

**RESOLUTION NO. 2025 – 187**

**RESOLUTION OF THE TOWNSHIP COUNCIL OF THE TOWNSHIP OF STAFFORD, COUNTY OF OCEAN, STATE OF NEW JERSEY, AUTHORIZING A CONTRACT FOR DREDGE ENGINEERING AND MARSH RESTORATION DESIGN FOR POPULAR POINT FOR THE TOWNSHIP OF STAFFORD TO ACT ENGINEERS, INC. (#2025-027)**

**WHEREAS**, there exists a need for Dredge Engineering and Marsh Restoration Design for restoration of the marsh at Popular Point through funding granted to the Township by the State of New Jersey; and

**WHEREAS**, pursuant to the governing provisions of N.J.S.A. 19:44A-20.5, the Township has engaged in a legally authorized procurement process; and

**WHEREAS**, the Township, through its Qualified Purchasing Agent (“QPA”) has determined and certified in writing that the value of the acquisition will exceed \$17,500; and

**WHEREAS**, ACT Engineers, Inc., was appointed as Special Project Engineer for the Township of Stafford for the 2025 calendar year (Reso 2025-110), and

**WHEREAS**, ACT Engineers, Inc., has submitted a quote for a Bathymetric Survey Data Collection, Sediment Sampling, Permitting Dredge Design and Engineering, Geotechnical Exploration and Analysis, Hydrodynamic Modeling, Marsh Restoration Design and Engineering, Construction Management and Inspection and Project Management/Stakeholder Outreach in the amount of \$1,035,550 (Schedule A attached), and

**WHEREAS**, the Township, through its Qualified Purchasing Agent (“QPA”) has received the mandatory documents including but not limited to a Business Entity Disclosure Certification, pursuant to the provisions of N.J.S.A. 19:44A-20.1 et seq., from ACT Engineers, Inc., (hereinafter referred to as the “Vendor”); and

**WHEREAS**, ACT Engineers, Inc., has certified that it has not made any reportable contributions to a political candidate committee in the Township of Stafford in the previous one year, and that the contract will prohibit ACT Engineers, Inc., from making any reportable contributions to a political or candidate committee in the Township of Stafford through the term of the contract; and

**WHEREAS**, a Certificate of Availability of Funds executed by the Chief Financial Officer is annexed hereto; and

**WHEREAS**, it is the desire of the governing body to award contract (attached) to ACT Engineers, Inc., to provide a Bathymetric Survey Data Collection, Sediment Sampling, Permitting Dredge Design and Engineering, Geotechnical Exploration and Analysis, Hydrodynamic Modeling, Marsh Restoration Design and Engineering, Construction Management and Inspection and Project Management/Stakeholder Outreach.

**NOW, THEREFORE, BE IT RESOLVED**, this 20<sup>th</sup> day of **May, 2025**, by the Township Council of the Township of Stafford, County of Ocean, State New Jersey, as follows:

1. That the Mayor is hereby authorized to execute and the Township Clerk to attest to, respectively, a contract, in a form acceptable to the Township Attorney, with ACT Engineers, Inc., for Dredge Engineering and Marsh Restoration Design for the Popular Point Restoration and Protection Plan pursuant to the provisions of N.J.S.A. 19:44A-20.4, et seq., and N.J.S.A. 40A:11-5(1)(a)(1) in an amount not to exceed \$1,035,550.
2. The submitted cost proposal, Business Disclosure Entity Certification and the Determination of Value shall be placed on file with this resolution.
3. That a Certificate of Availability of Funds executed by the Chief Financial Officer is annexed hereto. The following are the line item appropriations or ordinances which constitute the availability of funds for this contract:

**General Capital:**


**C-04-44-023-012-203      NCS SHORELINE STABIL.      \$1,000,000.00**  
**Bond Ordinance #2023-12**

**C-04-43-024-009-102      SHORELINE RESTORATION POPULAR PT      \$35,500.00**  
**Bond Ordinance #2024-09**

4. A certified copy of this Resolution shall be forwarded by the Township Clerk to the following:
  - a. Honorable Robert Henken, Mayor;
  - b. Matthew von der Hayden, Township Administrator;
  - c. Ashley Darmon, CFO;
  - d. Nicola Reid, Purchasing Agent;
  - e. Marcel Michot, Water & Sewer Superintendent;
  - f. George Yockachonis, Public Works Superintendent; and
  - g. ACT Engineers, Inc.,

**CERTIFICATION**

I, **SUSAN M. FARRELL**, Township Clerk of Stafford Township, do hereby certify that the foregoing was duly adopted by the Mayor and Township Council of the Township of Stafford at a meeting held on 20<sup>th</sup> day of **May, 2025**, a quorum being present and voting in the majority.

