ORDINANCE NO. 250570

Sponsor: Director of Water Services Department

Authorizing a \$1,005,577.00 design professional services contract Amendment No. 1 to Contract No. 1678 with Jacobs Engineering Group, Inc., for the Rocky Branch Wastewater Treatment Plant (WWTP) Facility Plan project for a total contract amount of \$1,505,553.00; and recognizing this ordinance as having an accelerated effective date.

WHEREAS, City Council passed Ordinance No. 230269 on April 6, 2023, authorizing a \$499,976.00 design professional services contract, which was executed by the City on May 11, 2023, with Jacobs Engineering Group, Inc., for the Rocky Branch WWTP Facility Plan project; and

WHEREAS, this proposed ordinance is for a \$1,005,577.00 Amendment No. 1 for design and bid phase services to support the projects identified in the Facility Plan as priorities for the Rocky Branch WWTP in addition to upstream water quality trading program assistance to support total phosphorus effluent limitations; NOW, THEREFORE,

BE IT ORDAINED BY THE COUNCIL OF KANSAS CITY:

Section 1. That the Director of the Water Services Department is authorized to execute Amendment No. 1 to Contract No. 1678 in the amount of \$1,005,577.00, for a total contract amount of \$1,505,553.00 with Jacobs Engineering Group, Inc., for the Rocky Branch WWTP Facility Plan project, Project No. 81001000. A copy of this amendment is on file in the office of Water Services.

Section 2. That the Director of Water Services is authorized to expend up to the sum of \$1,005,577.00 from the following accounts to satisfy the cost of this amendment:

AL-8194-807778-611040-81001000	Treatment Facilities	\$ 300,000.00
26-8110-807778-611040-81001000	Treatment Facilities	705,577.00
	TOTAL	\$1,005,577.00

Section 3. That this ordinance, relating to the design, repair, maintenance or construction of a public improvement, is recognized as an ordinance with an accelerated effective date as provided by Section 503(a)(3)(D) of the City Charter and shall take effect in accordance with Section 503, City Charter.

I hereby certify that there is a balance, otherwise unencumbered, to the credit of the appropriation to which the foregoing expenditure is to be charged, and a cash balance, otherwise unencumbered, in the treasury, to the credit of the fund from which payment is to be made, each sufficient to meet the obligation hereby incurred.

Tammy L. Queen Director of Finance

Approved as to form:

Mark P. Jones Senior Associate City Attorney



City of Kansas City, Missouri

Docket Memo

Ordinance/Resolution #: TMP-5721 Submitted Department/Preparer: Water Revised 6/10/24

Docket memos are required on all ordinances initiated by a Department Director. More information can be found in <u>Administrative Regulation (AR) 4-1</u>.

Executive Summary

Authorizing a \$1,005,577.00 design professional services contract Amendment No. 1 to Contract No. 1678 with Jacobs Engineering Group, Inc., for the Rocky Branch Wastewater Treatment Plant (WWTP) Facility Plan project for a total contract amount of \$1,505,553.00; and recognizing this ordinance as having an accelerated effective date.

Discussion

Project Justification

The Water Services Department is undertaking this design professional services project to develop a facility plan for its Rocky Branch Wastewater Treatment Plant (WWTP) to account for changing conditions in the service area and to be able to address future regulatory requirements.

The Rocky Branch WWTP is located at 500 N.E. 132nd Street, Smithville, Clay County, Missouri.

<u>Design Professional Services Project Description/Executed Contract Summary</u>

This project will consist of providing a facility plan, which will include projections of future flows and loads, a current hydraulic and process capacity evaluation, current plant conditions assessments, and recommendations for upgrades, repairs, and process improvements.

In addition, modeling may be used to refine rainfall distributions and depth/duration/frequency data based on modeling conducted by the City.

City Council passed Ordinance No. 230269 on April 6, 2023 authorizing a \$499,976.00 design professional services contract with Jacobs Engineering Group, Inc., for the Rocky Branch WWTP Facility Plan project. The City executed the contract on May 11, 2023.

This proposed ordinance is for a \$1,005,577.00 Amendment No. 1 for design and bid phase services to support the projects identified in the Facility Plan as priorities for the Rocky Branch WWTP in addition to an upstream water quality trading program assistance to support total phosphorus effluent limitations.

<u>Term</u>

The term of this project will be increased by 540 calendar days with this proposed Amendment No. 1.

Design Professional Services Contract Cost Summary

• Original Contract: \$499,976.00

• <u>Proposed Amendment No. 1: \$1,005,577.00</u>

• Total: \$1,505,553.00

MBE/WBE Goals

CREO KC established goals of 11% MBE and 11% WBE on this design professional services project on July 7, 2022, as part of the Annual Goal Program.

Original Solicitation

This Project was originally advertised in accordance with the City's requirements. Five proposals were received on August 12, 2022.

<u>Awardee/Subcontracting Participation</u>

A city-wide selection committee met on September 28, 2022 and consisted of the following individuals:

- Wes Minder, Director of Water Services
- Mario Vasquez, City Manager's Office
- Brent Herring, Wastewater Operations Officer

Jacobs Engineering Group, Inc. was recommended for this project on March 7, 2023 with a contract amount of \$499,976.00, with subcontracting participation of 11% MBE and 11% WBE.

Other Proposals Received

- Black & Veatch Corporation
- HDR Engineering, Inc.
- Garver, LLC
- Olsson, Inc.

Estimated Project Cost

The City's estimated cost for this amendment is \$1,005,577.00.

Fiscal Impact 1. Is this legislation included in the adopted budget? ⊠ Yes \square No 2. What is the funding source? Sewer Revenue bond Fund 2024A - AL-8194-807778-611040-81001000 = \$300,000,00 Sewer Fund - 26-8110-807778-611040-81001000 = \$705,577.00 3. How does the legislation affect the current fiscal year? This ordinance is revenue supported and will not have a net impact on the current fiscal year. 4. Does the legislation have a fiscal impact in future fiscal years? Please notate the difference between one-time and recurring costs. No. 5. Does the legislation generate revenue, leverage outside funding, or deliver a return on investment? No. Office of Management and Budget Review (OMB Staff will complete this section.) 1. This legislation is supported by the general fund. ☐ Yes \bowtie No 2. This fund has a structural imbalance. ☐ Yes \bowtie No 3. Account string has been verified/confirmed. □ No

Additional Discussion (if needed)

Citywide Business Plan (CWBP) Impact

- 1. View the Adopted 2025-2029 Citywide Business Plan
- 2. Which CWBP goal is most impacted by this legislation? Infrastructure and Accessibility (Press tab after selecting.)

3.	Wh	ich objectives are impacted by this legislation (select all that apply):
		Engage in thoughtful planning and redesign of existing road networks to
		ensure safety, access, and mobility of users of all ages and abilities. Enhance the City's connectivity, resiliency, and equity through a better-
		connected multi-modal transportation system for all users.
		Build on existing strengths while developing a comprehensive
		transportation plan for the future.
	\boxtimes	Develop environmentally sustainable infrastructure strategies that improve
		quality of life and foster economic growth.
	\boxtimes	Ensure adequate resources are provided for continued maintenance of
		existing infrastructure.
		Focus on delivery of safe connections to schools.

Prior Legislation

City Council passed Ordinance No. 230269 on April 6, 2023 authorizing a \$499,976.00 design professional services contract with Jacobs Engineering Group, Inc., for the Rocky Branch WWTP Facility Plan project.

Service Level Impacts

This project will improve the performance and reliability of the City's sewer system.

Other Impacts

- 1. What will be the potential health impacts to any affected groups? Work on this project will contribute to health impacts by providing a basis to expand/optimize the current pump station to support planned residential and industrial growth in the area; thus, increasing sewer treatment capacity.
- 2. How have those groups been engaged and involved in the development of this ordinance?

The project will rehabilitate existing assets and determine the need for new assets to increase the level of service and optimize operation and maintenance activities. This project will result in construction activities on City property at the Rocky Branch Pump Station, which has a City-owned buffer parcel in between the facility and the nearest residents.

- 3. How does this legislation contribute to a sustainable Kansas City?

 The project will contribute to a sustainable Kansas City by extending the life of existing assets and by optimization. Further, with the planned industrial growth in the area, the opportunity for water reuse will be studied as part of this project.
- 4. Does this legislation create or preserve new housing units? No (Press tab after selecting)

Click or tap here to enter text.

5. Department staff certifies the submission of any application Affirmative Action Plans or Certificates of Compliance, Contractor Utilization Plans (CUPs), and Letters of Intent to Subcontract (LOIs) to CREO prior to, or simultaneously with, the legislation entry request in Legistar.

Yes - I have submitted documents for CREO Review (Press tab after selecting) Please attach or copy and paste CREO's review.

The original Contractor Utilization Plan was submitted to CREO KC for review on March 16, 2023, and was approved on March 17, 2023 with 11% MBE and 11% WBE participation.

