



Date: May 08, 2018

To: Thomas J. Bonfield, City Manager

Through: W. Bowman Ferguson, Deputy City Manager

From: Donald F. Greeley, Director, Water Management

Subject: 2018 Sewer Lining Program - South
Award of Construction Contract to Am-Liner East, Inc.

Executive Summary

The Department of Water Management (DWM) opened bids on April 11, 2018 for the 2018 Sewer Lining Program - South. The project consists of installing approximately 220,000 linear feet (LF) of cured-in-place pipe (CIPP) to address deteriorated sewer mains primarily located in the Farrington Basin, which is located in the southern portion of the City.

This sewer basin is among those identified as priority areas in a recent study to locate and reduce Rain-Derived Inflow/Infiltration (RDI/I), which is a measure of rainfall that enters the sanitary sewer system. The sewer mains in this basin are shown in Attachment A. To date, this is the second-largest CIPP contract bid by the City. It is accompanied this cycle by the largest CIPP contract for work to be performed in the northern part of the City.

The City received six bids, one of which was deemed non-responsive. The DWM recommends award of the contract to Am-Liner East, Inc.; the lowest responsive and responsible bidder.

Recommendation

The DWM recommends City Council:

1. Authorize the City Manager to execute a contract with Am-Liner East, Inc. for the 2018 Sewer Lining Program - South in the amount of \$6,499,640.00.
2. Establish a Contingency fund for the contract in the amount of \$500,360.00.
3. Authorize the City Manager to negotiate Change Orders for the contract provided that the total contract cost does not exceed \$7,000,000.00.

Background

The City's Sewer Collection Permit requires the City to repair any known defects in the collection system. Pipe and manhole deterioration and failure is common and much can be attributed to one or more factors including corrosive sewer gases, poor installation, groundwater inflow and infiltration, root intrusion, construction activities, ground movement, and age.

Over the years, using flow monitoring, inspections, maintenance records and sanitary sewer evaluations; DWM have identified and rehabilitated or replaced sewer mains and manholes in poor and deteriorating condition. In an effort to improve these rehabilitation efforts, DWM embarked on a Rain-Derived Inflow/Infiltration (RDI/I) reduction program consisting of increased sewer-flow monitoring and basin modeling. RDI/I is a term used for the rainfall that enters a sewer system via overland flow/runoff or rain-derived groundwater.

The increased flow monitoring, combined with hydraulic modeling, helps pinpoint or drill down to

leaking areas of sewer basins and sub-basins. This allows for one to make recommendations for rehabilitation, replacement, or further data gathering. The recent effort centered on 16 sub-basins where DWM had broad-scale evidence of high RDI/I. The flow monitoring and modeling assisted in locating the sources of the RDI/I.

With the areas of high RDI/I known, DWM is proposing to rehabilitate several mains using CIPP. CIPP has been used frequently by the City over the past 20 years, as it allows for the rehabilitation of sewer lines without the use of open cut excavation. This results in lower costs and minimal service interruptions.

The CIPP process essentially installs a new pipe inside of the existing pipe, using the manholes as entry and exit points for the work. The newly installed CIPP creates a seamless stretch of pipe from manhole to manhole securing the structural integrity of the pipe, preventing root intrusion, and reducing the amount of infiltration and inflow into the system.

This one-year contract begins to address nine of the sub-basins on the North side of the City with the highest level of inflow and infiltration. It is the second-largest CIPP contract bid by the City, to date, and is accompanied this cycle by the largest CIPP contract award for work in the northern portion of the City. The other contract award, titled 2018 Sewer Lining Program – North, consists of 250,000 LF of sewer mains being rehabilitated.

Issues and Analysis

The bid results are:

Contractor	Bid Amount	Difference
AM-Liner East, Inc.	\$6,499,640.00	
SAK Construction, LLC	\$6,648,700.00	2%
Insituform Technologies, LLC	\$6,887,497.50	6%
Layne Inliner, LLC	\$7,584,125.00	17%
VacVision Environmental, LLC	\$8,895,000.00	37%
IPR Southeast, LLC	~Non Responsive~	

City staff evaluated and tabulated all bids and, along with the City’s EO/EA Department, found four of them to be responsive. DWM recommends contract award to Am-Liner East, Inc., as the lowest responsible and responsive bidder.

Alternatives

Do not perform the cured-in-place rehabilitation. As mentioned above, pipe being rehabilitated has deficiencies in structural integrity, root intrusion, inflow and infiltration, or some other defect that warrants action. By not performing this project, failures in the system may occur leading to sewer overflows, the capacity of the system is reduced, and we are not abiding by the City’s Sewer Collection Permit obligations.

Financial Impact

Funding for this contract is available in the following accounts:

Organization Code	Object Code	Project Code	Amount
4100P002	731000	PSS18	\$6,499,640.00
4100P002	731900	PSS18	\$ 500,360.00

		Total	\$7,000,000.00
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UBE Summary

The Equal Opportunity/Equity Assurance Department reviewed the bid submitted by AM-Liner East, Inc. of Berryville, VA and determined that they are in compliance with the Ordinance to Promote Equal Business Opportunities in City of Durham Contracting.

M/W UBE REQUIREMENTS

No MUBE or WUBE goals were set.

WORKFORCE STATISTICS

Total Workforce:

Employment Category	Total Employees	Total Males	Total Females
Project Manager	16	16	0
Professional	5	4	1
Technical	3	3	0
Clerical	18	2	16
Labor	87	87	0
Total	129	112	17

UBE REQUIREMENTS

Male:

Employment Category	White	Black	Hispanic	Asian or Pacific Islander	Indian or Alaskan Native
Project Manager	16	0	0	0	0
Professional	4	0	0	0	0
Technical	3	0	0	0	0
Clerical	1	1	0	0	0
Labor	42	26	19	0	0
Total	66	27	19	0	0

Female:

Employment Category	White	Black	Hispanic	Asian or Pacific Islander	Indian or Alaskan Native
Project Manager	0	0	0	0	0
Professional	0	0	0	1	0
Technical	0	0	0	0	0
Clerical	13	0	0	3	0
Labor	0	0	0	0	0
Total	13	0	0	4	0

Attachment: Attachment A – Project Location Map
Attachment B - UBE Compliance Report – EO/EA