TASK ORDER NO. 16

SCOPE OF SERVICES AND FEE PROPOSAL

2015-2016 SEWER SYSTEM IMPROVEMENTS

CITY OF NEW PORT RICHEY

I. PROJECT SCOPE

Description:

The City of New Port Richey (CITY) provides for the wastewater collection, pumping, and treatment of their residential and commercial users throughout the City via a large network of sanitary sewer collection piping, lift stations, and force mains. The CITY's force main system has been constructed over the years with pipes that consist of various materials and pipe capacities. Older materials used in the force main system include cast iron and thin-walled PVC. The prolonged use of these materials presents the risk of failure to certain sections of the CITY's sewer system due to material deficiencies and pipe corrosion. As part of an annual maintenance program the CITY selects segments of the force main system for replacement with new pipe of acceptable material and of sufficient size to accommodate the necessary flow demands. In addition, the City has a number of old steel wet pit/dry pit lift stations installed throughout the City. These stations have been subject to corrosive atmospheres and prolonged maintenance issues. The City is systematically removing and replacing these aging stations with new wetwell and submersible pump stations. It is understood that this project will entail the following components:

1. Approximately 1,600 feet of 6-inch diameter wastewater force main from Lift Station II-D-02, east along Louisiana Avenue, then south along Grand Boulevard to a point of connection with an existing 6-inch force main stub-out.

2. Approximately 2,200 feet of 10-inch diameter wastewater force main from the intersection of Grand Boulevard and Dailey Lane, east along Dailey Lane, north through an easement to Louisiana Avenue, then east to a point of connection with an existing 6" force main on Monroe Street.

3. Lift Station III-F (Marine Parkway)
    a. Removal and replacement of Steel Wetwell/Drypit Lift Station with a Submersible Station
    b. New wetwell, wetwell liner, top slab, and hatches
    c. New valve vault, top slab, and hatches
    d. New piping, valves, fittings
    e. Submersible pumps and rails
    f. New terminal manhole and gravity sewer lines to the new wetwell
    g. New electrical panel, controls, wash water piping, etc.
    h. Testing and startup
    i. Final grading and restoration

4. Lift Station I-B (Avery Street East)
    a. Removal and replacement of Steel Wetwell/Drypit Lift Station with a Submersible Station
    b. New wetwell, wetwell liner, top slab, and hatches
    c. New valve vault, top slab, and hatches

d. New piping, valves, fittings
e. Submersible pumps and rails
f. New terminal manhole and gravity sewer lines to the new wetwell
g. New electrical panel, controls, wash water piping, etc.
h. Testing and startup
i. Final grading and restoration

The CITY has requested Stroud Engineering Consultants, Inc. (ENGINEER) assist the CITY in replacing existing deteriorating water pipelines, extending water pipelines, and installing fire hydrant assemblies in the selected areas of the City. To accomplish the needed infrastructure improvements, the ENGINEER will provide authorized professional services to the CITY for the design, permitting assistance, bidding services, and construction phase services associated with the installation of the necessary water distribution piping and fire hydrants.

Mr. Brent Heath, P.E. will serve as the ENGINEER's project manager on this task order for the duration of the scope of services. The ENGINEER will provide project management as part of this task order, which shall include: continuous management and coordination of the overall project; preparation of miscellaneous correspondence; coordination of subconsultant services; necessary scheduling of design and construction activities; and attendance at monthly project meetings (as requested) with the CITY. The progress of the project will be discussed with the CITY's designated project manager during each regular monthly project status meeting at the Public Works Building and/or the scheduled on-site construction meetings, and as necessary throughout the remaining life of the project. A written summary of the project status and completed tasks will be provided with each invoice submitted by the ENGINEER.

Based on the above background discussion, the following specific tasks and services are anticipated for this project, and are included in this Scope of Services:

1.0 PRELIMINARY ENGINEERING

Prior to final design, the ENGINEER will gather background information needed to complete the final design and support permit applications. The ENGINEER will acquire available sewer system data from the CITY. The data will consist of all relevant plans, reports, studies, records, maps, lift station pumping data and other relevant data concerning the CITY's current sewer system.