Subcontracting goals will be met with this proposed Amendment No. 1.

There are Affirmative Action Program requirements in this contract.

6. Does this legislation seek to approve a contract resulting from an Invitation for Bid?

No(Press tab after selecting)

N/A

7. Does this legislation seek to approve a contract resulting from a Request for Proposal/Qualification (RFP/Q)?
No(Press tab after selecting)



FACILITIES & PLANTS ENGINEERING

4800 E. 63rd Street • Kansas City, MO 64130 P: 816-513-0331 • F: 816-513-0343 • www.kcwater.us

DATE: February 24, 2023

TO: Jeff Martin, P.E., Chief Engineering Officer

Wes Minder P.E., Director

FROM: Kevin White, Project Manager

SUBJECT: Design Professional Services Bid Recommendation for Rocky Branch WWTP Facility

Plan - PN: 81001000/1678

1. **PROJECT NUMBER(S):** 81001000

2. **CONTRACT NUMBER:** 1678

3. PROJECT DESCRIPTION: This project is consists of providing a Facility Plan, which will include projections of future flows and loads, a current hydraulic and process capacity evaluation, current plant conditions assessments, and recommendations for upgrades, repairs, and process improvements. In addition, modeling may be used to refine rainfall distributions and depth/duration/frequency data based on modeling conducted by City (included in Optional Services).

4. TASK SERIES LISTING AND COST INFORMATION:

Task Series 100 – Project Management and Administration	\$56,052.00
Task Series 200 – Site Investigation, Review of Existing Work,	
and Review of Existing Projects	\$139,617.00
Task Series 300 – Facility Plan	\$198,813.00
Task Series 400 – Envision TM Sustainability Design	\$3,010.00
Optional Services	\$102,484.00
Grand Total	\$499 976 00

- 5. **SOURCE OF FUNDS:** 8110-B-807778-81001000
- 6. ORDINANCE: TBD, Ordinance will be required.
- 7. **MBE/WBE GOALS:** 11% MBE / 11% WBE

8. PROPOSALS RECEIVED:

- a. Black & Veatch
- b. HDR
- c. Garver
- d. Jacobs
- e. Olsson

9. DESIGN PROFESSIONAL SERVICES SELECTION COMMITTEE:

Committee Meeting Date: September 28, 2022

- a. Selection Type: City-Wide Selection
- b. Selection Method: Proposals and Interviews
- c. City-Wide Selection Committee Members:
 - Wes Minder, P.E., Director of Water Services
 - Mario Vasquez, City Manager's Office
 - Brent Herring, Wastewater Operations Officer
- 10. **PROPOSAL REVIEW:** A summary of the proposal review is attached to this memo. Based on Staff review of the five proposals received, interviews were extended to three respondents Black & Veatch, Jacobs, and Olsson.

11. KEY FACTORS FOR SELECTION:

- a. Sufficient staffing to support the project.
- b. Previous experience performing similar work to the current project.
- c. Ability to meet CREO goals.
- d. Experience with water reuse projects and an understanding of on-going development projects that will affect the Rocky Branch WWTP.
- e. Experience with representing alternative delivery models including progressive design build and construction manager at risk.

RECOMMENDATIONS:

The City-Wide Selection Committee recommends Jacobs be selected for this project with Black & Veatch as the alternate Design Professional.

Approve	d: (initial/date)	
	Chris Herrera, P.E., Engineering-Facilities Section Manager	
Approve	Docusigned by: Blake Inderson d:	
Approve	DocuSigned by: Jef Martin 756D1017BA554BC	2/28/2023
	Jeff Martin, P.E., Chief Engineering Officer	Date
Approve	DocuSigned by: Wes Minder 500CF2C28AE1472	
	Wes Minder, P.E., Director	Date
L B L R	evin White, Project Manage (kb) eona Walton, Contract Administrator rent Herring, Deputy Director, Wastewater Operations Officer isa Pleasure, Senior Analyst Finance Administration obbi Jackson	

EXHIBIT B

BASE SCOPE OF SERVICES

Design Professional: Jacobs Engineering Group, Inc. Owner: City of Kansas City, Missouri

Project: 81001000 Rocky Branch WWTP Facility Plan

Contract No: 1678

I. GENERAL

The following paragraphs provide a general description of the WORK required of this Scope of Services. Subsequent paragraphs describe in detail the professional services to be provided by DESIGN PROFESSIONAL (DP).

<u>The Project</u>. The Water Services Department wishes to contract with a DP to provide a Facility Plan, which will include a projections of future flows and loads, current design capacity evaluation, current plant condition, and recommendations for upgrades, repairs, and process improvements for the Rocky Branch Wastewater Treatment Plant at 500 NE 132nd Street, Kansas City, MO 64165. The Facility Plan should also contemplate the 2017 Wastewater Master Plan's TM7 to determine if additional modifications are required.

A. Background Information and General Description of Activities.

- 1. The CITY, acting through WSD, is undertaking this project to develop a Facility Plan for its Rocky Branch WWTP to account for changing conditions in the service area and be able to address future regulatory requirements.
- 2. Previous reports, including the 2017 Wastewater Master Plan's TM7, operations data, lab data, and as-built drawings shall be made available to the DP, as available.
- 3. DP shall use e-Builder document management system.
- 4. DP shall use a cost loaded scheduling system such as Microsoft Project or P6.
- 5. DP shall provide an S curve with invoice.
- 6. DP shall submit meeting agendas and expected DP attendees at least 3 days prior to each meeting and distribute draft meeting minutes within one business day of the meeting.
- 7. DP shall review existing geotech reports and indicate if additional borings are necessary.
- 8. Any I&C work will be performed per WWTD I&C standards.
- 9. DP shall prepare a recommendation for phasing for proposed work and recommendation on delivery methods based on constructability, risk, funding, uncertainty of projects, and other recommended factors.
- B. <u>Follow-On Phases.</u> At the discretion of the CITY and after completion of the Project, the DP may be requested to provide other services, including additional design work,

- construction phase services, and providing a resident project representative (RPR) during construction of improvements at the Rocky Branch WWTP and other associated locations.
- C. <u>Coordination</u>. The DP shall coordinate as necessary with regulators, Army Corp of Engineers, Department of Planning and Development, other utilities, City vendors, City consultants contracted to complete other projects for the City that could impact the Rocky Branch WWTP, potentially including Regulatory Compliance Assistance, SCADA project, Storm Water Utility/Engineering, Todd Creek WWTP project team, MARC, Planning and Development Department, potential Industrial Users City of Smithville, the Smart Sewer Program, and City contractors.
- D. <u>Task Series Listing.</u> This Basic Scope of Services is organized under the following Task Series:
 - 1. Task Series 100 Project Management and Administration
 - 2. Task Series 200 Site Investigation, Review of Existing Work, and Review of Previous Projects
 - 3. Task Series 300 Facility Plan
 - 4. Task Series 400 EnvisionTM Sustainability Design
- E. Construction <u>Procurement.</u> 100% Design documents developed by DP will be of sufficient detail for the CITY to obtain bids through a conventional bidding process. Preliminary Design Documents (Facility Plan) shall be of sufficient detail for the CITY to obtain bids through the standard CITY fixed fee design-build process.
- F. <u>Travel.</u> DP may request pre-approval of non-local travel. The CITY's Project Manager may approve or disprove the travel expense. Any travel request after the fact shall be denied.
- G. <u>Explicit Responsibilities</u>. The Scope of Services explicitly sets forth what DP will perform and does not implicitly put any additional responsibilities or duties upon DP. The DP agrees to provide the specific Basic Services as identified herein. Work not specifically discussed herein shall not be performed without an amendment or shall be provided as Optional Services upon written authorization from the CITY.
- H. <u>Closeout</u>. Design Professional will provide deliverables and requested backup files. HRD completion forms and other required documents will be submitted before final payment.
- I. Capital, Annual, and Total Ownership Cost Opinions. All opinions of probable construction cost developed will generally follow the recommendations of the Association for the Advancement of Cost Engineering (AACE) International Recommended Practice No. 18R-97 with regard to methodology and accuracy. Since DP has no control over the cost of labor, material or equipment furnished by others not under contract to DP, DP's opinion of probable cost for construction, of the Work will be made on the basis of experience and qualifications as a DP. DP does not guarantee that proposals, bids or actual project costs will not vary from DP's opinions of probable cost. The cost opinions' level of accuracy presented by DP will be as noted for in subsequent paragraphs of this Scope of Services. All opinions of probable construction, operations, and maintenance costs will be made on the basis of experience and qualification as a DP. DP does not guarantee that actual operations and maintenance costs will not vary from the DP's opinions of probable

operations and maintenance costs. DP will utilize Parametric Cost Estimating tools along with design-build cost estimators and best practices from the construction community and design community to develop their capital cost model. DP will utilize estimating tools combined with O&M specialists in the development of the O&M model. Resumes for the cost estimators and O&M specialists will be provided to WSD for approval before cost estimating tasks begin. DP shall immediately notify the PM if the estimates are over the construction budget after initial QA. City reserves the right to call a cost estimate review meeting at WSD offices or the DP offices where the cost estimating team is based. Project Workplan include the "below the line factors" for each estimate.

