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City Council Agenda Item

Meeting of January 5, 2016

TO: The Honorable Mayor and Members of the City Council

FROM: James R. O'Connor, City Manager

DATE: December 29, 2015

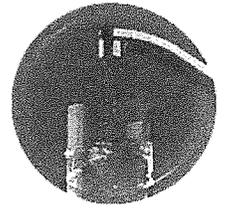
SUBJECT: **Reverse Osmosis Plant Water Treatment Facility Expansion – Recommendation of Award – WS Project No. WS09009**

REQUESTED BY: City Manager/Water and Sewer Director

The following is requested as it relates to the above-referenced agenda item:

 X Request Council review and approval based on the attached supporting documentation.

 No action required. (Information only)



DEPARTMENTAL CORRESPONDENCE
WATER AND SEWER DEPARTMENT

To: James R. O'Connor, City Manager

From: Robert J. Bolton, P.E., Director *RJB*

Date: December 29, 2015

**RE: Reverse Osmosis Plant Water Treatment Facility Expansion
Recommendation of Award
WS Project No. WS09009**

Recommendation:

Place this item on the City Council's Agenda for January 5, 2015. Staff recommends awarding this bid to the low bidder, Florida Design Contractors, Inc., in the amount of \$2,379,000.

Funding:

Funding for this project is available via account number 423.9002.536.631402.

Background:

The City's Reverse Osmosis Plant (ROP) was constructed in 1991 and had a capacity constraint due to limitations on brine discharges to the Indian River Lagoon. This limitation was removed with the construction of the City's Deep Injection Well that now disposes of the brine 2,700 feet below ground in the boulder zone.

Since construction of the well in late 2010, the City has worked to expand the ROP to increase water quality and shift raw water dependence from the shallow surficial aquifer to the deeper floridan aquifer. The City has:

- Applied for, and has been granted, a new Consumptive Use Permit from the St. Johns River Water Management District to allow for the change in raw water supply (2012 to July 2014);
- Performed an engineering study with Reiss Engineering, Inc. to evaluate production levels for the ROP based on diurnal curves of water demand, raw water characteristics, final product water stability, and future well production limitations (2013);
- Performed a pilot study with Reiss Engineering to evaluate future membrane manufacturers for both the existing ROP 2.1 million gallon per day (MGD) skid and two new 1.25 MGD skids (January 2014);
- Started design of the ROP Expansion with Reiss Engineering, Inc. (July 2014);
- Replaced the membranes in the existing 2.1 MGD skid (August 2015);
- Ordered the new High Pressure Pumps for the ROP Expansion (June 2015);

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- Completed design of the ROP Expansion and bid the project on DemandStar (October 2015).

Bids were opened on December 22, 2015 and Florida Design Contractors, Inc. was the lowest bidder at \$2,379,000 (Bid Tabulation attached). Florida Design Contractors, Inc. has successfully completed projects in the past for our Department. Our experience with them has been positive.

Analysis:

Strengths: The expansion of the ROWTF will result in annual cost savings and better water quality for customers.

Weaknesses: If the ROWTF is not expanded, the City may experience degradation in water quality as the existing surficial water supply wells deteriorate.

Opportunities: There is an opportunity to utilize annual savings through process changes to fund the capital investment needed to expand the ROWTF.

Threats: As changes in disinfectant by-product rules take effect, the City may exceed certain levels and will be forced to report such violations. The expansion of the ROWTF will eliminate this threat.

xc: Cynthia D. Lawson, Director, Finance
John O'Brien, Manager, Purchasing and Warehouse Operations
Christophe M. Robert, Ph.D., P.E., Reiss Engineering, Inc., w/attachment

RB/
Attachment

CITY OF VERO BEACH

BID TABULATION

BID 270-15/IO RO WTP EXPANSION

Bid Opening 12.22.15 @ 2:30pm

CONTRACTOR	TLC Diversified	FI Drilling	Close Construction	FL Design	Wharton Smith
Bid Bond	yes	yes	yes	yes	yes
Addendum #1-6	yes	yes	yes	yes	yes
Variances	none	none	none	yes	none
DRWP Form	yes	yes	yes	yes	yes
Bid Proposal Form	yes	yes	yes	yes	yes
Noncollusion Form	yes	yes	yes	yes	yes
Local Preference	n/a	n/a	n/a	n/a	n/a
Nondiscrimination Form	yes	yes	yes	yes	yes
Certification Non Debarment	yes	yes	yes	yes	yes
TOTAL	\$2,739,000	\$2,445,000	\$2,705,683	\$2,379,000	\$2,457,000