

**PEASE WASTEWATER TREATMENT FACILITY
REHABILITATION – VALUE ENGINEERING REVIEW**

REQUEST FOR PROPOSALS

RFP #19-24

**Karen S. Conard, City Manager
City of Portsmouth, NH**

Department of Public Works

City of Portsmouth, NH
Department of Public Works
RFP # 19-24
REQUEST FOR PROPOSALS

ENGINEERING SERVICES

**PEASE WASTEWATER TREATMENT FACILITY REHABILITATION – VALUE
ENGINEERING REVIEW**

Sealed Statements of Proposals plainly marked RFP # 19-24, “Engineering Services, Pease Wastewater Treatment Facility Rehabilitation – Value Engineering Review” on the outside of the mailing envelope, addressed to the Finance/Purchasing Department, City Hall, 1 Junkins Avenue 3rd Floor, Portsmouth, NH 03801 will be accepted until **2:00 pm on Tuesday January 9, 2024.**

The City of Portsmouth’s Department of Public Works is requesting Proposals from consulting engineering firms who are on the NHDES roster of pre-qualified consulting engineers for the following project: To provide value engineering services for the City’s Pease Wastewater Treatment Facility Rehabilitation.

In a separate sealed envelope labeled “hourly rates RFP # 19-24” please include cost (hourly rates). This will not be part of the selection process.

Information may be obtained from the City’s web site at <http://cityofportsmouth.com/finance/purchasing.htm> or by emailing the Purchasing Coordinator at purchasing@cityofportsmouth.com. Questions should be directed in writing to purchasing@cityofportsmouth.com. **The deadline for questions and requests for additional information is Friday December 29, 2023 @ 1:00 p.m.** Addenda to this RFP, if any, including written answers to questions, will be posted on the City of Portsmouth website under the project heading.

The City of Portsmouth reserves the right to reject any or all proposals, to waive technical or legal deficiencies, to proceed or not to proceed with any subsequent proposal process, or to negotiate without further process any contract as may be in the best interest of the City.

RFP # 19-24
REQUEST FOR PROPOSALS

ENGINEERING SERVICES

**PEASE WASTEWATER TREATMENT FACILITY UPGRADE DESIGN – VALUE
ENGINEERING REVIEW**

INVITATION

Sealed Proposals plainly marked RFP # 19-24, “Engineering Services, Pease Wastewater Treatment Facility Rehabilitation – Value Engineering Review” on the outside of the mailing envelope, addressed to the Finance/Purchasing Department, City Hall, 1 Junkins Avenue, Portsmouth, NH 03801 will be accepted until **2:00 pm on Tuesday January 9, 2024.**

FUNDING

The value engineering of the design portion of this project will be funded either through sewer enterprise bonds or revenues.

PROJECT BACKGROUND/PURPOSE

The City of Portsmouth is a regional provider of wastewater collection and treatment services to the City of Portsmouth, Town of New Castle and portions of the Towns of Greenland and Rye. The City has two wastewater treatment facilities (WWTF), the 6.13 MGD Peirce Island WWTF and the 1.2 MGD Pease International Tradeport WWTF.

The Pease Wastewater Treatment Facility (WWTF) was initially constructed in 1954 and the plant has been upgraded in phases since that time, with the last comprehensive upgrade in 1997. The 1997 upgrade project included the retrofit/upgrade of several processes/structures as well as new sequencing batch reactors (SBRs), a new Blower/Dewatering Building, and a new Lab/Administration Building. The plant was upgraded again in 2005 and 2020 to provide a new septage receiving facility and Headworks Building.

The Pease WWTF primarily treats wastewater generated within the Pease International Tradeport. The largest contributors are Lonza Pharmaceuticals and Cisco Brewery, both of whom have Industrial User Permits. The remainder of the flow is considered Commercial/Light Industrial flow and septage.

The Pease WWTF was successfully re-rated in 2018 as over 90% of the headworks loading limit for BOD5 had been allocated to Lonza and Cisco. As part of the re-rating effort, NHDES required that the City expand the aeration capacity of the SBRs in order to meet the maximum day aeration demands. At the same time, Lonza indicated to the City that they intended to seek a significant increase in the flow and load they discharge to the facility.

In 2019, the City applied for a NPDES permit renewal and included a request that the average daily permitted flow be increased from 1.2 MGD to 1.77 MGD based on Lonza's request for additional capacity and projected growth of the Tradeport. At the same time the City's permit renewal request was being considered, the WWTF was issued a nitrogen permit by way of the Great Bay Total Nitrogen General Permit in 2020 which requires it to discharge a rolling seasonal average of 93 lb/d of total nitrogen or less.

