



# Plantation Acres Improvement District

## Broward County Florida

1701 NW 112<sup>th</sup> Avenue, Plantation, FL 33323  
**AGENDA**  
**October 26, 2023**

Call to Order 7:00 P.M.

Pledge of Allegiance

Invocation

Roll Call

Approval of Attendance of Commissioners by Social Media or Telephone

Approval of Minutes

Public Comment

Staff Reports

I. Administrator's Report

- A. Approval of the September 2023 Expenses in the Amount of \$62,369.03
- B. Approval of the Credit Card Report for 8/9/2023 thru 9/8/2023 in the amount of \$4,759.23
- C. Approval of the Credit Card Report for 9/9/2023 thru 10/8/2023 in the amount of \$6,854.82
- D. Discussion regarding the 2024 meeting dates
- E. Discussion regarding appointing a Commissioner for Employee Compensation Committee/Annual Reviews
- F. Discussion regarding employee vacation schedule - update to employee handbook
- G. Update on District Manager's job advertisement
- H. Website / Human Resources responsibilities

II. Attorney's Report

III. Engineer's Report

A. CONSENT ITEMS

None

B. QUASI-JUDICIAL ITEMS

The items in this section are quasi-judicial in nature. If you wish to object or comment upon any of these items, you must be sworn before addressing the Board of Commissioners, and if you wish to address the Board, you may be subject to cross-examination. If you refuse to submit to cross-examination, the Board of Commissioners will not consider what you have said in its final deliberations.

B1. 11350 NW 8<sup>th</sup> Street (V2306.02) . . . . . Violation

C. BOARD ACTION ITEMS

None

D. DISCUSSION ITEMS

- D1. Pump Stations Improvements (D1707.01) . . . . . Update
- D2. Portable Auxiliary Pump (D2301.01) . . . . . Discussion
- D3. PAID Drainage Improvement Projects (D2301.01) . . . . . Update
- D4. Permit Activity (D9408.02 & D9408.03) . . . . . Summary
- D5. Violation Activity (D9611.01) . . . . . Summary

IV. District Manager's Agenda

Old Business

New Business

Commissioner Comments

Adjournment

Notice is hereby given to all interested parties that if any person should decide to appeal any decision made at the forthcoming meeting of the Board of Commissioners, such person will need a record of the proceedings conducted at such meeting, and for such purpose he or she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which any appeal may be based. Persons with disabilities requiring accommodations in order to participate should contact the District Office at (954) 474-3092 at least 48 hours in advance to request such accommodations.

**PLANTATION ACRES IMPROVEMENT DISTRICT**  
**Proposed 2024 Meeting Dates**

January 25<sup>th</sup>, 2024

February 22<sup>nd</sup>, 2024

March 28<sup>th</sup>, 2024

April 25<sup>th</sup>, 2024

May 23<sup>rd</sup>, 2024

June 27<sup>th</sup>, 2024

July 25<sup>th</sup>, 2024

August 22<sup>nd</sup>, 2024

September 10<sup>th</sup>, 2024 – (Tuesday) – Budget and Regular Meeting

October 24<sup>th</sup>, 2024

November/December (combined meeting) Either November 21<sup>st</sup> or December 12, 2024

**ENGINEER'S STAFF REPORT**  
FOR October 26, 2023 MEETING  
**AGENDA ITEM No.: B1**

**Action Required:** Board Approval (Quasi-Judicial)

**Item Description:** 11350 NW 8<sup>th</sup> Court  
Notice of Violation

**P.A.I.D. Number:** V2306.02

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**Attachments:** Photos taken by District Manager on June 23, 2023  
Copy of Survey From Certificate of Occupancy Review Dated February 1, 2018  
Comments Letter emailed to applicant dated June 27, 2023

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**Summary:** Based on an inspection by the District Manager of the property located at 11350 NW 8<sup>th</sup> Street, a violation of Sections 3 and 5 of the District's Policies and Procedures Manual exist as follows:

Construction without a permit.

**Background:** The following is a chronology of events:

- June 23, 2023 - The District Manager confirmed the activity after an inquiry from a neighbor.
  - June 23, 2023 - An application for permit was submitted by Geo General Contractor Inc.
  - June 23, 2023 - A comments letter was sent to the applicant via email. No additional submittals were received.
- 

**Recommendation:** Require compliance with District criteria within 45 days as follows: Restore property to original condition and provide survey for verification of compliance or provide required items for permit of constructed work.

Prepared by: CJF Date: 10/19/23

V2306.02 - 11350 NW 8<sup>TH</sup> STREET (REF: B1502.01)



6/23/2023

PLANTATION ACRES IMPROVEMENT DISTRICT  
 Reviewed for conformance to criteria:  
 ACCEPTABLE     ACCEPTABLE AS NOTED  
 NOT ACCEPTABLE     NOT APPLICABLE  
 WINNINGHAM & FRADLEY, INC.  
 By: *Cristal J. Ford*  
 Date: *2/1/18* No: *181502.01*  
 Comments: *C.O.*

11490 NW 8 STREET  
 11480 NW 8 STREET  
 11470 NW 8 STREET  
 11460 NW 8 STREET

291.10' N 00 11' 59" W

291.10' S 00 11' 59" E

**AREA CALCULATIONS**  
 AREA OF LOT 42,195.0 SF  
 NATURAL GRADE OF 5.0' +/- 21,098.0 SF  
 (50.0% OF GROSS LAND AREA)

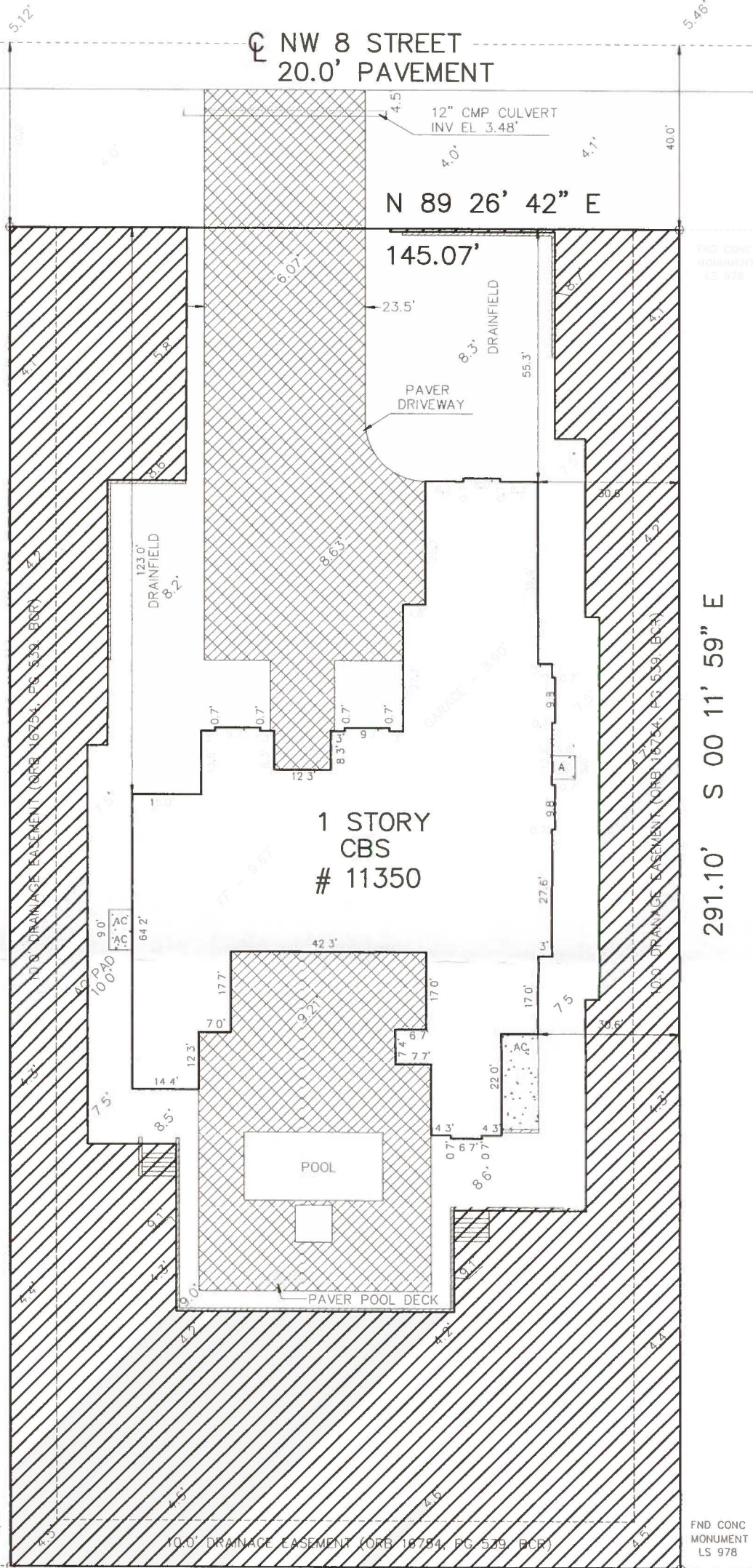
**SEWAGE FLOW CALCULATIONS**  
 TOTAL A/C (LIVING AREA) 5,579 S.F. (4 BEDROOMS)  
 FIRST 3,300 SF A/C 400 GALLONS  
 FOR EACH ADDITIONAL BEDROOM OR 750 SQ.FT. (WHICHEVER IS GREATER) 60 GALLONS  
 6 BEDROOMS WITH 5689 SQ.FT. 640 GALLONS  
 DESIGN FOR TRENCH SYSTEM WITH LOADING RATE OF 0.80 GPD / SF  
 TRENCH AREA REQUIRED:  
 640 GPD 800 SF OF TRENCH  
 0.80 GPD/SF