II. PROJECT MILESTONES AND CITY REVIEW REQUIREMENTS

- A. Project Milestones and CITY Review Requirements
 - 1. Task Series 100 shall be completed within 270 days following the CITY's issuance of a Notice To Proceed, NTP, to the DP
 - 2. Task Series 200 shall be completed within 90 days following the CITY's issuance of a NTP.
 - 3. Task Series 300 shall be completed within 270 days of the CITY's issuance of a NTP.
 - 4. Task Series 400 shall be completed within 270 days following the CITY's issuance of a NTP.
 - 5. All tasks identified in this Scope of Services, except those identified as Optional Services, shall be performed within 270 calendar days of the written Notice to Proceed. The completion schedule will be extended by the CITY for delays beyond the control of the DP as approved by the CITY.
 - 6. DP may suggest schedule modifications to the scope of work
- B. The CITY hereby commits to review deliverables and provide comments within fourteen (14) calendar days after receipt of deliverables from DP. CITY will endeavor to provide consolidated written review comments to DP within a fourteen (14) calendar day period. A review meeting will be scheduled and conducted by DP no more than fourteen (14) calendar days after receipt of written consolidated CITY review comments, unless a mutually agreed upon date outside this schedule window is selected.

III. BASIC SCOPE OF SERVICES

The following Task Series describe the Basic Scope of Services to be provided by the DP under the Project.

TASK SERIES 100 - PROJECT MANAGEMENT AND ADMINISTRATION

The purpose of Project Management and Administration will be to manage, direct and oversee each element of Basic Services identified herein and subcontractors employed by the DP in completion of the Work. The following management activities will be provided by DP.

Task 101 Project Management Services

Provide project administration management services necessary throughout the project to successfully manage and complete the Work, including project correspondence and consultation with CITY Staff; supervision and coordination of services; implementation of a project specific Work Plan; scheduling and assignment of personnel resources; continuous monitoring of work progress; and maintenance of project controls.

Task 102 Monthly Invoicing and Project Status Reports (PSRs)

Prepare and submit monthly invoices (showing, by task, staff name including office location, classification, direct hourly rate, multiplier, and hours worked on each task) on a form acceptable to the CITY and provide a monthly project status report which shall accompany the monthly invoice submittal. If applicable, a list of the tasks in progress or completed shall be attached with each invoice. The monthly progress status reports shall document work progress, the percentage of completed work, earned value, schedule status, and budget status. The monthly project status report shall identify work performed by DP, the work activities anticipated to be performed the next month, action items required by CITY, previous decision items, potential to go over budget along with corrective actions, and potential project scope variances with corrective actions. A short narrative shall be provided to describe the work activity performed for each task within each Task Series. DP shall provide WSD with a narrative description of individuals' work, if requested. PSRs shall include a table containing the date of the most recent invoice from each subcontractor included in this invoice to the City. DP shall obtain reasoning from any subcontractor for invoice being greater than 30 days old.

Task 103 Subconsultant Agreements and Administration

Prepare a scope, budget, schedule, and agreement for its subconsultants involved in the Project. Conduct coordination meetings as required to prepare subconsultant agreements, to review deliverables, and to execute the defined scope of work. Provide administration of subconsultant agreements and subconsultant work including deliverables, subcontractor invoicing, and schedule maintenance. Prepare monthly M/WBE subcontractor utilization reports and submit in the required format to the CITY's Human Relations Department. Workplan should describe the DP's methods for subcontractor management. DP is encouraged to utilize task orders.

Task 104 Quality Control

DP's Quality Control Program will be implemented on all phases of the project to provide an independent review of the work. Quality control reviews will include checks for conformance with regulatory agency requirements, completeness and correctness of evaluations, design accuracy, feasibility of implementing recommendations, and adherence to contract requirements.

Task 105 Project Kickoff Meeting

After Notice to Proceed is given by CITY, DP shall organize and conduct a Project Kickoff Meeting with the CITY to review and establish project goals, lines of communication, project procedures, DP's proposed Work Plan, and other logistics of project execution, including anticipated Project schedule, cost loaded schedule, and expected MBE/WBE utilization schedule, and content of subsequent monthly progress meetings. Prepare and submit an agenda to CITY

Staff 3 business days prior to the meeting and prepare and distribute the meeting minutes within 1 business day of the meeting date.

Task 106 Work Plan

- 1. **Work Plan Format.** DP shall prepare a written draft Work Plan. The Work Plan for the project includes, at a minimum the following:
 - a. A summary of dedicated key team members roles and responsibilities, including all task managers, field crew leaders and their contact information. Any major changes in personal assignments from the RFP should be noted and approved of by the CITY.
 - b. A summary of the Project's scope of services.
 - c. Detailed cost-loaded schedule for performance of all work.
 - d. Sustainable planning and design goals, objective and processes.
 - e. Define any issues requiring special coordination with CITY, and/or adjacent projects.
 - f. DPs methods for subcontractor management and preventing scope creep.
 - g. Section on cost estimating methods including "below the line factors for each planned estimated" and details on the utilization of parametric values.
- 2. **Submitting Work Plan.** Submit the draft Work Plan (a single electronic file in portable document format PDF) within 7 calendar days of the notice to proceed. CITY will review the draft Work Plan and provide comments within 7 calendar days of receipt of the draft Work Plan. Revise the draft Work Plan as necessary to respond to CITY's comments and submit an electronic PDF file including a Gantt chart in Microsoft Project within 14 calendar days of receipt of CITY's comments. The Work Plan shall be updated and maintained throughout the Project, with updates provided to CITY when requested.

Task 107 Progress Meetings

Participate in up to (TBD) monthly progress meetings with CITY to provide updates of work progress, budget and schedule status, current issues, variances in the potential scope of work, review Action Items, Decision Logs, and potential cost savings proposals. Anticipated future activities and CITY action items will be discussed. DP will prepare and submit an agenda to CITY 3 days prior to each meeting and prepare/distribute meeting minutes within 1 business day of the meeting.

TASK SERIES 200 - SITE INVESTIGATION, REVIEW OF EXISTING WORK, AND REVIEW OF PREVIOUS PROJECTS

Task 201 Flows and Loads Evaluation

DP will review the estimating Wastewater Masterplan projections and compare them to actual data. DP shall utilize population projections as well as utilize expected land use for the near term, medium term, and full build out. DP will coordinate with City Planning and Developing for expected growth rate in the Plant's watersheds and as well as MARC projections. DP will discuss potential commercial and industrial developments in the watershed. DP will review City's internal regulatory timeline and provide commentary. DP will assist in developing

additional plant and receiving stream sampling to meet regulations and anticipated regulations. DP shall finalize the projects in a report.

Task 202 Review Existing Documents and Drawings

Perform a compilation and review of pertinent existing documents including but not limited to: provided schematics, existing site plans, scanned as-built drawings, hard copy as-built drawings, flood plain and flood way data, existing geotech reports, and other sources provided by the CITY. DP will perform field verification of collected data via site walk with CITY staff.

Task 203 Site Investigations

DP will perform a visual inspection and review of existing non-destructive testing and perform additional non-destructive testing where practical. DP will use inspections and testing data to determine the remaining useful life of the fixed and rotating assets previously listed in the 2017 Wastewater Master Plan's TM7. Scope will include updating the condition score from the 2017 Wastewater Master Plan in addition to adding remaining useful life. DP will then locate on ground surface the best available information on Utility locations within CITY property around Rocky Branch WWTP. The Utility Survey will document the location of existing utilities (gas, electric, water, sanitary sewer, storm sewer both above and below grade. DP will capture the utility location information with survey or drone LIDAR from Task 207 and add process piping as available. No potholing will be conducted. DP will assist the CITY in transferring the site piping data into the City's GIS. DP will identify and document valves, meters, and sensors. DP will use existing as-builts and site sketches/drawings as a baseline to determine what assets exist and their general location. DP will investigate both lagoon areas to determine their availability for removal and land use in any future WWTP expansions.

Task 204 Geotechnical Investigations

DP will review existing geotechnical reports to determine if they are sufficient. DP may make use of previous geotechnical reports as needed for evaluating Facility Plan alternatives, estimating construction costs and assessing implementation plans. It is anticipated that the facility plan will recommend and plan the quantity of additional exploratory field work to occur on the recommended alternative before proceeding to 30% design.

