



ARLINGTON COUNTY, VIRGINIA

**County Board Agenda Item
Meeting of September 17, 2011**

DATE: August 25, 2011

SUBJECT: Approve the Award of Contract for the Arlington County Water Pollution Control Plant (WPCP) Phase 8 Wet Weather Filtration Facility (WWFF) construction project, Invitation to Bid Number 256-11, and authorize an Amendment to the current contract with Malcolm Pirnie, Inc. (Malcolm) for engineering services related to the construction of the WWFF Project.

C. M. RECOMMENDATIONS:

1. Approve the award of Contract No. 256-11 to PC Construction Company (formerly known as Pizzagalli Construction Co.) for the WWFF Project in an amount not to exceed \$21,244,800.
2. Authorize an amendment to Contract No. 96-03 held by Malcolm in an amount not to exceed \$1,250,000.
3. Authorize the Purchasing Agent to execute the Contract Documents and the Amendment subject to legal review by the County Attorney.

ISSUE: Approval by the County Board is needed to award the construction contract and to authorize an amendment to an existing engineering construction services contract. There are no outstanding issues.

SUMMARY: This project will renovate and upgrade the current Gravity Filter Building (GFB). Renovation of the GFB into a wet weather filtration facility is another safeguard component that will proactively improve the performance of the WPCP by reducing external bypasses beyond the WPCP Master Plan 2001 (MP01) design and improve the reliability of the facility to meet the most stringent permit limits to date, including total nitrogen of 3 mg/l.

BACKGROUND: In January 2003, the County Board endorsed the WPCP MP01 upgrade and expansion program at the WPCP, to enable the County to meet current and future capacity demands in the most environmentally appropriate manner. The capital improvements included

County Manager:

BMD/mjs

County Attorney:

JAM

[Signature]

30.

Staff: Lawrence Slattery, Bureau Chief, WPCB

in MP01 will provide increased wastewater processing capacity to meet existing and anticipated permit requirements.

During MP01 design, consideration was given to retrofitting the existing GFB to process high solids process flows during upsets to protect the new Bio Filtration and Disinfection Facility (FADF), but insufficient process data was available at the time to justify and pursue this aspect with fiscal due diligence.

Approximately two (2) years ago, field data and information verified the need for the GFB facility renovation because process upsets expose the FADF to solids concentrations substantially higher than previously anticipated resulting in external bypasses and permit excursions.

The Plant evaluated available high solids removal technologies, a filter pilot test was performed in late 2009, and the GFB was found to be the optimal location to remove the high solids before the flow enters the FADF.

The Board approved the design of the WWFF on June 10, 2010.

The retrofit of the facility will improve performance, further reduce external bypasses, and permit excursions due to wet weather, power failure, equipment, maintenance, and process challenges, thus enhancing the County's leadership and commitment to proactively protecting the environment and the achievement of the Arlington Vision sustainability goals and objectives.

DISCUSSION:

On August 16, 2011 three (3) firms submitted their bids under ITB 256-11:

- | | |
|----------------------------------|--------------------------|
| 1. PC Construction Company | Bid Amount \$ 17,704,000 |
| 2. MEB General Contractors, Inc. | Bid Amount \$ 19,270,000 |
| 3. Norair Engineering Corp. | Bid Amount \$ 20,831,444 |

The lowest bidder, PC Construction Company was found to be responsible and the bid submitted was responsive. It is recommended that a construction contract be awarded to PC Construction Company for \$17,704,000. A contingency fund of \$ 3,540,800 (20%) is recommended for potential change orders. Therefore, the total construction contract authorization requested is \$21,244,800. The contract work includes construction of a new facility within the footprint of the existing gravity filter building, which requires associated demolition, site work, reconstruction, H-piles, architectural, construction of multiple continuous backwash upflow filters, retrofit of the existing effluent pump station, upgrades and retrofit to portions of the plant's yard piping, electrical, HVAC, plumbing, instrumentation work, and other miscellaneous activities. The Project is expected to be completed in two years.

Malcolm is the current Design Engineer who performs specific Engineering and Construction Services for the WPCP under Contract No. 96-03. The current Contract needs to be amended to include the following services for the WWFF Project:

- Malcolm will perform Civil, Structural, Architectural, Mechanical and Electrical submittal reviews, respond to Requests for Information, provide design change(s) development and Non-Compliance Report Review.
- Malcolm will perform on-site and off-site Project Administration, attend Progress Meetings, perform start-up testing, conduct inspection for Substantial Completion, and conduct inspection for Final Completion.

The total additional engineering services authorization requested is \$1,250,000.

FISCAL IMPACT: The Phase 8 Wet Weather Filtration Facility retrofit project is included in the FY 2011 – FY 2016 Utilities Fund CIP, and funding sources include general obligation bonds and contributions from the inter-jurisdictional partners.

The debt service costs are included in the annual projections for the Water Sewer Rate, which ultimately funds the repayment of the debt service associated with this project. The account numbers to be used for this project are as follows:

Construction

530.43541.GFRC.PJH.0000 GO Bonds \$10,762,500

530.43541. GFRC.0000 GO Bonds \$6,870,684 (source of funds will be determined once bonds have been issued)

519.43541. GFRC.0000.0000 Inter-jurisdictional partners \$3,611,616.

Construction Phase Services

530.43541. GFRSPJH.0000 GO Bonds \$ 1,037,500

519.43541. GFRS.0000.0000 Inter-jurisdictional partners \$212,500