



April 1, 2019

Mr. Randy Green, Chairman
Marshall County Sanitation District
P.O. Box 432
Benton, KY 42025

(Submitted via Email to County Judge Executive Kevin Neal)

**Re: Contract Modification No. 2 – Engineering & Admin Services
Sycamore Creek Sewer Extension & WWTP PLC Replacement
Draffenville Sewer Expansion Phases 1-3
Marshall County Sanitation District
Draffenville, Marshall County, KY**

Dear Randy:

Thank you for the opportunity to prepare this engineering services proposal for your review. In preparing this proposal, RIVERCREST Engineering, Inc. (RIVERCREST) has reviewed the project areas, mapping, and data collected by Sanitation District and RIVERCREST staff. The following provides an outline of the engineering services and associated fees proposed for the completion of necessary engineering and administrative work required for the following added scope of work items:

- 1) Extension of approximately 1,400 l.f. of 8-inch gravity sewer south of the new Lift Station No. 1, across the Sycamore Creek property to its termination at the existing package wastewater treatment plant site, which serves the existing trailer park along Memory Lane. Note: this scope of work does not include the elimination or abandonment of the existing package plant. It is RIVERCREST's understanding that this work will be completed by the current property owner under a separate contract.
- 2) Administrative services associated with (1) the addition of the proposed sewer extension (above), and (2) the replacement of the Sanitation District's existing wastewater treatment plant programmable logic controller (PLC).

At this time, RIVERCREST has the capacity to begin work on this project within 2 weeks following approval of this proposal. Our proposal addresses the following project phases,

- a) Surveying & Preliminary Design
- b) Final Design & Permitting
- c) Easement Development & Negotiation
- d) Admin Services
- e) Construction Engineering & Closeout
- f) Construction Observation.

The following is a more detailed summary of our proposed scope of services, fees and projected schedule for this project:

I. Preliminary Evaluation

RIVERCREST will work with the Marshall County GIS Department to prepare GIS level preliminary mapping for the project and will coordinate with our surveying sub-consultant and the Marshall County PVA, to review adjacent property ownership information throughout the project corridor, including existing easements, platted properties/subdivisions, and available rights-of-way for the sewer expansion. Detailed grantor/grantee searches will be provided by our surveying sub-consultant (On Point Geomatics – OPG). In addition to this property research, RIVERCREST will coordinate with member utility companies (Benton Gas, North Marshall Water District, and AT&T) to obtain available mapping and record drawings. This step will aid in identifying potential conflicts ahead of the field surveying phase.

Following this initial review, RIVERCREST will schedule on site meetings with District staff and our surveying sub-consultant, OPG. The intent of these meetings will be to obtain a consensus and understanding of the chosen project corridors prior to our surveyor initiating the topographic survey. RIVERCREST understands that topographic surveys will be required.

II. Surveying & Preliminary Design

The RIVERCREST team will conduct a field survey of the project limits as described previously. The survey will generally consist of detailed topographic surveying of a 1,400 foot by 40-foot-wide corridor from the lift station west and south across the creek, thru the Sycamore Creek properties to the existing trailer park.

The project's field survey phase will consist of:

- Completing KY 811 BUD calls and coordination of field utility locates
- Establishing project survey control and benchmarks to KY State Plane coordinate system
- Collecting survey data including, building corners, miscellaneous structures/signage, edges of pavement, visible property/right-of-way corners, existing marked utility information, culverts, driveways, ditch/break lines, large trees, and general topographic data.
- Utilizing GPS or conventional survey techniques set up on the established control monuments. The horizontal control datum will be referenced to Kentucky State Plane South Zone for GIS compatibility. Vertical control is typically referenced to NAVD88 datum.

The preliminary design process will consist of:

- Developing gravity sewer alignment plan drawings
- Evaluating existing utilities, property limits and ownership
- Developing and reviewing existing ground surface models
- Developing plan/profile sheets associated with the proposed sewers
- Evaluating tie-in location
- Conducting on site review with Owner and operations staff

III. Final Design & Permitting Phase

Upon receiving the District's approval of the preliminary design concepts, RIVERCREST will update design documents and complete final construction plans. Design drawings will include the following:

- Cover Sheet
- General Notes & Location Map
- Gravity Sewer Plans & Profiles
- Construction Details

Plan sheets are typically developed at minimum 1" = 50' horizontal scale.

RIVERCREST will utilize standard technical specifications for completion and submittal of an amendment to the previously approved KY Division of Water – Wastewater Construction permit application package. As this is a modification to the previously approved construction permit, our submittal will include design plans and construction permit. Due to the nature and configuration of this project, RIVERCREST does not anticipate the need to prepare and submit a KY Transportation Cabinet encroachment permit application prior to construction. Additional permitting services, as required for securing environmental approvals through the Division of Water and KIA will include submittals to the U.S. Fish & Wildlife Service, Army Corps of Engineers, NRCS, and Division of Water Floodplain & Water Quality Certification Sections.

