



CHRISTOPHER B. BURKE ENGINEERING, LTD.

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July 18, 2021

Village of Orland Park
Public Works Department
15655 Ravinia Avenue
Orland Park, IL 60462

Attention: Mr. Kenneth Dado
Utility Operations Manager

Subject: Proposal for Design, Bidding, and Construction Engineering Services
Painting and Improvements to Elevated Tank #7

Dear Mr. Dado:

Christopher B. Burke Engineering, Ltd. (CBBEL) is pleased to submit this proposal to provide Design, Bidding, and Construction Engineering Services for the Painting and Improvements to Elevated Tank #7. Below is our Understanding of the Assignment, Scope of Services and Estimated Fee.

UNDERSTANDING OF THE ASSIGNMENT

The Village of Orland Park is seeking an engineering consultant to perform design, bidding, and construction engineering services related to the painting and improvements for Elevated Tank #7 located on Cherry Lane in Orland Park, Illinois. The engineering consultant will prepare plans and specifications, construction cost estimates, obtain the necessary permits and perform Phase III construction engineering services.

SCOPE OF SERVICES

Task 1 – Preliminary Analysis: CBBEL will utilize our subconsultant, Nelson Tank Engineering and Consulting (NTEC), to perform a remote operation vehicle (ROV) maintenance inspection for the interior of the tower, and review of the tower's coating system, mechanical and electrical systems and provide the Village with a full report of items that require rehabilitation while the tank is out of service (during the coating system work). CBBEL anticipates 3 meetings with the Village. The first meeting will be on site to review existing conditions with Village staff. The second meeting will be to discuss the information provided in the preliminary assessment conducted by NTEC and included in the Preliminary Design Memorandum (PDM) prepared by CBBEL that will identify the

proposed scope of work. The third meeting will be a review meeting to discuss the pre-final Contract Documents prior to bidding.

Task 2 – Project Design: Based on the information provided in the PDM prepared by CBBEL, and the proposed scope of work that has been approved by the Village, the PDM will act as the basis of the Contract Document preparation and establishment of the Engineer’s Opinion of Probable Construction Cost. CBBEL will prepare Contract Documents consisting of bidding documents, contract agreement, technical specifications and design drawings for the project as described in the Understanding of the Assignment.

Task 2A – Railing and Fall Protection Barrier: The intent of the new railing system is to provide a fall protection barrier creating a safer work environment. The relocation of telecommunication antennas to the railing system is also planned to create a greater separation and less interference between communication equipment. The diameter of the railing system will be maximized to allow for future carriers to mount equipment. Final railing diameter will be determined after discussion with the Village. The railing will provide mounting attachments for inspectors and painter’s rigging and equipment. CBBEL will subcontract with a structural designer to visit the site, climb to the top of the tank and perform water tank mapping as required to document existing tank top layout and create existing equipment inventory. This task requires that the tank top is free of water, ice, and snow. Prepare structural analysis report for the design of the railing ring. Overall tank stability and foundation capacity analysis are not part of this scope of work. It is our opinion that relocation of existing pod mounted telecommunication equipment to the proposed railing ring and removing of the pod mount will likely reduce the lateral load on the water tank. Prepare structural design drawings for installation of the proposed railing ring. Attend one virtual review meeting with the Village and address all comments and recommendations. Submit final construction documents for the proposed railing ring as part of the overall bidding documents.

Task 2B – New Water Tower Electric Service and Standby Emergency Generator Design: The drawings will include a site plan, plan view and sections detailing the work to be performed. The drawings will also include a one-line diagram of the standby generator, automatic transfer switch (ATS) and controls, and details of site specific equipment including new ComEd electric service drop to the tower and connected to the ATS. Technical specifications will be prepared for all equipment to be included in the project. CBBEL will prepare an opinion of probable construction cost for the generator improvements.

Task 3 – Coordination with Cellular Equipment Companies and Review of Lease Agreements: Under this task CBBEL will concurrently review the Village’s current lease agreements with companies which have existing equipment currently installed on the water tower. CBBEL will send out written Notifications of Intent (NOI) to the antenna companies and cellular providers as to the Village’s intent to rehabilitate the tower. Once the notifications have been coordinated, CBBEL will identify options for the Village to have this equipment removed in a timely manner to facilitate the tank painting, and coordinate a plan with the cellular companies to erect temporary facilities on site for the temporary relocation of the antennas. CBBEL will work with the cellular companies to identify the equipment that will need to be installed back on the tower once the water tower rehabilitation is complete so that the new railing will best meet the needs and requirements of both the Village and cellular companies.

Task 4 – Bidding Assistance: CBBEL will prepare an Advertisement for Bids on behalf of the Village. CBBEL will then notify qualified contractors regarding this project. CBBEL will conduct a pre-bid meeting and respond to contractor questions during the bidding process and provide addenda as necessary. CBBEL will assist the Village and attend the bid opening, perform reference checks, provide bid evaluation and tabulation, and provide a letter of recommendation to the Village for the most responsive contractor.

