



July 16, 2024

Mark Buttery  
Jefferson Parish Purchasing Department  
MButtery@jeffparish.net

**RE: Jefferson Parish Coastal Engineering Consulting Services as needed Parish Wide  
SOQ 24-020, Resolution No. 144205**

Dear Mr. Buttery:

Southern Shores Engineering, LLC (SSE), along with our sub-consultants, (SSE Team), Moffatt & Nichol, Inc. (M&N), Halff Associates, Inc. (Halff), T. Baker Smith, LLC (TBS), and Ardaman & Associates, Inc. (Ardaman) is pleased to submit a Statement of Qualifications for Resolution No. 144205, SOQ 24-020. The SSE Team offers an unparalleled resume regarding coastal engineering consulting qualifications and experience. SSE personnel and our team members have been working to restore the Louisiana coast since before the inception of the first Master Plan. Although a new firm, SSE engineers have performed numerous marsh and ridge restoration, shoreline stabilization, and barrier islands restoration projects throughout coastal Louisiana. Our proven track-record of coastal engineering design and implementation expertise will ensure the delivery of projects on-time and within budget. With coastal restoration as our focus, our local knowledge, specialized training, and field experience provide unique advantages to Jefferson Parish. Our professionals lead the niche that is coastal design and have repeatedly implemented projects with varying environmental and engineering complexities.

SSE is a small, woman-owned Hudson firm located in Louisiana. Our proposed field teams are all located in Louisiana, keeping costs competitive. As a small business, red tape is minimized, and our clients are able to enjoy the benefits of immediate, dedicated service. With a deep bench of support through close working relationships with our subs, no job is too large for this team to execute. SSE has teamed with several sub-consultants who have also performed extensive work throughout coastal Louisiana over recent decades, including but not limited to modeling studies, surveying services, geotechnical engineering, environmental and permitting services, and public outreach.

Enclosed are details regarding our team's expertise and experience. The SSE Team will commit to performing the services described to industry standards and exceed expectations relative to collaboration and expertise. We pride ourselves in imparting a unique knowledge base to get projects designed quickly and put in the ground. We will work closely with Jefferson Parish to ensure projects entrusted to us are not only cost-effective but delivered with targeted environmental and societal benefits.

We are excited about the opportunity to support Jefferson Parish in implementing future coastal protection and restoration projects, and we look forward to furthering the preservation of our beloved coastal Louisiana.

Sincerely,

Whitney Thompson, P.E.  
Principal  
wthompson@southernshoreseng.com

Statement of Qualifications  
Jefferson Parish  
Coastal Engineering Consulting as needed Parish Wide  
Resolution No. 144205, SOQ 24-020

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## EXECUTIVE SUMMARY

### COASTAL LOUISIANA – PRESERVING OUR HOME

The Louisiana way of life is a unique treasure. However, Louisiana’s natural habitats, culture, and infrastructure are threatened by high land loss rates and rising sea levels. Coastal restoration and protection programs on the local, state, and federal levels in Louisiana are unmatched by others in the country. To support the ambitious goals set forth by Jefferson Parish, the Southern Shores Engineering Team (SSE Team) submits a statement of qualifications herein to provide engineering expertise and implementation support to execute successful projects. The personnel on our team have provided exceptional service to coastal stakeholders in Louisiana over the last decades, leading key restoration projects. Southern Shores Engineering (SSE) has a proven track record of providing quality engineering and implementation support and stands ready to assist the Parish in providing consulting services.

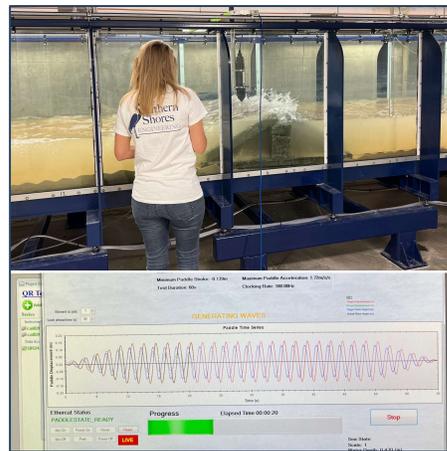
### INTRODUCTION TO THE SSE TEAM

SSE prides itself in diligently supporting clients by providing specialized expertise in coastal engineering. A Louisiana-based, small, woman-owned firm, SSE personnel are exceptionally familiar with coastal processes unique to Louisiana, local soil conditions, sensitive marine ecosystems, sediment resources, coastal infrastructure, and the coastal marine construction industry, providing a strong foundation to support implementation of successful, efficient restoration projects. With our sub-consultants, our team presents unmatched credentials to provide services for coastal restoration projects. This statement of interest and qualifications details our team’s vast experience and specialized resume.

Coastal restoration in Louisiana is our focus; we are not a large firm that merely has a coastal branch. Our engineers have spent their entire careers focusing on Louisiana restoration. Our team members have tackled the most complex projects to support the restoration of our state. Our approach is based in coastal process theory, and our team has spent years on-site during coastal restoration projects, honing our expertise and strengthening our ability to serve clients. Our professionals have years of experience providing design services for marsh and ridge creation, beach and dune restoration, shoreline protection, living shorelines, beneficial use, and sediment management projects, among others, across Louisiana.

### UNPARALLELED LOUISIANA EXPERIENCE

Although SSE is a new firm, our professionals have led local, state, and federal restoration projects over many years. The development of our company filled the need for a local coastal engineering firm with people who have lived and worked on the unique Louisiana coast their whole lives. The nuances and intricacies that make up our state’s coastal system are significantly different from those found elsewhere. The SSE Team has a deep understanding of these unique regional conditions, which will benefit the Parish. Our subject matter experts have been an integral part of the evolution of coastal design protocol in Louisiana designing and implementing projects for government agencies from Cameron Parish to St. Bernard Parish.



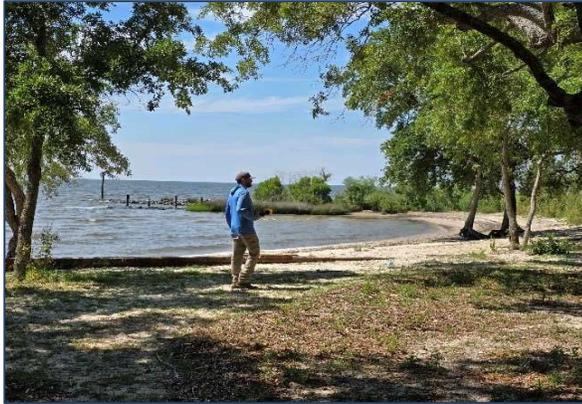
*Our team is on the cutting-edge of living shoreline technology, offering design and numerical modeling services nationwide.*

### OUR TEAM

Our coastal restoration institutional knowledge and experience working with various agencies help us to develop solutions that achieve the most effective restoration programs and habitat preservation. This coupled with our team continually refining our processes by including the latest technology, procedures, and equipment provides cost-efficient, successful projects on accelerated schedules. Our engineers recently completed a living shoreline numerical modeling study for a private client on an enhanced schedule, finishing within one month.

SSE’s principal, Whitney Thompson, is an industry expert in coastal engineering, having led exclusively coastal restoration projects in Louisiana for nearly 20 years. Ms. Thompson has been on the forefront of marsh restoration engineering since before the initial Master Plan, playing a key part in developing marsh design industry standards. Ms. Thompson has overseen the placement of tens of millions of cubic yards of dredged material for restoration of the most dynamic coastlines and has managed projects up to \$120,000,000 in value. Our engineers have recently led projects such as QuickReef®, Lake Rosemound Restoration, Oyster Bayou Marsh Restoration

and Terracing, Shell Island Restoration, Chenier Ronquille Barrier Island Restoration, Raccoon Island Shoreline Stabilization and Hydrologic Restoration, and the Living



Shorelines Performance Study. We have also recently provided support to other teams for projects such as the Lincoln Beach Redevelopment Master Plan and Bayou Dularge Marsh, Ridge, and Hydrologic Restoration project.

To supplement our design expertise, we have brought together top firms with valuable experience in coastal Louisiana to assist with data collection and analysis. Supplementing SSE's services with coastal modeling and engineering support, **Moffatt and Nichol, Inc.**'s past experience in coastal Louisiana combined with its thorough understanding of numerical modeling and coastal processes will facilitate efficient and timely delivery of project tasks. **Halff Associates, Inc.** are leaders in hydrologic and hydraulic modeling, having led federal, state, and local modeling initiatives over the last twenty years. **T. Baker Smith** provides a broad range of services including biological and environmental assessments of wetlands, field investigations, and surveying. T. Baker Smith will also support SSE in providing coastal grant writing services as well as outreach and educational support and the development of associated marketing materials. **Ardaman & Associates** brings extensive experience in coastal Louisiana to provide onshore and nearshore geotechnical services.

### **PROVEN TRACK RECORD & PERFORMANCE**

After data collection and analysis, coastal restoration projects heavily rely on engineering logistics, and success requires specialized experience; these are no traditional civil works projects. Marsh and barrier island design standards and technologies have evolved over the course of Louisiana's growing restoration program, and our team members have detailed knowledge of design and implementation processes to ensure ecological success as well as protection of our people and infrastructure. Our engineers have a proven track

record of providing detailed construction plans and specifications and developing accurate construction cost estimates. This is imperative in guiding the client to ensure budgets are accurate as to prevent delays. Coastal protection and restoration projects are as dynamic as Louisiana's coast, and designs should be treated as such. Our engineers evaluate design alternatives in the context of project objectives and incorporate the latest technology as tools to improve performance and longevity of projects. With our team's vast experience in evaluating coastal processes and soil consolidation and movement, coupled with world-class numerical modeling capabilities, Jefferson Parish projects entrusted to our team will be designed with the most modern tools and expertise to ensure project success.

### **WHY CHOOSE THE SOUTHERN SHORES TEAM?**

SSE has a unique understanding of coastal Louisiana, as our careers have centered around restoration of the Gulf coast. This familiarity coupled with our detailed knowledge of the local marine construction industry provides a valuable resource to the Parish. Our engineers have designed and permitted some of the most complex restoration projects, such as Shell Island, where 10 million cubic yards of Mississippi River sand were successfully dredged after coordinating with Mississippi River stakeholders and permitting complex borrow areas. Our engineers have spent years on the ground during barrier island projects such as Chenier Ronquille, overseeing habitat creation in the most dynamic barrier island systems. We have written specifications for Mississippi River dredging and overseen dredge compliance in this critical shipping corridor. We are on the cutting-edge of sustainable living shoreline designs, performing numerical modeling and assessments of different technologies, working with several clients as well as academia. Our engineers have evaluated changing landscapes over time to deliver marsh restoration projects with habitat benefits that last for decades. We are familiar with the challenges that the coastal zone faces on a daily basis, such as sensitive marine habitats, existing infrastructure, soil properties, dredging impacts, sediment conveyance systems, shoreline retreat, and habitat sustainability. SSE has a proven track record of delivering projects on-time and within budget. These unique projects require unique resumes, and our company is the practical solution to provide these. We look forward to continuing our work restoring and protecting this invaluable place we call home.

**Southern Shores Engineering, LLC  
TEC Professional Services Questionnaire**

**Technical Evaluation Committee (TEC) Questionnaire**  
**Instructions**

- The Technical Evaluation Committee (TEC) Questionnaire shall be used for professional services related to architecture, engineering, or survey projects.
- **The TEC Questionnaire should be completely filled out. Complete and attach ALL sections. Insert “N/A” or “None” if a section does not apply or if there is no information to provide.**
- Questionnaire must be signed by an authorized representative of the Firm. Failure to sign the questionnaire shall result in disqualification of proposer pursuant to J.P. Code of Ordinances Sec. 2-928.
- All subcontractors must be listed in the appropriate section of the Questionnaire. Each subcontractor must provide a complete copy of the TEC Questionnaire, applicable licenses, and any other information required by the advertisement. Failure to provide the subcontractors' complete questionnaire(s), applicable licenses, and any other information required by the advertisement shall result in disqualification of proposer pursuant to J.P. Code of Ordinances Sec. 2-928.
- If additional pages are needed, attach them to the questionnaire and include all applicable information that is required by the questionnaire.

## TEC Professional Services Questionnaire

**A. Project Name and Advertisement Resolution Number:**

Statement of Qualifications for Coastal Engineering Consulting As-Needed Parish Wide  
SOQ 24-020 (Resolution No. 144205)

**B. Firm Name & Address:**

Southern Shores Engineering, LLC  
2251 Drusilla Ln. Suite D  
Baton Rouge, LA 70809

**C. Name, title and contact information of Principal, as defined in Section 2-926 of the Jefferson Parish Code of Ordinances, who is a registered, licensed architect, professional engineer, or surveyor in the State of Louisiana:**

Whitney C. Thompson, PE  
Principal  
2251 Drusilla Ln. Suite D  
Baton Rouge, LA 70809  
Phone: 225-252-5544  
Email: WThompson@southernshoreseng.com

**D. Name and contact information of employee who is a registered and licensed architect, professional engineer, or surveyor in the State of Louisiana in the applicable discipline. A subcontractor may be substituted here only if the advertised Project requires more than one discipline.**

Whitney C. Thompson, PE  
Principal  
2251 Drusilla Ln. Suite D  
Baton Rouge, LA 70809  
Phone: 225-252-5544  
Email: WThompson@southernshoreseng.com

**E. Please provide the number of employees whose primary function corresponds with each category:**

<input type="checkbox"/> Administrative	<input type="checkbox"/> Estimators	<input type="checkbox"/> Specification Writers
<input type="checkbox"/> Architects (Licensed)	<input type="checkbox"/> Geologists	<input type="checkbox"/> Structural Engineers
<input type="checkbox"/> Chemical Engineers	<input type="checkbox"/> Geotechnical Engineers	<input type="checkbox"/> Graduate Engineers
<input type="checkbox"/> <sup>3</sup> Civil Engineers	<input type="checkbox"/> Interior Designers	<input type="checkbox"/> Project Managers
<input type="checkbox"/> Construction Inspectors	<input type="checkbox"/> Landscape Architects	<input type="checkbox"/> Clerical
<input type="checkbox"/> Ecologists	<input type="checkbox"/> Land Surveyor	<input type="checkbox"/> Grant/Funding Specialist
<input type="checkbox"/> Electrical Engineers	<input type="checkbox"/> Mechanical Engineers	<input type="checkbox"/> Sanitary Engineers
<input type="checkbox"/> Engineer Intern	<input type="checkbox"/> Environmental Engineers	
<input type="checkbox"/> Professional Land Surveyors		<input type="checkbox"/> <sup>3</sup> <b>TOTAL</b>

**F. Is this submittal by a JOINT-VENTURE? Please check: YES  NO**

**If marked "No" skip to Section I. If marked "yes" complete Sections G-H.**

**TEC Professional Services Questionnaire**

**G. If submittal is by JOINT-VENTURE, list the firms participating and outline specific areas of responsibility (including administrative, technical, and financial) for each firm. Please attach additional pages if necessary.**

1.

2.

**H. Has this JOINT-VENTURE previously worked together? Please check:**  
 YES  NO

**I. List all subcontractors anticipated for this Project. Please note that all subcontractors must submit a fully completed copy of this questionnaire, applicable licenses, and any other information required by the advertisement. See Jefferson Parish Code of Ordinances, Sec. 2-928(a)(3). Please attach additional pages if necessary.**

Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
1. Moffatt & Nichol, Inc. 601 Poydras St. Suite 1860 New Orleans, LA 70130	Coastal modeling and engineering	Yes
2. Halff Associates, Inc. 4467 Bluebonnet Blvd. Suite B Baton Rouge, LA 70809	Hydrologic and hydraulic modeling	Yes
3. T. Baker Smith, LLC 6660 Riverside Dr., Suite 101 Metairie, LA 70003	Biological/envrionmental Field Investigations Surveying Grant writing Outreach/education/marketing materials	Yes

**J. Please specify the total number of support personnel that may assist in the completion of this Project:**

3 \_\_\_\_\_

**Section I Continued:**

**Name & Address:**

**Specialty:**

**Worked with Firm Before**

**(Yes or No):**

4. Ardaman & Associates, Inc.

Geotechnical services

Yes

## TEC Professional Services Questionnaire

**K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e. resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.**

### **PROFESSIONAL IN CHARGE OF PROJECT:**

**Name & Title:**

Whitney C. Thompson, PE, Principal

**Project Assignment:**

Coastal Engineering & Design

**Name of Firm with which associated:**

Southern Shores Engineering, LLC

**Years' experience with this Firm:**

4

**Education: Degree(s)/Year/Specialization:**

B.S./2005/Civil Engineering

**Active registration: Year first registered/discipline:**

LA PE 0034825, 2009/Civil Engineering

**Other experience and qualifications relevant to the proposed Project:**

Ms. Thompson is an industry expert in coastal engineering, having led coastal restoration and water resources projects for nearly 20 years. She is responsible for the design and management of projects including marsh creation/dredging, shoreline stabilization, barrier island restoration, and living shorelines. Ms. Thompson has worked closely with state and federal agencies, as well as the private sector, leading clients from feasibility to permitting and design and through construction. Ms. Thompson has extensive experience with coastal engineering and analysis as well as coastal zone permitting, having permitted some of the most complex dredging projects in the Gulf Coast region. Ms. Thompson has implemented over a dozen restoration projects in Louisiana and has designed over 4,000 acres of habitat, and managed construction projects up to \$120,000,000 in value.

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Christopher Paul, PE Coastal Engineer/Project Manager
<b>Project Assignment:</b>
Coastal Engineering/Construction Administration
<b>Name of Firm with which associated:</b>
Southern Shores Engineering, LLC
<b>Years' experience with this Firm:</b>
4
<b>Education: Degree(s)/Year/Specialization:</b>
BS/2014/Civil Engineering BA/2008/Business Administration
<b>Active registration: Year first registered/discipline:</b>
LA PE 0043282, 2018/Civil Engineering
<b>Other experience and qualifications relevant to the proposed Project:</b>
Christopher Paul, PE, is responsible for the design, management, and construction observation of coastal restoration projects including marsh creation/dredging, shoreline protection, and barrier island restoration. He focuses on applied engineering principles such as hydraulics, hydrology, coastal processes, and geotechnical engineering. He performs engineering calculations, prepares plans and specifications for construction, and produces estimated construction costs for restoration projects. During construction, he is responsible for observations and oversight including daily construction observation reports, dredge compliance analysis, sediment compatibility analysis, pay survey data QA/QC, volume computations and pay recommendations, field adjustment reports, change orders, permit compliance reporting, and moderating construction meetings.

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
John Darnall, EI Coastal Engineer
<b>Project Assignment:</b>
Coastal Engineering/Construction Administration
<b>Name of Firm with which associated:</b>
Southern Shores Engineering, LLC
<b>Years' experience with this Firm:</b>
4
<b>Education: Degree(s)/Year/Specialization:</b>
MS/2016/Coastal and Marine Engineering and Management BS/2014/Civil Engineering
<b>Active registration: Year first registered/discipline:</b>
LA EI 33971, 2019/Civil Engineering 2017/FAA UAS Remote Pilot #3996624
<b>Other experience and qualifications relevant to the proposed Project:</b>
John Darnall, EI, is responsible for the design and construction administration of coastal restoration projects including marsh creation/dredging, shoreline protection, and barrier island restoration. He focuses on applied engineering principles such as hydraulics, hydrology, coastal processes, and geotechnical engineering. He performs engineering calculations, prepares plans and specifications for construction, and produces estimated construction costs for restoration projects. During construction, he is responsible for construction observations and oversight including daily construction observation reports, dredge compliance analysis, sediment compatibility analysis, documentation of construction activities, pay survey data QA/QC, volume computations and pay recommendations, field adjustment report change orders, permit compliance, and moderating construction meetings.

**TEC Professional Services Questionnaire**

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Intentionally Left Blank
<b>Project Assignment:</b>
<b>Name of Firm with which associated:</b>
<b>Years' experience with this Firm:</b>
<b>Education: Degree(s)/Year/Specialization:</b>
<b>Active registration: Year first registered/discipline:</b>
<b>Other experience and qualifications relevant to the proposed Project:</b>

**TEC Professional Services Questionnaire**

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Intentionally Left Blank
<b>Project Assignment:</b>
<b>Name of Firm with which associated:</b>
<b>Years' experience with this Firm:</b>
<b>Education: Degree(s)/Year/Specialization:</b>
<b>Active registration: Year first registered/discipline:</b>
<b>Other experience and qualifications relevant to the proposed Project:</b>

## TEC Professional Services Questionnaire

**L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.**

### PROJECT NO. 1

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
QuickReef® Design Analysis Various Coastal Locations Client: Native Shorelines, A Davey Company Contact: Mary-Margaret McKinney, Director of Coastal Restoration, 252-333-9852 MaryMargaret.McKinney@davey.com	Native Shorelines contracted SSE to conduct engineering analyses to optimize QuickReef® living shoreline structures. SSE evaluated wind and wave conditions as well as local tidal datums to design a wave flume physical modeling study. SSE is evaluating results to determine wave attenuation properties of the structures. SSE is also performing computational fluid dynamics modeling via FLOW3D on QuickReef® design variations to evaluate effects of the structures.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
September 2024 (E)	\$73,000	\$73,000

### PROJECT NO. 2

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Lincoln Beach Park Redevelopment Master Plan Client: City of New Orleans (sub to Sasaki) Contact: Alex Hill, Senior Associate, Sasaki, 720-504-9486 ahill@sasaki.com	Lincoln Beach is situated along Lake Pontchartrain in New Orleans and was once a vibrant and cherished destination for waterfront recreation. Over time, this historic site experienced prolonged public closure and disinvestment, leaving it underutilized. The City of New Orleans plans to redevelop the site into a resilient waterfront destination. SSE is leading environmental permitting and planning as well as tree surveying and coastal engineering independent technical review.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
Spring 2025 (E)	Undisclosed	\$30,000

## TEC Professional Services Questionnaire

<b>PROJECT NO. 3</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility</b>	
Lake Rosemound Dredging and Restoration Plan Client: Lake Rosemound Association Contact: Walter Pilie', Dredging Abatement Committee Chairman, 504-615-3115 bod9@lakerosemound.org	The Lake Rosemound Association contracted SSE to develop a restoration plan to maintain sustainability of the lake. Lake Rosemound continues to experience sedimentation due to natural and anthropogenic causes such as severe storm impacts, adjacent logging, and altered hydrology. SSE is developing an incremental plan to target environmental and societal benefits desired by the client. The preferred alternative will move to final design. After completing the design phase, SSE will develop lake restoration construction plans and specifications and manage construction.	
<b>Completion Date (Actual or estimated)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
2025 (E)	\$3M (construction)	\$200,000

<b>PROJECT NO. 4</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
Living Shorelines Performance Study Client: North Carolina Coastal Federation Contact: Lexia Weaver, Ph.D., Living Shoreline Lead, 252-393-8185 x501 lexiaw@nccoast.org	The North Carolina Coastal Federation contracted SSE to install wave gauges at four different living shoreline structures along the coast of North Carolina, each with a different design. In addition, 3D photogrammetry will be collected to quantitatively assess oyster spat recruitment and shoreline response. The performance of each living shoreline design will be evaluated for effectiveness in attenuating wave energy and supporting marine ecosystem development.	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
October 2024 (E)	\$88,000	\$76,000

## TEC Professional Services Questionnaire

<b>PROJECT NO. 5</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
Proctor Point Marsh Creation and Shoreline Stabilization Feasibility Study, St. Bernard Parish, LA Client: Restoration Systems George Howard, CEO 919-306-4258 george@restorationsystems.com	SSE was contracted by Restoration Systems to conduct a study for the Proctor Point Marsh Creation and Shoreline Stabilization Project to evaluate the feasibility and conceptual cost of marsh enhancement via hydraulic dredging coupled with shoreline protection. The Proctor Point wetlands are an important natural buffer that is one of the multiple lines of defense protecting vulnerable communities in and around the city of New Orleans from storm surge. The Proctor Point wetlands consist of brackish and saline marshes and serve as valuable habitat for wildlife, fish and shellfish.	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
Planning phase completed 7/2021	\$40,000,000 (construction)	\$4,000

<b>PROJECT NO. 6</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
Bayou Dularge Ridge, Marsh, and Hydrologic Restoration Terrebonne Parish, LA Sub to: Waggoner Engineering Robbie Lear 225-298-0800 robbie.lear@waggonereng.com	Sigma Consulting Group, Inc. subcontracted SSE for engineering and design services for the Bayou Dularge Ridge, Marsh, and Hydrologic Restoration Project. SSE's role is leading dredging and equipment access design as well as performing independent technical review of marsh and coastal ridge habitat features. SSE also led shoreline stabilization engineering and design for the Grand Pass hydrologic restoration structure.	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
November 2021	\$61,000,000 (estimated construction cost)	\$142,000

**TEC Professional Services Questionnaire**

<b>PROJECT NO. 7</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
Golden Triangle Marsh Creation Orleans/St. Bernard Parishes Client: Vida Carver, PE, CPRA 225-342-2799 Vida.Carver@la.gov	SSE was contracted to complete final bid documents and conduct construction administration and oversight for this project. SSE personnel led the regulatory and permitting process and developed Plans and Specifications for the project. Marsh habitat was constructed via hydraulic dredging from a borrow area within Lake Borgne.	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
June 2022	\$35,000,000 (construction)	\$507,000

<b>PROJECT NO. 8</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
QuickReef® FLOW3D Modeling Various Coastal Locations Client: Native Shorelines, A Davey Company Contact: Mary-Margaret McKinney, Director of Coastal Restoration, 252-333-9852 MaryMargaret.McKinney@davey.com	Native Shorelines contracted SSE to perform computational fluid dynamics (CFD) modeling in support of the design of a QuickReef® living shoreline system designed for installation in soft soils.	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
September 2024	\$17,000	\$17,000

**TEC Professional Services Questionnaire**

<b>PROJECT NO. 9</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
Post-Ida Storm Assessment and Improvement Project St. John the Baptist Parish, LA Client: Kurt Evans, SJB 225-200-0295 kurt.evans@sjbgroup.com	After Hurricane Ida left a path of destruction, SSE was contracted to assess drainage in St. John the Baptist Parish to support improvements. Post-storm damage assessment missions were flown by SSE's FAA certified UAS pilots to determine the location and extent of impacts to drainage. Improvement recommendations were made by SSE engineers.	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
February 2022	Undisclosed	\$6,000

<b>PROJECT NO. 10</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
Intentionally Left Blank		
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>

**TEC Professional Services Questionnaire**

**M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary.**

Parties:		Status/Result of Case:
Plaintiff:	Defendant:	
1. N/A		
2.		
3.		
4.		

**N. Use this space to provide any additional information or description of resources supporting Firm's qualifications for the proposed project.**

See attached Section N on following page.

**O. To the best of my knowledge, the foregoing is an accurate statement of facts.**

Signature: Whitney Thompson Print Name: Whitney Thompson, PE  
 Title: Principal Coastal Engineer Date: 7/16/2024

Section N (continued)

Southern Shores Engineering LLC (SSE) commits to supporting clients in providing specialized expertise in coastal engineering. Our company was founded in 2020 upon our passion to provide quality engineering services in the most challenging of coastal environments. As a small, woman-owned Hudson firm located in Louisiana, we strive to deliver solid projects, thereby restoring the coast of Louisiana and beyond. Through the successful completion of dozens of projects, SSE engineers understand the different habitat types that make up the Gulf coast and the ecological synergies that must be developed through the design of a restoration project.



We specialize in coastal design, coastal zone permitting, and construction administration, focusing on living shorelines, barrier island, marsh and ridge restoration, dredging, beneficial use, and shoreline stabilization projects. SSE personnel have designed restoration projects utilizing, offshore, nearshore, inland, and Mississippi River sediment for fill material to construct beach and dune, marsh, and barrier island shorelines, coordinating with navigation entities and tackling logistical challenges to successfully implement these projects. SSE personnel have diverse experience working with various agencies, specializing in coastal restoration project implementation.

SSE personnel are extremely familiar with coastal processes unique to Louisiana, local soil conditions, and the coastal Louisiana marine construction industry, providing a strong foundation to support implementation of the State's ambitious restoration plan. Our professionals have years of experience providing design services for marsh creation, barrier island, dredging, living shoreline, and shoreline protection projects, as well as conducting planning studies, supporting borrow area investigations and construction corridor design, and facilitating the implementation of projects.

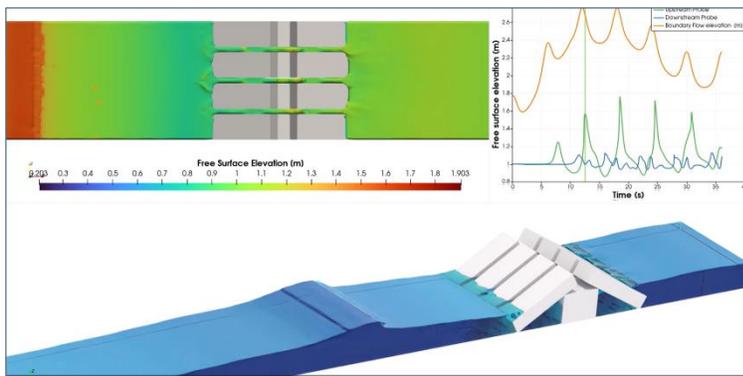
Whitney Thompson, PE will be Jefferson Parish's single point of contact for this contract. Ms. Thompson has planned, designed, and implemented coastal engineering projects for nearly 20 years, primarily in Louisiana. She will review and QA/QC all deliverables submitted by the team. As demonstrated on past restoration projects worked on by our team members, project delivery is guaranteed to be on-time and within budget. SSE is in the process of wrapping up two living shoreline studies and a lake restoration project for private clients, increasing capacity to prioritize new tasks for Jefferson Parish. With the support of Moffatt & Nichol, the SSE Team has the capacity to efficiently execute any coastal engineering task.



## GENERAL, COASTAL, AND DREDGE PROJECT ENGINEERING

### Shoreline Protection and Living Shorelines

Our engineers have designed and overseen construction of shoreline stabilization projects from Louisiana to North Carolina including breakwaters, groins, terminal jetties, and living shorelines. SSE is currently wrapping up a physical and numerical modeling study to quantitate the effects of the QuickReef® living shoreline design. SSE developed a FLOW-3D model to support the client in optimizing the design to attenuate wave energy and reduce shoreline retreat. In one of the more unique habitats in Louisiana, SSE engineers designed a hydrologic restoration and shoreline stabilization project on Raccoon Island. Goals for this project included protecting the rookery and maintaining nesting habitat. Our engineers have vast experience with structures unique to different coastal environments. We understand the importance of



providing global/regional solutions when it comes to these features as a strictly localized perspective can cause issues elsewhere. In addition, our engineers have conducted various inspections of coastal structures throughout the Gulf coast region, which has included inspections and materials testing at a quarry supplying stone for a Louisiana shoreline stabilization project.

