

TASK AUTHORIZATION No. __

FOR

MYAKKAHATCHEE CREEK WATER TREATMENT PLANT STRUCTURAL EVALUATION

This Authorization, when executed, shall be incorporated in and become part of the Agreement for Professional Services between the City of North Port (OWNER), and CDM Smith Inc. (CONSULTANT), dated September 14, 2016 hereafter referred to as the Agreement.

PROJECT BACKGROUND

The OWNER has requested the CONSULTANT to provide professional engineering services for the structural evaluations of the existing process structures at the Myakkahatchee Creek Water Treatment Plant (MCWTP) including preparation of a technical memorandum summarizing the conditions of existing structures and recommendations for repairs, rehabilitation and/or upgrades. CONSULTANT's services will consist of design and bidding services for the implementation of the repairs, rehabilitation and/or upgrades selected by the OWNER.

SCOPE OF WORK

The following is a description of the services to be provided under this Task Authorization.

TASK 1 - PROJECT MANAGEMENT AND COORDINATION, MEETINGS, AND QUALITY CONTROL

Subtask 1.1 - Project Management and Coordination

Activities performed under this task consist of those general functions required to maintain the project on schedule, within budget, and that the quality of the work products defined within this scope is consistent with CONSULTANT's standards and OWNER's requirements. This task also includes internal monthly project status review management meetings and periodic internal team progress meetings.

Upon the issuance of the Notice to Proceed (NTP), CONSULTANT will prepare and submit an initial data request list outlining information necessary for performing the structural inspections. CONSULTANT will work with the OWNER's staff during the Project to acquire the information.

Subtask 1.2 - Project Kick-Off and Progress Meetings

CONSULTANT will plan for and attend the following meetings:

- Kick-off meeting with OWNER.
- One meeting to review the draft structural evaluations Technical Memorandum.
- One meeting to review the 60% design submittal.
- One additional meeting as identified by the OWNER.

The CONSULTANT will prepare and distribute meeting minutes of each meeting as appropriate.

Subtask 1.3 - Project Quality Control (QC) Technical Review

CONSULTANT maintains a QC program on all its projects as required by the CONSULTANT's quality management system (QMS) guidelines. A Technical Review Committee (TRC) meeting is budgeted and

will be performed during the design phase of the project. OWNER's representatives are invited to attend and participate at the TRC meeting.

TASK 2 - STRUCTURAL EVALUATIONS AND TECHNICAL MEMORANDUM PREPARATION

CONSULTANT will perform facility inspections for the evaluation of the structural conditions of the process structures at the MCWTP; the splitter box, flocculators, filters, clearwells and clarifiers. CONSULTANT will perform two (2) visual inspections of the structures. The second facility inspection will be scheduled at a later date, agreed on between the OWNER and the CONSULTANT, and will include tankage that wasn't drained and cleaned for the first inspection. As part of the two (2) inspections the CONSULTANT will perform an aerial inspection utilizing a drone for capturing high definition videos and pictures of tank features that could not be safely accessed by the inspection team.

CONSULTANT will summarize findings of the inspections in a technical memorandum along with recommended rehabilitations and upgrades for each tank or structure. The technical memorandum will be prepared in draft form and submitted to the OWNER for review and comment. A meeting will be held with the OWNER to review the findings of the inspections included in the draft memorandum and discuss revisions. The CONSULTANT will incorporate comments from the OWNER into the final report, which will be submitted to the OWNER. CONSULTANT will submit the draft and final versions of the technical memorandum to the OWNER electronically. CONSULTANT will provide with the final report a planning level engineer's opinion of probable construction cost for each of the recommended rehabilitation and/or upgrade option.

TASK 3 - DESTRUCTIVE AND NON-DESTRUCTIVE TESTING (ALLOWANCE)

Based on the findings of the two (2) inspections, CONSULTANT may recommend additional inspections consisting of destructive and non-destructive testing of structures identified as having significant/beyond surface level deterioration. If recommended by the CONSULTANT and authorized by the OWNER, the CONSULTANT will perform the recommended destructive and non-destructive testing. Destructive testing would include taking core samples of the existing concrete, to be analyzed off site for physical and chemical properties. Nondestructive testing would include cover meters to mark locations of existing reinforcing steel and to determine existing concrete cover. Per the results of the testing, the CONSULTANT will provide updated recommendations to the OWNER on the remaining useful life of the structures.