In 2021, the City selected AECOM to upgrade the aeration capacity at Pease and also develop a conceptual plan for how the facility would be expanded to treat the increase in flow. As AECOM was working on these items, a draft and eventually a final NPDES permit was issued formalizing the increase in permitted average daily flow to 1.77 MGD. At the time of the issuance of the final NPDES permit, AECOM's conceptual plan for the Pease WWTF Upgrade & Expansion Project included a significant amount of new infrastructure to treat the higher flows and loads.

A few months after the issuance of the final NPDES permit, Lonza indicated that they were withdrawing their request for additional flow and load, which in turn reduced the projected future flows and loads and removed a significant source of the planned funding. This change revised the projected future design flow from 1.77 MGD to the current WWTF design flow of 1.2 MGD.

Subsequent to Lonza's withdrawal, the City and AECOM reduced the scope and cost of the project to focus on the items that are critical while staying within the City's financial plans. During this time, the project was renamed the Pease WWTF Rehabilitation Project rather than the Pease WWTF Upgrade & Expansion Project.

PROJECT DESCRIPTION

This project consists of a rehabilitation of the WWTF to expand the existing aeration capacity per NHDES requirements, replacing critical dewatering equipment, providing new electrical and communication services sized for future needs, and demolishing the 1950s era Control Building that has reached the end of its useful life. The scope of the project currently contains the following major items:

- Replacement of the four existing SBR blowers with three new larger blowers sized for the average daily flow of 1.2 MGD and provide space and appurtenances for the addition of two future blowers.
- Additional diffusers, hoists, and cantilevered walkways for diffuser hoist access in the SBR basins.

- New precast primary sludge pump station.
- Replacement of the existing belt filter press with two new screw presses for sludge dewatering.
- Modifications of the existing odor control system to capture and treat air directly from the new screw presses.
- New Electric/Control building, including new electrical feed, new main switchgear, and SCADA room.
- New diesel-powered standby generator with belly tank and electrical transformer.
- New underground electrical distribution system to existing MCCs.
- New underground fiber optic loop for the existing control system.
- New ancillary systems such as control systems, instrumentation, and communication, HVAC systems for the new buildings.
- Demolition of the following items:
 - Old generator building (currently used as a storage shed)
 - Existing Control/Operations Building
 - Existing transformer
 - Existing standby generator
 - Existing aeration blowers in Blower/Dewatering Building
 - Existing belt filter press in Blower/Dewatering Building
- The project also includes two bid alternates that the City can execute should they have sufficient funding. The scope of these bid alternates contains the following major items:
 - New Chemical Storage Building
 - Expansion of the existing Lab/Admin Building
 - Demolition of the following items:
 - Existing chemical storage tanks in and around Blower/Dewatering Building
 - Existing Quonset hut
 - Existing Ammonia Shed and storage tank.

AECOM has completed the first phase of the design with the preparation of the 30% Design Plans and Preliminary Design report. The Preliminary Design Report includes:

1. Introduction and Purpose
2. Project Description
3. WWTF Flows, Loading and Effluent Limits
4. Solids and Flow Balances
5. Basic Design Data
6. Geotechnical Data Report
7. Civil Design Summary
8. Architectural Preliminary Design Summary
9. Structural Preliminary Design Summary
10. Mechanical – Process Design Summary
11. Mechanical – Odor Control Summary

12. Mechanical – HVAC, Plumbing and Fire Protection Design Summary
13. Electrical Preliminary Design Summary
14. Instrumentation and Control Preliminary Design Summary
15. Construction Sequencing
16. Projected Construction Drawing List
17. Projected Construction Specification List
18. Nomenclature List
19. Permitting Summary
20. Preliminary Opinion of Cost
21. Preliminary Drawings

The intent of this Request for Proposal is to interview and select, based upon the criteria listed herein, a firm to serve as a Value Engineer. The selected firm will then be invited to negotiate a contract for the review of the proposed scope, elements, and approach to the WWTF Rehabilitation as defined in the Preliminary Design Report.

