



Brunswick-Glynn Joint Water and Sewer Commission
1703 Gloucester Street, Brunswick GA 31520
Wednesday, December 15, 2021 at 1:00 PM
Commission Meeting Room

FACILITIES COMMITTEE MEETING AGENDA

COMMITTEE MEMBERS: **Committee Chairman Ben Turnipseed**
 Commissioner Bob Duncan
 Commissioner Chuck Cook
 Executive Director Andrew Burroughs

PUBLIC COMMENT PERIOD

Public Comments will be limited to 3 minutes per speaker. Comments are to be limited to relevant information regarding your position and should avoid being repetitious. Individuals should sign in stating your name, address and the subject matter on which you wish to speak. Your cooperation in this process will be greatly appreciated.

APPROVAL

- 1. Minutes from November 17, 2021 Facilities Committee Meeting (subject to any necessary changes)**
- 2. Minutes from November 17, 2021 Facilities Committee Executive Session (subject to any necessary changes)**
- 3. Change Order No. 1 – 4036 Basin CIPP – T. Kline**
- 4. Change Order No. 2 – North Mainland Force Main Reroute – T. Kline**
- 5. Final Balancing Change Order No. 3 – PS 4003 Upgrades – T. Kline**
- 6. Infrastructure Dedications – T. Kline**
- 7. USGS Joint Funding Agreement – A. Burroughs**

DISCUSSION

- 1. WPCF Plant Flows Report – A. Burroughs**
- 2. Capital Project Report – T. Kline / A. Burroughs**
 - **Capital Project Report Photos**
 - **Capital Project Spreadsheet**
 - **EVA Report**

MEETING ADJOURNED

*All citizens are invited to attend.
There is a possibility of a quorum of City or County Commissioners being present.*



Brunswick-Glynn Joint Water & Sewer Commission
1703 Gloucester Street, Brunswick, GA 31520
Commission Meeting Room
Wednesday, November 17, 2021 at 1:00 PM

FACILITIES COMMITTEE MINUTES

PRESENT: Ben Turnipseed, Chairman
Bob Duncan, Commissioner
Charles Cook, Commissioner
Andrew Burroughs, Executive Director

ALSO PRESENT: Charlie Dorminy, Legal Consultant
Todd Kline, Director of Engineering
LaDonnah Roberts, Deputy Executive Director
Christa Free, Procurement Coordinator

Chairman Turnipseed called the meeting to order at 1:00 PM.

Chairman Turnipseed provided the invocation.

PUBLIC COMMENT PERIOD

There being no citizens that wished to address the Committee, Chairman Turnipseed closed the Public Comment Period.

APPROVAL

1. Minutes from Facilities Committee Meeting October 20, 2021

Commissioner Cook made a motion seconded by Commissioner Duncan to approve the minutes from the Facilities Committee Meeting held on October 20, 2021. Motion carried 3-0-0.

2. Contract Award – Arco Water & Sewer Extension (Construction Phase) – A. Burroughs
Mr. Burroughs presented Invitation for Bid No. 22-013, Arco Area Water & Sewer Extension (Construction Phase), which was released on September 24, 2021. The scope of work for this project includes the installation of 11,307 linear feet of 8-inch and 3,116 linear feet of 10-inch PVC gravity sewer as well as 1,040 linear feet of 6-inch and 3,207 linear feet of 8-inch PVC water main to allow properties in the Arco area of Brunswick access to the JWSC system. Two bids were received Thursday, October 28, 2021, with UWS, Inc. being the apparent low bidder at \$3,655,749.60. The Contract period for this work will be 240 consecutive calendar days.

Commissioner Duncan made a motion seconded by Commissioner Cook to move that the Facilities Committee forward the above described contract for Arco Area Water & Sewer Extension (Construction

Phase) to UWS Inc., in the amount of \$3,655,749.60 to the full Commission for approval. Motion carried 3-0-0.

3. AMI Meter Replacement Project – Change Order #1 – L. Roberts

Ms. Roberts presented a change order request from Delta Municipal Supply Company (“Delta”) for the Advanced Metering Infrastructure and Meter Data Management System project. During the course of installation of meter change-outs Delta encountered a larger quantity of fused meters, dubbed “yoke bars”, than had been anticipated during the initial research, thereby increasing the original “not-to-exceed” allowance value. Delta suspended meter installation in May of 2021 and completed a full-scale visual audit of the entire meter system. It was determined following the audit that the “not-to-exceed” allowance should increase by \$3,287,712.60 for the remainder of the project in order to account for the additional “yoke bars” located throughout the JWSC system. The project is funded by GEFA loan.

Commissioner Duncan made a motion seconded by Commissioner Cook to move that the Facilities Committee recommend the full Commission approve the above described Change Order #1 for Delta Municipal Supply Company for the Meter Replacement project. Motion carried 3-0-0.

4. Pump Station 2002 Force Main Installation Bid Rejection – A. Burroughs

Mr. Burroughs presented a bid rejection for IFB No. 22-012 Pump Station 2002 Force Main Installation. The bid was released on September 22, 2021, with a pre-bid meeting held October 12 with four contractors in attendance. One bid was received November 9, 2021 from T.B. Landmark Construction, at a bid price of \$769,315.00. The bid does not include the cost of the materials, which are being ordered by the JWSC due to supply chain and lead time issues. Due to budgeted funds of \$500,000 for this project, staff recommends rejecting the bid from T.B. Landmark Construction. Chairman Turnipseed requested that Mr. Burroughs submit a proposal for SmartBall technology to the next Committee meeting in order for JWSC staff to determine a more cost effective way to rehabilitate Pump Station 2002.

Commissioner Duncan made a motion seconded by Commissioner Cook to move that the Facilities Committee recommend the full Commission reject the bid for IFB No. 22-012 Pump Station 2002 Force Main Replacement due to insufficient funds allocated for the project. Motion carried 3-0-0

5. Contract Award – Engineering Services for Canal Road Water Production Facility – A. Burroughs

Mr. Burroughs presented Request for Proposal No. 22-015 Engineering Services for Canal Road Water Production Facility. The RFP was released on September 29, 2021 and a pre-proposal meeting attended by ten engineering firms was held on October 18, 2021. The scope of work for this project includes engineering services to provide additional water production capability to the North Mainland District. There is a current fire well located at 104 Canal Road, which has been determined to possess sufficient yield to allow for conversion to a full water production facility. The existing well is an Upper Floridan well and will reduce JWSC dependence on the two Miocene wells in the North Mainland. Six proposals were received on November 2, 2021 and were evaluated by a three member panel representing JWSC Operations, Engineering, and Senior Leadership. Thomas & Hutton Engineering Co., was the highest scoring proposal at 91. The proposal from Thomas & Hutton was also the lowest cost proposal at \$225,800.00. The estimated time to complete design services and produce bid ready plans and specifications is 120 days.

Commissioner Cook made a motion seconded by Commissioner Duncan to move that the Facilities Committee recommend the full Commission award a contract for Engineering Services to Thomas &

Hutton Engineering, Co., in the amount of \$225,800.00 for Canal Road Water Production Facility project. Motion carried 3-0-0.

6. Engineering Services for Academy Creek WPCF Rehab Change Order #1 – A. Burroughs
Mr. Burroughs informed the Committee that in July 2020 the JWSC received an updated NPDES discharge permit that contained significant changes to ammonia, BODs, and *Enterococci* discharge limitations. Existing plant changes as a result of current rehab work at the Academy Creek WPCF will improve ammonia and BODs removal at the facility, and internal improvements were made to the existing chlorine disinfection equipment to increase the availability of chlorination and dechlorination for disinfection purposes. However, increased dosing rates of both chlorine for disinfection and sulfur dioxide for dechlorination are required to effectively treat against the more resistant *Enterococci*. The new dosing rate is also affected by an increase cost of chemicals due to supply chain issues. Costs have increased through 1Q FY2022 by 25% and the JWSC has also been notified of a 50% increase for chlorine effective November 1, 2021, which would add an additional annual cost of \$50,000 to the current chlorine budget. As the Engineer of Record for the current rehab work at the Academy Creek WPCF, the JWSC approached GMC about costs to design improvements for the installation of UV disinfection equipment. The current contract for engineering of the Academy Creek WPCF is \$1,181,150.00 and the change order request to engineer for UV system is \$79,000. There is currently \$112,049 of uncommitted funding for this project. Chairman Turnipseed requested that Mr. Burroughs receive a timeline of work from GMC for the updated engineering.

Commissioner Duncan made a motion seconded by Commissioner Cook to move that the Facilities Committee recommend that the full Commission approve the above described Change Order #1 for GMC Engineering for the UV system engineering at the Academy Creek WPCF. Motion carried 3-0-0.

DISCUSSION

1. SCADA Demonstration – A. Burroughs

Mr. Burroughs gave a demonstration of the new SCADA system currently being installed by EMC Technologies. At the time of the meeting, 136 sites were complete. The new updated system allows JWSC employees to operate station pumps remotely. Each station will show current water level, pump run/start times, and historical data and alarms. Forty hours of training is provided to JWSC employees based on job description.

2. WPCF Plant Flows Report – A. Burroughs

Mr. Burroughs reviewed the Wastewater Flow Reports with the Commissioners. This report contains data regarding the influent and effluent flows, concentration of elements and chemicals, plant capacity, etc. The influent flow at Academy Creek was at 7.0 and the effluent flow was 7.0, with the plant operating at 52% of its capacity. The influent flow at Dunbar Creek was at 2.5 and the effluent flow was 2.9, with the plant operating at 71% capacity. The influent flow at South Port was at 0.430 and the effluent flow was at 0.490, with the plant operating at 29% capacity. JWSC's wastewater treatment plants are operating very well and are within permit limits.

3. Capitol Project Report – T. Kline

Mr. Kline gave an update on the Project Report for projects currently in process. The Commissioners were provided with a packet containing: the Capital Project Report Spreadsheet, Capital Project Photographs, the Capital Project Gantt Chart of project timelines, and also the Earned Value Analysis Report. Mr. Kline and Mr. Burroughs thoroughly presented the update by discussing each project along with excellent photographs and descriptive details.

There being no further Committee business, Chairman Turnipseed adjourned the meeting at 2:58 p.m.

G. Ben Turnipseed, Chairman

Attest:

Christa Free
Procurement Coordinator



Brunswick-Glynn

Joint Water and Sewer Commission

Memorandum

To: Facilities Committee
From: Todd Kline, P.E., Director of Engineering
Date: Wednesday, December 15, 2021
Re: Capital Project #2001 – Pump Station 4036 CIPP Rehabilitation, C.O. #1 (time extension and additional cost request)

Overview

- Who: Bio-Nomic Services, Inc. (Contractor)
- What: Time extension and additional cost request
 - Notice to Proceed July 06, 2021
 - Date of Final completion December 03, 2021 (150 days).
 - 87 Day Time extension and additional cost amount of \$9,000.00 requested by Contractor
 - Proposed, *adjusted* final completion **February 28, 2022.**
 - Proposed, *adjusted* final contract amount **\$932,333.69**
- Why: Project delays claimed by Contractor (see attached letter).
- Contract Amount (Funding): \$923,333.69 (R&R Reserve)

Staff Report

On December 7th, JWSC staff received a letter from Bio-Nomic Services, Inc. (Bio-Nomic) which included a project time extension request in the amount of 87 days and additional amount of \$9,000.00 to the contract. Bio-Nomic has cited several reasons for delays in their progress including weather, sub-contractor delays, permitting and difficulties with bypassing. The JWSC staff conducts routine monthly progress meetings with the Contractor, during which the schedule and progress are thoroughly discussed. The JWSC has notified the Contractor in writing on three occasions that a delay in progress had been noted (see attached), with requests to correct and update project schedule for completion. The JWSC staff has reviewed and approved the request from Bio-Nomic for a time extension and additional cost. The JWSC staff recommends a time extension in the amount of 87 days and additional cost of \$9,000.00 to the contract. The project is expected to complete within budget. The work completed by the Contractor, to date, has been satisfactory and per contract requirements.

Recommended Action

After reviewing the request from Bio-Nomic Services, Inc., staff recommends approval of a time extension and additional cost request in the form project Change Order #1 with an adjusted final completion date of February 28, 2022 and adjusted final contract amount \$932,333.69.

Recommended Motion

"I move that the Facilities Committee recommend the full Commission approve Change Order #1 as a project time extension with an adjusted final project completion date of February 28, 2022 and adjusted final contract amount of \$932,333.69."

Enclosures

Letter and email correspondence from Bio-Nomic Services, Inc. to JWSC (12/07/2021 to 12/08/2021)
JWSC letter to Bio-Nomic Services, Inc. (12/03/2021)
JWSC letter to Bio-Nomic Services, Inc. (11/03/2021)
JWSC letter to Bio-Nomic Services, Inc. (10/19/2021)



CHANGE ORDER REQUEST

Customer	Bio-Nomic Services (Acct #973)
Contact	Shane Tuell
Job Name	Brunswick Basin 4036 CIPP-Segment #2 Bypass
Job Location	Brunswick, GA

Date	December 6, 2021
Phone	843-323-8027
Email	Blake.Wyatt@sunbeltrentals.com
Re:	Segment #2 Delay-Remobilization

Work Description: Segment #2 bypass is designed to discharge freely into the wet well of the existing lift station. This lift is currently being upgraded by a contractor under a separate contract that is ongoing with delays. As such, we will not be able to move directly into the setup of Segment #3 bypass following the conclusion of the Segment #1 dismantle. This Change Order includes the cost of transportation to remobilize equipment, support equipment, and crew for the build of Segment #2 bypass once the work under the separate contract is complete to allow access to the lift station with the bypass setup as designed.

Qty.	Description	Unit Cost	Ext. Total
1	Segment #2 Demobilization & Remobilization	\$4,145.00	\$4,145.00
Total Additional Bypass Cost: <i>Additional information can be provided outlining specific equipment, materials and dates upon request.</i>			\$4,145.00

Sincerely,

Accepted: The above prices and specifications of this Change Order are satisfactory and are hereby accepted. All work to be performed under the terms and conditions as specified in original contract unless otherwise stipulated.

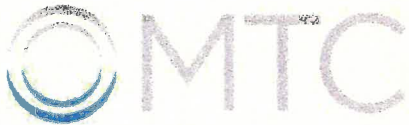
Customer Signature

_____ Date: _____

Please Print Name and Title: _____

*Change order is not valid unless signed by the customer and Sunbelt Rentals representative.

*Work described in the Scope Section cannot begin until document has been completed.



Manufactured Technologies Corporation

Manufactured Technologies Corporation
17988 Edison Avenue • St. Louis, MO 63005
(636) 530-3330 • manufacturedtechnologies.com

October 26, 2021

Re: Bio-Nomic – Manufacturing Delays

To whom it may concern:

I am writing this letter on behalf of Manufactured Technologies Corporation (MTC), an Aegion company.

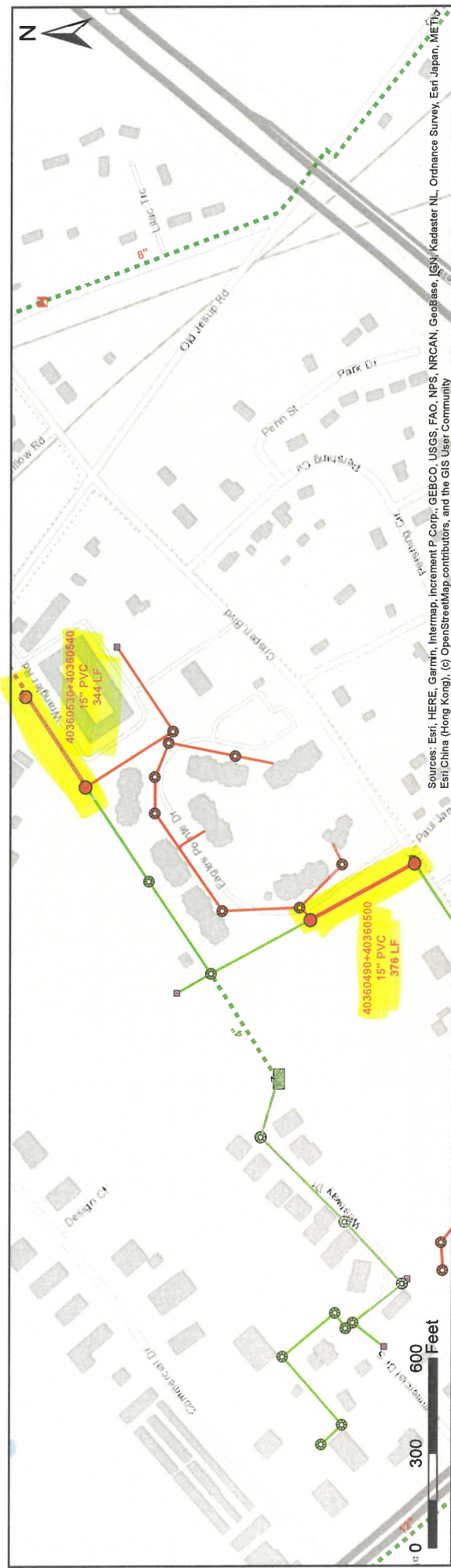
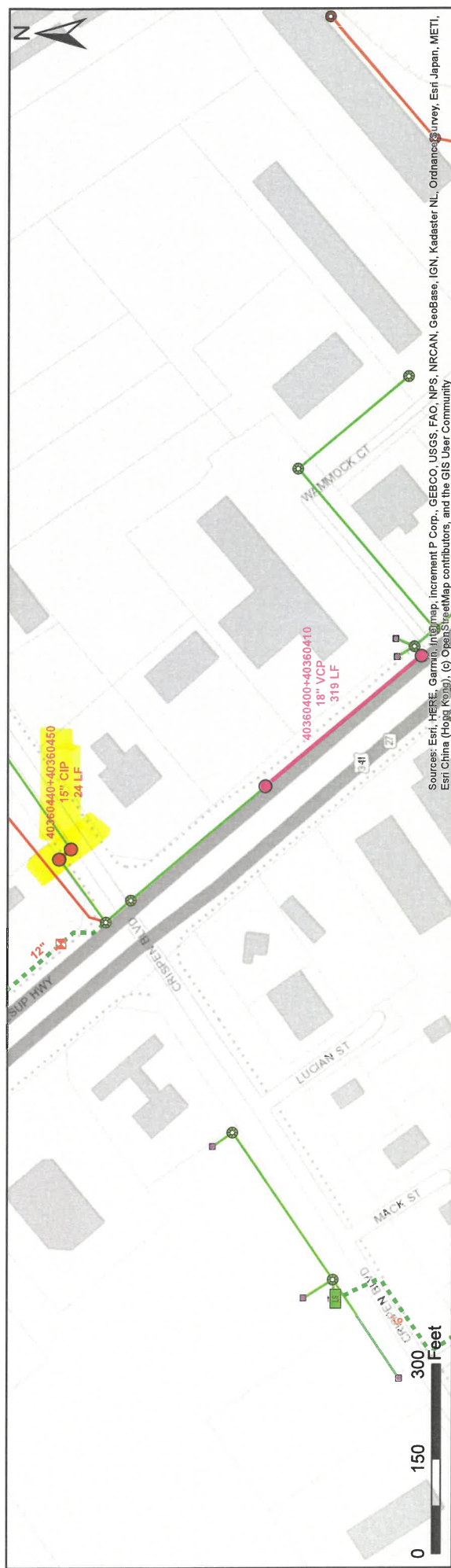
Due to the recent supply chain delays, MTC has experienced significant increases in lead times for raw materials. We are seeing 4 to 6 week leads times on felts and resins necessary to produce our Cure-In-Place-Pipe Liners. We are currently adjusting our order frequencies and volumes to help offset these shortages. We anticipate these sort of leads times to continue through the end of the year and into Q1 of 2022.

If you have any additional questions, please do not hesitate to contact me directly.

Thank you,

A handwritten signature in black ink, appearing to read "Andrew Dietsch", is written over a horizontal line.

Andrew Dietsch | Business Development
Manufactured Technologies Corporation
17988 Edison Avenue | Chesterfield, MO 63005
MTC: 662-578-7797 | Cell: 813-614-1618 | Fax: 662-712-2619
www.manufacturedtechnologies.com
adietsch@aegion.com





**Brunswick-Glynn County Joint Water and Sewer
Commission**

1703 Gloucester St., Brunswick, Georgia, 31520

Phone: (912) 261-7110 Fax: (912) 261-7178

www.bgjwsc.org

NOTICE TO PROCEED

To: Shane Tuell, Project Manager
Bio-Nomic Services, Inc
530 Woodlawn Street
Belmont, NC 28012

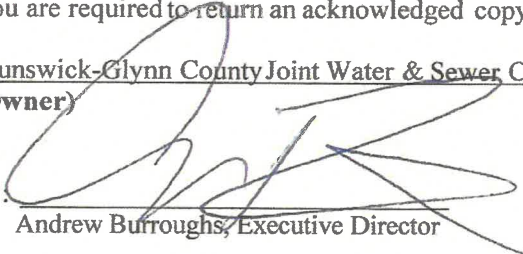
Date: June 24, 2021

PROJECT DESCRIPTION: IFB No. 21-009 Pump Station 4036 CIPP Rehabilitation

You are hereby notified to commence work in accordance with this Agreement dated June 24, 2021. Work is to commence on July 6, 2021, and you are to complete the work under the Contract Documents within Contract Time, one hundred fifty (150) consecutive calendar days thereafter. The Date of Final Completion of all work is therefore is December 3, 2021.

You are required to return an acknowledged copy of the NOTICE TO PROCEED to the OWNER.

Brunswick-Glynn County Joint Water & Sewer Commission
(Owner)

By: 
Andrew Burroughs, Executive Director

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED is hereby acknowledged by Bio-Nomic Services, Inc.

This the 24TH day of June, 2021 (date)

By:  (Signature)

Title: 6/24/2021 PROJECT MANAGER

Progress Estimate - Unit Price Work

Owner:	BGIWSC
Engineer:	Bio-Nomic Services
Contractor:	PS4036 Gravity Basin CIPP Rehabilitation
Project:	21-009
Contract:	

Contractor's Application for Payment

Owner's Project No.:	21-009
Engineer's Project No.:	
Contractor's Project No.:	BRUGLY-86

Application No.: 3			Application Period: From 11/01/21 to 11/30/21			Application Date: 12/01/21							
A	B	C	D	E	F	G	H	I	J	K	L		
Bid Item No.		Description		Contract Information		Work Completed		Estimated Quantity Incorporated in the Work	Value of Work Completed this period (E X G) (\$)	Materials Currently Stored (not in G) (\$)	Work Completed and Materials Stored to Date (H + I) (\$)	% of Value of Item (J / F) (%)	Balance to Finish (F - J) (\$)
				Unit Price (\$)	Value of Bid Item (C X E) (\$)	Value of Work Completed (E X G) (\$)	Estimated Quantity Incorporated in the Work This Period (\$)						
Original Contract													
1	Mobilization	1.00	LS	45,000.00	45,000.00	0.50	22,500.00	-	-	-	22,500.00	50%	22,500.00
2	Bypass Pumping	1.00	LS	175,409.69	175,409.69	-	-	43,852.42	0.25	-	43,852.42	25%	131,557.27
3	Traffic Control	1.00	LS	10,000.00	10,000.00	-	-	-	-	-	-	0%	10,000.00
4	Sanitary Sewer Mainline Pre-Cleaning Inspection	5,132.00	LF	3.00	15,396.00	3,701.70	11,105.10	-	-	-	11,105.10	72%	4,290.90
5	Sanitary Sewer Mainline Cleaning	5,132.00	LF	6.00	30,792.00	3,518.40	21,110.40	-	-	-	21,110.40	69%	9,681.60
6	Sanitary Sewer Mainline Post-Cleaning Inspection	5,132.00	LF	2.50	12,830.00	242.10	605.25	4,024.50	1,609.80	-	4,629.75	36%	8,200.25
7	15" CIPP Mainline Rehab	744.00	LF	75.00	55,800.00	-	-	56,250.00	750.00	-	56,250.00	101%	(450.00)
8	18" CIPP Mainline Rehab	1,454.00	LF	93.00	135,222.00	-	-	-	-	-	-	0%	135,222.00
9	24" CIPP Mainline Rehab	2,186.00	LF	114.00	249,204.00	246.00	28,044.00	102,828.00	902.00	-	130,872.00	53%	118,332.00
10	30" CIPP Mainline Rehab	748.00	LF	185.00	138,380.00	-	-	-	-	-	-	0%	138,380.00
11	Sanitary Sewer Mainline Heavy Cleaning	1.00	Segment	3,000.00	3,000.00	1.00	3,000.00	6,000.00	2.00	-	9,000.00	300%	(6,000.00)
12	Sanitary Sewer Mainline Deposit Cut	1.00	Segment	4,000.00	4,000.00	1.00	4,000.00	8,000.00	2.00	-	12,000.00	300%	(8,000.00)
13	Sanitary Sewer Root Cut Medium	1.00	Segment	2,500.00	2,500.00	-	-	-	-	-	-	0%	2,500.00
14	Sanitary Sewer Mainline Root Ball Cut	1.00	Segment	3,000.00	3,000.00	-	-	-	-	-	-	0%	3,000.00
15	Sanitary Sewer Mainline Lateral Cut	1.00	EA	700.00	700.00	-	-	-	-	-	-	0%	700.00
16	Service Connection Reinstatement	2.00	EA	700.00	1,400.00	-	-	-	-	-	-	0%	1,400.00
17	Dye Testing og Existing Service Connections	1.00	EA	1,200.00	1,200.00	-	-	-	-	-	-	0%	1,200.00
18	Open Cut Point Repairs	1.00	EA	2,000.00	2,000.00	-	-	-	-	-	-	0%	2,000.00
19	Flowable Fill Complete in Place	100.00	CY	375.00	37,500.00	-	-	-	-	-	-	0%	37,500.00
						Original Contract Totals		\$	923,333.69	\$	311,319.67	34%	\$ 612,014.02

mobilization \$45,000.00

22 SEGMENTS

→ \$45,000.00 / 22 = \$2045.45 PER SEGMENT

Jason Vo

From: Shane Tuell <stuell@bio-nomic.com>
Sent: Wednesday, December 8, 2021 10:56 AM
To: Jason Vo; William Robertson; Don Robertson
Cc: Andrew Burroughs; Todd Kline; Mike Fields; Kirk Young; Joe Humphrey
Subject: RE: 4036 CIPP - Time Extension Request Review
Attachments: PS 4036 GRAVITY BASIN CIPP REHABILITATION - Revised 12.8.21.pdf

See attached

Shane Tuell
Project Manager



BIO-NOMIC SERVICES, INC.
155 Key Circle Dr
Brunswick, GA 31520
mobile: (704) 860-8181
office: (704) 529-0000
email: stuell@bio-nomic.com
bio-nomic.com

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 Please consider the environment before printing this email.

From: Jason Vo <JVo@bgjwsc.org>
Sent: Wednesday, December 8, 2021 10:47 AM
To: Shane Tuell <stuell@bio-nomic.com>; William Robertson <WRobertson@bio-nomic.com>; Don Robertson <DRobertson@bio-nomic.com>
Cc: Andrew Burroughs <ABurroughs@bgjwsc.org>; Todd Kline <TKline@bgjwsc.org>; Mike Fields <MFields@bgjwsc.org>; Kirk Young <KYoung@bgjwsc.org>; Joe Humphrey <JHumphrey@bgjwsc.org>
Subject: RE: 4036 CIPP - Time Extension Request Review

Hello Shane,

Your revised backup schedule is now showing a completion date of 04/29/2022 which is 16 weeks and 1 day from Southern Civil Date of Final Completion, and it conflicts with the revised time extension letter request of 12 weeks. Do you need to revise the letter to say 16 weeks and 1 day (113 days) instead of the 12 weeks (84 days) to match the schedule?

<u>From</u>	<u>Days add</u>	<u>to</u>	
7/6/2021	150	12/3/2021	<<-Original Executed Contract duration NTP with Date of Final Completio
12/3/2021	84	2/25/2022	<<-12 weeks (84 days) from Date of Final Completion 12-03-2021
12/3/2021	118	3/31/2022	<<-Date of Final Completion + 12 weeks (84 days from Southern Civil Date
1/6/2022	84	3/31/2022	<<-12 weeks (84 days from Southern Civil Date of Final Completion 01-06-
12/3/2021	147	4/29/2022	<<-Date of Final Completion + 16 weeks and 1 day (113 days from Southe
1/6/2022	113	4/29/2022	<<-16 weeks and 1 day (113 days from Southern Civil Date of Final Compl

This is 4-6 over the normal lead time.

2. Contractor delay working on PS4036:

- a. We are requesting 12 weeks after the contractor's substantial completion date of 1/6/22. The original contractor was supposed to have been completed prior to our project beginning. We've voiced our concerns (verbal and written) on this conflict as it has slowed down our operations. We have attempted to work with Southern Civil but due to

33	CIPP 40360030 + 40360020 15th	04/12/22	04/13/22
34	TV/Clean 40360020 + 40360010	04/14/22	04/15/22
35	CIPP 40360020 + 40360010 16th	04/18/22	04/19/22
36	TV/Clean 40360010 + PS	04/19/22	04/20/22
37	CIPP 40360010 + PS 17th	04/20/22	04/21/22
38	substantial Completion	04/29/22	

Thanks!

Jason Vo, P.E.

Brunswick-Glynn Joint Water & Sewer Commission

1703 Gloucester St; Brunswick, GA 31520

Office: (912) 261-7140

Work Cell: (912) 324-9905

jvo@bgjwsc.org

From: Shane Tuell <stuell@bio-nomic.com>

Sent: Wednesday, December 8, 2021 9:55 AM

To: Jason Vo <JVo@bgjwsc.org>; William Robertson <WRobertson@bio-nomic.com>; Don Robertson <DRobertson@bio-nomic.com>

Cc: Andrew Burroughs <ABurroughs@bgjwsc.org>; Todd Kline <TKline@bgjwsc.org>; Mike Fields <MFields@bgjwsc.org>; Kirk Young <KYoung@bgjwsc.org>; Joe Humphrey <JHumphrey@bgjwsc.org>

Subject: RE: 4036 CIPP - Time Extension Request Review

See attached revisions

Shane Tuell

Project Manager



BIO-NOMIC SERVICES, INC.

155 Key Circle Dr
Brunswick, GA 31520
mobile: (704) 860-8181
office: (704) 529-0000
email: stuell@bio-nomic.com
bio-nomic.com

A Carylton Company

CONFIDENTIALITY NOTICE: This e-mail is confidential. If you are not the intended recipient of this e-mail, please contact the sender immediately and do not use or disclose the contents of this e-mail for any purposes.

 Please consider the environment before printing this email.

From: Jason Vo <JVo@bgjwsc.org>
Sent: Wednesday, December 8, 2021 9:12 AM
To: Shane Tuell <stuell@bio-nomic.com>; William Robertson <WRobertson@bio-nomic.com>; Don Robertson <DRobertson@bio-nomic.com>
Cc: Andrew Burroughs <ABurroughs@bgjwsc.org>; Todd Kline <TKline@bgjwsc.org>; Mike Fields <MFields@bgjwsc.org>; Kirk Young <KYoung@bgjwsc.org>; Joe Humphrey <JHumphrey@bgjwsc.org>
Subject: 4036 CIPP - Time Extension Request Review

Hello Shane,

Attached are comments for the 4036 CIPP Time Extension Request. We need a little more clarification for it to be approved by the JWSC BOC.

Please revise and resubmit your time extension request.

Thanks!

Jason Vo, P.E.

Brunswick-Glynn Joint Water & Sewer Commission
1703 Gloucester St; Brunswick, GA 31520
Office: (912) 261-7140
Work Cell: (912) 324-9905
jvo@bgjwsc.org

From: Shane Tuell
Sent: Tuesday, December 7, 2021 9:29 AM
To: Jason Vo <JVo@bgjwsc.org>; Todd Kline <TKline@bgjwsc.org>; Andrew Burroughs <ABurroughs@bgjwsc.org>; Joe Humphrey <JHumphrey@bgjwsc.org>; Mike Fields <MFields@bgjwsc.org>
Cc: William Robertson <WRobertson@bio-nomic.com>; Don Robertson <DRobertson@bio-nomic.com>
Subject: BRUGLY-86 - Additional Docs

Jason see attached.

I have included the following:

1. Extension request
2. Updated Schedule
3. Warranty letter for 40360540_40360530

I am still waiting on the following:

1. Post Inspections

2. Notarized Subcontractor Form (should receive today)

Shane Tuell
Project Manager



BIO-NOMIC SERVICES, INC.

155 Key Circle Dr
Brunswick, GA 31520
mobile: (704) 860-8181
office: (704) 529-0000
email: stuell@bio-nomic.com
bio-nomic.com

A Carylton Company

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**Brunswick-Glynn
Joint Water and Sewer Commission**

December 3, 2021

Mr. Shane Tuell, Project Manager
Bio-Nomic Services, Inc
530 Woodlawn Street
Belmont, NC 28012

Subject: Pump Station 4036 CIPP Rehabilitation
JWSC Project No. 21-009
Work Behind Schedule - Liquidated Damages Notification

Dear Mr. Tuell:

The Brunswick-Glynn County Joint Water and Sewer Commission (JWSC) writes to express concern regarding the lack of progress on the referenced project. Progress on the above referenced project has been unsatisfactory to the JWSC. As of December 3, 2021, the work was 33.72% complete with 100.00% of the Contract Time used and JWSC staff has not received a letter from Bio-Nomic Services, Inc which included a project time extension request to be added to the Original Date of Final Completion, December 3, 2021. At this rate, it does not appear you will be able to achieve substantial completion within the Contract Time.

Please be advised, in accordance with Fully Executed Contract, Section 4.05.A, liquidated damages will be imposed at \$2,000.00 per calendar day for each and every calendar day of delay beyond the Contract Date of Final Completion. Please submit your revised construction schedule immediately to reflect your attempts to complete the project on time. Should you have any questions regarding this matter, please contact me at (912) 261-7122.

Sincerely,

A handwritten signature in blue ink, appearing to read "W. Todd Kline".

W. Todd Kline, P.E.
Director of Engineering
Planning & Construction Division

Handwritten initials "TK:jv" in blue ink.

cc : Andrew Burroughs, P.E. (JWSC)

File: S:\PROJECTS - CAP CIP RR\2-NMProj 2001 - PS 4105-4107 4036 CIPP\2.0 PS 4036 CIPP\4.0 CONSTR\4.2 Communication\2.1 Contractor\Work Behind-Liquidated Damages Notification_12-03-2021.doc



**Brunswick-Glynn
Joint Water and Sewer Commission**

November 3, 2021

Mr. Shane Tuell, Project Manager
Bio-Nomic Services, Inc
530 Woodlawn Street
Belmont, NC 28012

Subject: Pump Station 4036 CIPP Rehabilitation
JWSC Project No. 21-009
Work Behind Schedule

Dear Mr. Tuell:

The purpose of this letter is to inform you that the Brunswick-Glynn Joint Water and Sewer Commission (JWSC) is concerned with the lack of progress on the referenced project. As of November 3, 2021, the work was 9.79% complete with the 80.00% of the Contract time used per the Contract document submittal requirements. The concern is that it does not appear you will be able to achieve substantial completion within the Contract Time.

There are many reasons for a delay to a project. The JWSC is requesting you submit a recovery schedule as soon as possible or otherwise demonstrate how you will accomplish the work within the Contract Time. There are numerous provisions within the contract documents that require the contractor to proceed with the work in a timely manner and with adequate forces. The JWSC is prepared to discuss a cure to this issue at your earliest convenience.

Should you have any questions regarding this matter, please contact me at (912) 261-7122.

Sincerely,

A handwritten signature in blue ink, appearing to read "W. Todd Kline", is written over a faint, larger blue signature.

W. Todd Kline, P.E.
Director of Engineering
Planning & Construction Division

Handwritten initials "TK:jv" in blue ink.

cc : Andrew Burroughs, P.E. (JWSC)

File: S:\PROJECTS - CAP CIP RR\2-NM\Proj 2001 - PS 4105-4107 4036 CIPP\2.0 PS 4036 CIPP\4.0 CONSTR\4.2 Communication\2.1 Contractor\Work Behind Schedule_11-03-2021.doc



**Brunswick-Glynn
Joint Water and Sewer Commission**

October 19, 2021

Mr. Shane Tuell, Project Manager
Bio-Nomic Services, Inc
530 Woodlawn Street
Belmont, NC 28012

Subject: Pump Station 4036 CIPP Rehabilitation
JWSC Project No. 21-009
Work Behind Schedule

Dear Mr. Tuell:

The purpose of this letter is to inform you that the Brunswick-Glynn Joint Water and Sewer Commission (JWSC) is concerned with the lack of progress on the referenced project. As of October 19, 2021, the work was 5.93% complete with the 70.00% of the Contract time used per the Contract document submittal requirements. The concern is that it does not appear you will be able to achieve substantial completion within the Contract Time.

There are many reasons for a delay to a project. The JWSC is requesting you submit a recovery schedule as soon as possible or otherwise demonstrate how you will accomplish the work within the Contract Time. There are numerous provisions within the contract documents that require the contractor to proceed with the work in a timely manner and with adequate forces. The JWSC is prepared to discuss a cure to this issue at your earliest convenience.

Should you have any questions regarding this matter, please contact me at (912) 261-7122.

Sincerely,

A handwritten signature in blue ink, appearing to read "W. Todd Kline", is written over a faint, larger blue signature.

W. Todd Kline, P.E.
Director of Engineering
Planning & Construction Division

TK:jv

cc : Andrew Burroughs, P.E. (JWSC)

File: S:\PROJECTS - CAP CIP RR\2-NM\Proj 2001 - PS 4105-4107 4036 CIPP\2.0 PS 4036 CIPP\4.0 CONSTR\4.2 Communication\2.1 Contractor\Work Behind Schedule_10-19-2021.doc



BIO-NOMIC SERVICES
A Carylton Company

530 Woodlawn Street
Belmont, NC 28012

p: (704) 529-0000

f: (704) 529-1648

www.bio-nomic.com

December 7th, 2021

Brunswick-Glynn Joint Water & Sewer Commission
2909 Newcastle St
Brunswick, GA 31520

At this time, Bio-Nomic Services, Inc would like to request 87 additional days due the delays in material manufacturing and contractor delays currently working on the same pump station (PS4036). This would bring the project to a close on 2/28/22.

- The manufacturing delays letter has been submitted previously explaining the 4–6-week delay over the normal manufacturing lead time.
- The previous contractor was supposed to have been completed with PS4036 prior to our project beginning. We voiced our concerns (written and verbal) prior to and throughout the project. We have attempted to work with Southern Civil but due to surcharging pumps trying to feed the force main, work is being jeopardized. At this time, we are unsure if Southern Civil will be completed by their current substantial completion Date of 1/6/22.
- Due to having to pull bypass and equipment from the easement there will be an added cost of de-mobilization and re-mobilization for Sunbelt and Bio-Nomic Services. Sunbelt's de-mob and re-mob pricing is \$4,145.00 (attached). Bio-Nomic Pricing for de-mob and re-mob is \$4,855.00 for a total requested cost of \$9,000.00 to be added to the contract.
- We have also been discussing the possibility of adding a line segment (to be lined) in the easement. At this time no decision has been made to add it. Until Southern Civil is complete with their work we will need to wait to inspect the line to determine condition. If this line gets added it will not change the schedule as I included it on the updated schedule. Pricing will be provided once lining is approved.

Sincerely,

Shane Tuell
Project Manager
Bio-Nomic Services, Inc.

PS 4036 GRAVITY BASIN CIPP

[illegible]

PS 4036 GRAVITY BASIN CIPP REHABILITATION

[illegible]



Brunswick-Glynn

Joint Water and Sewer Commission

Memorandum

To: Facilities Committee
From: Todd Kline, P.E., Director of Engineering
Date: 15 December 2021
Re: Capital Project #702 – SPLOST 2016 North Mainland Forcemain Reroute; C.O. #2 (Ogden Lane Forcemain Extension)

Overview

- Who: T. B. Landmark Construction, Inc. (Contractor).
- What:
 - Notice to Proceed: 04/01/21 (360 days, original contract)
 - Contract Amount (Funding): **\$4,663,123.00** (SPLOST 2016)
 - CO #1 Materials increase, approved 07/15/21: \$168,801.82
 - Date of Final Completion (contract): 03/27/22

 - CO #2 (proposed):
 - Revise planned construction on Ogden Lane from gravity sewer to forcemain extension:
 - Gravity install option (awarded in original contract): \$968,823.00
 - Proposed materials price increase (from original fmain alternate not awarded): \$66,187.84
 - Change to forcemain extension (proposed): \$551,010.84
 - Reduction in overall contract price (proposed): **(\$417,812.16)**
 - Revised contract total (proposed): **\$4,245,310.84**
- Why: Extend discharge point of forcemain beyond existing homes, lessen disruption to residents and reduce total contract cost.

Staff Report

After extensive consideration of the existing conditions for the planned gravity extension on Ogden Lane, staff, the Engineer of Record, and contractor all agree that extending the force main in lieu of the proposed gravity extension is a preferable solution to complete the project. The gravity sewer extension is not necessary for a successful project outcome to complete the SPLOST project objective. The Engineer or Record's supporting review and recommendation is attached.

Recommended Action

Staff has reviewed and concurs with the Engineer of Record's recommendation.

Recommended Motion

I move that the Facilities Committee forward the above described Change Order #2 to the full Commission for approval.

Attachments:

- 1) Thomas & Hutton review and recommendation memo.
- 2) T.B Landmark forcemain extension alternate pricing.
- 3) T.B. Landmark materials price increase justification.
- 4) T.B. Landmark revised construction schedule.

MEMORANDUM

TO: Todd Kline, P.E., BGJWSC
FROM: Chris Stovall, P.E.
DATE: December 10, 2021
SUBJECT: SPLOST 2016 North Mainland Phase II and III Sewer Improvements – Ogden Drive
JOB NO.: 27784

The following is a summary update of the Ogden Drive sewer line and recommendations for moving forward.

In January 2021, bids were received for force main and pump station upgrades in the North Mainland system. Included in this work was a plan for work along Ogden Drive. Due to the very tight conditions with a right of way of 15'-20' wide and with existing homes, fences, trees, and utilities in close proximity to the proposed utility, the initial design included installation of a force main via directional drill along this section of the project. After review by JWSC staff and board, additional options were requested to be included in the bid package to include open cut of a gravity sewer line, drilling of a gravity sewer line within casing, as well as a partial open cut force main option.

Bids were received for the three options and the JWSC selected the open cut gravity sewer option. The primary desire for gravity sewer to be installed has been to extend the gravity system northward so that it can eventually be extended toward the Exit 38 area. As discussed in previous memoranda, this option is difficult to install within the confines of Ogden Drive and will require acquiring a number of easements plus the potential purchase of homes and will potentially displace residents from entering their homes for an extended period during construction since access will be limited. Meetings on site with the contractor verified these concerns.

After a review of the existing area, we have determined there are alternate more-direct routes for extending the gravity sewer that will not impact as many citizens. Therefore, the extension of the force main along Ogden appears to be the best solution moving forward.

The initial cost for the Ogden Drive gravity sewer by open cut option was \$968,823.00. The force main alternative bid was \$484,823.00. We requested the contractor to review both the force main open cut and directional drill pricing for the project since there has been pandemic-driven impacts to supply and pricing of piping. Attached is the spreadsheet showing the differences in material pricing as well as supporting documentation from the material supplier. The overall material increase is \$66,187.84. The updated price for partial open-cut option will result in a reduction in project cost of \$417,812.16. If the directional drill option is utilized, the cost of the project will be reduced further by approximately \$16,000.

Either force main option (partial open cut or all HDD) will still include the removal of trees within the right of way, any existing utility relocations required, and re-pavement of the existing drive.

Schedule: Due to the supply chain issues, present scheduling for large-diameter PVC pipe is still approximately 12 weeks (this is for either force main or gravity). If the all-HDD – HDPE option was selected, the pipe delivery is approximately 9-10 weeks. Overall, the installation of the force main option will be quicker due to shallower bury and reduction of the time needed for easement acquisition for the gravity sewer. It is estimated the construction will require 90 days to complete for the partial open-cut option. The all-HDD option would be 60 days.

Permitting: The proposed force main option will not adversely impact any current permits.

While there are financial and schedule benefits to the all-HDD option, based on JWSC preference for open-cut as much as possible, we are recommending the partial open-cut option. This option will result in an overall reduction in contract price of \$417,812.16.

Part #	Description	Unit	Quantity	Price	Total 11/30/21	Unit	Quantity	Price	Total Bid Date 1/12/21	Difference
FORCE MAIN										
24 C500 DR18 CL235 PVC GI GREEN PIPE		FT	40	\$ 199.90	\$7,996.00			\$ 68.94	\$ 2,757.60	\$5,238.40
20 C500 DR18 CL235 PVC GI GREEN PIPE		FT	500	\$ 135.94	\$67,970.00			\$ 48.93	\$24,465.00	\$43,505.00
1.25GA SLD COP US WIRE GREEN 500		M	500	\$ 225.00	\$112,500			\$ 183.07	\$ 91.53	\$20.97
20 SIGMA BELL REST F/ C500 *PVLOR		EA	4	\$ 756.00	\$3,024.00			\$ 590.30	\$ 2,361.20	\$662.80
24X50 IPS DR11 HDPE PIPE GRN STRIPE		C	400	\$ 10,406.00	\$41,624.00			\$ 88.00	\$ 35,200.00	\$6,424.00
8GA SLD HDCCS P145 WIRE GREEN 500		M	1000	\$ 650.00	\$650,000			\$ 0.65	\$ 650.00	\$0.00
24 IPS PC200 DR11 MI ADPT W/ACC		EA	2	\$ 1,250.00	\$2,500.00			-		
24X20 MI C153 P-401 RED L/A		EA	2	\$ 2,884.00	\$5,768.00			\$ -		
20 MI C153 P-401 LONG SLV L/A		EA	1	\$ 2,084.00	\$2,084.00			\$ 1,021.08	\$ 1,021.08	\$1,062.92
20 MI C153 P-401 45 BEND L/A		EA	4	\$ 2,197.00	\$8,788.00			\$ 1,076.75	\$ 4,307.00	\$4,481.00
20 MI C153 P-401 11-1/4 BEND L/A		EA	3	\$ 2,195.00	\$6,585.00			\$ 1,738.45	\$ 5,215.35	\$1,369.65
20 MI C153 P-401 SLD PLUG		EA	1	\$ 1,873.00	\$1,873.00			\$ 696.51	\$ 696.51	\$1,176.49
20 PVC WFG REST GRND * OHLEOK		EA	17	\$ 442.00	\$7,514.00			\$ 330.85	\$ 5,624.45	\$1,889.55
16 MI BLT & GSKT PACK		EA	16	\$ 52.00	\$832.00					
ARV ASSY		EA		\$ 3,246.00						
20X2 IP DR STRP SS EPOX SCL		EA	1	\$ 259.00	\$259.00			\$ 128.72	\$ 128.72	\$130.28
2 SEWAGE COMBO AIR RELEASE VLV		EA	1	\$ 1,350.00	\$1,350.00			\$ 1,306.82	\$ 1,306.82	\$43.18
1X2 S40 316L WLD NIP TBE		EA	1	\$ 5.00	\$5.00			\$ 3.20	\$ 3.20	\$1.80
2X6 S40 316L WLD NIP TBE		FT	1	\$ 16.00	\$16.00			\$ 11.55	\$ 11.55	\$4.45
2X6 S40 316L WLD NIP TBE		EA	2	\$ 16.00	\$32.00			\$ 16.97	\$ 33.94	\$1.94
2X1 SS 316 150W THRD BUSH		EA	1	\$ 16.00	\$16.00			\$ 10.29	\$ 10.29	\$5.71
2 SS316 150W THRD ST 90 ELL		EA	1	\$ 54.00	\$54.00			\$ 18.96	\$ 18.96	\$35.04
2 SS 316 150W THRD TEE		EA	1	\$ 25.00	\$25.00			\$ 19.22	\$ 19.22	\$5.78
1F 1 SS 1000W THRD FP BV		EA	1	\$ 85.00	\$85.00			\$ 64.28	\$ 64.28	\$20.72
1F 2 SS 1000W THRD FP BV		EA	1	\$ 204.00	\$204.00			\$ 197.16	\$ 197.16	\$6.84
1F 2 MIP X CTS PI COUP		EA	2	\$ 78.00	\$156.00			\$ 105.81	\$ 211.82	\$55.82
2 CTS PET INS STFR		EA	2	\$ 3.00	\$6.00					
2X100 CTS DR9 HDPE GRN PIPE		C	100	\$ 205.00	\$20,500.00			\$ 159.50	\$ 159.50	\$4,950.00
2 CI 200# THRD NRS GATE VLV W/OPNUT		EA	1	\$ 183.00	\$183.00					
13X16X32 GREEN POLY ARV ENC		EA	1	\$ 650.00	\$650.00					
TOTAL					\$160,566.50				\$84,555.18	\$66,187.84

originally was 20" FPVC

The summary presented above provides the cost of materials change from the bid date 1/12/21 to updated pricing as of 1/30/21. Supporting price quotations from the material supplier are attached.



FERGUSON WATERWORKS-JAX #149
9692 FLORIDA MINING BLVD W
BUILDING #100
JACKSONVILLE, FL 32257
Phone: 904-268-2551
Fax: 904-268-2053

Deliver To:
From: Ryan Pugh
Comments:

09:05:43 JAN 12 2021

Page 1 of 2

FEL-JACKSONVILLE WW -#149

Price Quotation

Phone: 904-268-2551

Fax: 904-268-2053

Bid No: B531390

Bid Date: 1/12/21

Quoted By: RP

Cust Phone: 904-751-1016

Terms: NET 10TH PROX

Customer: TB LANDMARK CONSTRUCTION I
11220 NEW BERLIN RD
SPLOST NORTHMAIN LAND PH
JACKSONVILLE, FL 32226

Ship To: TB LANDMARK CONSTRUCTION I
11220 NEW BERLIN RD
SPLOST NORTHMAIN LAND PH
JACKSONVILLE, FL 32226

Cust PO#:

Job Name: BRUNSWICK SPLOST

Item	Description	Quantity	Net Price	UM	Total
DR18GP24	FORCE MAIN				
DR18GP20	24 C900 DR18 CL235 PVC GJ GREE PIPE	40	68.940	FT	2757.60
TW12SLDUF500	20 C900 DR18 CL235 PVC GJ GREE PIPE	500	48.930	FT	24465.00
	12GA SLD COP UF WIRE GREE 500	500	183.070	M	91.54
SPWPC20	---				
	20 SIGMA BELL REST F/ C900 *PVLOK	4	590.300	EA	2361.20
SP-DR18GFP20	---				
P746440532	20 C900 DR18 GREEN FUSIBLE PVC	400	89.000	FT	35600.00
	8GA SLD HDCCS PE45 WIRE GREE 500	1000	650.000	M	650.00
MJLSP4LA20	---				
MJ4P4LA20	20 MJ C153 P-401 LONG SLV L/A	1	1021.080	EA	1021.08
MJ1P4LA20	20 MJ C153 P-401 45 BEND L/A	4	1076.750	EA	4307.00
MJSPP420	20 MJ C153 P-401 11-1/4 BEND L/A	3	1738.450	EA	5215.35
	20 MJ C153 P-401 SLD PLUG	1	696.510	EA	696.51
SSLCE20	---				
SSMGP16	20 PVC WDG REST GLND *ONELOK	17	330.850	EA	5624.45
	16 MJ BLT & GSKT PACK	16	33.280	EA	532.48

	ARV ASSY				
	\$2895.25 EA				
FFC2022220IP7	20X2 IP DBL STRP SS EPOX SDL	1	128.720	EA	128.72
AD025K	2 SEWAGE COMB AIR RELEASE VLV	1	1306.820	EA	1306.82
DS46NGK	1X2 S40 316L WLD NIP TBE	1	3.200	EA	3.20
DS46NKP	2X4 S40 316L WLD NIP TBE	1	11.550	EA	11.55
DS46NKU	2X6 S40 316L WLD NIP TBE	2	16.970	EA	33.94
IS6CTBK	2X1 SS 316 150# THRD BUSH	1	10.290	EA	10.29
DS6CTS9SP114K	2 SS 316 150# THRD ST 90 ELL	1	18.960	EA	18.96
IS6CTTK	2 SS 316 150# THRD TEE	1	19.220	EA	19.22
A76F10501A	LF 1 SS 1000# THRD FP BV	1	64.280	EA	64.28
A76F10801A	LF 2 SS 1000# THRD FP BV	1	197.160	EA	197.16
FC8477NL	LF 2 MIP X CTS PJ COUP	2	105.910	EA	211.82
PEC9GRNK100	2X100 CTS DR9 HDPE GRN PIPE	100	159.500	C	159.50
M10RS08N	2 CI 200# THRD NRS GATE VLV W/OPNUT	1	161.040	EA	161.04
W131632GREEN	13X16X32 GREE POLY ARV ENC	1	568.750	EA	568.75



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complete a survey about your bids:

<https://survey.medallia.com/?bidsorder&fc=149&on=59176>

Fax: 904-268-2053

09:05:43 JAN 12 2021

Reference No: B531390

SUBTOTAL

86217.46

Net Total:	\$86217.46
Tax:	\$5248.05
Freight:	\$0.00
Total:	\$91465.51

Quoted prices are based upon receipt of the total quantity for immediate shipment (48 hours). SHIPMENTS BEYOND 48 HOURS SHALL BE AT THE PRICE IN EFFECT AT TIME OF SHIPMENT UNLESS NOTED OTHERWISE. QUOTES FOR PRODUCTS SHIPPED FOR RESALE ARE NOT FIRM UNLESS NOTED OTHERWISE.

CONTACT YOUR SALES REPRESENTATIVE IMMEDIATELY FOR ASSISTANCE WITH DBE/MBE/WBE/SMALL BUSINESS REQUIREMENTS.

Seller not responsible for delays, lack of product or increase of pricing due to causes beyond our control, and/or based upon Local, State and Federal laws governing type of products that can be sold or put into commerce. This Quote is offered contingent upon the Buyer's acceptance of Seller's terms and conditions, which are incorporated by reference and found either following this document, or on the web at <https://www.ferguson.com/content/website-info/terms-of-sale>
Govt Buyers: All items are open market unless noted otherwise.

LEAD LAW WARNING: It is illegal to install products that are not "lead free" in accordance with US Federal or other applicable law in potable water systems anticipated for human consumption. Products with "NP" in the description are NOT lead free and can only be installed in non-potable applications. Buyer is solely responsible for product selection.



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Phone: 904-268-2551
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10:03:25 DEC 02 2021

Page 1 of 2

FEL-JACKSONVILLE WW -#149

Price Quotation

Phone: 904-268-2551

Fax: 904-268-2053

Bid No: B530109

Bid Date: 11/30/21

Quoted By: RP

Cust Phone: 904-751-1016

Terms: NET 10TH PROX

Customer: TB LANDMARK CONSTRUCTION I
11220 NEW BERLIN RD
SPLOST NORTHMAIN LAND PH
JACKSONVILLE, FL 32226

Ship To: TB LANDMARK CONSTRUCTION I
11220 NEW BERLIN RD
SPLOST NORTHMAIN LAND PH
JACKSONVILLE, FL 32226

Cust PO#:

Job Name: SPLOST NORTHMAIN LAND PH

Item	Description	Quantity	Net Price	UM	Total
DR18GP24	FORCE MAIN				
DR18GP20	24 C900 DR18 CL235 PVC GJ GREE PIPE	40	199.900	FT	7996.00
TW12SLDUG500	20 C900 DR18 CL235 PVC GJ GREE PIPE	500	135.940	FT	67970.00
	12GA SLD COP UF WIRE GREE 500	500	225.000	M	112.50
SPWPC20	20 SIGMA BELL REST F/ C900 *PVLOK	4	756.000	EA	3024.00
SP-PEI11GN2450	24X50 IPS DR11 HDPE PIPE GRN STRIPE	400	10406.000	C	41624.00
P746440532	8GA SLD HDCCS PE45 WIRE GREE 500	1000	650.000	M	650.00
SP-PEI11MJAA24	24 IPS PC200 DR11 MJ ADPT W/ACC	2	1250.000	EA	2500.00
MJRP4LA2420	24X20 MJ C153 P-401 RED L/A	2	2884.000	EA	5768.00
MJLSP4LA20	20 MJ C153 P-401 LONG SLV L/A	1	2084.000	EA	2084.00
MJ4P4LA20	20 MJ C153 P-401 45 BEND L/A	4	2197.000	EA	8788.00
MJ1P4LA20	20 MJ C153 P-401 11-1/4 BEND L/A	3	2195.000	EA	6585.00
MJSPP420	20 MJ C153 P-401 SLD PLUG	1	1873.000	EA	1873.00
SSLCE20	20 PVC WDG REST GLND *ONELOK	17	442.000	EA	7514.00
SSMGP16	16 MJ BLT & GSKT PACK	16	52.000	EA	832.00
	ARV ASSY				
	\$3246.00 EA				
FFC2022220IP7	20X2 IP DBL STRP SS EPOX SDL	1	259.000	EA	259.00
AD025K	2 SEWAGE COMB AIR RELEASE VLV	1	1350.000	EA	1350.00
DS46NGK	1X2 S40 316L WLD NIP TBE	1	5.000	EA	5.00
DS46NKP	2X4 S40 316L WLD NIP TBE	1	16.000	EA	16.00
DS46NKG	2X6 S40 316L WLD NIP TBE	2	16.000	EA	32.00
IS6CTBKG	2X1 SS 316 150# THRD BUSH	1	16.000	EA	16.00
DS6CTS9SP114K	2 SS 316 150# THRD ST 90 ELL	1	54.000	EA	54.00
IS6CTTK	2 SS 316 150# THRD TEE	1	25.000	EA	25.00
A76F10501A	LF 1 SS 1000# THRD FP BV	1	85.000	EA	85.00
A76F10801A	LF 2 SS 1000# THRD FP BV	1	204.000	EA	204.00
FC8477NL	LF 2 MIP X CTS PJ COUP	2	78.000	EA	156.00
FINSERT55	2 CTS PET INS STFNR	2	3.000	EA	6.00
PEC9GRNK100	2X100 CTS DR9 HDPE GRN PIPE	100	205.000	C	205.00
M10RS08N	2 CI 200# THRD NRS GATE VLV W/OPNUT	1	183.000	EA	183.00



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complete a survey about your bids:

<https://survey.medallia.com/?bidsorder&fc=149&on=59176>

Fax: 904-268-2053

10:03:25 DEC 02 2021

Reference No: B530109

Item	Description	Quantity	Net Price	UM	Total
W131632GREEN	13X16X32 GREE POLY ARV ENC	1	650.000	EA	650.00
SUBTOTAL					160566.50
Net Total:					\$160566.50
Tax:					\$9708.99
Freight:					\$0.00
Total:					\$170275.49





















































Quoted prices are based upon receipt of the total quantity for immediate shipment (48 hours). SHIPMENTS BEYOND 48 HOURS SHALL BE AT THE PRICE IN EFFECT AT TIME OF SHIPMENT UNLESS NOTED OTHERWISE. QUOTES FOR PRODUCTS SHIPPED FOR RESALE ARE NOT FIRM UNLESS NOTED OTHERWISE.







CONTACT YOUR SALES REPRESENTATIVE IMMEDIATELY FOR ASSISTANCE WITH DBE/MBE/WBE/SMALL BUSINESS REQUIREMENTS.

Seller not responsible for delays, lack of product or increase of pricing due to causes beyond our control, and/or based upon Local, State and Federal laws governing type of products that can be sold or put into commerce. This Quote is offered contingent upon the Buyer's acceptance of Seller's terms and conditions, which are incorporated by reference and found either following this document, or on the web at <https://www.ferguson.com/content/website-info/terms-of-sale>
Govt Buyers: All items are open market unless noted otherwise.

LEAD LAW WARNING: It is illegal to install products that are not "lead free" in accordance with US Federal or other applicable law in potable water systems anticipated for human consumption. Products with "NP" in the description are NOT lead free and can only be installed in non-potable applications. Buyer is solely responsible for product selection.

**HOW ARE WE DOING? WE WANT YOUR FEEDBACK!**Scan the QR code or use the link below to
complete a survey about your bids:<https://survey.medallia.com/?bidsorder&fc=149&on=59176>

ID		Task Mode	Task Name	Duration	Start	Finish	% Complete
1			Preconstruction Meeting	0 days	Wed 3/10/21	Wed 3/10/21	100%
2			Notice to Proceed (4/1/2021)	0 days	Thu 4/1/21	Thu 4/1/21	100%
3			Submittals & Material Lead Time	85 days	Wed 3/10/21	Tue 7/6/21	100%
4			Survey	10 days	Wed 7/7/21	Tue 7/20/21	100%
5			Receive Pipe, Valves and Fittings	33 days	Wed 7/7/21	Fri 8/20/21	100%
6			Mobilize, Set Up MOT, Erosion Control and Locate Existing Utilities	7 days	Tue 8/24/21	Wed 9/1/21	100%
7			Install 12" FM from 8+24 to 24+69 = 1645 LF	7 days	Tue 8/24/21	Wed 9/1/21	100%
8			Install 12" FM from 34+71 to 50+50 = 1605 LF	7 days	Thu 9/2/21	Fri 9/10/21	100%
9			Install 18" FM from 50+50 to 111+49 = 6139 LF	50 days	Mon 9/13/21	Fri 11/19/21	100%
10			FM Directional Drill 14" HDPE 0+00 to 8+23= 800 LF	5 days	Mon 11/15/21	Fri 11/19/21	0%
11			FM Directional Drill 14" HDPE 24+70 to 34+70= 950 LF	5 days	Mon 11/22/21	Fri 11/26/21	0%
12			FM Directional Drill 10" HDPE 51+50=120LF	1 day	Thu 11/26/20	Thu 11/26/20	0%
13			FM Directional Drill 20" HDPE 51+50 to 56+00=450LF	2 days	Fri 11/27/20	Mon 11/30/20	0%
14			FM Directional Drill 20" HDPE 111+50 to 124+40= 1250 LF	7 days	Mon 11/29/21	Tue 12/7/21	0%
15			FM Directional Drill 20" HDPE 124+40 to 148+00= 2350 LF	15 days	Wed 12/8/21	Tue 12/28/21	0%
16			WM Directional Drill 14" HDPE 146+10 to 147+60= 150 LF	1 day	Thu 10/28/21	Thu 10/28/21	100%
17			FM Directional Drill 20" HDPE 147+50 to 164+00= 1600 LF	8 days	Tue 11/30/21	Thu 12/9/21	0%
18			FM Directional Drill 20" HDPE 163+40 to 170+00= 600 LF	2 days	Fri 12/10/21	Mon 12/13/21	0%
19			FM Directional Drill 20" HDPE 169+50 to 179+80= 1000 LF	5 days	Tue 12/14/21	Mon 12/20/21	0%
20			Install 18" FM from 124+25 to 124+50 = 25 LF (Drill Tie In)	5 days	Wed 12/29/21	Tue 1/4/22	0%
21			Install 18" FM from 147+75 to 148+00 = 25 LF (Drill Tie In)	5 days	Wed 1/5/22	Tue 1/11/22	0%
22			Install 18" FM from 163+50 to 163+75 = 25 LF (Drill Tie In)	5 days	Wed 1/12/22	Tue 1/18/22	0%
23			Install 18" FM from 169+50 to 169+75 = 25 LF (Drill Tie In)	5 days	Wed 1/19/22	Tue 1/25/22	0%
24			Connect to Existing FM 0+00 - 8" Line Stop	4 days	Wed 1/26/22	Mon 1/31/22	0%
25			Connect to Existing 18" FM 179+80	8 days	Tue 2/1/22	Thu 2/10/22	0%
26			Connect to Existing 12" WM 141+50	3 days	Tue 11/9/21	Thu 11/11/21	100%
27			Install 12" WM from 141+75 to 146+09 = 557 LF	10 days	Fri 11/12/21	Thu 11/25/21	100%
28			Install 12" WM from 147+61 to 164+50 = 1639 LF	20 days	Fri 11/26/21	Thu 12/23/21	25%
29			Connect to Existing 12" WM 164+50	3 days	Fri 12/24/21	Tue 12/28/21	0%
30			Substantial Completion (2/25/2022)	0 days	Fri 3/25/22	Fri 3/25/22	0%
31			Restoration	20 days	Mon 3/28/22	Fri 4/22/22	0%
32			Final Record Drawings	20 days	Mon 3/28/22	Fri 4/22/22	0%
33			Final Completion (3/27/2022)	0 days	Fri 4/22/22	Fri 4/22/22	0%
34			Open cut and HDD option				0%
35			Ogden Road Forcemain option NTP	1 day	Mon 12/20/21	Mon 12/20/21	0%
36			Ogden Road material order	61 days	Tue 12/21/21	Tue 3/15/22	0%

ID		Task Mode	Task Name	Duration	Start	Finish	% Complete
37			Ogden Rec material and install	87 days	Wed 3/16/22	Thu 7/14/22	0%
38			HDD option				0%
39			Ogden Road Forcemain option NTP	1 day	Mon 12/20/21	Mon 12/20/21	0%
40			Ogden Road material order	50 days	Tue 12/21/21	Mon 2/28/22	0%
41			Ogden Rec material and install	60 days	Wed 3/16/22	Tue 6/7/22	0%



Brunswick-Glynn

Joint Water and Sewer Commission

Memorandum

To: Facilities Committee
From: Todd Kline, P.E., Director of Engineering
Date: 15 December 2021
Re: Capital Project #703 – SPLOST 2016 Lift Station 4003 Upgrade; C.O. #3 (Final Adjusting Change Order)

Overview

- Who: Petticoat-Schmitt Civil Contractors, Inc. (Contractor).
- What:
 - Notice to Proceed: 07/20/20 (240 days, original contract)
 - Contract Amount (Funding): \$1,998,690.00 (SPLOST 2016)
 - CO #1 Time Extension & wet well credit, approved 04/16/21: +30 days; (\$4,673.72)
 - CO #2 Time Extension, approved 06/05/21: +50 days
 - Date of Substantial Completion: 09/17/21 (515 days, accrued)

 - CO #3 (proposed, Final Adjusting):
 - Proposed deduction for quantities not used: (\$8,872.39)
 - Adjusted final contract amount: \$1,985,143.89
 - Days over approved contract time; delay/weather days requested: 104 days; 68 days
 - Retainage held to date: \$99,700.81
 - Pay Application #13 (Final), including retainage: \$120,077.09
- Why: Final payment and project closeout.

Staff Report

JWSC staff received change order documentation dated December 08th which included a project Change Order #3 (Final Adjusting) request in the deduct amount of (\$8,872.39). This change order documents the terms for closing out the project which includes contract deduction for unused allowance amounts, days over contract time, and allowance of delay days due to weather. This change order shall constitute the full and final settlement of this contract. The Engineer or Record's supporting review and recommendation is attached.

Recommended Action

Staff has reviewed the request from Petticoat-Schmitt Civil Contractors, Inc. and recommends approval of a Change Order #3 request with an adjusted final contract amount of \$1,985,143.89 and final closing payment of \$120,077.09.

Recommended Motion

I move that the Brunswick-Glynn Joint Water & Sewer Commission Facilities Committee forward the above described Change Order #3, to the full Commission for approval.

Attachments:

- 1) Final Adjustment CO documentation (dated 12/09/21).
- 2) Final Adjustment CO correspondence from EOR to PSCC (dated 12/09/2021).
- 3) Final Pay Application (dated 09/30/2021).
- 4) Petticoat-Schmitt requested delays days detail.



December 9, 2021

Mr. Haresh Patel
Assistant Engineer
Brunswick-Glynn County JWSC
1703 Gloucester Street
Brunswick, GA 31520

RE: Change Order No. 3 and Pay Request No. 13 - LS 4003 Upgrade

Dear Harry:

Attached is the proposed Final Adjusting Change Order for a credit of \$8,872.39 which will reduce the total Contract Amount to the work completed to date. This will reconcile the contract.

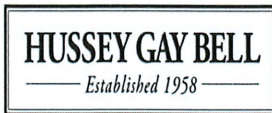
Also forwarded herewith is Pay Request #13 submitted by Petticoat-Schmitt Civil Contractors, Inc. for the above referenced project. We have reviewed this estimate and recommend payment in the amount \$120,077.09 to Petticoat-Schmitt Civil Contractors, Inc. This amount includes \$99,700.81 in retainage previously withheld on the project. This will close out the Contract for the project.

Please call me if you have any questions.

Sincerely,
HUSSEY GAY BELL

Chris Burke, P.E.

Attachments



Hussey Gay Bell
329 Commercial Drive
Savannah, Georgia 31406

Change Order

Contractor's Name & Address: Petticoat-Schmitt Civil Contractors, Inc.
6380 Philips Highway
Jacksonville, FL 32216

Date: December 9, 2021	HGB Job #: 119291605	Change Order: No. 3
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**RE: LIFT STATION 4003 UPGRADE
BRUNSWICK-GLYNN COUNTY JOINT WATER & SEWER COMMISSION
BRUNSWICK, GEORGIA**

Description of Work to be Added, Deleted or Substituted: Delete unused allowance amounts for environmental remediation and Georgia Power charges.

Justification: Summary Change Order to reconcile contract quantities for project closeout.

Revised Completion Date: N/A

Original Contract Amount.....	\$ 1,998,690.00
Total Add/Delete Previous Change Order.....	\$ (4,673.72)
Total Delete This Change Order.....	\$ (8,872.39)
Revised Contract Amount.....	\$ 1,985,143.89

This change order amends above referenced contract and is subject to all terms and conditions stated in original contract.

Recommended By: Chris Burke **Date:** December 9, 2021
Engineer: Hussey Gay Bell

Accepted By: [Signature] **Date:** 12/9/21
Contractor: Petticoat-Schmitt Civil Contractors, Inc.

Approved By: _____ **Date:** _____
Owner: Brunswick-Glynn County Joint Water & Sewer Commission

Lift Station 4003 Upgrade

			CONTRACT		CONTRACT		PREVIOUSLY BILLED		CURRENT		CURRENT	CURRENT LESS	PERCENT COMPLETE		
ITEM			UNIT PRICE		EXT PRICE		QUANTITY	VALUE	QUANTITY	VALUE	RETAINAGE	RETAINAGE	QUANTITY	VALUE	% COMPLETE
ITEM 1.0 Mobilization/Demobilization															
MOBILIZATION/DEMOBILIZATION	LS	1	\$ 28,000.00	\$ 28,000.00	0.9	\$ 25,200.00	0.1	\$ 2,800.00					1	\$ 28,000.00	100.0%
ITEM 1.0 Mobilization/Demobilization - SUBTOTAL			\$ 28,000.00			\$ 25,200.00		\$ 2,800.00						\$ 28,000.00	100.0%
ITEM 2.0 Temporary Bypass Pumping															
BYPASS INSTALLATION & SUBMITTAL	LS	1	\$ 102,000.00	\$ 102,000.00	1	\$ 102,000.00		\$ -					1	\$ 102,000.00	100.0%
MONTHLY RUNNING	MO	4	\$ 10,000.00	\$ 40,000.00	4	\$ 40,000.00		\$ -					4	\$ 40,000.00	100.0%
ITEM 2.0 Temporary Bypass Pumping - SUBTOTAL			\$ 142,000.00			\$ 142,000.00		\$ -						\$ 142,000.00	100.0%
ITEM 3.0 Traffic Control															
TRAFFIC CONTROL	LS	1	\$ 1,500.00	\$ 1,500.00	1	\$ 1,500.00		\$ -					1	\$ 1,500.00	100.0%
ITEM 3.0 Traffic Control - SUBTOTAL			\$ 1,500.00			\$ 1,500.00		\$ -						\$ 1,500.00	100.0%
ITEM 4.0 Demo															
DEMO FENCE	LS	1	\$ 1,000.00	\$ 1,000.00	1	\$ 1,000.00		\$ -					1	\$ 1,000.00	100.0%
DEMO DOORS/WINDOWS	LS	1	\$ 2,500.00	\$ 2,500.00	1	\$ 2,500.00		\$ -					1	\$ 2,500.00	100.0%
DEMO CONC STEPS	LS	1	\$ 15,000.00	\$ 15,000.00	1	\$ 15,000.00		\$ -					1	\$ 15,000.00	100.0%
DEMO EXISTING PIPE & PUMPS	LS	1	\$ 20,000.00	\$ 20,000.00	1	\$ 20,000.00		\$ -					1	\$ 20,000.00	100.0%
DEMO IN INFLUENT STRUCTURE	LS	1	\$ 5,500.00	\$ 5,500.00	1	\$ 5,500.00		\$ -					1	\$ 5,500.00	100.0%
DEMO INTERNAL CMU WALL	LS	1	\$ 3,000.00	\$ 3,000.00	1	\$ 3,000.00		\$ -					1	\$ 3,000.00	100.0%
DEMO ELECTRICAL PANELS/CONDUITS	LS	1	\$ 2,000.00	\$ 2,000.00	1	\$ 2,000.00		\$ -					1	\$ 2,000.00	100.0%
ITEM 4.0 Demo - SUBTOTAL			\$ 49,000.00			\$ 49,000.00		\$ -						\$ 49,000.00	100.0%
ITEM 5.0 Fill Existing Wetwell															
FILL EXISTING WETWELL WITH COMPACTED SAND	CY	220	\$ 37.00	\$ 8,140.00	218.5	\$ 8,084.50		\$ -					218.5	\$ 8,084.50	99.3%
ITEM 5.0 Fill Existing Wetwell - SUBTOTAL			\$ 8,140.00		0	\$ 8,084.50		\$ -					0	\$ 8,084.50	99.3%
ITEM 6.0 Pumps and Piping															
PUMP SUBMITTAL	LS	1	\$ 20,000.00	\$ 20,000.00	1	\$ 20,000.00		\$ -					1	\$ 20,000.00	100.0%
PUMP DELIVERY	LS	1	\$ 75,000.00	\$ 75,000.00	1	\$ 75,000.00		\$ -					1	\$ 75,000.00	100.0%
PUMP INSTALLATION	LS	1	\$ 48,000.00	\$ 48,000.00	1	\$ 48,000.00		\$ -					1	\$ 48,000.00	100.0%
CONCRETE PADS	LS	1	\$ 10,000.00	\$ 10,000.00	1	\$ 10,000.00		\$ -					1	\$ 10,000.00	100.0%
PIPE, VALVES, AND FITTINGS SUBMITAL	LS	1	\$ 14,000.00	\$ 14,000.00	1	\$ 14,000.00		\$ -					1	\$ 14,000.00	100.0%
PIPE, VALVES, AND FITTINGS INSTALL	LS	1	\$ 129,000.00	\$ 129,000.00	1	\$ 129,000.00		\$ -					1	\$ 129,000.00	100.0%
ARV INSTALL	LS	1	\$ 3,000.00	\$ 3,000.00	1	\$ 3,000.00		\$ -					1	\$ 3,000.00	100.0%
PIPE SUPPORTS	LS	1	\$ 18,000.00	\$ 18,000.00	1	\$ 18,000.00		\$ -					1	\$ 18,000.00	100.0%
ITEM 6.0 Pumps and Piping - SUBTOTAL			\$ 317,000.00		0	\$ 317,000.00		\$ -					0	\$ 317,000.00	100.0%
ITEM 7.0 Building Modifications															
BUILDING SUBMITTAL APPROVAL	LS	1	\$ 5,250.00	\$ 5,250.00	1	\$ 5,250.00		\$ -					1	\$ 5,250.00	100.0%
CMU WALL INSTALL	LS	1	\$ 19,000.00	\$ 19,000.00	1	\$ 19,000.00		\$ -					1	\$ 19,000.00	100.0%

WINDOW BRICKUP	LS	1	\$ 4,500.00	\$ 4,500.00	1	\$ 4,500.00		\$ -			1	\$ 4,500.00	100.0%
MAN DOOR INSTALL	LS	1	\$ 13,500.00	\$ 13,500.00	1	\$ 13,500.00		\$ -			1	\$ 13,500.00	100.0%
OVERHEAD DOOR INSTALL	LS	1	\$ 17,500.00	\$ 17,500.00	1	\$ 17,500.00		\$ -			1	\$ 17,500.00	100.0%
ROOF INSTALL	LS	1	\$ 25,000.00	\$ 25,000.00	1	\$ 25,000.00		\$ -			1	\$ 25,000.00	100.0%
HVAC INSTALL	LS	1	\$ 43,000.00	\$ 43,000.00	1	\$ 43,000.00		\$ -			1	\$ 43,000.00	100.0%
DUCT INSTALL	LS	1	\$ 5,000.00	\$ 5,000.00	1	\$ 5,000.00		\$ -			1	\$ 5,000.00	100.0%
CONCRETE STAIRS	LS	1	\$ 9,250.00	\$ 9,250.00	1	\$ 9,250.00		\$ -			1	\$ 9,250.00	100.0%
PATCH FLOOR OPENINGS	LS	1	\$ 8,500.00	\$ 8,500.00	1	\$ 8,500.00		\$ -			1	\$ 8,500.00	100.0%
HOIST & HATCH INSTALL	LS	1	\$ 9,000.00	\$ 9,000.00	1	\$ 9,000.00		\$ -			1	\$ 9,000.00	100.0%
SUMP PUMP	LS	1	\$ 3,500.00	\$ 3,500.00	1	\$ 3,500.00		\$ -			1	\$ 3,500.00	100.0%
ITEM 7.0 Building Modifications - SUBTOTAL			\$ 163,000.00		0	\$ 163,000.00		\$ -			0	\$ 163,000.00	100.0%
ITEM 8.0 Interior painting													
INTERIOR PAINTING OF BUILDING	LS	1	\$ 18,000.00	\$ 18,000.00	0.5	\$ 9,000.00	0.5	\$ 9,000.00			1	\$ 18,000.00	100.0%
ITEM 8.0 Interior painting			\$ 18,000.00		0	\$ 9,000.00		\$ 9,000.00			0	\$ 18,000.00	100.0%
ITEM 9.0 Electrical & SCADA													
ELECTRICAL SUBMITTALS	LS	1	\$ 17,000.00	\$ 17,000.00	1	\$ 17,000.00		\$ -			1	\$ 17,000.00	100.0%
INITIAL POWER HOOKUP	LS	1	\$ 10,000.00	\$ 10,000.00	1	\$ 10,000.00		\$ -			1	\$ 10,000.00	100.0%
UNDERGROUND CONDUITS	LS	1	\$ 19,000.00	\$ 19,000.00	1	\$ 19,000.00		\$ -			1	\$ 19,000.00	100.0%
ABOVEGROUND CONDUITS	LS	1	\$ 28,000.00	\$ 28,000.00	1	\$ 28,000.00		\$ -			1	\$ 28,000.00	100.0%
WIRE/CABLE	LS	1	\$ 15,000.00	\$ 15,000.00	1	\$ 15,000.00		\$ -			1	\$ 15,000.00	100.0%
GEAR	LS	1	\$ 93,000.00	\$ 93,000.00	1	\$ 93,000.00		\$ -			1	\$ 93,000.00	100.0%
LIGHTING	LS	1	\$ 13,000.00	\$ 13,000.00	1	\$ 13,000.00		\$ -			1	\$ 13,000.00	100.0%
GROUNDING	LS	1	\$ 8,000.00	\$ 8,000.00	1	\$ 8,000.00		\$ -			1	\$ 8,000.00	100.0%
EQUIPMENT CONNECTIONS	LS	1	\$ 7,000.00	\$ 7,000.00	1	\$ 7,000.00		\$ -			1	\$ 7,000.00	100.0%
SCADA SUBMITTAL	LS	1	\$ 18,000.00	\$ 18,000.00	1	\$ 18,000.00		\$ -			1	\$ 18,000.00	100.0%
SCADA	LS	1	\$ 50,000.00	\$ 50,000.00	1	\$ 50,000.00		\$ -			1	\$ 50,000.00	100.0%
START-UP	LS	1	\$ 5,000.00	\$ 5,000.00	1	\$ 5,000.00		\$ -			1	\$ 5,000.00	100.0%
ITEM 9.0 Electrical & SCADA - SUBTOTAL			\$ 283,000.00		0	\$ 283,000.00		\$ -			0	\$ 283,000.00	100.0%
ITEM 10.0 Precast Manhole													
INSTALL MANHOLE	LS	1	\$ 20,000.00	\$ 20,000.00	1	\$ 20,000.00		\$ -			1	\$ 20,000.00	100.0%
CEMENTATIOUS COATING	LS	1	\$ 7,000.00	\$ 7,000.00	1	\$ 7,000.00		\$ -			1	\$ 7,000.00	100.0%
ITEM 10.0 Precast Manhole - SUBTOTAL			\$ 27,000.00		0	\$ 27,000.00		\$ -			0	\$ 27,000.00	100.0%
ITEM 11.0 30" PVC SDR 26 Sewer													
30" PVC SEWER LINE	LF	55	\$ 550.00	\$ 30,250.00	55	\$ 30,250.00		\$ -			55	\$ 30,250.00	100.0%
ITEM 11.0 30" PVC SDR 26 Sewer - SUBTOTAL			\$ 30,250.00		0	\$ 30,250.00		\$ -			0	\$ 30,250.00	100.0%
ITEM 12.0 30" Sewer line tie-in to existing MH													
30" TIE-IN TO MANHOLE	LS	1	\$ 15,000.00	\$ 15,000.00	1	\$ 15,000.00		\$ -			1	\$ 15,000.00	100.0%
ITEM 12.0 30" Sewer line tie-in to existing MH - SUBTOTAL			\$ 15,000.00		0	\$ 15,000.00		\$ -			0	\$ 15,000.00	100.0%
ITEM 13.0 Wet Well													
EXCAVATE AND SHORING	LS	1	\$ 308,000.00	\$ 308,000.00	1	\$ 308,000.00		\$ -			1	\$ 308,000.00	100.0%

Job Total			\$ 1,994,016.28		\$ 1,964,767.61		\$ 20,376.28		\$ -		\$ 1,985,143.89	



Additional Days Request
(All measured in calendar days)

Weather Days: 17 in total (non-concurrent)

- 5/5/21
- 5/11/21
- 5/12/21
- 6/3/21
- 6/9/21
- 6/23/21
- 6/24/21
- 7/1/21
- 7/2/21
- 7/7/21 (Concurrent with storm delay)
- 7/9/21 (Concurrent with storm delay)
- 7/19/21
- 7/20/21
- 7/26/21 (Concurrent with Covid delay)
- 7/27/21 (Concurrent with Covid delay)
- 8/2/21 (Concurrent with Covid delay)
- 8/4/21 (Concurrent with Covid delay)
- 8/5/21 (Concurrent with Covid delay)
- 8/6/21 (Concurrent with Covid delay)
- 8/7/21 (Concurrent with Covid delay)
- 8/9/21 (Concurrent with Covid delay)
- 8/16/21 (Concurrent with Covid delay)
- 8/23/21 (Concurrent with Covid delay)
- 8/31/21
- 9/7/21
- 9/8/21
- 9/20/21
- 9/21/21
- 9/22/21

Tropical Storm Elsa Delay: 10 in total

- Due to the storm the welder was pushed from July 6th to July 15th; due to that being their next available date after the storm delayed them.

Holiday Days: 6 in total

- May 29th-May 31st Memorial day weekend
- July 3rd-July 5th Independence day weekend

Delay Days Due to RFI review

- PSCC reserves the right to request days for RFI review time.

Delay Days Due to Covid : 35 in total

- We had delays due to GA South Tank and Tower's (GSTT) crews being out with Covid and thus held us up from completing the Wetwell and new manhole. We had planned on the coatings starting on 7/21/21 but GSTT was unable to mobilize until 8/4/21 due to labor shortage due to Covid. This in turn pushed pre-start up from 8/11/21 to 8/24/21, when all vendors could be set-up again. See attached letter from GSTT.

In total PSCC is requesting 68 days.

Should you have any questions or need additional information please feel free to contact me.

Respectfully,

A handwritten signature in blue ink, appearing to read "Lauren Bedford".

PETTICOAT-SCHMITT CIVIL CONTRACTORS, INC.
Lauren Bedford, Project Manager



Brunswick-Glynn

Joint Water and Sewer Commission

Memorandum

To: Facilities Committee
From: Todd Kline, P.E., Director of Engineering
Date: Wednesday, 15 December 2021
Re: Dedication of Infrastructure – Nottingham Drive Force Main

Background

The Brunswick Glynn Joint Water & Sewer Commission (JWSC) Standards for Water & Sewer Design and Development Procedures support the acceptance of privately constructed water and wastewater systems as public infrastructure, when specified conditions are met. Palmetto Building Group proposed a 2,395 foot force main be installed on Nottingham Drive in order to provide sewer service to 3-5 lots and JWSC approved construction plans. Palmetto Building Group desires to dedicate the infrastructure.

Staff Report

The Owner of Record (Palmetto Building Group) for the infrastructure described within has submitted legal documents to define and execute the transfer of ownership. The infrastructure is understood to have complied with applicable standards at the time of construction. JWSC Operations inspection records indicate the infrastructure is functioning and in acceptable condition.

Recommended Action

All requirements of the BGJWSC Standards for Water & Sewer Design and Construction and Development Procedures have been met, and all related documents submitted. Staff recommends the acceptance of the above described sewer infrastructure for JWSC ownership, operation and maintenance.

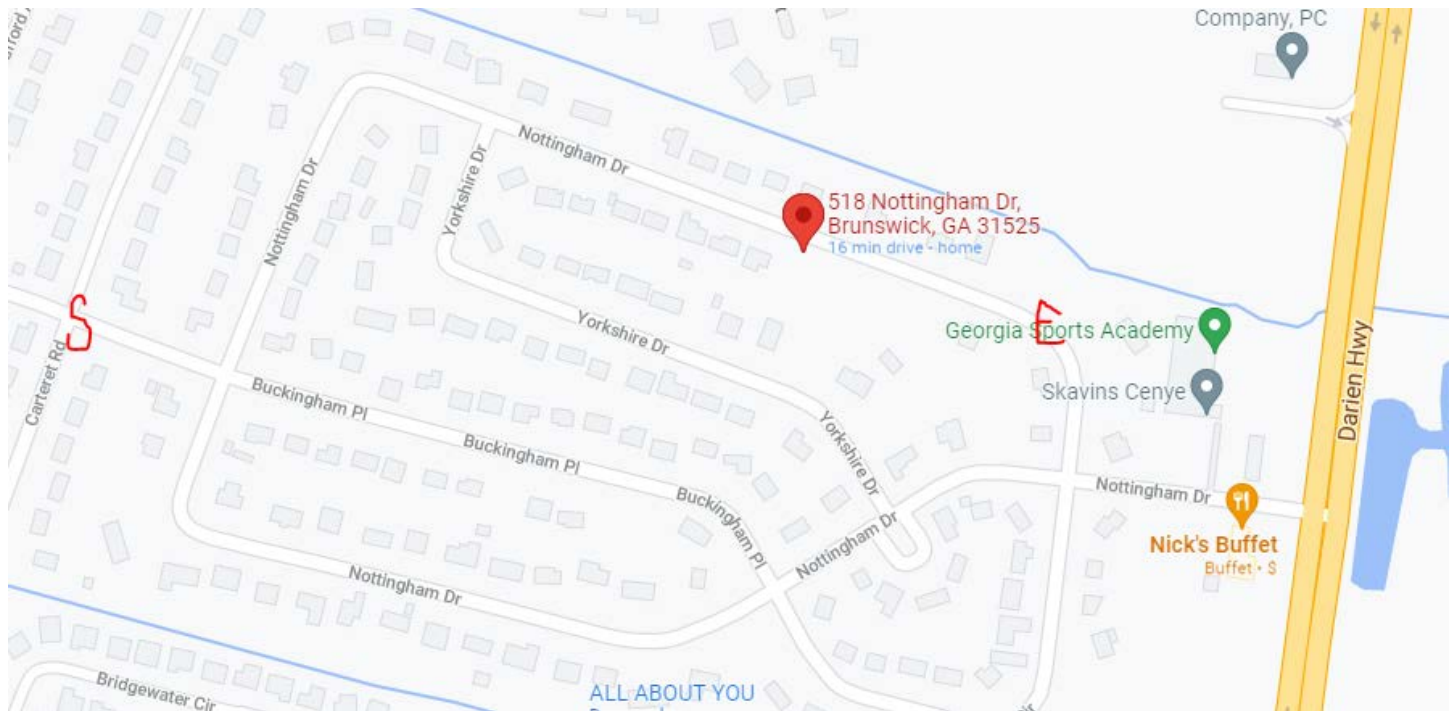
Recommended Motion

“I make a motion that the Facilities Committee forward the above described dedication to the full Commission for approval and acceptance.”

Enclosures

Location Map
Final Record Drawing
Infrastructure Dedication Application – Requires BOC Signature

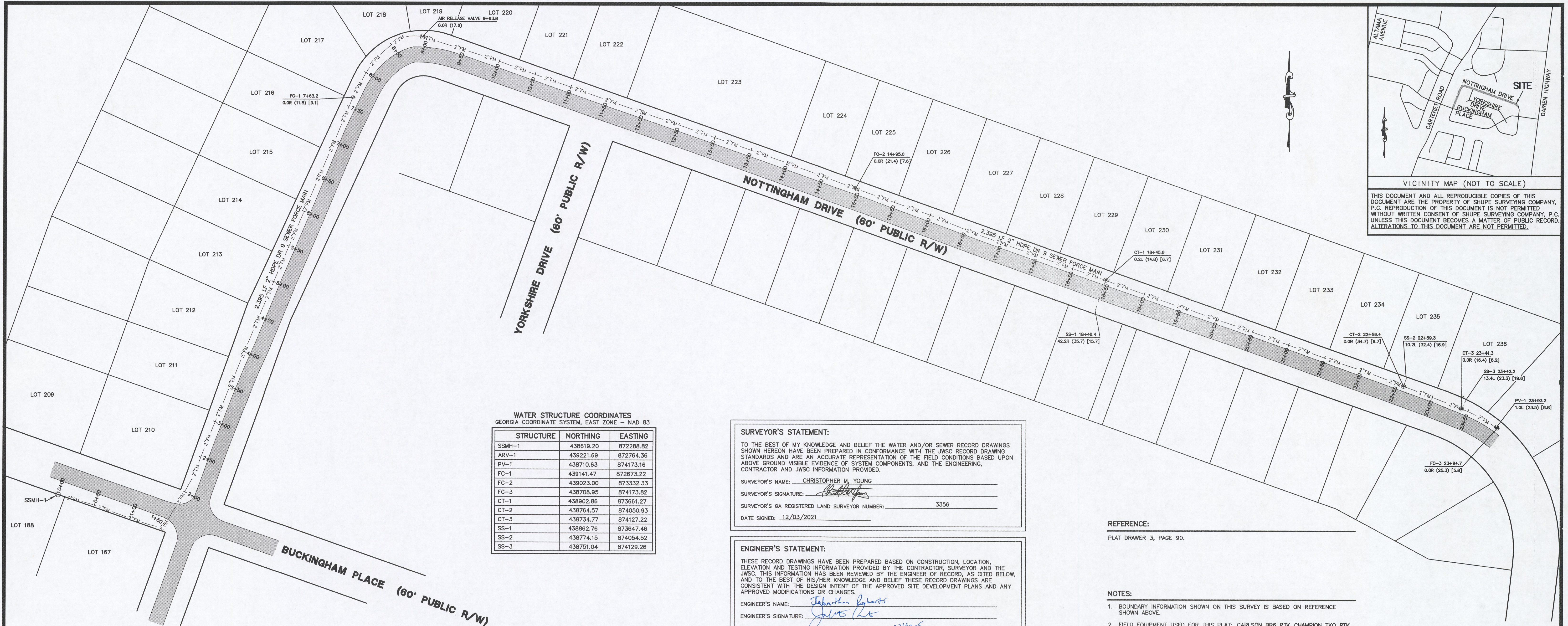
NOTTINGHAM FORCE MAIN LOCATION MAP



NOTTINGHAM FORCE MAIN GIS MAP – TO BE UPDATED FOLLOWING ACCEPTANCE BY BOC



RECORD DRAWING, SEWER SYSTEM (FINAL) (PUBLIC)



WATER STRUCTURE COORDINATES GEORGIA COORDINATE SYSTEM, EAST ZONE - NAD 83		
STRUCTURE	NORTHING	EASTING
SSMH-1	438619.20	872288.82
ARV-1	438221.69	872764.36
PV-1	438710.63	874173.16
FC-1	438141.47	872673.22
FC-2	439023.00	873332.33
FC-3	438708.95	874173.82
CT-1	438902.86	873661.27
CT-2	438764.57	874050.93
CT-3	438734.77	874127.22
SS-1	438862.76	873647.46
SS-2	438774.15	874054.52
SS-3	438751.04	874129.26

LEGEND:

- 2" FM 2" FORCE MAIN
- CT (CT) COMPRESSION TEE
- FC (FC) FLUSH CONNECTION
- SS (SS) SEWER SERVICES
- AR - AIR RELEASE VALVE
- SEWER SERVICE
- STATION
- 0+96.2 R34.2 (2.8) [14.2] DISTANCE TO EDGE OF PAVEMENT
- DISTANCE TO NEAREST PROPERTY CORNER
- OFFSET

SURVEYOR'S STATEMENT:

TO THE BEST OF MY KNOWLEDGE AND BELIEF THE WATER AND/OR SEWER RECORD DRAWINGS SHOWN HEREON HAVE BEEN PREPARED IN CONFORMANCE WITH THE JWSC RECORD DRAWING STANDARDS AND ARE AN ACCURATE REPRESENTATION OF THE FIELD CONDITIONS BASED UPON ABOVE GROUND VISIBLE EVIDENCE OF SYSTEM COMPONENTS, AND THE ENGINEERING, CONTRACTOR AND JWSC INFORMATION PROVIDED.