ON SITE SEWAGE DISPOSAL SYSTEM INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF CHAPTER 64E-6 OF FLORIDA ADMINISTRATIVE CODE (FAC) STANDARDS FOR ON SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM

**NOTES:**  
 1- ALL IMPROVEMENTS MUST MEET THE REQUIREMENTS OF THE BROWARD COUNTY LAND DEVELOPMENT CODE MINIMUM CONSTRUCTION STANDARDS FOR ROADWAYS UNDER BROWARD COUNTY JURISDICTION, AND LOCAL DRAINAGE DISTRICT CRITERIA  
 2- FINISHED GRADE OF TURF / SOG SHALL BE 2" BELOW EDGE OF PAVEMENT  
 3- CONTRACTORS AND SUB-CONTRACTOR SHALL PERFORM ALL CONSTRUCTION IN ACCORDANCE WITH ALL CODES, REGULATIONS HAVING JURISDICTION AND RESTRICTIONS AND SHALL BE RESPONSIBLE FOR THE SAME  
 4- ALL DIMENSIONS SHALL BE VERIFIED PRIOR TO ANY CONSTRUCT. BY THE CONTRACTOR AND / OR SUB CONTRACTOR, AND THEM SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO STARTING CONSTRUCTION  
 5- SURVEYORS SHALL VERIFY ALL SITE DIMENSIONS PRIOR TO CONSTRUCTION AND SHALL NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCY TO THE CONSTRUCTION DOCUMENTS  
 6- MAXIMUM SLOPE SHALL NOT EXCEED 4%  
 CONTACT P.A.I.D. DISTRICT MANAGER AT 474-3082 PRIOR TO INSTALLATION OF CULVERT AND FINAL GRADING OF PROPERTY

**P.A.I.D STATEMENT NOTES**  
 1-THE PURPOSE OF THE NATURAL GRADE IS TO PROVIDE FLOOD PROTECTION THROUGH PERIODIC INUNDATION ANY IMPROVEMENTS, MATERIALS OR LANDSCAPING PLACED WITHIN THE NATURAL AREA MAY BE SUBJECT TO DAMAGE FROM THE PERIODIC INUNDATION  
 2- PERIMETER AND ROADWAY SWALES AND CULVERTS SHALL BE CONSTRUCTED AND MAINTAINED BY OWNER IN ACCORDANCE WITH DISTRICT CRITERIA AND PRACTICE, AND SHALL REMAIN UNOBSSTRUCTED AT ALL TIMES, IF A TEMPORARY OBSTRUCTIONS UNAVOIDABLE, OWNER SHALL OBTAIN APPROVAL FROM THE DISTRICT FOR THE TEMPORARY OBSTRUCTION  
 3- DURING THE IMPROVEMENT OF THE PROPERTY FROM LAND IN ITS NATURAL CONDITION TO DEVELOPED LAND, OWNER MAY BE REQUIRED TO IMPROVE THE SWALES BETWEEN THE PROPERTY AND THE NEAREST DISTRICT CANAL / CULVERT.  
 4- PLACEMENT OF ANY PERMANENT MATERIAL OR IMPROVEMENT WITHIN DISTRICTS EASEMENTS, SWALES AND THE NATURAL AREA MAY BE PROHIBITED SUCH PLACEMENT IS SUBJECT TO DISTRICT REVIEW, APPROVAL AND / OR PERMIT IN ACCORDANCE WITH DISTRICT CRITERIA AND PRACTICE IN USE AT THE TIME THE PLACEMENT IS TO TAKE PLACE.

**LEGAL DESCRIPTION:**  
 FLA FRUIT LANDS CO SUB NO 1 2-17 D 1-50-40 W1/2 W1/2 OF E1/2 OF THAT PT OF TR 1 LYING W OF A LINE 80 W OF & PAR WITH EAL TR 1, LESS NW 8TH ST RW



**BOUNDARY SURVEY  
 SKETCH OF SURVEY**

Scale: 1" = 30'



UPDATE: 1/27/18  
 UPDATE: 1/19/18

GAVY & ASSOCIATES, INC.  
 LAND SURVEYORS  
 LB # 6971  
 1405 SOROLLA AVENUE  
 CORAL GABLES, FL 33134  
 Phone: (786) 236 8344

CHECKED BY JSP    COUNTY: BROWARD

CERTIFIED TO:

11350 NW 8 STREET, PLANTATION FL 33323

**From:** [Felix E. Santiago](mailto:Felix.E.Santiago@geogcusa.com)  
**To:** ["geo@geogcusa.com"](mailto:geo@geogcusa.com)  
**Cc:** [C. Joi Ford](mailto:C.JoiFord@paidfl.org); [Holly M. Smith](mailto:Holly.M.Smith@paidfl.org); [Angel Alvarez - Plantation Acres Improvement District \(Angel Alvarez@paidfl.org\)](mailto:Angel.Alvarez@paidfl.org); ["smnieset@aol.com"](mailto:smnieset@aol.com)  
**Subject:** Misc. Structure Permit Review Comments at 11350 NW 8th Street (B1502.01)  
**Date:** Tuesday, June 27, 2023 2:33:00 PM  
**Attachments:** [2023-06-27 B1502.01 Structure unapp.pdf](#)  
[image001.png](#)

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Please see attached.

Should you have any questions or require additional information, please do not hesitate to contact our office.

*Felix E. Santiago, EI*



**WINNINGHAM & FRADLEY, INC.**

111 N.E. 44<sup>th</sup> STREET • OAKLAND PARK, FL 33334  
954.771.7440 fax: 954.771.0298 • WEBSITE: [www.winfrad.com](http://www.winfrad.com)

## REVIEW COMMENTS

APPLICANT: LEONYS MARTIN

(EMAIL): [GEO@GEOGCUSA.COM](mailto:GEO@GEOGCUSA.COM)

ADDRESS: 11350 NW 8 ST

PERMIT TYPE: MISC. STRUCTURE

NUMBER: B1502.01

SHEET 1 OF 1

1<sup>st</sup> REVIEW

No.	COMMENT	DATE	BY	COMP.
1.	Review fee deposit of \$300.00 made payable to the PLANTATION ACRES IMPROVEMENT DISTRICT (money order or cashier's check only). Fee is a minimum deposit. Actual fee will be based on the cost of the review, but will not be less than the required \$300.00 fee. The total cost is determined by the hours spent by the District Engineer, the District Attorney and Staff plus administrative costs and expenses. If the District's costs approaches the amount deposited, an additional deposit will be required. All costs are to be paid by the applicant prior to final approval.	6/27/23	FES	
2.	Provide existing and proposed elevations in NAVD-88 datum on site grading plan. Site grading plan shall show the square footage to remain at natural grade (50% at elevation 5.0' NAVD or lower required for this property). Provide proposed natural elevation contour line and lot percentage. See attached sample grading/site plan for your use.	6/27/23	FES	
3.	Maximum slopes shall not exceed 4(H):1(V) Add note to plan.	6/27/23	FES	
4.	Add PAID Statement notes to plan. See attached for your use.	6/27/23	FES	
5.	Show drainage easements per ORB 16754 PG 539 BCR.	6/27/23	FES	
6.	No walls are allowed in the drainage easements.	6/27/23	FES	
7.	Show all existing structures in the plans. Per photos taken during violation notice, an additional existing structure was found on the SW corner of the lot. This structure has not been approved by PAID.	6/27/23	FES	
8.	Provide update topographic survey.	6/27/23	FES	
	Additional comments may be forthcoming upon review of additional information.			

Should you have any questions or need additional information, please feel free to contact our office.

**Please make the necessary changes and resubmit four (4) copies of the revised site plan (signed & sealed).**

cc: Stephen Nieset, PAID Chairman [smnieset@aol.com](mailto:smnieset@aol.com)  
Angel Alvarez, PAID Manager [Angel.Alvarez@paidfl.org](mailto:Angel.Alvarez@paidfl.org)

2023-06-27 B1502.01 Structure unapp.wpd

**ENGINEER'S STAFF REPORT**  
FOR October 26, 2023 MEETING  
**AGENDA ITEM No.: D1**

**Action Required:** Update

**Item Description:** Pump Station Improvements

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**P.A.I.D. Number:** D1707.01

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**Attachments:** None

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**Summary:** A Notice to Proceed was issued on August 8, 2023. Shop drawings are currently being reviewed for compliance with design specifications.