REQUIRED CONTENTS OF THE PROPOSAL (RFP)

A sealed proposal plainly marked RFP #19-24 “Engineering Services, Pease Wastewater Treatment Facility Rehabilitation – Value Engineering Review” on the outside of the envelope, addressed to the Finance/Purchasing Department, City Hall, 1 Junkins Avenue, Portsmouth, NH 03801 will be accepted until 2:00 pm on Tuesday January 9, 2024. Six (6) copies of the proposal shall be submitted and include the following information:

1. Firm Experience (for each firm in the team):

Describe relevant experience in each of the following primary areas of focus:

- a. Wastewater Treatment Facility Upgrade Design and Construction.
- b. WWTF upgrades for low effluent nitrogen concentrations (5 to 8 mg/L) in cold climates
- c. WWTF Upgrades using Sequencing Batch Reactors
- d. Value Engineering/Peer Reviews of major WWTF Upgrade projects
- e. Value Engineering with respect to energy efficiency, carbon footprint and LEED construction.

The firm’s experience shall be summarized in a matrix format. In addition, detailed project descriptions of no more than five reference projects containing the majority of the focus areas listed above shall be included in an appendix to qualifications. The project descriptions shall be current and limited to a maximum of one full page per project, along with client references and up-to-date contact information

(name, title, organization, phone, cell and email).

2. Project Team:

List each member of the proposed Project Team along with their:

- a. Firm affiliation
- b. Area of specialty
- c. Office location
- d. Total years of experience
- e. Years with current firm
- f. Specific involvement/role in projects used as references.
- g. **In a separate sealed envelope labeled “hourly rates RFP # 19-24”** please include cost (hourly rates). This will not be part of the selection process.

One member of the Project Team must be assigned as the Project Manager and another as the Value Specialist certified VE Team Leader. All resumes shall be included in Appendix 2 limited to a maximum of two pages per team member.

RANKING OF PROPOSALS

Each proposal will be reviewed and ranked according to the following criteria:

- | | |
|------------------------------------|----------------------|
| a. Firm experience | Maximum of 30 points |
| b. Overall Project Team experience | Maximum of 30 points |
| c. Project Manager experience | Maximum of 20 points |
| d. VE Team Leader experience | Maximum of 20 points |

PAGE RESTRICTIONS

- 1. Proposals, excluding maximum of two-page cover letter and all appendices, shall be limited to 15 letter-sized (8-1/2” by 11”) pages: single spaced, size 12-font and double sided. Larger paper (11” by 17”) can be used for figures and matrices.
- 2. Additional appendices can be used to supply other relevant information not specifically called for above including, but not limited to: reprints of professional papers, general company qualification materials, etc.

SCOPE OF SERVICES

The scope of work will be negotiated with the successful proposer and is anticipated to address the following:

- Identify a Value Engineering Team Leader (VETL) that will be responsible for coordinating all communications and leading the VE effort. The VETL must be a Certified Value Specialist (CVS).
- Conduct a preliminary evaluation to become familiar with the Design Team and the Owner and to review the key objectives of the design. During this process the Value Engineering Team should, with the assistance of the Owner, identify a list of key disciplines required for the VE effort.
- Arrange for collection of project study material including, but not limited to:
 - Plans of existing Pease WWTF
 - Pease WWTF Rehabilitation – Preliminary Design Report
 - Pease WWTF Rehabilitation – 30% Design Drawings
 - Project schedules
 - Applicable codes and standards
 - NPDES permit
 - Other relevant documents
- Coordinate the Value Engineering schedule with the Owner and Project Team to best suit the overall project schedule.
- Conduct a review of cost estimates provided by the Project Team.
- Prepare a sample Value Engineering format for review and approval of the Owner.
- Coordinate and conduct a four day VE workshop to include the Owner, and Design Team. The VETL shall provide a VE study Agenda and coordinate presentation and outline with the Design Team.
- The session shall be based upon standard VE Methodology and shall include the following phases:
 - Information Phase: Collection of all facts, background and data that is pertinent to the design, including preparation of a cost model.
 - Speculative/Creative Phase: Evaluation of the feasibility of alternative ways to perform essential functions found during the information gathering phase, concentrating on the areas with the highest potential savings.
 - Evaluation/Analytical Phase: Evaluation of the feasibility of alternatives generated during the creative phase.
 - Investigation Phase: Complete evaluation of the most feasible alternatives.

- Recommendation Phase: Comprehensive description of the VE recommendation complete with rationale and associated capital and O&M cost benefits.
- The session shall include a verbal debriefing and presentation to the City and its Project Team on the last day of the workshop.
- Coordinate all activities of the Value Engineering session including notes, minutes and key decisions for incorporation in a VE study Report.
- Prepare a Preliminary VE Study report for submittal to the Owner within two weeks of the completion of the session. The Study Report shall include the following:
 - Project goals and objectives
 - Program/project description
 - Scope of Analysis
 - VE methodology
 - Summary of VE alternatives and associated cost savings
 - Complete description of the review process based on VE methodology, including results of each phase outlined above.