If the DP or CITY recommends and City provides separate authorization, the DP will provide OPTIONAL geotechnical field/lab/engineering services including exploratory field work, laboratory and field testing, and preparation of geotechnical reports. The geotechnical report shall include professional interpretations/opinion of the probable soils to be encountered. The DP will drill test wells at locations at the Rocky Branch WWTP and coordinate with the Army Corp of Engineers at locations within the critical zone of the levy, if applicable. The DP will perform a yield analysis on each test well and other recommended work. The geotechnical investigations will be sufficient to complete detailed design of new assets at Rocky Branch WWTP. The results of the geotechnical investigations shall be prepared in a report.

Report - A geotechnical report shall be prepared and shall discuss the general soil, well information, and ground water conditions underlying the site; present the relevant engineering properties of the existing soils; provide excavation and earthwork recommendations, including

minimum setbacks from adjacent structures, and recommend design criteria and parameters for pipe bedding and other earth supported improvements. The report shall also provide an analysis of existing pavement materials to determine bearing capacities and suitability for long term reliability so that pavement removal/replacement areas can be determined in coordination with existing street and curb conditions and utility impacts. Submit initial geotechnical report to CITY for review and comment.

Task 205 Load Study and Electrical Work

DP will review feeds from Missouri Public Service Commission (PSC) and Platte-Clay Electric Cooperative, switchgear, substations, and MCCs. DP will develop a complete load study on each MCC, substation, transformers, other electrical equipment, switchgear, and feeds. DP will update the Rocky Branch WWTP one-line diagram with existing conditions and create SKM model of electrical system. DP will use this information in developing phasing and recommended improvements in particular requirements to bring existing facilities up to current codes and maintain redundant feeds.

Task 206 BIM Development

DP will develop a BIM shell model of the existing site conditions. BIM development will have a coordination meeting with City staff after Lidar Scans during model development to assist the DP team. Deliverables will provide a base for development of planning alternatives.

Model development will include:

- 1) Establish survey control and appropriate ground targets for drone LiDAR capture
- 2) LiDAR drone flights of approx. 23 Ac to produce:
 - i) Colorized point cloud
 - ii) Colorized mesh model for BIM (REVIT) of structure exteriors only.
 - iii) Orthorectified high-resolution imagery (Tiff format, resolution TBD)

Noted assumptions include:

- The City's Standard BIM Protocol will not apply in full at this time. The mesh model will provide a starting point for moving toward that final product for facilities that will be utilized in the recommended improvements.
- Mesh model will include the exterior shell of buildings and structures only.
- LiDAR scan will include only those surface utilities and equipment that are not obscured by heavy tree canopy, roof, or other obscuring cover that would interfere with an airborne laser scan.

TASK SERIES 300 - FACILITY PLAN

Task 301 Existing Assets

DP shall submit an engineering report that evaluates the remaining life of each asset, and the issues that need to be addressed.

Task 302 Hydraulic and Process Capacity

A hydraulic capacity, and organic waste load analysis for the current system will be conducted. DP will develop a BioWin model to be provide to the CITY to evaluate the probability of the plant meeting current and planned water quality limits with current and projected loading with and without Project Diode and other planned industrial developments coming online. DP will develop loading analysis with seasonal variations explored. CITY reserves to right to have DP perform sensitivity analysis on more uncertain parameters. DP shall review the model with City.

Task 303 Alternative Evaluation Review

DP shall submit a report that contains one long-term vision for the facility and develops of short-term solutions for immediate needs, at a 5 % Design evaluation level, for up to 4 asset/process needs. DP and PM will meet to brainstorm and review potential alternatives and will screen down to the retained alternatives before the alternatives are further developed. Each alternative should include, but not be limited to: initial process flow diagrams, an AAEE level 4 total cost of ownership, operation and operability, and a discussion on the ability of the alternative to meet future permitting requirements, and its ability to be cost effectively phased. Alternatives shall be evaluated using the the DP's parametric cost estimating tool(s), the CITY's quadruple bottom line process, and a discussion of the DP's recommended alternative will be included. The immediate needs alternatives selected for implementation will be further developed to 10% design level with implementation costs reviewed by design-build cost estimators and O&M specialists.

Discipline		10% Conceptual
	%	Narrative
Process	60	Process flow diagrams, integrated liquid and solids model with documentation of model parameters and scenarios.
Site Civil	2	Major piping and earth moving sketched out, updated siting
Site Civii		Major buildings/structures
Geotechnical	10	Borings planned
Structural	2	Areas of structural rehabilitation identified and foundation
		type of new facilities identified
Mechanical (process piping)	10	Major piping draw as 1 lines
HVAC	2	Identify areas to heat and cool, draft NFPA determination
Plumbing	1	Identify plumbing needs
Architectural		-
Electrical and misc I&C	2	Power study of existing equipment and draft load table for equipment, scada connectivity method determine, physical radio path study complete if applicable
P&IDs	30	Draft below the line (process) equipment and instruments.
Sequences of Operation, Control	0	-
Block Description, Control		
Description Narrative		
Floor Plans	30	Draft floor plans and Demolition
Asset Management	0	-
Cost Estimate	10	Per AACE

Task 304 Final Report

DP shall submit a Final Report consisting of a Facility Plan and conceptual design report that conforms to all requirements of 10 CSR 20-8.110 Engineering – Reports, Plans and Specifications (Missouri Code of State Regulations) and specifically to all requirements of Section (4) Engineering Reports or Facility Plan. The Final Report must include a phasing plan on when to implement projects based on but not limited to the need for increased capacity, more stringent effluent limits, asset lifecycle, etc. It should also have enough information to develop a Class 4 cost estimate, and recommended project delivery methods to complete the work. The Final Report should also consist of considerations of changes required to update the 2017 Master Plan, and TM7, as applicable to the Rocky Branch WWTP. The data presented in the Facility Plan is the basis for the detailed design of the construction plans and specifications.

TASK SERIES 400 – ENVISIONTM SUSTAINABILITY DESIGN

Task 401 EnvisionTM Credits

The DP shall review the predetermined EnvisionTM credits based on the appropriate project type as provided in the KC Water Sustainability Playbook. The DP shall evaluate the credits, along with the Project Manager, at each scoped phase of design and construction phase covered by the contract. The DP shall utilize the Conversation Guide and update the Sustainability Tracking Spreadsheet with each evaluation. Following the final evaluation the DP shall provide a memorandum and the Sustainability Tracking Spreadsheet summarizing how the project met the sustainability goals set for the project and how the project increased sustainability using the selected Tier 1 credits. EnvisionTM certification is not included in this scope, but DP shall review the EnvisionTM credit support documentation requirements from the Envision Guidance Manual. If the CITY decides to move forward with EnvisionTM verification, additional DP support services will be provided as Optional Services. However, the DP shall be responsible for the EnvisionTM credit scores reported during this Project. All EnvisionTM credit scoring shall be completed by or under supervision of a certified EnvisionTM Sustainability Professional (ENV SP). After the selection of the design alternative to take to full design, the City shall determine the envision tier for the project.

TASK SERIES 500 – OPTIONAL SERVICES

Scope to be determined

DP shall include budget for a limited quantity of optional services. Authorization of the optional services budget requires separate NTP from the City along with City's selection of final scope for those optional services. For budgeting purposes, scope is assumed to include partial design development/refinement of short-term improvements recommended for implementation. Improvements recommended may, or may not, include:

- Clarifier mechanism replacement
- Blower replacement/upgrades
- Sludge thickening/storage improvements
- Other immediate needs improvements identified by Facility Plan (example: sludge settleability enhancements).

IV. OPTIONAL SERVICES

Any work requested by the CITY that is not specifically stated in one of the Basic Scope of Services listed above will be classified as Optional Services. DP's contract maximum upper limit for compensation includes a total allowance amount of \$X for Optional Services not yet authorized by CITY that may be required throughout the course of the WORK. This allowance amount shall not be utilized by DP unless specifically authorized in writing by the CITY to perform Optional Services. Optional Services will not be performed, nor is the DP approved to utilize any of the allowance amount, unless the CITY provides written authorization to DP that includes the scope of work for each Optional Service to be performed and a maximum billing limit for compensation that has been mutually agreed upon. Optional Services will include, but not limited to:

- A. Meetings with local, State, or Federal agencies beyond those contemplated under the Basic Scope of Services.
- B. Appearances at public hearings or before special boards beyond those contemplated under the Basic Scope of Services.
- C. Special Consultants or independent professional associates requested or authorized by CITY.
- D. Tagging of existing equipment in the Rocky Branch WWTP.
- E. Task 201 Supplemental Regulatory Services. DP may conduct regulatory agency communications and/or meeting(s) to address anticipated receiving stream assessment requirements and NPDES permit conditions for expanded plant wasteloads. DP may conduct preliminary water quality modeling to assist in estimating treatment requirements. DP will evaluate how the receiving stream characteristics and impairment history may affect the potential for total phosphorus trading and for the treatment and disposal of data center water.
- F. Facility Loading Capacity Tool Optional Services DP will apply to Rocky Branch WWTP the methodology developed for the Todd Creek WWTP that will allow KC Water to compare anticipated loading to actual to allow annual adjustment of the timing of facility improvements within the KC Water CIP. This method will consider loading increase to the Rocky Branch WWTP based on the status of planned developments and other internal and external contributors to be identified by the DP. The method will balance competing objectives, including reduce operational risks, reduce project execution risks, and maximizing the delay of future improvements. DP will then use the same tool for the Fishing River WWTP service area
- G. SRF Loan Application and Environmental Permitting DP shall begin on the relevant environmental permitting for the project to facilitate the City applying for state revolving fund (SRF) funding. DP shall also assist the City in applying for SRF funds. Previous SRF application information will be provided by the City
- H. Geotechnical field testing, laboratory analysis and preparation of new geotechnical reports.