### Marsh and Ridge Restoration and Terrace Design

Intertidal marsh is a widespread habitat in the coastal zone that provides crucial wildlife benefits as well as flood protection value to our state. SSE engineers have been at the forefront of marsh design since before the first Master Plan. One of the key drivers of cost in the restoration of marsh is the availability and location of sediment resources for each project. SSE is very familiar with existing resources to identify potential sediment sources and have a thorough understanding of field data collection plans to facilitate marsh creation projects. We have vast experience designing borrow area alternatives to avoid adverse impacts to sensitive aquatic species, geomorphic features, and dissolved oxygen. Primary goals of marsh design are to restore land to its intended ecological function, which includes selecting elevations at which desired vegetative species thrive, thereby creating habitat for intertidal wildlife. Often coupled with marsh restoration is ridge restoration and/or terrace construction. SSE engineers have supported ridge design projects in the past for the CPRA, NRCS, and



## Section N (continued)

NMFS and have designed terraces for the CPRA. Our team has a strong reputation for producing detailed design reports and construction plans and specifications. We have an unmatched track record developing accurate engineers' opinions of construction costs based on our vast marsh restoration experience as well as thorough familiarity with the marine construction industry, providing accurate construction cost estimates to effectively guide the client's budget.

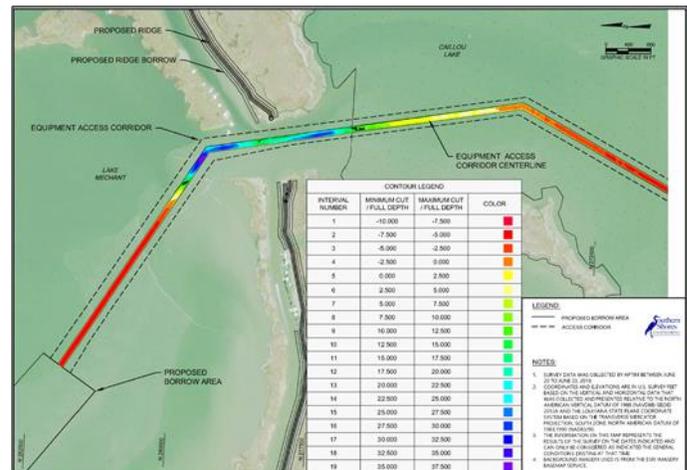
## Beach Nourishment and Barrier Island Restoration

SSE engineers offer vast experience with respect to coastal engineering projects in the Gulf region including large-scale barrier island and headland restoration, back-barrier marsh creation design, living shorelines, shoreline stabilization, and barrier island vegetative plantings design. SSE personnel have experience managing morphological modeling studies, using results to develop stable, environmentally-conscious design alternatives that are tailored to enhance the sustainability of these systems. We have experience performing construction administration and inspection for Gulf coast barrier islands requiring intensive bird abatement to restore nesting bird habitats. SSE engineers have also designed Gulf coast barrier island vegetative planting projects, focusing on stabilizing beach, dune, and intertidal habitats, performed nursery inspections, and overseen planting installations in the field. We have developed monitoring and adaptive management plans for federal and state agencies and have overseen multiple barrier island and beach and dune monitoring studies in the Gulf states. Currently, SSE is performing coastal engineering independent technical review for the Lincoln Beach Park Redevelopment Master Plan in Orleans Parish.

## Waterway Dredging, Beneficial Use, and Navigation

Southern Shores' engineers have been key players in several projects along the Mississippi River in Jefferson and Plaquemines Parishes. In addition to designing marsh and beach restoration projects that dredge Mississippi River sediment, we have designed and implemented navigation dredging projects in Florida, Alaska, and Canada. Several of these also incorporated shoreline protection and turning basins.

Whitney Thompson has designed numerous restoration projects utilizing Mississippi River sediment, focusing on seamless coordination between navigation interests and restoration stakeholders to maintain safe and efficient operations. She designed the first CPRA project utilizing Mississippi River sediment for the sole purpose of restoration. The Mississippi River Sediment Delivery System – Bayou Dupont (BA-39) project was a turning point within Louisiana's restoration program. Utilizing a renewable sediment resource to restore degraded marsh in Plaquemines and Jefferson Parishes laid the groundwork for future projects to design and construct thousands of acres of marsh and beach habitat with high-quality Mississippi River sediment. Ms. Thompson has designed and implemented numerous sediment conveyance corridors at multiple locations throughout coastal Louisiana,



## Section N (continued)

implementing several approaches including jack and bore road crossings, open-cut phased construction, and vehicular ramps and navigational crossings, all while maintaining standard traffic and navigation operations, including hurricane evacuation routes and railroad use. She has permitted complex restoration projects, working closely with the U.S. Army Corps of Engineers, the CPRA, the Louisiana DOTD, railroad owners, multiple parishes, and the navigation industry to ensure project goals are met safely, efficiently, and with minimal interruptions to local daily operations. Ms. Thompson has coordinated with local pilots' associations to present Delft-3D modeling studies, describing projected changes to erosion and depositional patterns as well as river currents due to project construction and has developed a pathway for multiple, diverse Mississippi River stakeholders to continue day to day operations while realizing the global benefits of coastal restoration projects centered around the Mississippi River.

### **Permitting and Habitat Assessment**

SSE personnel are well-versed in evaluating environmental benefits using quantitative projections of planform performance, analyzing the morphosis of different habitat types over the life of a project. These benefits calculations can also be converted to assess the cost-effectiveness of project alternatives as the value of each different type of habitat is annualized to provide an effective comparison tool. The result is an estimate of project performance relative to the project goals. These analyses inform the design team of ecological benefits that may be realized throughout the life of the project for each proposed design alternative. Our team places high value on empirical analyses such as these to evaluate restoration plans and assess project performance to recommend the most cost-effective alternative to the client that will meet the project objectives. SSE is currently leading the permitting task for the Lincoln Beach Park Redevelopment Master Plan in Orleans Parish. In addition, SSE is conducting an environmental study in which a tree survey for performed to inform the alternatives development for the beachfront park.

### **Construction Administration and Monitoring**

Having constructed numerous projects across Louisiana, our team has a long history of developing thorough construction plans and specifications, resulting in bids within the client's budget. Years of on-the-ground construction experience have imparted invaluable knowledge of marsh construction, which is reflected in our construction documents and cost-savings for clients. We consider all aspects of the construction process when developing cost estimates and utilize estimating models based on Louisiana dredging projects constructed over the last twenty years. SSE's engineers have provided construction administration and daily observations and reporting on several restoration projects in Louisiana.

Our engineers have performed materials sampling and testing on several CPRA projects and are well-versed in Quality Assurance. Our CPRA construction work has included construction administration and oversight of coastal restoration projects including daily



## Section N (continued)

construction observations, dredge compliance analysis, sediment QA/QC, documentation of construction activities, pay survey data QA/QC, volume computations and pay recommendations, field adjustment reports, change orders, and moderating construction meetings. The SSE Team is a valuable resource to ensure these projects are implemented correctly and as smoothly as possible.

We have two Unmanned Aircraft Systems (UAS) pilots licensed with the Federal Aviation Administration (FAA) and have conducted drone operations on large-scale construction, environmental monitoring, and inspection projects. Our engineers utilize UAS to monitor construction progress, map pre- and post-construction conditions, assess site conditions, determine vegetative cover, conduct land/water analyses, and to conduct permit compliance on coastal restoration projects.

### **The SSE Team**

As a small company, SSE values relationships with other quality firms in our field. We enjoy working with the members of this team and look forward to continuing to collaborate with others. See attached forms for sub-consultants.

### **Ready to Serve**

With many years of marsh restoration analysis, design, and construction experience coupled with local knowledge, the SSE Team is highly qualified to serve Jefferson Parish in implementing coastal protection and restoration projects. Coastal restoration is a unique field, and Southern Shores engineers have spent their entire careers in the evolving field of coastal design in Louisiana. Supported by a deep bench of sub-consultants, each aspect of Jefferson Parish projects entrusted to our team will be well-executed, on-time, and within budget. The SSE Team is particularly familiar with the CPRA Coastal Master Plan and the design processes that have become standard along the Louisiana coast. Our specialized experience will result in lower construction costs for the State. Our team lives and works in Louisiana, and we raise our kids here. We all share a passion for creating a sustainable coast for future generations to continue enjoying our environment, our culture, and being uniquely Louisiana.



**The Louisiana Professional Engineering and Land Surveying Board has the following information on file:**

Name: Southern Shores Engineering, LLC  
Public Address: Ms. Whitney C. Thompson, PE2251

**License/Certificate Information w/ Supervision**

License	Status	First Issuance Date	Expiration Date	Supervisor(s)
EF.0006802	Active	03/19/2020	09/30/2024	Ms. Whitney Cash Thompson # PE.0034825



## LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 7/15/2024 the Louisiana Professional Engineering and Land Surveying Board (LAPELS) has the following information on file:

Ms. Whitney Cash Thompson  
9456 Wesson Street  
Baton Rouge, Louisiana 70809

	<b>LOUISIANA PROFESSIONAL ENGINEERING &amp; LAND SURVEYING BOARD (LAPELS)</b>
	9643 Brookline Avenue, Suite 121 Baton Rouge, LA 70809 Phone (225) 925-6291 www.lapels.com
<b>Ms. Whitney Cash Thompson</b>	
License/Certificate Type - Number	Expiration Date
<b>PE.0034825</b>	<b>03/31/2026</b>
<b>Status: Active</b>	
<p>Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).</p> <p>LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.</p>	

Fold Here

Cut Here

Print and keep the following information for your record or verification. The pocket card may also be printed on card stock or laminated to keep with you as license/certificate verification.

### Disclaimer

All information provided by LAPELS on this web page, and on its other web pages and internet sites, is made available to provide immediate access for the convenience of interested persons. While LAPELS believes the information to be reliable, human or mechanical error remains a possibility, as does delay in the posting or updating of information. Therefore, LAPELS makes no guarantee as to the accuracy, completeness, timeliness, currency, or correct sequencing of the information. Neither LAPELS, nor any of the sources of the information, shall be responsible for any errors or omissions, or for the use or results obtained from the use of this information. Other specific cautionary notices may be included on other web pages maintained by LAPELS.

If you need to make changes to your contact information, please choose one of the following options below:

Contact update for [Individuals and Firms](#)

License/Certificate Types:

EF = Engineering Firm

VF = Land Surveying Firm

CPD = Continuing Professional Development Sponsor/Provider

\*PE = Professional Engineer

\*PLS = Professional Land Surveyor

\*EI = Engineer Intern

\*LSI = Land Surveyor Intern

\*PE Discipline Codes

AG	Agricultural	ME	Mechanical
AR	Architectural	MI	Mining or Mineral
CH	Chemical	MT	Metallurgical
CE	Civil	MU	Manufacturing
CS	Control Systems	NV	Naval Architecture & Marine
EE	Electrical & Computer	NU	Nuclear
EV	Environmental	ST	Structural *
FP	Fire Protection	PT	Petroleum
IE	Industrial		
* An engineer that has passed the Structural I exam is listed as a Civil Engineer. An engineer that has passed both the Structural I and II exams is listed as Structural (ST) and a Civil (CE) Engineer.			

**Moffatt & Nichol, Inc.**  
**TEC Professional Services Questionnaire**

## TEC Professional Services Questionnaire

**A. Project Name and Advertisement Resolution Number:**

Statement of Qualifications (Technical Evaluation Committee Questionnaire) for Coastal Engineering Consulting Services As-Needed Parish Wide SOQ 24-020 (Resolution No. 144205)

**B. Firm Name & Address:**

Moffatt & Nichol, Inc.  
601 Poydras Street, Suite 1860  
New Orleans, LA 70130

**C. Name, title and contact information of Principal, as defined in Section 2-926 of the Jefferson Parish Code of Ordinances, who is a registered, licensed architect, professional engineer, or surveyor in the State of Louisiana:**

Jonathan Hird, PE  
Vice President  
(225) 610-1930; (225) 773-8019  
jhird@moffattnichol.com

**D. Name and contact information of employee who is a registered and licensed architect, professional engineer, or surveyor in the State of Louisiana in the applicable discipline. A subcontractor may be substituted here only if the advertised Project requires more than one discipline.**

Jonathan Hird, PE  
Vice President  
(225) 610-1930; (225) 773-8019  
jhird@moffattnichol.com

**E. Please provide the number of employees whose primary function corresponds with each category:**

<u>160</u> Administrative	<u>11</u> Estimators	<u>0</u> Specification Writers
<u>10</u> Architects (Licensed)	<u>0</u> Geologists	<u>233</u> Structural Engineers
<u>0</u> Chemical Engineers	<u>9</u> Geotechnical Engineers	<u>0</u> Graduate Engineers
<u>114</u> Civil Engineers	<u>0</u> Interior Designers	<u>42</u> Project Managers
<u>20</u> Construction Inspectors	<u>8</u> Landscape Architects	<u>132</u> Clerical
<u>0</u> Ecologists	<u>0</u> Land Surveyor	<u>0</u> Grant/Funding Specialist
<u>32</u> Electrical Engineers	<u>13</u> Mechanical Engineers	<u>0</u> Sanitary Engineers
<u>0</u> Engineer Intern	<u>20</u> Environmental Engineers	
<u>0</u> Professional Land Surveyors		<u>804</u> <b>TOTAL</b>

**F. Is this submittal by a JOINT-VENTURE? Please check: YES  NO**

**If marked "No" skip to Section I. If marked "yes" complete Sections G-H.**

**TEC Professional Services Questionnaire**

**G. If submittal is by JOINT-VENTURE, list the firms participating and outline specific areas of responsibility (including administrative, technical, and financial) for each firm. Please attach additional pages if necessary.**

1.  
N/A

2.  
N/A

**H. Has this JOINT-VENTURE previously worked together? Please check:**  
 YES  NO

**I. List all subcontractors anticipated for this Project. Please note that all subcontractors must submit a fully completed copy of this questionnaire, applicable licenses, and any other information required by the advertisement. See Jefferson Parish Code of Ordinances, Sec. 2-928(a)(3). Please attach additional pages if necessary.**

Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
1. N/A		
2.		
3.		

**J. Please specify the total number of support personnel that may assist in the completion of this Project:**

70 \_\_\_\_\_

## TEC Professional Services Questionnaire

**K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e. resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.**

### **PROFESSIONAL IN CHARGE OF PROJECT:**

**Name & Title:**

Jonathan Hird, PE  
Vice President

**Project Assignment:**

Principal-in-Charge

**Name of Firm with which associated:**

Moffatt & Nichol, Inc.

**Years' experience with this Firm:**

17

**Education: Degree(s)/Year/Specialization:**

MS, 2001, Civil and Environmental Engineering  
BS, 1993, Environmental Science

**Active registration: Year first registered/discipline:**

2006, Civil Engineering, Louisiana, PE0032299

**Other experience and qualifications relevant to the proposed Project:**

Jonathan Hird has 23 years of experience in multidisciplinary projects across southern Louisiana, including projects for Jefferson Parish. He has served as a project engineer, project manager, and principal-in-charge for a diverse range of coastal engineering and ecosystem restoration projects, including watershed master planning, applying multi-dimensional numerical models to project concept development, assessing project feasibility and project performance evaluations, as well as sediment management and programmatic approaches to marsh creation and restoration. His experience also includes the development of living shorelines, sediment management strategies (on local and regional scales), the beneficial use of dredged material, and the application of long distance pipeline technology for marsh creation and restoration for some of the largest marsh creation projects on the Gulf Coast, involving tens of millions of cubic yards and thousands of acres of marsh.

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Gerald Songy, PE Coastal Engineer
<b>Project Assignment:</b>
Coastal Engineering
<b>Name of Firm with which associated:</b>
Moffatt & Nichol, Inc.
<b>Years' experience with this Firm:</b>
9
<b>Education: Degree(s)/Year/Specialization:</b>
MS, 2016, Coastal and Marine Engineering and Management BS, 2013, Civil Engineering 2020 Texas A&M Dredging Engineering Short Course
<b>Active registration: Year first registered/discipline:</b>
2020, Civil Engineering, Louisiana, PE.0044760
<b>Other experience and qualifications relevant to the proposed Project:</b>
Gerald has nine years of experience in coastal and hydraulic engineering, and coastal and ecosystem restoration projects. His project experience includes permitting, analysis, design, and construction administration of marsh creation, tidal creek creation, shoreline protection, beach nourishment, and oyster reef restoration projects. His experience also includes design of living shorelines, beneficial use of dredged material for wetland restoration, sediment management, and dredged material transport for land reclamation. He is experienced in project mapping and spatial data analysis with ArcGIS and has experience with MATLAB for program development, model pre- and post-processing, and visualization. Gerald also has experience with numerical wave and passing vessel modeling in addition to cross-shore modeling of beach and dune processes. He has extensive field experience, which includes site observations during both design and construction phases and accompanying biologists to assist in performing wetland delineations. In addition to Gerald's project experience on the Lake Pontchartrain side of Jefferson Parish, he has spent countless hours of personal time fishing and boating along the Grand Isle coastline.

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Maarten Kluijver, PE Senior Coastal and Hydraulic Engineer
<b>Project Assignment:</b>
Coastal Engineering
<b>Name of Firm with which associated:</b>
Moffatt & Nichol, Inc.
<b>Years' experience with this Firm:</b>
18
<b>Education: Degree(s)/Year/Specialization:</b>
MS, 2006, Hydraulic Engineering BS, 2005, Civil Engineering
<b>Active registration: Year first registered/discipline:</b>
2015, Civil Engineering, Texas, 120418
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p>Maarten has broad civil and hydraulic engineering knowledge with a key focus on coastal protection and restoration and associated hydraulic and morphological modeling. With 18 years of experience, Maarten has a thorough knowledge of coastal and riverine processes, regional sediment management, and coastal flood protection, demonstrated through extensive project experience in New Orleans and the Mississippi River Delta. Maarten leads projects to restore and preserve coastal systems on behalf of M&amp;N's clients, most notably the CPRA of the State of Louisiana and the City of New York. Maarten is the project manager and technical lead for a key project that is part of Louisiana's State Master Plan, the "Increase Atchafalaya Flow to Terrebonne" project. He has provided design, analysis, modeling, and project management services for the USACE in New Orleans following Hurricane Katrina as a coastal engineer in the Hurricane Protection Office and performed post-Hurricane Sandy project evaluations for USACE's North Atlantic Division. His most recent coastal engineering project portfolio includes studies on sea level rise and flood risk in the New York metropolitan area. These studies are developed to enhance flood protection systems, design a more effective response to sea level rise and coastal erosion, and restore and preserve coastal systems while synergistically sustaining and maintaining both natural and built environments.</p>

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Kevin Hanegan, PhD, PE Coastal Engineer
<b>Project Assignment:</b>
Coastal Modeling
<b>Name of Firm with which associated:</b>
Moffatt & Nichol, Inc.
<b>Years' experience with this Firm:</b>
12
<b>Education: Degree(s)/Year/Specialization:</b>
PhD, 2019, Coastal Hydrodynamics and Morphology MS, 2011, Coastal and Marine Engineering and Management BS, 2009, Civil Engineering
<b>Active registration: Year first registered/discipline:</b>
2017, Civil Engineering, Louisiana, PE0041433
<b>Other experience and qualifications relevant to the proposed Project:</b>
Kevin Hanegan has 12 years of coastal engineering and project management experience, including analyzing coastal and riverine processes to support a range of coastal protection, restoration, and infrastructure projects. He specializes in the development and application of advanced hydrodynamic, sediment transport, and morphologic models to support project analysis and design, as well as the design of shoreline protection, marsh restoration, living shoreline, and other coastal ecologic restoration projects. He is skilled in computer applications including the MIKE21-FlexibleMesh modeling suite for hydrodynamics, waves, and salinity dynamics; the Delft3D modeling suite for hydrodynamics, sediment, transport, and morphology; the SWAN wave model; the USACE's ADDAMS suite for assessing dredging impacts; HEC-RAS and HEC-GeoRAS for riverine and storm-water flow modeling; ArcGIS for project mapping and spatial data analysis; and MATLAB for program development, model pre- and post-processing, and visualization

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Tim Nelson, PG, CFM Coastal Scientist
<b>Project Assignment:</b>
Coastal Modeling
<b>Name of Firm with which associated:</b>
Moffatt & Nichol, Inc.
<b>Years' experience with this Firm:</b>
7
<b>Education: Degree(s)/Year/Specialization:</b>
MS, 2017, Earth and Environmental Sciences 2016 Coastal Engineering Graduate Certificate BS, 2013, Geological Sciences
<b>Active registration: Year first registered/discipline:</b>
2023, Professional Geoscientist, Louisiana, 1395 2020 Certified Floodplain Manager, US-20-11706
<b>Other experience and qualifications relevant to the proposed Project:</b>
Tim has seven years of experience in coastal engineering and environmental consulting which includes design of coastal and hydraulic structures, numerical modeling, program management, and resilience and hazard mitigation planning. He has expertise with applications of Delft3D, SWAN, and Xbeach numerical models for analysis of sediment transport and morphology, determination of design conditions, and wave and current analysis for design calculations. He is particularly skilled with process automation including efforts to program geospatial analysis, data processing, reporting, visualizations, and data sharing with Python, ArcPy, SQL, Matlab, and VBA. Additionally, Tim has experience with coastal planning efforts. He has extensive experience with resilience and hazard mitigation plan preparation and has supported numerous efforts to identify coastal hazards, quantify potential losses, and evaluate potential risk reduction solutions. He has provided program management support for master planning efforts, complex risk reduction projects, and funding allocation programs. He has also extensive experience in pursuing grant opportunities and providing funding strategies for state agencies, local governments, and utilities.

## TEC Professional Services Questionnaire

**L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.**

<b>PROJECT NO. 1</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p>Large Scale Barataria Marsh Creation: Upper Barataria Component (BA207) Jefferson and Plaquemines Parish, Louisiana</p> <p>NOAA Restoration Center- Jason Manthey 601 East 12th Street, Rm 1702 Kansas City, MO 64106 (816)-426-7841 jason.l.manthey@noaa.gov</p>	<p>M&amp;N served as the Engineer of Record for this \$150M Deepwater Horizon NRDA-funded project. Utilizing the Mississippi River Borrow sites previously permitted as part of the BA43-EB Mississippi River Long Distance Sediment Pipeline Project (MRLDSP) project, the project will dredge an estimated 15 mcyds of Mississippi Rier sediment, to restore approximately 1,600-acres of critically degraded Barataria Land Bridge marsh habitat. along the as identified in the LA TIG Draft Restoration plan. The Large Scale Barataria Marsh Creation: Upper Barataria Component Project (BA207) is the logical next phase of the Barataria Land Bridge restoration and intends to fully leverage the MRLDSP approach to deliver this project. M&amp;N provided full restoration planning services for the BA207 project.</p>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
2019	\$3,900 (E&D)	\$3,900 (E&D)

<b>PROJECT NO. 2</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p>Barataria Basinwide Numerical Modeling and Restoration Planning, Jefferson, Plaquemines, and Lafourche Parish, LA</p> <p>Coastal Protection and Restoration Authority of Louisiana Russ Joffrion, PE, Engineer Manager (225) 869-9721 Russ.Joffrion@la.gov</p>	<p>M&amp;N developed a 2D advanced hydrodynamic, hydraulic, and water quality (salinity) numerical model of the entire Barataria Basin capable of evaluating individual project (freshwater and sediment diversions) and basinwide restoration strategies for the entire Barataria Basin System. The model could evaluate multiple existing (Davis Pond) and proposed (Myrtle Grove) diversions to establish their cumulative benefits. The original 2D H&amp;H model was then converted to a 3D morphological model (DELFT3D) to evaluate the land building capacity of the Myrtle Grove Diversion when operated as a sediment diversion. M&amp;N was retained to evaluate restoration strategies and individual project performance, assess salinity impacts in the Barataria Basin, and assess the land building capacities of the Myrtle Grove Diversion. M&amp;N provided:</p> <ul style="list-style-type: none"> <li>- Basin-side multi-dimensional hydrodynamic, hydraulic, and water quality modeling</li> <li>- Freshwater/sediment diversion feasibility and planning</li> <li>- 3-D morphological modeling Delft3D) of delta building capacity of sediment diversion</li> <li>- Multiple project and cumulative impact assessments</li> <li>- Basinwide restoration strategy plan formulation and project evaluation</li> </ul>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
June 2016	\$690,000	\$690,000

## TEC Professional Services Questionnaire

<b>PROJECT NO. 3</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility</b>	
<p>Barataria Preserve Future Conditions Modeling, Jean Lafitte National Park – Barataria Preserve, Jefferson Parish, LA</p> <p>National Parks Service Julie Whitbeck, PhD, Ecologist (504)717-9811 Julie_whitbeck@nps.gov</p>	<p>The National Parks Service seeks a sound scientific understanding of key factors influencing the Barataria Preserve landscape, its natural, cultural, and historical resources, and park facilities (buildings, trails, road/boat access), over the next 25 to 50 years. M&amp;N:</p> <ul style="list-style-type: none"> <li>- Is providing rigorous projections of key coastal environmental conditions across the Barataria Preserve</li> <li>- Is "downscaling" the State of Louisiana's 2023 Coastal Master Plan Integrated Compartment hydrodynamic and ecosystem for the Barataria Basin to simulate water levels, salinities, vegetation cover, and landscape evolution under multiple future climatic and restoration project scenarios</li> <li>- Developed a complementary Mike21-FM hydrodynamic and salinity model of Barataria Basin to simulate water levels, flows, and salinities at very high spatial resolution across the Barataria Preserve Landscape for specific points (10-year intervals) during the 50-year planning horizon</li> <li>- Is estimating urban freshwater runoff volumes</li> <li>- Developed an automated nesting scheme to update the detailed model bathymetry, wetland vegetation type, hydrodynamic roughness, and boundary conditions based on ICM simulation inputs and results and provide the park with valuable information to make resource management decisions in the face of uncertain future conditions and impacts.</li> </ul>	
<b>Completion Date (Actual or estimated)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
2022	\$141,727	\$141,727

<b>PROJECT NO. 4</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p>Bucktown Living Shoreline Feasibility, Engineering and Design, and Construction Administration, Jefferson Parish, LA</p> <p>Jefferson Parish Michelle Gonzales, Director, Ecosystem and Coastal Management Department 504-736-6653 mgonzales@jeffparish.net</p>	<p>The Jefferson Parish Ecosystem and Coastal Management Department retained M&amp;N to perform a feasibility study, engineering and design, and construction administration for an integrated approach to:</p> <ul style="list-style-type: none"> <li>- Enhance shoreline protection and reduce erosion</li> <li>- Rebuild the previously existing riparian habitat as the natural first line of defense against wave activity and rising sea levels</li> <li>- Improve the resilience of the Jefferson Parish Lake Pontchartrain and Vicinity (LPV) Hurricane Storm Damage and Risk Reduction System (HSDRRS)</li> </ul> <p>M&amp;N performed a feasibility study on approximately 7,800 LF of the south shoreline of Lake Pontchartrain, of which 4,500 linear feet were moved to engineering and design. M&amp;N characterized the site wave climate using a regional spectral wave model capable of simulating the wind generation, offshore propagation, and nearshore transformation of waves</p>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
<p>February 2020 (Feasibility) March 2022 (E&amp;D)</p>	<p>\$149,768 (Feasibility) \$290,400 (E&amp;D)</p>	<p>\$149,768 (Feasibility) \$290,400 (E&amp;D)</p>

## TEC Professional Services Questionnaire

<b>PROJECT NO. 5</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
Dauphin Island Causeway Shoreline Restoration Mobile County, AL  Mobile County Tina Sanchez Environmental Services Director Mobile County Commission 205 Government Street 7th Floor, South Tower (251) 574-3229	Moffatt and Nichol was retained by Mobile County to perform an Independent Technical Review (I TR) of all design efforts performed to-date on the project. The project had stalled and was not implementable under the previous contractor's lead. As part of this Phased approach, Phase I recommend a path forward, with a commensurate design, and schedule necessary to issue the project for bid with all supporting design, construction and permitting documents in alignment with Federal cost-share partners procurement schedules. Phase I also included a review of all documents developed to date, a data gap analysis in order to develop a supplemental field data campaign required to complete the design.  M&N's responsibilities included:  - Independent Technical Review of previous project's work; - Hydrodynamic and wave modeling - Further required field data investigations - Coordination with the permitting and regulatory agencies for issuance of permit. - Full engineering, design (30, 60, 90 and 100% design), plans, specifications, engineers estimate of opinion of probable cost, bid support, and construction administration of the breakwaters; - The agency technical review package for the beneficial use of ~ 1-mycds of dredged material; and - Coordination with the USACE Mobile District throughout design	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
2025 (Estimated)	\$466,500 (E&D) \$30,000,000 (Construction)	\$466,500 (E&D)

<b>PROJECT NO. 6</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
Graveline Bay Marsh Creation Project, Dauphin Island, AL  Town of Dauphin Island Mayor Jeff Collier Town of Dauphin Island (251) 861-5525	This first-of-its-kind "marsh mound" project in Alabama restored 60 acres of lost back-barrier marsh habitat on the north side of Dauphin Island, enhancing edge habitat and bird nesting habitat. M&N provided engineering and design services, secured a Nationwide-26 permit, oversaw the contractor procurement process, and provided construction administration and inspection services. The project goals were to enhance the existing marsh ecosystem of Graveline Bay while increasing the resilience of Dauphin Island to storm events. With habitat goals in mind, the project objectives were defined to maximize and linear feet of fringe (edge) habitat and area of sub-aerial marsh habitat. These objectives were accomplished by constructing 55 total intertidal marsh mounds (10 large and 45 small) to attenuate wave activity and create critical marsh edge habitat over the 20-year project life span. M&N continues to monitor the project for structural and biological criteria.	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
2023	\$420,000 (E&D) \$5,430,000 (Construction)	\$420,000 (E&D)

## TEC Professional Services Questionnaire

<b>PROJECT NO. 7</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p>St. Charles Parish Hurricane Protection Levee Shoreline Protection &amp; Enhancement Project, St. Charles Parish, LA</p> <p>Pontchartrain Levee District Steve Wilson, President (225) 869-9721</p>	<p>The Pontchartrain Levee District (PLD) retained M&amp;N on a task order-based contract to develop and implement an integrated approach to the protection and enhancement of St Charles Parish Hurricane Protection Levee at the Lake Pontchartrain shoreline, combined with the restoration of the interior LaBranche Wetlands.</p> <ul style="list-style-type: none"> <li>-M&amp;N performed a feasibility-level study to determine the preferred project alternatives and develop an approach to integrate the proposed features with the existing shoreline protection measures into a single unified strategy for the shoreline. M&amp;N subsequently completed engineering, design, and construction oversight of the stabilization, protection of the St. Charles Parish CIAP funded 1,200 LF LaBranche West (PO42) and 3,400 LF LaBranche East (PO43) enhancement projects.</li> <li>-M&amp;N developed a fully calibrated 2-D hydrodynamic (RMA2) and salinity (RMA4) model of the entire 16,000-acre wetlands.</li> <li>-M&amp;N, in partnership with the USACE and PLD under a PAS agreement, developed a planning level master plan that integrated the shoreline protection measures, with interior marsh restoration &amp; hydrologic restoration into a comprehensive restoration master plan for the LaBranche Wetlands as part of a multiple lines of defense strategy</li> </ul>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
2015	<p>\$963,986 (Fee)</p> <p>\$6,200,000 (Construction)</p>	<p>\$963,986 (Fee)</p>