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**Comments:** \_\_\_\_\_

Prepared by: BMP Date: 10/19/23



**ENGINEER'S STAFF REPORT**  
FOR October 26, 2023 MEETING  
**AGENDA ITEM No.: D2**

**Action Required:** Board Discussion

**Item Description:** Portable Auxiliary Pump

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**P.A.I.D. Number:** D2301.01

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**Attachments:** 8-1/2" x 11" Correspondence and Report  
11" x 17" Stage Contours and Nodal Network for South Acres

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**Summary:** This item is in response to standing water in the South Acres after significant storm events. The following are several contributing factors:

The roads become submerged as they were built too low by the City (one foot lower than today's standards). The average ground level is lower than the rest of the District and this results in the South Acres having a greater depth of water. Slower flow occurs as the drainage rate is reduced resulting in periodic inundation.

This item is on the Agenda for discussion for a portable auxiliary pump.

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**Comments:** Recommend Approval.

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Prepared by: BMP Date: 10/19/23

2023-10-19 Engineer's Staff Report\_D2301.01 Portable Auxiliary Pump.wpd

**From:** [Bealinda M. Pell, PE](#)  
**To:** [C. Joi Ford](#)  
**Subject:** FW: New form submission received: Contact Us  
**Date:** Monday, October 16, 2023 1:17:17 PM  
**Attachments:** [image.png](#)  
[image002.png](#)  
[PAID PS Curve.pdf](#)

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Sincerely,

*Bealinda M. Pell, PE, LEED AP*



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**From:** T. Taranu <ttaranu22@yahoo.com>  
**Sent:** Thursday, September 28, 2023 4:10 PM  
**To:** Bealinda M. Pell, PE <bmp@winnfrad.com>; robert@associationfm.com  
**Cc:** Jeff Munchik <Jeff\_Munchick@paidfl.org>; Stephen\_Nieset@paidfl.org; Angel Alvarez <angel\_alvarez@paidfl.org>  
**Subject:** Re: New form submission received: Contact Us

Mr. Andrews,

Thank you for forwarding this to Belinda for a prompt response. She did call me directly and answered my questions and I gave her a rundown on the severe flooding issues in the south South Acres, that have been going on for decades. Even after the improvements in 2019.

For decades the commissioners, Mr. Alvarez and Mr. Fradley have stated that nothing else can be done. We have been asking for the installation of an additional pump at the south end of Old Hiatus Road to help dump more water from the BOWL as Mr. Fradley referred to our neighborhood. It is FACT that we live in the lowest area of Plantation Acres. Over and over we have been told there is no more discharge allowed into the C42 canal in addition to the existing pumps. We were also told that inquiries were made to SFWMD and were categorically denied.

I've spent the past few months talking to SFWMD managers and ultimately obtained access to all permits filed by PAID with SFWMD. Nothing was discovered to indicate that PAID through the District Engineer ever requested an increase in discharge or permitting for an additional pump.

Continued looking at information and discovered the master drainage plan approved by the SFWMD IN 1993. The approved plan shows 6 pumps allowed to pump 20,000 GPM for a total discharge of 312 CFS. And I EDUCATED myself with those terms.

The web portal inquiry was made to confirm that those standards approved in 1993 by SFWMD still stand. And after my conversation with Belinda today they still do.

I am in receipt of the string of emails precipitated by my initial web inquiry. I find it rather unprofessional and disturbed by your condescending response when forwarding my request to Stephen, Angel, and Belinda.

WE the residents, who pay your fees through our taxes, are very aware of how drainage works and do not need any educational/teaching moments from you or anyone at PAID.

And it's rather insulting when a PAID employee who has been there for many years and manages the pumps does not know what GPM and CFS mean. But us uneducated residents do.

By the way, you know who I'm referring to and he is a good person and have nothing personal against him.

Also, from my conversation with Belinda and her written response, an uneducated person like me was able to figure out that the current CFS that PAID uses has been at 267 based on the current pumps' output into the C42 canal. The approved output by SFWMD has been set at 312 for the past 30 years. This would give an additional discharge of 20,000 GPM, which not been used for the past 30 years.

This completely debunks the theory that nothing else can be done, that has been told over and over again for years.

Looking forward to work with Belinda and our PAID commissioners to permanently improve the drainage issue in the south South Acres.

I have included the flood map of Plantation Acres for your inspection. That bright red area south of SW 3 Street is the BOWL we live in.

I am awaiting your apology to me and my neighbors.

Lastly, I've noticed that you cc'ed Chairman Nieset on this communication on his private email account not on his government email. That may not be in compliance with the Florida Records Retention Act.

Have a great night!

Ted



Sent from my iPhone

On Sep 28, 2023, at 3:25 PM, Bealinda M. Pell, PE <bmp@winnfrad.com> wrote:

Ted,

See below and attached.

Sincerely,

*Bealinda M. Pell, PE, LEED AP*



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**From:** Bealinda M. Pell, PE  
**Sent:** Thursday, September 28, 2023 2:00 PM  
**To:** Angel Alvarez - Plantation Acres Improvement District (Angel\_Alvarez@paidfl.org) <angel\_alvarez@paidfl.org>  
**Cc:** Robert M. Andrews <robert@associationfm.com>; smnieset@aol.com  
**Subject:** FW: New form submission received: Contact Us

The information posted is correct, but not accurate – meaning it contains an error. The 312 CFS was mentioned in the original permit, but 6 times 20,000 GPM equals 267 CFS, which is the limit at the head conditions listed for the pumps. The 267 CFS rate is the value used when securing pump related approvals with the SFWMD. Refer to the attached pump curve. The rate is a result of the head conditions, but the maximum could exceed 20,000 GPM at lower head conditions. It would likely never reach the 312 CFS (23,300 GPM/pump), based on the pump curve, but I contend that it could exceed the 20,000 GPM “limit” if ever contested. There may be other history regarding the difference between the 312 and 267 CFS rates, but we have not found it.

*Bealinda M. Pell, PE, LEED AP*



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**From:** Angel Alvarez <[angel\\_alvarez@paidfl.org](mailto:angel_alvarez@paidfl.org)>  
**Sent:** Wednesday, September 27, 2023 11:43 AM  
**To:** Robert M. Andrews <[robert@associationfm.com](mailto:robert@associationfm.com)>; STEPHEN NIESET <[smnieset@aol.com](mailto:smnieset@aol.com)>; Bealinda M. Pell, PE <[bmp@winnfrad.com](mailto:bmp@winnfrad.com)>  
**Subject:** Re: New form submission received: Contact Us

All pumps operate using RPM settings, not to exceed 1600 RPM'.

The current average rpm setting is 1450 rpm', at all stations.

Engineering can provide the GPM, CFS, etc.

I am not familiar with that data.

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**From:** Robert M. Andrews <[robert@associationfm.com](mailto:robert@associationfm.com)>  
**Sent:** Wednesday, September 27, 2023 10:52 AM  
**To:** STEPHEN NIESET <[smnieset@aol.com](mailto:smnieset@aol.com)>; Angel Alvarez <[angel\\_alvarez@paidfl.org](mailto:angel_alvarez@paidfl.org)>; Bealinda M. Pell, PE <[bmp@winnfrad.com](mailto:bmp@winnfrad.com)>  
**Subject:** FW: New form submission received: Contact Us

Stephen/Angel/Belinda,

Please see below -- at the end of the day whatever the answer is it appears that a lot of residents don't understand the pump/drainage process.

I think these and other questions should be turned into more of a educational / teaching moment for the residents so they can be better informed about the process.