- Development of the transient plan (Startup and Commissioning) and Project Acceptance Methodology
- J. Startup and Commissioning assistance such as post final competition operations assistance, development of Standard Operating Procedures (SOPs), collecting new assets for entry into WSD's computerized maintenance management system (CMMS), collection and entry of preventative maintenance (PM) into WSD's CMMS, develop recommended backups for WSD to have on hand, develop failure defense plans (failure modes effects analysis), develop recommended key performance indicators (KPI), development of operations shift sheet, recommended placement of laminated SOPs, process training, training of each of WWTD's maintenance group, duty station training/assistance during handover, electronic O&M consolidating training and other information, and controls programming testing.
- K. Creation of AutoCAD or BIM as-builts.
- L. Completing an additional Site Survey.
- M. Observing factory acceptance tests and/or field retesting of equipment that fails to pass the initial test.
- N. Provision, through a subcontract, of laboratory and field testing required during construction and of any special reports or studies on materials and equipment requested by CITY beyond those testing activities identified in the Basic Services.
- O. Services for making revisions to drawings and specifications made necessary by the acceptance of substitutions proposed by the CONTRACTOR; and services after the award of the construction contract for evaluating and determining the acceptability of substitutions proposed by the CONTRACTOR.
- P. Special reports requested by CITY concerning facilities operation and personnel matters during the operation startup period.
- Q. Revision of previously accepted studies, reports, design documents or Construction Contract Documents when such revisions are required by changes in laws, rules, regulations ordinances, codes or orders enacted subsequent to the preparation of such studies, reports, documents or designs; or are required by any other causes beyond DP's control.
- R. Evaluation of unusually complex or unreasonably numerous claims submitted by the CONTRACTOR or others in connection with the Work.
- S. Acceleration of the progress schedule involving services beyond normal working hours
- T. Further development and verification of EnvisionTM credits through conceptual to final design.
- U. Services for making revisions to Construction Contract Documents and project rebidding arising from actual bids prices being greater than CITY's budget.
- V. Services resulting from significant delays, changes or price increases caused directly or indirectly by shortages of materials, equipment, or energy.
- W. Preparation for litigation, arbitration, or other legal or administrative proceedings; and appearances in court or at arbitration sessions in connection with bid protests, change orders, or construction incidents.

- X. Assist the CITY in feasibility analysis and design of water reuse unit process and conveyance. Assist KC Water in setting up a water reuse utility.
- Y. Assisting CITY with appraisal and/or acquisition of additional easements or re-zoning.
- Z. Revising Contract Documents or assisting with re-bidding the Project due to actual bid prices being greater than the CITY's budget.
- AA. Special inspections as dictated by any adopted building code or amendment thereto of the City of Kansas City, Missouri.
- BB. Phase 1 and 2 environmental, survey work, and negotiations for property acquisition.
- CC. Commissioning and Startup Assistance
- DD. Changes in the general scope, extent, design, or character of the Project, including, but not limited to:
 - 1. Changes in size or complexity;
 - 2. Method of financing or availability of funding;
- EE. Additional work necessary for WWTD to fulfill its commitments.
- FF. Assistance in evaluating and completing Developer RFI, development of project limits, and other development support.
- GG. Flood plain mitigation
- HH. Evaluation of odor control for equipment protection.
- II. Additional DP support services to support EnvisionTM verification
- JJ. 30% Design
- KK. Final Design
- LL. Bidding Services
- MM. Construction Phase Services

V. CITY'S RESPONSIBILITIES

CITY will furnish, as required by Basic Services and not at the expense of the DP, the following items:

- A. Provide assistance by placing at DP's disposal available information pertinent to the assignment, including previous reports, drawings, specifications, O&M records and any other data relative thereto. Provide said information within thirty (30) calendar days of receipt of a written request by DP.
- B. CITY's Project Manager will provide the services of at least one CITY employee who has the right of entry to and knowledge of the existing facilities. Site visits will be required on multiple occasions over the course of the Project.
- C. CITY's Project Manager will coordinate meetings between City staff and the DP.
- D. Operate all existing equipment, valves or other systems necessary for functional or performance testing required by DP.

- E. Obtain property title searches and title reports, and purchasing property if needed for construction of new facilities.
- F. Provide DP will private property access agreements with current property owners to perform field investigations.
- G. Bidding Services. CITY will provide the following bidding phase services:
 - 1. Prepare agenda and conduct the pre-bid conference.
 - 2. Advertise project Construction Contract Documents, including addenda.
 - 3. Prepare Bid Tabulation. Provide copies of bids to DP for evaluation.
 - 4. The CITY will reproduce, and submit Construction Contract Documents and construction permit application to MDNR for approval. City shall pay for all permit fees.

(End of Scope of Services)

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ee Estimate - Rocky Branch WWTP Facility Plan (8100	1000)	Estell Johnson	Julie McNiff		Julian Sandino Tech	Jim Lozier Data Center	Keisha Voigt Envision	Leisha Pica Planning	Luke Heyerdahi	Harry Sellers	Adrian Flores Process	Kurt Bettger Geotech	Nick Roth	Robert Wood	Brian Lehman	Thomas Benso LIDA
City of Kansas City, MO		Proj Mgr	QC Mgr	Study Lead	Director	Tech	Tech	Tech	GIS	Assets	Lead	Lead	Geotech	Electrical	BIM/CAD	scar
Task Series 100 - Project Management		112	8	16	14	0	0	14	1 0	0		1 (0 0		0	
101 - PM Services		20		7.0			-									
102 - Monthly Invoicing and PSRs	10 invoices, 2 hrs ea for PM	20														
103 - Subconsultant Agreements and Admin		20						+						+		
104 - Quality Control		20	0		12			12			-	1		+		
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105 - Project Kickoff Meeting		16		16		1		-	<u> </u>		1					
106 - Work Plan		16														
107 - Progress Meetings	biweekly	20														
Task Series 200 - Investigations/Review of Exi		8	0	10	0	0	0) 2	2 0	80	40	20	50) 80	60	
201 - Flows and Loads Evaluation	Reg eval by Geosyntec	2		2				2	0		20					
202 - Review Existing Documents and Drawing	verify w/site visit	4		8							20					
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203 - Site Investigations	to GIS, etc.									80	1					
204 - Geotechnical Records Review	no field investigations or testing											20	50	1		
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Task Series 300 - Facility Plan		64	0	64	28	40	10		0	20			10	20	40	
301 - Existing Assets	Remaining Life	2		2						20						
302 - Hydraulic and Process Capacity	Model of each	2		2							60					
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303 - Alternative Evaluation Review	immediate term to 10% design	40		40	20	40	8	3			50	,	10) 20	40)
304 - Final Report		20		20	8		2				40	1				
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Task Series 400 - Envision		4	0	0	0	0	8) 0	0	1 0		0	1 0		1
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Task Series 500 - Optional Services		40	0	0	0	0	0		0	0	60		50	50	80)
Scope TBD - assumed to include partial																
design development of short term																
recommendations		40									60		50	50	80)
BASIC SERVICES PROJECT TOTAL		228	8	90	42	40	18	16	6 0	100	250	20	110	150	180	
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FAF - Base Scope	projections & Envision credit															1
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Ed Meyer	Linda Mohr	David Green	Shashi	Rajan Vasudevan	Jackson Corley	Crystal Brown Document	Karla Albert	SUBTOTAL	SUBTOTAL		TOTAL
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Rocky Branch WWTP Facility Plan - 81001000/1678 RFQ/P Submittal Breakdown DPS Estimate \$ 500,000