These data and documents will be evaluated with a specific emphasis on determining the optimum alignment for any piping installations and locations for piping interconnections to the existing water system. The ENGINEER will make site visits to further our understanding of both the existing facilities and potential improvements. The ENGINEER will review plans, specifications, record drawings, system maps, etc. for the existing sewer system and lift station layouts. These documents will provide information useful in the determination of potential interconnection points, pipe sizes, pipe locations, and other hydraulically significant features that might impact the design. It is assumed that the new lift stations will be constructed in close proximity to the existing lift stations where possible.

The ENGINEER will coordinate with a licensed professional surveyor to provide a topographic, right-of-way, and utility survey of the proposed force main alignment for each location. The road locations will include survey information from road centerline to right-of-way. The survey will be prepared using Florida State Plane West, NAD 83 coordinate system.

The ENGINEER will coordinate with the geotechnical engineering subconsultant to provide geotechnical engineering exploration and evaluation including standard penetration test borings,

wet season water table determination, and soil classification, for structural foundation requirements. We anticipate 1 SPT boring will be required at each lift station site. The results of the investigation will be included in an appendix of the contract documents.

The ENGINEER's preliminary engineering scope will include the following:

- Assemble available City sewer system maps and utilities record drawings.
- Prepare a Basis of Design Memorandum to document the key design components of this project.
- Coordinate and obtain a survey of the project areas.
- Coordinate and obtain geotechnical investigation of the lift station sites.

2.0 FINAL DESIGN

Once the preliminary design and planning activities are completed, the ENGINEER will prepare detailed construction documents for the conceptualized facilities and furnish appropriate numbers of sets to the CITY for review. The final documents will be suitable for establishing a construction contract for the project while being in sufficient detail to permit construction by the contractor. The ENGINEER will include the following elements of each lift station in the design work:

- Civil/Sitework - The plans and specifications for each lift station will include site layout, grading, asphalt road restoration, and sidewalk restoration.

- Mechanical/Structural - Each lift station will include a precast concrete wet well with a precast concrete top, a precast concrete valve vault, a duplex pump system, associated piping, valves and appurtenances, electrical, and instrumentation and controls system.

- Electrical/Instrumentation – The design power distribution, portable generator receptacle, instrumentation, lighting, control and alarm systems to operate the lift stations.

The ENGINEER will provide the labor, materials, and equipment necessary to design approximately 3,800 linear feet of the proposed 6- and 10-inch diameter force mains. The plan designs will use the topographic, right-of-way, and utility survey of the force main alignment as the basis for the design work. Plan and profile view drawings will be prepared as necessary to provide information for construction purposes. Details of the force main work will be included.

The ENGINEER's final design scope will include the following:

- Prepare and submit copies of construction drawings at designated project completion milestones (60%, 90%, and final) for review, comment, and approval by the CITY. The construction drawings will include construction notes, plan sheets at appropriate scale for legible interpretation, and standard utility details. Four (4) copies of construction drawings will be provided in 11"x17" size at each submittal stage.

- Attend design review meetings at the specified design intervals with the CITY. It is anticipated that there will be no more than four (4) design review meetings prior to project bidding.

- Prepare front-end bidding documents and technical specifications for the final design documents.

- Prepare a complete tabulation of material quantities and corresponding final estimate of probable construction cost, based upon experience with similar work in the area.

3.0 PERMIT ASSISTANCE

The ENGINEER will prepare and submit the permit applications, including associated sketches, drawings, and related incidental information required for submittal, necessary to perform the proposed piping installation activities as included on the final design documents. It is anticipated that the following permit applications will be required as part of this Task Order:

- FDEP Application for Constructing a Domestic Wastewater Collection/Transmission System

The ENGINEER will provide routine follow up services in support of the permit applications by attending meetings, making field visits, responding to questions, etc. It is anticipated that no wetland impacts are required as part of these piping installation activities. At the conclusion of the project construction phase, the ENGINEER will complete and submit the FDEP Request for Approval to Place a Domestic Wastewater Collection/Transmission System into Operation form.

