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News Release

Water Treatment Facility dedication, ribbon-cutting is Feb. 22

Event from noon to 2 p.m. will feature ribbon-cutting, remarks, refreshments

ARKANSAS CITY, Kan. (February 15, 2018) — The City of Arkansas City will officially dedicate its new Water Treatment Facility, located at 400 W. Madison Ave., from noon to 2 p.m. February 22.

The formal dedication ceremony will feature a ribbon-cutting in conjunction with the Arkansas City Area Chamber of Commerce. Representatives of Burns & McDonnell, the engineering firm that designed the facility, and Walters-Morgan Construction, primary contractor for the project, will be in attendance.

Officials of the Kansas Department of Health and Environment (KDHE) also were invited to attend.

Burns & McDonnell will conduct a walkthrough of the facility, although some areas will be roped off to the public for safety and security reasons.

This event is free and open to the public. Refreshments will be served following the ceremony.

About the Water Treatment Facility

The City Commission of Arkansas City voted 3-1 on March 15, 2016, to enter into a contract with Walters-Morgan Construction, Inc., of Manhattan, to construct the new Water Treatment Facility.

The commissioners also voted 4-0 to approve a sodium fluoridation system for the new water plant.

With a processing capacity of 5.4 million gallons per day (GPD) and the ability to expand easily to 6.3 MGD, the new facility will provide a stable and secure source of drinking water for Arkansas City.

The new \$22 million plant, funded by a low-interest KDHE loan, was built at a cost of \$4 million under the original budget. In addition, advanced technology will enable the plant to achieve annual operations and maintenance cost savings of 20 percent less than costs of the existing water treatment

For immediate release

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facility that has been in operation since the 1950s. Construction began in May 2016 and the facility will begin water production this month.

“Arkansas City now has an outstanding new Water Treatment Facility that will guarantee clean, affordable water for our citizens for decades to come,” said City Manager Nick Hernandez.

“We’re thrilled that this outstanding project came in well under its original projected cost, and will save operations and maintenance costs for years to come.”

Treatment process

Burns & McDonnell served as engineer of record on the project and worked in partnership with the City to implement a number of technology solutions as part of a wide-ranging cost savings initiative.

Among the most significant savings was a reclassification of the Arkansas City water supply, enabling a savings of \$1.5 million. This reclassification enabled the City to switch from more expensive microfiltration technology to GreensandPlus filtration and integrate other cost-saving adjustments.

Additional studies, including a pilot study in 2015, verified that the less expensive treatment options were sufficient to remove iron, manganese and other minerals, as well as other constituents such as chlorides, total dissolved solids, hardness and other contaminants. Extensive testing verified that water treated at the new facility exceeds standards set by the U.S. Environmental Protection Agency (EPA).

GreensandPlus filtration was chosen by the project team due to its ability to remove iron and manganese from Arkansas City’s water supply, along with reverse osmosis (RO) filtering technology.

The pilot study also verified that the water produced by the RO membranes is of very high quality, with levels of hardness, chlorides and total dissolved solids well below the levels recommended by EPA.

It is anticipated that the RO membranes will remove approximately 1.1 million pounds of chlorides, 1.4 million pounds of hardness in the form of calcium carbonate and 3.2 million pounds of total dissolved solids from the City’s drinking water on an annual basis, based on the current average water usage.

Project overview

The Water Treatment Facility design incorporates a below-grade raw water charge tank, vertical turbine raw water booster pumps, GreensandPlus filtration, cartridge filters, reverse osmosis high-pressure pumps, reverse osmosis treatment and bypass blending.

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In addition, the plant features a new 1.5-million-gallon clearwell and high-service pumping for finished water supply to the distribution system, and a full range of other chemical treatment systems to provide a stable drinking water supply to the customers.

The overall project was split into four phases to save on general contractor markup costs.

The first phase, construction of a 1.5-million-gallon pre-stressed concrete tank for an amount not to exceed \$1.672 million, was completed in May 2016. Clearwell construction time was about a year long.

The second phase, pre-procurement and piloting of the plant's reverse osmosis and Greensand equipment, was completed in late summer 2015, with contracts awarded to Hungerford & Terry for the Greensand and to H₂O Innovation for the RO filters, for a total amount not to exceed \$3.374 million.

That cost was added to Walters-Morgan's base bid for plant construction, Phase 3, which was \$13.5 million. The total approved cost of the plant and equipment was \$16,815,905. An alternate bid of \$58,380 was added to the total base bid to include fluoridation of water in the new plant's operations.

Walters-Morgan was the low bidder on the project. Wichita-based Utility Contractors, Inc. was the next lowest, at \$17.297 million, while Columbus-based Crossland Heavy Contractors, Inc. bid at \$17.447 million and Wildcat Construction Co., Inc., also of Wichita, projected its cost at \$18.125 million.

The final phase of the project, construction of a \$1.065 million waste-stream pipeline from the new Water Treatment Facility to the Wastewater Treatment Facility, was substantially completed earlier this year and is nearing final completion at this time.

The first KDHE loan payment of \$715,000 will not be due until later this year.

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