SURVEYOR'S NAME: CHRISTOPHER M. YOUNG

SURVEYOR'S SIGNATURE: *Christopher M. Young*

SURVEYOR'S GA REGISTERED LAND SURVEYOR NUMBER: 3356

DATE SIGNED: 12/03/2021

ENGINEER'S STATEMENT:

THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON CONSTRUCTION, LOCATION, ELEVATION AND TESTING INFORMATION PROVIDED BY THE CONTRACTOR, SURVEYOR AND THE JWSC. THIS INFORMATION HAS BEEN REVIEWED BY THE ENGINEER OF RECORD, AS CITED BELOW, AND TO THE BEST OF HIS/HER KNOWLEDGE AND BELIEF THESE RECORD DRAWINGS ARE CONSISTENT WITH THE DESIGN INTENT OF THE APPROVED SITE DEVELOPMENT PLANS AND ANY APPROVED MODIFICATIONS OR CHANGES.

ENGINEER'S NAME: *Jonathan Roberts*

ENGINEER'S SIGNATURE: *Jonathan Roberts*

GA PROFESSIONAL ENGINEER REGISTRATION NUMBER: 034205

DATE SIGNED: 12/6/2021

CONTRACTOR'S STATEMENT:

THE WATER AND/OR SEWER SYSTEMS, AS SHOWN ON THESE RECORD DRAWINGS, HAVE BEEN CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THE STANDARDS AND SPECIFICATIONS FOR THIS PROJECT AND IN CONSIDERATION OF THE TWO (2) YEAR WORKMANSHIP AND MATERIALS WARRANTY, ANY SIGNIFICANT DEVIATIONS FROM THE MATERIALS SPECIFIED OR WORKMANSHIP STANDARDS REQUIRED HAVE BEEN APPROVED BY THE ENGINEER AND THE JWSC PRIOR TO INSTALLATION. THIS INFORMATION HAS BEEN REVIEWED BY A PRINCIPAL OF THE COMPANY OR AN EXECUTIVE OFFICER, AS CITED BELOW, AND TO THE BEST OF HIS/HER KNOWLEDGE AND BELIEF THESE RECORD DRAWINGS ARE ACCURATE AND COMPLETE.

COMPANY NAME: *Underground Excavating Inc*

PRINCIPAL/OFFICER'S NAME: *Jaime Echols*

PRINCIPAL/OFFICER'S SIGNATURE: *Jaime Echols*

DATE SIGNED: 12/6/2021

JWSC'S STATEMENT:

THESE RECORD DRAWINGS HAVE BEEN PREPARED AND CONFIRMED BASED ON PERIODIC FIELD OBSERVATIONS DURING CONSTRUCTION, FIELD TESTING, CCTV AND PHYSICAL INSPECTIONS OF SYSTEM COMPONENTS BY JWSC STAFF. THIS INFORMATION HAS BEEN REVIEWED BY JWSC SUPERINTENDENTS AND CONSTRUCTION INSPECTION STAFF, AS CITED BELOW, AND TO THE BEST OF THEIR KNOWLEDGE AND BELIEF THESE RECORD DRAWINGS ARE ACCURATE AND COMPLETE IN ACCORDANCE WITH ADOPTED JWSC RECORD DRAWING STANDARDS AND SPECIFICATIONS.

WATER DISTRIBUTION SUPERINTENDENT'S NAME: _____

WATER DISTRIBUTION SUPERINTENDENT'S SIGNATURE: _____

DATE SIGNED: _____

WASTEWATER COLLECTION SUPERINTENDENT'S NAME: *Eric White*

WASTEWATER COLLECTION SUPERINTENDENT'S SIGNATURE: *Eric White*

DATE SIGNED: *12-8-2021*

PROJECT INSPECTOR'S NAME: *Mike Fields*

PROJECT INSPECTOR'S SIGNATURE: *Mike Fields*

DATE SIGNED: *12/7/2021*

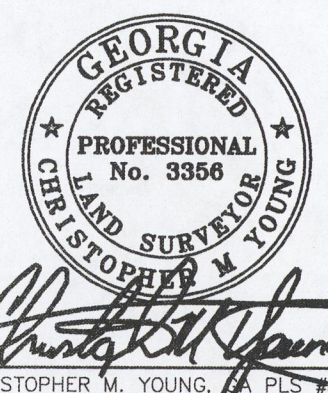
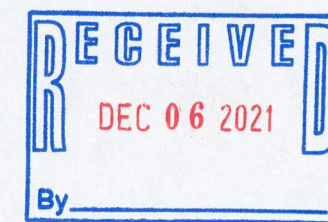
REFERENCE:

PLAT DRAWER 3, PAGE 90.

NOTES:

- BOUNDARY INFORMATION SHOWN ON THIS SURVEY IS BASED ON REFERENCE SHOWN ABOVE.
- FIELD EQUIPMENT USED FOR THIS PLAT: CARLSON BR6 RTK CHAMPION TKO RTK GPS WITH VRS NETWORK (eGPS SOLUTIONS).
- THIS SURVEY IS BASED ON FIELD WORK COMPLETED ON 11/08/2021. SHUPE SURVEYING COMPANY, P.C. IS NOT RESPONSIBLE FOR ANY CHANGES TO THE SITE AFTER THIS DATE.
- THE VERTICAL DATUM FOR THIS SURVEY IS BASED ON NAVD88 AND WAS ESTABLISHED USING RTK GPS WITH A VRS NETWORK (eGPS SOLUTIONS).
- OWNER/DEVELOPER

MARITIME HOMES
C/O VASSA GATE
P.O. BOX 1993
BRUNSWICK, GA 31521
912-269-7645
VASSACATE@GMAIL.COM



NO. REVISION BY DATE

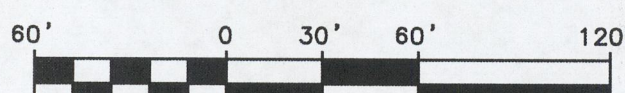
SEWER FORCE MAIN ROUTE SURVEY OF:

**PORTIONS OF
BUCKINGHAM PLACE &
NOTTINGHAM DRIVE,
BEVERLY SHORES
SUBDIVISION**
26TH, G.M.D., GLYNN COUNTY, GEORGIA

PREPARED FOR:
MARITIME HOMES



SHUPE SURVEYING COMPANY, P.C.
3837 DARIEN HIGHWAY
BRUNSWICK, GA 31525
912-265-0562
CERTIFICATE OF AUTHORIZATION: LSF317



SCALE: 1" = 60'
FILE: 21640
DRAWING: 21640.DWG
SHEET 1 OF 1
DRAWING DATE: 11/12/2021
DRAWN BY: JCH
CREW CHIEF: D.T.

Brunswick—Glynn County Joint Water & Sewer Commission
700 Gloucester Street, Suite 300 Brunswick, GA. 31520

Application for Dedication of Water/Wastewater Systems

Part A: Statement of Intention

Having completed the installation of the water/wastewater system for the property tract or
subdivision heretofore known as Nottingham Forcemain the current

Project Name

Owner(s) of the system, being Palmetto Building Group located
Developer/Owner Name

At Nottingham Drive, Brunswick GA, is desirous of dedicating the constructed
Address of Legal Service

utility system(s) for ownership, operation and maintenance to the appropriate public entity licensed and permitted to operate such system(s) within this jurisdictional area. This Application and requested information is being submitted with this intention.

Part B: Recognition and Acceptance of Warranties

The Owner/Developer of this water/wastewater system does hereby recognize and accept the responsibility for correcting any and all system defects that may occur or be found during the operation of the system by the JWSC for a period of two (2) years from the written date of acceptance by the governmental body to which the system is dedicated. This warranty covers materials and workmanship items, as well as those components of the infrastructure damaged by other utilities and/or contractors who may cause damage to the water/wastewater system as herein accepted, excepting such defects caused or resulting from the sole negligence of the JWSC.

Part C: Confirmation of Compliance of Water/Wastewater Documentation

The Owner/Developer of this water/wastewater system does hereby warrant that the Record Drawings and all appropriate utility easements and/or deeds have been provided to the JWSC.

Part D: Fair Value (Cost Basis) of Dedicated System (To be completed by Engineer)

The Fair Value (Cost Basis) of the installed water system, which is approximately _____ linear feet as constructed, is estimated to be \$ _____

The Fair Value (Cost Basis) of the installed sanitary sewer system, which is approximately 2,395 linear feet, is estimated to be \$ 70,000

The Fair Value (Cost Basis) of the installed wastewater lift station, which design capacity is _____ gallons per minute _____ feet Total Dynamic Head, is estimated to be \$ _____

The Fair Value (Cost Basis) of the installed potable water well, which design capacity is _____ gallons per minute _____ feet Total Dynamic Head, is estimated to be \$ _____

Engineer's Certification

The information cited in Part "D" of this application is based on my professional evaluation of the costs of materials and installation of the water/wastewater system(s) as constructed in accordance with the approved standards and specifications for this project; and I do hereby certify, to the best of my knowledge and belief, that these amounts as provided are an accurate representation of this systems Fair Value on a Cost Basis as of the date of this Application.

Engineer: Johnathan Roberts

GA P.E. Registration #034205



Part E: Owner/Developer Certification

I/We, Palmetto Building Group, do hereby certify that all application
Owner/Developer
information herein provided on the aforementioned water/wastewater development project is true and accurate to the best of my/our knowledge and belief.

IN WITNESS WHEREOF, the hand and seal of the Owner/Developer has hereunto been set this 6th day of
2021

[INSERT NAME OF GRANTOR]

By: Vassa Cate DocuSigned by:
Vassa Cate
95E8C0B3EF2D437...
Its: Manager

ATTEST:

By: _____
Its: _____

(CORPORATE SEAL)

Unofficial Witness

Signed, sealed and delivered on this
_____ day of _____ 20____
and in the presence of:

NOTARY PUBLIC
My Commission Expires: _____

ACCEPTED BY BRUNSWICK GLYNN JOINT WATER & SEWER COMMISSION

Date Accepted (Commission Meeting):	
Printed Name of Chairman:	
Signature of Chairman:	Date Signed (mm/dd/yyyy):



Brunswick-Glynn

Joint Water and Sewer Commission

Memorandum

To: Facilities Committee
From: Todd Kline, P.E., Director of Engineering
Date: Wednesday, 15 December 2021
Re: Dedication of Infrastructure – Surfside Kids Pediatric Dentistry, 4850 Altama Avenue Brunswick

Background

The Brunswick Glynn Joint Water & Sewer Commission (JWSC) Standards for Water & Sewer Design and Development Procedures support the acceptance of privately constructed water and wastewater systems as public infrastructure, when specified conditions are met. Owner of Record has installed 50 feet of 6-inch and 42 feet of 2-inch water main; and, 52 feet of sewer main to service a 6,000 square foot single-story pediatric dentist practice.

Staff Report

The Owner of Record (Dr. Adam Hagan) for the infrastructure described within has submitted legal documents to define and execute the transfer of ownership. The infrastructure is understood to have complied with applicable standards at the time of construction. JWSC Operations inspection records indicate the infrastructure is functioning and in acceptable condition.

Recommended Action

All requirements of the BGJWSC Standards for Water & Sewer Design and Construction and Development Procedures have been met, and all related documents submitted. Staff recommends the acceptance of the above described sewer infrastructure for JWSC ownership, operation and maintenance.

Recommended Motion

“I make a motion that the Facilities Committee forward the above described dedication to the full Commission for approval and acceptance.”

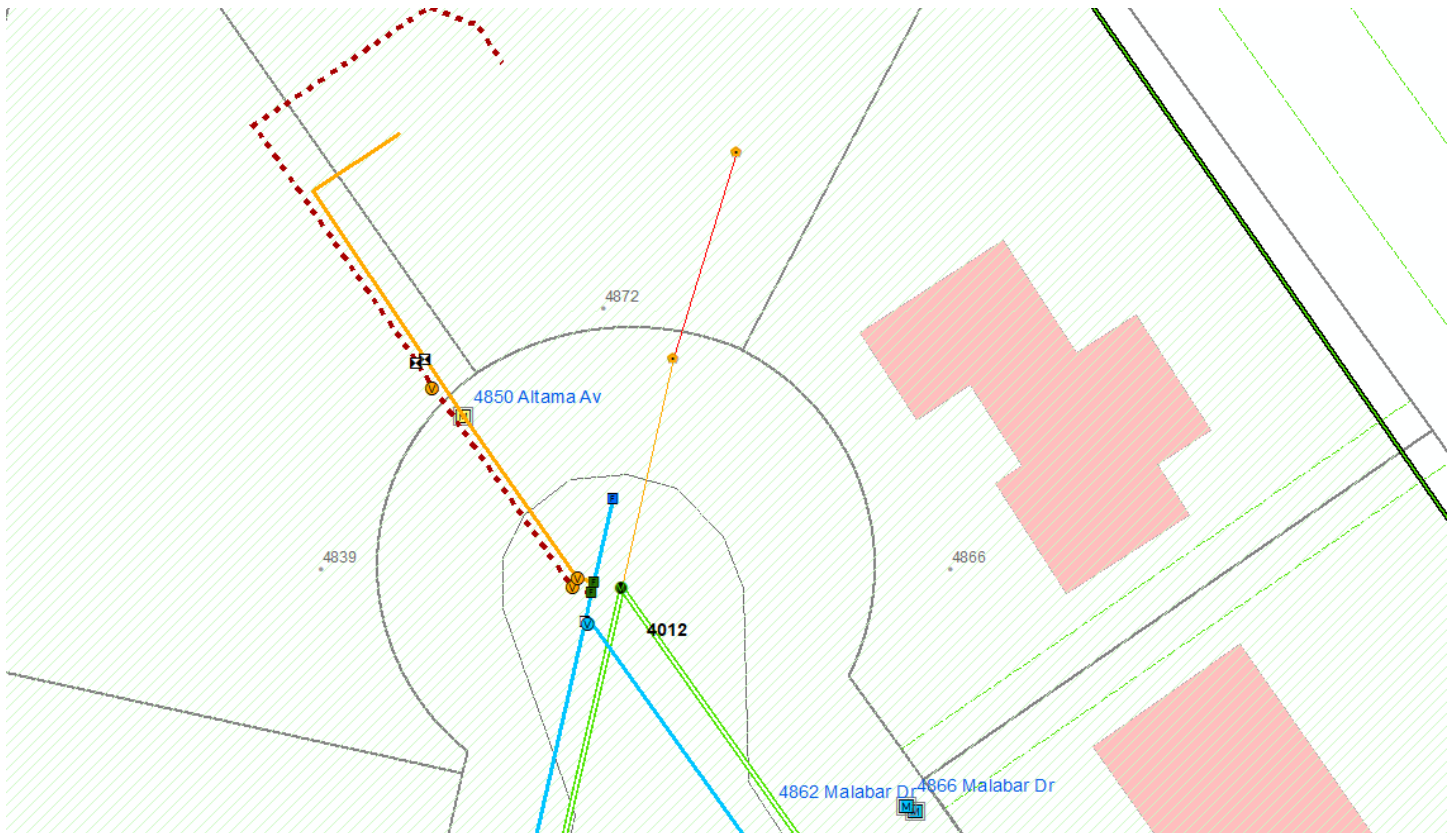
Enclosures

Location Map
Final Record Drawing
Infrastructure Dedication Application – **Requires BOC Signature**

SURFSIDE KIDS PEDIATRIC DENTISTRY LOCATION MAP

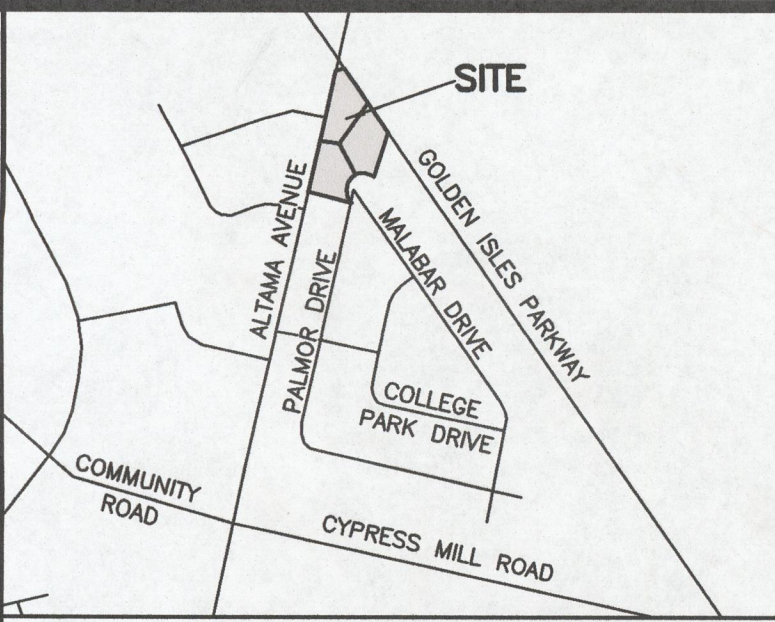
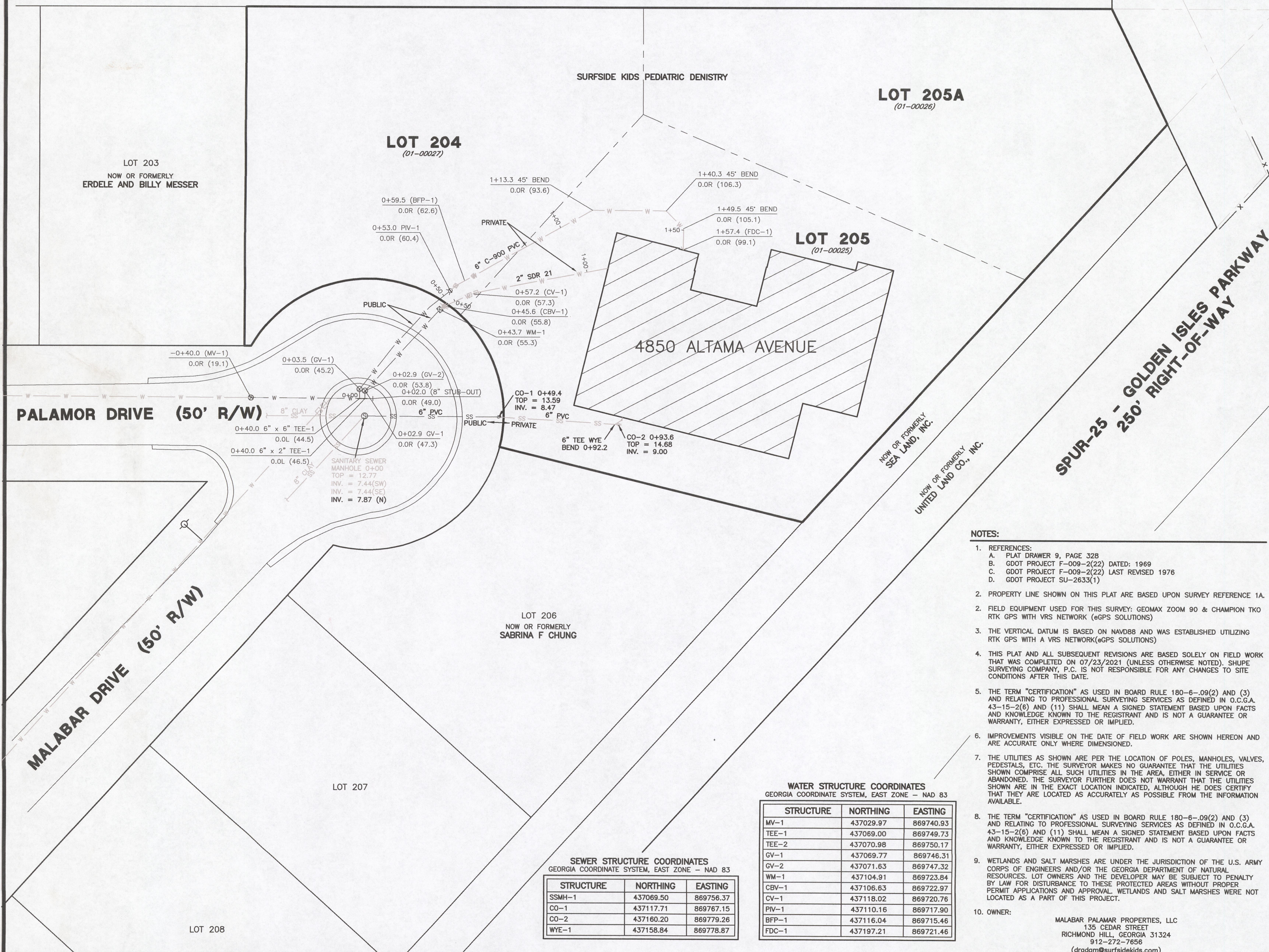


SURFSIDE KIDS PEDIATRIC DENTISTRY GIS MAP – TO BE UPDATED FOLLOWING BOC ACCEPTANCE



RECORD DRAWING, WATER & SEWER SYSTEMS (PUBLIC & PRIVATE)

ALTAMA AVENUE - 120' RIGHT-OF-WAY



VICINITY MAP (NOT TO SCALE)

THIS DOCUMENT AND ALL REPRODUCIBLE COPIES OF THIS DOCUMENT ARE THE PROPERTY OF SHUPE SURVEYING COMPANY, P.C. REPRODUCTION OF THIS DOCUMENT IS NOT PERMITTED WITHOUT WRITTEN CONSENT OF SHUPE SURVEYING COMPANY, P.C. UNLESS THIS DOCUMENT BECOMES A MATTER OF PUBLIC RECORD. ALTERATIONS TO THIS DOCUMENT ARE NOT PERMITTED.

WATER LEGEND	
⊙	WATER MAIN VALVE (MV)
⊕	CURB BALL VALVE (CBV)
⌵	FIRE DEPARTMENT CONNECTION (FDC)
⌵	POST INDICATOR VALVE (PIV)
⊕	BACK FLOW PREVENTER (BFP)
⊕	CHECK VALVE (CV)
— W —	WATER LINE
— W —	EXISTING WATER LINE
— W —	WATER SERVICE (WM)
⊙	STATION
0+96.2	34.2 R (2.8)
—	DISTANCE TO NEAREST PROPERTY CORNER
—	OFFSET

SEWER LEGEND	
(4850)	PROPERTY ADDRESS
(01-00027)	PARCEL ID NUMBER
—	SEWER CLEAN-OUT
⊙	SEWER MANHOLE
— SS —	SANITARY SEWER LINE
— SS —	EXISTING SANITARY SEWER LINE
—	SEWER CLEAN-OUT (CO)
⊙	STATION
0+96.2	34.2 R (2.8)
—	DISTANCE TO NEAREST PROPERTY CORNER
—	OFFSET

RECEIVED
NOV 05 2021
By

SURVEYOR'S STATEMENT:
TO THE BEST OF MY KNOWLEDGE AND BELIEF THE WATER RECORD DRAWINGS SHOWN HEREON HAVE BEEN PREPARED IN CONFORMANCE WITH THE JWSC RECORD DRAWING STANDARDS AND ARE AN ACCURATE REPRESENTATION OF THE FIELD CONDITIONS BASED UPON ABOVE GROUND VISIBLE EVIDENCE OF SYSTEM COMPONENTS, AND THE ENGINEERING, CONTRACTOR AND JWSC INFORMATION PROVIDED.
SURVEYOR'S NAME: CHRISTOPHER M. YOUNG
SURVEYOR'S SIGNATURE: *Christopher M. Young*
SURVEYOR'S GA REGISTERED LAND SURVEYOR NUMBER: 3356
DATE SIGNED: 10/14/21

ENGINEER'S STATEMENT:
THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON CONSTRUCTION, LOCATION, ELEVATION AND TESTING INFORMATION PROVIDED BY THE CONTRACTOR, SURVEYOR AND THE JWSC. THIS INFORMATION HAS BEEN REVIEWED BY THE ENGINEER OF RECORD, AS CITED BELOW, AND TO THE BEST OF HIS/HER KNOWLEDGE AND BELIEF THESE RECORD DRAWINGS ARE CONSISTENT WITH THE DESIGN INTENT OF THE APPROVED SITE DEVELOPMENT PLANS AND ANY APPROVED MODIFICATIONS OR CHANGES.
ENGINEER'S NAME: Roberts Civil Engineering
ENGINEER'S SIGNATURE: *Johnathan Roberts*
GA PROFESSIONAL ENGINEER REGISTRATION NUMBER: 034205
DATE SIGNED: 11/04/2021

CONTRACTOR'S STATEMENT:
THE WATER SYSTEM, AS SHOWN ON THESE RECORD DRAWINGS, HAVE BEEN CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THE STANDARDS AND SPECIFICATIONS FOR THIS PROJECT AND IN CONSIDERATION OF THE TWO (2) YEAR WORKMANSHIP AND MATERIALS WARRANTY, ANY SIGNIFICANT DEVIATIONS FROM THE MATERIALS SPECIFIED OR WORKMANSHIP STANDARDS REQUIRED HAVE BEEN APPROVED BY THE ENGINEER AND THE JWSC PRIOR TO INSTALLATION. THIS INFORMATION HAS BEEN REVIEWED BY A PRINCIPAL OF THE COMPANY OR AN EXECUTIVE OFFICER, AS CITED BELOW, AND TO THE BEST OF HIS/HER KNOWLEDGE AND BELIEF THESE RECORD DRAWINGS ARE ACCURATE AND COMPLETE.
COMPANY NAME: Overholt Construction Inc.
PRINCIPAL/OFFICER'S NAME: *Jonathan Overholt*
PRINCIPAL/OFFICER'S SIGNATURE: *Jonathan Overholt*
DATE SIGNED: 11-4-21

JWSC'S STATEMENT:
THESE RECORD DRAWINGS HAVE BEEN PREPARED AND CONFIRMED BASED ON PERIODIC FIELD OBSERVATIONS DURING CONSTRUCTION, FIELD TESTING, CCTV AND PHYSICAL INSPECTIONS OF SYSTEM COMPONENTS BY JWSC STAFF. THIS INFORMATION HAS BEEN REVIEWED BY JWSC SUPERINTENDENTS AND CONSTRUCTION INSPECTION STAFF, AS CITED BELOW, AND TO THE BEST OF THEIR KNOWLEDGE AND BELIEF THESE RECORD DRAWINGS ARE ACCURATE AND COMPLETE IN ACCORDANCE WITH ADOPTED JWSC RECORD DRAWING STANDARDS AND SPECIFICATIONS.
WATER DISTRIBUTION SUPERINTENDENT'S NAME: *Reggie Simmons*
WATER DISTRIBUTION SUPERINTENDENT'S SIGNATURE: *Reggie Simmons*
DATE SIGNED: 11-10-2021
WASTEWATER COLLECTION SUPERINTENDENT'S NAME: *Felix White*
WASTEWATER COLLECTION SUPERINTENDENT'S SIGNATURE: *Felix White*
DATE SIGNED: 11/8/2021
PROJECT INSPECTOR'S NAME: *Nico Flores*
PROJECT INSPECTOR'S SIGNATURE: *Nico Flores*
DATE SIGNED: 11/9/2021

- NOTES:**
- REFERENCES:
A. PLAT DRAWER 9, PAGE 328
B. GDOT PROJECT F-009-2(22) DATED: 1969
C. GDOT PROJECT F-009-2(22) LAST REVISED 1976
D. GDOT PROJECT SU-2633(1)
 - PROPERTY LINE SHOWN ON THIS PLAT ARE BASED UPON SURVEY REFERENCE 1A.
 - FIELD EQUIPMENT USED FOR THIS SURVEY: GEOMAX ZOOM 90 & CHAMPION TKO RTK GPS WITH VRS NETWORK (eGPS SOLUTIONS)
 - THE VERTICAL DATUM IS BASED ON NAVD88 AND WAS ESTABLISHED UTILIZING RTK GPS WITH A VRS NETWORK (eGPS SOLUTIONS)
 - THIS PLAT AND ALL SUBSEQUENT REVISIONS ARE BASED SOLELY ON FIELD WORK THAT WAS COMPLETED ON 07/23/2021 (UNLESS OTHERWISE NOTED). SHUPE SURVEYING COMPANY, P.C. IS NOT RESPONSIBLE FOR ANY CHANGES TO SITE CONDITIONS AFTER THIS DATE.
 - THE TERM "CERTIFICATION" AS USED IN BOARD RULE 180-6-.09(2) AND (3) AND RELATING TO PROFESSIONAL SURVEYING SERVICES AS DEFINED IN O.C.G.A. 43-15-2(6) AND (11) SHALL MEAN A SIGNED STATEMENT BASED UPON FACTS AND KNOWLEDGE KNOWN TO THE REGISTRANT AND IS NOT A GUARANTEE OR WARRANTY, EITHER EXPRESSED OR IMPLIED.
 - IMPROVEMENTS VISIBLE ON THE DATE OF FIELD WORK ARE SHOWN HEREON AND ARE ACCURATE ONLY WHERE DIMENSIONED.
 - THE UTILITIES AS SHOWN ARE PER THE LOCATION OF POLES, MANHOLES, VALVES, PEDESTALS, ETC. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE.
 - THE TERM "CERTIFICATION" AS USED IN BOARD RULE 180-6-.09(2) AND (3) AND RELATING TO PROFESSIONAL SURVEYING SERVICES AS DEFINED IN O.C.G.A. 43-15-2(6) AND (11) SHALL MEAN A SIGNED STATEMENT BASED UPON FACTS AND KNOWLEDGE KNOWN TO THE REGISTRANT AND IS NOT A GUARANTEE OR WARRANTY, EITHER EXPRESSED OR IMPLIED.
 - WETLANDS AND SALT MARSHES ARE UNDER THE JURISDICTION OF THE U.S. ARMY CORPS OF ENGINEERS AND/OR THE GEORGIA DEPARTMENT OF NATURAL RESOURCES. LOT OWNERS AND THE DEVELOPER MAY BE SUBJECT TO PENALTY BY LAW FOR DISTURBANCE TO THESE PROTECTED AREAS WITHOUT PROPER PERMIT APPLICATIONS AND APPROVAL. WETLANDS AND SALT MARSHES WERE NOT LOCATED AS A PART OF THIS PROJECT.
 - OWNER: MALABAR PALAMAR PROPERTIES, LLC
135 CEDAR STREET
RICHMOND HILL, GEORGIA 31324
912-272-7656
(dradon@surfsidekids.com)

WATER STRUCTURE COORDINATES
GEORGIA COORDINATE SYSTEM, EAST ZONE - NAD 83

STRUCTURE	NORTHING	EASTING
MV-1	437029.97	869740.93
TEE-1	437069.00	869749.73
TEE-2	437070.98	869750.17
GV-1	437069.77	869746.31
GV-2	437071.63	869747.32
WM-1	437104.91	869723.84
CBV-1	437106.63	869722.97
CV-1	437118.02	869720.76
PIV-1	437110.16	869717.90
BFP-1	437116.04	869715.46
FDC-1	437197.21	869721.46

SEWER STRUCTURE COORDINATES
GEORGIA COORDINATE SYSTEM, EAST ZONE - NAD 83

STRUCTURE	NORTHING	EASTING
SSMH-1	437069.50	869756.37
CO-1	437117.71	869767.15
CO-2	437160.20	869779.26
WYE-1	437158.84	869778.87

GEORGIA REGISTERED PROFESSIONAL SURVEYOR
No. 3356
CHRISTOPHER M. YOUNG
(cyoung@shupesurvey.com)

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By

RECORD DRAWING,
WATER & SEWER SYSTEMS FOR:
LOTS 204, 205, & 205A
COLLEGE PARK
SECTION 2
26TH G.M.D., BRUNSWICK
GLYNN COUNTY, GEORGIA
PREPARED FOR:
SURFSIDE KIDS PEDIATRIC DENISTRY

SHUPE SURVEYING COMPANY, P.C.
3837 DARIEN HIGHWAY
BRUNSWICK, GA 31525
912-265-0562
CERTIFICATE OF AUTHORIZATION: LSP317

20' 0' 20' 40'
SCALE 1" = 20'
FILE 19384
DRAWING 19384B.DWG
PLAT DATE 10/14/2021
DRAWN BY JCH
CREW CHIEF RG



Application for Dedication of Water/Wastewater Systems

Part A: Statement of Intention

Having completed the installation of the water/wastewater system for the property tract or

Sub-division heretofore known as Surfside Kids Pediatric Dentistry; the current

Owner(s) of the system, being Surfside Kids Pediatric Dentistry, located

at 135 Cedar Street, Richmond Hill, GA 31324, is desirous of dedicating the constructed

utility system(s) for ownership, operation and maintenance to the appropriate public entity licensed and permitted to operate such system(s) within this jurisdictional area. This Application and requested information is being submitted with this intention.

Part B: Recognition and Acceptance of Warranties

The Owner/Developer of this water/wastewater system does hereby recognize and accept the responsibility for correcting any and all system defects that may occur or be found during the operation of the system by the JWSC for a period of two (2) years from the written date of acceptance by the governmental body to which the system is dedicated. This warranty covers materials and workmanship items, as well as those components of the infrastructure damaged by other utilities and/or contractors who may cause damage to the water/wastewater system as herein accepted, excepting such defects caused or resulting from the sole negligence of the JWSC.

Part C: Confirmation of Compliance of Water/Wastewater Documentation

The Owner/Developer of this water/wastewater system does hereby warrant that the Record Drawings and all appropriate utility easements and/or deeds have been provided to the JWSC.

Part D: Fair Value (Cost Basis) of Dedicated System (To be completed by Engineer)

The Fair Value (Cost Basis) of the installed **water system**, which is approximately 92 feet as constructed, is estimated to be \$ 6,990.

The Fair Value (Cost Basis) of the installed **sanitary sewer system**, which is approximately 52 linear feet, is estimated to be \$ 3,120.

The Fair Value (Cost Basis) of the installed **wastewater lift station**, which design capacity is _____ gallons per minute @ _____ feet Total Dynamic Head, is estimated to be \$ _____.

The Fair Value (Cost Basis) of the installed **potable water well**, which design capacity is _____ gallons per minute @ _____ feet Total Dynamic Head, is estimated to be \$ _____.

Engineer's Certification


The information cited in Part "D" of this application is based on my professional evaluation of the costs of materials and installation of the water/wastewater system(s) as constructed in accordance with the approved standards and specifications for this project; and I do hereby certify, to the best of my knowledge and belief, that these amounts as provided are an accurate representation of this systems Fair Value on a Cost Basis as of the date of this Application.

Engineer Printed Name: <u>Johnathan Roberts</u>	Georgia P.E. Registration # : <u>034205</u>
Engineer Signature: _____	Date (mm/dd/yyyy): <u>9/01/2021</u>

(INSERT ENGINEER SEAL)

**Part E: Owner/Developer Certification**

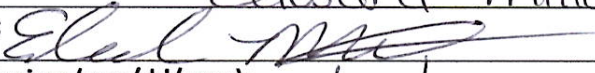
I/We, LDY HAGAN, do hereby certify that all application information herein provided on the aforementioned water/wastewater development project is true and accurate to the best of my/our knowledge and belief.

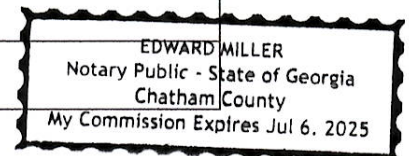
Printed Name of Grantor (Company, LLC, Inc.): <u>MALOBAR PALOMAR PROPERTIES LLC</u>	
Printed Name of Grantor Representative: <u>LDY HAGAN</u>	
Title of Grantor: <u>OWNER</u>	
Signature of Grantor: 	Date Signed(mm/dd/yyyy): <u>09/07/2021</u>

Only if this is a Corporation, include name of someone to Attest and insert the Corporate Seal
Otherwise skip to Notary

Printed Name of Attestor:	
Title of Attestor:	
Signature of Attestor:	Date Signed (mm/dd/yyyy):

(CORPORATE SEAL HERE)**All Applications must be Notarized**

Date signed, sealed and delivered (mm/dd/yyyy): <u>09/16/2021</u>
In the presence of (printed Name of Notary): <u>Edward Miller</u>
Signature of Notary Public: 
Date Notary Commission Expires (mm/dd/yyyy): <u>07/06/2025</u>



ACCEPTED BY BRUNSWICK GLYNN JOINT WATER & SEWER COMMISSION

Date Accepted (Commission Meeting):	
Printed Name of Chairman:	
Signature of Chairman:	Date Signed (mm/dd/yyyy):



Brunswick-Glynn

Joint Water and Sewer Commission

Memorandum

To: Facilities Committee
From: Andrew Burroughs, P.E., Executive Director
Date: Wednesday, December 15, 2021
Re: APPROVAL – USGS Joint Funding Agreement

Background

For the past several years, the JWSC has entered into a Joint Funding Agreement with the U.S. Geological Survey (USGS) for groundwater monitoring of the Upper Floridan aquifer to monitor the migration of chlorides throughout the aquifer. This is key in long-term planning for drinking water wells as growth continues in Glynn County and the plumes location relative to the Brunswick Villa well actively used by the JWSC. The impacts of saltwater intrusion have caused JWSC to close the Perry Park well as a drinking water source.

Staff Report

Funding for continued groundwater monitoring allows for further understanding of the saltwater plume's movement throughout the Upper Floridan aquifer. This is vital to project the long-term changes to groundwater quality throughout our production wells. This year's agreement includes a new monitoring site at the recently commissioned Ridgewood Water Production Facility. In recent years, there has been a change in funding available for this study as the Joint Funding Agreement allows for a match of USGS funds with JWSC funds, and any other funds received by USGS.

<u>Year</u>	<u>JWSC Contribution</u>
2014	\$64,523
2015	\$134,217
2016	\$118,720
2017	\$121,290
2018	\$77,400
2019	\$60,000
2020	\$60,000
2021	\$65,700
2022 (Proposed)	\$70,100*

Funding

Funding for this agreement is budgeted in the Office of the Director's Technical Services budget as approved by the Commission.

Recommended Action

Staff recommends entering into the Joint Funding Agreement with USGS in the amount of \$70,100.

Recommended Motion

"I move that the Facilities Committee recommend the full Commission enter into a Joint Funding Agreement with USGS in the amount of \$70,100 for the continuation of groundwater monitoring in the Upper Floridan aquifer."

Enclosures

Joint Funding Agreement



United States Department of the Interior

U.S. GEOLOGICAL SURVEY
South Atlantic Water Science Center
1770 Corporate Drive, Suite 500
Norcross, Georgia 30093
<http://www.usgs.gov/water/southatlantic>

November 18, 2021

Andrew Burroughs, P.E.
Executive Director
Brunswick/Glynn County Joint Water and Sewer Commission
1703 Gloucester St.
Brunswick, GA 31520

Dear Mr. Burroughs,

Enclosed are two signed originals of our standard joint-funding agreement for the project(s) South Atlantic Water Science Center Water Resources Investigations, during the period January 1, 2022 through December 31, 2022 in the amount of \$70,100 from your agency. The U.S. Geological Survey contributions for this agreement is \$64,000 for a combined total of \$134,100. Please sign and return one fully-executed original.

This is a fixed cost agreement to be billed quarterly via Down Payment Request (automated Form DI-1040). Please allow 30-days from the end of the billing period for issuance of the bill. If you experience any problems with your invoice(s), please contact Crystal Stallworth at phone number (678) 924-6691 or email at castallw@usgs.gov.

The results of all work performed under this agreement will be available for publication by the U.S. Geological Survey. We look forward to continuing this and future cooperative efforts in these mutually beneficial water resources studies.

Sincerely,

Victor Engel

Victor Engel
Director

Form 9-1366
(May 2018)

U.S. Department of the Interior
U.S. Geological Survey
Joint Funding Agreement
FOR
Water Resource Investigations

Customer #: 6000001473
Agreement #: 22MPJFAG0000061
Project #: MP00
TIN #: 58-6000525

Fixed Cost Agreement YES[X] NO[]

THIS AGREEMENT is entered into as of the January 1, 2022, by the U.S. GEOLOGICAL SURVEY, South Atlantic Water Science Center, UNITED STATES DEPARTMENT OF THE INTERIOR, party of the first part, and the Brunswick/Glynn County Joint Water and Sewer Commission party of the second part.

1. The parties hereto agree that subject to the availability of appropriations and in accordance with their respective authorities there shall be maintained in cooperation Water Resource Investigations (per attachment), herein called the program. The USGS legal authority is 43 USC 36C; 43 USC 50, and 43 USC 50b.

2. The following amounts shall be contributed to cover all of the cost of the necessary field and analytical work directly related to this program. 2(b) include In-Kind-Services in the amount of \$0.00

- (a) \$64,000 by the party of the first part during the period
January 1, 2022 to December 31, 2022
- (b) \$70,100 by the party of the second part during the period
January 1, 2022 to December 31, 2022
- (c) Contributions are provided by the party of the first part through other USGS regional or national programs,
in the amount of: \$0

Description of the USGS regional/national program: 12 Month Agreement

- (d) Additional or reduced amounts by each party during the above period or succeeding periods as may be
determined by mutual agreement and set forth in an exchange of letters between the parties.
- (e) The performance period may be changed by mutual agreement and set forth in an exchange of letters
between the parties.

3. The costs of this program may be paid by either party in conformity with the laws and regulations respectively governing each party.

4. The field and analytical work pertaining to this program shall be under the direction of or subject to periodic review by an authorized representative of the party of the first part.

5. The areas to be included in the program shall be determined by mutual agreement between the parties hereto or their authorized representatives. The methods employed in the field and office shall be those adopted by the party of the first part to insure the required standards of accuracy subject to modification by mutual agreement.

6. During the course of this program, all field and analytical work of either party pertaining to this program shall be open to the inspection of the other party, and if the work is not being carried on in a mutually satisfactory manner, either party may terminate this agreement upon 60 days written notice to the other party.

7. The original records resulting from this program will be deposited in the office of origin of those records. Upon request, copies of the original records will be provided to the office of the other party.

8. The maps, records or reports resulting from this program shall be made available to the public as promptly as possible. The maps, records or reports normally will be published by the party of the first part. However, the party of the second part reserves the right to publish the results of this program, and if already published by the party of the first part shall, upon request, be furnished by the party of the first part, at cost, impressions suitable for purposes of reproduction similar to that for which the original copy was prepared. The maps, records or reports published by either party shall contain a statement of the cooperative relations between the parties. The Parties acknowledge that scientific information and data developed as a result of the Scope of Work (SOW) are subject to applicable USGS review, approval, and release requirements, which are available on the USGS Fundamental Science Practices website (<https://www2.usgs.gov/fsp/>).

Form 9-1366
(May 2018)

U.S. Department of the Interior
U.S. Geological Survey
Joint Funding Agreement
FOR
Water Resource Investigations

Customer #: 6000001473
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9. Billing for this agreement will be rendered quarterly. Invoices not paid within 60 days from the billing date will bear Interest, Penalties, and Administrative cost at the annual rate pursuant the Debt Collection Act of 1982, (codified at 31 U.S.C. § 3717) established by the U.S. Treasury.

USGS Technical Point of Contact

Name: Gregory Cherry
Hydrologist
Address: 1770 Corporate Drive Suite 500
Norcross, GA 30093
Telephone: (678) 924-6632
Fax: (678) 924-6710
Email: gccherry@usgs.gov

Customer Technical Point of Contact

Name: Andrew Burroughs
Executive Director
Address: 1703 Gloucester St.
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Telephone: (912) 261-7108
Fax:
Email: aburroughs@bgjwsc.org

USGS Billing Point of Contact

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U.S. Geological Survey
United States
Department of Interior

Brunswick/Glynn County Joint Water and Sewer
Commission

Signature

VICTOR
ENGEL

By _____ Date: _____

Name: Victor Engel

Title: Director

Digitally signed by VICTOR ENGEL
Date: 2021.12.01 11:11:28 -0500

Signatures

By _____ Date: _____

Name:

Title:

By _____ Date: _____

Name:

Title:

By _____ Date: _____

Name:

Title:

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(May 2018)

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U.S. Geological Survey
United States
Department of Interior

Brunswick/Glynn County Joint Water and Sewer
Commission

Signature

VICTOR
ENGEL

By _____ Date: _____

Name: Victor Engel
Title: Director

Digitally signed by VICTOR ENGEL
Date: 2021.12.01 11:12:00 -0500

Signatures

By _____ Date: _____

Name:
Title:

By _____ Date: _____

Name:
Title:

By _____ Date: _____

Name:
Title:



USGS/Brunswick–Glynn County Cooperative Water Program–Calendar Year 2022

Submitted to

Brunswick–Glynn County Joint Water & Sewer Commission

Prepared by

**Gregory S. Cherry
U.S. Geological Survey
South Atlantic Water Science Center
1770 Corporate Drive, Suite 500
Norcross, GA 30093
678-924-6632**

November 18, 2021

Introduction

In the Brunswick–Glynn County, Georgia area (Figure 1), saltwater has been entering the Upper Floridan aquifer (UFA) for more than 60 years (Wait, 1965). As of 2016, within a 2-square-mile (mi²) area in downtown Brunswick, the aquifer yielded water with a chloride concentration greater than 2,000 milligrams per liter (mg/L), which is greater than the State and Federal secondary maximum contaminant level of 250 mg/L (SMCL; Georgia Environmental Protection Division, 1997; U.S. Environmental Protection Agency, 2000). Data obtained in 1978 from a 2,720-foot-deep test well (TW-26) drilled southwest of the city suggest the source of saltwater was located below the UFA in the Fernandina permeable zone (FPZ) of the Lower Floridan aquifer (LFA; Jones and others, 2002). This deeper interval of the Floridan aquifer system (FAS) is referred to as the Oldsmar permeable zone (Williams and Kuniansky, 2015). Saltwater contamination has limited further development of the UFA in the Brunswick area, prompting interest in the development of alternative sources of water supply, primarily from the shallower surficial and Brunswick aquifer systems. Monitoring groundwater conditions, defining the occurrence of saltwater contamination, and assessing alternative water sources is important for proper management of water resources in the Brunswick–Glynn County area.