4.0 BID PHASE SERVICES

4.1 **Contract:** It is anticipated that Contract Documents will be prepared as part of this Task Order. These Documents will be submitted to the CITY with the final design drawings.

4.2 **Document Sale:** Upon advertisement of the Contract and initiation of the bidding process, the ENGINEER will provide a compact disc to the CITY which contains the Contract Documents and Construction Plans in PDF and AutoCAD format. The ENGINEER will subsequently be responsible for sale of the bid documents to the interested bidders/parties upon request.

4.3 **Pre-Bid Meeting:** Upon scheduling of the Pre-Bid Meeting by the CITY, the ENGINEER will coordinate with the CITY to develop the proper meeting agenda. The ENGINEER will be directly involved in the meeting communications and adequately describe the project specifics to the attending bidders/parties. The ENGINEER will answer all pertinent questions and issue any necessary addendums that result from the Pre-Bid Meeting.

4.4 **Bid, Award, Bond and Insurance Assistance:** The ENGINEER will communicate with the interested bidders/parties during the time period between contract advertisement and bid submission. The ENGINEER will assist the CITY in preparing the required advertisement for bids, attend the bid opening, review bids, prepare a bid tabulation and make recommendations regarding the award of the construction contract.

5.0 SERVICES DURING CONSTRUCTION

5.1 **Pre-Construction Meeting:** Upon award of the construction contract, the ENGINEER will assist the CITY during the construction phase by attending the pre-construction conference.

5.2 **Work Recommendations:** The ENGINEER will communicate with the CITY and contractor throughout the construction phase and respond to any construction or design issues that are conveyed by either party. The ENGINEER will interpret the plans and specifications for the contractor and assist with resolution of construction difficulties encountered. If warranted, the ENGINEER will modify the design drawings to illustrate

the required additional changes so that the project can be successfully completed.

5.3 **Shop Drawing Reviews:** In accordance with the Contract Documents, the selected contractor will be required to provide utilities-related equipment/material submittals to the ENGINEER and obtain approvals prior to installing the materials. The ENGINEER will review these submittals per the contract and return them to the CITY and contractor for subsequent processing.

5.4 **Construction Observation/Field Services:** It is anticipated that the construction of the sewer system improvements is to be started in July 2016 and that the construction duration will be eight (8) months, with the majority of the required utility installation activities performed over a six (6) month time frame. The ENGINEER will conduct periodic site visits to observe the work in progress, especially during periods of major construction, and consult with the CITY's inspector to monitor conformance with the contract documents. An average field observation time of 4 hours per week has been estimated by the ENGINEER throughout the primary six (6) month period of the construction phase. It is anticipated that on-site observation of the work in progress will be conducted with assistance from the CITY's inspections staff at intervals necessitated by the contractor's schedule, capabilities and effectiveness, and as required to provide final regulatory certification. The ENGINEER will assist the CITY with operational questions associated with acceptance of the completed project.

It is anticipated that the ENGINEER will observe the following activities in the field, at a minimum:

- hydrostatic pressure/leakage testing
- routine materials installation
- connections to existing utilities
- applicable testing procedures.

5.5 **Record Drawings:** Upon receipt of the as-built drawings and survey information from the contractor, we will provide signed and sealed record drawings along with the project certification documents to the CITY. The record drawings will also be included on the CITY's master drawing file. The record drawing submittal will include two complete sets of paper drawings (22"x34"), two complete sets of paper drawings (11"x17"), one compact disc with the complete set of drawings in AutoCAD file format, one separate compact disc with the complete set of drawings in PDF file format, and one compact disc with both file formats.

5.6 **Project Closeout:** In order to properly close out the project, it is anticipated that the ENGINEER will be required to submit a Certificate of Substantial Completion. This Certificate will fix the date when the entire work, associated with the CITY's utilities, is considered substantially complete and ready for its intended use. It will identify significant items that need to be addressed or corrected before final payment can be recommended. Upon resolution and completion of the items mentioned in the Certificate and submittal of all contractual documents by the contractor, the ENGINEER will prepare and submit final Change Order to adjust the Contract amounts to the completed quantities and submit a Recommendation of Final Payment to the CITY.

