



## STATEMENT OF QUALIFICATIONS

Supplemental Coastal Engineering and Consulting Services  
Jefferson Parish, Louisiana  
Resolution No. 144205 SOQ 24-020



*Submitted To:*

**Jefferson Purchasing Department**  
**Attn: Mark Buttery, Purchasing Specialist II**  
**General Government Building**  
**200 Derbigny Street, Suite 4400**  
**Gretna, LA 70053**

*Submitted By:*

***ECM Consultants, Inc.***

1301 Clearview Parkway, Suite 200, Metairie, Louisiana 70001

Telephone: 504-885-4080 • Fax: 504-885-1439

[kazem@ecmconsultants.com](mailto:kazem@ecmconsultants.com)

*In Association with:*

ELOS Environmental, LLC

BFM Corporation, LLC

Gulf South Engineering & Testing, Inc.

**July 16, 2024**

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Coastal Engineering Consulting Services as needed parish wide  
Resolution No. 144205 | SOQ 24-020**

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# ***ECM Consultants, Inc.***

***Engineers • Architects • Construction Managers***

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Phone (504) 885-4080

July 16, 2024

Jefferson Parish Council  
General Government Building  
200 Derbigny Street, Suite 6700  
Gretna, LA 70053

Re: **Coastal Engineering Consulting Services as needed parish wide**  
**Resolution No. 144205 | SOQ 24-020**

Jefferson Parish Council:

ECM Consultants, Inc. is a licensed engineering, architectural, and construction management firm headquartered in Metairie, LA, offering a broad array of talent and expertise relevant to this Statement of Qualifications (SOQ). We are pleased to submit one (1) electronic copy of our Statement of Qualifications (TEC Questionnaire) for the above-referenced project via <http://www.centralauctionhouse.com>.

For coastal projects such as marsh creation and land ridge, dredging, shoreline protection, and stabilization, ECM has provided hydrologic and hydraulic modeling, engineering design services, quality assurance and inspection services, as well as contract and construction administration. We have overseen many coastal projects with environmental, survey, and geotechnical components for various clients throughout Louisiana.

Our team comprises a Principal in Charge, Project Manager, engineers (hydraulic and hydrologic, civil, structural, and geotechnical), environmental specialists, land surveyors, CAD technicians, and field inspectors, each with outstanding qualifications and specialized experience relevant to this contract. The ECM Team's project experience includes numerous projects in Southeast Louisiana involving coastal restoration and protection, as well as flood risk reduction projects involving various hydraulic structures such as weirs, culverts, water control structures, inlet and conveyance channels, pump stations, levees, flood walls, breakwaters, gated inlet and outfall structures. Other projects have included barrier island restoration, canal bank stability, levee restoration, ridge restoration, marsh creation, shoreline restoration, shoreline protection, and freshwater and sediment diversions.

Our team also includes ELOS Environmental, LLC for environmental services, grant writing, coastal outreach support, marketing, and education, BFM Corporation, LLC for surveying services and Gulf South Engineering and Testing, Inc. for geotechnical services. All firms are experts in their respective fields.

We appreciate the opportunity to submit this Statement of Qualifications and hope our submission will receive favorable consideration.

