

**CITY OF PORTSMOUTH, NH  
DEPARTMENT OF PUBLIC WORKS**

**RFP #16-10  
REQUEST FOR PROPOSALS**

**ENGINEERING & DESIGN SERVICES**

**MAPLEWOOD AVENUE BRIDGE RECONSTRUCTION**

**Sealed Request for Proposals, plainly marked RFP #16-10, "Engineering & Design Services, Maplewood Avenue Bridge Reconstruction" 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 p.m. on September 28, 2009.**

**SCOPE OF WORK:** The project scope is comprised of the design of the replacement of an existing corrugated steel single barrel stone arch culvert with a new, three barrel pre-cast concrete arched culvert in an historically appropriate manner with the goal of enhancing small boat access, improving tidal flushing and coastal habitat in North Mill Pond.

The City has conducted a seawall assessment for the seawall adjacent to and supporting the structure for the existing arched culvert. This work was done as part of the City's overall citywide seawall assessment completed in 2007. There was a NHDOT bridge assessment completed in 2007, which showed serious deficiencies in this crossing. The City identified the roadway infrastructure and seawall replacement for this project in its Capital Improvement Plan in 2009.

Archive research during the 2007 study did identify the Maplewood Avenue causeway as an historical structure, originally functioning as a dam and supporting multiple tidal water powered mills. An 1896 drawing illustrates reconstruction of the stone causeway including filling of the five original culverts and replacement with one arch culvert. In keeping with the multiple culvert history of this structure and the 1896 arch culvert aesthetics, the proposed reconstruction will provide three arched culverts to meet the project goals.

The City has completed a preliminary concept design for the replacement of the single arch culvert with a series of three arch culverts shown on the attached drawing. The pre-cast concrete arch culverts will be located at the existing culvert location and will be integrated with the seawall replacement project and will be stone veneered at the exposed end walls. The seawalls will be designed to reuse the existing wall stone on the exterior with concrete backing as needed for modern highway loadings and design criteria.

Request for Proposal forms may be obtained from the City's Finance/Purchasing Department on the third floor of City Hall located at 1 Junkins Avenue or at [www.cityofportsmouth.com](http://www.cityofportsmouth.com). The City of Portsmouth reserves the right to reject any or all proposals, to waive technical or legal deficiencies, and to accept any proposal that it may deem to be in the best interest of the City.

If you have any questions please contact the Finance/Purchasing Department at the following number: (603) 610-7227 or David Allen at (603) 766-1421. **CONTINUE BELOW FOR THE COMPLETE RFP.**

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**FUNDING**

This design project will be funded will be funded through grant money provided through the NH Department of Environmental Services, Coastal Program provided by the National Oceanic and Atmospheric Administration.

**PROJECT BACKGROUND/PURPOSE**

The project scope is comprised of the design of the replacement of an existing corrugated steel single barrel stone arch culvert with a new, three barrel pre-cast concrete arched culvert in an historically appropriate manner with the goal of enhancing small boat access, improving tidal flushing and coastal habitat in North Mill Pond.

The City conducted a seawall assessment for the seawall adjacent to and supporting the structure for the existing arched culvert. This work was done as part of the City's overall citywide seawall assessment completed in 2007. There was a NHDOT bridge assessment completed in 2008, which showed serious deficiencies in this crossing. The City identified the roadway infrastructure and seawall replacement for this project in its Capital Improvement Plan in 2009.

**SCOPE OF WORK**

The scope of work shall be sufficient to address the following:

**Task 1: Subsurface Investigations**

- Review of City archives and Dig Safe clearance
- Soil test borings to refusal at representative accessible locations
- Standard penetration tests to determine soil properties
- Geotechnical engineer logging of conditions found

**Task 2: Site Survey**

- Existing conditions and topographic field survey of the project area
- Locate wetland flagging and jurisdictional line determinations
- Locate existing utilities, including inverts
- Locate test borings
- Hydraulic modeling sufficient to describe at a basic level changes in tidal flushing characteristics