II. DELIVERABLES

This Scope of Services is to include the following deliverables:

- Basis of Design Memorandum
- Updated Design Drawings, as necessary, at project completion milestones
- Final Design Drawings
- ENGINEER's Opinion of the Probable Construction Cost
- Certificate of Substantial Completion
- Recommendation for Final Payment
- Record Drawings & CD's

III. ASSUMPTIONS

This Scope of Services is based upon the following assumptions:

- **Property/Easement Acquisitions:** It is assumed that no easement acquisition activities are required as part of this Task Order.

- **Construction Phase Services:** It is assumed the CITY will provide staff for on-site observation for the duration of the construction phase.

IV. ENGINEER'S COMPENSATION

For Tasks 1 – 5 described above, the CITY will compensate the ENGINEER on a lump-sum basis. Compensation to the ENGINEER for the services included in the above tasks shall not exceed the following:

1.	PRELIMINARY DESIGN	$ 25,180.00
2.	FINAL DESIGN	$ 43,250.00
3.	PERMIT ASSISTANCE	$ 5,680.00
4.	BID SERVICES	$ 3,800.00
5.	SERVICES DURING CONSTRUCTION	$ 24,390.00
	TOTAL LUMP SUM AUTHORIZATION	$ 102,300.00

V. ADDITIONAL SERVICES REQUIRING AUTHORIZATION IN ADVANCE

If required by the ENGINEER and authorized by the CITY, additional services related to this Task Order shall be provided by the ENGINEER for additional professional fees negotiated with and agreed to by the CITY.

VI. PROJECT SCHEDULE

The ENGINEER will begin the activities described herein within two weeks of receiving written

notice to proceed. The estimated project schedule is outlined as follows:

Task	Weeks to Complete After Notice to Proceed Issued
Preliminary Engineering	4
CITY Review	6
60% Final Design Submittal	12
CITY Review	14
90% Final Design Submittal	20
CITY Review	22
100% Final Design Submittal	24
Permitting	26
Bidding and Construction Phase	64

TASK ORDER NO. 16

2015-2016 Sewer System Improvements

Stroud Engineering Consultants, Inc.

A. SCOPE OF SERVICES – The City of New Port Richey hereby authorizes the firm of Stroud Engineering Consultants, Inc. to perform the specific services summarized on the attached statement entitled TASK ORDER NO. 16, SCOPE OF SERVICES AND FEE PROPOSAL.

B. TIME OF COMPLETION – Work under this Authorization will begin upon Notice to Proceed from the City and will be completed within the schedule presented on the attached statement entitled TASK ORDER NO. 16, SCOPE OF SERVICES AND FEE PROPOSAL.

C. KEY PERSONNEL – Stroud Engineering Consultants, Inc. shall appoint a single representative with whom the City of New Port Richey shall coordinate. This representative shall have the authority to transmit instructions, receive information, interpret and deliver decisions, etc. Key personnel assigned to the project by Stroud Engineering Consultants, Inc. shall not be removed from the project without the prior written approval of the City of New Port Richey. For this authorization key personnel are as follows: Brent Heath, P.E.

D. COMPENSATION – Professional fees for this authorization will be lump sum in accordance with the PROFESSIONAL ENGINEERING AND WATER-RESOURCE AND ENVIRONMENTAL CONTINUING CONSULTING AGREEMENT with the City of New Port Richey, dated December 17, 2013.

E. ACCEPTANCE – By signature hereon, the parties each accept the provisions of this TASK ORDER NO. 16, and authorize the Consultant to proceed at the direction of the City's representative, in accordance with the SCOPE OF SERVICES AND FEE PROPOSAL.

Witness:

STROUD ENGINEERING CONSULTANTS, INC.

Brent A. Heath, President

11/20/15
Date

Attest:

CITY OF NEW PORT RICHEY, FLORIDA

City Clerk

Mayor

Date