Task 5 – Construction Observation Services:

Task 5A – Contract Administration: Under this task CBBEL will prepare a Notice of Award, a Notice to Proceed and coordinate a preconstruction conference with the relevant parties involved. We will review contractor's payment applications and prepare change orders for the Village's approval, and coordinate and process paperwork and forms required by the Village.

CBBEL will review Contractor's construction schedule and sequence(s); listing of materials and equipment submittals; general correspondence procedures; site access; staging areas required; traffic control; subcontractors; and submittals for payment. Shop drawing review procedures will be discussed during the preconstruction conference and in particular, the Contractor will be advised that material and equipment is not to be installed prior to completion of the shop drawing review process.

Task 5B – Shop Drawing Review / Construction Observation Services: CBBEL estimates this project will take approximately 20 weeks from May 1, 2022 to October 1, 2022 to complete. Under this task CBBEL will provide a part-time Resident Engineer (estimated at 10 hours/week for 20 weeks) for the work to be performed in the 2022 construction season. The Resident Engineer (RE) will perform the following duties:

- Log all Contractor data received and maintain a log book of shop drawings and submissions so as to track the status of submittals.
- Review Contractor's submittals for compliance with the intent of the Contract Documents.
- Prepare shop drawing review correspondence providing Contractor with our review comments and if submittals comply with intent of Contract Documents.
- Notify the Village of deficiencies, deviations or substitutions. With the notification, provide the Village with an opinion for acceptance or denial, and request direction from the Village regarding the deviation or substitution.
- Advise the Village when disapprovals may be necessary due to failing to conform to the Contract Documents.
- Provide office support to the Resident Engineer related to interpretation of Contract Documents.
- Maintain office files of project correspondence.
- When present on site, observe the progress and quality of the executed work and determine if the work is proceeding in accordance with the Contract Documents. The Resident Engineer will keep the Village informed of the progress of the work.
- Serve as the Village's liaison with the Contractor working principally through the Contractor's field superintendent.
- Attend construction conferences. Maintain and circulate copies of meeting notes.
- Provide clarification(s) related to the intent of the Contract Documents.
- Review the Contractor's schedule at construction conferences and compare actual progress of work to Contractor's proposed construction schedule.
- Review Contractor's procedure for maintaining record drawings and field changes which may occur during the course of work.

- Maintain orderly files for correspondence, reports of job conferences, shop drawings and other submissions, reproductions or original Contract Documents including all addenda, change order and additional drawings issued subsequent to the award of the contract.
- Record the names, addresses and phone numbers of all contractors, subcontractors and major material suppliers in a field diary.
- For days in which the RE is present on site, keep a daily report book, which shall contain a daily report and quantity of hours on the job site, weather conditions, list of visiting officials, daily activities, job decisions and observations as well as general and specific observations and job progress.
- For milestone inspections of the handrail installation, welding and mechanical repairs, blasting of the interior and exterior of the standpipe, and coating application inspections, CBBEL will employ the services of Nelson Tank Engineering Company who will climb the tank and perform the visual inspections in areas where CBBEL cannot climb to because of our insurance restrictions. Their fees are included in our construction engineering fee total.
- Prior to final walk through, submit to the Contractor a list of observed items (punch list) requiring correction.
- Verify that punch list items have been addressed and corrections have been made.
- Coordinate and conduct the final walk through with the Village, prepare a final punch list (if required).
- Verify that all the items on the final punch list have been corrected and make recommendations to the Village concerning acceptance of the project.
- Except upon written instructions of the Village, the Resident Engineer shall not authorize any deviation from the Contract Documents.
- Determine if the project has been completed in accordance with the Contract Documents and that the Contractor has fulfilled all of their obligations.

FEE ESTIMATE

<u>Engineering Scope of Services</u>		Eng VI	Eng V	Eng Tech IV	Structural	Structural	NTEC	Estimated
Task	Description	\$210/hr	\$173/hr	\$137/hr	\$210/hr	Consultant		Fee
Design Engineering								
1	Preliminary Analysis	4	2	32			\$3,840	\$9,410
2	Project Design	2	8	110	8	\$9,050	\$1,080	\$28,684
3	Coordination with Cellular Companies and Review of Lease Agreements		4	48				\$7,268
4	Bidding Assistance			32				\$4,384
Subtotal Design Engineering Fee								\$49,746
Construction Engineering								
5	Construction Observation Services			200			\$16,800	\$44,200
Total Design & Construction Engineering Fee								\$93,946

Direct Costs

\$500

TOTAL	\$94,446
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We will establish our contract in accordance with the Master Agreement and associated rates attached for the Village of Orland Park.

Please sign and return one copy of this agreement as an indication of acceptance and notice to proceed. Please feel free to contact us anytime.

Sincerely,



Michael E. Kerr, PE
President

GAH/pjb

THIS PROPOSAL ACCEPTED FOR VILLAGE OF ORLAND PARK:

BY: _____
TITLE: _____
DATE: _____

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