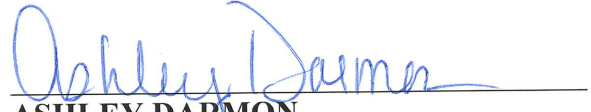
  
**SUSAN M. FARRELL, RMC**  
**MUNICIPAL TOWNSHIP CLERK**  
**TOWNSHIP OF STAFFORD**

**ROLL CALL VOTE**

Gov. Body	Motion	Second	Yes	No	Abstain	Absent
Mower	✓		✓			
Otte			✓			
Esposito			✓			
LaRocca		✓	✓			
DarConte			✓			
Fossa			✓			
Henken			✓			

**CERTIFICATION OF AVAILABILITY OF FUNDS**

I, **ASHLEY DARMON**, Chief Financial Officer for the Township of Stafford, do hereby certify that no amount shall be chargeable or certified until such time as the services are ordered or rendered. Prior to incurring the liability by placing the order or receiving the services, the certification of available funds shall be issued and attached to the file copy of the purchase order or such other such document.



**ASHLEY DARMON  
CHIEF FINANCIAL OFFICER  
STAFFORD TOWNSHIP  
RESOLUTION NO. 2025-187**

**General Capital:**

<b>C-04-44-023-012-203</b>	<b>NCS SHORELINE STABIL. Bond Ordinance #2023-12</b>	<b>\$1,000,000.00</b>
<b>C-04-43-024-009-102</b>	<b>SHORELINE RESTORATION POPULAR PT Bond Ordinance #2024-09</b>	<b>\$35,500.00</b>

Dredge Engineering and Marsh Restoration Design for restoration of the marsh at Popular Point.

# **SCHEDULE A**

## **TOWNSHIP OF STAFFORD**



1 Washington Boulevard, Suite 3  
Robbinsville, New Jersey 08861  
Telephone No. (609) 918-0200  
[www.actengineers.com](http://www.actengineers.com)

May 2, 2025

Township of Stafford  
260 East Bay Avenue  
Manahawkin, NJ 08050

via email: [mvonderhayden@staffordnj.gov](mailto:mvonderhayden@staffordnj.gov)

Attn: Mr. Matthew von der Hayden  
Township Administrator

RE: Dredge Engineering and Marsh Restoration Design  
Popular Point  
Stafford Township, NJ  
ACT Proposal No. P24S43

Dear Mr. von der Hayden:

In response to your request, ACT Engineers, Inc. (ACT) is pleased to provide this Proposal for engineering design, geotechnical investigations, permitting and survey services for restoration of the marsh at Popular Point. In addition, this proposal includes anticipated construction management and inspection services for both the dredging and material placement (restoration) phase of this project. This scope of work is a required component of the \$5.0M grant received by Stafford Township for completion of the Project under the Regional Greenhouse Gas Initiative (RGGI) Grant from the New Jersey Department of Environmental Protection (NJDEP). Consistent with the pending permit plans submitted by the U.S. Fish and Wildlife Service (USFWS), the purpose of this work is to complete dredge and placement design and prepare bid specification documents for Stafford Township (the Township) to use in its procurement process. This project phase will utilize approximately 82,000 cubic yards (CY) of dredge material from local channels and waterways.

The following Scope of Work is proposed:

### **SCOPE OF WORK**

Task 1: Bathymetric Survey and Data Collection

Lump Sum Fee: \$160,000

Previous sampling indicates that most of the material from the Mill Creek area is suitable for aquatic placement at the tip of Popular Point and thus, this is the area where marsh restoration dredge material is expected to be sourced. ACT will complete a design survey of the proposed dredge area to develop accurate dredge plans for the project.

ACT will additionally conduct a 'pre-dredge' hydrographic survey of Mill Creek, including the lagoons branching off of Mill Creek, the main mouth of Beach Haven West, and at Popular Point.

Upon completion of the dredge program (Task 3) and placement of material for marsh restoration (Task 6), ACT will return to conduct a 'post-dredge' survey to ensure target depths and volumes have been achieved and for use as the basis of contractor payout.

The surveys may use multi-beam and/or single beam soundings, as appropriate, on a maximum of 100' grid spacing (design survey) and 25' grid spacing (pre and up to 3 partial post dredge surveys). Additional surveys, if required by the contractor would be at the cost of the contractor. The hydrographic survey equipment will require the water depth to be a minimum of 2 feet deep. Areas where the water depth is less than 2 feet deep are not able to be surveyed utilizing the echosounder. Base-mapping will be created, and 1-foot contours will be shown and supplemented with spot elevations as necessary to represent the existing conditions. Marsh topography will be collected via LiDAR.