<b>PROJECT NO. 8</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p>Lightning Point Shoreline Restoration and Long-Term Site Sustainability Plan, Bayou La Batre, AL</p> <p>The Nature Conservancy Judy Haner, Program Manager (251) 433-1150 jhaner@tnc.org</p>	<p>M&amp;N developed a living shoreline approach to address critical levels of storm-induced erosion at the ecologically important shoreline in Bayou La Batre. M&amp;N:</p> <ul style="list-style-type: none"> <li>- Developed a multifaceted and innovative living shoreline design incorporating lessons learned from previous living shoreline efforts in the region</li> <li>- Included 1.5 miles of segmented containment (51,000 tons of rock), 40 acres of marsh and scrub-shrub habitat (240,000 CY of beneficial use dredged material), and 10,000 LF of the tidal creek into the design</li> <li>- Leveraged advanced spectral and Boussinesq wave modeling to determine design criteria and configure the breakwaters' geometry</li> <li>- Employed a state-of-the-art hydrodynamic modeling approach to configuring the tidal creeks to provide required flushing times to promote ecological benefits</li> <li>- Used ecological guiding principles of order to design the tidal creeks to mimic natural tidal creek systems</li> <li>- M&amp;N also developed Long-Term Site Sustainability Plans that mapped the volumes and schedule of availability for beneficial use of routine maintenance dredged material for placement at the project site</li> </ul>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
2020	<p>\$1,933,000 (Fee)</p> <p>\$14,000,000 (Construction Est.)</p>	<p>\$1,933,000 (Fee)</p>

## TEC Professional Services Questionnaire

<b>PROJECT NO. 9</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p>Upper Mobile Bay Beneficial Use Wetland Creation Project, Mobile Bay, AL</p> <p>Alabama State Port Authority Bob Harris, Vice President, Technical Services (251) 441-7082 bharris@asdd.com</p>	<p>M&amp;N is currently performing detailed engineering, design, and permitting for the creation of ~40-acres of intertidal habitat marsh creation areas and shoreline protection in Upper Mobile Bay, from the beneficial use of routine maintenance dredged material. Initial project scope calls for the implementation of the first ~100-acres as well as a permit for the total 1,200-acre project anticipated over the project life. M&amp;N is:</p> <ul style="list-style-type: none"> <li>- Leveraging dredged materials/sediments to create wetlands/habitats, helping to restore coastal wetland habitats, improve water quality, and improve dredging practices to support navigation-related commerce and the region's economy; working with the USACE and the Alabama State Port Authority to identify renewable resources from required maintenance dredge material for wetland creation</li> <li>- Applying Engineering with Nature approaches will be applied to design wetland habitat and sediment containment options that create multiple aquatic habitats to enhance Alabama's estuarine ecosystems</li> <li>- Developing a Long-Term Sustainability Plan to provide a playbook for future wetland creation, schedule, and containment types, guiding flexibility in beneficial use applications accounting for differing material properties</li> <li>- Conducted an EA including a thorough discussion of the affected environment for the physical, biological, and human use and socioeconomic resources; conducted an environmental consequences analysis for each resource for all project activities over the 20-year lifespan of the project to support NEPA determinations with their federal agency partners</li> </ul>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
2022	\$2,500,000	\$2,500,000

<b>PROJECT NO. 10</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p>Pontchartrain-Maurepas Surge Consortium Modeling, Lake Pontchartrain Basin, LA</p> <p>University of New Orleans Ioannis Georgiou, PhD, PG, Director of Coastal and Deltaic Systems Modeling (while previously employed at UNO) (504) 931-5178 igeorgiou@thewaterinstitute.org</p>	<p>The Pontchartrain-Maurepas Surge Consortium's efforts culminated in a series of reports investigating both the nature of hurricane surge hazards and lines of defenses in the Pontchartrain-Maurepas region. The Surge Modeling project included an initial, feasibility-level test of the effectiveness of four proposed projects in reducing storm surge. M&amp;N:</p> <ul style="list-style-type: none"> <li>- Developed a comprehensive surge modeling tool (DHI's MIKE 21 FM) for the Pontchartrain basin, helping to determine which proposed projects were most impactful for reducing risk and increasing understanding of basin surge dynamics</li> <li>- Used the model to test the effectiveness of the proposed projects in reducing storm surge</li> <li>- Evaluated the full reforestation of the Maurepas Land Bridge as well as a series of jetty-type marsh creation features along the hardened New Orleans East shoreline for their impacts on surge</li> <li>- Analyzed the results by comparing both the surge propagation around the basin and the spatially varying maximum surge levels with the evaluated project for the base case of current conditions</li> </ul>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
2019	\$53,000	\$53,000

## TEC Professional Services Questionnaire

**M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary.**

Parties:		Status/Result of Case:
Plaintiff:	Defendant:	
1. N/A	N/A	N/A - There is no past or ongoing litigation between Moffatt & Nichol and Jefferson Parish.
2.		
3.		
4.		

**N. Use this space to provide any additional information or description of resources supporting Firm's qualifications for the proposed project.**

As one of the leading practitioners of coastal engineering in the marketplace today, M&N provides Jefferson Parish with a unique combination of capabilities and expertise to resolve the Parish's most complex coastal engineering and planning challenges. With a locally-based core group of technical experts with decades of experience in implementing coastal engineering and ecosystem restoration projects across southeastern Louisiana including for Jefferson Parish, M&N's unmatched institutional knowledge of Louisiana's dynamic coastal ecosystems provides Jefferson Parish with implementable, constructible solutions to coastal engineering challenges that prioritize coastal restoration and protection. Our unparalleled in-house capabilities in coastal science, engineering, and protection; sediment management; natural systems; ecological risk numerical modeling; and wetland and marsh restoration are the right choice for Jefferson Parish—we can provide technical and project agility to respond to the dynamics of project evolution and delivery rapidly and adaptively.

**O. To the best of my knowledge, the foregoing is an accurate statement of facts.**

Signature: Jonathan Hird Print Name: Jonathan Hird, PE  
 Title: Vice President Date: July 16, 2024

**Half Associates, Inc.**  
**TEC Professional Services Questionnaire**

## TEC Professional Services Questionnaire

**A. Project Name and Advertisement Resolution Number:**

SOQ24-00 Coastal Engineering Consulting Services as needed Parish Wide  
(Resolution No. 144205)

**B. Firm Name & Address:**

Halff Associates, Inc.  
4467 Bluebonnet Blvd., Suite B  
Baton Rouge, LA 70809

**C. Name, title and contact information of Principal, as defined in Section 2-926 of the Jefferson Parish Code of Ordinances, who is a registered, licensed architect, professional engineer, or surveyor in the State of Louisiana:**

Brant Richard, PE  
Operations Manager | Baton Rouge  
225-252-9182  
brichard@halff.com

Professional Engineer  
LA#28567

**D. Name and contact information of employee who is a registered and licensed architect, professional engineer, or surveyor in the State of Louisiana in the applicable discipline. A subcontractor may be substituted here only if the advertised Project requires more than one discipline.**

Ryan Clark, PG

Professional Geoscientist  
LA #607

**E. Please provide the number of employees whose primary function corresponds with each category:**

<u>208</u> Administrative	<u>      </u> Estimators	<u>      </u> Specification Writers
<u>3</u> Architects (Licensed)	<u>7</u> Geologists	<u>15</u> Structural Engineers
<u>12</u> Chemical Engineers	<u>      </u> Geotechnical Engineers	<u>      </u> Graduate Engineers
<u>384</u> Civil Engineers	<u>      </u> Interior Designers	<u>      </u> Project Managers
<u>47</u> Construction Inspectors	<u>50</u> Landscape Architects	<u>      </u> Clerical
<u>      </u> Ecologists	<u>113</u> Land Surveyor	<u>7</u> Grant/Funding Specialist
<u>14</u> Electrical Engineers	<u>21</u> Mechanical Engineers	<u>42</u> Sanitary Engineers
<u>119</u> Engineer Intern	<u>12</u> Environmental Engineers	
<u>44</u> Professional Land Surveyors		<u>1098</u> <b>TOTAL</b>

**F. Is this submittal by a JOINT-VENTURE? Please check: YES  NO**

**If marked "No" skip to Section I. If marked "yes" complete Sections G-H.**

## TEC Professional Services Questionnaire

**G. If submittal is by JOINT-VENTURE, list the firms participating and outline specific areas of responsibility (including administrative, technical, and financial) for each firm. Please attach additional pages if necessary.**

1.  
N/A

2.

**H. Has this JOINT-VENTURE previously worked together? Please check:**  
 YES  NO

**I. List all subcontractors anticipated for this Project. Please note that all subcontractors must submit a fully completed copy of this questionnaire, applicable licenses, and any other information required by the advertisement. See Jefferson Parish Code of Ordinances, Sec. 2-928(a)(3). Please attach additional pages if necessary.**

Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
1. N/A		
2.		
3.		

**J. Please specify the total number of support personnel that may assist in the completion of this Project:**

3 \_\_\_\_\_

## TEC Professional Services Questionnaire

**K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e. resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.**

### **PROFESSIONAL IN CHARGE OF PROJECT:**

**Name & Title:**

Ryan Clark, PG, Program Manager

**Project Assignment:**

Coastal Geologist

**Name of Firm with which associated:**



**Years' experience with this Firm:**

2

**Education: Degree(s)/Year/Specialization:**

Master of Science/2003/Earth & Environmental Science  
Bachelor of Science/1996/Geology

**Active registration: Year first registered/discipline:**

Louisiana Professional Geoscientist : Expires 3/2025

**Other experience and qualifications relevant to the proposed Project:**

Ryan was a project manager for multiple ongoing projects supporting the State of Louisiana and FEMA Region 6 for the CTP Program. As a part of this program, Ryan provided community outreach for data discovery and communication of flood risk and developed media campaigns for flood risk communications. Ryan coordinated closely with federal, state, and local counterparts in this capacity.

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b> Sam Sarkar, PE
<b>Project Assignment:</b> Hydrology and Hydraulics Modeler
<b>Name of Firm with which associated:</b> 
<b>Years' experience with this Firm:</b> 3
<b>Education: Degree(s)/Year/Specialization:</b> Master of Science/2009/Environmental Engineering and Sciences Bachelor of Science/2007/Civil Engineering
<b>Active registration: Year first registered/discipline:</b> Texas Professional Engineer/2020/Civil   TX #137702
<b>Other experience and qualifications relevant to the proposed Project:</b> Sam has experience specializing in developing and applying numerical and computational models to support solutions development for water resources and water quality problems. He is an expert in the development and application of hydrology, hydraulics, and water quality models using EPA-SWMM, XP-SWMM, SUSTAIN, HEC-HMS, HEC-RAS, SWAT, APEX, HSPF, LSPC and PRMS.

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Guillermo Simon, PE, CFM
<b>Project Assignment:</b>
Hydrology and Hydraulics Civil Engineer
<b>Name of Firm with which associated:</b>

<b>Years' experience with this Firm:</b>
5
<b>Education: Degree(s)/Year/Specialization:</b>
Master of Science/1999/Coastal and Oceanographic Engineering Bachelor of Science/1997/Civil Engineering
<b>Active registration: Year first registered/discipline:</b>
Florida Professional Engineer/2006/Civil   FL #64644
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p>Guillermo has 23 years of experience in coastal engineering, surface hydrology, and hydraulics (H&amp;H). His background includes projects ranging from single lots to multi-county and basin-wide projects, from scoping to completion and quality control. Guillermo's experience includes engineering analyses, modeling, and design. He is the Compass PTS team's Coastal Engineering Subject Matter Expert for the Gulf of Mexico region. Compass PTS is responsible for FEMA's production and technical services.</p> <p>Additionally, his experience coupling riverine and coastal flood risk in these transition zones makes him a key asset for studies along the Gulf Coast and a go-to resource for state and federal clients when they seek a coastal subject matter expert to support complex flooding assessments in these zones.</p> <p>In Louisiana, Guillermo acted as project manager and lead engineer for multiple coastal and riverine flood insurance studies for FEMA. He lead the development of parish wide flood insurance studies for East Baton Rouge and Livingston Parish, which included modeling and mapping hundreds of miles of bayous and canals. He also lead the calculation and mapping of coastal flood hazards in southwest Louisiana, Livingston, and Tangipahoa Parish, where he also assessed the role of levees and combined flooding effects.</p>

**TEC Professional Services Questionnaire**

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
<b>Project Assignment:</b>
<b>Name of Firm with which associated:</b>
<b>Years' experience with this Firm:</b>
<b>Education: Degree(s)/Year/Specialization:</b>
<b>Active registration: Year first registered/discipline:</b>
<b>Other experience and qualifications relevant to the proposed Project:</b>

**TEC Professional Services Questionnaire**

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
<b>Project Assignment:</b>
<b>Name of Firm with which associated:</b>
<b>Years' experience with this Firm:</b>
<b>Education: Degree(s)/Year/Specialization:</b>
<b>Active registration: Year first registered/discipline:</b>
<b>Other experience and qualifications relevant to the proposed Project:</b>

## TEC Professional Services Questionnaire

**L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.**

### PROJECT NO. 1

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
FEMA Risk Map Program Nationwide Ron Wanhanan, Risk Analysis Branch Chief FEMA - Region VI 940.383.7334 ronald.wanhanan@fema.dhs.gov	<ul style="list-style-type: none"> <li>• Lead the development of all FEMA RiskMAP Investment in FEMA Region 6 including data development and regulatory map production</li> <li>• Conducted hydrologic and hydraulic and hydraulic modeling of 43,000 square miles of Base Level Engineering (BLE) watershed studies in FEMA Region VI.</li> <li>• Lead FEMA Region 6 Regional Support Center (RSC) which provides all ad-hoc technical services including disaster response. Supported the Region in the response to all hurricanes since 2015.</li> <li>• Coastal Control Account Manager and Coastal Subject Matter Expert for the Compass Joint Venture. Led the Coastal Loss Task Order for Compass.</li> </ul>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
9/2028	\$600M	\$30M

### PROJECT NO. 2

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
LADOTD CTP/NFIP Baton Rouge, LA Susan Veillon Statewide Program Manager 225-379-3017 susan.veillon@la.gov	<ul style="list-style-type: none"> <li>• Supported LADOTD in the implementation of FEMA's Cooperating Technical Partner (CTP) and National Flood Insurance Program (NFIP) Programs.</li> <li>• Developed 2D H&amp;H modeling for Rapides Parish, LA.</li> <li>• Executed Discovery Projects for 11 HUC-8 watersheds in Louisiana which developed a FEMA investment plan for the Parishes.</li> <li>• Developed Substantial Damage Pilot Program for multiple parishes to support disaster response and recovery. Developed multiple trainings to support the state NFIP program.</li> </ul>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
9/2026	\$3M	\$2.5M

## TEC Professional Services Questionnaire

<b>PROJECT NO. 3</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility</b>	
Lower Rio Grande Valley Watershed Study  Cameron, Hidalgo, Starr, and Willacy Counties, Texas  Texas General Land Office (GLO) Shonda Mace 512.463.5370 shonda.mace.glo@recovery.texas.gov	<ul style="list-style-type: none"> <li>• Played a key role in assisting the counties and municipalities to actively determine cost-effective mitigation and abatement strategies, thereby reducing the impact of flooding disasters</li> <li>• Collected current flood hazard data, performed H&amp;H study of the watersheds</li> <li>• Developed and analyzed regional and local solutions in collaboration with community representatives to promote sound long-term recovery actions</li> <li>• Recommend alternatives and provide technical guidance to help the communities maximize the use of CDBG-DR funding</li> </ul>	
<b>Completion Date (Actual or estimated)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
April 2025 (estimated)	\$6,6M	\$6,6M

<b>PROJECT NO. 4</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
Hogans Creek Stream Restoration and Trail Plan  Jacksonville, Florida  Groundwork Jacksonville Kay Ehas 904.401.0543 kay@groundworkjacksonville.org	<ul style="list-style-type: none"> <li>• Lead designer for the restoration of a 2.6-mile urban stream corridor</li> <li>• Collected information related to topography, bathymetry, visible and underground utilities, trees, transportation, riverine and coastal hydrology, cultural and environmental resources, and extensive community outreach</li> <li>• Developed a detailed 2D HEC-RAS hydraulic model to support creek restoration, structure design, and flood risk</li> <li>• Studied riverine and coastal flood compound effects</li> <li>• Evaluated alternatives to meet project goals of ecological restoration, flood risk reduction, habitat creation, water quality improvement, active and passive recreation, and resilience through nature-based solution implementation</li> </ul>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
2026 (estimated)	\$8.2M	\$6.2M

**TEC Professional Services Questionnaire**

<b>PROJECT NO. 5</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>

<b>PROJECT NO. 6</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>

**TEC Professional Services Questionnaire**

<b>PROJECT NO. 7</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>

<b>PROJECT NO. 8</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>

**TEC Professional Services Questionnaire**

<b>PROJECT NO. 9</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>

<b>PROJECT NO. 10</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>

**TEC Professional Services Questionnaire**

**M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary.**

Parties:		Status/Result of Case:
Plaintiff:	Defendant:	
1. N/A		
2.		
3.		
4.		

**N. Use this space to provide any additional information or description of resources supporting Firm's qualifications for the proposed project.**

Halff's Water Resources Practice, comprising over 195 Water Resources Engineers, Civil Engineers, and GIS specialists, is a leader in modeling. Our leadership role in federal, state, and local modeling initiatives has been instrumental in several modeling efforts across the nation. We have a proven track record of delivering flood risk products at local and regional scales that meet all the requirements. Additionally, we have conducted independent HEC-RAS 2D reviews for state and local agencies and led numerous HEC-RAS hands-on training classes over the last twenty years.

**O. To the best of my knowledge, the foregoing is an accurate statement of facts.**

Signature:  Print Name: Brant Richard, PE  
 Title: Operations Manager | Baton Rouge Date: 7/15/24

**T. Baker Smith, LLC**  
**TEC Professional Services Questionnaire**

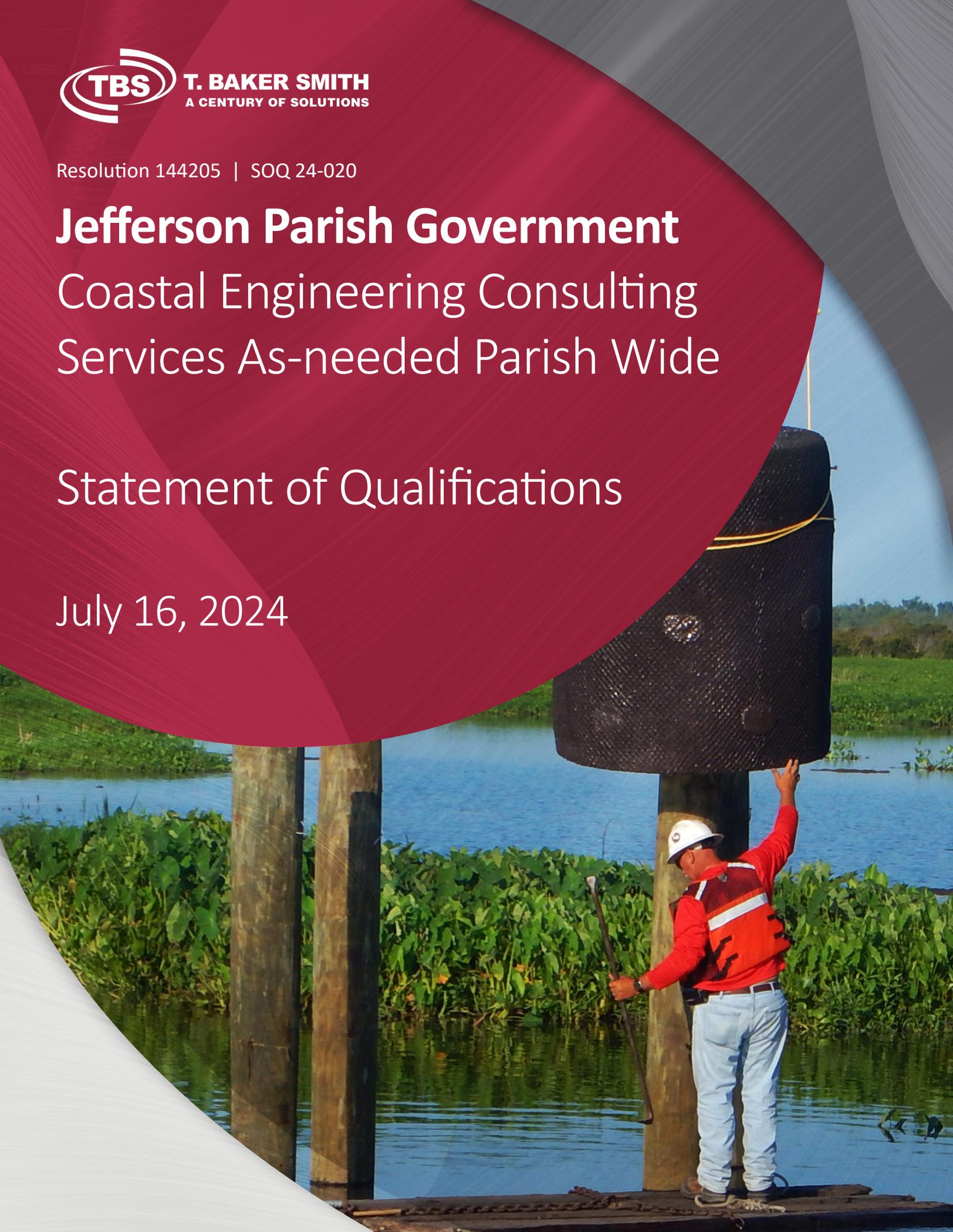


Resolution 144205 | SOQ 24-020

# Jefferson Parish Government Coastal Engineering Consulting Services As-needed Parish Wide

## Statement of Qualifications

July 16, 2024



**TEC Professional Services Questionnaire**

**A. Project Name and Advertisement Resolution Number:**

**COASTAL ENGINEERING CONSULTING SERVICES AS-NEEDED PARISH WIDE**  
SOQ #24-020 | Resolution 144205

**B. Firm Name & Address:**

**T. Baker Smith, LLC**  
6660 Riverside Drive, Suite 101  
Metairie, LA 70003



**C. Name, title and contact information of Principal, as defined in Section 2-926 of the Jefferson Parish Code of Ordinances, who is a registered, licensed architect, professional engineer, or surveyor in the State of Louisiana:**

**Kenneth Wm. Smith, PE, PLS, FACEC**  
Chief Executive Officer  
985.223.9248  
Kenneth.Smith@tbsmith.com

**D. Name and contact information of employee who is a registered and licensed architect, professional engineer, or surveyor in the State of Louisiana in the applicable discipline. A subcontractor may be substituted here only if the advertised Project requires more than one discipline.**

**Jason Chauvin, PE**  
Lead Professional, Coastal Engineering  
985.223.9265  
jason.chauvin@tbsmith.com

**E. Please provide the number of employees whose primary function corresponds with each category:**

<u>49</u> Administrative	<u>        </u> Estimators	<u>        </u> Specification Writers
<u>        </u> Architects (Licensed)	<u>        </u> Geologists	<u>  1  </u> Structural Engineers
<u>  1  </u> Chemical Engineers	<u>        </u> Geotechnical Engineers	<u>  8  </u> Graduate Engineers
<u>27</u> Civil Engineers	<u>        </u> Interior Designers	<u>20</u> Project Managers
<u>  4  </u> Construction Inspectors	<u>  1  </u> Landscape Architects	<u>  2  </u> Clerical
<u>10</u> Ecologists	<u>29</u> Land Surveyor	<u>        </u> Grant/Funding Specialist
<u>        </u> Electrical Engineers	<u>  2  </u> Mechanical Engineers	<u>        </u> Sanitary Engineers
<u>  5  </u> Engineer Intern	<u>  2  </u> Environmental Engineers	<u>117</u> Other
<u>14</u> Professional Land Surveyors		<u>292</u> <b>TOTAL</b>

**F. Is this submittal by a JOINT-VENTURE? Please check: YES                      NO**

If marked "No" skip to Section I. If marked "yes" complete Sections G-H.

**TEC Professional Services Questionnaire**

G. If submittal is by JOINT-VENTURE, list the firms participating and outline specific areas of responsibility (including administrative, technical, and financial) for each firm. Please attach additional pages if necessary

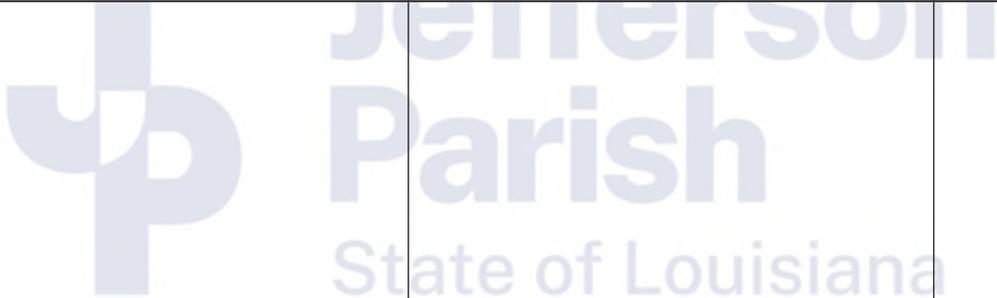
N/A

H. Has this JOINT-VENTURE previously worked together? Please check:

YES \_\_\_\_\_ NO \_\_\_\_\_

N/A

I. List all subcontractors anticipated for this Project. Please note that **all subcontractors must submit a fully completed copy of this questionnaire**, applicable licenses, and any other information required by the advertisement. See Jefferson Parish Code of Ordinances, Sec. 2-928(a)(3). Please attach additional pages if necessary.

Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
		

J. Please specify the total number of support personnel that may assist in the completion of this Project:

**292** (All personnel, primary and support, will be available to work on all assigned projects.)

## TEC Professional Services Questionnaire

K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e. resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary

### PROFESSIONAL IN CHARGE OF PROJECT:

Name & Title:

**Jason Chauvin, PE**

*Lead Professional, Coastal Engineering*

Project Assignment:

Professional in Charge of Project

Name of Firm with which associated:



Years' experience with this Firm:

13 with this firm | 0 with other firms

Education: Degree(s)/Year/Specialization:

Master of Science/2018/Coastal and Ecological Engineering

Bachelor of Science/2011/Civil Engineering

Active registration: Year first registered/discipline:

LA PE 39979/2015/Civil Engineering

Other experience and qualifications relevant to the proposed Project:

Jason is the lead professional of engineering and coastal practice with experience in surveying, civil, maritime, and coastal engineering projects. He is primarily responsible for providing leadership, project management, and advanced technical support in the development, design and implementation of engineering projects. He is capable of successfully administering projects through planning, data collection, design, bidding, construction administration, and monitoring phases. Project experience includes topographic, hydrographic, and geophysical surveying; land development; pipeline; roadway; structural; barrier island and headland restoration; beach and dune nourishment; marsh creation and nourishment; living shorelines, shoreline protection; wetland mitigation; beneficial use of dredged material; dredging; gravity and forced drainage; and flood protection.

#### Project Experience

**Mid-Barataria Sediment Diversion Project (BA-153); CPRA; Plaquemine Parish, LA** – Project Manager, Engineer of Record. Captain of the design team for the monitoring plan and beneficial use of dredged material design. Jason was tasked with coordinating the development and executing the sediment monitoring plan, utilities coordination, marsh creation design utilizing beneficial use of dredged material, design of the outfall transition from the conveyance channel into the basin, design of the Horizontal Directional Drill (HDD) 20" water main relocation, and structural design of wing walls at the intake and back gate structures.

**Terrebonne Parish Oyster Bed Surge Protection System; Terrebonne Parish Consolidated Gov.; Terrebonne Parish, LA** – Project Manager, Engineer of Record. Jason oversaw the engineering and design of 3.4 miles of a living shoreline protection system in northern Terrebonne Bay.

**Barataria Marsh Creation Project; Lafourche Parish Government; Lafourche Parish, LA** – Design Engineer, Engineer of Record. Jason was responsible for coordinating internal meetings; engineering drawings; pipeline investigations, project review, feasibility reporting; and QA/QC of deliverables. He was responsible for a data gap analysis, scope, budget and landowner/parcel data, and agency coordination with Lafourche Parish and the CPRA.