Additional permitting services such as endangered species studies, critical habitat studies, and historical landmark or archaeological studies have not been included in our proposed scope of work. These studies can be added to our scope later at the District's request, with our service fees being adjusted on an agreed lump sum or hourly T&M basis.

IV. Utility Easement Development & Acquisition

RIVERCREST anticipates the need to prepare and secure an additional 4 utility easements for completion of the added scope of work. Our anticipations are based upon site and available PVA data reviews along the proposed corridors. RIVERCREST proposes to prepare up to four easement descriptions for review by the District's attorney. RIVERCREST's surveying sub consultant will review and approve each description prior to the District's legal counsel preparing the proper easement acquisition documents. For the purposes of this proposal, RIVERCREST assumes that any required easements will be secured by the RIVERCREST team.

Once the final easement documents are obtained from District legal counsel, RIVERCREST will provide three good faith efforts to negotiate the easement on behalf of the Sanitation District. These efforts will include, initial contact through mailing of the easement package, telephone contact (when possible), and up to two on site meetings with the property owner(s). If successful, we will forward the easement documents to the District for recording. If unsuccessful after three attempts, we will deliver the documents to the District along with our discussion records and await further direction. For the purposes of this proposal, our easement negotiation scope excludes exercises beyond the three good faith attempts. In the event additional easement development

and/or negotiations become necessary, the RIVERCREST team can conduct these activities in accordance with our established time & materials service rates.

V. Admin Services

RIVERCREST will coordinate with the District/Fiscal Court, Contractor, KIA, and Division of Water for completion of the required forms for utilizing "Residual Loan Funds". Once approved, RIVERCREST will coordinate with KIA and Division of Water throughout the design, permitting, and construction phases for submittal of the required monthly status reports, processing of pay requests, and submittal of the necessary quarterly reporting documentation.

Please note that this proposal also includes only Admin services for the PLC replacement work. RIVERCREST understands that all design, coordination, and construction work for the PLC replacement will be performed by Rick's Electric, whom was previously procured by the District/Fiscal Court, for completion of this scope of work.

VI. Construction Engineering & Closeout

Prior to initiating construction, survey crews will field stake the centerline of the proposed sewers on approximately 200-foot intervals. We will also stake significant changes in horizontal alignment, encasements, tie-ins and manhole locations. Our proposal assumes that we will stake the project alignment once. All remedial or additional staking requested by the Contractor or Owner can be provided on a time & materials basis.

Upon completion of field staking, RIVERCREST's project manager will schedule and conduct a walkthrough with the Owner and Contractor. RIVERCREST will provide construction engineering services including, coordination with District staff, contractor, and the inspector on project activities and progress, coordination and attendance at monthly progress meetings and KDOW project site visit (assume 2 additional meetings), processing of monthly pay requests and coordination of required Contractor monthly and quarterly submittals and payroll certifications.

VII. Construction Observation

RIVERCREST estimates our construction representative will be on site approximately six (6) hours per day during active construction activity. We have also allocated two (2) hours per day for preparation, travel, document preparation, and photographic logging of daily construction activity. We estimate our field personnel will be actively involved with the construction process, five (5) days per week for a project duration of 4 calendar weeks.

During the construction phase, our project representative will track daily pay item quantities, prepare detailed field book sketches for the gravity sewer installations, log daily photos of the construction activities, assist with interpretation of the project plans and specifications, and coordinate with District operations staff for required system shut-downs, manhole and line testing, and tie-ins.

VIII. Proposed Fee

Our proposed engineering fee is divided into Lump Sum and hourly work descriptions for the surveying & preliminary design, final design / permitting, admin, construction engineering & closeout, and periodic construction observation services as noted below:

• Surveying & Preliminary Design (LS)	\$1,700.00
• Final Design & Permitting (LS)	\$5,100.00
• Easement Development & Negotiation (LS)	\$2,800.00
• Admin Services (LS)	\$1,500.00
• Construction Engineering & Closeout (Hrly)	\$8,600.00
• Construction Observation (Hrly)	\$12,000.00
• <u>Direct Expenses – Survey/Mileage</u>	<u>\$2,800.00</u>
Total Proposed Fee	\$34,500.00

IX. Schedule

We estimate that the engineering services for the project as described herein can begin within 2 weeks following execution of an engineering services contract, and can be completed on the general timeframe as noted below:

Preliminary Design & Surveying	2 weeks
Final Design	2 weeks
Permitting	8 weeks
Easements	2 weeks
Admin/Construction Phase	8 weeks

Once you have had an opportunity to review our proposal, please contact me to discuss any concerns or questions you may have. If the District is agreeable to starting this work in accordance with this proposal, please sign below, and return to us for initiating work. As we are currently working under a professional engineering services agreement with the Marshall County Fiscal Court, we understand that we will continue to operate under this agreement for the duration of this project.

Sincerely,
RIVERCREST ENGINEERING, INC.



Charles D. McCann II, P.E.
Project Manager

APPROVED BY:

Mr. Randy Green - Chairman
Marshall County Sanitation District