**Task 2: Sediment Sampling**

**Lump Sum Fee: \$55,000**

It is expected that additional sediment sample results will be required to utilize the material for marsh restoration.

A Sediment Sampling and Analysis Plan (SSAP) was previously prepared for the Stafford Township-wide dredging permit application, approved and sediment sampling and analysis completed. Because additional analysis is expected to be required for ecological use of the dredge material, ACT will prepare a supplemental SSAP for submittal to, and approval by, the New Jersey Department of Environmental Protection (NJDEP). The Supplemental SSAP will reference the previously approved document, provide a brief narrative of the phase of work to be completed, display the number and location of samples to be collected, and list the analytical testing to be completed at a New Jersey certified laboratory.

Based on the estimated dredge volume, it is expected that the NJDEP will require collection and analysis of up to 18 sediment samples from the survey area. Upon approval of the SSAP, ACT will collect the sediment samples for the analysis required for hydraulic dredging and to confirm the material is suitable for marsh placement. A summary report of the material will be provided for submittal to the NJDEP and to the USFWS.

**Task 3: Permitting, Dredge Design and Engineering**

**Lump Sum Fee: \$84,500**

The ACT Team will design a dredging plan for Mill Creek and the mouth of Beach Haven West including select lagoons containing sandy material as determined by previous testing. ACT will prepare the dredge designs and bid specifications within the Township's current permits.

It is currently anticipated that the dredge program will include only a hydraulic dredge program. Included within this task is the analysis of bathymetric survey data, development of recovery dredge prism plans and quantity determinations with associated specifications, attendance at pre-bid and pre-construction meetings, and preparation of required addenda and a final award recommendation.

It is expected that the following additional permits / approvals will be required:

- Sediment Sampling and Analysis Plan (discussed under Task 2).
- A Waterfront Development Act (WDA) permit modification of the approved Stafford Township-wide dredging permit, to allow hydraulic dredging, and an Acceptable Use Determination (AUD).
- US Army Corps of Engineers General Permit No. 24.(USFW Application)

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**ACT**  
ENGINEERS

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- A General Permit No. 23 for geotechnical soils borings. We will also attempt to include this task in the WDA modification.

ACT will prepare and submit the above listed permit applications.

**Task 4: Geotechnical Exploration and Analysis**

**Lump Sum Fee: \$138,500**

The ACT Team will contract for, oversee, and perform geotechnical explorations at the site focused on the proposed sill, dune, and beach fill area along the southern portion of Popular Point. The geotechnical exploration will characterize the subsurface conditions within the project limits, evaluate stability and settlement associated with the proposed improvements, and support engineering design. Four soil borings to a depth of approximately 30-feet below grade surface (BGS), and three borings to a depth of approximately 50-feet BGS are proposed. All soil borings will be installed in accordance with ASTM International standards.

The soil borings will be installed by a subcontractor under the direction and supervision of the ACT Team. Drilling equipment will be supported on a barge propelled by a push boat. The borings will be logged to record all pertinent information at each boring location. Soil samples will be collected from the borings and placed in laboratory supplied glassware for appropriate storage prior to analysis. Cuttings and fluids from the drilling and sampling operations will be collected in 55-gallon drums, characterized for proper disposal, and transported off site for disposal at an approved facility.

Selected samples obtained from the soil borings will be submitted for geotechnical laboratory testing. The testing program is expected to include properties such as moisture content, Atterberg limits, grain size distribution, unit weight, unconsolidated undrained triaxial compression, and one-dimensional consolidation. Final logs of soil borings will be prepared, and data will be processed and developed into design subsurface profiles to serve as the basis of engineering analyses.

Engineering analysis will be conducted to evaluate the proposed designs, and to suggest changes to stone size, placement thickness, and overall dimensions. The ACT Team will develop a summary memorandum stamped by a professional engineer licensed in New Jersey that includes figures and drawings of the proposed sill, beach fill, and dune system following our analysis, to be included with the permitting package. The memorandum would also include recommended best management practices for construction, along with suggested monitoring protocols. Analytical charges are included within this cost estimate.