SCHEDULE

Shall be negotiated with the successful firm.

CITY ROLE

City staff will be responsible for administering the project and overseeing the Value Engineering effort. City personnel will play a key role in all VE efforts. Representatives of the City's Public Works Department will provide input to VE decisions and review all deliverables from the VE effort. The primary contact at the City will be Erich Fiedler, City Engineer.

SELECTION AND CONTRACT

Upon review of all responsive RFPs using the criteria outlined above, the City may select up to three (3) firms to submit proposals and interview. Upon completion of the interviews, the City anticipates negotiating a final Scope of Services and fee with the highest-ranking firm.

RESERVATION OF RIGHTS

The City of Portsmouth reserves the right to reject any or all proposals, to waive technical or legal deficiencies, to proceed or not to proceed with any subsequent proposal process, or to negotiate without further process any contract as may be in the best interest of the City.

The City also reserves the right to negotiate directly with the selected firm for additional project work.

The City reserves the right to make such inquiries regarding the firm's qualifications and reputation as it deems necessary to evaluate the firm. The firm may be requested to execute releases to obtain information from third parties. Failure to execute a release upon request may result in disqualification.

CONTRACT DOCUMENTS

All information, data, documents, photos, computer records and other materials of any kind acquired or developed by the consultant pursuant to this project shall be the property of the City of Portsmouth.

RFP DOCUMENTS ORDER OF PRECEDENCE

This RFP is the entire agreement between Vendor and the City concerning its subject matter and supersedes all prior and contemporaneous agreements, proposals, or representations, written or oral, concerning its subject matter. No modification, amendment, or waiver of any provision of this Agreement will be effective unless in writing and signed by the party against whom the modification, amendment or waiver is to be asserted. Upon discrepancies between the RFP documents the following is the order of precedence: (1) Addenda, (2) Contract Requirements, (3) Contract and Grant Terms and Conditions, (4) Technical Section, (5) Drawings

ADDITIONAL INFORMATION

If you have any questions, please contact the Finance/Purchasing Department at 603-610-7227 or email purchasing@cityofportsmouth.com. Addenda to this request for proposal, if any, including written answers to questions, will be posted on the City of Portsmouth website at the City's web site at <http://www.cityofportsmouth.com/finance/purchasing.htm> under the project heading. Addenda and updates will NOT be sent directly to firms. Firms submitting proposals should check the web site daily for addenda and updates after the release date. Firms should print out, sign, and return addenda with the proposal. Failure to do so may result in disqualification.

INDEMNIFICATION AND INSURANCE REQUIREMENTS

The Contract will require the Consultant to agree to pay on behalf of and hold harmless the City of Portsmouth for all claims arising in whole or in part from its work on behalf of the City. Consultant will be required to maintain insurance in such form as will protect the Consultant from claims and liabilities for damages for bodily injury, including accidental death, and for property damage, which may arise from operations under this contract. Consultant shall also be required to maintain professional liability insurance. Amounts and

coverage shall be subject to contract negotiations.

NONDISCRIMINATION

Any entity that enters a contact for goods or services with the City of Portsmouth or any of its boards, agencies and departments and any recipient of city funds shall:

Implement an employment nondiscrimination policy prohibiting discrimination in hiring, discharging, promoting, or demoting, matters of compensation, or any other employment-related decision or benefit on account of actual or perceived race, ethnicity, color, religion, national origin, gender, disability, age, military status, sexual orientation, gender identity, gender expression, or marital or familial status.

Not discriminate in the performance of the contract on account of actual or perceived race, ethnicity, color, religion, national origin, gender, disability, age, military status, sexual orientation, gender identity, gender expression, or marital or familial status.

APPENDIX A

RELEASE OF ALL CLAIMS FOR PURPOSE OF REFERENCE CHECK TO:

Name of Reference (“Reference”)

Name of Employer/Organization (“Entity”)

Address

Address

On behalf of the undersigned Firm I hereby agree to release and hold harmless the above-named Reference and Entity from any and all claims and causes of action including without limitation actions for defamation, slander or interference with contractual relations for any statements made to the City during the course of the City’s investigation of Firm’s qualifications.

Dated: _____

Firm:

By:

Print Name:

Title: