        Main             to Suwannee        BelowSF
10090.8

CROSS SECTION


RIVER: Santa Fe
REACH: Main                RS: 37.17

INPUT
Description:
Station Elevation Data    num=      26
     Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev      Sta
Elev
   10000    59.94    11000     59.9    11100     62.1    11142    60.42    11166
46.04
   11219    37.34    11240    34.94    11270    32.14    11283    32.54    11291
32.74
   11308    33.54    11333    31.84    11373    30.94    11375    30.94    11383
30.74
   11413    30.34    11438    31.84    11453    33.14    11463    37.34    11472
43.54
   11482    45.74    11510    59.04    11515    62.04    11559    59.84    11600
59.9
   15000     59.9

Manning's n Values        num=       3
     Sta    n Val      Sta    n Val      Sta    n Val
   10000       .2    11100     .035    11515       .2

Bank Sta: Left    Right    Lengths: Left Channel    Right      Coeff Contr.
Expan.
         11100    11515               72       72       72              .3
.5

CROSS SECTION OUTPUT  Profile #100 Year

  E.G. Elev (ft)              54.90    Element                    Left OB
Channel   Right OB
  Vel Head (ft)                0.40    Wt. n-Val.
0.035
  W.S. Elev (ft)              54.50    Reach Len. (ft)              1.00
1.00       1.00
  Crit W.S. (ft)              40.78    Flow Area (sq ft)
6416.34
  E.G. Slope (ft/ft)       0.000304    Area (sq ft)
6416.34
  Q Total (cfs)            32569.00    Flow (cfs)
32569.00
```

Top Width (ft)	348.54	Top Width (ft)	348.54
Vel Total (ft/s)	5.08	Avg. Vel. (ft/s)	5.08
Max Chl Dpth (ft)	24.16	Hydr. Depth (ft)	18.41
Conv. Total (cfs)	1868905.0	Conv. (cfs)	1868905.0
Length Wtd. (ft)	1.00	Wetted Per. (ft)	357.05
Min Ch El (ft)	30.34	Shear (lb/sq ft)	0.34
Alpha	1.00	Stream Power (lb/ft s)	1.73
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	49274.67 22668.93 58005.07
C & E Loss (ft)	0.02	Cum SA (acres)	5715.00 1011.45 5070.16

BRIDGE

RIVER: Santa Fe
REACH: Main RS: 37.165

INPUT
Description: Bridge #6
Distance from Upstream XS = 1
Deck/Roadway Width = 70
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
11100	62.1	62.1	11142	62.1	60.42	11283	62.54	59.54
11383	62.54	59.54	11510	62.04	59.04	11515	62.04	62.04

Upstream Bridge Cross Section Data
Station Elevation Data num= 26

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
10000	59.94	11000	59.9	11100	62.1	11142	60.42	11166	46.04
11219	37.34	11240	34.94	11270	32.14	11283	32.54	11291	32.74
11308	33.54	11333	31.84	11373	30.94	11375	30.94	11383	30.74
11413	30.34	11438	31.84	11453	33.14	11463	37.34	11472	43.54
11482	45.74	11510	59.04	11515	62.04	11559	59.84	11600	59.9
15000	59.9								

Manning's n Values num= 3

```
     Sta   n Val      Sta   n Val      Sta   n Val
   10000      .2   11100    .035   11515      .2

Bank Sta: Left   Right    Coeff Contr.   Expan.
         11100   11515             .3       .5

Downstream  Deck/Roadway Coordinates
    num=        6
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
   11100    62.1    62.1   11142    62.1   60.42   11283   62.54   59.54
   11383   62.54   59.54   11510   62.04   59.04   11515   62.04   62.04

Downstream Bridge Cross Section Data
Station Elevation Data    num=      26
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
   10000   59.94   11000    59.9   11100    62.1   11142   60.42   11166
46.04
   11219   37.34   11240   34.94   11270   32.14   11283   32.54   11291
32.74
   11308   33.54   11333   31.84   11373   30.94   11375   30.94   11383
30.74
   11413   30.34   11438   31.84   11453   33.14   11463   37.34   11472
43.54
   11482   45.74   11510   59.04   11515   62.04   11559   59.84   11600
59.9
   15000    59.9

Manning's n Values        num=       3
     Sta   n Val      Sta   n Val      Sta   n Val
   10000      .2   11100    .035   11515      .2

Bank Sta: Left   Right    Coeff Contr.   Expan.
         11100   11515             .3       .5

Upstream Embankment side slope                =       0 horiz. to 1.0
vertical
Downstream Embankment side slope              =       0 horiz. to 1.0
vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins           =
Energy head used in spillway design           =
Spillway height used in design                =
Weir crest shape                              = Broad Crested

Number of Piers =  2

Pier Data
Pier Station     Upstream=   11287    Downstream=   11287
Upstream     num=       2
    Width   Elev    Width   Elev
        8   -.66        8  59.54
Downstream     num=       2
    Width   Elev    Width   Elev
```

```
       8    -.66       8   59.54

Pier Data
Pier Station     Upstream=   11379    Downstream=   11379
Upstream     num=        2
    Width   Elev    Width   Elev
       8    -.66       8   59.54
Downstream     num=        2
    Width   Elev    Width   Elev
       8    -.66       8   59.54

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
Selected Low Flow Methods = Energy

High Flow Method
       Energy Only

Additional Bridge Parameters
       Add Friction component to Momentum
       Do not add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the upstream end
       Criteria to check for pressure flow = Upstream energy grade line

CROSS SECTION


RIVER: Santa Fe
REACH: Main               RS: 37.16

INPUT
Description:          I-75 BRIDGE
Station Elevation Data    num=      26
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
   10000   59.94   11000    59.9   11100    62.1   11142   60.42   11166
46.04
   11219   37.34   11240   34.94   11270   32.14   11283   32.54   11291
32.74
   11308   33.54   11333   31.84   11373   30.94   11375   30.94   11383
30.74
   11413   30.34   11438   31.84   11453   33.14   11463   37.34   11472
43.54
   11482   45.74   11510   59.04   11515   62.04   11559   59.84   11600
59.9
   15000    59.9

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   10000      .2   11100    .035   11515      .2
```

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr. Expan.
11100	11515	449	474	449	.3 .5

CROSS SECTION OUTPUT Profile #100 Year

E.G. Elev (ft)	54.82	Element	Left OB Channel Right OB
Vel Head (ft)	0.40	Wt. n-Val.	0.035
W.S. Elev (ft)	54.42	Reach Len. (ft)	449.00 474.00 449.00
Crit W.S. (ft)		Flow Area (sq ft)	6388.43
E.G. Slope (ft/ft)	0.000308	Area (sq ft)	6388.43
Q Total (cfs)	32569.00	Flow (cfs)	32569.00
Top Width (ft)	348.24	Top Width (ft)	348.24
Vel Total (ft/s)	5.10	Avg. Vel. (ft/s)	5.10
Max Chl Dpth (ft)	24.08	Hydr. Depth (ft)	18.34
Conv. Total (cfs)	1856559.0	Conv. (cfs)	1856559.0
Length Wtd. (ft)	467.58	Wetted Per. (ft)	356.71
Min Ch El (ft)	30.34	Shear (lb/sq ft)	0.34
Alpha	1.00	Stream Power (lb/ft s)	1.75
Frctn Loss (ft)	0.06	Cum Volume (acre-ft)	49274.67 22658.97 58005.07
C & E Loss (ft)	0.18	Cum SA (acres)	5715.00 1010.90 5070.16

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: Santa Fe
REACH: Main RS: 37.07

INPUT
Description:
Station Elevation Data num= 93

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

```
   10000   59.54   10024   56.94   10072   43.64   10106   41.84   10150
40.94
   10204   40.54   10290   40.84   10320   41.94   10390   42.14   10425
41.84
   10470   41.94   10499   43.94   10524   44.34   10567   42.94   10584
35.44
   10650   34.34   10714   35.44   10728   42.04   10756   42.04   10829
39.84
   10861   39.64   10938   41.24   10981   43.54   11028   41.54   11050
35.44
   11141   33.54   11166   31.84   11202   30.94   11268   31.84   11304
35.44
   11319   43.04   11339   42.54   11363   42.14   11391   41.94   11406
42.14
   11438   42.54   11463   41.94   11509   42.24   11553   42.14   11583
42.04
   11631   41.74   11694   41.94   11714   42.34   11741   42.44   11764
42.54
   11798   43.04   11823   43.24   11860   43.34   11892   43.54   11990
43.74
   12018   43.34   12061   44.14   12096   44.64   12170   45.44   12234
46.54
   12296   45.94   12351   45.14   12429   42.84   12482   43.54   12525
43.24
   12587   41.74   12633   40.64   12744   40.14   12787   40.44   12834
41.04
   12877   41.44   12933   41.24   12991   41.34   13045   40.74   13139
40.14
   13197   40.44   13256   40.34   13291   40.44   13355   40.74   13417
40.64
   13509   41.64   13551   42.04   13605   41.64   13822   40.54   13898
40.44
   13960   42.54   14049   43.54   14109   43.44   14181   43.14   14226
44.34
   14294   45.04   14323   48.34   14350   51.94   14449   55.34   14475
57.14
   14485   59.14   14503   59.14   14540   59.34

Manning's n Values          num=       3
     Sta   n Val      Sta   n Val      Sta   n Val
   10000      .2   11028    .035   11319      .2

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
         11028   11319             4700    7867    5400             .1
.3

CROSS SECTION OUTPUT  Profile #100 Year

  E.G. Elev (ft)              54.59    Element                 Left OB
Channel   Right OB
  Vel Head (ft)                0.05    Wt. n-Val.               0.200
0.035      0.200
```

W.S. Elev (ft)	54.53	Reach Len. (ft)	4700.00
7867.00 5400.00			
Crit W.S. (ft)		Flow Area (sq ft)	13491.90
6065.08 36887.30			
E.G. Slope (ft/ft)	0.000067	Area (sq ft)	13491.90
6065.08 36887.30			
Q Total (cfs)	32569.00	Flow (cfs)	4771.48
15840.25 11957.27			
Top Width (ft)	4392.82	Top Width (ft)	995.31
291.00 3106.50			
Vel Total (ft/s)	0.58	Avg. Vel. (ft/s)	0.35
2.61 0.32			
Max Chl Dpth (ft)	23.59	Hydr. Depth (ft)	13.56
20.84 11.87			
Conv. Total (cfs)	3983013.0	Conv. (cfs)	583526.1
1937177.0 1462310.0			
Length Wtd. (ft)	6559.94	Wetted Per. (ft)	1000.20
293.92 3107.20			
Min Ch El (ft)	30.94	Shear (lb/sq ft)	0.06
0.09 0.05			
Alpha	10.14	Stream Power (lb/ft s)	0.02
0.22 0.02			
Frctn Loss (ft)	0.57	Cum Volume (acre-ft)	49205.13
22591.21 57814.96			
C & E Loss (ft)	0.00	Cum SA (acres)	5709.87
1007.42 5054.15			

CROSS SECTION

RIVER: Santa Fe
REACH: Main RS: 35.58

INPUT
Description:
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
10000	59.34	10057	58.54	10162	56.54	10295	46.54	10444	51.54
10479	50.84	10637	44.14	10909	42.84	11122	43.14	11230	45.84
11343	46.84	11401	45.74	11461	43.44	11582	42.94	11727	43.44
11879	43.44	12000	46.44	12115	46.64	12168	46.24	12444	46.84
12688	49.84	12933	50.84	13206	45.64	13275	47.34	13442	45.74
13728	45.84	13728	49.24	13732	49.24	13733	50.34	13824	50.54
13930	53.54	14005	54.34	14084	53.94	14159	52.14	14220	50.14

```
   14242   49.74   14285   51.14   14342   52.04   14427   52.84   14505
53.94
   14594   54.64   14683   57.14   14763   59.74   14801   61.34   14840
61.44
   14864   62.14   14882   63.74   14901   62.44   14935   60.84   14972
59.84
   15010   58.54   15049   55.64   15075   53.84   15105   51.94   15145
50.04
   15169   48.04   15201   45.84   15236   42.74   15267   42.74   15342
42.64
   15368   41.94   15413   42.24   15469   43.34   15527   44.54   15586
47.34
   15665   47.54   15748   47.14   15828   46.34   15891   38.94   15922
42.24
   15932   43.34   15950   34.54   15983   30.54   16020   29.84   16035
32.54
   16048   34.54   16061   36.74   16072   37.44   16089   37.44   16109
35.24
   16136   35.34   16182   37.54   16235   37.24   16271   44.64   16415
44.94
   16563   46.84   16689   45.94   16855   50.14   16977   53.44   17137
57.24
   17141   57.24   17147   57.24   17223   58.94   17247   59.34

Manning's n Values          num=       3
     Sta   n Val      Sta   n Val      Sta   n Val
   10000      .2   15932    .035   16271      .2

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
         15932   16271              20      20      20             .1
.3

