



Hazen and Sawyer
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May 18, 2016

Virginia T. Spillman, P.E.
Engineering Manager
PO Box 3136
Greensboro NC 27402-3136

Re: Townsend WTP 2015 Basin, Filter, and Backwash Improvements
Engineering Services during Construction

Dear Ms. Spillman:

Thank you for the opportunity to submit Hazen's proposal for professional services related to engineering services during construction. We have incorporated the comments we received during our meeting with you, Mr. Borchers, and Mr. Briggs on May 16, 2016.

Our proposal includes services related to engineering duties during construction, as well as periodic inspections by Hazen's engineering staff. We propose to use engineers during construction that are the same engineers that worked on the design. In addition, Mr. Barry Bickerstaff will provide senior construction management experience to the project.

For field services, our design engineers will be involved with specific inspections of the work such as structural, mechanical, electrical. In order to provide value at a reasonable cost, we will also use non-engineering staff for general field observation, and to coordinate the schedules for specific inspections by engineers. We have budgeted 70% of the time (total of 2912 hours) associated with a 24-month construction period for engineering site visits and construction observation.

Based on work performed during the design phase and the requirements to keep the WTP in service during construction, we anticipate up to six (6) engineering inspections and partial certifications will be required by Engineer to be issued to NC DEQ. One final full certification issued to NC DEQ will also be required at completion of all work.

Hazen's Basic Services will also include:

- Preparing of Standard Operating Procedures (SOPs) and Training Sessions for WTP staff
- Providing Record Drawings at completion of the Project

The following services are not included in Hazen's Basic Services but may be performed as Additional Services if requested:

- Review of CMAR and/or its subcontractor(s) schedule of values
- Review of CMAR and/or its subcontractor(s) monthly applications for payment

- Review and/or preparation of change orders
- Engineering services associated with and/or during warranty period(s)

Also note that Quality Control Testing such as that associated with on-site materials testing is not included in Hazen's Scope of Services.

Our Scope of Services is described in more detail in Exhibit 1. Hazen proposes to perform the work the work in accordance with our January 29, 2014 on-call Agreement for Professional Services with the City.

MWBE Participation

Hazen proposes to provide the services of SL King Engineering PC of Greensboro, NC to perform engineering review, on-site observation, and start-up assistance of the electrical equipment, as well as meeting attendance from SL King's local office.

The proposed participation by SL King is 17.3% of the total engineering contract amount.

Compensation and Schedule

Work will begin work upon the City's authorization. We anticipate completing all work including SOPs, Operator Training, and Record Drawings by October 31, 2018.

Total compensation is \$1,537,000 as described in Exhibit 2. Compensation by Fiscal Year is as follows:

Fiscal Year	Amount
2016 - 2017	\$920,000
2017 - 2018	\$617,000

Thank you for this opportunity to submit this proposal. Should you have any questions, please feel free to contact me. We look forward to our continued partnership on this important project for the City of Greensboro.

Very truly yours,



Jay C Jackson, PE
Vice President