TASK 4 - DESIGN SERVICES

CONSULTANT will develop a single set of contract documents covering the rehabilitation and upgrade options selected by the OWNER from the Final Report. Drawings will include notes and details to address the structural repairs noted in the technical memorandum which may include crack repair, concrete spall repairs, coating replacement, repair to damaged grating and guardrails and repair of corroded concrete surfaces.

The scope and budget for this effort is based on the following preliminary list of drawings and specifications:

Preliminary Drawings:

- Cover Sheet

- S-1 General Notes and Abbreviations
- S-2 Splitter Box Plans and Sections
- S-3 Splitter Box Repair Pictures, Notes and Details
- S-4 North Flocculator Plans and Sections
- S-5 North Flocculator Repair Pictures, Notes and Details
- S-6 South Flocculator Plans and Sections
- S-7 South Flocculator Repair Pictures, Notes and Details
- S-8 North Filter Plans and Sections
- S-9 North Filter Repair Pictures, Notes and Details
- S-10 South Filter Plans and Sections
- S-11 South Filter Repair Pictures, Notes and Details
- S-12 Clearwell Plans and Sections
- S-13 Clearwell Plans and Sections
- S-14 Clearwell Repair Pictures, Notes and Details
- S-15 North Clarifier Plans and Sections
- S-16 North Clarifier Repair Pictures, Notes and Details
- S-17 South Clarifier Plans and Sections
- S-18 South Clarifier Repair Pictures, Notes and Details

Preliminary Specifications:

- 030100.61 – Concrete Repairs
- 030130.71 – Modifications to Existing Concrete
- 036000 – Grouting
- 050519 – Post-Installed Anchors
- 055200 – Metal Railings
- 055313 – Bar Gratings
- 099600 – High-Performance Coatings

The design drawings and technical specifications will be prepared and submitted for review at the 60% and Final (100%) completion levels. CONSULTANT will develop a line item, unit price all-inclusive bid form. CONSULTANT will review the OWNER's Contract and General Specifications (Divisions 00 and 01) and provide comments on changes to coordinate them with the design plans and technical specifications provided by CONSULTANT. The Engineer's opinion of probable construction cost will be provided with the 100% design.

TASK 5 - BID SERVICES

CONSULTANT will attend a pre-bid meeting as necessary and assist the OWNER in answering contractor questions via addenda during the bidding process. CONSULTANT will review the bids submitted and provide OWNER with a letter of recommendation to award the contract.

Upon the contract award by the OWNER, CONSULTANT will provide an electronic copy and one (1) original hard copy of the conformed set of plans and technical specifications to the OWNER.

DATA OR COORDINATION ASSISTANCE TO BE PROVIDED BY THE OWNER

- Record drawings and all other available information for the structures to be evaluated.

- Latest version of OWNER standard details (In AutoCAD format if available).
- Latest version of OWNER specifications (in Microsoft Word format if available).
- OWNER's standard Construction Bidding and Contract Documents (Division 00).
- OWNER's standard General Requirements (Division 01).
- Provide access to property and subject areas where required. OWNER to provide any necessary temporary means of access including removable stairs, ladders or ramps. OWNER to provide any temporary lighting and ventilation necessary for inspection of confined spaces.

ASSUMPTIONS

The above described engineering services have been based upon the following assumptions:

- CONSULTANT's services include two (2) visual inspections and two (2) drone inspections. Each visual and drone inspection will be performed during a one-day field visit.
- The structures to be inspected will be taken offline, drained, and cleaned by the OWNER prior to the CONSULTANT mobilizing on site for the inspections. All structures, except the filters, will be completely drained by the OWNER with no standing water at the bottom and all walls clear of any sludge, grease or any sticky material. Note, per the OWNER's previous correspondence, the filter media will not be removed from the filter for the inspection.
- CONSULTANT will prepare documentation related to any required confined space entry permits.
- CONSULTANT will provide their own gas detection meter for use during the inspections requiring confined space entry.
- No new survey will be required for this project. Background information will be based on as-built drawings of the MCWTP facilities provided by the OWNER. CONSULTANT's fee includes the costs for digitizing OWNER's as-built drawings to AutoCAD format. The digitizing of the as-built drawings will be limited to up to 18 drawings total, and include the sheets required for creating background information for the preliminary plans listed in Task 4.
- CONSULTANT's services do not include review or preparation of maintenance of plant operations plans required for performing the repairs/rehabilitation work.
- The structural repairs of the interior tank surfaces will only be of a minor nature and limited to addressing surface level deficiencies. CONSULTANT's services do not include structural analysis of the tank walls.
- An FDEP permit will not be required for performing the structural repairs.
- Architectural (aesthetic) repairs, such as those attributed to damage to existing stucco or painting are not included.

- Per the results of the additional inspections proposed in Task 3, additional rehabilitation methods may need to be developed for addressing the deficiencies. Since the extent of this work cannot be estimated at this time, Design Services associated with the additional rehabilitation methods is not included in the CONSULTANT's fee.
- Other than the bid form provided in Task 5, the OWNER will provide the Bidding and Contract documents (Divisions 00) and General Requirements (Division 01) of the Contract Documents.
- The OWNER will pay all permit fees for the project.
- CONSULTANT's services do not include General Services During Construction, Resident Project Representative services or preparation of Record Drawings.

DELIVERABLES

CONSULTANT will provide the following deliverables to the OWNER:

- Kickoff meeting minutes.
- Data request list.
- Draft structural evaluation technical memorandum.
- Final structural evaluation technical memorandum including a planning level engineer's Opinion of Probable Construction Cost (OPCC).
- Provide updated recommendations if destructive and non-destructive testing is conducted.
- 60% design plans and technical specifications, including a review meeting with OWNER.
- 100% design plans and technical specifications.
- Engineer's Opinion of Probable Construction Cost for 100% design completion levels.
- Bid form specific to the design for use by OWNER in bidding.
- Written responses (one-addendum) to answer requests for additional information during the bidding process.
- Letter of recommendation to award the construction contract.
- Conformed set of plans and technical specifications.

TIME OF COMPLETION/SCHEDULE

CONSULTANT shall commence work within 14 calendar days after issuance of a written Notice-to-Proceed from the OWNER. A project kickoff meeting will be held with OWNER and a data request letter provided to the OWNER within 14 days of Notice-to-Proceed.

A project schedule is provided in the following table.

Activity	Completion Date
Project Kickoff Meeting	Within 2 weeks of Notice-To-Proceed
Data Request Submittals	Within 2 weeks of Notice-to-Proceed
1 st Facility Inspection	Within 2 weeks of Notice-to-Proceed
2 nd Facility Inspection	Within 2 weeks of 1 st Facility Inspections
Draft Structural Evaluations TM Submission	Within 2 weeks of 2 nd Facility Inspection
Draft Structural Evaluations TM Review Meeting	Within 2 weeks of Draft Structural Evaluations TM
Final Structural Evaluations TM Submission and Preliminary OPCC	Within 2 weeks of receiving the OWNER's comments
60% Drawings and Technical Specifications Deliverable	Within 4 weeks of Final Structural Evaluations TM Submission
60% Design Review Meeting	Within 2 weeks of 60% Submission
100% Drawings and Technical Specifications and OPCC Deliverable	Within 2 weeks of receiving the OWNER's comments
Submit Construction Ready Drawings and Specifications	Within 2 weeks of receiving final OWNER 's Comments
Bidding	Per OWNER schedule
Prepare Addenda	Within 5 days of last day to receive Bidder's questions.
Submit Conformed Drawings and Specifications	Within 2 weeks of OWNER's Contract Award

COMPENSATION AND PAYMENT

In the Basic Services performed under the Scope of Work, the OWNER agrees to pay the CONSULTANT as follows:

For work done by the CONSULTANT at the hourly billing rate for the category of the individual performing the work, for all time directly chargeable to the project. The CONSULTANT's Fee Estimate based on the schedule of Hourly Billing Rates is attached as Exhibit A.

The total cost of all Basic Services shall not exceed \$ 131,528.

CONSULTANT will submit invoices on a monthly basis along with written monthly status reports.