CROSS SECTION OUTPUT  Profile #100 Year

  E.G. Elev (ft)              54.01    Element                 Left OB
Channel   Right OB
  Vel Head (ft)                0.09    Wt. n-Val.               0.200
0.035      0.200
  W.S. Elev (ft)              53.92    Reach Len. (ft)         20.00
20.00      20.00
  Crit W.S. (ft)                       Flow Area (sq ft)     35619.07
6163.56    4691.64
  E.G. Slope (ft/ft)       0.000117    Area (sq ft)          35619.07
6163.56    4691.64
  Q Total (cfs)            32569.00    Flow (cfs)            11684.09
19455.57    1429.34
  Top Width (ft)            6110.48    Top Width (ft)         5045.33
339.00     726.15
  Vel Total (ft/s)             0.70    Avg. Vel. (ft/s)          0.33
3.16       0.30
  Max Chl Dpth (ft)           24.08    Hydr. Depth (ft)          7.06
18.18       6.46
```

Conv. Total (cfs)	3006331.0	Conv. (cfs)	1078518.0
1795876.0 131937.7			
Length Wtd. (ft)	20.00	Wetted Per. (ft)	5051.29
342.81 726.27			
Min Ch El (ft)	29.84	Shear (lb/sq ft)	0.05
0.13 0.05			
Alpha	12.21	Stream Power (lb/ft s)	0.02
0.42 0.01			
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	46555.66
21486.96 55237.75			
C & E Loss (ft)	0.00	Cum SA (acres)	5383.99
950.53 4816.59			

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: Santa Fe
REACH: Main RS: 35.57

INPUT
Description:
Station Elevation Data num= 94

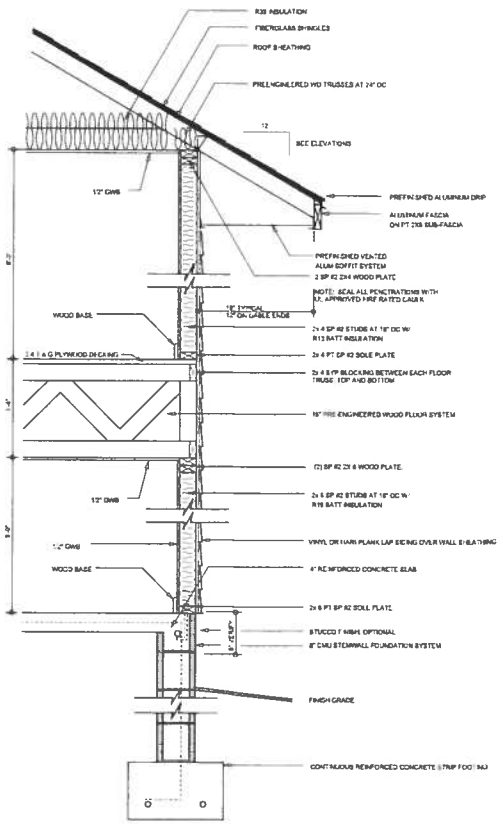
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
10000	59.34	10057	58.54	10162	56.54	10295	46.54	10444	51.54
10479	50.84	10637	44.14	10909	42.84	11122	43.14	11230	45.84
11343	46.84	11401	45.74	11461	43.44	11582	42.94	11727	43.44
11879	43.44	12000	46.44	12115	46.64	12168	46.24	12444	46.84
12688	49.84	12933	50.84	13206	45.64	13275	47.34	13442	45.74
13728	45.84	13728	49.24	13732	49.24	13733	50.34	13824	50.54
13930	53.54	14005	54.34	14084	53.94	14159	52.14	14220	50.14
14242	49.74	14285	51.14	14342	52.04	14427	52.84	14505	53.94
14594	54.64	14683	57.14	14763	59.74	14801	61.34	14840	61.44
14864	62.14	14882	63.74	14901	62.44	14935	60.84	14972	59.84
15010	58.54	15049	55.64	15075	53.84	15105	51.94	15145	50.04
15169	48.04	15201	45.84	15236	42.74	15267	42.74	15342	42.64
15368	41.94	15413	42.24	15469	43.34	15527	44.54	15586	47.34

```
   15665   47.54   15748   47.14   15828   46.34   15891   38.94   15922
42.24
   15932   43.34   15950   34.54   15983   30.54   16020   29.84   16035
32.54
   16048   34.54   16061   36.74   16072   37.44   16089   37.44   16109
35.24
   16136   35.34   16182   37.54   16235   37.24   16271   44.64   16415
44.94
   16563   46.84   16689   45.94   16855   50.14   16977   53.44   17137
57.24
   17141   57.24   17147   57.24   17223   58.94   17247   59.34

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   10000      .2   15932    .035   16271      .2

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
         15932   16271             6500    9134    7700             .1
.3
Blocked Obstructions      num=       1
   Sta L   Sta R    Elev
10200.3510239.5855.18382

CROSS SECTION OUTPUT  Profile #100 Year

  E.G. Elev (ft)              54.01    Element                  Left OB
Channel   Right OB
  Vel Head (ft)                0.09    Wt. n-Val.                0.200
0.035       0.200
  W.S. Elev (ft)              53.92    Reach Len. (ft)         6500.00
9134.00    7700.00
  Crit W.S. (ft)                       Flow Area (sq ft)       35538.84
6162.74    4689.89
  E.G. Slope (ft/ft)       0.000117    Area (sq ft)            35538.84
6162.74    4689.89
  Q Total (cfs)            32569.00    Flow (cfs)              11681.90
19458.05    1429.05
  Top Width (ft)            6070.58    Top Width (ft)           5005.54
339.00     726.04
  Vel Total (ft/s)             0.70    Avg. Vel. (ft/s)            0.33
3.16       0.30
  Max Chl Dpth (ft)           24.08    Hydr. Depth (ft)            7.10
18.18       6.46
  Conv. Total (cfs)        3005282.0    Conv. (cfs)             1077939.0
1795478.0   131864.3
  Length Wtd. (ft)          8002.49    Wetted Per. (ft)         5014.85
342.81     726.16
  Min Ch El (ft)              29.84    Shear (lb/sq ft)            0.05
0.13       0.05
  Alpha                       12.17    Stream Power (lb/ft s)      0.02
0.42       0.01
  Frctn Loss (ft)              0.94    Cum Volume (acre-ft)    46539.33
21484.13   55235.60
```

```
  C & E Loss (ft)              0.03     Cum SA (acres)           5381.68
950.37    4816.26


Warning: Divided flow computed for this cross-section.