Sincerely,



Kazem Alikhani, P.E.  
Chief Executive Officer

# Section 1

***ECM Consultants, Inc.***

***TEC Professional Services Questionnaire***

## TEC Professional Services Questionnaire

<b>A. Project Name and Advertisement Resolution Number:</b>		
Supplemental Coastal Engineering and Consulting Services <b>Resolution No. 144205 SOQ 24-020</b>		
<b>B. Firm Name &amp; Address:</b>		
 <b>ECM Consultants, Inc.</b> 1301 Clearview Parkway, Suite 200 Metairie, LA 70001		
<b>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:</b>		
<b>Principal:</b>		
Ujjal DasGupta, P.E., President Louisiana Licensed Professional Engineer P.E. License No. 19849 Tel: (504) 885-4080 Fax: (504) 885-1439 Email: <a href="mailto:ujjal@ecmconsultants.com">ujjal@ecmconsultants.com</a>		
<b>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.</b>		
<b>Professional in Charge of Project:</b>		
Kazem Alikhani, P.E., Chief Executive Officer Louisiana Licensed Professional Engineer P.E. License No. 25073 Tel: (504) 885-4080 Fax: (504) 885-1439 Email: <a href="mailto:kazem@ecmconsultants.com">kazem@ecmconsultants.com</a>		
<b>E. Please provide the number of employees whose primary function corresponds with each category:</b>		
<u>8</u> Administrative <u>1</u> Architects (Licensed) <u>0</u> Chemical Engineers <u>16</u> Civil Engineers <u>32</u> Construction Inspectors <u>0</u> Ecologists <u>1</u> Electrical Engineers <u>2</u> Engineer Intern <u>0</u> Professional Land Surveyors	<u>0</u> Estimators <u>0</u> Geologists <u>0</u> Geotechnical Engineers <u>0</u> Interior Designers <u>0</u> Landscape Architects <u>0</u> Land Surveyor <u>2</u> Mechanical Engineers <u>0</u> Environmental Engineers <u>3</u> CAD Technicians	<u>0</u> Specification Writers <u>2</u> Structural Engineers <u>  </u> Graduate Engineers <u>4</u> Project Managers <u>0</u> Clerical <u>1</u> Grant/Funding Specialist <u>0</u> Sanitary Engineers  <u>72</u> <b>TOTAL</b>
<b>F. Is this submittal by a JOINT-VENTURE? Please check: YES _____ NO <input checked="" type="checkbox"/></b>		
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 \_\_\_\_\_ 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):
1. ELOS Environmental, LLC. 607 West Morris Ave Hammond, LA 70403	Environmental Services, Grant Writing, Coastal Outreach Support, Marketing, and Education	Yes
2. BFM Corporation, LLC. 534 Williams Blvd., Kenner, LA 70062	Surveying Services	Yes
3. Gulf South Engineering and Testing, Inc. 2201 Aberdeen Street Kenner, LA 70062	Geotechnical Services	Yes
4. N/A	N/A	N/A

**J. Please specify the total number of support personnel that may assist in the completion of this Project:  
15**

**TEC Professional Services Questionnaire**

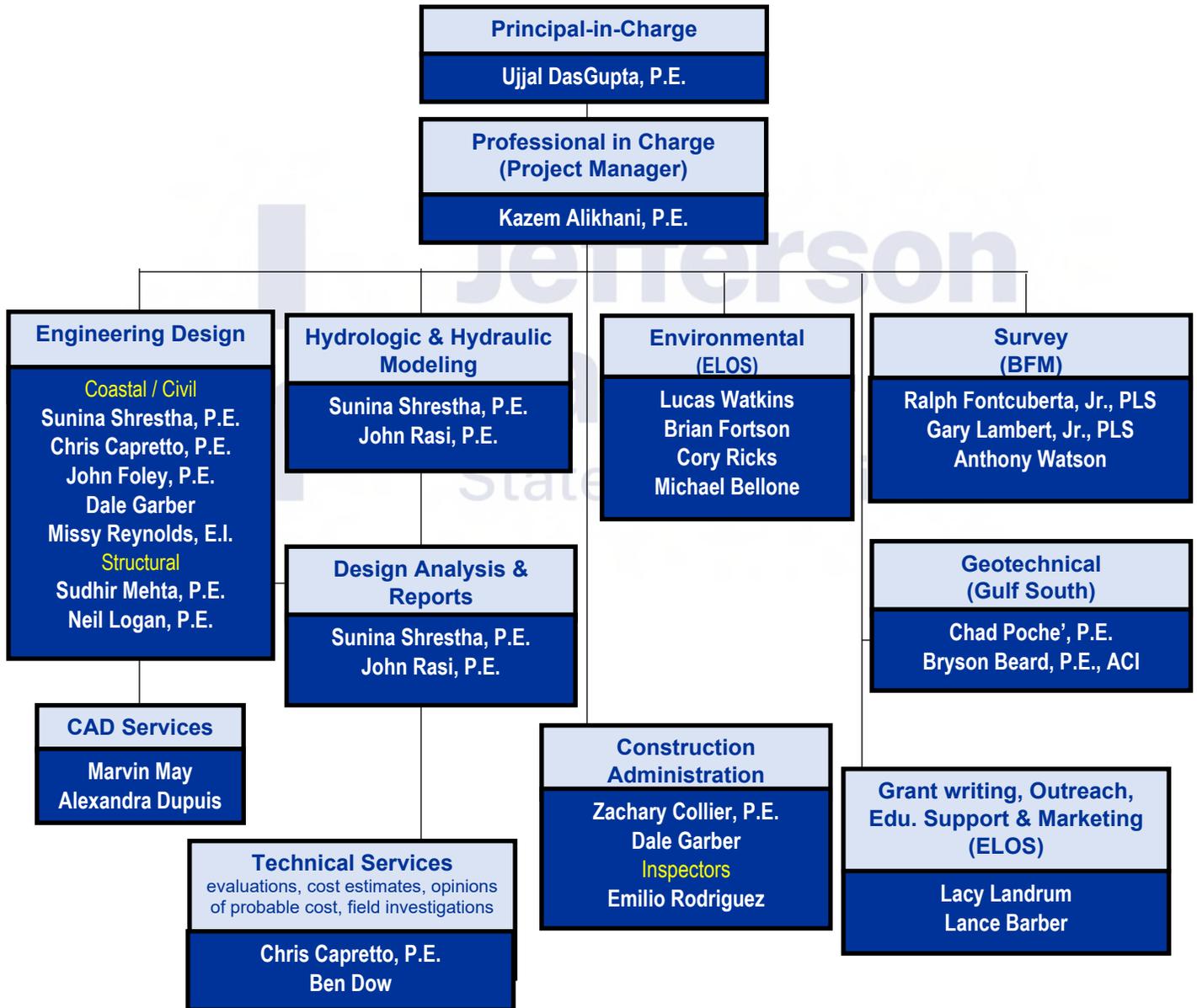
**K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e. resume) that demonstrates the employment history and experience of the Firm's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