**Bayou Dularge Marsh, Ridge, & Hydrologic Restoration; CPRA; Terrebonne Parish, LA** – Project Engineer, Engineer of Record. Jason was directly involved with the hydrodynamic monitoring and the engineer of record for the hydrodynamic data collection report. He was responsible for crew coordination, as well as data collection and processing. Jason put together specifications and drawings for the client. He provided QA/QC for all deliverables to the client.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

<b>Name &amp; Title:</b>
<b>Denton Graham, PE</b> <i>Project Manager</i>
<b>Project Assignment:</b>
Coastal Engineer
<b>Name of Firm with which associated:</b>

<b>Years' experience with this Firm:</b>
4 with this firm   1 with other firms
<b>Education: Degree(s)/Year/Specialization:</b>
Master of Science/2021/Coastal and Ecological Engineering Bachelor of Science/2016/Biological Engineering
<b>Active registration: Year first registered/discipline:</b>
LA PE 46385/2017/Civil Engineer
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p>Denton is a Project Manager with experience in physical modeling, hydrologic and hydraulic instrumentation and monitoring, laboratory testing management, cost estimating, report drafting, and plan drawing experience in both laboratory and professional settings. He is primarily responsible for providing technical support in the development, design and implementation of engineering projects. Project experience includes river diversion modeling and design, marsh creation and nourishment, shoreline protection, wetland mitigation, dredging, flood protection, and civil site design.</p> <p><b>Project Experience</b></p> <p><b>Mid-Barataria Sediment Diversion; CPRA; Plaquemines Parish, LA-</b> Project Engineer. Denton has been involved in numerous phases throughout the project including designing dredged material placement areas (DMPAs), utility coordination, and development of the project monitoring plan. For the DMPA design, he produced a Data Collection Plan, placement area design, and volume calculations.</p> <p><b>Bayou De Cade Restoration CE&amp;I; CPRA; Terrebonne Parish, LA –</b> Project Engineer. Denton’s duties included reviewing construction progress deliverables, as-built deliverables, reviewing change orders and RFIs, and serving as an owner’s project representative. As a project representative he is also documenting daily progress, generating daily and weekly reports, and attending bi-weekly progress meetings.</p> <p><b>Mid-Barataria Sediment Diversion, River Monitoring Phase; CPRA; Plaquemines Parish, LA-</b> Engineering Intern. Denton aided in the collection and data processing of numerous isokinetic, bed grab, CTD, and ADCP samples in support of the Mid-Barataria Sediment Diversion. He collaborated in designing the necessary means of sample processing and performed QA/QC on processed sample results.</p> <p><b>Reach I Levee Enlargement Phase I; Terrebonne Levee &amp; Conservation District; Chauvin, LA –</b> Engineer of Record. Primarily responsible for preparing the Engineering Design, Plans and Specifications for the construction of the Morganza to the Gulf of Mexico, Hurricane Protection Project, Lower Reach I Levee Lift Phase I. Denton is also assisting the owner in coordinating the work, coordinating and/or prepare engineering reports and geotechnical investigations.</p> <p><b>Lakeside Flood Control Structure and Bulkheads; St. Mary Parish Levee District; Morgan City, LA –</b> Project Engineer. He assisted in the design and cost estimation of approximately 3,000 linear feet of rip-rap breakwater to aide in protecting the Lakeside Neighborhood from hurricane wind generated waves and storm surge. Numerous layouts and breakwater elevation scenarios were generated, and their results analyzed. Input from Lakeside residents was also taken into consideration to provide the optimal protection.</p> <p><b>ATF Marsh Mitigation Assessment; Entergy; Lafourche Parish, LA -</b> Engineering Intern. Denton is providing QA/QC on a previously performed marsh mitigation assessment for Entergy. He analyzes design documents, environmental permits, and cost estimates provided to Entergy for environmental impact mitigation. He runs QA/QC on these documents and assisted supervising Professional Engineers in drafting an alternate mitigation plan, design methodology, and accompanying cost estimate.</p>

**TEC Professional Services Questionnaire**

**KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**

Name & Title:

**Brian E. Moldaner, PE, MBA**  
*Chief Growth Officer*

Project Assignment:

Client Liaison

Name of Firm with which associated:



Years' experience with this Firm:

13 with this firm | 0 with other firms

Education: Degree(s)/Year/Specialization:

Master of Business Administration/2019  
 Bachelor of Science/2011/Civil Engineering

Active registration: Year first registered/discipline:

LA PE 40075/2015/Civil Engineer

Other experience and qualifications relevant to the proposed Project:

Brian is the Chief Growth Officer, formerly the Engineering Lead Professional and the Public Works Market Sector Leader. He has proven experience leading large, complex, multi-disciplined projects to successful outcomes. He performs various project management duties, including developing service fee proposals, creating project management plans, public outreach communication planning, coordinating sub-consultants, and coordinating survey and environmental field crews. Brian leverages his engineering, business, communication, and project management skills to engage with project stakeholders (internal and external), understand concerns, and develop solutions to benefit clients and the community. Brian is a lifelong resident of Jefferson Parish and takes pride in serving his community through his profession.

**Project Experience**

**Lake Villa Pond Hydrologic Improvements; Jefferson Parish Government; Jefferson Parish, LA** – Lead Professional. This project consists of hydrologic improvements to Lake Villa Pond including the reshaping, grading, and terracing of the existing Lake Villa Pond and establishing a hydraulic connection via a channel from the pond to adjacent pump station discharge channel. Surveying, environmental, and engineering design tasks are currently ongoing.

**Bucktown Harbor Park Shoreline Zeta Assessment & Storm Mitigation Alternatives; Jefferson Parish Government; Jefferson Parish, LA** – Lead Professional. TBS performed aerial LiDAR survey, topographic survey, bathymetric survey and engineering analysis to determine the volume/areas of land loss and assess the cost to repair the shoreline back to the pre-storm state.

**Reach E Environmental Water Control Structures; Terrebonne Levee and Conservation District; Terrebonne Parish, LA** – Engineering Design. Prepared the engineering design, plans and specifications for the construction of the Morganza to the Gulf Reach E- Environmental Water Control Structures which consists of two (2) 9-barrel 6-foot by 6-foot (6' x 6') concrete culvert water control structures to be built across Falgout Canal Marsh Road at two locations within the Terrebonne Parish Morganza to the Gulf Hurricane Protection System.

**Lockport Co. Canal South Bank Levee; Lafourche Parish Government; Lafourche Parish, LA** – Engineering Design. Prepared design drawings, bid coordination, construction administration, topographic surveying, environmental permitting, geotechnical engineering and periodic observation of construction for the elevation of 1630 linear feet of levee from the existing +6' elevation to +7.5' elevation through placement of suitable material, grading and shaping to ensure proper levee sustainability, and armoring of levee by placement of rip-rap along the flood side toe to prevent scouring and erosion from wave action caused by storm surge and high marine traffic.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

**Will Bane, PE**

*Lead Professional, Engineering*

Project Assignment:

Project Manager

Name of Firm with which associated:



Years' experience with this Firm:

3 with this firm | 16 with other firms

Education: Degree(s)/Year/Specialization:

Master of Science/2005/Civil Engineering

Bachelor of Science/2003/Civil Engineering

Active registration: Year first registered/discipline:

LA PE 36709/2011/Civil Engineer

Other experience and qualifications relevant to the proposed Project:

Will has 19 years of experience in the design and construction of civil engineering projects and is a graduate of Tulane University and the University of Illinois Urbana-Champaign. He has a successful history as a project manager, having managed multifaceted projects, including regional drainage projects, green infrastructure, water main improvements and sewer collection system improvements, street construction, site development, and flood protection projects. He has been a designer for sewer, water, and drainage projects for individual lots up to the neighborhood scale. He has experience in design, construction estimates, scheduling, permitting, bidding, and construction administration. He has successfully executed many multifaceted projects, from problem identification to project completion. His experience includes large civil works for private developers and public municipalities.

#### **Project Experience**

**Lake Villa Pond Hydrologic Improvements; Jefferson Parish Government; Jefferson Parish, LA** – Project Manager. Providing engineering consulting services to improve the Lake Villa Pond. The project consist of hydrologic improvements to Lake Villa Pond. Proposed improvements will include the reshaping, grading, and terracing of the existing Lake Villa Pond and establishing a hydraulic connection via a channel from the pond to adjacent pump station discharge channel.

**Jefferson Hwy. Waterline Replacement; Jefferson Parish Government; Jefferson Parish, LA** – Project Manager. Responsible for the project management, sub-consultant management and design of waterline replacement project in Jefferson Parish. Project consists for replacement of roughly 9,500 ft of 12" waterline along Jefferson Highway as part of Parish's 20-year replacement program. Designed horizontal and vertical location of new waterline to provide continuous service and to minimize impacts to residents and traffic. Investigated and proposed alternative installation methods including pipe-bursting and directional drilling to provide cost efficient solutions. Site investigations performed to verify existing features and to avoid potential construction conflicts.

**Causeway Area Waterline Improvements; Jefferson Parish Government; Jefferson Parish, LA** – Project Manager. Responsible for the project management, sub-consultant management and design of waterline replacement project in Jefferson Parish. Project consists for replacement of roughly 10,000 ft of 8" waterline in the Causeway area to the north and south of I-10. Coordinated with sub-consultant to produce topographic survey ensuring proper information was gathered. Designed horizontal and vertical location of new waterline to provide continuous service and to minimize impacts to residents, businesses, and traffic. Investigated and proposed alternative installation methods including pipe-bursting and directional drilling to provide cost efficient solutions. Site investigations performed to verify existing features and to avoid potential construction conflicts. Area includes tight corridors for utilities within the right-of-way as well as existing trees which are desired to be unimpacted.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

**Robert Karam, PE**

*Lead Professional, Engineering*

Project Assignment:

Project Engineer

Name of Firm with which associated:



Years' experience with this Firm:

8 with this firm | 1 with other firms

Education: Degree(s)/Year/Specialization:

Bachelor of Science/2014/Civil Engineering

Active registration: Year first registered/discipline:

LA PE 43854/2019/Civil Engineering

Other experience and qualifications relevant to the proposed Project:

Robert is a project engineer for clients that are primarily in the public sector including local municipalities, drainage districts, levee districts, and state agencies. His design experience focuses heavily on stormwater management and includes drainage pump stations and food risk reduction projects along the gulf coast. He has been involved with design including concept planning, preliminary and final design, cost estimating, development of detailed technical specifications and contract documents for compliance with local bidding requirements, and engineering services during construction.

#### Project Experience

**Houma Navigation Canal Lock Complex; APTIM; Terrebonne Parish, LA** - Design Engineer. Robert helped design the civil components for the HNC Lock Complex, including the design for levee tie-ins, dredging, scour protection, and operations area.

**Bayou Chene Flood Control Structure; APTIM; St. Mary Parish, LA** - Design Engineer/Project Manager. Robert provided design for Dredging and Levee Tie Ins, plan and profile design, Tennessee Gas Pipeline Crossing Details, Shoreline Protection Plan view and cross-sections. Shoreline Protection Quantities, and calculations. He was responsible for creating and compiling ITR packets for the levee embankment, general excavation, temporary silt fence, and seeding & fertilizing, and addressing comments from various agencies, clearing and grubbing design. Robert revised plan set and quantities, and created plan and sections for additional levee fill, he calculated an estimated quantity for the 2' maintenance lift, and reviewed pre-construction survey submittal to ensure it follows specifications. Robert estimated avoided costs by performing the proposed additional dredging by determining an approximate quantity of dredge material it took to complete the first lift of disposal. He also revised the geo-textile technical specification to include reinforcement geo-textile for hauled in levee embankment installation.

**Reach E - Environmental Water Control; Terrebonne Levee & Conservation District; Terrebonne Parish, LA** - Project Representative. Robert Inspected construction of two fresh water diversion structures as part of the Reach E levee system in Terrebonne Parish.

**Falgout Canal Wetlands Modeling; Terrebonne Parish Consolidated Government; Terrebonne Parish, LA** – Project Representative. Robert provided on-site project representation, observed unloading of removed debris from structure removal. He went on site visits to observe Dupre Brothers Construction working on structures and M&N dredging channel. Robert was also responsible for observing dredging operations.

**Morgan City Levee & Drainage Improvements; Drainage District No. 2 of St. Mary Parish; St. Mary Parish, LA** – Project Engineer. Robert is providing engineering plans for a new 1600 CFS pump station which features the relocation and re-installation of 6-54" vertical pumps with diesel engines and 1-24" electric vertical pump, relocation and re-installation of existing fuel tank, 60" discharge pipes, concrete outfall protection flume, and intake channel improvements.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

**Name & Title:**

**Lauren Averill, PE**  
*Coastal Planning & Development Lead*

**Project Assignment:**

Public Outreach, Grant Development, and Marketing

**Name of Firm with which associated:**



**Years' experience with this Firm:**

>1 with this firm | 23 with other firms

**Education: Degree(s)/Year/Specialization:**

Bachelor of Science/2001/Civil Engineering

**Active registration: Year first registered/discipline:**

LA PE 37108/2012/Civil Engineering

**Other experience and qualifications relevant to the proposed Project:**

Lauren has over 23 years of experience in coastal, environmental, and civil engineering, and serves as the Coastal Planning and Development Lead. Her diverse skill set includes geotechnical engineering; water resources; water remediation; diversions; well sampling for environmental studies and analysis; marsh creations; hydrologic engineering, restoration, and field assessments; planning and permitting required for future road and building construction; utility relocation; geotechnical engineering; landfill engineering; and construction permits for stormwater and wastewater management. Additionally, she plays a pivotal role in securing funding for various initiatives, including coastal, recreational, and green infrastructure projects. Lauren actively engages in presentations to local, state, and technical society agencies, emphasizing the historical context, technical design, and overall significance of projects. Notably, she championed the creation of a living shoreline as a buffer, aligning with the Federal Hurricane Storm Risk Reduction System (HSDRRS). Lauren also collaborates on USACE 408 permits when projects intersect with the HSDRRS System. Her strong working relationships extend to various agencies, including Parish Public Work Departments, as well as local, state, and federal entities such as the Southeast Louisiana Flood Protection Authority East, Louisiana Coastal Protection Restoration Authority, Louisiana Department of Wildlife and Fisheries, Department of Transportation, USACE, and NOAA. She leverages various grant programs, including the RESTORE Act, GOMESA, and CWPPRA. Lauren oversaw the Coastal Zone Management Program for Jefferson Parish, providing crucial support to residents, including services such as Coastal Use Permits, Parish PIER permits, Coastal Project Management, and Coastal Protection Management. Furthermore, Lauren spearheaded the Coastal 101 outreach event, designed to inform the public about coastal restoration, resiliency, and protection. Her tireless efforts have also secured over \$4 million in grants for designing and constructing coastal restoration projects in the Pontchartrain and Barataria Basins.

**Project Experience**

**Jefferson Parish Coastal Strategic Action Plan; Jefferson Parish Government; Jefferson Parish, LA** – Coastal Management Director. Lauren developed the first comprehensive planning strategy to review nearly one hundred projects accumulated through the years. She reviewed each project for overall feasibility, value engineering, and construction sustainability, narrowed the list down to 32 feasible projects, and grouped them by project budget for those ranging on the small end of \$1M to state size projects of \$100M. Due to the ever-changing coastal habitats due to climate change, extreme weather events, and man-made actions, projects are updated regularly because of the extremely dynamic morphology, subsidence and erosion in the Barataria Basin.

**Western Closure Complex; USACE - New Orleans District; Plaquemines Parish, LA** – Lauren managed the complicated utility relocations, for the Western Closure Complex, including a high pressure gas line directly under the footprint of this essential component of the HSDRRS west bank system. This included extensive environmental permitting and approvals through a federally authorized environmentally protected area. The project involved coordination with the National State Parks, pipeline companies, environmental reviews and a pipeline directional drill to prevent project delays.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

**Rene Hebert, PLS, PMP**  
Lead Professional, Survey

Project Assignment:

Lead Professional, Survey

Name of Firm with which associated:



Years' experience with this Firm:

17 with this firm | 2 with other firms

Education: Degree(s)/Year/Specialization:

Bachelor of Science/2008/Geomatics

Active registration: Year first registered/discipline:

LA PLS 5070/2011/Land Surveyor

LA PMP 3150916/2021/Project Management Professional

Other experience and qualifications relevant to the proposed Project:

As a lead professional and project manager at TBS, Rene is directly involved in the oversight and execution of the technical aspect of surveying projects including producing and revising drawings, sketches, plans, etc. for contract documents and QA/QC of surveying services. He coordinates work among project technicians, field crew coordinator, field survey personnel, and other required professionals working on the project. For the past 15 years, Rene has gained valuable experience surveying the environment of south Louisiana including topographic, boundary and GPR surveys and underwater acoustic hydrographic surveys including multi-beam, single beam, side scan sonar, acoustical soundings, magnetometry and other bathymetric surveys for industrial, government and private clients.

**Project Experience**

**Bayou Dularge Marsh, Ridge, & Hydrologic Restoration; CPRA; Terrebonne Parish, LA** – Project Surveyor. The project will create 660 acres of marsh, 4+ miles of ridge and a partial closure of Grand Pass. Rene was responsible for hydrodynamic monitoring; topographic, bathymetric, magnetometer, and UAS surveys.

**Barataria Marsh Creation Project; Lafourche Parish Government; Lafourche Parish, LA** – Project Surveyor. This project utilized local RESTORE funds for performing a Cost Feasibility Study on borrow material versus fill sites for approximately 20,000 acres. Rene was responsible for all survey aspects of the project.

**Mid-Barataria Sediment Diversion; CPRA; Plaquemines Parish, LA** – Project Surveyor. As a coastal sub-consultant on the Mid-Barataria Sediment Diversion (MBSD) Project, TBS assisted with developing the Sediment Monitoring Plan and execution of the Plan, marsh creation design utilizing Beneficial Use of Material, design of the outfall transition from the conveyance channel into the basin, and structural design of wing walls at the intake and back gate structure.

**DNR Contract No. 2503-10-10: Topographic and Bathymetric Surveys for Raccoon Island Shoreline Protection/ Marsh Creation (TE-48) Project; CPRA; Terrebonne Parish, LA** – Survey Technician/Project Surveyor. Assisted with underwater acoustic hydrographic surveys, data processing and QA/QC of field survey data including single-beam bathymetric survey data & GPS topographic survey data for the shoreline protection project. Created a combined surface model of the survey data collected using bathymetric survey methods and topographic survey methods.

**Colonial Club Pump Station; Jefferson Parish Government; Jefferson Parish, LA** – Survey Lead Professional. Coordinated the collecting of all the required survey data, verified the collected data for accuracy, and produced the final survey deliverables.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:
<b>Matt Stevens</b> <i>Sr. Project Manager</i>
Project Assignment:
Hydrographic Surveyor
Name of Firm with which associated:

Years' experience with this Firm:
19 with this firm   0 with other firms
Education: Degree(s)/Year/Specialization:
Associate of Science/2005/Drafting and Design Technology
Active registration: Year first registered/discipline:
N/A
Other experience and qualifications relevant to the proposed Project:
<p>Matt serves as senior project manager and party chief on both inshore and offshore vessels. He serves as the senior drafter for the marine survey group. He also possesses a thorough understanding of the Hypack® Survey software program, including all aspects of navigation and field collection. He has spearheaded the processing and drafting portion of many high profile projects at TBS. As a project manager at TBS, Matt is involved in a wide range of project management activities from pipeline inspections, bathymetric surveys, and hazard and archaeological surveys.</p> <p><b>Project Experience</b></p> <p><b>Biloxi Marsh Living Shoreline Project (PO-174); CPRA; St. Bernard Parish, LA</b> – Senior Project Technician/Field Surveyor. The primary goal of this project is to provide shoreline protection by using the living shoreline products to attenuate the wave energy that reaches the shore. TBS will provide survey data collection tasks and monitoring of near-shore waves at set locations near the different breakwater configurations.</p> <p><b>Mid-Barataria Sediment Diversion; CPRA; Plaquemines Parish, LA</b> – Senior Project Technician/Field Surveyor. This project includes engineering and design of beneficial use of excess material from the Mid Barataria Sediment Diversion Project, structural design of wing walls and flood walls, sediment monitoring in the Mississippi River and Barataria Basin.</p> <p><b>Whiskey Island Monitoring Project (TE-0100); CPRA; Terrebonne Parish, LA</b> – Hydrographic Surveyor. Performed bathymetric surveys of Whiskey Island and the surrounding area, which will serve as the first monitoring survey post-construction of the NRDA Caillou Lake Headlands Project (TE-100).</p> <p><b>SWAMP Phase II - Chandeleur Sound &amp; MRGO; CPRA; St. Bernard Parish, LA</b> – Senior Project Technician/Field Surveyor. Phase II of the System Wide Assessment and Monitoring Program (SWAMP). Data collection for Bathymetric and Geophysical Data in conjunction with basic habitat classification collecting 1,225 nautical miles of transects located on the Chandeleur Sound and along the MRGO.</p> <p><b>Bayou Dularge Marsh, Ridge, &amp; Hydrologic Restoration; CPR-A; Terrebonne Parish, LA</b> – Hydrographic Survey Manager. The project will create 660 acres of marsh, 4+ miles of ridge and a partial closure of Grand Pass. Responsible for hydrodynamic monitoring; topographic, bathymetric, magnetometer, and UAS surveys; oyster surveys; and coastal engineering support for the project.</p> <p><b>Salvage Hydrographic Survey in the Mississippi River; Couvillion Group, LLC; Plaquemines Parish, LA</b> – Hydrographic Surveyor. Performed a salvage survey to locate and identify a probable anchor in the Mississippi River. Acted as party chief in the field as well as handling all aspects of project management. The anchor was located, and its positioning was given to the client for removal.</p>

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

**Kim Knight, PLS**

*Sr. Project Manager*

Project Assignment:

Professional Land Surveyor

Name of Firm with which associated:



Years' experience with this Firm:

13 with this firm | 16 with other firms

Education: Degree(s)/Year/Specialization:

Bachelor of Science/2019/Geomatics

Associate of Science/1995/Drafting and Design

Active registration: Year first registered/discipline:

LA PLS 5249/2011/Land Surveyor

Other experience and qualifications relevant to the proposed Project:

Kim is a senior project manager at TBS and has worked in the industry his entire career. He coordinates work among the project team including project technicians, field crew coordinators, field survey personnel, and other required professionals working on the project and is also manages the transfer of field information from the field crews to survey technicians for preparation of final deliverables. He has experience in topographic, hydrographic, and magnetometer surveys, construction layout of projects, remediation projects, property boundary surveys, preparation of right of way plats and servitude agreements, ALTA/ACSM Land Title surveys, and surveys defining the volumes of containment levees, borrow areas, and fill areas, landowner coordination, access route surveys, and computations for all aspects of land surveying projects. Kim has extensive knowledge in the organizing, analyzing, and processing GPS data, post processing the static GPS data that requires both minimal and fully constrained adjustments. He also prepares project schedules and periodically trains both office and field personnel in the survey discipline.

#### **Project Experience**

**Bay Raccourci Marsh Creation Project TE-0156/TE-0166; CPRA; Terrebonne Parish, LA** – Project Manager. Provided planning and coordination of surveys, project oversight, data processing, and preparation of deliverables. TBS is providing professional services in support of topographic, bathymetric, magnetometer, and other professional land surveying surveys of Bay Raccourci Marsh Creation and Ridge Restoration Project.

**Elevation Survey Update of CRMS Sites & Associated Secondary Monuments for the Thibodaux Regional Office; CPRA; Assumption, Terrebonne, Lafourche, St. Mary, St. Martin Parishes, LA** – Project Manager. TBS is providing elevation survey updates of CRMS Sites & Associated Secondary Monuments for the Thibodaux Regional Office.

**Biloxi Marsh Living Shoreline Project (PO-174); CPRA; St. Bernard Parish, LA** – Survey Project Manager. Supervised and coordinated field and office personnel, logistics to and from project site, and field data collection obtained by conventional, hydrographic, and Unmanned Aerial Survey crews. QA/QC of field data by reviewing the datasets collected and used to aid in the design of Bank Stabilization. Assisted in the merging of datasets collected by field personnel for topographic, bathymetric, LiDAR and photogrammetry data, and project deliverables.

**Island Road Marsh Creation and Nourishment Project (TE-117); CPRA; Terrebonne Parish, LA** – Survey Manager. This project will hydraulically dredge sediment from a borrow area in Lake Felicity to the marsh creation area near Isle de Jean Charles. TBS provided topographic, infrastructure, bathymetric, hazard, magnetometer, and pipeline investigation surveys for the marsh creation area in support of the design of this project. Average healthy marsh elevation surveys were also performed.

**Raccoon Island Shoreline Protection; CPRA; Terrebonne Parish, LA** -- Project Surveyor. TBS performed topographic and bathymetric surveys as well as updated horizontal and vertical datum for the Raccoon Island Shoreline Protection/Marsh Creation Project for the Office of Coastal Protection and Restoration.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

**Eric Deroche**

*UAS Group Leader*

Project Assignment:

Lead- Unmanned Aerial Survey

Name of Firm with which associated:



Years' experience with this Firm:

22 with this firm | 0 with other firms

Education: Degree(s)/Year/Specialization:

Associate of Applied Science/2001/Drafting and Design

Active registration: Year first registered/discipline:

N/A

Other experience and qualifications relevant to the proposed Project:

Eric's responsibilities include developing and maintaining an efficient "Field to Finish" process catering to our clients' needs. He serves as the Group Leader of Unmanned Aerial Solutions (UAS) for TBS. With seven years of experience in this field, he offers our clients professional and reliable unmanned aerial system solutions. Eric's expertise in survey software, LiDAR equipment, UAV's, and project management enables him to conduct field surveys personally and process the data efficiently under the direction of a professional land surveyor.

#### **Project Experience**

**Raccoon Island TE-48 Restoration Survey; CPRA; Terrebonne Parish, LA** – UAS Project Manager. Oversaw aerial survey was completed to assist the conventional surveyors on the ground and to gather an abundance of data on the entire island to be used for erosion monitoring on an annual basis. TBS was hired to perform a post-restoration survey on the restored part of the island and the breakers. The UAS department acquired high resolution aerial imagery, as well as a high density/high accuracy point cloud to generate a surface model of the island.

**Topographic, Bathymetric, and Magnetometer Surveys, Contract No. 2503-15-33, Survey Services for Coastal Restoration Projects (TE-117); CPRA; Coastal LA** – UAS Project Manager. Managed project that included drone flight operations to capture aerial ortho images with high spatial resolution in order to quickly and accurately map the islands. TBS was tasked with mapping the existing marsh island inside a proposed marsh creation cell for CPRA.

**Bayou Lafourche- Reintroduction Phase 2; Bayou Lafourche Fresh Water District; Lafourche Parish, LA** – UAS Project Manager. TBS performed construction monitoring and administration which helped the project become ahead of schedule and be under budget. This assisted the Freshwater District office in obtaining four million additional dollars to continue the dredging project an extra 2.4 miles.

**Houma Navigation Canal; APTIM; Terrebonne Parish, LA** – Group Lead of Unmanned Aerial Solutions. Managed aerial LiDAR to aid in getting accurate locations of existing steel piles on the structure. Positioning had to be precise due to plans to set additional steel piles inside existing piles.

**Bayou Dularge Ridge and Marsh Creation (TE-0170); CPRA; Lafourche Parish, LA** – Survey Party Chief/Project Manager. Eric provided field surveys, processed LiDAR data, and reviewed data for accuracy checks for the purpose of creating marsh on the south side of Bayou Dularge; restoring the ridge along the southern bank line of Bayou Dularge; and reestablishing historic hydrologic and salinity conditions by installing a structure that reduces the cross section of Grand Pass and the intrusion of Gulf marine waters into the project area.

**Bay Raccourci Marsh Creation TE-0156/TE-0166; CPRA; Terrebonne Parish, LA** – Survey Party Chief/Project Manager. Eric reviewed the survey flight plan, field surveying, and helped to process data for restoration of marsh habitat in the open water and degraded marsh areas via marsh creation and to restore the forested ridged habitat along Bayou Decade.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

**Ryan LeBoeuf**  
UAS Data Analyst

Project Assignment:

Unmanned Aerial Surveyor

Name of Firm with which associated:



Years' experience with this Firm:

17 with this firm | 0 with other firms

Education: Degree(s)/Year/Specialization:

Bachelor of Science/2015/Geomatics  
Associate of Applied Science/2007/Drafting and Design Technology

Active registration: Year first registered/discipline:

FAA Licensed Remote Pilot, 4102978  
FAA Licensed Private Pilot, 850941

Other experience and qualifications relevant to the proposed Project:

Ryan is an FAA licensed pilot and serves as chief pilot of unmanned aerial solutions (UAS) at TBS. With fifteen years of experience in this area, he adds extensive knowledge of FAA regulations to further enhance the commercial operations of our UAS solutions. Ryan provides UAS solutions in the field and analyzes the data in the office.

#### Project Experience

**Bayou Dularge Marsh, Ridge, & Hydrologic Restoration; CPRA; Terrebonne Parish, LA** – UAS Licensed Pilot. The project will create 660 acres of marsh, 4+ miles of ridge and a partial closure of Grand Pass. TBS is responsible for hydrodynamic monitoring; topographic, bathymetric, magnetometer, and UAS surveys; oyster surveys; and coastal engineering support for the project.

**Biloxi Marsh Living Shoreline Project (PO-174)CPRA; St. Bernard Parish, LA** – Chief Pilot/UAS Data Analyst. Directly involved in conducting and processing LIDAR surveys. The primary goal of this project is to provide shoreline protection by using the living shoreline products to attenuate the wave energy that reaches the shore. TBS will provide survey data collection tasks and monitoring of near-shore waves at set locations near the different breakwater configurations.

**Terrebonne Parish Oyster Bed Surge Protection System; Terrebonne Parish Consolidated Government; Terrebonne Parish, LA** – Chief Pilot/UAS Data Analyst. TBS is tasked with the engineering and design of 3.4 miles of a living shoreline protection system in northern Terrebonne Bay. This project will directly provide benefits to north shorelines of Lake Tambour and Chien by reducing marsh edge erosion. Ryan is tasked with providing UAS field surveys.

**Raccoon Island TE-48 Restoration Survey; CPRA; Terrebonne Parish, LA** – UAS Licensed Pilot. TBS was hired to perform a post-restoration survey on the restored part of the island and the breakers. The Unmanned Aerial Systems department acquired high resolution aerial imagery, as well as a high density/high accuracy point cloud to generate a surface model of the island. This aerial survey was completed in order to assist the conventional surveyors on the ground and to gather an abundance of data on the entire island to be used for erosion monitoring on an annual basis.

**Island Road Marsh Creation (TE-117), Topographic, Bathymetric, and Magnetometer Surveys; CPRA; Terrebonne Parish, LA** – UAS Licensed Pilot. TBS was tasked with mapping the existing marsh island inside a proposed marsh creation cell for CPRA. The UAS department conducted the necessary drone flight operations to capture aerial ortho images with high spatial resolution in order to quickly and accurately map the islands.

**Marsh Impact Analysis due to Emergency Repairs of Damaged Distribution Electrical Lines due to Hurricane Gustav; Entergy Louisiana, LLC; St. Bernard, and Lafourche Parishes, LA** – UAS Licensed Pilot. Provided pre and post repair aerial photography and marsh impact calculations using ArcGIS interpretation and classification methods.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

**Brady Trahan, PWS**

*Lead Professional, Environmental*

Project Assignment:

Environmental Lead Professional

Name of Firm with which associated:



Years' experience with this Firm:

19 with this firm | 5 with other firms

Education: Degree(s)/Year/Specialization:

Bachelor of Science/1998/Microbiology

Active registration: Year first registered/discipline:

Professional Wetland Scientist, #2722

Other experience and qualifications relevant to the proposed Project:

Brady serves as the firm's Lead Professional of environmental operations and is primarily involved in regulatory and ecological compliance for pipeline and utility corridor transmission activities, oil and gas exploration and production activities, land resource and wetland mitigation management, and commercial and large scale residential developments. He is a Professional Wetland Scientist with experience in wetland delineations and mitigation, Section 10/404 permitting, Coastal Zone Management permitting, oyster assessments, and environmental site assessments. Brady also has experience in coordinating the efforts of subcontractors, endangered species surveys, wildlife management plans, large-scale wetland and vegetation mapping projects, wading bird rookery surveys and general environmental permitting for oil and gas activities and commercial real estate development. He has been involved in several LNG projects along the Louisiana and Texas coast. Brady routinely provides clients with permitting assistance with the U.S. Department of the Army Corps of Engineers (USACE), U.S. Environmental Protection Agency, Federal Energy Regulatory Commission, U.S. Department of Interior Fish and Wildlife Service, Louisiana Department of Natural Resources, Louisiana Department of Wildlife and Fisheries, and other state and local agencies.