Prime DP	Black and Veatch	Garver	HDR	Jacobs	Olsson
Date RFP/Q Received	8/12/2022 16:00	8/12/2022 16:00	8/12/2022 16:00	8/12/2022 16:00	8/12/2022 16:00
Addenda (total 3 addenda)	Yes	Yes	Yes	Yes	Yes
ТЕАМ	Black and Veatch, DuBois Consultants, Custom Enigineering, Taliaferro & Browne, Inc., Tsi Geotechnical, TREKK Design Group, Environmental Advisors and Engineers, Inc.	Garver, DuBois Consultants, Custom Enigineering., Tsi Geotechnical, TREKK Design Group, Environmental Advisors and Engineers, Inc.	HDR, Environmental Advisors and Engineers, Inc., Taliaferro & Browne, Inc., Tsi Geotechnical	Jacobs, Geosyntec, Taliaferro & Browne, Tsi Geotechnical, Environmental Advisors and Engineers, Inc., Lynchpin Ideas	Olsson, TREKK Design Group, Dubois Consultants, Environmental Advisors & Engineers, Custom Engineering, Tsi Geotechnical, Canterbury Construction Management, Utility Support Services
PM	Page Burks	Wes Cardwell	Patrick Young	Estell Johnson	Molly Pesce
Experience Summary (up to 10 pages)	Black and Veatch: Founded in 1915. Large firm with 120+ offices and 3.3B in 2021 revenue. Has completed mulitple municpal projects involving master plan, design, process and reuse application studies Dubois: Founded in 1988, with focus on water infrastructure. Will be structural designer for project Custom Engineering: Founded in 1974 with a specialization in design of mechanical, electrical and plumbing systems. Will provide plumbing and HVAC design for project Taliaferro & Browne: Will provide site utility mapping, Envision support, Civil/Site Design, RPR and construction services for project TSi Geotechnical: Will provide geotechnical boring and recommendations for the project Trekk Design Group: Civil engineering firm that will provide LIDAR scanning for BIM modeling and Civil/Site Design/RPR and construction services on the project EAE: Professional services firm providng permitting support and architecture design services for the project	Garver: KC Office established in 2013. Company wide, have completed 85 Master Plan Projects in the last 10 years. WDC team based in northwest Arkansas Dubois: Founded in 1988, with focus on water infrastructure. Will provide civil and structural services for the project Custom Engineering: Founded in 1974 with a specialization in design of mechanical, electrical and plumbing systems. Will provide mechanical and electrical services for the project TSi Geotechnical: Will provide geotechnical services for the project Trekk Design Group: Civil engineering firm that will provide Survey and Site/Civil services for the project EAE: Professional services firm providng Envision Sustainability Professiona and permitting services for the project	HDR: Founded in 1917, Large firm with 215+ offices having completed muliple water and wastewater facility plans in Missouri and Kansas Taliaferro & Browne: Will provide RPR and modeling services for project EAE: Professional services firm providing architectural design support for severl of the control rooms for the project TSi Geotechnical: Will provide geotechnical services for the project	Jacobs: Large firm with \$14 billion in revenue. Acquired CH2M Hill in 2017, with 300 staff in Missouri, with numerous projects with KC Water Geosyntec Consultants: Will provide regulatory support services for this project Taliaferro & Browne: Will provide site investigation services for project TSi Geotechnical: Will provide geotechnical site investigation services for the project EAE: Professional serrvices firm providing Envision support services for the project Lynchpin Ideas: Will provide public stakeholder engagement services for the project	In business since 1956. Local office opened in 1998. 315+ employees in 3 locations across the KC Metro. Completed over master planning and facility pla services for over 150 wastewater facilities and 130+ projects for KC Water Dubois: Founded in 1988, with focus on water infrastructure. Will be structural designer for project Custom Engineering: Founded in 1974 with a specialization in design of mechanical, electrical and plumbing systems. Will provide plumbing and HVAC design for project TSi Geotechnical: Will provide geotechnical boring and recommendations for the project Trekk Design Group: Civil engineering firm that will provide LIDAR scanning for BIM modeling and surveying services on the project EAE: Professional services firm providng permitting support, architecture design services, and RPR services for the project Canterbury: Non-DBE will provide cost estimating services for the project Utility: Will provide O&M services for the project
Statement of Quals Form	Nuter Reclamation Facility, City of Morro Bay, 2022 Wastewater Collection and Treatment Master Planning, Oklahoma Ordinance Works Aurthority, 2020 Wakarusa River and kansas River Regional WWTP Expansion, City of Lawrence, 2019 Water Protection Facility Plan and Improvements, City of St. Joseph 2021 Muliple Facility Planning and Design Projects, Metropolitan St. Loui Sever District, 2018 Comprehensive Planning and Lower Bird Creek WWTP Expansion, Tulsa Metropolitan utility Authority, 2017	1. WWTP Improvements, Sulphur Springs, TX, 2020 2. NACA WWTP Expansion Phase 1, NACA, 2024 3. WRF Phase 2 Upgrade & Expansion, Norman, OK, 2019 4. MCRWS Plant Expansion, TRA, 2021 5. Celina WWTP Improvments, Celina, TX 6. Springdale Water Utilities WWTF Peak Flow Study, Springdale, AR 7. SAWS Wastewater Treatment Plant master Plan, San Antonio, TX 8. Helena WWTP Design Improvements, Helena, AL	Tomahawk Creek WWTP Facility Planning, Johnson County Wastewater, 2011-2022 Nelson Complex WWTF Collection System Wet Weather Plan Development and Optimization, Johnson County Wastewater, 2019-2028 3. Lower Meramec River WWTP Phase II & Facility Plan Update and Comprehensive AMmonia and Nurtirent Removal Master Plan, Metopolitan St. Louis Sewer District, 2012-2024 4. Wolcott Wastewater Treatment Plant Facility Plan and Expansion, Unified Government of Wyandotte Coutny, 2016-2021 5. Middle Big Creek Sewer Sub District, Phases 1 and 2, Little Blue Valley Sewer District Wastewater, 2001-2014 6. Atherton Wastewater Treatment Plant Facility plan, Phase 1 and Phase 2 Capital Imrovements, Little Blue Valley Sewer District Wastewater, 2001-2014	1. Blue River Biosolids WWTP Facility Improvements, KC Water Wastewater Treatment, Combined Sewer overlow, Flood Protection & Master Plan, Omaha Public Works 3. MK Nelson Treatment Complex Asset Renewable and Repair Rehabilitation, Johnson County Wastewater 4. Adaptive master Plan, Upper Occoquan Service Authority 5. Technical Analysis for the Joint Water Pollution Control Plan (JWPCP), LA County Sanitation Districts 6. Reclaimed Water System master Plan and Utility Development Services, Oro Valley Water Utility	New West Side, WWTP, City Water & Light, City of Jonesboro, AR, 2023 Northeast WRRF Solids Dewatering Improvements, City of Lincoln, NE, 2023 3. WWTP Master Paln & Design, City of Oak Grove, MO 2021 4. West Side Wastewater Treatment Plant, Water & Sewer Operations City of Fayetteville, AR 2008 5. WWTP Nutrient Removal Study, Little Blue Valley Sewer District, Independence, MO 2023
# of engineers/architects - KC / total firm	Architects: 14/17 Civil Engineers: 181/765 Mechanical Engineers: 164/340 Electrical Engineers: 145/393 Insturmentation/ Controls Engineers: 35/72 CADD Tech: Included in Others Others: 283/729	Architects: 0/6 Civil Engineers: 9/411 Mechanical Engineers: 0/25 Electrical Engineers: 0/20 Insturmentation/ Controls Engineers: 0/3 CADD Tech: 2/22 Others: 4/130	Architects: 0/712 Civil Engineers: 36/737 Mechanical Engineers: 1/282 Electrical Engineers: 6/371 Insturmentation/ Controls Engineers: 2/25 CADD Tech: 19/733 Others: 108/8,886	Architects: 0/929 Civil Engineers: 6/1662 Mechanical Engineers: 0/1209 Electrical Engineers: 0/1203 Insturmentation/ Controls Engineers: 0/491 CADD Tech: 0/2599 Others: 14/861	Architects: 0/0 Civil Engineers: 30/253 Mechanical Engineers: 9/46 Electrical Engineers: 26/83 Insturmentation/ Controls Engineers: 1/3 CADD Tech: 26/141 Others: 182/1,356

Rocky Branch WWTP Facility Plan - 81001000/1678 RFQ/P Submittal Breakdown DPS Estimate \$ 500,000