**ECM TEAM ORGANIZATION CHART**



**Jefferson Parish  
Department of Public Works**

***ECM Consultants, Inc (Prime)***



## TEC Professional Services Questionnaire

### PROFESSIONAL IN CHARGE OF PROJECT:

**Name & Title:**

**Kazem Alikhani, P.E., Chief Executive Officer**

**Project Assignment:**

**Professional in Charge/Project Manager**

**Name of Firm with which Associated:**

***ECM Consultants, Inc.***

**Years' experience with this Firm:**

**8**

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

**MS/1984/ Mechanical & Environmental**

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

**1992/Mechanical & Environmental Engineering/LA License No. 25073**

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

Mr. Alikhani has more than 44 **years of experience** managing public works projects including planning, design, and construction management. He spent much of his career working with the Jefferson Parish Department of Public Works, and retired as **Director of Public Works**, responsible for all public works functions and overseeing an annual operating budget of \$200 million and a capital budget of over \$100 million. His public works oversight consisted of managing all Departments including **Coastal Division, Floodplain Management, Hazard Mitigation, engineering, and Capital projects**. He managed a team of public works and environmental professionals to change funding for water resource projects throughout Jefferson Parish, including CWPPRA, CIAP, NRDA, NRCS and others. Under his direction, the Environmental Dept. secured a number of grants for Parish **coastal & water resource projects**, including the following awarded grants: LA Dept. of Natural Resources grant to assist with implementing Local Coastal Program; US Environmental Protection Agency grant for Lafreniere Park Floating Islands Project; Lake Pontchartrain Basin Restoration Program for coastal restoration; Deep Water Horizon Oil Spill Restoration Funding for beach nourishment, stabilization and canal backfilling.

**Employment History:**

- ECM Consultants, Inc., *Chief Executive Officer (2016-Present)*
- Jefferson Parish DPW, *Director (2010-2016)*
- Jefferson Parish DPW, *Director of Drainage (2004-2010)*
- Jefferson Parish DPW, *Asst. Director of Water (1995-2004)*
- Jefferson Parish DPW, *Drainage Dept. Engr. (1982-1994)*
- Guillot & Voght Engineering, *Engineer (1980-1982)*

**CPRA Northwest Turtle Bay Marsh Creation (BA-0125), Jefferson Parish, LA:** Mr. Alikhani served as the Principal for this **\$23 Million** project that will create and nourish **1093 acres of marshland** in the Barataria Basin. The project lies south of the communities of Lafitte, Barataria, and Jean Lafitte which sit upon the Barataria Bay Waterway. ECM provided construction administration and quality assurance inspection services.

