

# Town of Edisto Beach

Jane S. Darby, Mayor

**Administration**

Iris Hill, Town Administrator  
Deborah Hargis, Municipal Clerk



**Council Members**

Susan Hornsby  
Jerome Kizer  
Crawford Moore  
Patti Smyer

October 11, 2019

Mr. William Bingham  
President  
American Engineering Consultants, Inc.  
PO Box 2299  
Cayce, SC 29171

Subject: Work Authorization No. 14  
Sewer System Modeling and Capital Improvements Program  
Notice of Award  
Notice to Proceed

Dear Mr. Bingham:

The above referenced project was approved during regular session of Town Council on October 10, 2019.

This letter serves as notice to proceed for the Sewer System Modeling and Capital Improvements Program at a cost not to exceed \$61,452.00. Please coordinate work with Patrick Zemp, Utilities Director.

Sincerely,

A handwritten signature in black ink that reads "Iris Hill".

Iris Hill  
Town Administrator

cc Patrick Zemp, Utilities Director  
Krystal Parsons, Finance/Budget Analyst

**WORK AUTHORIZATION FORM NO. 14  
UNDER CONTINUING MASTER SERVICES AGREEMENT WITH AMERICAN  
ENGINEERING CONSULTANTS, INC.**

This Work Authorization is No. 14 and is made and entered into between the Town of Edisto Beach, Edisto Beach, SC, (the "Town") and American Engineering Consultants, Inc., (AE), hereinafter referred to as the Consultant.

**Whereas**, the Town and Consultant are parties to a Master Services Agreement dated January 14, 2016 (the "Services Agreement") for certain engineering services, pursuant to which the Town may issue multiple authorizations for specified scopes to be performed by the Consultant.

**Whereas**, pursuant to the terms of the Services Agreement and this Work Authorization, the Town desires to authorize the Consultant to proceed on an agreed scope of work on behalf of the Town.

**Whereas**, the Town and Consultant have reached agreement on the terms under which Consultant is authorized to proceed with services based on agreed Fees contained in the Services Agreement and the scope of work particularly described herein.

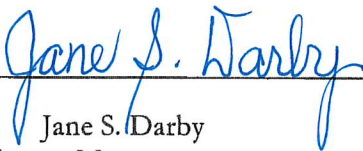
**WITNESSETH**, that in consideration of the mutual covenants herein contained, the parties hereto agree as follows:

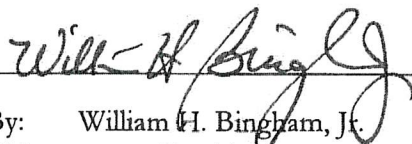
1. Terms of Agreement; Scope of Work. Upon the execution of this Work Authorization by both the Town and the Consultant, Consultant agrees to initiate the services set forth in the agreed Scope of Work attached hereto as Exhibit "A" (the "Services"). The Services shall be performed as set forth in this Work Authorization and subject to the terms and conditions of the Services Agreement.
2. Schedule. The Schedule for the completion of the Services shall be as set forth in the agreed Scope of Work attached hereto as Exhibit "A". The completion dates are subject to change to the extent permitted under the terms of the Services Agreement.
3. Fees. The fees for the Services shall be based on (a) the fee schedule set forth in the Services Agreement and shall be paid based upon the man-hour estimates set forth in the agreed Scope of Work attached hereto as Exhibit "A" or (b) such other fee structure as the parties have agreed as set forth in the agreed Scope of Work attached hereto as Exhibit "A".

**IN WITNESS THEREOF**, the parties have caused this Agreement to be executed in duplicate original and effective this 10<sup>th</sup> day of October, 2019.

Town of Edisto Beach

American Engineering Consultants, Inc.

  
By: Jane S. Darby  
Title: Mayor

  
By: William H. Bingham, Jr.  
Title: President

## **Exhibit "A"**

Project Name: **SEWER SYSTEM MODELING AND CAPITAL IMPROVEMENTS PROGRAM**

### **Scope of Services:**

American Engineering Consultants, Inc. will provide services to assist the Town in evaluating and identifying sewer system needs, as follows:

#### **TASK 1: PRELIMINARY / DATA GATHERING**

1. Meet with the Town to discuss the goals and available data. This includes interviewing staff to identify areas of concern that are currently being experienced.
2. Obtain available records from the Town regarding the existing sewer system (record drawings, pump curves, run logs, meter usage data, treatment plant flows, etc.).