Thanks  
Robert

**From:** Streamline <[noreply@specialdistrict.org](mailto:noreply@specialdistrict.org)>  
**Sent:** Wednesday, September 27, 2023 10:49 AM  
**To:** Robert M. Andrews <[robert@associationfm.com](mailto:robert@associationfm.com)>  
**Subject:** New form submission received: Contact Us

## Contact Us

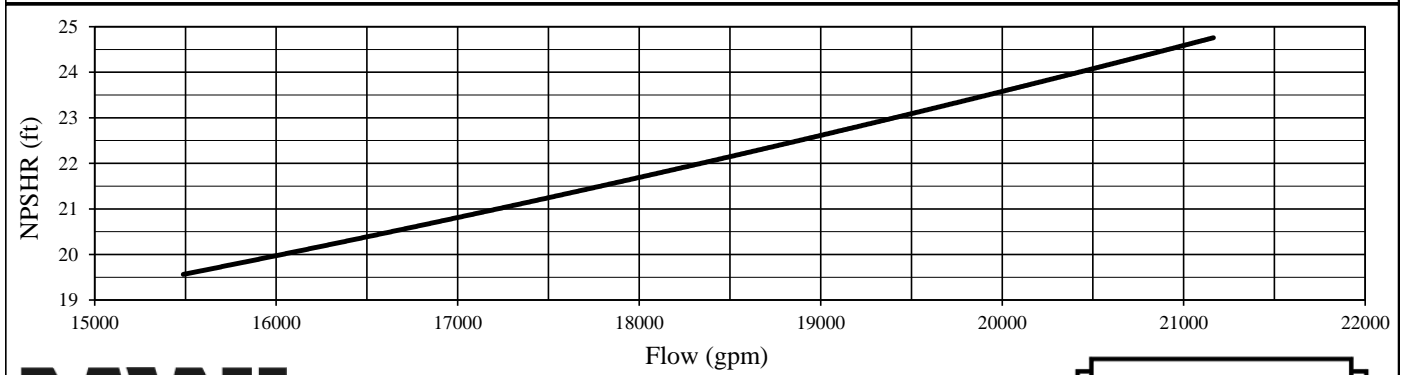
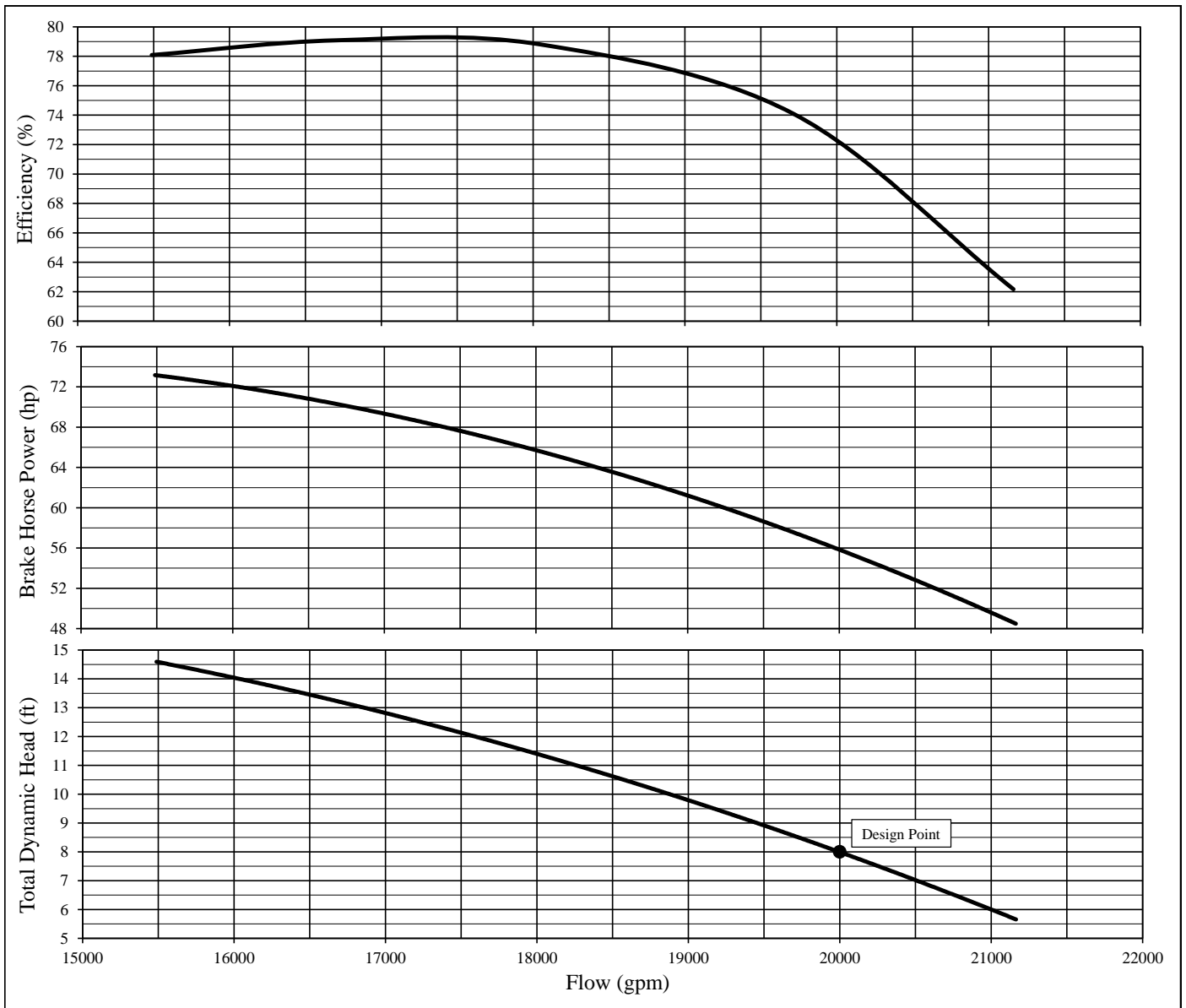
<b>Your Name:</b>	Ted Taranu
<b>Your Email:</b>	<a href="mailto:ttaranu22@yahoo.com">ttaranu22@yahoo.com</a>
<b>Subject:</b>	CFS Rates
	Good morning! Based on posted district documents each pump is allowed to pump 20,000 GPM and total maximum discharge from

**Your  
Message:**

all pumps is set at 312 CFS. Is this information accurate? When a weather emergency exists and the pumps are on, do they all operate at the maximum capacity or do they have individual settings? If they do what are the settings for each pump? Thank you for your help!

[Reply / Manage](#)

Powered by [Streamline](#).



<b>PUMP BOWL PERFORMANCE CURVE</b>	
Project: PAID PS	
TYPE: Axial Flow	PROPELLER DIA: 26 in
MODEL NO: NW326X30	SPEED: 550 RPM
INTAKE DIA: 39 in	DISCHARGE DIA: 30 in
SINGLE STAGE PERFORMANCE FOR TWO STAGES MULTIPLY HEAD AND HORSEPOWER BY 2.0 AND EFFICIENCY BY 1.0 PERFORMANCE IS BASED ON PUMPING CLEAR, NON-AERATED WATER, WITH A SPECIFIC GRAVITY OF 1.0, TEMPERATURE 85 DEG F OR LESS AND AT SEA LEVEL. PUMP PERFORMANCE MAY BE AFFECTED BY HIGHER TEMPERATURES, SPECIFIC GRAVITY, ALTITUDES AND SUMP CONDITIONS.	

IT IS HEREBY CERTIFIED THAT THIS CURVE REPRESENTS THE TRUE PERFORMANCE CHARACTERISTICS OF THE MWI PUMP MODEL SHOWN AND WAS OBTAINED BY SCALE MODEL TEST AND CALCULATIONS IN ACORDANCE WITH STANDARDS OF THE HYDRAULIC INSTITUTE.

MWI CORPORATION  
CERTIFIED BY

MWI CORPORATION  
Deerfield Beach, Florida



**From:** [David A. Fradley, PE, PSM](#)  
**To:** [Robert M. Andrews](#)  
**Cc:** [Stephen Nieset](#); [Lance Fein](#); [Jorge Santana](#); [Jeff Munchick](#); [Bill Beazley@paidfl.org](#); ["Angel Alvarez"](#); [Bealinda M. Pell, PE](#); [C. Joi Ford](#); [Shalan, Samira](#); [Nunemaker, Jason](#)  
**Subject:** Auxiliary Pump in the South Acres  
**Date:** Monday, October 16, 2023 1:01:08 PM  
**Attachments:** [image001.png](#)  
[2023-10-16 Auxiliary Pump Report.pdf](#)

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Greeting Robert,

This email is in response to your (and others) questions regarding a potential pump in the South Acres. It took a while to get back to because this issue has come up often in the past and we decided another thorough response would be useful. We addressed it thoroughly in 2017, however, in 2017 the focus was on lowering the peaks storm stages (water levels reached) with a new stationary pump station. Although peak stages remain a concern with residents, the focus appears to have shifted to the duration of inundation. Attached is a report that, hopefully, explains the challenges and expectations of adding a pump to the South Acres.

Briefly, an auxiliary pump will reduce the time that the South Acres is inundated when compared to the current system. The time varies, of course, but in the model used the time could potentially be reduced by one-half day. We recommend, based on the obstacles and the challenges, that a portable auxiliary pump be considered. If this is desirable to the Board, further investigation regarding the size, cost, and type of pump will follow.

*David A. Fradley, PE, PSM, LEED AP*



**WINNINGHAM & FRADLEY**

111 N.E. 44<sup>th</sup> STREET • OAKLAND PARK, FL 33334  
954.771.7440 fax: 954.771.0298 • WEBSITE: [www.winfrad.com](#)

**POTENTIAL BENEFITS, CHALLENGES, AND RECOMMENDATIONS  
REGARDING AN AUXILIARY PUMP IN THE SOUTH ACRES**

Regarding an auxiliary pump in the South Acres, considerable amount of modeling was done in 2017 on this issue. Attached are the Nodal Networks and Peak Stage Contours for the South Acres with and without a pump. The pump in this scenario was to be permanently located in the City park, where the pond is, and is modeled as pumping directly into the North New River Canal (NNR). Although the modeling is no longer completely relevant because the pump location is un-permissible by SFWMD standards, it does provide useful data for the effectiveness of an auxiliary pump.

1. The potential reasons for and benefits of an auxiliary pump in the South Acres:
  - a. History: There is a documented history of submerged roads in PAS.
  - b. Lower Elevation: PAS was constructed in the 1960s with the County's road criteria and minimum floor elevation, which was one foot lower than the criteria today.
  - c. Inundation Depth: Being that the water level during a storm tends to seek a common level within the entire District, while flowing by gravity to the pump stations, and being that the South Acres has a lower average ground level, this eventually results in the South Acres having a greater depth of water, relative to the remainder of the District.
  - d. Slower Gravity Flow: The South Acres must drain by gravity to the existing pumps. Meaning that the water level between the South Acres must be higher than the level for the area to the north. However, during high rate-short duration storms, where the water rises in the South Acres at a similar rate and depth to the rest of the District, because the South Acres is lower than the area to the north, the drainage rate is reduced and the South Acres remains inundated longer than other areas.
  - e. Need to "Lift" water: If the ability to drain is affected by a lower elevation difference between the waters between the South Acres and Pump 1, then lifting the water is an acceptable option. In site works, lifting of water is provided by a pump.
2. Findings from the Study:
  - a. After several iterations, the most likely pump rate for the auxiliary pump would be between 5,000 and 10,000 gpm. The rate is based on the ability of the area to deliver water to the pump while

- pumping. For reference: A single PAID pump is rated at 20,000 gpm and has a canal as the delivery method.
- b. The 2017 study was based on a theoretical storm duration of one day and a return period of 10 years, which is the storm that the crown of roads are intended to be designed for. The focus of the study was to evaluate the potential drop in the peak level of inundation during this storm with and without a permanent pump facility. No property acquisition was desired for the pump station, so the existing City park and pond were targeted as a potential location.
  - c. Several alternatives for pump location were considered. What was found was that no location had a significant effect on peak water for ALL of the South Acres. This is due to the vast difference in the uniform rate delivery of rain over the entire area compared to the rate of movement of the rain water toward an outfall. The rate at which the water can be removed is affected by much more than a pump rate. What affects the rate includes the following:
    - i. The lack of sloped topography - the South Acres is considered to be flat. Water moves over land based on the difference in the water level between where the water is and where it is going. In a flat terrain, water does not move if there is no difference in the water level it is intended to drain toward. The water will actually continue to rise while it is raining or if the area it is supposed to drain to is rising faster.
    - ii. The distance the rain/runoff has to move to reach the lowest point (the canal or auxiliary pump).
    - iii. The surface obstacles between the area to be drained and the lowest point, such as filled or missing swales.
  - d. A secondary comparison was made on the flow rates leaving the South Acres. Specifically, the connections to the PAID's A and B Canals. The discharge rates remain theoretically similar. The significance here is that the flow was not reversed due to the auxiliary pump flow. A reversal would indicate that the auxiliary pump was drawing water from north of the South Acres.
  - e. The modeling was revisited for this report to address the current focus of reducing the *time* it takes to remove the water from the roads and grassed yards. In general, the model for the auxiliary pump showed a significant theoretical drop in the time to return to similar elevations from the base model. The comparison graphs for the westernmost area in the South Acres and the auxiliary pump in the easternmost pond is attached. Both graphs show the roads being submerged around the 12<sup>th</sup> hour and both show the same peak stage of 6.63 feet (NGVD). However, the time the water level drops to 5.0 ft (approximate swale level) is approximately at the 75<sup>th</sup> hour with no pump and the 61<sup>st</sup> hour with the auxiliary pump. A theoretical drop of 14 hours. It is important to keep in mind the theoretical

nature of the models, which assumes that an auxiliary pump is in operation for the same duration as the main pumps.

- f. The auxiliary pump provides a distinct advantage in that its pump rate is potentially constant. Whereas, the two outfalls to the A & B Canals are dependant on gravity flow. When there is inundation, it is common for the water level to be similar everywhere but near the main pumps. If the water level is high and near equal on both ends of the culvert leading to the A & B Canals, then the gravity flow could be near zero. An auxiliary pump would be operational until just before the pickup goes dry (ideally).
3. The challenges of constructing a stationary pump that functions like the other 6 pumps, but scaled down:
    - a. Space: Pumps are no longer allowed to pump directly into the canal. They must pump into a water body, such as a canal or pond, and connect by gravity flow to the NNR by a pipe. This means that the discharge water body will have to be within PAID and will have a water level higher than the NNR water level (during pumping). Often, the water level in the NNR is higher than some floor elevations in PAID. Essentially, PAID boundary berm (the NNR access road) will be breached by the pipe connecting PAID to the NNR. To ensure that PAID is not flooded, a 100 year flood berm would have to be constructed around the discharge water body. This is possible, but takes up space that PAID does not have.
    - b. Delivery: The drainage system in PAS is not plumbed to deliver water south to a pump. When there are discussions regarding another pump, the fact that a canal leads to each existing pump is not considered. The canals deliver the water to the pumps with very little loss in water elevation. Trying to accomplish the same with pipe is costly and would not meet the efficiency of a canal. The modeling showed an improvement in peak water elevation, but the drop did not extend very far. The inefficiency of the existing pipes to drain in the opposite direction diminished the improvement to less than one-half inch at the West end.
    - c. Power: It is unlikely that a gas powered pump would be tolerated. Therefore, an electric motor would be proposed. The motor would require 3-phase power, which may not currently be available. It could be a substantial cost to bring 3-phase power to the station.
    - d. Allowable Discharge: The current SFWMD permit is for 6 - 20,000 gpm pumps. It is unwise to reduce this rate to provide for a seventh pump. However, the opportunity to increase the rate, if only as an emergency basis, does come around after a substantial rain event from time to time.
    - e. Fixed position: Considering some of the above challenges, it becomes apparent that there is probably no ideal spot for an auxiliary pump.

Meaning, once the position is fixed, it will have efficiency issues.

4. The conclusion and recommendations for supplementing the drainage in the South Acres with an auxiliary pump:
  - a. The conclusion is that an auxiliary pump would remove additional stormwater from the South Acres and could reduce the time the area is inundated by as much as one-half day.
  - b. There is no ideal fixed location for the auxiliary pump, so, the recommendation is that a portable, self powered pump be considered.
  - c. A pump size of 10,000 gpm is recommended, with a conservative operational rate of no less than 5,000 gpm expected. This is a preliminary recommendation that may change after further research into costs, portability, and the pump's intake environment.
  - d. The pump will discharge directly to the C-42 Canal or NNR Canal, depending on the area being drained.
  - e. Some additional infrastructure may be required. For example, for pumping out of the City Park's pond, storm drainage lines need to be installed from the nearest pond. Also, manholes (or inlets) that could accept the pump's intake hose could be installed to reduce the length of hose required and to avoid having a hose crossing the road.
  - f. An approval will be required from the SFWMD each time the pump is used to discharge into their canal.
  - g. Internal discharge (pumping to PAID's A & B Canals) is not recommended during the storm. However, the auxiliary pump could be used once the main canal levels have returned to normal and inundated areas still remain in the South Acres. This type of pumping would not require SFWMD approval.