#### Task 3: Environmental Permitting

- Permit drawings, project narrative and minimization/avoidance assessments
- Natural Heritage Inventory filing
- NH Fish & Game for construction timing restrictions
- Initiate Section 106 Process
  - Establish undertaking
  - Identify appropriate SHPO/THPO
  - Develop a plan to involve the public
- Present in work session format information to Portsmouth Historical District Commission
- Prepare draft NH DES Wetlands Bureau, Dredge and Fill Application
- Present design to Portsmouth Conservation Commission
- Army Corps of Engineers, Programmatic General Permit (PGP) & DES Water Quality Certification
- Meetings & hearings

#### Task 4: Final Design

- Develop alternatives analysis for at least three design concepts
- Site design, grading, drainage and erosion control
- Seawall design including culvert and sewer penetrations
- Culvert footing design and culvert performance specification
- Vehicular, bicycle and pedestrian railings and guards
- Scour protection and rock riffle design
- Sewer main bypass design, exterior or inverted siphon
- Basis of Design memorandum
- Engineers Opinion of Probable Cost

#### Task 5: Bid Documents

- Bid form and General Provisions
- Bid drawings
- Bid specifications
- Bid document appendices

The Consultant shall include in its scope of work the number of site visits and/or meetings with the City or NHDES staff necessary to satisfactorily complete the project. The consulting engineering firms must be on the NHDES roster of pre-qualified consulting engineers.

### **Project Schedule**

The City will work with the successful consultant to finalize a schedule in which all work must be completed before the end of December 2009.

### **CITY ROLE**

City staff will be responsible for administering the project and overseeing the consultant's work on this project. Representatives of the City's Public Works Department will review plans and other documents prepared by the consultant.

### **SUBMITTAL REQUIREMENTS**

Proposals shall include the following:

- Brief history of the firm,
- Description of relevant previous projects which key project staff have played a central role in developing,
- Scope of work,
- Project schedule, organized by task, showing all work completed by end December 2009,
- Names and qualifications of specific project staff that will play the primary role in this project,
- Level of man-hours effort by task,
- Three (3) references, including current contact name and phone number for similar project,
- The Consultant shall submit three (3) copies of a non-price proposal,
- The Consultant shall submit three (3) copies of the price proposal.

**Sealed Proposals, shall be plainly marked: RFP 16-10, RFP #16-10, "Engineering & Design Services, Maplewood Avenue Bridge Reconstruction" on the outside of the mailing envelope,** addressed to the Finance/Purchasing Department, City Hall, 1 Junkins Avenue, Portsmouth, NH 03801. Proposals will be accepted until 2:00 p.m. on September 28, 2009.

### **EVALUATION CRITERIA**

All Proposals must include the following components, which will also serve as the City's evaluation criteria:

1. Experience in road, bridge, utility and marine design.
2. Experience in of the hydraulic analysis in tidal zones
3. Understanding of the project requirements and City's needs.
4. Description of project approach and scope of services to accomplish the project, including schedule.
5. Firm qualifications and experience.

6. Descriptions of and references for similar projects performed in New England. References shall include contact person and telephone number.
7. Identification and description of project team and staff who will perform the project.

Upon review of the non-price proposals, and after conducting interviews, if so used, the City shall rate the firms in order of preference. The City then will open the price proposal and the firms may then be re-ranked based on price. The top rated firm shall be notified of its standing and invited to enter into contract negotiations. If the City is unsuccessful in reaching a satisfactory contract with the top rated firm, it may terminate the negotiations without prejudice and commence negotiations with the second rated firm. If no agreement can be reached with the second rated firm, the City shall move to the third, and so forth. Once negotiations are terminated with a firm, they may not be reopened.

The City, at its discretion, may select a firm outright or select a finalist(s) for in-person and/or telephone interviews.

The City of Portsmouth reserves the right to reject any or all proposals, to waive technical or legal deficiencies, and to accept any proposal that it may deem to be in the best interest of the City. The City reserves the right to negotiate directly with the firm(s) selected for additional project work including construction administration services, and/or additional project engineering and design services.

**The City also 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 DOCUMENT**

Upon selection, the successful Consultant will prepare the acceptable contracts for review and approval by the NHDES and the City. 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.

#### **ADDITIONAL INFORMATION**

If you have any questions please contact the Finance/Purchasing Department at the following number: 603-610-7227 or David Allen, P.E., Deputy Director of Public Works, Water and Sewer Divisions at 603-766-1421.