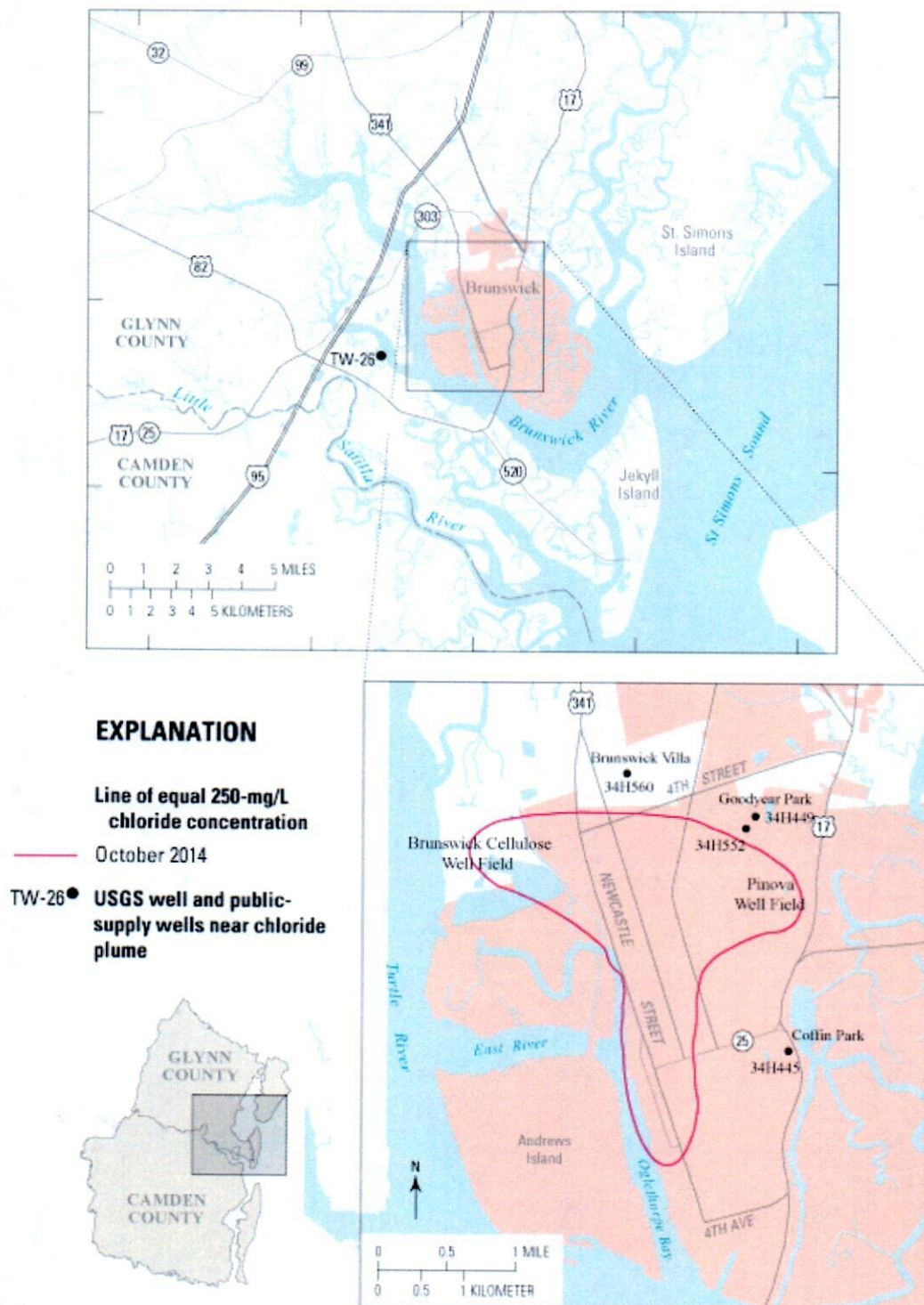


Figure 1. Location of 250-milligram-per liter (mg/L) chloride concentration isochlor for October 2014 and real-time monitoring wells near Brunswick, Georgia (modified from Cherry, 2015).

Problem

Earlier delineation of the chloride plume area by Gregg and Zimmerman (1974) at Brunswick, in Glynn County, Ga., indicated the area with high chloride concentrations is controlled by the permeability of the UFA, local pumping rates by industry and public-supply providers, and horizontal and vertical hydraulic head gradients in the Floridan aquifer system (FAS). Groundwater use in the UFA peaked during 1980 at 88 million gallons per day (Mgal/d). Water conservation measures have since been implemented to reduce pumping rates to 40 Mgal/d during 2015 (Painter, 2019). Areas with high chloride concentrations first appeared in the southern portion of the plume area during the early-1960s and in several decades had migrated north toward two industrial well fields (Cherry and Peck, 2017). The movement and extent of the chloride plume has forced the closure of several wells and three active public-supply wells are located less than a mile from the line of equal 250 mg/L chloride concentration (Figure 1).

Objectives

The objectives of the proposed saltwater intrusion study near Brunswick, Ga., are to (1) assess chloride movement in the Floridan aquifer system since November 2019 and October 2020, (2) measure groundwater levels and determine groundwater-flow directions, and (3) investigate possible movement of the chloride plume in the upper-water bearing zone of the Upper Floridan aquifer.

To meet these objectives, we will conduct the following tasks:

- *Continue maintenance and data collection from a 10-well(1) continuous recorder network (including real-time water-level measurements at Perry Park and real-time specific conductance at Brunswick Villa, Hospital, and Goodyear Park wells).*
- *Collect chloride samples at selected wells (approximately 45 to 55 sites) and use chloride concentrations to delineate the configuration of the plume using ArcGIS.*
- *Measure water levels at selected wells (approximately 43 to 53 sites²) to construct a potentiometric-surface map of the Upper Floridan aquifer in Glynn County area.*

Relevance and Benefits

The continued monitoring of chloride concentrations from groundwater wells in the FAS since the 1960's enables trend analysis and helps to identify high-chloride source areas in the LFA, which is necessary for informed water management of the UFA. The U.S. Geological Survey (USGS) has led the field in defining hydrogeologic framework of aquifers and related environmental factors, all of which affect the movement of groundwater and its quality (U.S. Geological Survey, 2007). Management of water resources for multiple purposes will be improved by an increased understanding of processes that affect water movement, storage, quality, and use through a combination of new tools, concepts, and discoveries (Evenson and others, 2013). The proposed study also supports GaEPD's initiative to decrease water consumption and find alternative water resources to the UFA. The collection of

¹ The continuous recorder network has recently been restored from 5 wells to 10 wells to improve the accuracy of estimates of the extent of the chloride plume and delineation of groundwater near downtown Brunswick.

² Seven additional UFA wells will be sampled on Jekyll Island contingent upon a signed 2022 funding agreement with Jekyll Island Authority.

groundwater and hydrogeologic data, and ongoing development and maintenance of groundwater-flow models supports the USGS Water Strategy Goal 1, Objective 3 “Assessment of water resources and their suitability to meet human and ecosystem needs”; Goal 3, Objective 1 “Development and application of models to predict potential effects of changes in population, land use, climate, and management practices upon future water availability considering human and ecological needs”; and Goal 4, Objective 4 “Providing tools that allow managers to detect and respond to emergencies related to water-quality degradation of all kinds—natural, accidental, and intentional”.

Approach

Data collection will include continued maintenance and operation of 10 continuous groundwater monitoring wells open to the upper Brunswick aquifer, UFA, and LFA. Three of these wells (34H560, 34H552, and 34H449) are equipped to measure real-time specific conductance data, which is used as a surrogate for chloride concentration, and can help identify potential movement of saltwater into the freshwater zones of the UFA. A correlation between chloride concentration and specific conductance was established from 58 wells sampled during 2008, which will be applied to the real-time specific conductance data as an estimate of chloride concentrations (Cherry and others, 2010, p. 45). Real-time specific conductance probes will be recalibrated and cleaned in the field every two months to ensure the accuracy of the equipment and prevent instrument drift. All water-level measurements collected at individual wells and downloaded from continuous monitoring wells will be input into the USGS National Water Information System (NWIS; <http://waterdata.usgs.gov/ga/nwis/>); all data will be served publicly via NWISWeb. Groundwater-level measurements from the continuous monitoring network provide essential data to evaluate changes in the groundwater resource over time and the effectiveness of groundwater management and protection programs (Taylor and Alley, 2001).

Products

Results from the annual chloride sampling near downtown Brunswick will be documented in a USGS Scientific Investigation Map (SIM). In addition, generated chloride-plume map using ArcGIS kriging techniques and potentiometric-surface maps of the Upper Floridan aquifer will be included in the publication and are subject to peer review and revision in accordance with USGS policy and guidelines for general release of collected data. The final publication will be produced by the USGS Science Publishing Network (SPN) and timeline can extend beyond calendar year 2022 due to unforeseeable workload of the unit.

Timeline

Activity	2022			
	Q1	Q2	Q3	Q4
Data collection from continuous recorder network (10 wells)				
Collect chloride samples and water-level measurements at selected wells				
Meeting to review results				
Maintenance of Brunswick databases and website				
Publication of USGS Scientific Investigations Map (SIM)				

The project duration is 12 months and the proposed timeline assumes a beginning on January 1, 2022 and ending on December 31, 2022. Any delay in the initiation of the project, which cannot start until the Joint Funding Agreement is signed, will result in a corresponding extension of the timeline but no increase in costs.

Personnel

A USGS Hydrologist will serve as project chief on a part-time basis to ensure proper quality control in the analysis of data and preparation of the final publication. Hydrologic Technicians will assist with the maintenance and operation of continuous recorder network.

Project Budget

Task	Cost
Maintenance and operation of groundwater network (10 wells)	\$58,300
Annual chloride sampling and posting data and approved OFR to project website	\$75,800
Total	\$134,100

Funding	Cost
USGS	\$64,000
Brunswick–Glynn County JWSC	\$70,100
Total	\$134,100

References

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<https://doi.org/10.3133/ofr20171010>.)

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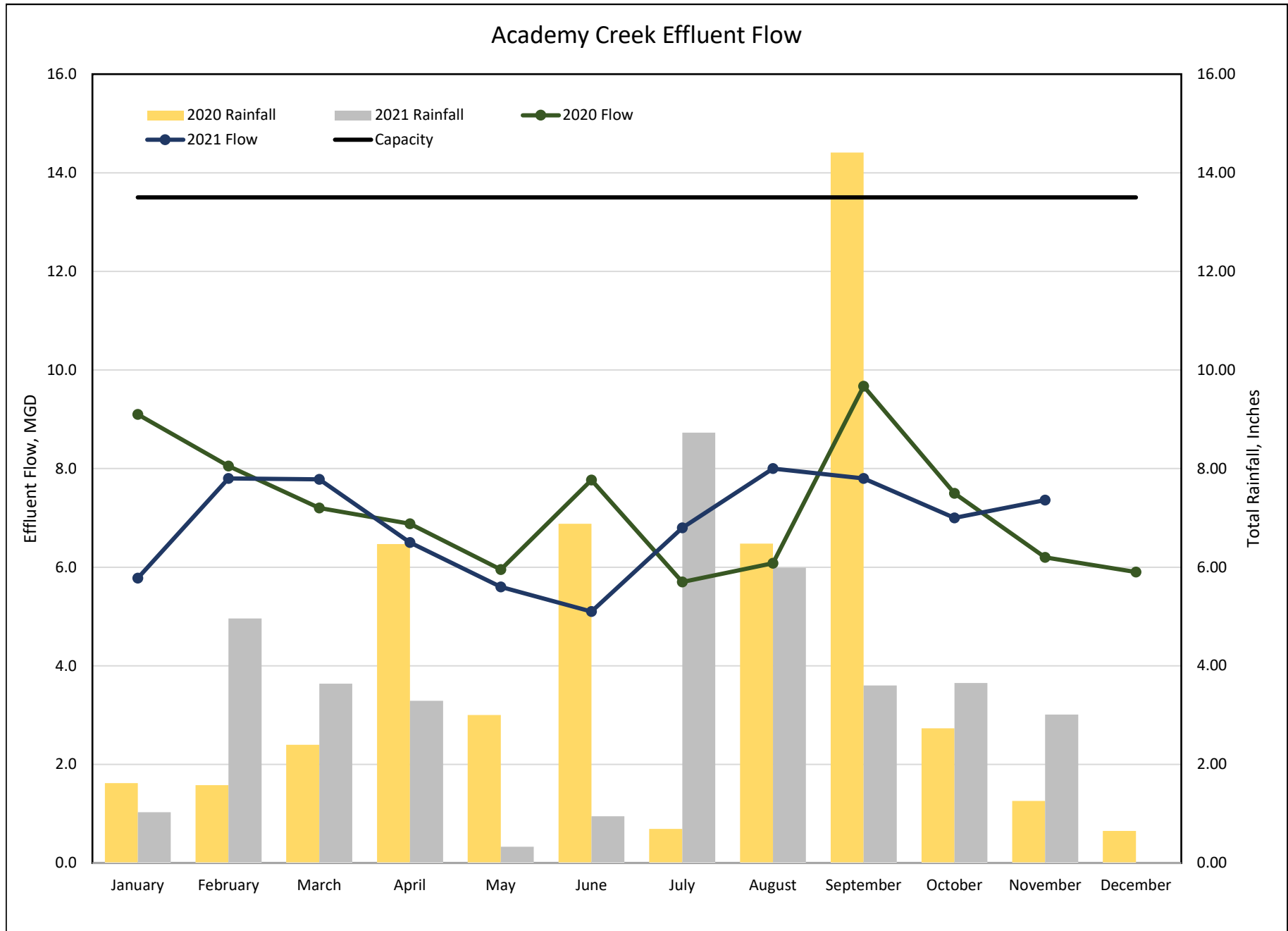
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ACADEMY CREEK WWTP	FLOW (MGD)				Influent Concentrations					Effluent Concentrations								Removal Efficiency		Rainfall		Water Meter Monthly	Sludge Tons to Landfill
	INF	PINOVA	EFF	% Cap.	pH s.u.	BOD mg/L	TSS mg/L	NH3 mg/L	Phos mg/L	pH s.u.	D.O. mg/L	BOD mg/L	TSS mg/L	NH3 mg/L	TRC mg/L	Entero. #/100 mL	Phos. mg/L	BOD %	TSS %	Maximum Inches	Total Inches	MGal	
January 2020	8.1	0.7	9.1	67%	7.6	186	195	14.0	7.2	6.6	6.2	10	13	8.6	0.07	11	1.3	94.62%	93.33%	0.75	1.62	0.725	61.04
February 2020	7.1	0.8	8.1	60%	7.6	207	248	19.3	21.6	6.6	6.5	9	11	11.5	0.10	3	6.0	95.65%	95.56%	0.42	1.58	0.666	126.20
March 2020	7.1	0.7	7.2	53%	7.5	188	195	19.8	16.2	6.6	6.4	8	10	8.4	0.03	13	7.2	95.74%	94.87%	1.20	2.40	0.650	43.54
April 2020	7.1	0.8	6.9	51%	7.4	186	223	18.0	8.6	6.5	6.1	9	15	6.1	0.01	8	1.9	95.16%	93.27%	1.60	6.47	0.626	71.62
May 2020	6.1	0.8	6.0	44%	7.6	232	262	18.1	14.2	6.5	6.1	8	15	5.0	0.01	17	4.0	96.55%	94.27%	1.90	3.00	0.417	59.80
June 2020	7.5	0.8	7.8	58%	7.6	212	240	14.8	10.4	6.6	5.9	7	18	5.3	0.05	107	3.9	96.70%	92.50%	3.20	6.88	0.609	61.42
July 2020	5.5	0.7	5.7	42%	7.4	212	200	23.0	7.2	6.6	5.9	9	20	7.6	0.03	78	4.2	95.75%	90.00%	0.57	0.69	0.597	33.78
August 2020	6.0	0.7	6.1	45%	7.4	192	202	20.9	8.0	6.6	6.0	7	11	9.8	0.08	223	3.7	96.35%	94.55%	1.15	6.48	0.518	20.11
September 2020	9.8	0.8	9.7	72%	7.3	179	172	14.6	12.6	6.6	6.1	18	35	7.9	0.08	217	7.6	89.94%	79.65%	8.70	14.41	0.617	15.99
October 2020	7.8	0.6	7.5	56%	7.4	207	218	13.9	9.9	6.6	6.4	8	8	5.6	0.09	324	2.1	96.14%	96.33%	0.85	2.73	0.605	22.99
November 2020	6.2	0.7	6.2	46%	7.5	278	253	19.0	12.7	6.5	6.3	9	11	5.2	0.08	185	6.8	96.76%	95.65%	0.85	1.26	0.650	31.16
December 2020	5.8	0.7	5.9	44%	7.3	364	344	21.3	13.1	6.7	6.5	6	9	2.8	0.09	3	5.7	98.35%	97.38%	0.60	0.65	0.662	82.64
January 2021	5.7	0.7	5.8	43%	7.5	244	215	20.3	11.9	6.6	6.8	8	11	4.3	0.09	14	5.6	96.72%	94.88%	0.75	1.03	0.643	93.54
February 2021	7.8	1.0	7.8	58%	7.7	247	261	16.8	13.2	6.7	6.8	10	16	4.5	0.10	4	5.3	95.95%	93.87%	1.50	4.96	0.739	108.47
March 2021	7.8	0.8	7.8	58%	7.7	252	299	18.9	11.8	6.8	6.8	11	16	6.9	0.10	10	2.8	95.63%	94.65%	1.80	3.64	1.030	88.57
April 2021	6.4	0.7	6.5	48%	7.7	231	241	20.8	13.4	6.9	6.6	7	9	8.9	0.08	3	4.4	96.97%	96.27%	1.30	3.29	1.329	142.20
May 2021	5.5	0.8	5.6	41%	7.6	251	276	21.7	8.2	6.9	6.6	7	9	7.0	0.03	5	2.9	97.21%	96.74%	0.21	0.33	1.160	112.74
June 2021	5.0	0.8	5.1	38%	7.5	441	516	22.9	15.3	6.7	6.1	8	10	8.1	0.01	11	4.5	98.19%	98.06%	0.90	0.95	1.413	123.10
July 2021	7.6	0.8	6.8	50%	7.6	280	282	19.4	9.8	6.6	6.2	9	11	10.2	0.47	10	3.5	96.79%	96.10%	5.35	8.73	1.026	85.20
August 2021	8.1	0.8	8.0	59%	7.7	176	159	13.7	6.2	6.6	6.6	8	9	7.7	0.09	14	2.1	95.45%	94.34%	2.15	5.99	0.909	114.21
September 2021	7.4	0.8	7.8	58%	7.5	180	233	17.5	9.8	6.9	6.5	7	8	9.0	0.04	30	3.3	96.11%	96.57%	1.25	3.60	1.173	113.80
October 2021	7.0	0.6	7.0	52%	7.5	184	239	21.0	8.0	6.7	6.3	7	8	11.6	0.03	2	1.7	96.20%	96.65%	1.50	3.65	N/A	131.16
November 2021	7.2	0.8	7.4	55%	7.5	174	229	19.3	9.2	6.6	6.5	6	8	7.6	0.10	1	2.5	96.55%	96.51%	2.15	3.01	1.105	131.95
December 2021																							
Average	6.9	0.8	7.0	52%	7.5	230.6	248	18.7	11.24	6.6	6.4	8.5	12.7	7.4	0.08	56	4.0	96.07%	94.44%	1.77	3.80	0.812	81.53
Max	9.8	1.0	9.7	72%	7.7	441.0	516	23.0	21.6	6.9	6.8	18.0	35.0	11.6	0.47	324	7.6	98.35%	98.06%	8.70	14.41	1.413	142.20
Min	5.0	0.6	5.1	38%	7.3	174.0	159	13.7	6.20	6.5	5.9	6.0	8.0	2.8	0.01	1	1.3	89.94%	79.65%	0.21	0.33	0.417	15.99
Permit Limits	N/A	N/A	13.5	N/A	N/A	N/A	N/A	N/A	N/A	6.0-9.0	2.0	20.0	30.0	17.4	0.14	35	Report	85.00%	85.00%				

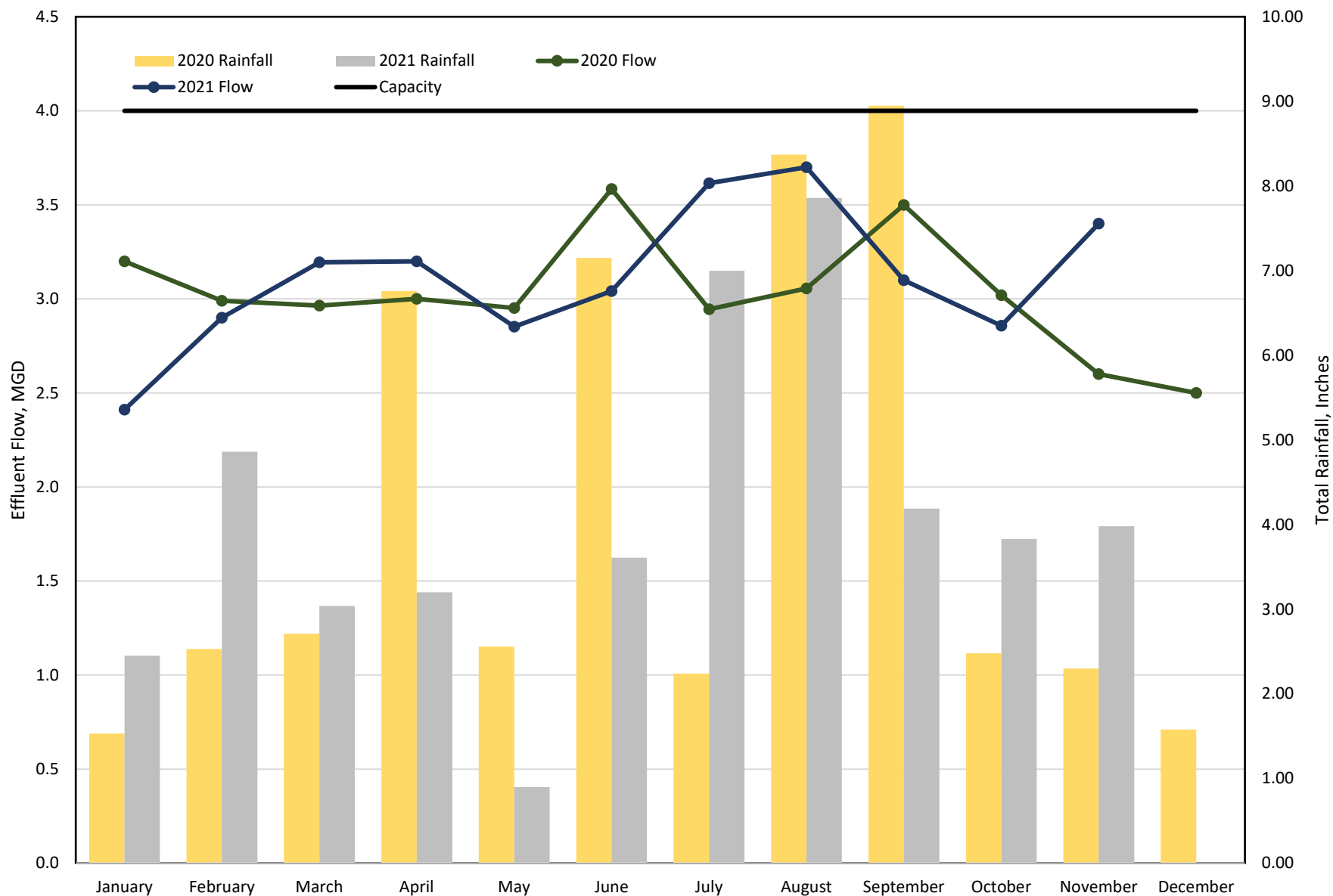
BOD - Biochemical Oxygen Demand
TSS - Total Suspended Solids
NH3 - Ammonia
Phos - Phosphorus
D.O. - Dissolved Oxygen
TRC - Total Residual Chlorine
Entero. - Enterococci Bacteria