#### Project Experience

**Mid-Barataria Sediment Diversion, BA-0153; CPRA; Plaquemines & Jefferson Parishes, LA** – Lead Professional. TBS is assisting with developing the Sediment Monitoring Plan and execution of the Plan, marsh creation design utilizing Beneficial Use of Material, design of the outfall transition from the conveyance channel into the basin, and structural design of wing walls at the intake and back gate structure. The project has a proposed design flow capacity of 75,000 cfs and is expected to build and nourish up to 30,000 acres of wetlands over 50 years. The project will utilize the alternative delivery method Construction Management at Risk. TBS is tasked with developing and executing the sediment monitoring plan, marsh creation design utilizing beneficial use of dredged material, design of the outfall transition from the conveyance channel into the basin, and structural design of wing walls at the intake and back gate structures.

**Bolivar Peninsula Tarpon Project; Hilcorp Energy Co.; Galveston Bay, TX** – Project Manager. Wrote mitigation plan for the project. Coordinated with engineering group on design of mitigation area. This project will impact existing wetlands at the site, and as part of the Permute Responsible Mitigation (PRM) requirement from the USACE Galveston District, material generated from the access channel dredging will be used to create 9.4 acres of mitigation marsh. TBS is providing topographic, bathymetric, geophysical, and hazard surveys; conceptual design development; mitigation plan; permitting support; marsh inundation assessment; dredge/coastal engineering; ABM shoreline protection design; and construction plans & specifications.

**Wetland Delineation and Regulatory Assistance for the Port Arthur LNG Terminal; Port Arthur LNG; Jefferson County, TX** – Project Manager. Conducted wetland delineation, threatened and endangered species surveys, mitigation planning, and associated regulatory permitting for a proposed LNG facility near Port Arthur, TX.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

**Cy Toups, PE**

*Lead Professional, Environmental*

Project Assignment:

Environmental Professional

Name of Firm with which associated:



Years' experience with this Firm:

17 with this firm | 4 with other firms

Education: Degree(s)/Year/Specialization:

Bachelor of Science/2002/Environmental Engineering

Active registration: Year first registered/discipline:

LA PE 33966/2011/Environmental Engineer

Other experience and qualifications relevant to the proposed Project:

Cy is an environmental professional and a Louisiana licensed professional environmental engineer. His environmental experience includes over seven years NEPA experience as well as Section 404/10 permitting, Coastal Use Permitting, endangered species surveys, U.S. Environmental Protection Agency (EPA) compliance, regulatory compliance, Phase I ESA's, wetland delineations, Recognized Environmental Conditions (RECs), and preparing NEPA documents for a multitude of agencies including Federal Highway Administration (FHWA), the United States Army Corps of Engineers (USACE), Federal Emergency Management Agency (FEMA) and the Federal Aviation Administration (FAA). His environmental experience ranges from private developments to local, state and federal public works and transportation projects. Cy has led many of TBS' Categorical Exclusions (CE) and Environmental Assessment (EA) documents for various roadway and bridge projects.

**Project Experience**

**Gulf Intracoastal Waterway (GIWW) Shoreline Protection; CPRA; LA** – Environmental Engineer. Provided environmental permitting services. TBS designed this shoreline protection project using EcoBales, manufactured by Martin Ecosystems. This product is made up of recycled plastic is a green alternative to standard shoreline protection materials. It collects sediment and supports aquatic ecosystems, thus classified as a living shoreline alternative. TBS provided the following professional services for this project: topographic and bathymetric surveying, environmental permitting, engineering design, and bidding.

**I-10/Loyola Interchange Improvement; LADOTD; Jefferson Parish, LA** -- Environmental Professional. Prepared an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA), and other applicable laws for the proposed project. Evaluated the social, economic, and environmental consequences of the alternatives (including the no-build) and presented this information in the EA document. In addition to the formal EA document and Finding of No Significant Impact (FONSI), the Consultant was required to develop separate reports such as Wetland Delineations, Phase I Environmental Site Assessment, Phase I Cultural Resources Survey Reports, and Noise analysis.

**Nine Mile to Barataria; Entergy; Jefferson Parish, LA** -- Environmental Professional. Prepared an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) of 1969, the President's Council on Environmental Quality regulations to implement NEPA (40 Code of Federal Regulations Parts 1500-1508), and the U.S. Department of the Interior (DOI) regulations implementing NEPA (43 CFR Part 46). Evaluated the social, economic, and environmental consequences of the alternatives (including the no build) and presented this information in the EA document. In addition to the formal EA document and Finding of No Significant Impact (FONSI), TBS was required to develop separate reports such as Wetland Statement of Findings and apply for the Special Use Permit through the DOI National Park Service.

**Phase I Environmental Site Assessment; McDonough Marine; Terrebonne Parish, LA** – Environmental Professional. Phase I Environmental Assessment of the four (4) tracts totaling +/-18 acres of heavy industrial property. The property had historically been utilized for marine barge and vessel repair, and maintenance operations.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

**Michael Trahan, Jr.**

*Lead Professional, Environmental*

Project Assignment:

Environmental Permitting

Name of Firm with which associated:



Years' experience with this Firm:

12 with this firm | 0 with other firms

Education: Degree(s)/Year/Specialization:

Bachelor of Science/2012/Environmental Biology

Active registration: Year first registered/discipline:

N/A

Other experience and qualifications relevant to the proposed Project:

Michael assists senior professionals and project managers in the development and coordination of public works projects. He collects environmental data, including environmental assessments, threatened and endangered species surveys, environmental research, and environmental monitoring studies. Additionally, he prepares reports and completes field work necessary to complete documentation for projects, including wetland delineations, noise and air modeling, wildlife identification, endangered species/habitat biological assessments and surveys, plant identification/tree surveys, and land use studies. Michael submits and coordinates approximately 50+ permit applications per year to the U.S. Army Corps of Engineers and Louisiana Department of Natural Resources. These applications range from public works capital improvement projects to private utility and infrastructure programs. Permits include Section 404, 10, and 408, Section 401 Water Quality Certifications, local levee board, CPRA, and DOTD. He coordinates with many different agencies including the Louisiana Department of Wildlife and Fisheries, Louisiana Office of State Lands, Louisiana Department of Environmental Quality, U.S. Fish and Wildlife Service, NOAA, and various other local, state, and federal agencies.

#### **Project Experience**

**Bayou Verret & Napoleon Dredging; Lafourche Basin Levee District and St., James Parish Government; St. James Parish, Ascension, Assumption and St. James Parishes, LA** - Permit Manager. Oversight of permit drawing preparation, prepared permit applications, submitted follow-up information, agency coordination and responses, and assisted with procurement of wetlands mitigation via mitigation bank to obtain agency permits (LADNR CUP, USACE Section 404 and Section 10, WQC- LDEQ) for the dredging of 97,000 cubic yards of material from Bayou Verret and Bayou Napoleon south of Donaldsonville, LA.

**Bayou Lassene Dredging; St. James Parish Council; St. James Parish, LA** - Permit Manager. Oversight of permit drawing preparation, prepared permit applications, submitted follow-up information, agency coordination, and responses to obtain agency permits (LADNR CUP, USACE Nationwide) for the dredging of 21,723 cubic yards of material from Bayou Lassene near Vacherie, LA.

**Bayou Gardens Blvd. Extension (LA 660 to LA 316); Terrebonne Parish Consolidated Government; Terrebonne Parish, LA** – Permit Manager. Prepared permit applications, agency coordination, responses, follow-up, and prepared revised wetland delineation report and wetland mitigation via mitigation bank to obtain agency permits (LADNR CUP, USACE Section 10/404, LDEQ WQC) for the 1.6 mile, 4-lane roadway extension including 180' bridge over St. Louis Bayou.

**Morgan City Pump Station and Drainage Improvements, SPN TE-116; Consolidated Gravity Drainage District No. 2; St. Mary Parish, LA** - Environmental Project Manager. Provided design services to St. Mary Levee District and Consolidated Gravity Drainage District No. 2 for the construction of a new pump station to replace two older pump stations in Morgan City, LA. The proposed pump station will have approximately 1,600 CFS capacity and will be relocated from the present location on the inside of the city to the outer limits of where the flood protection levees are located.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

**Adam Trahan**  
*Environmental Professional*

Project Assignment:

Oyster Biologist

Name of Firm with which associated:



Years' experience with this Firm:

3 with this firm | 14 with other firms

Education: Degree(s)/Year/Specialization:

Bachelor of Science/2008/Biology

Active registration: Year first registered/discipline:

US Coast Guard License 3403144/2012

LA DNR Certified Oyster Lease Damage Evaluation Board Oyster Biologist/2009

Other experience and qualifications relevant to the proposed Project:

Adam is an Environmental Professional with experience in estuarine data collection. Adam is knowledgeable in the operation, maintenance, and calibration of a vast array of hydrologic instrumentation. Adam provides scientific dive support for benthic organism collection for population density distribution calculations on identified benthic communities. Adam is the OLDEB oyster biologist of the oyster resource assessment team that works closely with oil and gas companies to evaluate oyster resources on public water bottoms and private leases. The surveys are performed according to protocols established by the Louisiana Department of Wildlife and Fisheries and the Department of Natural Resources Oyster Lease Damage Evaluation Board to define the bottom types according to protocol. Reports detailing the findings are filed with LDWF, CPRA, and the client. Adam has performed water bottom assessments in the Calcasieu/Sabine, Mermentau, Atchafalaya, Barataria, and Breton Sound basins. By being a part of an environmental team, Adam has assisted with wetland delineation efforts for multiple projects for local development, mitigation banks, and infrastructure developments. Adam has provided permitting assistance, wetland delineation assistance, GIS assistance, and culture resource assistance for many other projects.

#### **Project Experience**

##### **Little Bayou Pierre and Lake Fortuna Oyster Cultch Project; St. Bernard Parish Government; St. Bernard Parish, LA**

– Project Manager/Scientist. Provided permitting and oyster monitoring services for two oyster cultch projects in St. Bernard Parish. Served as the oyster scientist and provided monitoring services with the St. Bernard Parish Government to monitor the projects contractors and that all protocols and permit requirements were followed.

**Oyster Reef Cores; The Texas A&M University System; St. Charles Bay Areas, TX** - Project Manager and Environmental Professional. Provided professional services to collect vertical core samples through the center of artificial and natural bottom oyster reefs from selected locations within the St. Charles Bay areas of Texas. Mr. Trahan was tasked with project setup and field logistics, along with assisting in field operations and collections of the sample cores.

**TNC-NRDA Restoration of Copano Bay Reef; The Nature Conservancy of Texas; Copano Bay, TX** - Environmental Professional. Services were provided for the oyster and bay bottom substrate surveys conducted in Copano Bay, Aransas County, Texas. Adam was tasked with data review and comparison, as well as overall final reporting of survey data collected from field operations.

**Texas Gas Transmission, LLC Pipeline Abandonment Biological Oyster Survey, Providence Engineering and Environmental Group, LLC**– Scientist III/Scientific Sampling Diver. Served as the Oyster Lease Damage Evaluation Board (OLDEB) Certified Oyster Biologist and Scientific Sampling Diver for a 1500 ft. radius oyster assessment. Involved with all assessment activities, sampling methodologies, and insured the OLDEB protocols. M Oyster density and mortality calculations were derived from utilizing square meter sampling protocols. Water quality and bathymetric data was also collected and analyzed for the project area.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

**Philip Chauvin**

*Sr. Construction Manager*

Project Assignment:

Bidding & Construction Administration Lead

Name of Firm with which associated:



Years' experience with this Firm:

18 with this firm | 11 with other firms

Education: Degree(s)/Year/Specialization:

Bachelor of Science/1995/Construction Management

Active registration: Year first registered/discipline:

LA CPRA/2023/Certified Levee Inspector

USACE/2019/Construction Quality Management for Contractors

Other experience and qualifications relevant to the proposed Project:

Philip is TBS' Sr. Construction Manager, he handles managing and inspecting construction phase projects for clients. Philip has focused his career on construction management and project representation experience, which includes coordinating and managing construction projects for public and private clients to ensure that they are built to specifications. He also leads and takes part in pre-bid construction activities. He has the overall responsibility for the quality assurance of construction projects for which TBS provides construction administration and representation. He supervises the TBS construction projects' inspectors and representatives and provides technical support to them.

#### **Project Experience**

**Terrebonne Bay Shoreline Protection Demonstration Project TE-45; LDNR; Terrebonne Parish, LA** – Construction Manager. The purpose of the Terrebonne Bay Shoreline Protection and Oyster Reef Demonstration project is to reduce shoreline erosion and promote oyster reef formation while testing the cost-effectiveness of several experimental techniques designed to protect shorelines in areas where unconsolidated, organic, and easily eroded soil types prevent the use of traditional rock dike structures. Three reaches were selected, and three techniques were chosen based on anticipated effectiveness and cost—gabion mats, concrete onshore armor units, and foreshore triangle units. TBS provided construction observation.

**New Cut Dune and Marsh Restoration Project TE-37; Louisiana Department of Natural Resources; Terrebonne Parish, LA** – The project created barrier island dunes and marsh habitat, and lengthened the structural integrity of the eastern Isles Dernieres by restoring the littoral drift and adding sediment into the near-shore system. TBS provided quality assurance and quality control during construction by providing construction administration and on-site project observation. TBS' scope of services included conducting the pre-construction meeting; reviewing shop drawings, submittals, and pay requests; and facilitating the pre-construction and bi-weekly site progress meetings during dredging activities. Supervised on-site project representatives daily.

**Project Management, Contract Management and Construction Inspection for FEMA Hazard Mitigation Grant Program Funds to Elevate Repetitive Loss Structures; Terrebonne Parish Consolidated Government; Terrebonne Parish, LA** – Philip served as construction project manager for this project in which TBS provided project management, contract management and construction inspection for the purpose of reducing or eliminating the long-term risk of flood damage to residential structures insured under the National Flood Insurance Program (NFIP) by elevating the structures above the FEMA base flood elevation.

**Gulf Intracoastal Waterway (GIWW) Bank Restoration of Critical Areas (EB-10); CPRA; Terrebonne Parish, LA** – Construction Project Manager. The goal of the project was to restore critical lengths of deteriorated channel banks with hard shorelines through stabilization/armoring. TBS acted as the on-site representative throughout construction. TBS' scope of services included conducting the pre-construction meeting; reviewing shop drawings, submittals, and pay requests; and facilitating the pre-construction and bi-weekly site progress meetings during dredging activities and stone armament.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

**Robert Chauvin**

*Sr. Project Representative*

Project Assignment:

Resident Inspector

Name of Firm with which associated:



Years' experience with this Firm:

4 with this firm | 27 with other firms

Education: Degree(s)/Year/Specialization:

Bachelor of Science/1989/Business Administration

Active registration: Year first registered/discipline:

N/A

Other experience and qualifications relevant to the proposed Project:

Robert has more than 31 years of inspection experience, during which he has served as a fire marshal and construction inspector. He has performed construction inspection services for marsh creation and restoration projects as well as pump station construction and roadway improvement projects. His duties have included monitoring construction activities, submitting daily work reports, quality assurance inspection of installed work items, measuring and calculating quantities for pay, monitoring contractor's work schedules, and monitoring contractor's adherence to quality control plans and schedules. He also participates in pre-construction meetings, conducts preparation meetings for work activity transitions, and construction progress meetings.

**Project Experience**

**Bayou Chene Flood Control, St. Mary Parish, LA** – Served as a Construction Project Representative on this project to build a large flood control structure for the Coastal Protection Restoration Authority in St Mary Parish, LA. In this role, he provided construction monitoring and inspection services for the owner. He recorded daily reports, took photographs, and monitored construction activities and schedules. He conducted quality assurance inspection of installed work items, measured and calculated quantities for pay, and monitoring contractor's adherence to quality control plans and schedules. He also participated in pre-construction meetings, conducted preparation meetings for work activity transitions, and attended construction progress meetings.

**Houma Navigation Canal Lock Complex, Terrebonne Parish, LA** – Served as a Construction Project Representative on this project to build a new lock system on the Houma Navigation Canal in Terrebonne Parish, LA. In this role, he provided construction monitoring and inspection services for the owner. He recorded daily reports, took photographs, and monitored construction activities and schedules. He conducted quality assurance inspection of installed work items, measured and calculated quantities for pay, and monitoring contractor's adherence to quality control plans and schedules. He also participated in pre-construction meetings, conducted preparation meetings for work activity transitions, and attended construction progress meetings.

**Amelia 2/2A Drainage Improvements, Terrebonne Parish, LA** – Served as a Construction Project Representative on this project to build a new pump station and enhance stormwater drainage in Amelia, LA. Provided construction monitoring and inspection services for the owner. Conducted site visits to monitor test pile loading and contractor mobilization. Recorded daily reports, took photographs, monitored construction activities and schedules. Conducted quality assurance inspection of installed work items, measured and calculated quantities for pay, and monitoring contractor's adherence to quality control plans and schedules. He also participated in pre-construction meetings, conducted preparation meetings for work activity transitions, and attended construction progress meetings.

**Morgan City Pump Station and Drainage Improvements, St. Mary Parish, LA** – Served as a Construction Project Representative on this project to build a new pump station and enhance stormwater drainage in Morgan City, LA. Provided construction monitoring and inspection services for the owner. Conducted site visits to monitor test pile loading and contractor mobilization. Recorded daily reports, took photographs, monitored construction activities and schedules.

**TEC Professional Services Questionnaire**

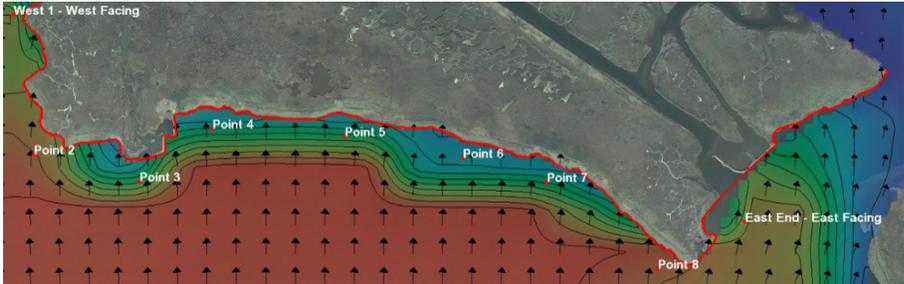
**L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.**

**PROJECT NO. 1**

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Mid-Barataria Sediment Diversion Project (BA-153)</b>                      Plaquemines Parish, LA</p> <p>Coastal Protection and Restoration Authority                      P.O. Box 44027                      Baton Rouge, LA 70804                      Brad Barth                      225.342.7308</p>  <p align="center">Mid-Barataria Rendering</p>	<p>The Mid-Barataria Sediment Diversion Project (BA-153) has been identified as a large-scale, long-term restoration project recommended for implementation in Louisiana's Comprehensive Master Plan for a Sustainable Coast. The Project is the largest proposed sediment diversion that will reconnect the Mississippi River to the Barataria Basin. Sediment and freshwater will be transported into the nutrient-starved basin while maintaining the current level of flood protection in the area. The project proposes to have a design flow capacity of 75,000 CFS while maximizing the sediment-to-water ratio. The project aims to reestablish deltaic processes to build, sustain, and maintain land.</p> <p>As a major sub-consultant, TBS provided engineering design services, including the design of the beneficial use of excess material, Mississippi River levee tie-in flood walls, NOV Levee tie-ins, highway LA-23 flood walls, intake wing walls, and outfall channel. TBS also is performing utility relocation coordination and developing the MBSD monitoring plan. Regarding data collection, TBS performed magnetometer survey services and Mississippi River sediment monitoring surveys.</p> <p>The project will utilize an alternative delivery method called Construction Management at Risk (CMAR). The Design Team will work with the CMAR contractor to incorporate constructability into the project's design. TBS has submitted the construction plans and construction has begun.</p> <p><b>TBS provided the following services:</b></p> <ul style="list-style-type: none"> <li>• Magnetometer Surveys</li> <li>• Mississippi River Sediment Monitoring Surveys</li> <li>• Mississippi River Levee Tie in Flood walls</li> <li>• NOV Levee Tie in</li> <li>• LA 23 Flood walls</li> <li>• Wing Wall Design (Intake)</li> <li>• Outfall Channel Design</li> <li>• Utility Relocation Coordination</li> <li>• Beneficial Use of Excavated Materials</li> <li>• MBSD Monitoring Plan</li> </ul>	
<p align="center">Completion Date (Actual or estimated):</p>	<p align="center"><b>Estimated Cost:</b></p>	
	<p align="center"><b>Entire Project:</b></p>	<p align="center"><b>Work for which Firm was Responsible:</b></p>
<p>2027 (estimated)</p>	<p>\$2,920,000,000</p>	<p>\$3,000,000 (fees)</p>

**TEC Professional Services Questionnaire**

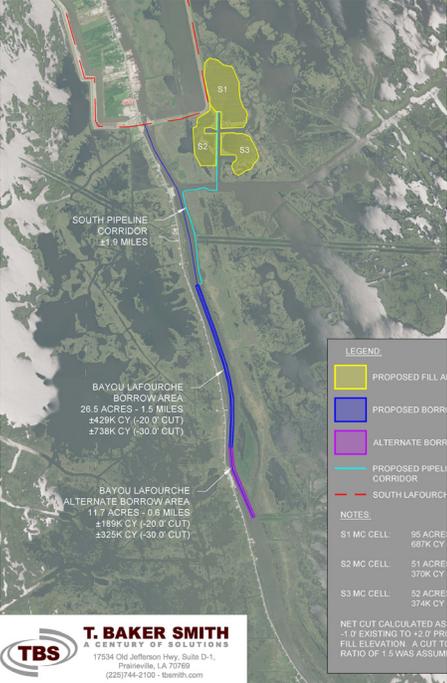
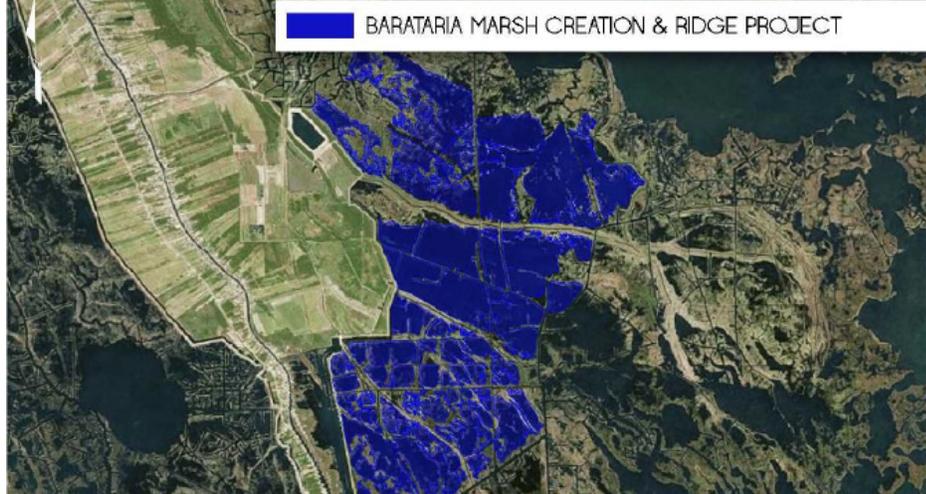
**L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.**

PROJECT NO. 2		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Terrebonne Oyster Bed Surge Protection System</b> Terrebonne Parish, LA</p> <p>Terrebonne Parish Consolidated Government P.O. Box 6097 Houma, LA 70361 Jennifer Gerbasi 985.873.6433</p>	<p>TBS was selected by TPCG to provide coastal engineering services for the design and permitting of the Terrebonne Oyster Bed Surge Protection System Project. TBS provided surveying, environmental, and habitat data along the 3.5 miles' of shoreline of the Project. Shoreline protection for the Project is located at two sites. Site 1 is approximately 1-mile-long across the north bank of Lake Chien, and Site 2 is approximately 2.5 miles along the northern bank of Lake Tambour. TBS will use this data to analyze coastal processes, prepare engineering plans, and provide supporting environmental documents and permit applications for the Project.</p> <p><b>TBS is providing the following services:</b></p> <ol style="list-style-type: none"> <li>1. Data Collection Services                             <ul style="list-style-type: none"> <li>• Existing Gap Analysis</li> <li>• Data Collection Plan</li> <li>• Topographic, Bathymetric, Magnetometer and UAS Survey</li> <li>• Geotechnical Investigation</li> </ul> </li> <li>2. Basis of Design (BOD) Phase                             <ul style="list-style-type: none"> <li>• TE-45 Project Review</li> <li>• Coastal Analysis / Numerical Modeling</li> <li>• BOD Report</li> </ul> </li> <li>3. Engineering Design Services                             <ul style="list-style-type: none"> <li>• 30 Percent Design and Plans</li> <li>• 95 Percent Design and Plans</li> <li>• 100% Construction Documents</li> </ul> </li> <li>4. Environmental Services                             <ul style="list-style-type: none"> <li>• Environmental Surveys</li> <li>• Permitting</li> </ul> </li> </ol> <p>TBS has completed all tasks through the 95% design milestone. Construction is estimated to begin in the 4th quarter of 2024.</p>	
		
 <p>Terrebonne Oyster Bed Project Site</p>	<p>Terrebonne Oyster Bed Project Site</p>	
<p>Completion Date (Actual or estimated):</p>	<p>Estimated Cost:</p>	
<p>2025 (estimated)</p>	<p>Entire Project: \$5,200,000 (estimated)</p>	<p>Work for which Firm was Responsible: \$5,200,000 (estimated)</p>

**TEC Professional Services Questionnaire**

**L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.**

**PROJECT NO. 3**

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:					
<p><b>Barataria Marsh Creation &amp; Ridge Restoration Project (Lafourche Parish RESTORE)</b> Lafourche Parish, LA</p> <p>Lafourche Parish Government P.O. Drawer 5548 Thibodaux, LA 70301 Amanda Voisin 985.493.6616</p>  <p>Barataria Project Map</p>	<p>The Lafourche Parish Government (LPG) utilized their "local" RESTORE funds in support of the Barataria Marsh Creation and Ridge Restoration Project. The area targeted for marsh creation was experiencing some of the most catastrophic land loss in Louisiana and was in need of a plan to restore the area. As part of initial scope of work, TBS was tasked with a Feasibility Study to identify various marsh creation projects and borrow sites within the 23,000-acre study area. The four (4) borrow areas consisted of two (2) long distance sediment pipelines utilizing both the Mississippi River and Port Fourchon and two (2) local sediment sources using nearby material from Little Lake and Bayou Lafourche. Each alternative was evaluated based on the size of the project and the cost per acre. Due to the extreme distances for the long-distance sediment pipelines, the two local sediment sources were the most economical and the Bayou Lafourche Marsh Creation Project was recommended for advancement due to its location being within the 2017 Master Plan.</p> <p>In the second phase of the project, TBS was tasked with data collection services and preliminary design of a 197-acre marsh creation project within three cells just south of the Larose to Golden Meadow Hurricane Protection System. The project consisted of dredging approximately 1.4 million cubic yards of material from Bayou Lafourche and hydraulically pump the sediment to the fill locations. This project was studied and preliminarily designed for application into the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) program.</p>  <p>Barataria Project Area</p>					
<p align="center"><b>Completion Date</b> (Actual or estimated):</p> <p align="center">2019 (actual)</p>	<p align="center"><b>Estimated Cost:</b></p> <table border="1" data-bbox="565 1848 1537 1999"> <thead> <tr> <th data-bbox="565 1848 1047 1932">Entire Project:</th> <th data-bbox="1047 1848 1537 1932">Work for which Firm was Responsible:</th> </tr> </thead> <tbody> <tr> <td align="center" data-bbox="565 1932 1047 1999">N/A</td> <td align="center" data-bbox="1047 1932 1537 1999">\$434,760 (fees)</td> </tr> </tbody> </table>		Entire Project:	Work for which Firm was Responsible:	N/A	\$434,760 (fees)
Entire Project:	Work for which Firm was Responsible:					
N/A	\$434,760 (fees)					

**TEC Professional Services Questionnaire**

**L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.**

PROJECT NO. 4		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Gulf Intracoastal Waterway (GIWW) Shoreline Protection</b> Terrebonne Parish, LA</p> <p>Coastal Protection and Restoration Authority 1440 Tiger Dr., Suite B Thibodaux, LA 70301 Brian Babin 985.447.0956</p>	<p>Increased Atchafalaya River flow and marine traffic through the Gulf Intracoastal Waterway (GIWW) has resulted in breaches along the shoreline bank and subsequent scouring of the interior marshes. The project intends to address these causes of land loss by stabilizing the most severely degraded areas of the bank. Due to very poor soil conditions in this area, a large portion of the originally constructed dike has experienced significant settlement in several areas. Several areas of concern have been identified that could potentially create conditions that would allow for floating marsh behind the structure to move into the GIWW in addition to increased erosion. The intent of this maintenance event is to provide a structure that is approximately 300 linear feet in length that would protect these areas and prevent further erosion.</p> <p>Due to the poor soil conditions, recapping the existing structure with additional rip-rap was ruled out and a unique solution was required. TBS designed this shoreline protection project using EcoBales, manufactured by Martin Ecosystems. This product is made up of recycled plastic is a green alternative to standard shoreline protection materials. It collects sediment and supports aquatic ecosystems, thus classified as a living shoreline alternative.</p> <p><b>TBS provided the following services:</b></p> <ul style="list-style-type: none"> <li>• Topographic and Bathymetric Surveying</li> <li>• Environmental Permitting</li> <li>• Engineering Design</li> <li>• Bidding</li> </ul> <p>This project was studied and preliminarily designed for application into the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) program.</p> <div style="text-align: center;">  <p>GIWW</p> </div>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2021 (actual)	\$500,000	\$500,000