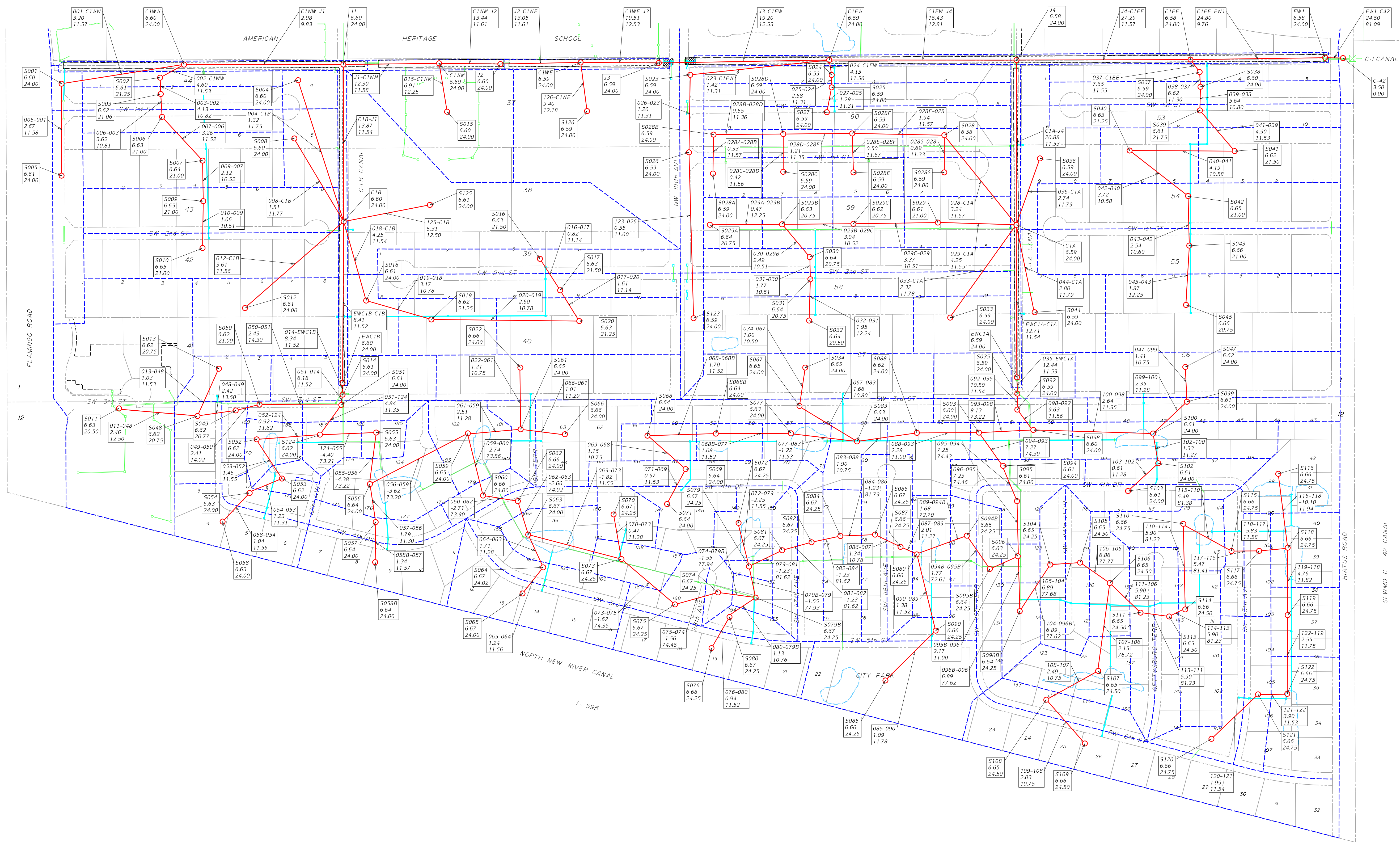
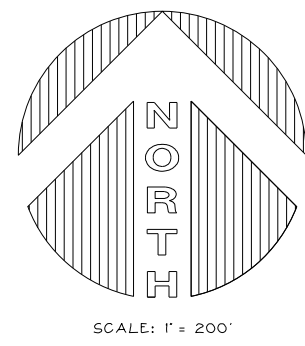
**WINNINGHAM & FRADLEY**

David A. Fradley

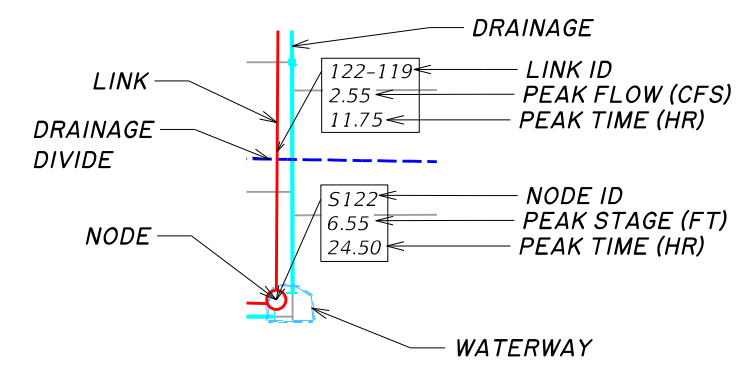
Florida Professional Engineer No. 27793

Florida Professional Surveyor and Mapper No. 3458

October 16, 2023



**LEGEND**



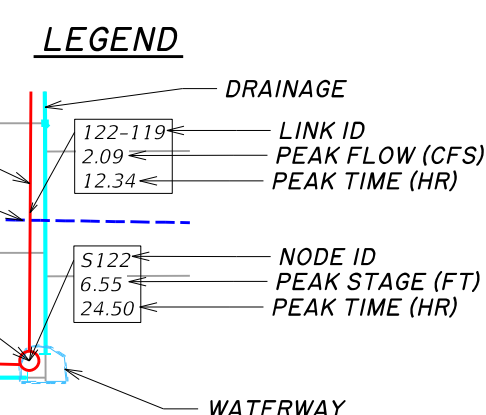
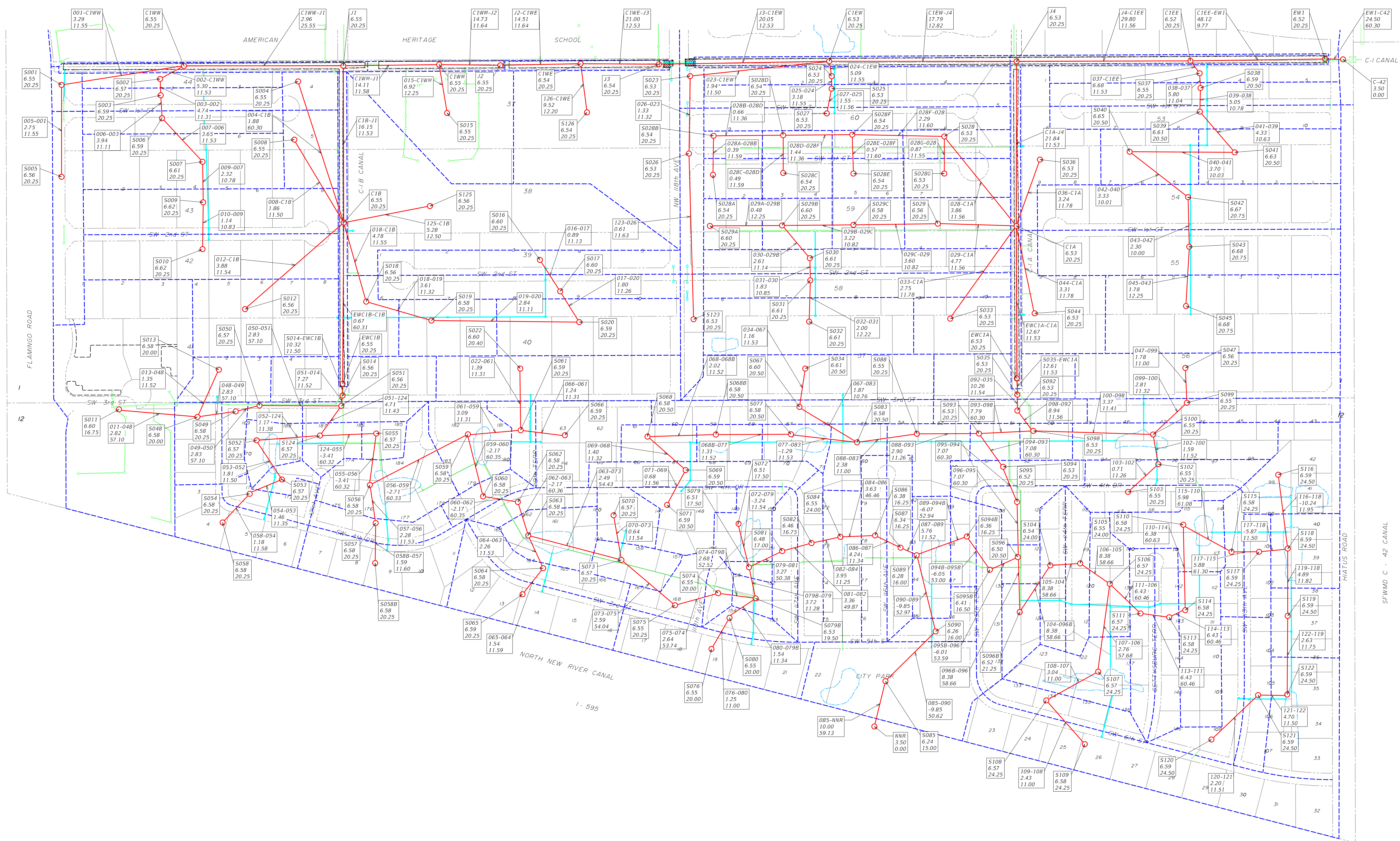
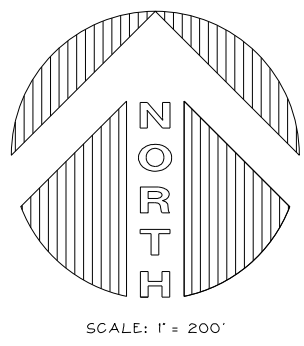
PEAK DATA FOR 10 YEAR, 24 HOUR STORM  
NODAL NETWORK

**SOUTH PLANTATION ACRES**  
PLANTATION ACRES IMPROVEMENT DISTRICT



DESIGNED: DAF	DATE: 8/06	PUBLISHED: 10/25/2017, 8:13:01 AM
DRAWN: DAF	DATE: 8/26	PROJECT NUMBER: D1707.01
CHECKED:	DATE:	SHEET: NI OF 1

