# Engineering Services for the Mashpee Wampanoag Tribe For Sanitation Facilities Construction

## **Scope of Work**

Except as otherwise specified herein, the Engineering firm shall furnish the necessary personnel, materials, services, and do all things necessary to satisfactorily perform the work set forth below.

## I. <u>PROJECT SUMMARY</u>

- A. The Engineering Firm shall provide Engineer Services associated with various phases of the design and construction of sanitation facilities construction projects to the Mashpee Wampanoag Tribe.
- B. These services shall be in concert with our funding agency to provide continuity of services to the members of the Wampanoag Tribe with Sanitation Facilities. This in no way absolves the Tribe from contract management nor from involvement in the works of the work that will be included in this contract.
- C. Due to the highly variable nature/volume of services the Engineering Firm must be available, on short notice, to perform the required work.
- D. This contract services shall include, but is not limited to:
  - 1. Engineer Services
  - 2. Surveying Services
  - 3. Site & Construction Inspection
  - 4. Board of Health Meetings

## II. DESCRIPTION OF SERVICES

The Engineering Firm shall provide Engineer Services for engineering of State of Massachusetts Title V residential onsite wastewater treatment systems that includes: engineering evaluations and investigations and design of sanitation facilities construction projects. The Engineer Frim shall also provide Surveying Services that includes: soil surveys, drafting services to support engineering design work, and construction inspection support.

- A. Place of Duty primary field-related duties are at tribal sites within the Purchased/Referred Care Delivery Area (PRCDA). The PRCDA for the Mashpee Wampanoag Tribe is specific to the following Counties in the State of Massachusetts; Barnstable, Bristol, Norfolk, Plymouth, and Suffolk Counties.
- B. Work Oversight Work performed by the Engineering Firm shall be overseen by and under the direction of the Mashpee Wampanoag Tribe.

## III. SCOPE OF WORK

All work files must be provided in original data format to the Mashpee Wampanoag Tribe (e.g. Portable Document Files (PDF), spreadsheets, Word documents, AutoCAD files, point files).

#### A. Engineer Services:

The Engineering Firm shall follow established written guidelines and procedures (design standards & standard specifications).

- Site investigation of water & wastewater facilities
- Design of specialized components related to community water & wastewater facilities
- Design of individual water and wastewater facilities

- Soil Survey for the design of individual wastewater Systems
- Draft construction plans, details, record drawings, composite system drawings and rights-of-way maps using Computer Aided Drawing (CAD) software.
- Inspect construction performed by construction contractors; ensure that all work is performed in accordance with the approved plans and specifications.
- Prepare documents required by the State and/or Local Boards of Health for onsite systems.
- Meet with Local Boards of Health to receive approval of design and appropriate approval permits for construction.

#### B. <u>Surveying Services</u>:

- Conduct geo-referenced surveys for proposed community water and wastewater systems to develop alignments
- Conduct geo-referenced surveys for proposed onsite water and wastewater systems
- Conduct geo-referenced surveys for record drawing development
- Download and process survey data to input into Computer Aided Drawing (CAD) software

#### IV. REQUIRED QUALIFICATIONS

The Engineering Firm shall possess the following minimum qualifications.

- Engineer Professional Registration Must possess current registration as a Professional Civil or Environmental Engineer in the State of Massachusetts and must have at least 10 years of experience for where the work is performed.
- Drafting Capabilities Must have knowledge and experience in the design of water and wastewater facilities and other civil engineering projects using Computer Aided Design (CAD). Must have CAD knowledge and experience related to plan set structure, function and geometrics and skill in technical CAD drafting using AutoCAD. Engineering Firm must be proficient in AutoCAD Civil 3D 2015 (or later) design software including Plan Production Tools and Sheet Manager for plan-set development and plotting purposes.
- Surveying- The Engineering Firm shall be a licensed Professional Land Surveyor (or shall have a Professional Land Surveyor on staff) with at least 10 years of experience and meet State of Massachusetts requirements.
- Written Communication Must have strong written communication skills with experience related to drafting guidelines and technical provisions and compiling final reports as related to sanitation facilities construction projects.