#### **TASK 2: FIELD INVESTIGATIONS / CONDITION ASSESSMENT**

1. AEC surveyors will obtain invert elevation data for each pump station, for use in the hydraulic model. In addition, AEC will collect information on float depths (pump on/pump off levels), and depth and dimensions of the wetwell for each pump station.
2. AEC will conduct monitoring to establish wet weather and summer peaking factors that can be used for hydraulic model calculation. In order to do this, data loggers will be installed at all 13 pump station sites for the purpose of monitoring pump on and off time. The monitoring will occur over approximately six (6) months. This will include periods of winter frontal systems with multiple rain days in which saturated ground conditions occur. This will ensure conditions that produce infiltration and inflow into the system. In addition, the monitoring phase will incorporate summer months when water usage is at its peak due to seasonal residents and vacationers.
3. AEC will perform a visual inspection of all existing pump stations. The purpose of these inspections is to make general observations regarding the condition of the pump stations and to collect site specific information for use in the hydraulic model. Draw down tests will be performed, as needed, to determine true pumping rates.

#### **TASK 3: HYDRAULIC MODEL / CAPACITY ANALYSIS**

1. A hydraulic model of the sewer system will be created using the GIS data obtained from the Town and data collected in the field. The hydraulic model will include all pipes and pump stations. Invert elevations for manholes will be calculated by assuming the minimum required slope in gravity lines, unless data is provided by the Town.

2. All information obtained from the Town and collected in the field will be used to ensure accuracy and calibration of the model. The model will be tweaked to ensure flow in the model is representative of the true conditions. An average dry day scenario will be developed and compared to field measured diurnal flow patterns. The diurnal curves will also be adjusted as needed to achieve the desired calibration accuracy to account for seasonal variations. Special emphasis will also be placed on calibrating the pump stations accurately to avoid compromising downstream capacity analyses. The data logger records will be used to develop peaking factors. The model will be tweaked to ensure peak demand scenarios are representative of actual field conditions.
3. AEC will calculate the available capacity in the sewer system and identify the locations that have capacity restraints under average and peak flow conditions.
4. AEC will review the overall operations of the sewer system to identify any potential modifications that will make the systems operate more cost effectively.

#### **TASK 4: CAPITAL IMPROVEMENTS PROGRAM**

1. Using field evaluations and the hydraulic model evaluations, AEC will create a list of critical sewer system areas that are deficient and need improving, along with a recommendation on how to address these areas. Consideration will also be given for any temporary measures that can be taken to extend the life of existing facilities and equipment, without doing so at the detriment of the Town.
2. AEC will assemble a Capital Projects Administrative Review Team that includes Town representatives. AEC will also develop a scoring rubric and prioritization criteria in order for the Review Team to score the projects that have been identified as necessary. This will assist in prioritizing the improvement projects that have been identified.
3. After the Projects Administrative Review Team has scored all projects, AEC will compile the final project rankings.
4. A cost estimate will be provided for each recommendation that is identified.
5. A final prioritized list of recommended improvements will be provided to the Town that summarizes the need for the improvement, the cost of the project, and the anticipated timeline for completing the project.

The following fees will apply:

**FEES**

**Fees to provide the aforementioned services are as follows:**

<b>ENGINEERING SERVICES</b>	Not to Exceed	\$61,452.00
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- \* The above fee does not include printing fees and reimbursables, which will be billed in accordance with the Fee Schedule contained in the Master Services Agreement.
- \* Additional consulting work associated with this Project that is required and requested by the Owner which is not listed in this scope of services shall be performed on an Hourly Basis in accordance with the Fee Schedule contained in the Master Services Agreement.

Invoices will be issued monthly based on completed activities. Invoices received by the OWNER by the 25th day of each month will be paid by the 15th day of the following month. If payment is not made within thirty days, the Owner agrees that American Engineering Consultants, Inc. (at its discretion) may charge interest beginning thirty days after the date of the invoice on the unpaid balance at the rate of one and one-half percent per month.

If payment, in full, is not received by American Engineering Consultants, Inc. within thirty days of the date of the invoice, American Engineering Consultants, Inc. may cease to provide services on the Project until such time as payment, in full, is received. The Owner agrees to hold American Engineering Consultants, Inc. harmless for any claims due to such interruption of services for lack of payment.

Any and all professional liabilities incurred by American Engineering Consultants, Inc. throughout the course of this project shall be limited to a maximum of the net fee for all services rendered on this project.