**CWPPRA Project, Bayou Dupont Ridge Creation & Marsh Restoration, BA-48, Jefferson Parish, LA:** As Director of Public Works, Mr. Alikhani assisted in prioritizing the Parish's Coastal Protection projects to **secure \$38M** for construction to create and nourish approximately **300 acres of marshland** through pipeline sediment delivery from the Mississippi River and to create a ridge along a portion of southwestern shoreline of Bayou Dupont. Other CWPPRA related projects for Bayou Dupont included: sediment delivery system, and marsh creation at 3 other sites.

**West Shore Lake Pontchartrain Flood Risk Reduction Project Segments WSLP 102 and 106 - St. Charles, St. John the Baptist and St. James Parish, Louisiana:** Mr. Alikhani served as Project Manager for the **WSLP 102 & 106** contracts that includes Engineering & Design for all civil, structural, mechanical, electrical, cost estimating and geotechnical consideration required to provide plans, specifications and design for this project, preparation of this DDR, Engineering Considerations and Instructions to field personnel (ECIFP), PowerPoint presentation consisting of investigation and study of three different alternative solutions and their associated costs for the construction of T-wall under I-10 bridges, the development of plans and specifications (P&S), Design of access road and coordination with Local, State and Federal authorities whose interests, operations and facilities may be affected by the work under this contract. Construction Cost: **\$118 Million (E)**

## TEC Professional Services Questionnaire

**USDA Natural Resources Conservation Service IDIQ Contract for AE Design Services related to CWPRA/RESTORE, LA, TX, AL, MS, & FL.** Mr. Alikhani is serving as Program Manager for this 5 Yr./\$50M contract to provide engineering design, H&H modeling and analysis, environmental services, document development and review, construction management and inspection for a variety of coastal restoration projects within the 5 listed coastal states.

**USDA-NRCS Waterways & Canal Rehabilitation & Stabilization, Jefferson Parish, LA:** Mr. Alikhani managed multiple projects including planning, project management, design and construction for numerous projects funded through USDA-NRCS for Jefferson Parish post-storms to mitigate, rehabilitate and stabilize waterways and canals damaged as a result of named storms.

**Coastal Impact Assistance Projects (CIAP), Jefferson Parish, LA:** As Director of Public Works, Mr. Alikhani's team and the Parish Administration worked with state agencies to secure \$32M in CIAP funds and \$32.5M in state surplus funds for Long Distance Sediment Pipeline Project, involving construction to create and nourish marsh, and a ridge corridor to be used to pump sediment from the Mississippi River. Additional CIAP projects included: Lower Lafitte Stabilization at Bayou Rigolettes, Grand Isle Bayside segmented breakwater, and Fifi Island breakwater project.

**Natural Resource Damage Assessment (NRDA) Early Restoration Project, Jefferson Parish, LA:** As Director of Public works, Mr. Alikhani oversaw the environmental department that secured \$3M in NRDA funding for a new Oyster Hatchery facility in Grand Isle. Additionally, his team secured another \$3M in NRDA funding for a Louisiana Oyster Cultch Project in Hackberry Bay, LA.

**South Shore of the Pen Shoreline Protection & Marsh Creation Project (BA-41):** Completed in 2012, Mr. Alikhani worked with the Parish Administration to secure \$19.8M for construction of approximately 11,750 feet of foreshore rock dike along the south shore of the Pen and Bayou Dupont, and dedicated dredging used to create approximately 175 acres of marsh. Additionally, the project involved nourishment of 132 acres of marsh within a triangular area bounded by the south shore of the Pen, Barataria Bay Waterway (Dupre Cut), and the Creole Gas Pipeline Canal.

**Southeast Louisiana Urban Flood Control Project (SELA):** As Director of Public Works, Mr. Alikhani oversaw this project working with Jefferson Parish's master drainage plan, and within SELA's mission to improve interior drainage and reduce the risk of damage due to rainfall flooding. This project provided flood protection on a level associated with a 10-year rainfall event. He managed the design and construction of SELA Projects for Jefferson Parish that were completed in 2017. Under this federally funded program there were 38 West Bank projects totaling a **construction cost of \$320M**, and 36 East Bank projects at a total **construction cost of \$380M**.