**Task 5: Hydrodynamic Modeling**

**Lump Sum Fee: \$58,560**

The ACT Team will refine and extend an existing Delft3D model to support the design of the proposed sill and fill area at Popular Point. The model will be used to evaluate coastal forces by simulating waves, tidal currents, and water surface elevations during a range of storm events. The model will incorporate existing site data and simulate three storm scenarios and one sea level rise scenario. A memorandum will be prepared summarizing the results and recommendations from the model.

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**Task 6: Marsh Restoration Design and Engineering**

**Lump Sum Fee: \$79,500**

ACT will prepare design plans and bid specifications for the work to be completed at Popular Point, including construction of a stone sill, sediment containment, and placement locations. Total volumes to be placed will be based upon the findings from Task 1. Sediment placement includes both reclamation of drowned marsh at the tip of Popular Point, as well as a dune to be constructed approximately at the current shoreline. Based on material placement rates achieved during previous restoration efforts, ACT estimates 750 CY of material can be deposited per day; this deposition rate assumes that work will not be conducted overnight. This phase of work does not include the additional 117,000 CY of material to be placed on the degraded marsh platform.

It is anticipated that the plans and specifications for marsh restoration will be combined with the Dredge Program design (Task 3 above), for a single award. Included within this task is the analysis of topo-bathymetric data, attendance at pre-bid and pre-construction meetings, and preparation of required addenda and a final award recommendation.

**Task 7: Construction Management and Inspection**

**Lump Sum Fee: \$388,300**

The ACT Team will provide Construction Management and Construction Inspection (CMCI) services for the duration of activities. CMCI oversight of all overall construction activity will be conducted and will include preparation and installation of piping prior to dredging, construction of the rock sill and monitoring of settlement, and oversight during dredging and placement of material.

Oversight includes installation of monitoring equipment, analysis of results obtained from the monitoring equipment, review of project surveys and data related to construction of the sill, beach, and dune system, along with recommendations related to any necessary changes. Also included in this task is attendance of weekly 1-hour virtual project meetings throughout the duration of the project.

Daily and weekly reports will be prepared to document progress throughout the project. Volumes dredged, placed, and any problems encountered will be recorded. Cost estimate includes boat and truck usage, per diem charges and lodging as required for the estimated 120 day duration of the project.

**Task 8: Project Management and Stakeholder Outreach**

**Lump Sum Fee: \$71,190**

Included in this task is project management, and stakeholder outreach with Project Stakeholders including Stafford Township residents, USFWS, NJDEP and U.S. Army Corps of Engineers (USACE) regulators as required to facilitate the overall project. Included within this task is coordination for permitting, grant conformance and public interaction throughout the design and construction phase of the project. ACT Engineers estimates that up one on-site meeting, 4 agency meetings and one public meeting may be required.

**SCOPE OF WORK**

The following summary of the proposed professional fees, schedule and estimate expenses is provided:

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Task Description		Schedule	Budget
1	Bathymetric Survey and Data Collection	3 weeks	\$ 160,000
2	Sediment Sampling	2 weeks + laboratory turnaround time of results	\$ 55,000
3	Permitting, Dredge Design and Engineering	3 months	\$ 84,500
4	Geotechnical Exploration and Analysis		\$ 138,500
5	Hydrodynamic Modeling		\$ 58,560
6	Marsh Restoration Design and Engineering	2 months	\$ 79,500
7	Construction Management and Inspection	5 months	\$ 388,300
8	Project Management/Stakeholder Outreach	On going	\$ 71,190
TOTAL FEES			\$ 1,035,550

#### TERMS AND CONDITIONS

This proposal represents our best good faith estimate for the proposed scope of work based on the information provided by the client at this time. Any services not explicitly described in this proposal are beyond the scope of work and proposed budget.

The fees listed in this proposal are valid for 60 days from the date of the proposal. This project will be billed monthly for the work performed. Payment of invoice is expected within 30 days of receipt.

To assure a clear understanding of all matters relating to our mutual responsibilities, the work will be completed in accordance with the Standard Terms and Conditions that are attached and made a part of this proposal.

Initiation of the project and authorization to proceed with survey, design and contractor activities is contingent upon contractual timelines, pending approvals and permits, and any regulatory agency-required timing restrictions. It is expected all in-water activities, including the geotechnical testing, dredging operations and marsh placement of material will be limited to a regulatory 'window' between July 1 and December 31 (possibly extended one time to March 1), for protection of marine resources.

Performance of the scope of services herein does not assure a successful outcome for the proposed project. ACT does not guarantee that regulatory and environmental approvals will be granted or that additional services at additional cost will not be required. The scope of services and costs presented herein are based on our many years of experience which confirms that no two projects are alike and that acquiring regulatory approvals cannot be assured.