CROSS SECTION


RIVER: Santa Fe
REACH: Main                RS: 33.85

INPUT
Description:
Station Elevation Data    num=      36
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta
Elev
   10000   59.34   10072   57.74   10154   55.24   10283   52.14   10374
50.34
   10499   48.84   10722   45.74   10787   44.54   10865   44.54   11053
44.94
   11216   44.94   11491   44.54   11546   44.54   11747   44.74   11846
43.94
   11973   43.04   12036   42.04   12120   41.14   12204   40.94   12244
41.34
   12391   43.04   12506   42.64   12672   43.54   12754   43.64   12801
39.24
   12928   39.34   13082   39.84   13503   39.64   13644   42.34   13746
41.64
   13895   41.34   14050   39.34   14350   39.34   15100   44.34   15320
49.34
   15750   54.34

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   10000      .2   12801      .1   13503      .2

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.
Expan.
         12801   13503             4000    4013    3200             .1
.3

CROSS SECTION OUTPUT  Profile #100 Year

  E.G. Elev (ft)             53.04    Element                  Left OB
Channel   Right OB
  Vel Head (ft)               0.01    Wt. n-Val.                0.200
0.100      0.200
  W.S. Elev (ft)             53.04    Reach Len. (ft)          4000.00
4013.00    3200.00
  Crit W.S. (ft)                      Flow Area (sq ft)       21305.68
9415.40   20973.87
  E.G. Slope (ft/ft)      0.000117    Area (sq ft)            21305.68
9415.40   20973.87
```

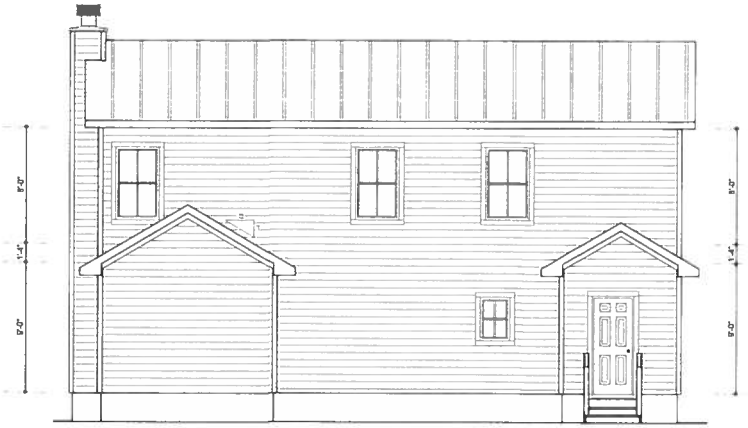
Q Total (cfs)	24427.00	Flow (cfs)	7422.66
8551.82 8452.52			
Top Width (ft)	5392.39	Top Width (ft)	2555.37
702.00 2135.02			
Vel Total (ft/s)	0.47	Avg. Vel. (ft/s)	0.35
0.91 0.40			
Max Chl Dpth (ft)	13.80	Hydr. Depth (ft)	8.34