**TEC Professional Services Questionnaire**

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT</b>	
<b>Name &amp; Title:</b>	Ujjal DasGupta, P.E., President
<b>Project Assignment:</b>	Principal-In-Charge
<b>Name of Firm with which Associated:</b>	<b><i>ECM Consultants, Inc.</i></b>
<b>Years' experience with this Firm:</b>	29
<b>Education: Degree(s)/Year/Specialization:</b>	B.S./1968/Civil Engineering
<b>Active registration: Year first registered/discipline:</b>	1982/Civil Engineering/LA License No. 19849
<b>Other experience and qualifications relevant to the proposed Project:</b>	<p>Mr. DasGupta has 55 years of experience in civil and structural engineering, project management, and construction management and QA inspection services. Mr. DasGupta has overseen multiple IDIQ contracts for USACE, NRCS, CPRA, and other agencies that involve construction management and quality assurance inspection services for coastal restoration, marsh creation, shore protection, rock dikes construction and dredging projects, as well as earthen levees and dikes, flood walls, flood control structures, pump stations hydraulic and drainage structures. His project experience includes:</p> <p><b>Employment History:</b></p> <ul style="list-style-type: none"> <li>• ECM Consultants Inc., LA, <i>President (1995-present)</i></li> <li>• C&amp;S Consultants, Inc., LA, <i>Vice President (1983-1995)</i></li> <li>• Pepper &amp; Associates &amp; Kiddie Consultants, LA, <i>Sr. Engineer (1980-1983)</i></li> <li>• McDermott, Inc., LA, <i>Sr. Structural Engineer (1980-1982)</i></li> <li>• Dunbar &amp; Dickson, Inc., TX, <i>Project Engineer (1976-1980)</i></li> <li>• Public Works Department., India, <i>Assistant Engineer (1968-1976)</i></li> </ul> <p><b>BA-41 South Shore of the Pen, Contract No. AG-7217-C-0031, Task Order 1, USDA-NRCS, Jefferson Parish, LA:</b> Under a \$3 million IDIQ contract for USDA-NRCS, Mr. DasGupta served as Principal/POC. The project features were located along the southern bank line of "The Pen" and the eastern side of the Barataria Bay Waterway. The project consisted of constructing approximately 11,556 linear feet of geotextile reinforced rock dike with flotation access channel along the south shore of "The Pen." Project included approximately 75 acres of marsh creation using dredged materials. This consisted of construction of approximately 11,400 linear feet of containment dikes and 630,000 cubic yards of hydraulic dredged fill placement for marsh creation.</p> <p><b>TE-48 Raccoon Island Marsh Creation, Contract No. AG-7217-C-09-0031, Task Order 2, USDA-NRCS, Terrebonne Parish, LA:</b> Under a \$3 million IDIQ contract for USDA-NRCS, Mr. DasGupta served as Principal/POC for quality assurance activities for the construction of the TE-48 Raccoon Island Marsh Creation Project in Terrebonne Parish, LA. The project features are located along the northern shoreline of Raccoon Island and the southern side of Caillou Bay. The project consisted of approximately 58 acres of marsh creation. This involved construction of approximately 9,925 linear feet of containment dikes and 640,000 cubic yards of hydraulic dredged fill placement for marsh creation. The borrow area was located approximately 5.5 miles off-shore in the Gulf of Mexico.</p> <p><b>BA-27 Barataria Basin Landbridge Shoreline Protection, Construction Unit #7&amp;8, USDA-NRCS:</b> Mr. DasGupta serves as Principal/POC for this \$14.3 million project. The purpose of this project is to significantly reduce the wave energy impacting the shorelines of Little Lake and Bayou Perot and to protect the adjacent marsh areas from further degradation. The Scope of Work for this project included the construction of 28,722 cubic yards of encapsulated lightweight aggregate, 123,000 square yards of geotextile and 124,000 tons of rock riprap. ECM is providing quality assurance inspection and construction management for the project including verification of construction survey, preparation of daily inspection reports, data reviews and measuring and record keeping of rock quantities.</p>