NO.	REVISIONS	DATE
1	Increased pipe diameter S041 to Canal	10/24/17
2	Updated for further analysis after Hurricane Irma	8/21/17



PEAK DATA FOR 10 YEAR, 24 HOUR STORM (PUMP)  
 NODAL NETWORK  
 SOUTH PLANTATION ACRES  
 PLANTATION ACRES IMPROVEMENT DISTRICT



DESIGNED: DAF DATE: 8/06 PUBLISHED:  
 DRAWN: DAF DATE: 8/26 PROJECT NUMBER: SHEET  
 D1707.01 PI OF 1

NO	REVISIONS	DATE	CHECKED:	DATE:
1	Updated for further analysis after Hurricane Irma	8/20/17		



SCALE: 1" = 400'  
FOR 11" X 17" DRAWING

DESIGNED:	DAF 10/17
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CHECKED:	
REVISIONS	DATE

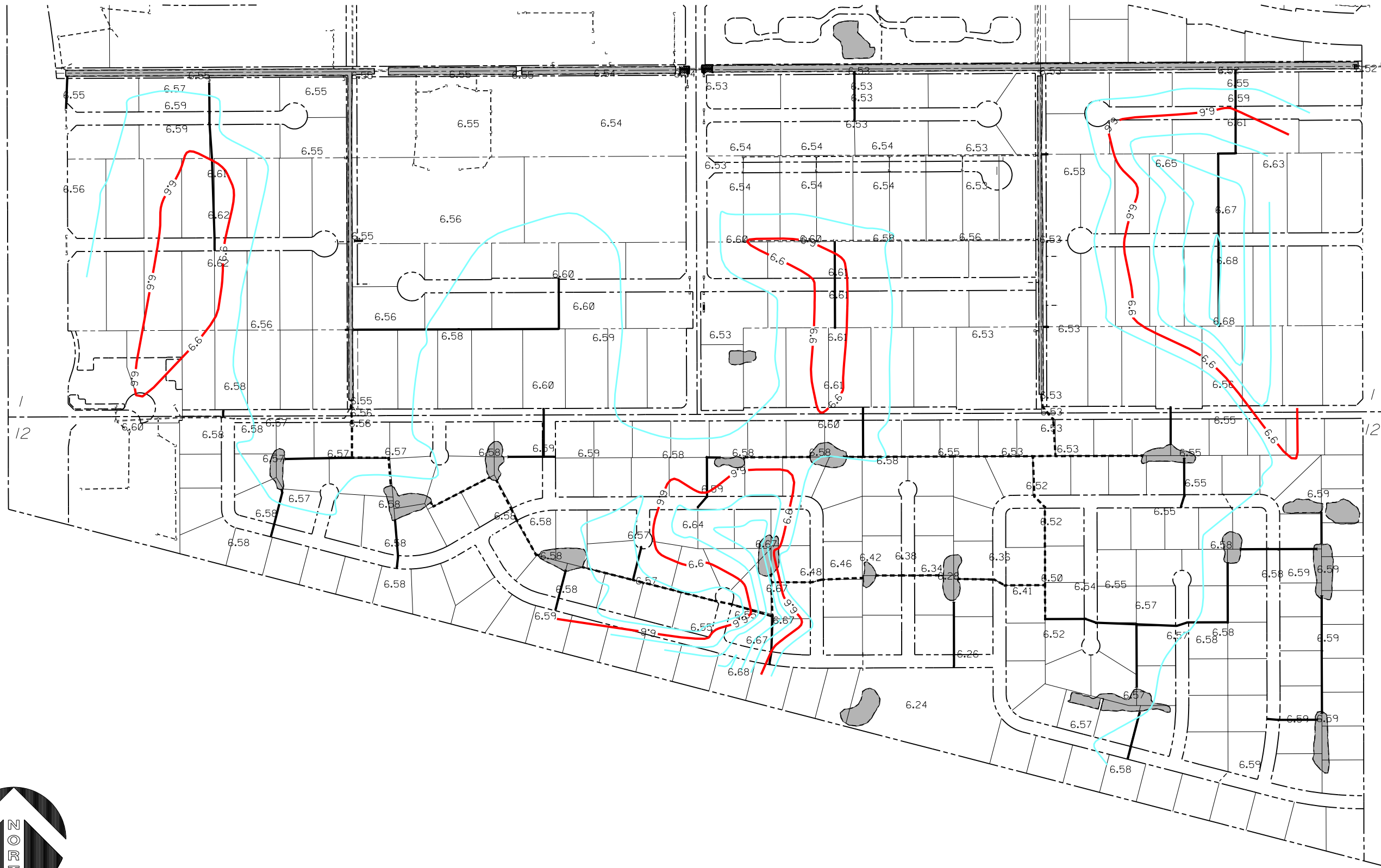
**WINNINGHAM & FRADLEY, INC.**  
 ENGINEERS • PLANNERS • SURVEYORS  
 111 N.E. 44<sup>th</sup> STREET • OAKLAND PARK, FL 33334  
 954.771.7440 fax: 954.771.0298 • EB 0002995 LB 0002995

**SOUTH PLANTATION ACRES**  
 PLANTATION ACRES IMPROVEMENT DISTRICT

10 YEAR, 24 HOUR STORM - BASE MODEL  
 PEAK STAGE CONTOUR

11/29/2017, 1:08:04 PM	
PROJECT	SHEET
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SCALE: 1" = 400'  
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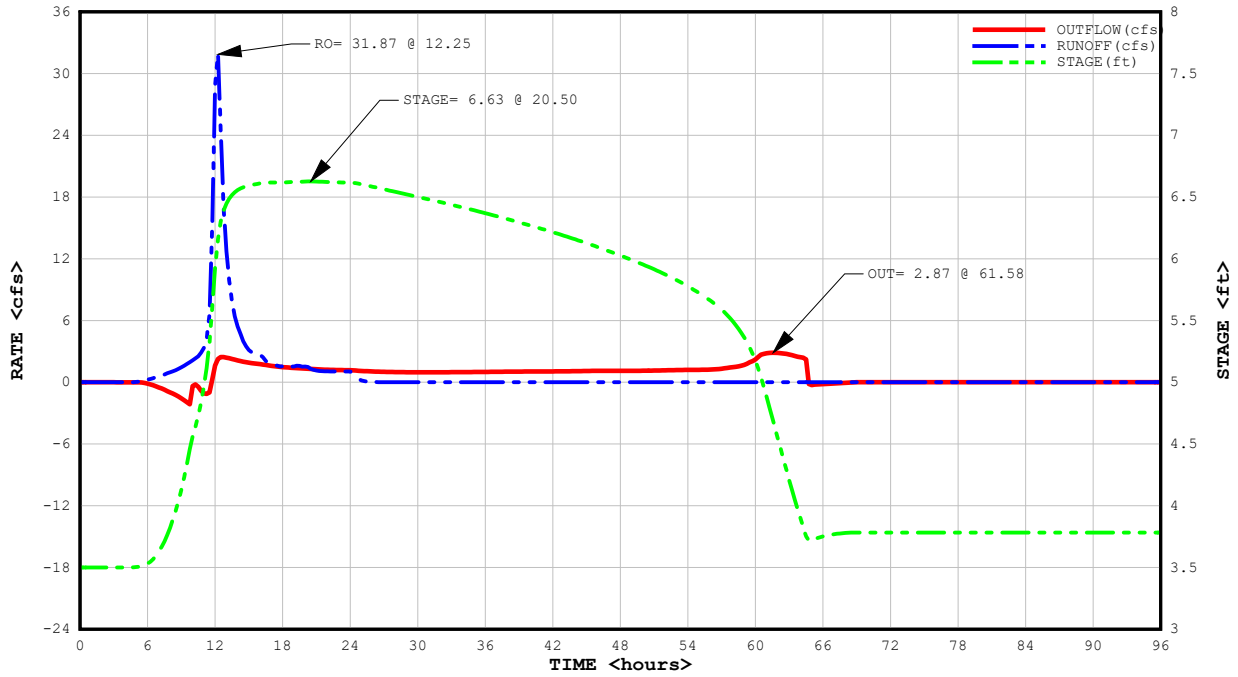
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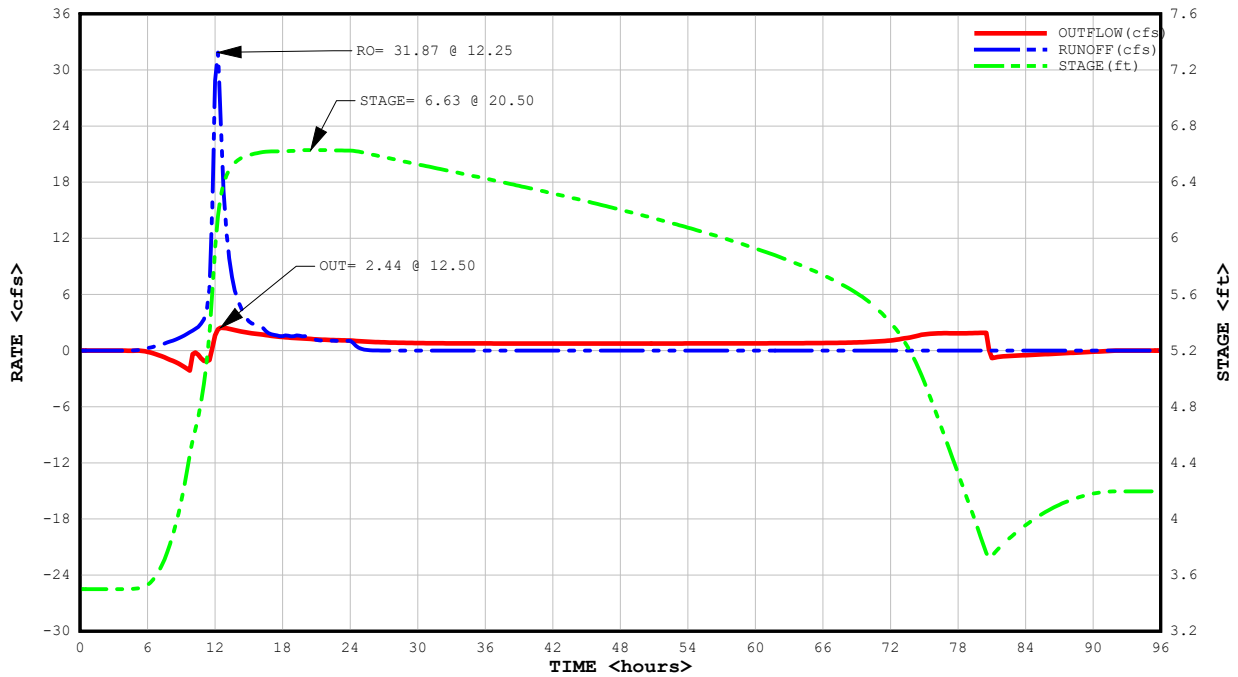
10 YEAR, 24 HOUR STORM - AUXILIARY PUMP  
**PEAK STAGE CONTOUR**