13.41 9.82			
Conv. Total (cfs)	2255866.0	Conv. (cfs)	685493.0
789772.1 780601.3			
Length Wtd. (ft)	3793.87	Wetted Per. (ft)	2555.68
702.00 2135.16			
Min Ch El (ft)	39.24	Shear (lb/sq ft)	0.06
0.10 0.07			
Alpha	1.71	Stream Power (lb/ft s)	0.02
0.09 0.03			
Frctn Loss (ft)	0.56	Cum Volume (acre-ft)	42298.17
19850.85 52967.34			
C & E Loss (ft)	0.00	Cum SA (acres)	4817.57
841.23 4563.39			

ARCHITECTURAL PLANS



TYPICAL WALL SECTION

SCALE 1" = 1'-0"



REAR ELEVATION

SCALE 1/8" = 1'-0"

FRONT ELEVATION

SCALE 1/8" = 1'-0"

NOTE: ALL DRAWINGS NOT TO BE SCALED, WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS

REVISIONS
March 21, 2018

SOFTPLAN

FRONT & REAR ELEVATIONS
SCALE: 1/8" = 1'-0"

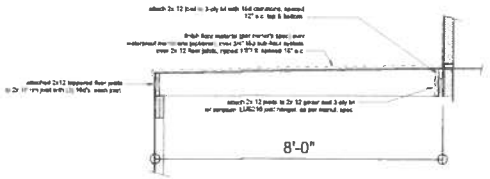
TYPICAL WALL SECTION
SCALE: 1" = 1'-0"

A CUSTOM HOME FOR:
LARRY & NANSEA SKINNER
PROJECT ADDRESS: 653 ALMA TERRACE, LAKE CITY, FLORIDA 32024
K & H Framing

© WM DESIGN & ASSOCIATES, P.C.
423 SW COMMERCE CR STE 130
LAKE CITY, FL 32025
(386) 758-8406

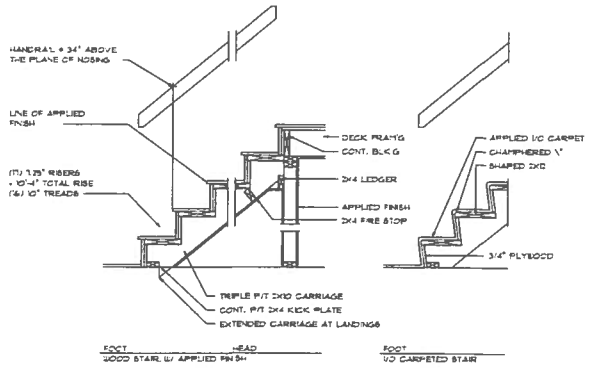
JOB NUMBER
20180226

SHEET NUMBER
A.1
OF 5 SHEETS



BALCONY SUB-FLOOR FRAMING DETAIL

LEFT ELEVATION



Typical Stair DETAIL

SCALE: 3/4" = 1'-0"

(B)

RIGHT ELEVATION

NOTE: ALL DRAWINGS NOT TO BE SCALED, WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS

REVISIONS
March 21, 2018

SOFTPLAN

LEFT & RIGHT ELEVATIONS
SCALE 1/4" = 1'-0"

TYPICAL WALL SECTION
SCALE 1" = 1'-0"

A CUSTOM HOME FOR
LARRY & NANSEA SKINNER
PROJECT ADDRESS 1870 JULIA TERRACE LAKE CITY, FLORIDA 32024
K & H Framing

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428 SW COMMERCE DR STE 130
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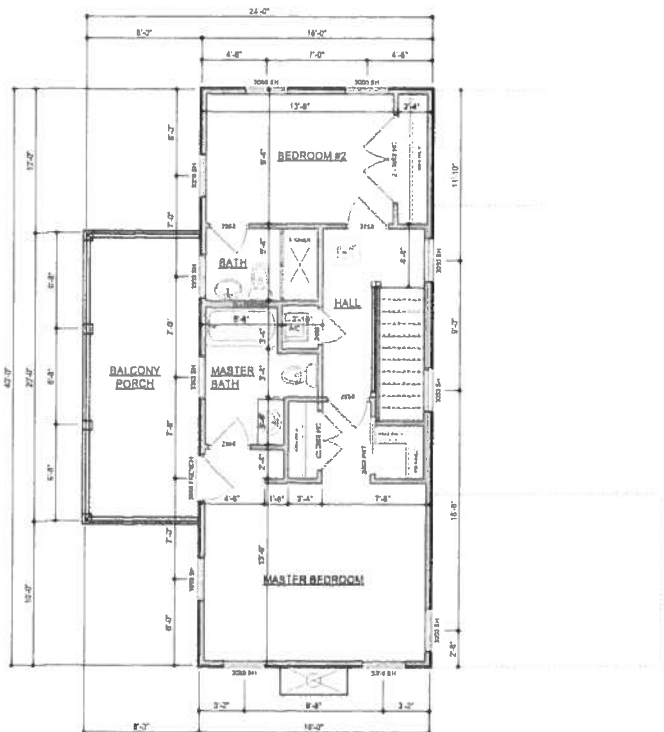
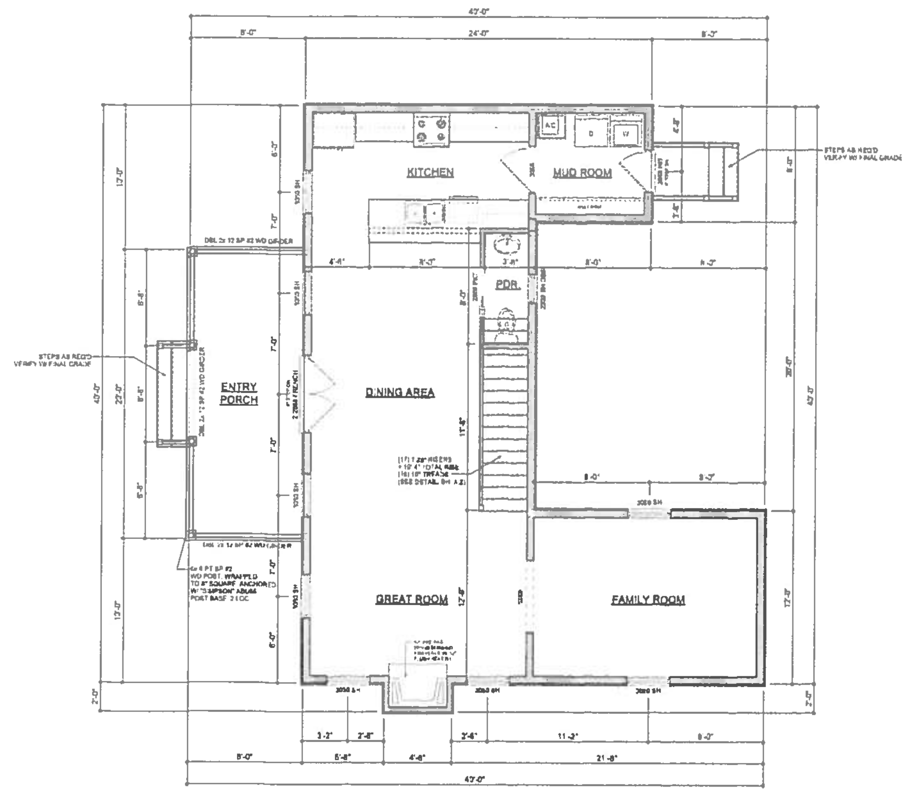
(386) 758-8436