**TEC Professional Services Questionnaire**

**L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.**

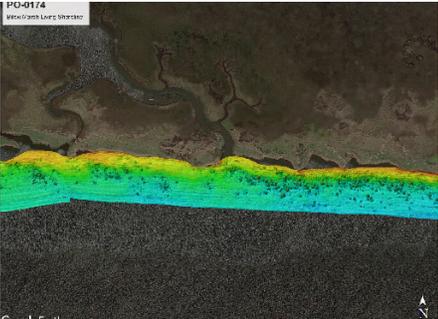
**PROJECT NO. 5**

<p>Project Name, Location and Owner's contact information:</p>	<p align="center">Nature of Firm's Responsibility:</p>	
<p><b>Bayou Dularge Marsh, Ridge &amp; Hydrologic Restoration Project</b> Terrebonne Parish, LA</p> <p>Natural Resources Conservation Service 3737 Government St. Alexandria, LA 71302 Brandon Samson 318.473.7751</p>  <p align="center">Bayou Dularge Project Site</p>	<p>The major objective of this restoration project is to use borrow material from Lake Mechant to create and nourish marsh on the south side of Bayou Dularge; restore the ridge along the southern bank line of Bayou Dularge; and reestablish historic hydrologic and salinity conditions by installing a structure that reduces the cross section of Grand Pass and the intrusion of Gulf marine waters into the project area. Sediments will be hydraulically excavated from Lake Mechant and placed to create marsh habitat in current open water and to nourish existing fragmented marsh. The marsh creation areas will utilize earthen containment dikes, existing marsh and/or partial containment features to control hydraulically excavated material. A project map showing preliminary marsh creation / nourishment areas, preliminary borrow area, structure location, and ridge restoration area can be found in the government furnished information. This preliminary layout avoids known cultural resource sites, avoids oyster seed grounds, and minimizes disturbance to oyster leases, and attempts to reduce conflicts with known pipelines.</p> <p>Preliminary features are as follows:</p> <ul style="list-style-type: none"> <li>• Ridge Restoration- Approximately 33,208 feet in length.</li> <li>• Marsh Creation- create/nourish 661 acres.</li> <li>• Water Control Structure- Reduce Grand Pass from 45 feet deep and 900 feet wide to 15 feet deep and 125 feet wide.</li> </ul> <p>TBS services included topographic, hydrographic, geophysical, hazard investigation, and LiDAR surveying services across the project area. In addition, TBS is providing coastal engineering support, hydrodynamic monitoring, and oyster surveys on the project.</p> <p><b>TBS provided the following services:</b></p> <ul style="list-style-type: none"> <li>• Topographic Survey</li> <li>• Hydrographic Survey</li> <li>• Geophysical</li> <li>• Hazard Investigation</li> <li>• LiDAR Survey</li> <li>• Coastal Engineering Support</li> <li>• Hydrodynamic Monitoring</li> <li>• Oyster Surveys</li> </ul>	
<p align="center">Completion Date (Actual or estimated):</p>	<p align="center">Estimated Cost:</p>	
<p align="center">2026 (estimated)</p>	<p align="center">Entire Project:</p> <p align="center">\$60,000,000 (estimated)</p>	<p align="center">Work for which Firm was Responsible:</p> <p align="center">\$537,700 (fees)</p>

**TEC Professional Services Questionnaire**

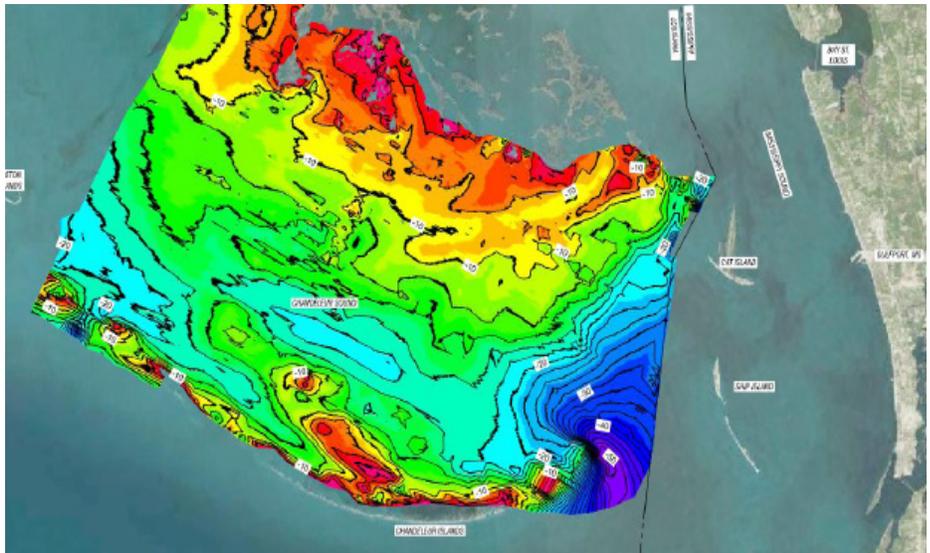
**L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.**

**PROJECT NO. 6**

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Biloxi Marsh Living Shoreline Project (PO-174)</b>                      St. Bernard Parish, LA</p> <p>Coastal Protection and Restoration Authority                      150 Terrace Avenue                      Baton Rouge, LA 70802                      Micaela Coner                      225.342.6307</p>  <p align="center">Biloxi Marsh Living Shoreline Project Site</p>  <p align="center">Biloxi Marsh Living Shoreline LiDAR Map</p>	<p>The Biloxi Marsh Living Shoreline Project is located along the eastern shore of Biloxi Marsh, off the shoreline of Eloi Bay and Eloi Point, near the mouth of Bayou la Loutre in St. Bernard Parish, Louisiana. The goals of this project were to reduce shoreline erosion due to natural waves and enhance local oyster production through the implementation of marsh-fringing, bio-engineered oyster reefs to promote the formation of self-sustaining living shoreline protection structures. This project created approximately thirteen miles of oyster barrier reef. PO-0174 was sponsored by the Coastal Protection and Restoration Authority and is funded by the Resources and Ecosystems Sustainability, Tourist Opportunities and Revived Economies of the Gulf Coast States Act of 2012 (RESTORE Act). The project considered the results, performance, and cost of the adjacent Biloxi Marsh Living Shoreline Demonstration Project (PO-0148) which finished construction in the fall of 2016.</p> <p>TBS provided project control, topographic, bathymetric, hydrographic, magnetometer, and underwater obstruction surveying services for this project along with magnetic anomaly probing investigations. TBS was a sub-consultant to Mott McDonald and provided data collection tasks in support of the design of this project. TBS also provided surveying services for the design of PO-0148, which was the original project. TBS collected wave and WSEL data. TBS deployed wave gages on the protected and unprotected sides of the different types of oyster breakwater structures constructed for the PO-0148 project. These gages collect raw wave data that is processed to determine water period. TBS deployed additional gages to collect WSEL data for the project. Several innovative surveying techniques were utilized on this project to support the design process. The project area had multiple sunken stumps that were difficult to identify using standard surveying techniques. The multi-beam echo sound survey was able to clearly define these underwater obstructions. This project was flown using unmanned aerial vehicles (UAV). The UAV's are capable of collecting high quality aerial videos, aerial infrared images, and LIDAR data.</p>	
<p align="center"><b>Completion Date (Actual or estimated):</b></p>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
2018 (actual)	\$67,000,000	\$550,000 (fees)

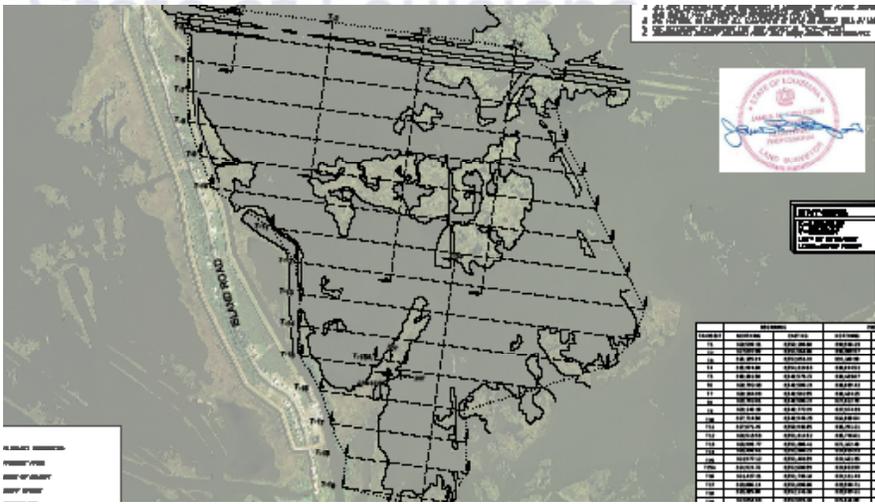
**TEC Professional Services Questionnaire**

**L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.**

PROJECT NO. 7		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>System Wide Assessment and Monitoring Program (SWAMP) Phase II</b> Orleans &amp; St. Bernard Parishes, LA</p> <p>Coastal Protection and Restoration Authority P.O. Box 44027 Baton Rouge, LA 70804 Dona Weifenbach 225.342.6307</p>	<p>TBS was selected to perform bathymetric and geophysical data collection along with basic habitat classification along 1,225 nautical miles of transects located in Chandeleur Sound and the Mississippi River Gulf Outlet. Data collection tasks included establishment of project control, bathymetric surveys, magnetometer surveys, and oyster resource surveys using a combination of side scan sonar and manual ground truthing.</p> <p>The remote location of this project required unique data collection methods. Much of the project area is in remote areas where typical RTK GPS and cell phone (C4Gnet) communication methods could not be used. For these areas, RTK GPS was used with a Broadband Global Area Network (BGAN) satellite communications system paired with Trimble Pivot Real-Time Networks Software on the hydro vessels to receive RTK data coverage across the project area. Where the BGAN satellite communications system was not applicable, Post-Processed Kinematic (PPK) survey methods were used.</p> <p><b>TBS provided the following services:</b></p> <ul style="list-style-type: none"> <li>• Fathometer Surveys (bathy)</li> <li>• Magnetometer Surveys (geophysical)</li> <li>• Side Scan Sonar (geophysical)</li> <li>• Oyster Resource (geophysical)</li> </ul>	
		
	SWAMP Project Map	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2018 (actual)	N/A	\$537,000 (fees)

**TEC Professional Services Questionnaire**

**L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.**

PROJECT NO. 8		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Island Road Marsh Creation and Nourishment (TE-0117)</b> Terrebonne Parish, LA</p> <p>Coastal Protection and Restoration Authority P.O. Box 44027 Baton Rouge, LA 70804 Jason Curole 225.342.6307</p>	<p>TBS was selected to perform topographic, bathymetric, and magnetometer surveying services to support the design of 364 acres of marsh creation and 19 acres of marsh nourishment. Specific surveying tasks included installation of a staff gauge, transects of the marsh fill and nourishment areas, hazard/magnetometer transects, pipeline location surveys, surface features and infrastructure surveys, and healthy marsh elevation surveys.</p> <p>TBS utilized innovated survey technology with in-house aerial drones to assist the CPRA project team with planning and developing locations to perform the healthy marsh elevation survey. Both video photography and infrared aeriels were collected and used in analyzing healthy marsh and detailing the containment dike alignment. Marsh bank lines were derived from the infrared data with accurate horizontal positioning. The bank line data was utilized in creating a 3D surface model for performing volumetric calculations of the fill area.</p> <p><b>TBS provided the following services:</b></p> <ul style="list-style-type: none"> <li>• Surveying services provided:</li> <li>• Marsh Creation and Nourishment Surveys (topo &amp; bathy)</li> <li>• Hazard/Magnetometer Surveys (geophysical)</li> <li>• Pipeline Location Surveys (geophysical)</li> <li>• Infrastructure Surveys (topo)</li> <li>• Marsh Elevation Surveys (topo)</li> </ul> <div style="text-align: right;">  <p>Island Road Marsh Creation Project Map</p> </div>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2016 (actual)	N/A	\$145,000 (fees)

**TEC Professional Services Questionnaire**

**L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.**

PROJECT NO. 9		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Bayou Dupont Sediment Delivery – Marsh Creation Phase III (BA-154)</b> Lafourche Parish, LA</p> <p>Coastal Protection and Restoration Authority P.O. Box 44027 Baton Rouge, LA 70804 Cathrine Ricks 225.342.6307</p>	<p>TBS provided the required surveying services, including topographic, bathymetric, and magnetometer surveys, to support the design of three (3) marsh creation cells which total approximately 415 acres in Plaquemines Parish and Jefferson Parish. The project is adjacent to the CPRA Mississippi River Sediment Delivery System – Bayou Dupont (BA-39) project, a project for which TBS also provided surveying services.</p> <p>Within the western most marsh creation area, TBS analyzed existing data collected during the Mississippi River Long Distance Sediment Pipeline Project (BA-43EB) surveyed in 2011 and compared the elevations within this area to the data collected as a part of BA-164. Since survey transects differ in location between these two projects, TBS created a 3D surface model of the BA-43EB project and cut cross sections from this model along the proposed transects being surveyed for BA-164.</p> <p>TBS performed hazard/magnetometer surveys. All anomalies were investigated using a magnetic gradiometer and probing techniques to determine if metallic objects were present. All findings were listed in table format in the plans showing point number, northing, easting, latitude, longitude, top elevation, and material that are found as well as described in the survey report as a part of the final deliverable.</p> <p><b>TBS provided the following services:</b></p> <ul style="list-style-type: none"> <li>• Right of Entry</li> <li>• Marsh Creation Surveys (topo &amp; bathy)</li> <li>• Hazard/Magnetometer Surveys (geophysical)</li> <li>• Access Route Surveys (topo &amp; bathy)</li> <li>• Marsh Elevation Surveys (topo)</li> </ul>	
		
	Bayou Dupont Project Map	
	Estimated Cost:	
Completion Date (Actual or estimated):	Entire Project:	Work for which Firm was Responsible:
2015 (actual)	N/A	\$168,000 (fees)

**TEC Professional Services Questionnaire**

**L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.**

**PROJECT NO. 10**

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Lake Villa Pond</b> Jefferson Parish, LA</p> <p>Jefferson Parish Government 9243 Gulf Beach Hwy. Cameron, LA 70631 Catherine Mayhew 713.375.5417</p> 	<p>TBS has performed consulting services and construction plan design to improve the Lake Villa Pond ecosystem and to also provide recreational enhancements to the site. In the conceptual design stage of the project, TBS prepared options for the site and provided identifying features, a conceptual rendering of the site options, and a conceptual construction cost of each site option. Goals of the project include restoration of the pond and marsh, water quality improvement, recreational site improvements and general site improvements.</p> <p>The project was split into a hydraulic connectivity project and a recreational improvement project to allow a staged construction and implementation of the improvements. The hydraulic design included a model of the pond in the existing state and with options for connectivity design to maximize water quality improvements. The model included tidal, wind, and rainfall variables that predicts dissolved oxygen over a month-long study period. Based on the results, a connection channel was designed to maximize environmental improvement while limiting the future maintenance and costs. TBS performed the construction drawing preparation and design and is assisting with the permitting. The proposed project will more than double the volume of the ponds, create a 10 foot wide connection to Lake Pontchartrain, establish new wetlands, and protect existing vegetation.</p> <p>The recreational improvements are aimed at creating a destination for interaction and education with the wetlands and lakeside environment. A new trail is proposed around the redesigned pond with two educational pavilions. A pedestrian bridge crosses over the new lake connection channel to improve accessibility. Additional trees and landscaping will improve the aesthetics of the site, increase the shaded areas, and reduce the maintenance burden by specifying native plant species.</p> <p>TBS' conceptual design deliverables were leveraged to identify and secure funding from the Flood Protection Authority and the Environmental Protection Agency Pontchartrain Restoration Program. TBS also performed the topographic and hydrographic surveying of the site for plan production and hydraulic model creation.</p> <p><b><i>This project is in the final design stage and will be bid when total construction funding has been secured.</i></b></p>	
Completion Date (Actual or estimated):	Estimated Cost:	
2025 (estimated)	Entire Project:	Work for which Firm was Responsible:
2025 (estimated)	\$1,095,700 (estimated)	\$1,095,700 (estimated)

**TEC Professional Services Questionnaire**

**M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary.**

Parties:		Status/Result of Case:
Plaintiff:	Defendant:	
Jefferson Parish Government	Swift Energy Operating, LLC; Double Eagle Marine, LLC; Tommie Vizier and Sons Towing Co, LLC; Premier Tugs, LLC; Daigle Towing Service, LLC; T. Baker Smith, LLC	Because TBS held a portion of the liability, Jefferson Parish offered a settlement, which we negotiated with them and which was approved by Jefferson Parish Council on April 30, 2014. Jefferson Parish prevailed in this litigation, which was settled out of court.

**N. Use this space to provide any additional information or description of resources supporting Firm’s qualifications for the proposed project.**

**FIRM HISTORY**

T. Baker Smith, LLC (TBS), an *Engineering News Record* Top 500 Design Firm, has provided professional engineering, environmental, surveying, and construction management services in Louisiana for over a century. TBS was founded in Houma, LA in 1913 and has since expanded to additional offices throughout the state of Louisiana as well as Texas and Mississippi. In 1936, our founder, T. Baker Smith, engineered the first paved road in Houma, LA. In the decades since then, the mission of “turning ideas into reality” for clients continues to challenge TBS’ professionals to remain on the cutting edge of technology, so that we can provide the most economically viable solutions to our clients.



TBS is dedicated to providing innovative civil engineering and design services for our clients. Our experience covers a broad range of public works, land development, industrial, pipeline, and facility projects. Our civil engineering and design services include flood protection and drainage systems, pump stations, hydraulic and hydrologic studies, water and sanitary sewer design, treatment facilities, earthwork and site developments, erosion control structures, and earthen levees.

**PROFESSIONAL TRAINING AND EXPERIENCE**

**Our Training.** Our professionals hold degrees in civil, mechanical, structural, environmental, and coastal engineering; landscape architecture; mechanical engineering technology; geomatics; industrial technology; drafting and design technology, etc. All of our professionals have proper state licenses, registrations, and certifications to provide professional services for our clients. The resumes in Section K of this TEC Professional Services Questionnaire include the professional training and experience of our carefully curated team selected for this contract.

**Our Experience.** For over a century, TBS has provided engineering, surveying, and environmental consulting services along the Gulf Coast. Headquartered in south Louisiana, TBS is dedicated to protecting and restoring our coast. TBS has provided consulting services on coastal projects in Louisiana for over three decades. The critical synergy between flood protection and coastal restoration is our solution for survival. With nine offices and over 290 associates living in our coastal Louisiana parishes, TBS brings a sense of urgency to these efforts with integrated project plans utilizing top-of-the-line technology. Our staff has been working closely with federal, state, and local stakeholders on state and local projects that enhance our coast and protect our communities. TBS has the experience, resources, local knowledge, and perhaps most importantly, the passion and sense of urgency to preserve our communities and to provide Jefferson Parish with solutions to protecting and restoring our coast.



**Jason Chauvin, PE | Coastal Engineering Lead Professional**

Jason will provide expertise for marsh and ridge restoration, shoreline stabilization and protection, beneficial use of dredge material, living shoreline design, design analysis and reports. Jason has 13 years of experience with maritime and coastal engineering projects, as well as surveying and civil projects. He oversees projects through planning, data collection, design, bidding, construction administration, and monitoring phases.

## TEC Professional Services Questionnaire

### N. Use this space to provide any additional information or description of resources supporting Firm's qualifications for the proposed project.



#### **Brady Trahan, PWS | Professional Wetland Scientist**

Brady will provide expertise for biological and environmental assessments of wetlands, technical evaluations, cost estimates, opinions of probable construction cost and field investigations. He is primarily involved in regulatory and ecological compliance for pipeline and utility corridor transmission activities, oil and gas exploration and production activities, land resource and wetland mitigation management, and commercial and large scale residential developments. Brady has fourteen years of experience in wetland delineations and mitigation, Section 10/404 permitting, Coastal Zone Management permitting, oyster assessments, and environmental site assessments.



#### **Lauren Averill, PE | Coastal Planning & Development Lead**

Lauren will provide coastal grant writing, outreach and educational support and development of associated marketing materials. She is experienced with coastal government funding strategies, project development, and has a proven track record in grant awards. She was previously an in-house contractor for the New Orleans District Corps of Engineers, including coastal restoration and hurricane restoration projects.

#### **FIRM SIZE**

In addition to your dedicated project team, TBS has over 290 staff members firm-wide including civil, structural, and environmental engineers, land surveyors, planners, landscape architecture, environmental scientists, biologists, construction administrators and project representatives. TBS has the quality and quantity of professionals to meet all of your needs, including delivering a high quality project in a compressed time period.

#### **CAPACITY FOR TIMELY COMPLETION OF PROJECTS**

TBS is committed to continuously improving project completion time and schedules. With over 290 associates and nine office locations firm-wide, we have sufficient staff and resources to handle the tasks associated with this project. Our associates range from discipline leaders and lead professionals overseeing the quality of work to project managers managing the project's progress to project technicians and assistants providing advanced technical support to get the job done. Our integral approach to projects allows us to communicate, manage, and use resources from various office locations daily. Additionally, TBS continues to recruit and employ highly qualified professionals to ensure the continued growth of the quality services we provide to our communities.

#### **PAST PERFORMANCE**

Since establishing our office in Metairie, LA, in 2015, **TBS has successfully completed 38 projects for the Jefferson Parish Government, including engineering, surveying, and environmental tasks.** TBS has successfully completed a significant number of coastal projects in the parishes of South Louisiana, including barrier island and headland restoration, beach and dune nourishment, marsh creation and nourishment, ridge restoration, living shorelines, shoreline protection, wetland mitigation, dredging, beneficial use of dredged materials, and flood protection projects including levees, flood walls, and gravity and forced drainage projects. The key TBS personnel listed in section K possess decades of experience in the preliminary planning, design, permitting, bidding, construction administration, and monitoring of coastal restoration and protection projects.

#### **LOCATION OF THE PRINCIPAL OFFICE**

TBS will manage and execute projects resulting from this request from our Metairie, LA office located at 6660 Riverside Drive, Suite 101, Metairie, LA 70003. Additional support can be provided from our other office locations as needed.

#### **LEGAL PROCEEDINGS**

As described in Section M above, TBS was involved in a legal matter with Jefferson Parish that was settled in April of 2014. TBS was named an additional party to the suit. This legal matter was not related to any parish project or contract between TBS and the parish, nor was it related to any substandard or negligent work by TBS on a parish project or contract.

#### **PRIOR SUCCESSFUL COMPLETION OF PROJECTS**

Since 1913, TBS has provided public works solutions that improved the quality of life in the communities we helped build. From master planning and sustainable design to complete project management and government regulation, our public works solutions are targeted to fit each project scope. TBS has built long-term relationships with repeat clients in the public market sector. In the past five years, TBS has worked on more than 500 projects in the public sector.

**TEC Professional Services Questionnaire**

**N. Use this space to provide any additional information or description of resources supporting Firm's qualifications for the proposed project.**

The projects highlighted in Section L above showcase our ability to complete coastal projects of varying scales and complexity.

**MINIMUM REQUIREMENTS**

Requirement	TBS Associate
1. The persons or firms under consideration shall have at least one (1) principal who is a licensed, registered architect or a professional engineer in the State of Louisiana.	Kenneth Wm. Smith, PE, PLS, FACEC Chief Executive Officer LA PE 24642
2. A professional in charge of the project who is a professional engineer who shall be registered as such in Louisiana with a minimum of five (5) years' experience in the disciplines involved.	Jason Chauvin, PE, MS Lead Professional, Coastal Engineering LA PE 39979
3. One employee who is a professional engineer registered in Louisiana in the field or fields of expertise required for the project (A sub-consultant may meet the requirement only if the advertised project involves more than one discipline.)	Denton Graham, PE Coastal Engineer LA PE 46385

**CONCLUSION | EXPERIENCE WITH COASTAL IMPROVEMENT PROJECTS**

For over a century, TBS has provided professional design and consulting solutions in south Louisiana. Our experience, resources, enthusiasm, and commitment to excellence uniquely qualify us to provide the high level of service required for this type of project. While evaluating TBS' qualifications, please consider the following unique qualities of our firm that will be an asset to Jefferson Parish:

- TBS has the resources and equipment to perform the services requested, plus additional innovative technology.
- TBS is a fully integrated firm with coastal engineers, environmental professionals, and surveyors working together to execute task orders successfully.
- TBS is a Louisiana-owned and operated consulting firm with professionals and field staff in six coastal parishes, including Jefferson Parish.

**TBS Local Public Agency Clients**

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Acadiana Planning Commission</li> <li>• Ascension Parish Government</li> <li>• Bayou Lafourche Fresh Water District</li> <li>• Bayou L'Ourse Gravity Drainage District #1</li> <li>• City of Alexandria</li> <li>• East Baton Rouge Parish</li> <li>• City of Central</li> <li>• City of Covington</li> <li>• City of Kenner</li> <li>• City of Mandeville</li> <li>• City of Harahan</li> <li>• City of New Orleans</li> <li>• City of Thibodaux</li> <li>• City of West Monroe</li> <li>• Consolidated Gravity Drainage District No. 2 of St. Mary Parish</li> <li>• Flood Protection Authority-East</li> <li>• Houma-Terrebonne Airport Commission</li> <li>• Lafayette Consolidated Government</li> <li>• Lafayette Parish School System</li> <li>• Lafourche Parish Government</li> <li>• Lafourche Parish Water District No. 1</li> <li>• Morgan City Harbor and Terminal District</li> </ul> | <ul style="list-style-type: none"> <li>• North Lafourche Conservation, Levee, and Drainage District</li> <li>• Plaquemines Port Harbor &amp; Terminal District</li> <li>• Port of Brownsville</li> <li>• Port of Corpus Christi Authority</li> <li>• Port of Galveston</li> <li>• Port of Houston Authority</li> <li>• Port of New Orleans</li> <li>• Port of South Louisiana</li> <li>• St. Charles Parish</li> <li>• St. James Parish Council</li> <li>• St. Mary Levee District</li> <li>• St. Mary Parish Government</li> <li>• St. Mary Parish Water &amp; Sewer Commission No. 1</li> <li>• St. Mary Parish Water &amp; Sewer Commission No. 4</li> <li>• St. Tammany Parish Government</li> <li>• Tangipahoa Parish Government</li> <li>• Terrebonne Levee &amp; Conservation District</li> <li>• Terrebonne Parish Consolidated Government</li> <li>• Terrebonne Port Commission</li> <li>• Town of Grand Isle</li> <li>• Town of Lockport</li> <li>• Jefferson Parish Government</li> </ul> |
|--|--|

**TEC Professional Services Questionnaire**

**N. Use this space to provide any additional information or description of resources supporting Firm's qualifications for the proposed project.**



**O. To the best of my knowledge, the foregoing is an accurate statement of facts.**

Signature: *Brian E. Moldaner*

Print Name: Brian E. Moldaner, PE, MBA

Title: Chief Growth Officer

Date: 07.16.2024



**Ardaman & Associates, Inc.**  
**TEC Professional Services Questionnaire**

**Technical Evaluation Committee (TEC) Questionnaire**  
**Instructions**

- The Technical Evaluation Committee (TEC) Questionnaire shall be used for professional services related to architecture, engineering, or survey projects.
- **The TEC Questionnaire should be completely filled out. Complete and attach ALL sections. Insert “N/A” or “None” if a section does not apply or if there is no information to provide.**
- Questionnaire must be signed by an authorized representative of the Firm. Failure to sign the questionnaire shall result in disqualification of proposer pursuant to J.P. Code of Ordinances Sec. 2-928.
- All subcontractors must be listed in the appropriate section of the Questionnaire. Each subcontractor must provide a complete copy of the TEC Questionnaire, applicable licenses, and any other information required by the advertisement. Failure to provide the subcontractors' complete questionnaire(s), applicable licenses, and any other information required by the advertisement shall result in disqualification of proposer pursuant to J.P. Code of Ordinances Sec. 2-928.
- If additional pages are needed, attach them to the questionnaire and include all applicable information that is required by the questionnaire.

## TEC Professional Services Questionnaire

**A. Project Name and Advertisement Resolution Number:**

SOQQ#24-020  
 Coastal Engineering Consulting Services as needed parish wide  
 Resolution No. 144205

**B. Firm Name & Address:**

Ardaman & Associates, Inc.  
 101 Teal Street  
 St. Rose, LA 70087

**C. Name, title and contact information of Principal, as defined in Section 2-926 of the Jefferson Parish Code of Ordinances, who is a registered, licensed architect, professional engineer, or surveyor in the State of Louisiana:**

Robert Rousset, P.E.  
 Vice President | Regional Manager  
 RRousset@ardaman.com  
 (504) 835-2593

**D. Name and contact information of employee who is a registered and licensed architect, professional engineer, or surveyor in the State of Louisiana in the applicable discipline. A subcontractor may be substituted here only if the advertised Project requires more than one discipline.**

Robert Rousset, P.E.  
 Vice President | Regional Manager  
 RRousset@ardaman.com  
 (504) 835-2593

**E. Please provide the number of employees whose primary function corresponds with each category:**

<u>6</u> Administrative	<u>    </u> Estimators	<u>    </u> Specification Writers
<u>    </u> Architects (Licensed)	<u>1</u> Geologists	<u>    </u> Structural Engineers
<u>    </u> Chemical Engineers	<u>8</u> Geotechnical Engineers	<u>    </u> Graduate Engineers
<u>    </u> Civil Engineers	<u>    </u> Interior Designers	<u>    </u> Project Managers
<u>5</u> Construction Inspectors	<u>    </u> Landscape Architects	<u>    </u> Clerical
<u>    </u> Ecologists	<u>    </u> Land Surveyor	<u>    </u> Grant/Funding Specialist
<u>    </u> Electrical Engineers	<u>    </u> Mechanical Engineers	<u>    </u> Sanitary Engineers
<u>7</u> Engineer Intern	<u>    </u> Environmental Engineers	
<u>    </u> Professional Land Surveyors		<u>27</u> <b>TOTAL</b>

**F. Is this submittal by a JOINT-VENTURE? Please check: YES                      NO**

**If marked “No” skip to Section I. If marked “yes” complete Sections G-H.**





## TEC Professional Services Questionnaire

**K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e. resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.**

### **PROFESSIONAL IN CHARGE OF PROJECT:**

**Name & Title:**

Robert Rousset, P.E.  
Vice President | Regional Manager

**Project Assignment:**

Program Manager / Geotechnical Engineering

**Name of Firm with which associated:**

Ardaman & Associates, Inc.

**Years' experience with this Firm:**

18

**Education: Degree(s)/Year/Specialization:**

B.S. / 2008 / Civil Engineering

**Active registration: Year first registered/discipline:**

2014 / Civil

**Other experience and qualifications relevant to the proposed Project:**

**HOUMA NAVIGATION CANAL LOCK COMPLEX – GEOTECHNICAL INVESTIGATION, 15% DESIGN, 60% DESIGN, PILE LOAD TEST PROGRAM, Terrebonne Parish, LA (Ongoing) Project Manager.** Mr. Rousset was project manager during all phases of this project including the pile load test program. Mr. Rousset managed the review of existing geotechnical data and implementation of a phased approach to conduct the field investigation to obtain additional subsurface data, while maintaining the aggressive project schedule. He also oversaw laboratory testing conducted on the soil borings obtained during the field investigation, the geotechnical engineering analyses, development of conclusions and recommendations, and final report preparation. This project also included several mitigation marsh creation areas.