DUNBAR CREEK WWTP	FLOW (MGD)			Influent Concentrations					Effluent Concentrations							Removal Efficiency		Rainfall		Water Meter	Sludge
	INF	EFF	% Cap.	pH s.u.	BOD mg/L	TSS mg/L	NH3 mg/L	Phos mg/L	pH s.u.	D.O. mg/L	BOD mg/L	TSS mg/L	NH3 mg/L	Entero. #/100 mL	Phos. mg/L	BOD %	TSS %	Maximum Inches	Total Inches	Monthly M/Gal	Tons to Landfill
Month																					
January 2020	3.0	3.2	80%	7.0	141	150	19.0	2.95	7.2	9.0	2.0	1.7	0.1	3	2.1	98.58%	98.87%	0.62	1.53	0.049	17.92
February 2020	2.8	3.0	75%	7.1	159	202	19.4	3.15	7.3	9.1	2.0	2.0	0.6	3	2.3	98.74%	99.01%	0.98	2.53	0.034	20.70
March 2020	2.7	3.0	74%	7.1	157	179	20.1	3.70	7.3	8.6	2.0	2.0	0.4	2	2.2	98.73%	98.88%	1.07	2.71	0.033	20.28
April 2020	2.8	3.0	75%	7.0	144	165	20.2	3.05	7.0	8.1	1.0	2.0	0.4	2	2.7	99.31%	98.79%	1.41	6.76	0.039	24.42
May 2020	2.6	3.0	74%	7.1	174	209	21.1	4.65	6.9	8.2	2.0	2.0	0.2	1	3.5	98.85%	99.04%	1.24	2.56	0.036	24.00
June 2020	3.3	3.6	90%	7.2	178	186	19.5	3.40	6.5	7.3	1.0	2.0	0.2	3	2.1	99.44%	98.92%	2.71	7.15	0.036	20.67
July 2020	2.6	2.9	74%	7.0	203	209	28.0	5.55	6.9	7.5	4.1	2.0	0.6	1	2.9	97.97%	99.04%	0.79	2.24	0.031	7.24
August 2020	2.8	3.1	76%	7.1	148	194	19.0	3.80	7.0	7.6	3.0	1.0	0.4	4	3.1	97.97%	99.48%	1.71	8.37	0.033	24.82
September 2020	3.4	3.5	88%	6.9	120	154	20.6	2.75	6.8	7.6	5.0	3.0	0.7	19	2.8	95.83%	98.05%	3.35	8.95	0.032	24.42
October 2020	2.8	3.0	76%	6.8	162	209	41.1	3.20	6.8	7.6	4.0	3.8	0.5	7	2.2	97.53%	98.18%	0.68	2.48	0.028	22.72
November 2020	2.5	2.6	65%	6.9	180	215	23.9	3.75	6.9	8.3	4.0	3.0	0.5	6	2.7	97.78%	98.60%	0.53	2.30	0.027	13.80
December 2020	2.7	2.5	63%	7.2	190	189	28.9	3.75	6.8	8.9	3.0	2.8	0.5	2	2.7	98.42%	98.52%	0.73	1.58	0.036	12.61
January 2021	2.3	2.4	60%	7.1	181	210	34.9	3.90	6.8	8.6	3.0	2.0	0.4	2	3.0	98.34%	99.05%	0.68	2.45	0.049	27.32
February 2021	2.7	2.9	73%	7.1	167	181	31.2	3.80	6.8	8.3	4.0	2.6	0.5	12	2.4	97.60%	98.56%	1.28	4.86	0.049	26.58
March 2021	2.8	3.2	80%	7.2	188	244	42.2	4.70	7.0	8.1	3.0	2.0	0.9	7	3.0	98.40%	99.18%	1.56	3.04	0.026	29.47
April 2021	2.6	3.2	80%	7.2	212	277	53.4	4.20	6.9	7.7	2.0	2.0	0.7	2	2.4	99.06%	99.28%	1.94	3.20	0.053	20.21
May 2021	2.4	2.9	71%	7.2	228	248	32.0	4.30	7.6	7.9	3.0	1.0	0.6	2	2.7	98.68%	99.60%	0.34	0.90	0.044	18.33
June 2021	2.6	3.0	76%	7.1	237	257	23.3	5.05	6.9	6.4	3.0	2.0	0.2	4	2.4	98.73%	99.22%	1.11	3.61	0.072	24.35
July 2021	3.0	3.6	90%	7.0	199	226	40.6	4.55	6.8	7.5	4.0	3.0	0.5	6	3.3	97.99%	98.67%	4.43	7.00	0.091	33.61
August 2021	3.2	3.7	93%	6.9	150	255	24.7	4.05	6.9	7.7	4.0	2.0	0.7	7	2.9	97.33%	99.22%	2.01	7.86	0.052	20.51
September 2021	2.7	3.1	78%	7.1	143	167	27.0	3.10	7.0	7.9	3.8	1.0	0.6	3	2.0	97.34%	99.40%	1.29	4.19	0.026	13.23
October 2021	2.5	2.9	71%	7.0	179	208	29.6	4.05	7.7	7.6	3.0	2.0	0.8	6	2.7	98.32%	99.04%	1.46	3.83	0.079	24.55
November 2021	3.0	3.4	85%	7.2	162	196	21.1	2.60	7.1	8.1	3.0	2.0	0.8	4	1.1	98.15%	98.98%	3.12	3.98	0.054	24.24
December 2021																					
Average	2.8	3.1	77%	7.1	174.0	205.7	27.9	3.83	7.0	8.0	3.0	2.1	0.5	5	2.6	98.22%	98.94%	1.5	4.1	0.044	21.57
Max	3.4	3.7	93%	7.2	237.0	277.0	53.4	5.55	7.7	9.1	5.0	3.8	0.9	19	3.5	99.44%	99.60%	4.4	9.0	0.091	33.61
Min	2.3	2.4	60%	6.8	120.0	150.0	19.0	2.60	6.5	6.4	1.0	1.0	0.1	1	1.1	95.83%	98.05%	0.3	0.9	0.026	7.24
Permit Limits	N/A	4.0	N/A	N/A	N/A	N/A	N/A	N/A	6.0-9.0	6.0	5.0	20.0	2.0	35	Report	85.00%	85.00%				

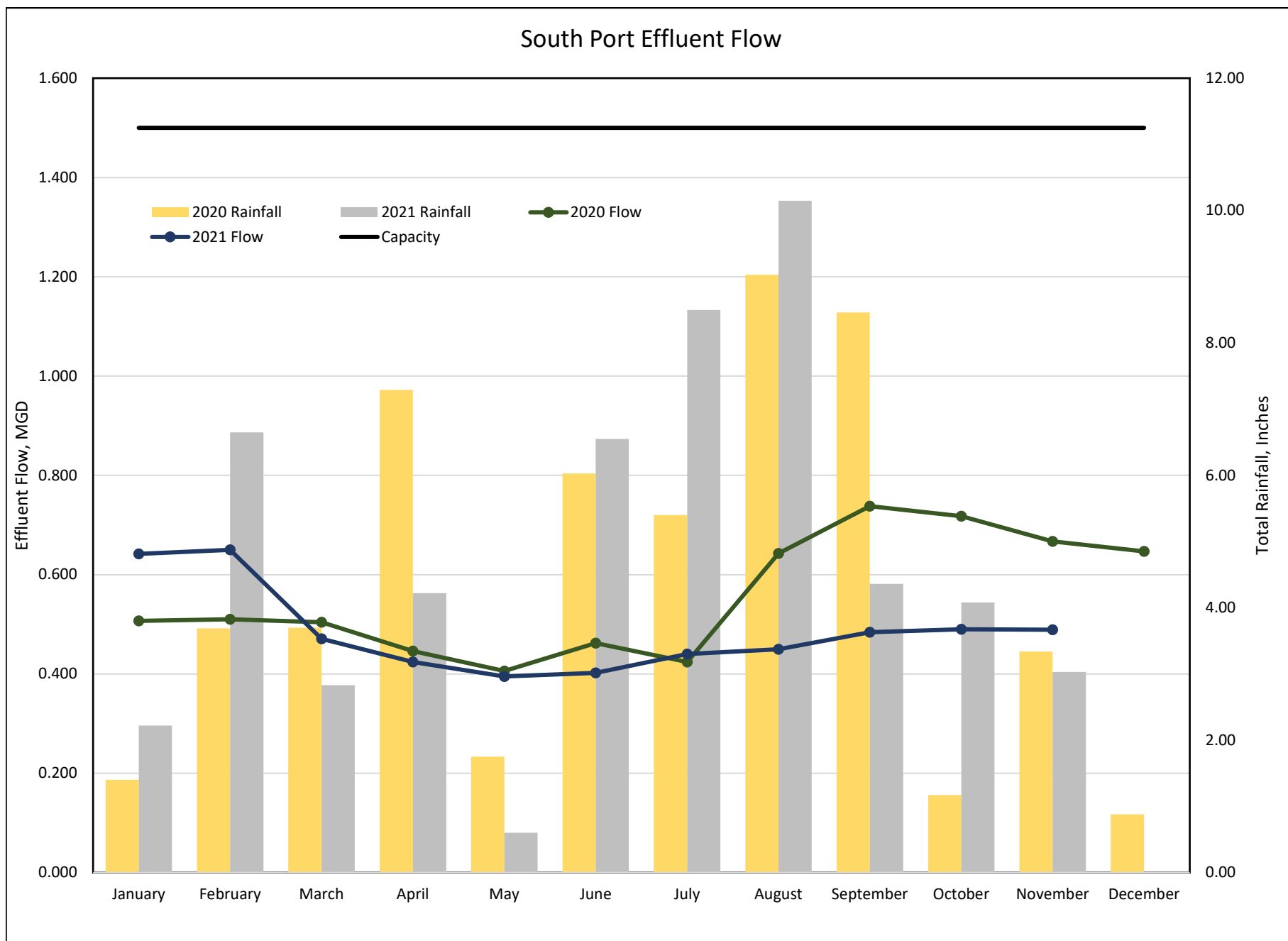
BOD - Biochemical Oxygen Demand
TSS - Total Suspended Solids
NH3 - Ammonia
Phos - Phosphorus
D.O. - Dissolved Oxygen
TRC - Total Residual Chlorine
Entero. - Enterococci Bacteria

Dunbar Creek Effluent Flow



SOUTH PORT WWTP	FLOW (MGD)			Influent Concentrations					Effluent Concentrations							Removal Efficiency		Rainfall		Water Meter Monthly	Sludge Tons to Landfill
	INF	EFF	% Cap.	pH s.u.	BOD mg/L	TSS mg/L	NH3 mg/L	Phos mg/L	pH s.u.	D.O. mg/L	BOD mg/L	TSS mg/L	NH3 mg/L	Fecal #/100 mL	Phos. mg/L	BOD %	TSS %	Maximum Inches	Total Inches	M/Gal	
Month																					
January 2020	0.439	0.507	34%	6.8	120	106	28.5	4.00	6.8	8.1	3.0	9.0	0.2	12	0.3	97.50%	91.51%	0.72	1.40	0.027	6.60
February 2020	0.413	0.510	34%	6.8	112	130	24.0	2.95	7.0	8.0	3.0	8.0	1.7	21	0.2	97.32%	93.85%	1.16	3.69	0.012	3.73
March 2020	0.408	0.504	34%	6.8	111	119	24.5	2.65	7.5	6.9	3.7	7.0	0.4	3	0.2	96.67%	94.12%	2.01	3.70	0.079	6.15
April 2020	0.402	0.446	30%	6.6	137	189	23.3	3.60	6.9	8.1	4.9	6.6	0.3	2	0.1	96.42%	96.51%	1.96	7.29	0.014	0.00
May 2020	0.384	0.406	27%	6.8	133	136	22.7	4.40	7.4	7.7	5.0	4.0	0.4	6	0.4	96.24%	97.06%	1.16	1.75	0.022	13.03
June 2020	0.415	0.462	31%	6.7	147	185	21.8	4.50	7.2	7.2	6.0	4.0	0.3	21	0.5	95.92%	97.84%	2.16	6.03	0.065	0.00
July 2020	0.395	0.424	28%	6.6	179	224	23.9	4.90	7.3	7.0	8.0	3.0	0.4	28	0.2	95.53%	98.66%	2.80	5.40	0.008	3.55
August 2020	0.624	0.643	43%	6.7	85	138	13.8	5.45	7.3	7.3	6.0	4.0	0.2	32	0.2	92.94%	97.10%	3.75	9.03	0.056	6.92
September 2020	0.733	0.738	49%	6.7	57	82	13.0	1.95	6.9	7.1	5.0	4.0	0.9	41	0.1	91.23%	95.12%	1.82	8.46	0.062	6.41
October 2020	0.707	0.718	48%	6.8	70	80	31.4	2.80	7.4	7.5	4.0	3.0	0.5	18	0.2	94.29%	96.25%	0.42	1.17	0.054	9.14
November 2020	0.675	0.667	44%	6.9	74	70	15.9	2.97	7.5	7.9	5.1	2.8	0.5	2	0.4	93.11%	96.00%	0.56	3.34	0.116	2.69
December 2020	0.666	0.647	43%	7.0	91	105	19.0	2.80	7.5	8.4	4.0	3.0	0.4	2	0.3	95.60%	97.14%	0.82	0.88	0.059	0.00
January 2021	0.635	0.642	43%	6.9	103	154	27.3	4.20	7.4	8.3	5.0	3.0	0.3	1	0.4	95.15%	98.05%	0.54	2.22	0.053	0.00
February 2021	0.609	0.650	43%	7.0	96	155	24.3	2.75	7.5	8.6	7.0	3.0	0.6	14	0.6	92.71%	98.06%	1.26	6.65	0.026	11.09
March 2021	0.464	0.471	31%	6.9	118	180	37.6	3.60	7.6	7.9	6.0	4.0	1.0	23	1.6	94.92%	97.78%	1.46	2.83	0.012	2.53
April 2021	0.414	0.424	28%	6.5	170	237	53.8	4.20	7.6	7.6	7.0	3.0	0.4	4	1.4	95.88%	98.73%	2.18	4.22	0.117	2.19
May 2021	0.399	0.395	26%	6.8	233	239	40.0	3.40	7.9	7.6	7.0	4.0	0.7	5	2.5	97.00%	98.33%	0.30	0.60	0.125	2.12
June 2021	0.392	0.402	27%	6.9	152	124	25.3	5.10	7.8	7.0	5.0	4.0	0.2	7	2.6	96.71%	96.77%	1.75	6.55	0.116	1.99
July 2021	0.403	0.440	29%	7.0	138	139	43.9	3.95	7.6	7.0	5.0	3.0	2.3	6	3.1	96.38%	97.84%	4.75	8.50	0.131	3.88
August 2021	0.408	0.450	29%	7.0	103	98	35.8	4.60	7.1	7.4	8.0	3.0	0.7	7	2.8	92.23%	96.94%	2.15	10.15	0.024	4.16
September 2021	0.420	0.484	29%	6.8	94	103	32.5	3.05	7.1	6.9	6.0	2.0	0.7	6	1.7	93.62%	98.06%	1.15	4.36	0.052	1.89
October 2021	0.430	0.490	29%	6.9	134	143	33.1	3.75	7.7	7.0	5.0	2.0	1.0	5	1.7	96.27%	98.60%	2.01	4.08	0.026	5.02
November 2021	0.430	0.489	29%	7.0	157	180	29.7	3.65	7.2	8.1	5.0	4.0	0.5	4	1.6	96.82%	97.78%	1.88	3.03	0.026	8.86
December 2021																					
Average	0.490	0.522	35%	6.8	122.3	144.2	28.0	3.71	7.3	7.6	5.4	4.1	0.6	12	1.0	95.24%	96.87%	1.7	4.6	0.056	4.43
Max	0.733	0.738	49%	7.0	233.0	239.0	53.8	5.45	7.9	8.6	8.0	9.0	2.3	41	3.1	97.50%	98.73%	4.8	10.2	0.131	13.03
Min	0.384	0.395	26%	6.5	57.0	70.0	13.0	1.95	6.8	6.9	3.0	2.0	0.2	1	0.1	91.23%	91.51%	0.3	0.6	0.008	0.00
Permit Limits	N/A	1.500	N/A	N/A	N/A	N/A	N/A	N/A	6.0-9.0	5.0	30.0	30.0	13.0	200	Report	85.00%	85.00%				

BOD - Biochemical Oxygen Demand
TSS - Total Suspended Solids
NH3 - Ammonia
Phos - Phosphorus
D.O. - Dissolved Oxygen
TRC - Total Residual Chlorine
Fecal - Fecal Coliform Bacteria



Capital Projects Earned Value Analysis
Financial Data as of 11/10/2021

Proj #	Project Name	Project Manager	Concept Design	Detail Design	Construction	BAC	PV	EV	AC	SV	CV	ETC	EAC	VAC	SPI	CPI	TCPI
702	North Mainland Sewer Improvements (NMSI)	Kline	JWSC	T&H	(multiple)	\$ 14,900,000.00	\$ 12,564,091.29	\$ 10,829,790.42	\$ 9,684,198.43	\$ (1,734,300.87)	\$ 1,145,591.99	\$ 3,639,656.51	\$ 13,323,854.94	\$ 1,576,145.06	0.86	1.12	0.78
703	PS 4003 Decommission and Gravity Sewer	Patel	JWSC	HGB	Pettitcoat-Schmidt Civil Contractors	\$ 3,300,000.00	\$ 2,303,378.00	\$ 2,292,980.33	\$ 2,237,030.69	\$ (3,123,468.40)	\$ 55,949.64	\$ 982,447.99	\$ 3,219,478.68	\$ 80,521.32	1.00	1.03	0.95
704	Canal Road to Glynco 12" Watermain Loop	Vo	JWSC	T&H	TB Landmark/JWSC	\$ 1,200,000.00	\$ 1,094,621.21	\$ 435,397.15	\$ 309,270.44	\$ (3,123,467.40)	\$ 126,126.71	\$ 543,111.19	\$ 852,381.63	\$ 347,618.37	0.40	1.41	0.86
801	FEMA Hazard Mitigation-Academy Creek	Burroughs	Haggerty	TBD	TBD	\$ 3,188,000.00	\$ 2,681,413.70	\$ 868,490.90	\$ 233,429.54	\$ (1,212,968.49)	\$ 635,061.36	\$ 623,428.46	\$ 856,858.00	\$ 2,331,142.00	0.32	3.72	0.79
804	Magnolia Water Improvements (City of Brunswick)	Kline/Vo	JWSC	City / EMC	Georgia Asphalt Producers	\$ 1,700,000.00	\$ 1,700,000.00	\$ 1,694,775.56	\$ 1,639,072.27	\$ (5,224.44)	\$ 55,703.29	\$ 5,052.73	\$ 1,644,125.00	\$ 55,875.00	1.00	1.03	0.09
906	Water Pollution Rehab-Academy & Dunbar	Burroughs	JWSC	GMC	Ruby-Collins, LLC	\$ 11,641,306.00	\$ 7,444,162.89	\$ 7,396,003.20	\$ 6,857,055.81	\$ (48,159.69)	\$ 538,947.39	\$ 3,935,947.22	\$ 10,793,003.02	\$ 848,302.98	0.99	1.08	0.89
2001	PS 4105 Basin Expansion	Kline	JWSC	Roberts Civil Engineering	TBD	\$ 1,485,000.00	\$ 1,343,422.17	\$ 242,565.40	\$ 98,565.50	\$ (1,100,856.77)	\$ 143,999.90	\$ 504,858.44	\$ 603,423.94	\$ 881,576.06	0.18	2.46	0.90
2003	Sea Palms CIPP	Vo	JWSC	JWSC	TBD	\$ 561,795.00	\$ 258,209.54	\$ 244,084.44	\$ 233,594.50	\$ (14,125.10)	\$ 10,489.94	\$ 304,056.42	\$ 537,650.92	\$ 24,144.08	0.95	1.04	0.97
2009	Sea Palms East Water Line Rehab	Simmons	JWSC	N/A	TBD	\$ 178,595.00	\$ 178,595.00	\$ 29,468.18	\$ 23,677.71	\$ (149,126.83)	\$ 5,790.47	\$ 119,823.56	\$ 143,501.27	\$ 35,093.73	0.17	1.24	0.96
2011	Lift Station SCADA Upgrades	Burroughs	JWSC	EMC	EMC	\$ 2,000,000.00	\$ 1,640,000.00	\$ 1,764,705.88	\$ 2,316,155.78	\$ 124,705.88	\$ (551,449.90)	\$ 308,820.77	\$ 2,624,976.55	\$ (624,976.55)	1.08	0.76	-0.74
2014	PS 2002 FM Replacement	Burroughs	JWSC	TR Long	TBD	\$ 500,000.00	\$ 38,325.00	\$ 37,941.75	\$ 10,530.00	\$ (383.25)	\$ 27,411.75	\$ 128,235.34	\$ 138,765.34	\$ 361,234.66	0.99	3.60	0.94
2016	Arco Water and Sewer Expansion Engineering	Patel	JWSC	T&H	TBD	\$ 300,000.00	\$ 300,000.00	\$ 201,000.00	\$ 259,319.00	\$ (99,000.00)	\$ (58,319.00)	\$ 127,724.28	\$ 387,043.28	\$ (87,043.28)	0.67	0.78	2.43
2018	Meter Replacements	Roberts	JWSC	N/A	Delta Municipal Supply	\$ 7,750,000.00	\$ 4,356,796.12	\$ 2,212,000.00	\$ 3,706,897.70	\$ (2,144,796.12)	\$ (1,494,897.70)	\$ 9,280,650.75	\$ 12,987,548.45	\$ (5,237,548.45)	0.51	0.60	1.37
2020	Community Rd Area Water and Sewer Expansion	Patel	JWSC	HGB	TBD	\$ 250,000.00	\$ 250,000.00	\$ 164,987.50	\$ 189,271.00	\$ (13,690.48)	\$ (24,283.50)	\$ 97,524.97	\$ 286,795.97	\$ (36,795.97)	0.66	0.87	1.40
2021	Galvanized Replacements	Simmons	JWSC	N/A	JWSC	\$ 500,000.00	\$ 363,529.41	\$ 144,166.67	\$ 147,741.40	\$ (219,362.75)	\$ (3,574.73)	\$ 364,656.52	\$ 512,397.92	\$ (12,397.92)	0.40	0.98	1.01
2024	Master Plan Update	Burroughs	4Waters	N/A	N/A	\$ 247,500.00	\$ 247,500.00	\$ 247,237.50	\$ 244,670.00	\$ (262.50)	\$ 2,567.50	\$ 259.77	\$ 244,929.77	\$ 2,570.23	1.00	1.01	0.09
2107	Priority Basin Clean & CCTV	Burroughs	N/A	N/A	Southeast Pipe Survey	\$ 425,000.00	\$ 164,687.50	\$ 141,250.82	\$ 4,529.05	\$ (23,436.68)	\$ 136,721.77	\$ 9,098.10	\$ 13,627.15	\$ 411,372.85	0.86	31.19	0.67
TOTALS						\$ 50,127,196.00	\$ 36,928,731.82	\$ 28,946,845.68	\$ 28,195,008.82	\$ (7,981,886.15)	\$ 751,836.86	\$ 20,975,353.03	\$ 49,170,361.84	\$ 956,834.16	0.78	1.03	0.97

BAC	Budget at Completion	Approved Budget for Project
PV	Planned Value	% of Schedule Used x BAC
EV	Earned Value	% of Work Completed x BAC
AC	Actual Cost	Actual Costs to Date
SV	Schedule Variance	EV - PV
CV	Cost Variance	EV - AC
ETC	Estimate to Complete	(BAC - EV) / CPI
EAC	Estimate at Completion	AC + ETC
VAC	Variance at Completion	BAC - EAC
SPI	Schedule Performance Index	EV / PV
CPI	Cost Performance Index	EV / AC
TCPI	To Complete Performance Index	(BAC - EV) / (BAC - AC)

Positive means ahead of schedule
Positive is better
Estimate to complete based on cost performance to date
Estimated final project cost
Positive means project is projected to be under budget
Greater than 1.0 means ahead of schedule
Greater than 1.0 means costs are ahead of schedule
Greater than 1.0 indicates project management needs to be more efficient to complete project on budget