JOB NUMBER
20180226

SHEET NUMBER
A.2
OF 5 SHEETS



2ND FLOOR PLAN
SCALE 1/4" = 1'-0"
NOTE: ALL WALLS SHALL BE 8'-0" UNLESS OTHERWISE NOTED



1ST FLOOR PLAN
SCALE 1/4" = 1'-0"
NOTE: ALL WALLS SHALL BE 8'-0" UNLESS OTHERWISE NOTED

AREA SUMMARY

1ST FLOOR AREA	896	S.F.
2ND FLOOR AREA	640	S.F.
ENTRY PORCH AREA	160	S.F.
BALCONY PORCH AREA	160	S.F.
TOTAL AREA	1,856	S.F.

NOTE: ALL DRAWINGS NOT TO BE SCALED, WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS

REVISIONS
March 21, 2018
SOFTPLAN

DIMENSIONED FLOOR PLANS
SCALE 1/4" = 1'-0"

A CUSTOM HOME FOR:
LARRY & NANSEA SKINNER
PROJECT ADDRESS: LAKE CITY, FLORIDA 32024
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(386) 758-8406

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SHEET NUMBER
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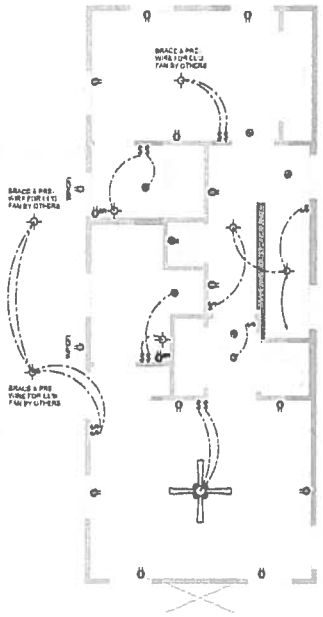
OF 5 SHEETS



2ND FLOOR ELECTRICAL

SCALE 1/4" = 1'-0"

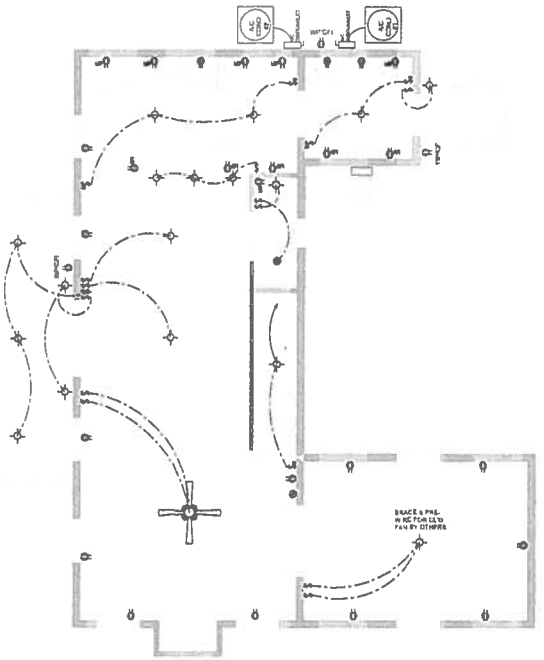
	ELECTRICAL LEGEND
	CEILING FAN (PRE-WIRE FOR LIGHT KIT)
	DOUBLE SECURITY LIGHT
	RECESSED CAN LIGHT
	BATH EXHAUST FAN
	LIGHT FIXTURE
	DUPLEX OUTLET (AFCI & TAMPER RESISTANT)
	220v OUTLET
	GFI DUPLEX OUTLET (PER NEC 406.8)
TV	TELEVISION JACK
PH	TELEPHONE JACK
	SMOKE / CARBON MONOXIDE DETECTOR (see note below)
	WALL SWITCH
	3 WAY WALL SWITCH
	WATER PROOF GFI OUTLET
	2 OR 4 TUB FLUORESCENT FIXTURE

NOTE:
ALL INTERIOR RECEPTACLES SHALL BE AFCI
(ARC FAULT CIRCUIT INTERRUPT) PER NEC 210.12 & TAMPER RESISTANT PER NEC 406.11

ALL SMOKE DETECTORS BE A COMBO SMOKE & CARBON MONOXIDE DETECTOR AND SHALL HAVE BATTERY BACKUP POWER AND ALL WIRED TOGETHER SO IF ANY ONE UNIT IS ACTUATED THEY ALL ACTIVATE