11/29/2017, 1:08:27 PM	
PROJECT	SHEET
D1707.01	CPI OF 1

HYDROGRAPHS FOR NODE: S011  
 10Y1D - 10 Year 1 Day Storm  
 Plantation Acres South  
 Final Layout with pump at easterly pond operating at 5,000 gpm (5000gpm)



HYDROGRAPHS FOR NODE: S011  
 10Y1D - 10 Year 1 Day Storm  
 Plantation Acres South  
 Final layout with pump disabled (Base)



**ENGINEER'S STAFF REPORT**  
FOR October 26, 2023 MEETING  
**AGENDA ITEM No.: D3**

**Action Required:** Update

**Item Description:** PAID Drainage Improvements Projects  
Prepare Engineering Plans and Provide Surveying Services

**P.A.I.D. Number:** D2301.01

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**Attachments:** None

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**Summary:** At the August 24<sup>th</sup> meeting, the Board authorized the engineer to proceed with providing surveying services and for the preparation of engineering plans for the following projects based on the highest priority within the District:

- Offsite Improvements for the North Acres Park (D2308.03)
- NW & SW 118<sup>th</sup> Ave. Drainage Improvements (D2308.04-1 and D2308.04-2)
- NW 12 St & NW 122<sup>nd</sup> Ave Improvements (D2308.05)
- SW 3<sup>rd</sup> St & SW 122<sup>nd</sup> Ave Improvements (D2308.06)

Surveying has been completed for three of the above projects and the remaining two will be done by November 1<sup>st</sup>. All construction engineering plans will be ready for the December 14<sup>th</sup> Board meeting.

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**Recommendation:** N/A.

**Comments:** \_\_\_\_\_

Prepared by: BMP Date: 10/19/23

**ENGINEER'S STAFF REPORT**  
FOR October 26, 2023 MEETING  
**AGENDA ITEM No.: D4**

**Action Required:** Discussion

**Item Description:** Permit Activity Summary

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**P.A.I.D. Number:** D9408.02 & D9408.03

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**Attachments:** None

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**Summary:** Approved Building Permits

<u>No.</u>	<u>Name</u>	<u>Address</u>	<u>PAID No.</u>
1.	FPL (Underground Bore)	Old Hiatus Road	B2302.01
2.	Mosquera (Fence)	11901 NW 18 <sup>th</sup> Court	B1803.03
3.	Doll (Driveway)	11541 NW 24 <sup>th</sup> Street	B2308.01
4.	Shupak (Driveway)	11540 NW 24 <sup>th</sup> Street	B8912.02
5.	Gately (Fence)	11311 NW 27 <sup>th</sup> Street	B1110.01
6.	Espitia (Paver Patio)	490 SW 118 <sup>th</sup> Avenue	B9105.04
7.	Avila (Concrete Slab)	1151 NW 122 <sup>nd</sup> Avenue	B9303.15
8.	Karlovic (Fence)	12300 NW 12 <sup>th</sup> Street	B8809.16
9.	Bello (Generator & LP Tank)	11302 NW 9 <sup>th</sup> Street	B9702.05
10.	Proulx (Fence)	11201 SW 3 <sup>rd</sup> Street	B2002.01
11.	Soto (Pergola/Carport)	12080 Tara Drive	B9101.04
12.	Kaplan (Generator)	12232 NW 19 <sup>th</sup> Street	B0210.06
13.	Innocent (Fence)	12361 NW 8 <sup>th</sup> Street	B0607.01
14.	Kravitz (Re-sod Canal Bank)	1301 NW 115 <sup>th</sup> Avenue	B0202.12
15.	Bohl (Fence)	11800 NW 5 <sup>th</sup> Street	B0611.01
16.	Silva (Fence)	1500 NW 115 <sup>th</sup> Terrace	B1005.02
17.	Cepas (Fence)	12103 NW 19 <sup>th</sup> Street	B9911.05

**Summary:** Certificates of Occupancy

1.	Demarco (Garage Addition)	11624 NW 5 <sup>TH</sup> Street	B9306.07
2.	Bayview Life Inc. (Fill/Blockwall)	11795 SW 2 <sup>nd</sup> Street	B9306.13

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Prepared by: HMS Date: 10/18/2023

**ENGINEER'S STAFF REPORT**  
**FOR October 26, 2023 MEETING**  
**AGENDA ITEM No.: D5**

**Action Required:** Discussion

**Item Description:** Notices of Violation  
 Summary

**P.A.I.D. Number:** D9611.01

**Attachments:** None

**Summary:** The following is a summary of the existing violations.

Name	Address	Violation	Status
GENDLER (V2209.03)	11400 NW 26 <sup>TH</sup> STREET	LANDSCAPE IN CANAL MAINTENANCE EASEMENT	FINAL NOTICE
OCAMPO (V2209.04)	11350 NW 26 <sup>TH</sup> STREET	LANDSCAPE IN CANAL MAINTENANCE EASEMENT	FINAL NOTICE
DESANTIS (V2301.01)	12121 NW 11 <sup>TH</sup> STREET	LANDSCAPE IN CANAL EASEMENT	NOTIFIED
SHAH (V2302.02)	12121 NW 5 <sup>TH</sup> COURT	LANDSCAPE / PLANTING IN CANAL EASEMENT	FINAL NOTICE
MARTIN (V2306.02)	11350 NW 8 <sup>TH</sup> STREET	CONSTRUCTION WITHOUT PERMIT	2 <sup>ND</sup> NOTICE
NARA (V2308.01)	1101 NW 122 <sup>ND</sup> AVENUE	LANDSCAPE IN DRAINAGE EASEMENT	IN PROCESS OF COMPLYING
KRAVITZ (V2309.05)	1301 NW 115 <sup>TH</sup> AVENUE	CONSTRUCTION WITHOUT PERMIT	COMPLIED
LAKHANI (V2309.01)	11251 NW 14 <sup>TH</sup> STREET	FILL WITHOUT PERMIT	IN PROCESS OF COMPLYING
SAVAGE (V2309.02)	11811 NW 24 <sup>TH</sup> STREET	FILL WITHOUT PERMIT	IN PROCESS OF COMPLYING
RAMRATTAN (V2309.03)	11741 NW 11 <sup>TH</sup> STREET	FILL WITHOUT PERMIT	IN PROCESS OF COMPLYING
BUCCHUS (V2309.04)	1460 NW 114 <sup>TH</sup> AVENUE	CONSTRUCTION WITHOUT PERMIT	IN PROCESS OF COMPLYING
WEHBY (V2309.06)	2800 NW 120 <sup>TH</sup> AVENUE	CONSTRUCTION WITHOUT PERMIT	IN PROCESS OF COMPLYING
CIANCI (V2309.07)	461 MOUNT VERNON DRIVE	FILL WITHOUT PERMIT	COMPLIED