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Prime DP	Black and Veatch	Garver	HDR	Jacobs	Olsson
Project Approach	-FP will inlude flow and load projections through 2043, an evaluation of current design capacity, condition assessment, recommendations for upgrades, repair and process improvements to meet the long-term plant needs -To include potential water reuse to supplement water supply -Condition assessment completed early in project to result in risk score -Noted to include Fishing River in capacity assessment -Use of MARC data to establish flow projections for next 20-years -Will develop discharge criteria with MDNR -Considering biolgoical treatment including densified activated sludge in a 5-stage Bardenpho S2EBPR (DAS), configuration, aerobic granular sludge (AGS), and membrane bioreactor (MBR) -Recognition of biosolids hauling constraint and operational pain point	-10 step program to develop FP to confirm process selection, layour and to qualify for SRF funding. This program includes stakeholder goals and objectives, review of historical data and field assessments, establishment of planning criteria, model development, needs assessment and gap analysis, technical evaluations, review plant site needts, holistic alternatives evaluation with consideration of quadruple bottom line, and develop reemmended alternative/findings and recommendations -Proposes completing technical evaluations of Secondary Treatment, Wet Weather Management, Solids Management and Industrial Loading -Secondary treamant evaluation will include AGS due to challenges with re-zoning and existing footprint (need to fill in lagoon), expanding capacity by mirroring existing process units, and process intensification with Nuvoda mobile organic biofile process (MOB) -Recognition of biosolids hauling sontraint and operational pain point	-Plan to start with information gathered during 2007 effort '-Completed initial evaluation of AGS for Rocky Branch which indicated plant capacity could be doubled by converting the two existing aeration basins to AGS basins and adding tow new AGS basins mathing the size of the existing basins -AGS would be a preferred approach given the constraints of the existing plant site -Will allow the existing secondary clarifiers to be used for weat weather treatmen or converted to biosolids basin -Plan for environmental due dilligence if property aqcuistion is required -Collaboration with climate protection and resilency planning effort	-The construction of new data centers, MDNRs nutrient control program prioritizing phosphorus over nitorgen removal and the potential for water reuse al justify re-considering the 2017 Master Plan -Six step facility planning process to integrate facility palling and process definition deliverables -Plan to complete holistic plan to consider all technology possibilities for nutrient removal and also looking outside the fenceline at the collection system including having dedicated pipeline from data centers to introduce flow downstream of biological treatment to provide a tailored treatement if needed -Plan to maximize use of existing assets given age of plant -Review of 2017 Master Plan and 2022 tech memo, they have identified potential to unlock additional capacity with existing infrastructure -Propose to evaluate selective sludge wasting as a process intensification solution -For long-term compliance, recommending Conventional BNR, MBR, AGS and/or Biofilm -Additional staff to be added to project team for Phase 2 - Optional Services after the completion of the Facility Plan	-Identified challenges of rapid residential and industrial grown and balancing of different flow types from domestic wastewater vs. cooling water or industrial wastewater -Flow and loading projections are the basis for their approach -Short and long term solutions are necessary to optimize plant capacity and to manage dilute data center flows and potential AGS treatment -Population project provided for future build out of service area -Project daily from of 9.8 MGD by 2050 -Data provided represents a downward trend in wastewater concentration and an upward trend in flow -Provide an extensive review of existing data and highlights need for further analysis as part of this project -Potentially re-rate WWTP and to switch existing to two trains on full duty -For short term, aeration basin & RAS pumping could be extended to 3.6 MGD -For long term, AGS could be considered similar to Todd Creek -Data center water should be divided and could be held in the lagoons and then introduced just upstream of UV to keep AGS working properly (needs higher BOD and TSS)
Quality Assurance	-Quality Management System (QMS) based on ISO 9001 and will generate project-specific Quality Management Plan and Project Execution Plan -Project reviews using BlueBeam	-Dedicated QA/QC Manager -Dedicated QA/QC Manager -Dedicated QA/QC Manager -QMS based on ISO 9001:2008 series and will generate project-specific Quality -QMS based on ISO 9001:2008 series and will generate project-specific Quality -Dedicated QA/QC lead with project-specific QMP -Dedicated QA/QC lead with project-specific QMP -Dedicated QA/QC lead with project-specific QMP		-Will have a QMP and PMP -Includes muliply level internal review	
HRD Goals Approved M/WBE Goals: 11/11	Plans to meet recommended goals	Plans to meet recommended goals	Plans to meet recommended goals	Plans to meet recommended goals	Plans to meet recommended goals
Sustainability	Envision Professional is part of team	Envision Professional is part of team	Envision Professional is part of team	Envision Professional is part of team	Envision Professional is part of team
Project Schedule	-Nine (9) month duration to deliver Final Facility Plan from Project Kickoff Meeting	-42 week project duration (9-10 months)	-Eight (8) months	38 week project duration (9 months)	-Nine (9) month duration
Meets Page Count Requirements (65 Pages not including Covers, TOC, transmittal letter and divider tabs)	Yes	Yes	Yes	Yes	Yes
Understanding Northland Development	-Black and Veatch has already modeled flows and loads to Rocky Branch and has ability to communicate directly with Diode Ventures to understand industrial needs	-Notes need to consider residential and industrial development; no detail provided	-Noted need to model flow using projected land uses into wastewater flows and loadings		-Have a dedicated data center coordination team member -Noted breadth of kowledge of data centers and their drivers -Currently involved with a data center project to upgrade infrastructure to support 6.0 MGD and upgrade of discharge domestic sanitary and cooling water
Modeling/BIM/Biowin	-Dedicated BIM and BioWin Modeling on Staff -Developed Rocky Branch BioWin Model -Currently involved with BIM Model for Blue River Biosolids -Plant hydraulics and capacity modeling with 3D-Computational Fluid Dynamics Modeling	-Team will use BioWin model and has already developed a process model basis for Rocky Branch -Will develop a detailed hydraulic model for project	-Hydraulic model of Rocky Branch completed uing InfoNet, InfoWorks, and AreGIS, which also includes First Creek PS and the Northland Mobile Home Pump Station -Laser scanning to support BIM modeling	-Dedicated BIM model development on staff -Facility loading tool to determine capacity needs for Rocky Branch and Fishing River -Will conduct hydraulic capcacity modeling	-Dedicated BIM modeling provided by TREKK -Facility loading tool will be used to refine projections -Process modeling using SUMO
Cost Estimators	-Dedicated cost estimator, Chad Barker, resume not provided	-Will use LEAF (leverage existing assests first) to develop cost -Developed using quadruple bottom line process	-Will use quadruple bottom line process and Recommended Practice 18R-97 with enhancments including risks, constructibility, bidding pressure and O&M	-Dedicated cost estimator, Ed Meyer, has 40+ years of experience -Will utilize parametric cost estimating system	-Dedicated cost estimator provided by Canterbury
Innovative Ideas	-Member of/Implemented several innovative technologies including, AGS, BNR and deammonification	-Identified recent phosphorus limit change from MDNR and projected stricter nitrogen limits within 15 years	-Responsible for regions' first AGS wastewater treatment facility for the Unified Government of Wyandotte County	-Appear to have extensive experience with water reuse projects including one in response to a data center development -Expereience with representing alternative delivery models including PDB and CMAR	-Short and long term solutions including extensive preliminary capacity modeling

Rocky Branch WWTP Facility Plan - 81001000/1678 RFQ/P Submittal Breakdown DPS Estimate \$ 500,000

Prime DP	Black and Veatch	Garver	HDR	Jacobs	Olsson		
Understanding of State and WSD Planning Requirements	-Final report will meet 10 CSR 20-8.110 and SRF Funding support -Team plans to engage MDNR early and often -Terry Leeds -Final rep		-Designer of Rocky Branch WWTP capacity upgrade in 2007 -Completed NPDES permits for KC Water WWTPs	-Geosyntec has extensive experience with MDNR discharge permitting, regulatory compliance and antidegradation review processess -Understand SRF funding	-Have completed many projects with KC Water and understand requirements		
Project Approach Level of Detail	Excellent	Adequate	Good	Excellent	Excellent		
Major Holes/Concerns	-NA	-No current projects with KC Water and no project references provided for completed projects with KC Water -Collective team has experience working with KC Water; however Garver does not -Did not note need to provide capacity assessment for fishing river	-Heavily reliant upon recommending AGS	-NA	-Water reuse not mentioned		

Design Professional Selection City Manager Designee Mario Vasquez, Water Services Director Wes Minder, and Water Services Operations Officer Brent Herring

Date: September 28, 2022

Project	Selected Consultant
Rocky Branch WWTP Facility Plan	Jacobs
	Alternate Consultant
Project Number 81001000 / Contract Number 1678	Black and Veatch
DocuSigned by:	
Mario Vasquez	
C97A8D50F4784D9 Mario Vasquez, City Manager Designee	
DocuSigned by:	

—DocuSigned by:

Brent Herring, KC Water Operations Officer

Wes Minder, Water Services Director

Jeff Martin

Jeff Martin, Chief Engineering Officer (Facilitator)