THE ELECTRICAL SERVICE OVERCURRENT PROTECTION DEVICE SHALL BE INSTALLED ON THE EXTERIOR OF STRUCTURES TO SERVE AS A DISCONNECT MEANS CONDUCTORS USED FROM THE EXTERIOR DISCONNECTING MEANS TO A PANEL OR SUB PANEL SHALL HAVE FOUR WIRE CONDUCTORS, OF WHICH ONE CONDUCTOR SHALL BE USED AS AN EQUIPMENT GROUND

IT IS THE LICENSED ELECTRICAL CONTRACTORS RESPONSIBILITY TO INSURE THAT ALL WORK PERFORMED AND FOR EQUIPMENT INSTALLED MEETS OR EXCEEDS THE NFPA70 2014 NATIONAL ELECTRIC CODE AND ALL OTHER LOCAL CODES AND ORDINANCES.



1ST FLOOR ELECTRICAL

SCALE 1/4" = 1'-0"

NOTE: ALL DRAWINGS NOT TO BE SCALED, WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS

REVISIONS
March 21, 2018

SOFTPLAN

PRELIMINARY PLANS
SCALE: 1/4" = 1'-0"

A CUSTOM HOME FOR:
LARRY & NANSEA SKINNER
PROJECT ADDRESS: 620 JULIA TERRACE, LAKE CITY, FLORIDA 32024
K & H Framing

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info@wmdesinc.net

JOB NUMBER
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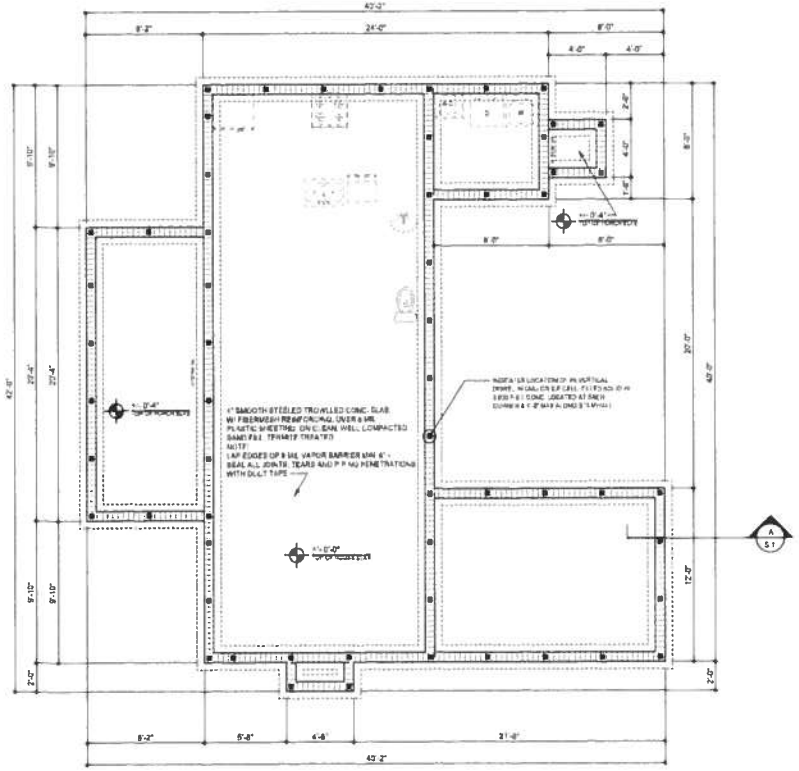
SHEET NUMBER
A.4
OF 5 SHEETS

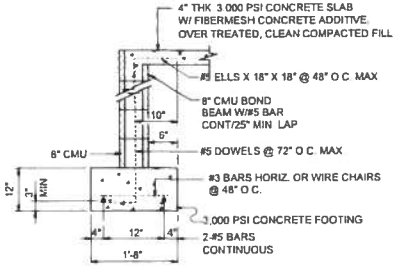


FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

INTERIOR BEARING WALLS.

IT IS THE BUILDING CONTRACTOR'S RESPONSIBILITY TO VERIFY WITH THE TRUSS ENGINEERING ANY AND ALL INTERIOR BEARING WALL LOCATIONS AND FURNISH THE ENGINEER OR ARCHITECT OF RECORD TRUSS INFO SO THICKENED FOOTINGS CAN BE SIZED AND LOCATED ON THE FOUNDATION PLAN



SECTION A/S1

SCALE: 3/4" = 1'-0

NOTE: ALL DRAWINGS NOT TO BE SCALED, WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS

REVISIONS
March 21, 2018

SOFTPLAN

FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

FOUNDATION DETAILS
SCALE: 3/4" = 1'-0"

A CUSTOM HOME FOR:
LARRY & NANSEA SKINNER
PROJECT ADDRESS: 823 ALLA TERRACE, LAKE CITY, FLORIDA 32024
K & H Framing

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