**WEST FOURCHON MARSH CREATION & NOURISHMENT (TE-134) Lafourche Parish, LA (2022) Project Manager.** Project will create approximately 302 acres of saline intertidal marsh and nourish about 312 acres of emergent marsh using material dredged from the Gulf of Mexico. The project area will be confined by earthen containment dikes and other features along deep-water channels. Mr. Rousset served as Project Manager for this project, in this capacity he coordinated all fieldwork, laboratory testing, and engineering analyses. An alternative borrow source had been identified for the project and Ardaman was reengaged to perform additional borrow investigation and update our marsh creation area analyses. Mr. Rousset served as the Project Manager for this new phase.



## TEC Professional Services Questionnaire

### **K. PROFESSIONAL IN CHARGE OF PROJECT**

*(Robert Rousset, P.E. continued):*

#### **Other experience and qualifications relevant to the proposed Project:**

**MID-BRETON SEDIMENT DIVERSION** Plaquemines Parish, LA, CPRA (Sub to Stantec), (Ongoing) *Project Manager.* Mr. Rousset serves as Project Manager for CPRA's Mid-Breton Sediment Diversion Project which will reconnect the Mississippi River to the deteriorating deltaic wetlands in the Breton Sound Basin. This project includes a control structure in the mainline levee along the Mississippi River. The project also includes an associated river inlet channel, a conveyance channel across the protected landside area, and a back structure through the existing hurricane surge protection levee.

**MID-BARATARIA SEDIMENT DIVERSION CMAR PROJECT**, Plaquemines Parish, LA, CPRA, (Sub to Archer Western – Alberici), (Ongoing) *Project Manager.* Served on the Construction Management At-Risk (CMAR) services for the Mid-Barataria Diversion Project. The Mid-Barataria Sediment Diversion will provide sediment, water, and nutrients from the Mississippi River to the Barataria Basin to build, maintain, and sustain wetlands.

**BAYOU LAFOURCHE MARSH CREATION**, Lafourche Parish, LA, T. Baker Smith, (2019) *Project Manager.* This project will create approximately 200 acres of new marsh in south-central Lafourche Parish using material dredged from Bayou Lafourche. Mr. Rousset served as Project Manager for this project, in this capacity he coordinates all fieldwork, laboratory testing, and engineering analyses.

**PORT FOURCHON MITIGATION PROJECT**, Lafourche Parish, (2021 to 2022) *Project Manager.* The site is located in Lafourche Parish, Louisiana, approximately 1 mile north of Port Fourchon, and east of Bayou Lafourche. The mitigation bank was hydraulically filled with dredge material from Bayou Lafourche. Ardaman provided settlement calculation and curves for target elevations between EL. 1.75 and El. 2.25 after 20 years.

**ENTERGY MARSH CREATION**, Lafourche Parish (2020 to 2021) *Project Manager.* The project consists of approximately 4 acres of marsh creation and mitigation on the south side of the existing Tidewater Canal along Bayou Lafourche in Lafourche Parish, Louisiana. The project is comprised of two (2) potential borrow areas, and six (6) creation and mitigation areas. The source material from the borrow areas will be hydraulically dredged from the borrow site(s) and placed within the individual marsh creation and mitigation areas

**NO NAME BAYOU MARSH CREATION & NOURISHMENT (CS-78)**, Cameron Parish, LA (2019) *Project Manager.* The No Name Bayou Marsh Creation and Nourishment project will create approximately 502 acres of marsh, 10 acres of creeks/ponds and nourish 21 acres of existing marsh. Marshland will be created and nourished by hydraulically dredging select fill material and placing it within the marsh creation area, which will have earthen containment dikes around the perimeter in order to keep this material in place as it settles out of suspension and builds land back up. Mr. Rousset served as Project Manager for this project, in this capacity he coordinated all fieldwork, laboratory testing, and engineering analyses.

**CALCASIEU SHIP CHANNEL SALINITY CONTROL MEASURES PLANNING & FEASIBILITY PHASE**, Cameron & Calcasieu Parish, LA (2019) *Project Manager.* The project aims to limit saltwater intrusion and reduce land loss across various bayous, marshes, and lakes within the vicinity of the Calcasieu Ship Channel (CSC), located across Cameron and Calcasieu Parish. Stretching across 20 miles, the project consists of various sill structures, erosion control measures, and channelization structures. Mr. Rousset served as project manager for this project where he coordinated all field investigation(s), laboratory testing, and geotechnical engineering analyses.

**COLE'S BAYOU MARSH RESTORATION (TV-63)**, Vermillion Parish, LA, CPRA (2013) *Project Manager.* The Cole's Bayou Marsh Restoration project consists of the creation of approximately 365 acres of brackish marsh, the nourishment of approximately 53 acres of existing brackish marsh, and the increase of freshwater and sediment inflow into the project area. Mr. Rousset served as Project Manager for the project that included field and laboratory data collection phase consisting of performing a total of 26 soil borings (B-01 through B-26) to depths ranging from 20 to 80 feet below the existing mudline at locations established by the Coastal Protection and Restoration Authority (CPRA).

**FRONT RIDGE CHENIER TERRACING, COASTAL LOUISIANA PHASE I ENGINEERING & DESIGN (TV-60)**, Vermillion Parish, LA, CPRA, (2012) *Project Manager.* A CDBG-funded project stretching along the south side of Front Ridge Road 1.6 miles, the objective is to create terracing to reduce wave fetch, reestablish emergent marsh and prevent further deterioration to the shoreline of the Front Ridge community. Mr. Rousset served as Project Manager for the geotechnical investigation which included contacting landowners and acquiring documented access permission, notification, and coordination with the USACE; and utility location for the borings. Ardaman conducted 10 borings at the site to a depth of 40 feet and GPS data was collected for each boring location. Subsequent to the laboratory testing, engineering analyses were performed with regard to earthen terraces that included maximum construction elevation, acceptable side slopes, acceptable crown width, offset distance, consolidation during construction sequencing recommendations, and cut/fill ratios. Recommendations were presented in a final report to the client.

**OYSTER BAYOU MARSH RESTORATION (CS-59)**, Cameron Parish, LA, CPRA, (2012) *Project Manager.* Approximately 510 acres of marsh will be created, and 90 acres will be nourished by hydraulically dredging material from the Gulf of Mexico and pumping it to the designated fill area. Also, approximately 14,140 LF of earthen terraces will be constructed and planted. Mr. Rousset served as Project Manager for the geotechnical investigation, laboratory testing, and geotechnical analyses associated with the proposed project features.



## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Mark Woodward, P.E. Principal Engineer
<b>Project Assignment:</b>
Senior Geotechnical Engineer
<b>Name of Firm with which associated:</b>
Ardaman & Associates, Inc.
<b>Years' experience with this Firm:</b>
6
<b>Education: Degree(s)/Year/Specialization:</b>
M.S. / 2019 / Risk Management M.E. / 1986 / Civil Engineering B.S. / 1982 / Civil Engineering
<b>Active registration: Year first registered/discipline:</b>
1991 / Civil
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b>MISSISSIPPI RIVER AND TRIBUTARIES PROJECT – GEOTECHNICAL INVESTIGATION, DESIGN AND CONSTRUCTION OVERSIGHT, (2018)</b> <i>Senior Geotechnical Engineer.</i> Mr. Woodward conducted or oversaw the review of existing geotechnical data and implementation of field investigation to obtain subsurface data, selection and reduction of laboratory testing, geotechnical engineering analyses, development of conclusions and recommendations, final report preparation and construction oversight for over 50 levee and floodwall projects on the Mississippi River and Atchafalaya Basin. Responsible for providing final geotechnical approval of 1,000 permits a year for construction activities on and around levees.</p> <p><b>LEEVE SAFETY PROGRAM, (2018)</b> <i>Levee Safety Program Manager.</i> Mr. Woodward served as the USACE New Orleans District Levee Safety Program Manager for over four years, responsible for Levee Evaluation Reports for Levee Certifications and the National Flood Insurance Program, Levee Inspection Reports on over 1,300 miles of levee on an annual basis, Risk Assessments and Communication for all levees in the district's jurisdiction; Was also responsible for final Section 408 permitting approval to ensure that construction activities do not increase risk or diminish function of levees and do not cause harm to the public. Teamed with flood risk management, led potential failure mode analysis, participated in probable failure mode analysis (PFMA), prepared event trees, oversaw and performed review of Risk Analysis (RA) reports for other Districts. Completed Post Baccalaureate Certificate in Risk Assessment and Management from Notre Dame of Maryland University in 2017 and completed requirements for master's degree in risk management in May 2019.</p> <p><b>HSDRRS, New Orleans Metro Area, LA (2018)</b> <i>Supervisory Geotechnical Engineer.</i> Mr. Woodward provided Senior Consistency Review for Geotechnical work product performed by A/E firms and other Corps Districts for the entire Hurricane Storm Surge Risk Reduction System. He was also responsible for the geotechnical design of 15 miles of HSDDRS from Bayou Segnette to Harvey Canal. Included use of numerical modeling programs like Plaxis and Flac using various constitutive clay and sand models as well as Slope/W.</p>



## TEC Professional Services Questionnaire

### **KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**

*(Mark Woodward, P.E. continued):*

#### **Other experience and qualifications relevant to the proposed Project:**

**CALCASIEU SHIP CHANNEL SALINITY CONTROL MEASURES PLANNING & FEASIBILITY PHASE (CS-0065), Cameron & Calcasieu Parish, LA (2019)***Principal Geotechnical Engineer.* The project aimed to limit saltwater intrusion and reduce land loss across various bayous, marshes, and lakes within the vicinity of the Calcasieu Ship Channel (CSC), located across Cameron and Calcasieu Parish. Stretching across 20 miles, the project consisted of various sill structures, erosion control measures, and channelization structures. Mr. Woodward served as Principal Geotechnical Engineer for this project; in this capacity he reviewed all fieldwork, laboratory testing, engineering analyses, and Geotechnical Report.

**HOUMA NAVIGATION CANAL – MITIGATION MARSH CREATION, Terrebonne Parish, LA (Ongoing)***Principal Geotechnical Engineer.* This project will create approximately 194 acres of new marsh using hydraulically dredged material from the Houma Navigation Canal. The project area will be confined by earthen containment dikes. Mr. Woodward serves as Principal Geotechnical Engineer for this project; in this capacity he reviews all fieldwork, laboratory testing, engineering analyses, and Geotechnical Report.

**WEST FOURCHON MARSH CREATION & NOURISHMENT (TE-134) Lafourche Parish, LA (2022)***Principal Geotechnical Engineer.* This project created approximately 302 acres of saline intertidal marsh and nourished about 312 acres of emergent marsh using material dredged from the Gulf of Mexico. The project area was confined by earthen containment dikes and other features along deep-water channels. Mr. Woodward served as Principal Geotechnical Engineer for this project; in this capacity he reviewed all fieldwork, laboratory testing, engineering analyses, and Geotechnical Reports.

**CAMINADA HEADLANDS BACK BARRIER MARSH CREATION INCREMENT II (BA-193), Lafourche Parish, LA (2018)***Principal Geotechnical Engineer.* This project created approximately 444 acres of emergent marsh using material dredged from the Gulf of Mexico. The project area was confined by earthen containment dikes. Mr. Woodward served as Principal Geotechnical Engineer for this project; in this capacity he reviewed all fieldwork, laboratory testing, engineering analyses, and Geotechnical Report.

**NO NAME BAYOU MARSH CREATION & NOURISHMENT (CS-78), Cameron Parish, LA (2019)***Principal Geotechnical Engineer.* The No Name Bayou Marsh Creation and Nourishment project will create approximately 502 acres of marsh, 10 acres of creeks/ponds, and nourish 21 acres of existing marsh. Marshland will be created and nourished by hydraulically dredging select fill material and placing it within a marsh creation area, which will have earthen containment dikes around the perimeter to keep this material in place as it settles out of suspension and builds land back up. Mr. Woodward serves as Principal Geotechnical Engineer for this project; in this capacity he provides oversight for fieldwork coordination, laboratory testing, and engineering analyses; analyses included slope stability analyses for the containment dikes and closure structures, determination of cut-to-fill ratios, determination of consolidation settlements for the subsurface soils, and determination of self-weight consolidation for the borrow material.

**MID-BRETON SEDIMENT DIVERSION Plaquemines Parish, LA (2018 to Present)***Senior Geotechnical Engineer.* Mr. Woodward serves as the Geotechnical Engineer of Record for CPRA's Mid-Breton Sediment Diversion Project which will reconnect the Mississippi River to the deteriorating deltaic wetlands in the Breton Sound Basin. This project includes a control structure in the mainline levee along the Mississippi River. The project also includes an associated river inlet channel, a conveyance channel across the protected landside area, and a back structure through the existing hurricane surge protection levee.

**MID-BARATARIA SEDIMENT DIVERSION CMAR TEAM, Plaquemines Parish, LA (2018 to Present)***Senior Geotechnical Engineer.* Mr. Woodward serves as the senior geotechnical engineer on the Construction Manager At-Risk (CMAR) services for the Mid-Barataria Diversion Project. The Mid-Barataria Sediment Diversion will provide sediment, water and nutrients from the Mississippi River to the Barataria Basin to build, maintain, and sustain wetlands. The Mid-Barataria Sediment Diversion Project which will reconnect the Mississippi River to the deteriorating deltaic wetlands in the Mid-Barataria Basin. This project includes a control structure in the mainline levee along the Mississippi River. The project also includes an associated river inlet channel, a conveyance channel across the protected landside area, and a back structure through the existing hurricane surge protection levee. Mr. Woodward Provided geotechnical input into dewatering, pump platforms, borrow suitability, stability, seepage and settlement for interim Mississippi River Levee, and designed slope for 50-foot-deep dry excavation.

**WEST SHORE PUMP STATIONS, United States Army Corps of Engineers, St. Charles Parish, LA (2020 to Present)***Principal Engineer.* The West Shore Lake Pontchartrain Project consists of a new HSDRRS-DG levee along the west shore of Lake Pontchartrain for flood protection of the local communities. The new construction will include earthen levees, T-Walls, pump stations, and canals. Mr. Woodward oversaw the field investigation and laboratory testing in accordance with U.S. Army Corps of Engineers standards and manages all engineering analyses, which consists of slope stability, seepage, settlement, unbalanced load analyses, and pile capacities to date.

**ENTERGY MARSH CREATION, Lafourche Parish, LA (2020 to 2021)***Principal Geotechnical Engineer.* The project consisted of approximately 4 acres of marsh creation and mitigation on the south side of the existing Tidewater Canal along Bayou Lafourche in Lafourche Parish, Louisiana. The project was comprised of two (2) potential borrow areas and six (6) marsh creation and mitigation areas. The source material from the borrow areas will be hydraulically dredged from the borrow site(s) and placed within the individual marsh creation and mitigation areas. Mr. Woodward served as Principal Geotechnical Engineer for this project; in this capacity he reviewed all fieldwork, laboratory testing, engineering analyses, and Geotechnical Report.



## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Peter Cali, Ph.D., P.E. Senior Geotechnical Engineer
<b>Project Assignment:</b>
Senior Geotechnical Engineer
<b>Name of Firm with which associated:</b>
Ardaman & Associates, Inc.
<b>Years' experience with this Firm:</b>
7
<b>Education: Degree(s)/Year/Specialization:</b>
Ph.D. / 1995 / Civil and Environmental Engineering M.S.C.E. / 1977 / Civil Engineering B.S.C.E. / 1973 / Civil Engineering
<b>Active registration: Year first registered/discipline:</b>
1977 / Civil
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b>MID-BARATARIA SEDIMENT DIVERSION CMAR PROJECT, CPRA, Plaquemines Parish, LA (Ongoing) Seepage Barrier Expert.</b> Dr. Cali conducts independent technical review of the design and construction means and methods, offering expert consultation to ensure that all work is compliant with best industry practice. He reviews contractor submittals and Value Engineering proposals for technical adequacy and reviews construction for compliance with the specifications, and he advised the District on technical issues.</p> <p><b>COMITE RIVER DIVERSION AND LILLY BAYOU CONTROL STRUCTURE, USACE/State of Louisiana, Zachary, LA Lead Geotechnical Engineer.</b> Dr. Cali managed the subsurface investigation and testing program; oversaw the foundation design for the Lilly Bayou Control Structure and four associated drop structures; and analyses for design of the Comite Diversion Channel slopes.</p> <p><b>WEST POINTE-A-LA-HACHE FRESHWATER DIVERSION SIPHON, USACE/State of Louisiana, Plaquemines Parish, LA Lead Geotechnical Engineer.</b> Dr. Cali managed the subsurface investigation and testing program and the foundation design for installation of eight large diameter siphon lines over the Mississippi River Levee.</p> <p><b>HOUMA NAVIGATION CANAL LOCK, CPRA, Houma, LA Senior Geotechnical Consultant.</b> As a consultant to the subcontracted geotechnical engineering firm, Dr. Cali provides technical review and geotechnical design guidance for the geotechnical aspects of the project. This purpose of this project is to design the replacement lock and floodwall to upgrade the Houma Navigation Canal flood protection to withstand the 100-year storm event.</p>



## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

*(Peter Cali, Ph.D., P.E. continued):*

#### **Other experience and qualifications relevant to the proposed Project:**

**HURRICANE & STORM DAMAGE RISK REDUCTION SYSTEM, USACE, NEW ORLEANS DISTRICT, New Orleans, LA** *Lead Geotechnical Engineer.* Post-Hurricane Katrina, USACE, Task Force Guardian and Hurricane Protection Office were charged with the reconstruction of the hurricane protection system and new construction of the 100-year storm Hurricane and Storm Damage Risk Reduction System. Dr. Cali served as the Lead Geotechnical Engineer for TFG & HPO, responsible for administration of dozens of multi-million dollar contracts performed by private industry for geotechnical exploration, testing, design, risk assessment and construction of the system of levees, floodwalls, structures, and pump stations. The purpose of this project was to improve the grade, performance, and stability of the levees, floodwalls, and pumping stations within the Hurricane & Storm Damage Risk Reduction system.

**CHIEF, DAMS, LEVEES, AND CHANNELS SECTION, USACE NEW ORLEANS DISTRICT, GEOTECHNICAL BRANCH New Orleans, LA (1997-2006)** *USACE Design Section Chief and Dam Safety Program Manager.* Directed 16 in-house professionals and contract resources for subsurface investigation and testing, and for geotechnical and geo-environmental design for the New Orleans District; responsible for the design and inspection of the District's dams, levee, and floodwalls; served as the District's Dam Safety Program Manager

**HERBERT HOOVER DIKE, GAP CLOSURE AND CUTOFF WALL EXTENSION, USACE JACKSONVILLE DISTRICT, Lake Okeechobee, FL (2007-2012;2017-Present)** *Seepage Barrier Expert.* Dr. Cali conducts independent technical review of the design and construction means and methods, offering expert consultation to ensure that all work is compliant with best industry practice. He reviews contractor submittals and Value Engineering proposals for technical adequacy and reviews construction for compliance with the specifications, and he advised the District on technical issues

**ADDICKS & BARKER DAMS, NEW OUTLET STRUCTURES & SEEPAGE CUTOFF WALL, Houston, TX (2016-Present)** *Dam Safety and Seepage Cutoff Wall Expert Consultant.* Dr. Cali conducts independent review of the Corps' design and the contractor's construction means and methods, offering expert consultation on seepage cutoff wall construction, earthwork construction and other geotechnical matters. He proposed to the Corps a change to the cement bentonite design mix and an alternative method for calculating the hydraulic conductivity of the cutoff wall to break a contractual impasse that was resulting in non-compliance with the cutoff wall specifications.



## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Robert Jewell, P.E. Vice President   Branch Manager
<b>Project Assignment:</b>
Project Engineer
<b>Name of Firm with which associated:</b>
Ardaman & Associates, Inc.
<b>Years' experience with this Firm:</b>
17
<b>Education: Degree(s)/Year/Specialization:</b>
B.S. / 2009 / Civil Engineering
<b>Active registration: Year first registered/discipline:</b>
2013 / Civil
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b>HOUMA NAVIGATION CANAL LOCK COMPLEX - GEOTECHNICAL INVESTIGATION, Terrebonne Parish, LA (2015 - Ongoing) <i>Project Engineer.</i></b> Mr. Jewell assisted in performing GRL WEAP analyses for various pile foundation types.</p> <p><b>RABBIT ISLAND RESTORATION PROJECT, Cameron Parish, LA (2014) <i>Project Manager.</i></b> Project consisted of the restoration of approximately 200 acres of pelican nesting habitat in south-central Cameron Parish using hydraulically dredged material from a nearby borrow site within the Calcasieu Ship Channel. Mr. Jewell coordinated and managed the field crew to complete the geotechnical field investigation. He also performed internal technical review of design analyses and reports.</p> <p><b>MADISON BAY MARSH CREATION &amp; TERRACING (TE-51), CPRA, Terrebonne Parish, LA (2012) <i>Project Engineer.</i></b> The Madison Bay Marsh Creation and Terracing project (Alternative I) consisted of the creation of approximately 450 acres of emergent marsh with material hydraulically dredged from Madison Bay. Ardaman initially conducted 9 borings to a depth of 60 feet and 7 borings to a depth of 40 feet utilizing an airboat-mounted drill rig with GPS data collected for each boring location. Ardaman also performed the laboratory tests (undrained shear strength, classification, and consolidation tests) in accordance with ASTM standards. Engineering analyses were performed with regard to earthen containment levee and terrace design that included containment dike analysis, containment dike time to settle to average marsh elevation, and terracing analysis. Recommendations included maximum construction elevation, acceptable side slopes, acceptable crown widths, consolidation during construction, settlement curves, slope stability analysis, cut/fill ratio for construction, and construction sequencing. Mr. Jewell assisted with design analyses for the project.</p>



## TEC Professional Services Questionnaire

### **KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**

*(Robert Jewell, P.E. continued):*

#### **Other experience and qualifications relevant to the proposed Project:**

**LA 1 – PHASE 1, SP No. 700-29-0112, Onsite, Lafourche Parish, LA (2003 – 2011) *Project Engineer.*** Mr. Jewell served in the field as geotechnical engineer for this long-term project in coastal Louisiana. He was onsite 24 hours for a rotating shift of 7 days on/off during installation of piles for the new elevated highway. The project consisted of driving 24-inch square PPC piles with mechanical splices up to 170 feet in length. A minimum of one pile per bridge bent was selected for initial drive monitoring and restrike monitoring with the PDA. Several hundred PDA monitoring events were performed on this project. Mr. Jewell's experience with this project consists of conducting dynamic monitoring using the Pile Driving Analyzer during initial drive and restrikes, monitoring driving stresses and issuing recommendations in the field when necessary, performing CAPWAP analyses to confirm pile capacity, reviewing drive logs, and supervising field technicians.

**COLE'S BAYOU MARSH RESTORATION (TV-63), Vermillion Parish, LA (2013) *Project Engineer.*** The Cole's Bayou Marsh Restoration project consisted of the creation of approximately 365 acres of brackish marsh, the nourishment of approximately 53 acres of existing brackish marsh, and the increase of freshwater and sediment inflow into the project area. Mr. Jewell served as Project Engineer and performed internal technical review of design analyses and reports.



## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Megan Bourgeois, P.E. Assistant Branch Manager   Project Engineer
<b>Project Assignment:</b>
Project Engineer & Laboratory QA Officer
<b>Name of Firm with which associated:</b>
Ardaman & Associates, Inc.
<b>Years' experience with this Firm:</b>
18
<b>Education: Degree(s)/Year/Specialization:</b>
B.S. / 2006 / Civil Engineering
<b>Active registration: Year first registered/discipline:</b>
2011 / Civil
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b>NO NAME BAYOU MARSH CREATION &amp; NOURISHMENT (CS-78), Cameron Parish, LA (2019) <i>Project Engineer/Lab QA Officer.</i></b> The No Name Bayou Marsh Creation and Nourishment project will create approximately 502 acres of marsh, 10 acres of creeks/ponds, and nourish 21 acres of existing marsh. Marshland will be created and nourished by hydraulically dredging select fill material and placing it within the marsh creation area, which will have earthen containment dikes around the perimeter in order to keep this material in place as it settles out of suspension and rebuilds land. Ms. Bourgeois serves as a project engineer and provides oversight of the laboratory testing program for this project.</p> <p><b>LOUISIANA LIVING SHORELINE DEMONSTRATION, CPRA, St. Bernard Parish, LA (2021) <i>Project Engineer/Lab QA Officer.</i></b> Ardaman served as the geotechnical consultant for this project. The goal was to establish a living shoreline in the defined project area to serve as a first line of defense to aid in the prevention and reduction in the rate of erosion of the coastal marshes that sustain the Lower Biloxi Marsh. Ms. Bourgeois served as project engineer in charge of quality assurance of the extensive laboratory testing program for this project.</p> <p><b>FRONT RIDGE CHENIER TERRACING, COASTAL LOUISIANA PHASE I ENGINEERING &amp; DESIGN (TV-60), Vermillion Parish, LA (2012) <i>Project Engineer/Lab QA Officer.</i></b> The objective of this CDBG-funded project, which stretched along the south side of Front Ridge Road for 1.6 miles, was to create terracing to reduce wave fetch, reestablish emergent marsh and prevent further deterioration to the shoreline of the Front Ridge community. Ms. Bourgeois served as a project engineer and provided oversight of the extensive laboratory testing program for this project. She assisted in development of a modified consolidation testing procedure in order to capture more refined consolidation curves necessary in accurately modeling the settlement behavior of the sensitive materials for this project.</p>



## TEC Professional Services Questionnaire

### **KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**

*(Megan Bourgeois, P.E. continued):*

#### **Other experience and qualifications relevant to the proposed Project:**

**COLE'S BAYOU MARSH RESTORATION (TV-63), Vermillion Parish, LA (2013) *Project Engineer.*** The Cole's Bayou Marsh Restoration project consisted of the creation of approximately 365 acres of brackish marsh, the nourishment of approximately 53 acres of existing brackish marsh, and the increase of freshwater and sediment inflow into the project area. Ms. Bourgeois served as principal quality assurance engineer over report development and analyses. She also assisted in development of soil characterization profiles used in design.

**MADISON BAY MARSH CREATION & TERRACING (TE-51), Terrebonne Parish, LA, (2012) *Project Engineer.*** The Madison Bay Marsh Creation and Terracing project (Alternative I) consisted of the creation of approximately 450 acres of emergent marsh with material hydraulically dredged from Madison Bay and the construction of approximately 50,000 linear feet of earthen terraces throughout the proposed project area. Ms. Bourgeois served as quality assurance engineer over report development and analyses. She also assisted in development and presentation of the final project update.



## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Daniel M. Cimino, P.E. Assistant Branch Manager   Project Engineer
<b>Project Assignment:</b>
Project Engineer
<b>Name of Firm with which associated:</b>
Ardaman & Associates, Inc.
<b>Years' experience with this Firm:</b>
8
<b>Education: Degree(s)/Year/Specialization:</b>
M.S. / 2021 / Civil Engineering B.S. / 2016 / Civil and Environmental Engineering
<b>Active registration: Year first registered/discipline:</b>
2021 / Civil
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b>HOUMA NAVIGATION CANAL LOCK COMPLEX – GEOTECHNICAL INVESTIGATION, 15% DESIGN, 60% DESIGN, PILE LOAD TEST PROGRAM, Terrebonne Parish, LA (Ongoing) Assistant Project Engineer.</b> The Houma Navigation Canal Lock Complex consists of a new 800 ft. long lock system and upgrades to the existing 300 ft. wide barge-type floodgate. New construction will include T-Walls, gate monoliths, braced IHNC-type floodwalls, I-Walls, nose piers, dredging, and mitigation. Ardaman serves as the geotechnical consultant for this project. The project consists of replacing a navigation canal with a lock structure to help prevent marsh erosion due to saltwater intrusion. To date, Mr. Cimino has assisted in the laboratory sample processing and testing, performing slope stability analyses, and writing reports.</p> <p><b>WEST FOURCHON MARSH CREATION &amp; NOURISHMENT (TE-134), Lafourche Parish, LA (2022) Project Engineer.</b> Project will create approximately 302 acres of saline intertidal marsh and nourish about 312 acres of emergent marsh using material dredged from the Gulf of Mexico. The project area will be confined by earthen containment dikes and other features along deep-water channels. Currently, an alternative borrow source for nourishment material is being explored. Mr. Cimino assisted in coordinating fieldwork and laboratory testing coordination as well as performing required analyses.</p> <p><b>MID-BRETON SEDIMENT DIVERSION, CPRA, Plaquemines Parish, LA (Ongoing) Project Engineer.</b> The project consists of CPRA's Mid-Breton Sediment Diversion Project, which will reconnect the Mississippi River to the deteriorating deltaic wetlands in the Breton Sound Basin. This project includes a control structure in the mainline levee along the Mississippi River. The project also includes an associated river inlet channel, a conveyance channel across the protected landside area, and a back structure through the existing hurricane surge protection levee. To date, Mr. Cimino's roles have included assisting in coordination of permitting and fieldwork efforts, while also assisting in management of performing laboratory testing.</p>



## TEC Professional Services Questionnaire

### **KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**

*(Daniel M. Cimino, P.E. continued):*

#### **Other experience and qualifications relevant to the proposed Project:**

**MID-BARATARIA SEDIMENT DIVERSION CMAR PROJECT, CPRA, Plaquemines Parish, LA (Ongoing) Project Engineer.** The Mid-Barataria Sediment Diversion will provide sediment, water, and nutrients from the Mississippi River to the Barataria Basin to build, maintain, and sustain wetlands. Mr. Cimino performed settlement, seepage, and slope stability analyses on the Construction Management At-Risk (CMAR) services for the Mid-Barataria Diversion Project.

**WEST SHORE LAKE PONTCHARTRAIN PUMP STATIONS AND STRUCTURES, St. Charles, St. John the Baptist, and St. James Parishes, LA (2020-Present) Project Engineer.** The West Shore Lake Pontchartrain Project consists of a new HSDRRS-DG levee along the west shore of Lake Pontchartrain for flood protection of the local communities. The new construction will include earthen levees, T-Walls, pump stations, and canals. Thus far, Mr. Cimino's involvement on this project includes performing slope stability, settlement, strength gain, unbalanced load analyses, and axial pile capacity analyses.



## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b> Chris Sparnecht Construction Materials Testing (CMT) Manager / Geotechnical Laboratory Manager
<b>Project Assignment:</b> Laboratory Manager
<b>Name of Firm with which associated:</b> Ardaman & Associates, Inc.
<b>Years' experience with this Firm:</b> 3
<b>Education: Degree(s)/Year/Specialization:</b> High School Diploma
<b>Active registration: Year first registered/discipline:</b> 2012 / ACI Aggregate Testing Technician – Level 1 2010 / ACI Concrete Strength Testing Technician 2012 / ACI Concrete Laboratory Testing Technician - Level 1 2018 / ACI Aggregate Base Testing Technician Level 1
<b>Other experience and qualifications relevant to the proposed Project:</b> <p><b>INDUSTRIAL FACILITY – CONFIDENTIAL CLIENT, Port Allen, LA (2023) Lab Technician.</b> Ardaman's St. Rose office was awarded this project in late 2022. This project consisted of Geotechnical Field Exploration and Subsurface evaluation, inclusive of new soil borings, CPTs, and stability analyses, to submit to the USACE in effort to mitigate the levee and bank stabilization efforts required for minimal impact of refinery operations. Lab testing was performed in accordance with ASTM Standards for the following test methods: Unconfined Compressions Tests, Unconsolidated/Undrained Compression Tests, Consolidation Tests, Atterberg Limits, Organic Content, Moisture Content, and #200 washes.</p> <p><b>HAPPY JACK TO NAIRN, USACE PHYLWAY CONSTRUCTION, Plaquemine, LA (2022) Project Manager/Lab Technician.</b> Ardaman's St. Rose office was awarded this project in early 2019. The project consists of Construction Materials Testing for an USACE approved levee located in Plaquemines parish, LA. Lab testing was performed in accordance with ASTM Standards for the following test methods: Atterberg Limits, Organic Content, Moisture Content, and #200 washes.</p> <p><b>NOLA DPW PROJECT NO. PW19912, PONTCHARTRAIN PARK, New Orleans, LA (2021) Project Manager/Lab Technician.</b> Ardaman's St. Rose office was awarded this project in early 2020. The project consists of Construction Materials Testing for various streets located in New Orleans, LA. This project consists of density testing, concrete testing, and laboratory testing of various materials. Lab testing was performed in accordance with ASTM Standards for the following test methods: Standard and Modified Proctors, Fine and Course Sieve Analysis, #200 washes, and Moisture Content.</p> <p><b>NOLA DPW PROJECT NO. PW19912, LOWER NINTH WARD GROUP D, New Orleans, LA (2022) Project Manager.</b> Ardaman's St. Rose office was awarded this project in mid-2021. The project consists of Construction Materials Testing for various streets as well as water and drainage lines throughout New Orleans, LA. This</p>



## TEC Professional Services Questionnaire

### **KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**

*(Chris Sparnecht continued):*

#### **Other experience and qualifications relevant to the proposed Project:**

project consists of density testing, concrete testing, and laboratory testing of various materials. Lab testing was performed in accordance with ASTM Standards for the following test methods: Standard and Modified Proctors, Fine and Course Sieve Analysis, #200 washes, and Moisture Content.

**MSY Arrivals Roadway Imp & Pedestrian Bridge, Kenner, LA (2023) Lab Technician.** Ardaman's St. Rose office was awarded this project in mid-2023. This project consisted of Geotechnical Field Exploration and Subsurface evaluation, inclusive of new soil borings and CPTs. Lab testing was performed in accordance with ASTM Standards for the following test methods: Unconfined Compressions Tests, Unconsolidated/Undrained Compression Tests, Consolidation Tests, Atterberg Limits, Organic Content, Moisture Content, and #200 washes.

**Northwest Little Lake Marsh Creation, New Orleans, LA (2023) Lab Technician.** Ardaman's St. Rose office was awarded this project in mid-2023. This project consisted of Geotechnical Field Exploration and Subsurface evaluation, inclusive of new soil borings, and material analyses, to submit to CPRA in effort to determine if the existing soil is suitable for the creation of new march lands. Lab testing was performed in accordance with ASTM Standards for the following test methods: Unconfined Compressions Tests, Unconsolidated/Undrained Compression Tests, Consolidation Tests, Atterberg Limits, Organic Content, Moisture Content, and #200 washes.



## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Donald Anthony Senior Driller
<b>Project Assignment:</b>
Drilling Supervisor
<b>Name of Firm with which associated:</b>
Ardaman & Associates, Inc.
<b>Years' experience with this Firm:</b>
21
<b>Education: Degree(s)/Year/Specialization:</b>
High School Diploma
<b>Active registration: Year first registered/discipline:</b>
N/A
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p><b>LA 1, PHASE 1 AND PHASE 2, Lafourche Parish, LA (2012) Senior Driller.</b> Mr. Anthony performed drilling and CPT services for a geotechnical investigation conducted in Louisiana coastal marshes utilizing a fleet of customized airboats. This project included over 100 boring and CPT sounding sample locations</p> <p><b>NO NAME BAYOU MARSH CREATION, Cameron Parish, LA (2014) Senior Driller.</b> The No Name Bayou Marsh Creation and Nourishment project will create approximately 502 acres of marsh, 10 acres of creeks/ponds and nourish 21 acres of existing marsh. Marshland will be created and nourished by hydraulically dredging select fill material and placing it within a marsh creation area, which will have earthen containment dikes around the perimeter in order to keep this material in place as it settles out of suspension and builds land back up. Mr. Anthony was the Sr. Driller during the geotechnical investigation which included 3 inch diameter soil borings performed with an airboat mounted drill rig.</p> <p><b>CALCASIEU SHIP CHANNEL SALINITY CONTROL MEASURES (CS-65) PHASE LA, Calcasieu &amp; Cameron Parish, LA (2018) Senior Driller.</b> The project aims to limit saltwater intrusion and reduce land loss across various bayous, marshes, and lakes within the vicinity of the Calcasieu Ship Channel (CSC), located across Cameron and Calcasieu Parish. Stretching across 20 miles, the project consists of various sill structures, erosion control measures, and channelization structures. Mr. Anthony was the Senior Driller during the geotechnical investigation which included over 30 boring and CPT locations performed from a jack up type barge, small spud barge, airboat, and marsh buggy drilling equipment.</p> <p><b>HOUMA NAVIGATION CANAL LOCK COMPLEX, Terrebonne Parish, LA (Ongoing) Senior Driller.</b> Mr. Anthony was the Senior Driller during the geotechnical investigation, which included contacting landowners and acquiring documented access permission and utility location for the borings. The field investigation included performing CPTS and 5-inch piston sampler borings to depths of 150-250 ft. below water surface from a jack-up barge.</p>



## TEC Professional Services Questionnaire

**L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.**

### PROJECT NO. 1

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p style="text-align: center;"><b>Mid-Breton - Sediment Diversion (Plaquemines Parish, LA)</b></p> <p>Coastal Protection and Restoration Authority (CPRA) 150 Terrace Avenue Baton Rouge, LA 70802</p> <p style="text-align: center;">Brad Barth, P.E. 504-280-2411 Brad.Barth@la.gov</p>	<p><i>Please See Below.</i></p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2028	N/A	\$2,900,000

The Mid-Breton Sediment Diversion will reconnect the Mississippi River to the deteriorating deltaic wetlands in the Breton Sound Basin. The project will be located in Plaquemines Parish, Louisiana, on the east side of the Mississippi River and is intended to divert sediment rich water from the Mississippi River to create new land in the Breton Sound Basin. This project will include a gated diversion structure in line with a realigned segment of the Mississippi River Levee, diversion channel and conveyance levees, inlet and outfall channels, and state highway bridge. Ardaman is performing the geotechnical investigation for the project including field investigations such as soil borings and CPTS and engineering analyses such as global stability, settlement, seepage, and pile capacity.

Ardaman is also supporting the permit process. Ardaman and Associates, Inc. serves as geotechnical consultant to Stantec for this project. Thus far the field operations have been inclusive of soil borings and CPTs in the Mississippi River batture, the protected side of the Mississippi River Levee, and within the marsh area beyond the Hurricane Protection back levee. The marsh area investigations included soil borings, CPTs, and vane shear testing to support the design of the outfall channel and proposed marsh creation areas. Ardaman has conducted geotechnical engineering analyses inclusive of stability, seepage, and settlement analyses. The project is currently in the 60% Design Phase. This ongoing project requires close coordination with the USACE New Orleans District to ensure all proposed designs conform to the current HSDRRS Design Guidelines.



*Rousset, Project Manager; Woodward, Sr. Geotech. Engr.; Cali, Sr. Geotech. Engr.; Cimino, Proj. Engr.; Jewell, Proj. Engr.; Anthony, Sr Driller*



## TEC Professional Services Questionnaire

<b>PROJECT NO. 2</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility</b>	
<p><b>Calcasieu Ship Channel Salinity Control Measures (CS-65) Phase 1A Project (Calcasieu &amp; Cameron Parishes, LA)</b></p> <p>Coastal Protection and Restoration Authority (CPRA) 150 Terrace Avenue Baton Rouge, LA 70802</p> <p>Katie Freer 225-342-4635 Katie.Freer@la.gov</p>	<p><i>Please See Below.</i></p>	
<b>Completion Date (Actual or estimated)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
2020	N/A	\$1,000,000

The Project was a large-scale hydrologic restoration project located in southwestern Louisiana within Cameron Parish. The goal of the Project was to limit the intrusion of saline water into Lake Calcasieu and surrounding habitats, thereby reducing the rate of wetland loss. Five distinct design features have been identified that achieve the project goal. Four design firms were assigned final design of these features. The results of the data collection and laboratory testing were provided to the firms providing final design documentation for the project. Ardaman performed the field sampling effort for this project which included performing soil borings and Cone Penetrometer Tests from a lift boat or "jack up barge", pontoon spud barge, and a marsh buggy. Undisturbed samples were transported to our New Orleans Laboratory for testing and further evaluation. Main project features consisted of 22,000 linear feet of sheet piling with seven (7) openings for navigation and fish passages. Local site conditions included dredge spoil deposits from maintenance dredging of the Calcasieu Ship Channel (CSC) which have greatly been impacted by erosion over the years. Remnant spoil banks produce highly variable "near surface" conditions along the mudline. Another notable project feature includes 2,000 linear feet of sheet piling with a variable mudline elevation of Elev. -8 to -25 feet., NAVD88, requiring rock berms and king piles for stability.

**Field Work**-Marsh buggies, airboats, pontoon barges, and spud barges were utilized, in order, to drill undisturbed soil borings to depths, in excess of 100 feet, and in upwards of 15 feet of water, and to perform CPT soundings.

**Lab Work**-Undisturbed samples were extruded in our in-house USACE Validated and AASHTO Accredited Laboratory. Laboratory Services include: Strength Tests-Unconfined and Triaxial Compression Tests; Index Testing-Atterberg Limits, Particle Size, Specific Gravity; and Consolidation Testing.



**Engineering Services**-Ardaman evaluated the subsoil conditions and connected with the other design firms, in order, to develop recommendations that incorporate results from hydraulic modelling and that are in agreement with the available resources. Project features included: Levee tie-in design, Rock berm stability, Sheet pile wall stability, and Soil Structure Interaction of king-piles and sheet pile walls.

*Rousset, Project Manager; Woodward, Sr. Geotech. Engr.; Cimino, Proj. Engr.; Cali, Sr. Geotech. Engr.; Jewell, Proj. Engr.; Anthony, Sr. Driller*



## TEC Professional Services Questionnaire

<b>PROJECT NO. 3</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility</b>	
<p style="text-align: center;"><b>West Fourchon Marsh Creation &amp; Nourishment (TE-134) (Lafourche Parish, LA)</b></p> <p>Coastal Protection and Restoration Authority (CPRA) 150 Terrace Avenue Baton Rouge, LA 70802</p> <p style="text-align: center;">Katie Freer 225-342-4635 Katie.Freer@la.gov</p>	<i>Please See Below.</i>	
<b>Completion Date (Actual or estimated)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
2023	N/A	\$355,000

Project will create approximately 302 acres of saline intertidal marsh and nourish about 312 acres of emergent marsh using material dredged from the Gulf of Mexico. It is believed that the primary causes of land loss in the project area is due to the canals which cut across the project site, along with subsidence, sediment depravation and shoreline erosion. The project area will be confined by earthen containment dikes and other features along deep-water channels.

Ardaman completed a geotechnical investigation consisting of both soil borings and CPT soundings within the proposed marsh creation area. The laboratory testing phase was aimed at providing data for use in analyses such as settlement and stability analyses of marsh creation earthen containment dikes; consolidation settlement analysis of marsh fill area; cut-to-fill ratio for containment dikes and marsh fill area; and stability analyses for existing dikes to estimate required offset distances for containment dike borrow excavation.



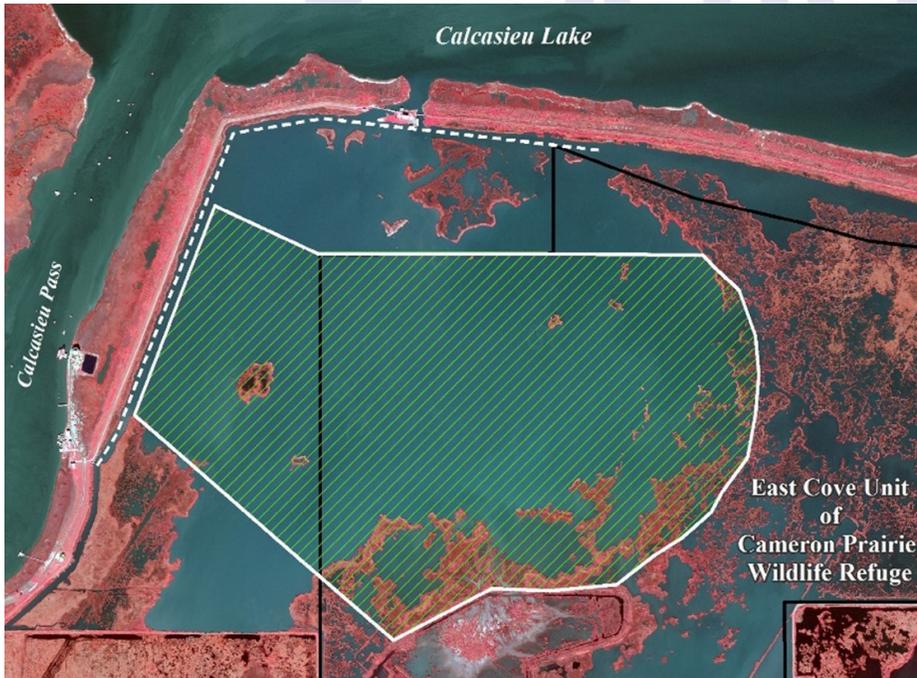
It should be noted that Ardaman has worked with CPRA through GIS and the Port of Fourchon on investigating an alternative borrow source within Bayou Lafourche and adjacent Port slips. The supplemental field investigation was completed in 2021. The engineering has also been completed in regard to channel stability and reanalysis of the West Fourchon Marsh Creation Areas with the alternative borrow source.

***Rousset, Project Manager; Woodward, Sr. Geotech. Engr.; Comeaux, Asst. Proj. Engr.; Cimino, Proj. Engr.; Jewell, Proj. Engr.; Anthony, Sr. Driller***



## TEC Professional Services Questionnaire

<b>PROJECT NO. 4</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility</b>	
<p style="text-align: center;"><b>No Name Bayou Marsh Creation &amp; Nourishment (CS-0078) (Cameron Parish, LA)</b></p> <p style="text-align: center;">Coastal Protection and Restoration Authority (CPRA) 150 Terrace Avenue Baton Rouge, LA 70802</p> <p style="text-align: center;">Travis Byland 225-342-6750 Travis.Byland@la.gov</p>	<i>Please See Below.</i>	
<b>Completion Date (Actual or estimated)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
2022	N/A	\$481,000



The No Name Bayou Marsh Creation and Nourishment project create approximately 533 acres of marsh (including tidal creeks and ponds) to be nourished by hydraulically dredged material. It is currently proposed that the source of this material will originate from Calcasieu Lake, located just north of the marsh creation area. The fill area will be confined by earthen containment dikes to be constructed around the perimeter of the marsh creation area. Following completion of filling, the marsh creation area will be planted with wetland vegetation to re-establish plant productivity. Additionally, the project may include cleaning out over 8,600 linear feet of canals to re-establish drainage patterns which were filled in due to tropical storms.

The project has been through a few phases, the first of which consisted of a data gap and feasibility study, a subsurface investigation of the marsh creation area and proposed borrow

area, and now an alternative borrow area has been established. Ardaman has worked with CPRA from the data gap and feasibility study phase, and providing final engineering design recommendations.

Ardaman performed the field sampling effort for this project, which included performing soil borings from a pontoon spud barge in Lake Calcasieu, and a marsh buggy in the USACE CDF, and an airboat within the proposed marsh creation area. Undisturbed samples were transported to our New Orleans Laboratory for testing and further evaluation.

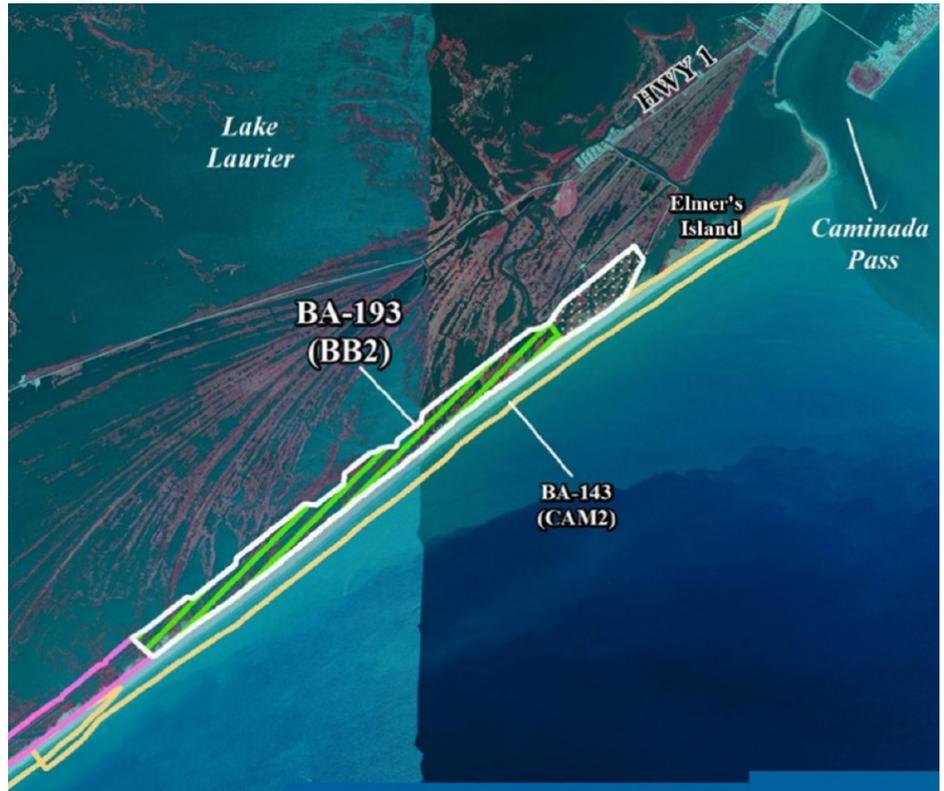
**Rousset, Project Manager; Woodward, Sr. Geotech. Engr.; Jewell, Proj. Engr.; Cimino, Proj. Engr.; Anthony, Sr. Driller; Bourgeois, Proj. Engr. & Lab. QA Officer**



## TEC Professional Services Questionnaire

<b>PROJECT NO. 5</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility</b>	
<p style="text-align: center;"><b>Caminada Headlands Back Barrier Marsh Creation Increment II (Lafourche Parish, LA)</b></p> <p style="text-align: center;">Coastal Protection and Restoration Authority (CPRA) 150 Terrace Avenue Baton Rouge, LA 70802</p> <p style="text-align: center;">Renee Bennett, PMP 225-342-4592 Renee.S.Bennett@la.gov</p>	<i>Please See Below.</i>	
<b>Completion Date (Actual or estimated)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
2018	N/A	\$178,000

The Caminada Headlands Back Barrier Marsh Creation Increment II Project (BA-193) is funded under the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) in Priority Project List 25. The Coastal Protection and Restoration Authority (CPRA), in partnership with the Environmental Protection Agency (EPA), have been authorized to execute Phase I (Engineering and Design) of BA-193. The objective of this project is to create, maintain, and nourish existing deteriorating wetlands through hydraulic dredging. Approximately 444 acres of marsh will be created and nourished within the Caminada Headlands Back Barrier March Creation Increment II Project area. Ardaman's scope of services involves a geotechnical investigation within the fill and borrow areas of the project and all associated analyses for containment dike and fill area design. This project will also create a platform upon which beach and dune birds can migrate, thereby reducing the likelihood of breaching. The proposed project is expected to slow the current trend of degradation in the headland. Detailed geotechnical analyses performed for the project included: bearing capacity of earthen containment dikes, settlement of earthen containment dikes, and self-weight consolidation of marsh fill. The settlement analyses included time-rate for both the foundation and marsh fill soils.



*Rousset, Project Manager; Woodward, Sr. Geotech. Engr.; Anthony, Sr. Driller*

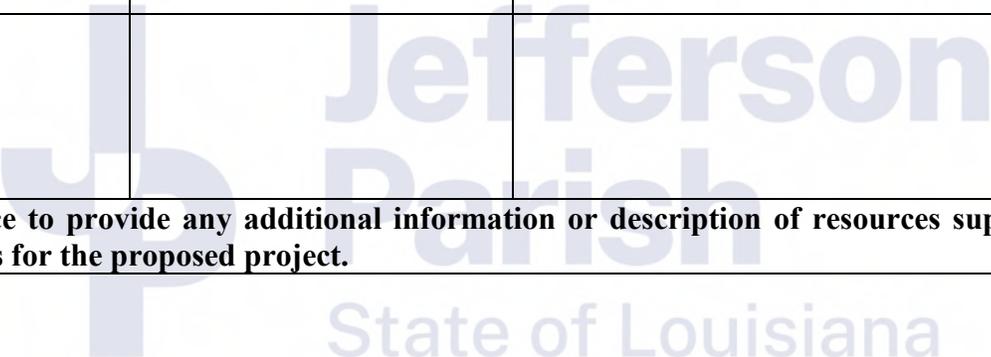


**TEC Professional Services Questionnaire**

**M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary.**

Parties:		Status/Result of Case:
Plaintiff:	Defendant:	
1. N/A		
2.		
3.		
4.		

**N. Use this space to provide any additional information or description of resources supporting Firm's qualifications for the proposed project.**



**O. To the best of my knowledge, the foregoing is an accurate statement of facts.**

Signature:  Print Name: Robert Rousset  
 Title: Vice President | Regional Manager Date: 7-11-24



The Louisiana Professional Engineering and Land Surveying Board has the following information on file:

**Name:**

**Public Address:**

Ardaman & Associates, Incorporated  
8008 South Orange Avenue  
Orlando, Florida 32859-3003

**License/Certificate Information w/ Supervision**

License	Status	First Issuance Date	Expiration Date	Supervisor(s)
EF.0001680	Active	01/14/1992	03/31/2026	Mr. Robert Edwin Jewell # PE.0038579 ; Mr. Robert Egli Rousset # PE.0038637 ; Mr. Rodrigo Home # PE.0040518



## LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 5/29/2024 the Louisiana Professional Engineering and Land Surveying Board (LPELS) has the following information on file:

Ms. Megan G. Bourgeois  
316 Highlandia Drive  
Baton Rouge, Louisiana 70810

	<b>LOUISIANA PROFESSIONAL ENGINEERING &amp; LAND SURVEYING BOARD (LPELS)</b>	
	9643 Brookline Avenue, Suite 121 Baton Rouge, LA 70809 Phone (225) 925-6291 www.lapels.com	
<b>Ms. Megan G. Bourgeois</b>		
License/Certificate Type - Number	Expiration Date	
<b>PE.0036725</b>	<b>03/31/2026</b>	
<b>Status: Active</b>		
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CPD = Continuing Professional Development Sponsor/Provider

\*PE = Professional Engineer

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\*LSI = Land Surveyor Intern

\*PE Discipline Codes

AG	Agricultural	ME	Mechanical
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EE	Electrical & Computer	NU	Nuclear
EV	Environmental	ST	Structural *
FP	Fire Protection	PT	Petroleum
IE	Industrial		
* An engineer that has passed the Structural I exam is listed as a Civil Engineer. An engineer that has passed both the Structural I and II exams is listed as Structural (ST) and a Civil (CE) Engineer.			



## LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 7/11/2024 the Louisiana Professional Engineering and Land Surveying Board (LAPELS) has the following information on file:

Mr. Peter Rosario Cali  
4912 Lake Vista Drive  
Metairie, Louisiana 70006-1127

	<b>LOUISIANA PROFESSIONAL ENGINEERING &amp; LAND SURVEYING BOARD (LAPELS)</b>
	9643 Brookline Avenue, Suite 121 Baton Rouge, LA 70809 Phone (225) 925-6291 www.lapels.com
<b>Mr. Peter Rosario Cali</b>	
License/Certificate Type - Number	Expiration Date
<b>PE.0016757</b>	<b>03/31/2025</b>
<b>Status: Active</b>	
<p>Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).</p> <p>LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.</p>	

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## LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 7/11/2024 the Louisiana Professional Engineering and Land Surveying Board (LPELS) has the following information on file:

Mr. Daniel Michael Cimino  
101 Teal Street  
St. Rose, Louisiana 70087

	<b>LOUISIANA PROFESSIONAL ENGINEERING &amp; LAND SURVEYING BOARD (LPELS)</b>
	9643 Brookline Avenue, Suite 121 Baton Rouge, LA 70809 Phone (225) 925-6291 www.lapels.com
<b>Mr. Daniel Michael Cimino</b>	
License/Certificate Type - Number	Expiration Date
<b>PE.0046206</b>	<b>03/31/2026</b>
<b>Status: Active</b>	

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## LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 10/17/2022, the Louisiana Professional Engineering and Land Surveying Board (LAPELS) has the following information on file:

Mr. Robert Edwin Jewell  
1333 South Columbine Street  
Baton Rouge, Louisiana 70808

	<b>LOUISIANA PROFESSIONAL ENGINEERING &amp; LAND SURVEYING BOARD (LAPELS)</b> 9643 Brookline Avenue, Suite 121 Baton Rouge, LA 70809 Phone (225) 925-6291 www.lapels.com	
	<b>Mr. Robert Edwin Jewell</b>	
License/Certificate Type - Number	Expiration Date	
<b>PE.0038579</b>	<b>09/30/2024</b>	
<b>Status: Active</b>		

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## LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 10/20/2022, the Louisiana Professional Engineering and Land Surveying Board (LAPELS) has the following information on file:

Mr. Robert Egli Rousset  
13884 Cobblestone Drive  
Denham Springs, Louisiana 70726

	<b>LOUISIANA PROFESSIONAL ENGINEERING &amp; LAND SURVEYING BOARD (LAPELS)</b> 9643 Brookline Avenue, Suite 121 Baton Rouge, LA 70809 Phone (225) 925-6291 www.lapels.com	
	<b>Mr. Robert Egli Rousset</b> License/Certificate Type - Number      Expiration Date <b>PE.0038637</b> <b>09/30/2024</b> <b>Status: Active</b>	
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## LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 7/11/2024 the Louisiana Professional Engineering and Land Surveying Board (LAPELS) has the following information on file:

Mr. Mark Lee Woodward  
7736 Benjamin Street  
New Orleans, Louisiana 70118-3726

	<b>LOUISIANA PROFESSIONAL ENGINEERING &amp; LAND SURVEYING BOARD (LAPELS)</b>
	9643 Brookline Avenue, Suite 121 Baton Rouge, LA 70809 Phone (225) 925-6291 www.lapels.com
<b>Mr. Mark Lee Woodward</b>	
License/Certificate Type - Number	Expiration Date
<b>PE.0024206</b>	<b>09/30/2025</b>
<b>Status: Active</b>	
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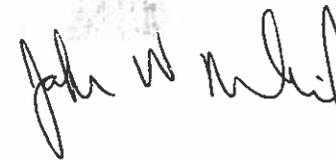
**CHRISTOPHER M SPARNECHT**

*has demonstrated knowledge and ability by  
successfully completing the ACI Certification  
requirements and is hereby recognized as an*

**ACI Aggregate Testing Technician - Level 1**

**Certified Date: 10/27/2020      Expires: 10/26/2025**

**Examiner of Record: MARK A CHEEK**



*ACI Managing Director of Certification*

*The Authenticity of this certification can be verified at [www.ACICertification.org/verify](http://www.ACICertification.org/verify)*

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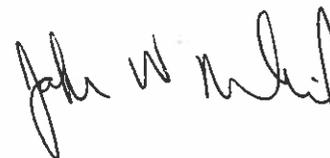
**CHRISTOPHER M SPARNECHT**

*has demonstrated knowledge and ability by  
successfully completing the ACI Certification  
requirements and is hereby recognized as an*

**ACI Concrete Strength Testing Technician**

**Certified Date: 08/13/2020      Expires: 08/12/2025**

**Examiner of Record: MARK A CHEEK**



*ACI Managing Director of Certification*

*The Authenticity of this certification can be verified at [www. ACICertification .org/verify](http://www.ACICertification.org/verify)*

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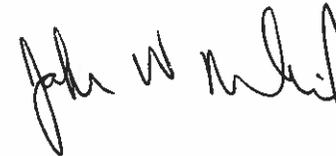
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*has demonstrated knowledge and ability by  
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requirements and is hereby recognized as an*

**ACI Concrete Laboratory Testing Technician - Level 1**

**Certified Date: 09/13/2020      Expires: 09/12/2025**

**Examiner of Record: John W Nehasil**



*ACI Managing Director of Certification*

*The Authenticity of this certification can be verified at [www.ACICertification.org/verify](http://www.ACICertification.org/verify)*

# Certificate of Training

*this certifies that*

**Megan Bourgeois**

---

*has successfully completed the training  
program requirements for*

**ATSSA Online Flagger Certification Training**

---

*Awarded on this*      **8th**      *day of*      **August 2020**





# PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

**Robert Jewell**

has attended

**Traffic Control Supervisor Refresher-LA State Specific**

**Training Course**

9/25/2020 to 9/25/2024

Date

Baton Rouge, LA

Location

A handwritten signature in black ink, appearing to read "Donnell M. Clark".

Vice President of Member Services

A handwritten signature in black ink, appearing to read "Alex Tejada".

President, CEO

*ATSSA provides training and certification but neither constitutes employment by ATSSA.*



American Traffic Safety Services Association [ATSSA.com](http://ATSSA.com)



# PROOF OF TRAINING

THIS CERTIFICATE HEREBY RECOGNIZES THAT

**Megan Bourgeois**

has attended

**Traffic Control Supervisor Refresher-LA State Specific**

Training Course

8/7/2020 to 8/7/2024

Date

A handwritten signature in black ink, appearing to read "Don H. Mack".

Vice President of Education and Technical Services

Baton Rouge, LA

Location

A handwritten signature in black ink, appearing to read "Alan Teichner".

President, CEO

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