



City of Franklin, Tennessee

Water Reclamation Facility Modifications and Expansion Project Discussion

July 10, 2018





City of Franklin, Tennessee

Project Background

- Integrated Water Resources Plan (initiated in 2009)
 - Upgrade existing WRF to 16 MGD
 - Anticipate more stringent permit limits
 - Construct 16 MGD biosolids treatment capacity at existing site
 - Selection criteria: efficient operations, decreased energy consumption, sustainability and reliability, diverse portfolio disposal options, risk reduction, focus on odor control, automation, Class A EQ



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Summary of Proposed Upgrades - Liquid

- Construction of a new EQ and headworks facility
- Addition of phosphorus removal capability (biological and chemical)
- Construction of a new UV disinfection facility
- Upgrades to the reclaimed water pump station
- Upgrades to the facility-wide odor control
- Significant electrical improvements
- Implementation of a new SCADA system



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Summary of Proposed Upgrades - Solids

- Construction of a new solids processing building
 - Centrifuge thickening, screw press dewatering, truck loading, laboratory, CHP engine, boiler,
- Construction of a new thermal hydrolysis process skid
- Construction of three new anaerobic digesters
- Upgrades to the facility-wide odor control
- Significant electrical improvements
- Implementation of a new SCADA system



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Bidding Process Summary

- Opened June 18, 2018 at 2pm Board Room

Bidder		Total Base Bid
1	Kiewit Infrastructure South Co.	\$132,380,000
2	Garney Companies, Inc.	\$134,736,600
3	Oscar Rends Contracting, Inc.	\$138,867,564
4	Brasfield & Gorrie, LLC	\$148,805,824



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Additive and Deductive Alternatives

- Project was bid with a number of additive and deductive alternates to the total bid price.
- Staff recommends Alternate A as a valuable alternative
 - Additive Alternate A – addition of a jet mixing system in the equalization tank (\$510,000)
 - As flow is routed and contained in the equalization basin, the addition of the jet mixing system prevent settling
 - Redundant help with odors
 - Aid staff in maintenance of tank after use



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Construction Timeline

- 42 month construction period (3.5 years)
- Temporary access off Mack Hatcher (right in / right out)
- Maintain operations throughout construction (specific sequence of construction has been defined)



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Financial Summary

- Staff is working with COS consultant to evaluate any impacts with respect to rates
- Savings of \$19,375,953 from the June 2018 rebid of the project based upon the January 2018 initial bid
- State Revolving Fund is providing \$100,000,000 of loan at 1.47% with a 30 year term
 - \$225,000 in principle forgiveness
 - Saving over \$30,000,000 in interest as what would be expected from the bond market
 - Continuing to pursue additional SRF funding
- The approved 5-year rate plans have allowed WMD to accumulate funds that will be used to fund a portion of the remaining project costs



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Bid Award Timeline

- Bids opened June 15, 2018
 - Valid for 90-days (September 13, 2018)
- Sent to SRF for bid award approval (~30-45 days)
- Notice-To-Proceed within 90 days of SRF approval



City of Franklin, Tennessee
WRF Upgrades and Expansion Project

Discussion