SCOPE OF SERVICES

Solicitation Number: CLMP196
Project Name: Engineering Services for Williamson Creek Wastewater Interceptor

PROJECT FOR:

CITY OF AUSTIN, AUSTIN WATER, THROUGH ITS CAPITAL CONTRACTING OFFICE

PROJECT TITLE:

Engineering Services for Williamson Creek Wastewater Interceptor

OBJECTIVES OF THE PROJECT:
The objective of this project is to provide additional capacity to convey wastewater flows in the Williamson Creek Interceptor. Conceptually, the project consists of approximately 18,000 LF of large diameter (66-inch +/-) gravity wastewater interceptor from the existing 48-inch interceptor (near manhole # 25295) in the vicinity of South First Street, to the junction with the Onion Creek Tunnel near William Cannon Drive, and South Pleasant Valley Road (junction #44350). Refer to the attached Exhibit A-1 Site Map for the conceptual limits of the project.

BACKGROUND:
A portion of existing 36-inch and 42-inch segments of the Williamson Creek wastewater interceptor are at, or near capacity, during heavy rain events. Austin Water's Systems Planning department has modeled the collection system and identified the need for a large diameter interceptor (66-inch +/-) to meet the current and anticipated long-range capacity needs for this portion of the Williamson Creek sewer basin. The need for this project was initially identified in a number of long-range planning studies and is a key project in the FY17 to FY21 Capital Improvement Project plan.

ANTICIPATED SERVICES:
The anticipated services will include civil engineering, geotechnical engineering, tunnel engineering, project management, investigation, analytical study, field services, evaluation, design, construction management, project coordination, preparing maps, evaluation of historical data, preliminary engineering, final design and other engineering services as necessary for this wastewater interceptor project. Engineering disciplines under this contract may include civil, environmental, structural, geotechnical, and or other types of engineering. The services should be performed by engineering firms regularly engaged in municipal capital improvement projects related to wastewater infrastructure, specifically tunneling and wastewater interceptor projects. The professional services to be provided on this project will consist of engineering design, project management, and construction phase services. Selected firms should be knowledgeable and experienced in wastewater collection systems, managing complex projects in urban and environmentally sensitive areas, and developing cost effective and efficient recommendations for addressing system improvements. The firm on this project should enhance and compliment the strengths of the City to provide a comprehensive set of resources and skill sets to complete a successful project.

REQUIRED TASKS:

Task 1 – Preliminary Engineering and Environmental Consideration Investigations Report

Perform alignment studies and preliminary engineering to determine the best route, and most cost effective solution, for the new interceptor including, but not limited to, the following work items:

A. Prepare a "Project Delivery Plan" showing how the team's organization of resources, and their approach to project management, will ensure the delivery of the Williamson Creek Interceptor project on time and within budget. Additionally, project delivery plan will include quality assurance/quality control steps/plans to be implemented throughout the course of the entire project to ensure the project results in a constructible project within budget and as designed. This project delivery plan must be completed in draft form within 10 weeks of the notice to proceed, and will be finalized as part of the preliminary engineering phase.
B. Develop a communications plan for all appropriate levels of project development and execute plan elements, as required.
C. Review historic documents on the project, including earlier alignment options analysis.
D. Perform a condition assessment of the existing 36" wastewater interceptor.
E. Beginning where the existing 48-inch interceptor reduces to a 36-inch, and terminating at the existing 84-inch Onion Creek interceptor, conduct an evaluation of construction methods (open cut and/or tunneling). Provide an expert opinion on the most cost effective method for constructing the project in consideration of different alignments with the upstream location. The evaluation should cover at least the following options:
    - Tunneling the entire 18,000± feet, and,
    - Constructing the 18,000± feet in one phase using combined tunneling and open cut methods.
F. Route analysis/final alignment determination including design of connections and wastewater conveyance for existing wastewater pipes and connections to the existing 36-inch and 42-inch wastewater main, and review of existing land uses. Determine easements to be acquired. Identification and support City staff to obtain needed easements.
G. Evaluate smaller wastewater pipe connections to the Williamson Creek Interceptor and design cost effective connections to the new interceptor. The consultant shall evaluate limitations and feasibility of keeping sections of the existing interceptor in service versus diverting flows and abandoning the existing line.
H. Conduct preliminary surveying, geotechnical, and soils studies as needed to facilitate the determination of the final alignment. Collect all available information concerning existing and proposed facilities in the project area, including but not limited to, water and wastewater pipelines, telephone, fiber optics, gas electric, drainage facilities, traffic signal systems and the petroleum products pipelines, etc. Determine any site constraints and special permitting requirements (federal, state, local), including recent revisions to the Land Development Code.

I. Conduct required environmental evaluations, including an evaluation of the environmental impact of chosen route and construction methods. The route analysis should include identification of known endangered species and critical environmental features in the project vicinity and an evaluation of route, tunnel shaft locations, and working spaces that would create the least amount of environmental impact.
J. Develop a project phasing plan to address construction timing, construction method, and other factors including environmental and social impacts.
K. Upon conclusion of the reviews, investigations and preliminary evaluations, prepare, present and publish details and summarization of the findings, solution options, and a design and construction schedule for the recommended interceptor.
L. Submit preliminary engineering design plans, showing the proposed alignment at 30% plan completion, identifying tunnel access shaft locations and including connections from wastewater laterals connected to existing wastewater interceptor, routed to new wastewater interceptor.
M. Develop a sequence of construction plan to maintain service to existing interceptor for approximately 20 service areas while constructing new interceptor, then transition existing services to the new interceptor in the most cost effective manner.
N. Identify permitting requirements and prepare cost estimates and implementation schedule.

<u>Task 2 – Design Phase</u>

Upon written authorization from the City, proceed with the final engineering, design, and obtaining permits for the project, including, but not necessarily be limited to, the following work items:

A. Complete geotechnical investigations required to finalize design and provide Geotechnical Data Report and Geotechnical Baseline Report for tunneled portions,
B. Prepare and submit detailed plans, draft specifications, construction bid documents and prepare a construction cost estimate at 60% design,
C. Identify construction staging areas adequate for construction operations,
D. Develop a mucking plan and identify hauling routes for removing and disposal of spoils from tunneling or open cut methods,
E. Prepare and submit detailed plans, draft specifications, construction bid documents and construction cost estimate at 90% design,
F. Prepare final plans, specifications, contract manuals and all construction bid documents for the final design,
G. Obtain regulatory reviews and approvals and obtain permits necessary for the construction of the project, and,
H. Confirm the number and size of easements required including supporting the City on easement acquisition and assisting the City on developing and maintaining a schedule for obtaining the easements.

Task 3 — Bidding Phase

A. Assist in advertising the project for bids and developing construction contract(s). Assist the City during the Pre-Bid Meeting and respond to all questions and pre-bid inquiries received in regard to the project,
B. Develop Addenda as required and submit sealed and accepted documents prior to the deadline, and
C. Assist the City to review and evaluate the received bids.

Task 4 – Construction Phase

The City intends to employ its own forces to provide construction phase inspection services for the project. However, the City requires certain construction inspection services to be provided by the selected engineering consultant. At this stage of the project, the Engineer will provide services generally associated with the construction phase and might include, but may not be limited to, the following work items:

A. Periodic visits to the project site by the design professionals to generally review the progress, character and quality of the work being performed by the construction contractor,
B. On site resident project representative for geotechnical and tunneling operations,
C. Review, comment on and approve shop drawings,
D. Review, comment on, assist and prepare any change orders that are deemed to be necessary,
E. Interpret plans, specifications and contract documents and respond to requests for information,
F. Conduct project reviews and inspections with the construction contractor and City representatives. Coordinate with City inspector to ensure preparation of accurate as built drawings of the completed facilities,
G. Review and approve the Contractor's markup of as-built drawings of the completed facilities,
H. Prepare as-built drawings from the Contractor's markups,
I. Review and recommend for approval or disapproval pay estimates of the Contractor for work completed, and
J. Post construction warranty review.

Task 5 – Warranty Phase

A. If authorized by the City in writing, the selected engineering firm shall provide warranty phase services generally consisting of assistance to the City regarding project malfunctions or corrected deficiencies.

PROPOSED PROCUREMENT SCHEDULE:
RFQ Issue Date: March 7, 2016
Pre-Response Meeting: Tuesday, March 22, 2016
RFQ Submittals Due: Wednesday, April 13, 2016
Proposed Council Date: June or August 2016
Proposed Contract Execution Date: June or August 2016

PROPOSED PROJECT SCHEDULE:
Task 1 – Preliminary engineering and review of previous PER approximately 9 months
Task 2 – Design Phase approximately 24 months *
Task 3 – Bidding Phase approximately 6 months
Task 4 – Construction Phase approximately 36 months
Task 5 – Warranty Phase approximately 12 months

A more precise schedule will be developed following the selection of the engineering consultant and the execution of the professional services agreement.
* Includes permitting and land acquisition, as required.

COST ESTIMATE:
The conceptual construction cost for this project is estimated to be approximately $40 Million. The estimated authorization for all tasks of the design firm contained within this RFQ is approximately $4 Million.

MAJOR AND OTHER SCOPES OF WORK:

Below is a list of the major scopes of work that the City has identified for this project***. *There must be representation for all major scopes of work listed in the prime's statement of qualifications. The experience of the firms listed to perform the Major Scopes of Work, whether a subconsultant or prime firm, will be evaluated under Consideration Item 6 – Major Scopes of Work – Comparable Project Experience.***

In addition, the City has identified Other Scopes of work that MAY materialize during the course of the project. The City does not guarantee that the scopes listed under Other Scopes of work will materialize on this contract. If the prime consultant intends to enter into a subconsulting agreement on a scope of work not listed below, the prime consultant is required to contact SMBR and request an updated availability list of certified firms in each of the scopes of work for which the prime consultant intends to utilize a subconsultant.

*** Major Scopes of Work**
Civil Engineering
Tunnel Engineering
Geotechnical Engineering
Structural Engineering

Other Scopes of Work
Cost Estimating Services
Environmental Inspection
Sewage Collection, Treatment and Disposal Engineering
Environmental Engineering
Environmental Impact Studies
Environmental Permitting
Surveying Services
Permitting Services
Landscape Architecture
Drainage Engineering
Traffic and Transportation Engineering
Construction Inspection

Notes:

- Public Information and Communications are **NOT** sub-consultant opportunities. These services will be performed in-house or under a separate contract, if needed.

- Participation at the prime or subconsultant level may create a conflict of interest and thus necessitate exclusion from any contracts resulting from the work performed in the design phase.

- If the City determines that a conflict of interest exists at the prime or subconsultant level, the City reserves the right to replace/remove the prime or instruct the prime consultant to remove the subconsultant with the conflict of interest and to instruct the prime consultant to seek a post-award change to the prime consultant's compliance plan as described in City Code § 2-9B-23. Such substitutions will be dealt with on a case-by-case basis and will be considered for approval by Small and Minority Business Resources (SMBR) in the usual course of business. The City's decision to remove a prime or subconsultant because of a conflict of interest shall be final.

- For Subproject assignments that include construction activities performed by the CONSULTANT or Subconsultants, workers shall be paid not less than the prevailing wage rates, as referenced in Section 00830 (include link to 00830 on CCO website)

- A consultant performance evaluation will be performed on all professional services contracts. This evaluation will be conducted at the end of each Preliminary, Design and Construction phase.