MBE/WBE/DBE Contract Goals Request

Date June 21, 2022
To: Central Procurement

From: Kevin White, P.E., Project Manager, KC Water

Project Number	ect Number Project Name							
81001000			Rocky Branch WWTP Facility Plan					
Contract ID Number		Solicitation Date:						
1678		7/5/2022						
Estimated Project Dur	ation:	Presenting to Council Date	e:'					
1 year		TBD						
Note: Click the box to sele	ct	•						
Prevailing Wage	YES	☑ NO						
Contract	Construction	Design-Build	Non-Municipal Agency					
Contract	Design Professional	Other Goods & Services	Lease					
Category:	Professional Service	Facilities Maintenance/Repair	Tenant (MBE/WBE)					
	Other (Enter Type):		Concession					
Type:	✓ Original Ar	mendment No.						
Funding:	✓ City(MBE/WBE)	Federal (DBE)	State (DBE)					
	Other:	Grant#						
Construction Workforce	Goals: Are the estim	ated construction labor hours greater than	800 and the Yes 🗸 No					
		complete "Required Crafts" Worksheet ar						
number of hours in Des	cription of Work.							
Estimated Cost Brea	kdown attached - Page 2	List of Required Crafts attach	ed - Page 3					
Description of work (P								
Due to increased popula	tion in the northland	and industrial development in the area, ex	pansions to the Rocky Branch WWTP					
will be required for appr	copriate treatment in the	he future. These developments are anticip	pated to add an additional 1.6-2 mgd,					
approximately, that wou	ld drain directly to the	e WWTP once developed, which would re	equire Rocky Branch WWTP capacity to					
be increased by at least	100% from its current	operating capacity.						
An additional complicat	ion to expansion is th	e existing plant is situated within a Regula	atory Floodway (AE/A) and expansion					
would be difficult withou	ut costly additional fl	ood mitigation and FEMA approval for ne	ew structures. There are two existing					
lagoons within the curre	nt plant footprint that	would provide the opportunity for plant e	expansion out of the floodway; however,					
these lagoons would nee	ed to be removed and	the soil improved to support construction.	If additional space were needed, the					
City would have to acqu	ire additional propert	y to the north or west to supply more capa	city for Rocky Branch WWTP.					
Phase 1 of the project w	ill include to complet	e a Facility Plan per MDNR PUB2418. T	The Facility Plan must include sufficient					
detail to demonstrate the	e proposed project me	ets applicable criteria and presents the ba	sis for the detailed design of the					
construction plans and s	pecifications. Elemen	ts of the Master Plan (completed in 2017)) will also need to be re-evaluated as part					
of this Phase. Phase 2 c	of the project would pr	ovide the 100% design, and bidding docu	iments from the selected design					
alternative presented in			· ·					
•	•							
Project Manager: <u>K</u>	evin White							
_	FOR CIVIL RIGHT	IS & EQUAL OPPORTUNITY DEPARTMENT	Γ USE ONLY:					
☐ No Goals are set for th	• •	44						
The following Goals are	e approved for this Proje		WBE OR % DBE					
		DocuSigned by:						
Civil Rights & Equal Op	pportunity Departmen	t Dikue Di	ate: 7/7/2022					
		33C4DAA9120C4F0						

¹ Contractor Utilization Plan (CUP) MUST be submitted to CREO KC prior to being posted on docket for review & approval from Council

Civil Rights & Equal Opportunity Department Economic Equity & Inclusion Contractor Utilization Plan Approval Form

Date: 3-16-2023

Form Prepared By: Leona Walton

Contract/Project Number: 1678/81001000	Developer/Prime: Jacobs Engineering Group, Inc.				
Project Name: Rocky Branch WWTP Facility Plan	Contact Information:				
Final Contract Value: \$499,976.00	Address:				
Funding:	Grant: Other: N/A Other: Minority & 2% Women. There are over 800 Workforce hours and project cost is \$300,000 or more.				
Contract Goals: 11% MBE / 11% WBE	Contractor Utilization Plan Achievement: 11% MBE/11% WBE				
Self-Perform:%	Self-Perform:%				
MBE: <u>11</u> %	MBE:11%				
WBE: <u>11</u> %	WBE:11%				
Non-certified firms:%	Non-certified firms:%				
☐ General Service ☐ Concession ☐ Oth	ign Professional ☐ Professional Services er Goods & Services ☐ Non-Municipal Agency ilities Maintenance/Repair/Renovation				
This document is submitted with all available facts. Intentionally falsifying	this document or omitting pertinent facts is grounds for disciplinary action les & Policy Manual (eff. August 4, 2014).				
FOR CIVIL RIGHTS & EQUAL OPPORTUNITY D	EPARTMENT (CREO) USE ONLY:				
The Contractor Utilization Plan is:					
Approved 11 % MBE 11	Disapproved WBE % DBE				
The Request for Good Faith Efforts Waiver is:					
Approved Disapproved	☐ Not Applicable				
Appeal Sent to FICB or Incentive Agency? Yes	FICB Incentive Agency				
CREO Signature: Mark Runge	Date:3/17/2023				
Comments:					



Inter-Departmental Communication

Date: March 17, 2023

To: Mayor Quinton Lucas Chair: Transportation, Infrastructure & Operations

Committee

From: Andrea Dorch Director Civil Rights & Equal Opportunity Department

Subject: CUP Summary #:

CONTRACTOR:

Jacobs Engineering Group, Inc.

Address:

2300 Main St., Suite 325 Kansas City, MO 64108

Contract #

1678 / 81001000 - Rocky Branch WWTP

Facility Plan

Contract Amount:

\$499,976.00

MBE Goal

11%

WBE Goal:

11% 11%

Total MBE Achieved: Total WBE Achieved:

11%

MBE SUBCONTRACTORS:

Name:

Taliaferro & Browne, Inc.

Address:

1020 E. 8th St.

Scope of Work:

Kansas City, MO 64106

Utility Locate / Surveying / Assessments

Dollar Amount:

\$55,000

Ownership:

Andebrhan, Hagos

Structure:

African-American Male

Code 15

WBE SUBCONTRACTORS:

Name:

Environmental Advisors & Engineers, Inc.

Address:

19211 W. 64th Terrace Shawnee, KS 66218

Scope of Work:

Service Area Growth Projections / Envision /

Architecture

Dollar Amount:

\$45,819

Ownership:

Biesma, Jill

Structure:

Caucasian Female

Code 27

Page 2: 1678 / 81001000 - Rocky Branch WWTP Facility Plan

WBE SUBCONTRACTORS:

Name:

Lynchpin Ideas, LLC

Address:

4550 Main St., Suite 200

Kansas City, MO 64111 Public Engagement

Scope of Work:

\$9,181

Dollar Amount: Ownership:

Lynch, Laura

Structure:

Caucasian Female

Code 27

Comments:

Compliance Audit: Audit Summary for Total Contract



 Main
 View
 Settings
 Subs
 Docs
 Change Orders & Task Orders
 Alerts
 Comments
 Messages
 Closeout

 Compliance Audit List
 Compliance Audit Summary
 Compliance Audit FY
 Reviews
 Site Visits
 Reports

WSD1678: Rocky Branch WWTP Facility Plan (81001000)
Prime: Jacobs
5/12/2023 - 4/30/2024

Status: **Open**Current Award: **\$500,000**Goal: **22.00%** Total Paid: **\$85,627**% Credit: **21.63%** For Credit: **\$18,519**

Compliance Audit Summary - Total Contract

	Current Award	#	Award Percent	Payments	#	Payments Percent	Difference (Payments - Award)
Prime Contract	\$500,000.00			\$85,627.13			
For Credit	\$110,000.00	3 subs	22.000%	\$18,519.34	1 sub	21.628%	0.372% below goal
Goal Types							
For Credit to MBE Goal	\$55,000.00	1 sub	11.000%	\$0.00		0.000%	11.000% below goal
For Credit to WBE Goal	\$55,000.00	2 subs	11.000%	\$18,519.34	1 sub	21.628%	10.628% above goal
Contract Progress	17%						
For Credit Progress	17%						

Award values may not match due to differences between overall contract goal and subcontractor assignments.

Not Meeting Goal Letter

Prime Contractor - Total Contract

Prime Contractor		Cert	Inc in Goal	Contracted % Paid %	Paid TO Prime Prime's Share
Jacobs Karla Albert karla.albert@jacobs.com P 314-355-4134	<u>Info</u> <u>Payments</u> <u>Profile</u> <u>Email</u>	<u>No</u>	No	78.00% 78.37%	\$85,627 \$67,108

Subcontractors - Total Contract (3 subcontractors)

Subcontractor		Cert	Туре	lnc in Goal	Contracted % Paid %	Contracted \$ Paid \$	For Credit \$
Environmental Advisors and Engineers, Inc. Robert Bens rbens@eaei.com P 913-599-4326, F 913-631-6011	<u>Info</u> <u>Payments</u> <u>Profile</u> <u>Email</u>	0	Sub 100%	⊘ WBE	9.16% 21.63%	\$45,819 \$18,519	\$18,519
Lynchpin Ideas, LLC Laura Lynch laura@lynchpinideas.com P 816-674-1724	<u>Info</u> <u>Payments</u> <u>Profile</u> <u>Email</u>	②	Sub 100%	WBE	1.84% 0.00%	\$9,181 \$0	\$0
Taliaferro & Browne, Inc. Jeff Bowers jbowers@tb-engr.com P 816-283-3456, F 816-283-0810	<u>Info</u> <u>Payments</u>		Sub 100%	⊘ MBE	11.00% 0.00%	\$55,000 \$0	\$0

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Profile Email

<u>Customer Support</u>

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