



Date: March 8, 2016

To: Thomas J. Bonfield, City Manager
Through: W. Bowman Ferguson, Deputy City Manager
From: Donald F. Greeley, Director, Water Management
Subject: Professional Engineering Services for Southeast Regional Lift Station – Contract Award to Hazen and Sawyer, P. C.

Executive Summary

The Department of Water Management (DWM) issued a Request for Qualifications (RFQ) for Professional Engineering Services for predesign, design, permitting, bidding, and construction related services for the installation of a gravity sewer main, sanitary sewer lift station and force main. This infrastructure will serve the Southeast Basin Service Area as defined in Section 70-19 of the City Ordinance. The attached map shows the full limits of the project area. DWM received five (5) responses to the RFQ, of which five were deemed responsive. The engineering firm Hazen and Sawyer, P.C. (HS) was selected and a scope of services has been negotiated in the amount of \$1,267,200 for Phase I.

The project is structured in phases, with this contract providing for Phase I services. Amendments to this contract will be forthcoming to address subsequent phasing. The phases are planned as follows:

Phase I – Master Planning of the Basin and a preliminary engineering report (PER) for sizing and phasing construction of the proposed gravity sewer outfall, sanitary sewer lift station and force main. Site permitting, exploratory geotechnical work and survey of the proposed site will also be included in this phase.

Phase II – Gravity sewer, survey, detailed geotechnical exploration, Subsurface Utility Exploration (SUE) and detailed design of recommended gravity sewer, sanitary sewer lift station and force main infrastructure as well as permitting and bidding services.

Phase III – Construction Related Services (CRS) for the construction of the designed improvements including Construction Administration (CA), Construction Observation (CO) and limited materials testing.

Recommendation

The Department of Water Management recommends that the City Council:

1. Authorize the City Manager to execute a contract with Hazen and Sawyer, P.C., for Professional Engineering Services in an amount not to exceed \$1,267,200.00 for the Southeast Regional Lift Station and
2. Establish a contingency fund for the contract in an amount not to exceed \$133,000.00; and

3. Authorize the City Manager to negotiate amendments to the contract provided that the total contract value does not exceed \$1,400,200.00.

Background

The City Council adopted a new fee ordinance in April of 2015 to fund the construction of a new regional lift station on or near the intersection Kemp Road and Lick Creek in southeastern Durham County. This fee ordinance covers the cost of planning, design and construction of a new regional sanitary sewer lift station and allows for the abandonment of existing sanitary sewer lift stations. The new regional lift station will be sized to accommodate current and future development activity, and will be funded by fees based on volume of wastewater generated.

HS is selected to provide the professional engineering services necessary to complete this work. The proposed contract is structured as follows:

Phase I

The services for the first phase of the contract will include master planning, a preliminary engineering report (PER), site survey and exploratory geotechnical services. All required re-zoning, site plan submittals and other needed site permitting services will also be included in this phase.

The master plan will review and confirm anticipated development activity in the basin and establish an anticipated growth timeline. This growth timeline will be used to plan the build-out of the sanitary sewer lift station and determine where discharging the force main from the lift station is viable. Site selection for the proposed lift station will also take place during this phase. HS will acquire the necessary permits and perform the survey and design needed to submit all required site plans and re-zoning applications.

The PER will evaluate three possible routes for the gravity sewer main and force main, recommend and size the necessary lift station equipment. The PER will also establish a 30% design of proposed improvements, including the sanitary sewer outfall, force main and lift station. Major stream crossings and significant permitting issues will be considered, and opinions of probable construction cost will be established during this phase.

Phase II

This phase will involve the detailed design of the gravity sewer main, sanitary sewer lift station and force main. This design will be based on the route designated in the PER developed in Phase I. Included in this phase will be topographic survey, geotechnical exploration and SUE work needed to develop the design drawings. All necessary permits will be prepared and submitted as part of this Phase. This work will be administered via Amendment 1 to the Phase I services.

Phase III

This will consist of all CRS services including CA, CO, and materials testing. Full-time CO will be needed, and a significant CA effort will also be required. This will be administered via Amendment 2 to this contract.

Public notification and community outreach services will be provided during all phases of this project per the City's notification policy.

HS provided engineering services for similar, large-scale lift station designs for other municipal clients, and performed the same services for the City's Lick Creek Lift Station.

Issues and Analysis

In July 2015, the DWM advertised an RFQ. Five firms responded to the RFQ:

Brown and Caldwell
CDM Smith
Hazen and Sawyer
KFC Engineering
RKK

Two firms were short-listed to present their proposals to the selection committee. The selection committee was comprised of staff from DWM and the Equal Opportunity/Equity Assurance Department. Based on their qualifications and experience with the similar projects, the committee selected the firm of Hazen and Sawyer, P.C. for the project.

The engineering firm Hazen and Sawyer, P.C. (HS) was selected and a scope of services has been negotiated in the amount of \$1,267,200 for Phase I.

Alternatives

Alternative #1 - Do not move forward with the contract and prepare all reports in-house. Department staff does not have the resources or availability to prepare reports for a project of this magnitude. This alternative would likely result in delayed construction and could potentially result in a failure to satisfy the redevelopment needs in the project area.

Alternative #2 – Do not move forward with the project. This alternative would result in a less cohesive sanitary sewer service scenario for the Southeast Regional service area, as discussed at the May 7, 2015 City Council Work Session.

Financial Impact

The immediate cost to the City for the contract with Kimley-Horn and Associates, Inc. is \$1,400,000.00. The funds for the contract are available as outlined below:

Base Contract Fund: 4100P002-731004-P2841, \$1,267,200.00

Contingency Fund: 4100P002-731900-P2841, \$133,000.00

Total Contract: \$1,400,200.00

SDBE Summary

The Equal Opportunity/Equity Assurance Department reviewed the proposal submitted by Hazen and Sawyer, P.C. of Raleigh, North Carolina to determine compliance with the Ordinance to Promote Equal Business Opportunities in City Contracting. The goals for this project are MSDBE 1% and WSDBE 2%. It was determined that Hazen and Sawyer, P. C. is in compliance with the Ordinance to Promote Equal Business Opportunities in City Contracting.

SDBE REQUIREMENTS

Hazen and Sawyer, P.C. will subcontract to the following certified firms:

Firm	ID	City/State	Amount	% of Contract
A-1 Consulting Group, Inc.*	SDBE*	Morrisville, NC	\$ 112,500.00	8.9%
CH Engineering, PLLC	WSDBE	Raleigh, NC	\$ 157,500.00	12.4%

*A-1 Consulting Group, Inc. is an Asian American SDBE firm and was used to fulfill the MSDBE goal requirement for this project in compliance with the Ordinance to Promote Equal Business Opportunities in City Contracting.

The MSDBE and the WSDBE goals were exceeded.

WORKFORCE STATISTICS

Workforce statistics for Hazen and Sawyer, P.C. are as follows:

(Consolidated)

Total Workforce	773	
Total Females	206	(27%)
Total Males	567	(73%)
Black Males	34	(4%)
White Males	458	(59%)
Other Males	75	(10%)
Black Females	16	(2%)
White Females	150	(20%)
Other Females	40	(5%)