

TO: Mayor and City Councilors

FROM: Rich Olson, City Manager

Paul Fredette, Director of Public Works

**DATE:** October 23, 2013

REF: Consideration - Roanoke Avenue Drainage Project Phase III Engineering

**Design Revisions** 

## **BACKGROUND:**

The Roanoke Avenue Drainage Project Phase III is the third and final phase of a storm water management project that has been in the planning stages for well over a decade. This final phase of the work for the project includes work to build up Herrington Road about two feet acting as a dike to prevent high waters from the Pasquotank River to back into the area thru Charles Creek; and to build a storm water pumping station similar to the ones we have at Poindexter and Tiber Creeks in the downtown area. There was a design completed back in September 2012. At the time, all construction bids were rejected because they approached double the approved budget for this project.

Soon after the bids were rejected the City was notified that NCDOT had plans to reconstruct the South Road Street Bridge over Charles Creek. That announcement led to a consideration of abandoning the Herrington Road Bridge over Charles Creek and the ultimate acquisition of property to eliminate the Herrington Road Bridge and realign the South Road Street/Herrington Road intersection.

During this same time, the City considered design revisions to the Phase III project to take advantage of the abandonment of a portion of Herrington Road and a relocation of the proposed stormwater pump station in anticipation of reducing the project cost for the Roanoke Avenue Drainage Project Phase III project.

## ANALYSIS:

McDowell & Associates is the engineer of record for the entire Roanoke Avenue Drainage project to date. The City has asked Pat McDowell to prepare a professional services agreement to revise the design of Phase III of the project in consideration of the changes in direction the project has taken during the past year. Attached is a copy of the proposed professional services agreement. The value of the agreement is \$102,500, which includes design, permitting, bid award and construction administration. The cost includes \$50,000 for the actual redesign of the project including the relocation of a portion of Herrington Road and coordination with the NCDOT project. There are additional costs in the agreement for services rendered during the past year, including the evaluation and proposed design for the relocation of a sanitary sewer, conceptual designs for the Herrington Road relocation, coordination efforts with NCDOT and assistance with property negotiations with the City.

Said moneys for the redesign will come from the current budget appropriation from the Storm Water Utility Fund. The balance in the Storm Water Utility Fund for this project is approximately \$1,024,000.

The Finance Committee discussed this matter during their meeting of October 24, 2013 and recommends approval.

## STAFF RECOMMENDATION:

By motion, authorize the City Manager to enter into an agreement with McDowell & Associates, P.A. for the redesign of Phase III of the Roanoke Avenue Drainage Project in the amount of \$102,500.

RCO/vdw



## McDOWELL & ASSOCIATES, P.A. ENGINEERS · SURVEYORS

William P. McDowell, III., P.E., P.L.S.

Telephone: (252) 338-4161

Fax: (252) 335-9585

Post Office Box 391 1899 Weeksville Road Elizabeth City, NC 27907-0391

October 22, 2013

HAND DELIVERED

Mr. Paul Fredette Public Works Director P. O. Box 347 Elizabeth City, NC 27909

Re:

Roanoke Avenue Drainage

Phase 3 Stormwater Pumping Station - Redesign

(File No.: E1704.3.3)

Dear Paul:

As requested we are providing the following information and proposal for the redesign of the final phase of the Roanoke Avenue Drainage project - **Phase 3 Stormwater Pumping Station**.

This project will culminate a number of years of efforts and prior construction phases to assist in improving both stormwater management issues, as well as severe infiltration and inflow problems into the City's sanitary sewer collection system in the project area.

The general intent will be to improve the stormwater collection and discharge system to reduce flooding on the main streets of Roanoke Ave., Road Street, and Herrington Road, as well as the smaller streets of Perry, Davis, Tatem, Cale and Martin Luther King. This final phase will maximize the water quality benefits of the two recently constructed ponds, by allowing them to function as BMP's with controlled detention times. These ponds have an approximate surface area of one (1) acre. They are eight (8) feet deep, with a total storage volume of approximately 1.5mg/4.6 ac ft and a 3-foot draw down capability. This configuration and storage also help to reduce the size of the proposed stormwater pumps, as well as assists in the future development of the necessary BMPs for the undeveloped properties between Brooks Avenue and Roanoke Avenue.

In April 2007 City Staff and this office met with NCDENR, who subsequently approved this concept (stormwater pump station and ponds), as part of helping to make the future stormwater management concepts more efficient for the total one hundred, forty-one (141) acre basin – more specifically, the undeveloped properties between Brooks Avenue and Roanoke Avenue.

This project would also provide a positive listing to the City's recent NPDES Phase II permit by demonstrating that it is attempting to improve its stormwater management procedures by constructing BMP's to help with both water quality and quantity on an **existing discharge** into the Pasquotank River. This current discharge into Charles Creek and Pasquotank River is currently plagued with water quality issues from constant river backup which floods major City streets, personal property, and surcharging existing sanitary sewer manholes. This Phase 3 project would reduce both the magnitude and frequency of these events.

• This redesign proposal for the Phase 3 implementation incorporates the following recent events and their impact to the project:

- 1. Receiving bids on this project once in September 2012, which were rejected because they exceeded the proposed budget.
- 2. The scope of the September 2012 bids included a sanitary sewer component, which this current proposal does not have or include.
- 3. Relocation of the proposed pump station site out of Pond B to City owned property on the east side of Martin Luther King Street
- 4. NCDOT replacement of its existing bridge on Road Street
- 5. City's acquisition of the Rice property on both sides of Herrington Road.
- 6. City's decision to remove the existing bridge on Herrington Road, not replace it and possibly widen Charles Creek
- 7. City's decision to connect Herrington Road to Road Street through the acquired Rice property.

With this information available, construction plans and specifications to assist the City in obtaining permits (local, State, and Federal) construction bids, award of contracts, construction administration, and construction observation could be implemented.

We estimate that it will take approximately four (4) months to design, two (2) months to obtain permits and receive bids with construction taking another six (6) months.

Mr. Paul Fredette October 11, 2013

We pro	pose to perform these engineering services based on the following fee schedule:
-	Design through permitting
-	Award of Bids
-	Construction Administration
-	Construction Observation fee to be provided, if desired.
Schedule. Ple	cional services are needed, we will use our normal hourly rates per the attached Fee case let me know if you have any questions or need any additional information. If you sal acceptable, please have same signed below and return a copy of same to me for
Sincerely,	
William F	Mc Melmell ?
William P. Mo President	eDowell, III, P.E.
WPMcD/rae	
Enclosures	
Accepted and	agreed to this day of October, 2013
City of Elizab	eth City
Ву:	



Post Office Box 391 1899 Weeksville Road Elizabeth City, NC 27907-0391 Telephone: (252) 338-4161 Fax: (252) 335-9585

FEE SCHEDULE July 2013

For services rendered, compensation shall be computed based on the following schedule of fees and reimbursable expenses:

Personnel Classification		(Per Hour)
1.	Principal	\$200.00
2.	Project Manager / Senior Engineer	\$175.00
3.	Staff Engineer	\$125.00
4.	Senior Designer	\$ 95.00
5.	Designer	\$ 80.00
6.	CADD Technician	\$ 75.00
7.	GIS Technician.	\$ 65.00
8.	Clerical	\$ 45.00
9.	Registered Surveyor	\$ 95.00
10.	Survey Crew	\$150.00
11.	GPS Operator	\$ 75.00

**Reimbursable Expenses:** Reimbursable expenses are in addition to compensation for professional services and include out-of-pocket expenditures advanced in the interest of the project.

Reproduction Expenses: (Wide format)	(Per square foot)
Bond - B & W / Color	\$0.15 / 0.45
Mylar - B & W / Color :	\$0.50 / 0.80
Bright White / Coasted Paper - Color	\$ 0.50
High Gloss Photo - Color	\$ 0.75
Presentation Paper - Color	\$ 0.60
Reproduction Expenses (standard Size Sheets)	(Each)
8.5 x 11 - B & W/ Color	\$0.10 / 0.40
11 x 17 - B & W / Color	\$0.20 / 0.80
Letterhead - B & W / Color	\$0.20 / 0.50

Invoicing:

Invoices shall be issued monthly for services

rendered and payable upon receipt.

**Rate Changes:** 

Scheduled rates for fees are subject to change with 30 days prior notice. Rates for reimbursable

expenses are subject to change without notification.