## TEC Professional Services Questionnaire

**Levee Design & Pump Station Fronting Protection- NOV 6, 7, 8, Plaquemines Parish, LA, USACE-New Orleans District:** Mr. DasGupta served as Contract POC for Nov 06, 07, 08 and project manager for NOV 8 project that involved preparation of plans and specifications for design of the New Orleans to Venice (NOV) back levees as part of the Plaquemines Parish Hurricane Protection Projects under ECM-GEC J/V contract with USACE New Orleans District, Hurricane Protection Office. This task order included design for restoration of a total 33.68 miles and NOV 8 included design of 8.7 miles of existing levees to the authorized grade plus overbuild to compensate for fill shrinkage and foundation settlement.

**West Bank Mississippi River Levee, Phase II, Empire to Buras (NOV-16), Plaquemines Parish, LA:** Mr. DasGupta served as Project Principal for design of final construction plans and specifications for the main line of the West Bank Mississippi River Levee, Empire to Buras reach in Plaquemines Parish for T.O. #43 under the \$ 90 Million IDIQ ECM-GEC J/V contract. The project involved the enlargement of approximately 6.7 miles of existing levee as a storm damage risk reduction measures. The design allowed the levee to be built to the authorized grade plus overbuild to compensate for fill shrinkage and foundation settlement. Design features included demolition of existing floodwalls, deep soil mixing, and new wave berm.

**Conceptual Design for Hydrologic Systems for Outfall Canals at 17th Street, Orleans Avenue, and London Avenue, US Army Corps of Engineers-New Orleans District, Orleans Parish, LA:** Mr. DasGupta served as Principal for this project which involved establishing performance driven design criteria for site selection including analyses, canal hydraulic reviews, incorporation of existing reports and available data, and interactive meetings with sponsors. These scopes of work provided a progressive, intelligent development process of the planning of the project. ECM also reviewed the government furnished numerical hydraulic model developed by the Corps using HEC-HMS and unsteady HEC-RAS numerical models of the Orleans East Basin to handle the basin inflow as well as the pump function and the open channel flow through all pertinent hydraulic structures. Based on these reviews, ECM provided recommendations for model revisions and usage in addition to facilitating modeling workshops.

**Storm Proofing Jefferson Parish Pump Stations, USACE New Orleans District, Jefferson Parish, LA:** Mr. DasGupta served as Project Principal and POC for design, engineering during construction, construction management for Cousins Pump Stations No. 1, 2 and 3 and Elmwood No. 1 and 2 Pump Stations. The purpose of the project was to provide storm proofing for the building envelopes as well as the ancillary systems in order to achieve reliable and redundant systems and ensure sustained operation during storm events. These projects were undertaken for Task Order No.29 under a five year, \$90 million IDIQ JV contract with USACE-NOD (HPO) for multimillion dollar civil projects.

**Improvements to B&C Canal, Marrero, Jefferson Parish, LA:** Mr. DasGupta served as Project Manager for this project involving engineering design and preparation of plans and specifications for construction of a 8' x 8' x 2,600 L.F. and 8' x 12' x 2,800 L.F. single barrel concrete box culvert and closing the existing canal on one side of existing road. Scope of project also included new roadway with median. Project scope was design and preparation of plans and specifications for new roadway with new box culvert conforming to Jefferson Parish and LADOTD requirements, including hydraulic analysis for the drainage basins; surface and subsurface drainage designs; and utilities relocation at conflicts.

**Remediation of Levees for Orleans Ave Outfall Canal USACE New Orleans District, LA:** Mr. DasGupta served as Principal-in-Charge and POC for this project involving design and preparation of plans and specifications, and construction cost estimates for remediation measures necessary to remediate levees in specific reaches of the Orleans Avenue Outfall Canal. Work involved remediation of seepage and stability concerns. Design included a sheet pile cut-off to eliminate seepage, tie in to existing protection system, and design for stability berms including deep soil mixing.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT

**Name & Title:**

Sunina Shrestha, P.E., Engineering Manager

**Project Assignment:**

Hydrologic & Hydraulic Modeling

**Name of Firm with which Associated:**

***ECM Consultants, Inc.***

**Years' experience with this Firm:**

16

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

M.S./2008/Civil Engineering, Water Resources, and Environmental Engineering

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

2013/Civil Engineering/LA License No. 37901

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

Ms. Shrestha has 18 years of experience in the analysis and design of water resources structures. Her experience includes preparation of hydrologic models of various river basins, water surface profiles, retention pond feasibility study, and hydraulic analysis for canals, reservoir analysis, and development of Master Drainage Plans. Ms. Shrestha is trained in use of HEC- RAS, HEC- HMS, SWAT, GIS, AutoCAD, AutoCAD Land Development, SAP 2000, and WINSLAMM. Her expertise includes hydrology, advanced hydrology, hydraulics, open channel hydraulics, water supply and quality control, environmental impact assessment, urban water supply, solid and hazardous waste management, etc. Throughout her career, Ms. Shrestha has provided hydrologic and hydraulic engineering services to DNR, CPRA, and USACE.

**Employment History:**

- ECM Consultants Inc., LA, *Civil Engineer (2009-present)*
- UAH, *Graduate Research Assistant in Civil Eng. (2007)*
- RITI Consultancy Pvt. Ltd., Nepal, *Field Engineer (2005)*

**West Shore Lake Pontchartrain Flood Risk Reduction Project Segments WSLP 102 and 106 - St. Charles, St. John the Baptist and St. James Parish, Louisiana:** Mr. Shrestha provided engineering design for the WSLP 102 & 106 contracts that includes Engineering & Design for all civil, structural, mechanical, electrical, cost estimating and geotechnical consideration required to provide plans, specifications and design for this project, preparation of this DDR, Engineering Considerations and Instructions to field personnel (ECIFP), PowerPoint presentation consisting of investigation and study of three different alternative solutions and their associated costs for the construction of T-wall under I-10 bridges, the development of plans and specifications (P&S), Design of access road and coordination with Local, State and Federal authorities whose interests, operations and facilities may be affected by the work under this contract.

**Hydrologic Impact of Chenier and Natural Ridges, Louisiana Department of Natural Resources, Louisiana:** Ms. Shrestha assisted in this project that involved the study of chenier and ridge features by field evaluations and review of the literature. A hydrological study was implemented to determine the efficacy of Chenier and natural ridges in storm surge protection. Interpretation of historical and current aerial photography was undertaken to quantify and qualify feature impact.

**Levee Enlargement-NOV 16, U.S. Army Corps of Engineers-New Orleans District, Plaquemines Parish, LA:** Ms. Shrestha provided engineering design services for final construction plans and specifications for the main line of the West Bank Mississippi River Levee, Empire to Buras reach. The project involved the enlargement of approximately 6.7 miles of existing levee. The designs allowed the levee to be built to the authorized grade plus overbuild to compensate for fill shrinkage and foundation settlement. Design features included demolition of existing floodwalls, deep soil mixing, new wave berm armorment, and access ramps.

**Dam Breach Analysis of TL James Pond No. 2, Union Parish, LA; LADOTD Dam Safety Inspection. IDIQ S.P. No. 440003970:** Ms. Shrestha provided H&H engineering services for this project involving conducting a comprehensive analysis to update flood inundation maps and preliminary EAP for the dam. An abridged engineering method was used by utilizing 5-meter digital elevation model (DEM) and USGS topographic maps. Project involved developing HEC-RAS models to establish magnitude of inundation area, peak flood elevation, hypothetical dam failure using USACE's REC-RAS 4.1.0

**Conceptual Hydrologic Design Services for Permanent Protection Systems for Outfall Canals at 17th Street, Orleans Avenue, and London Avenue:** Ms. Shrestha provided H&H engineering services for this project that consisted of hydrologic analysis of outfall canals, canal hydraulic review, and review of existing reports and available data. The project also involved monitoring and collection of rainfall and discharge data for the entire watershed, calibration of hydraulic models, and evaluation and costing of several scenarios.

## TEC Professional Services Questionnaire

**Duncan Canal Breakwater and Bridges, Jefferson Parish, LA:** Ms. Shrestha provided civil design services for this project that involved design of two concrete girder bridges. Design included piles, pile caps, pre-stressed concrete girders, concrete slab, concrete barrier, and wing walls.

**Remediation of Canal Walls and Levees for Orleans Avenue Canal, Orleans Parish, LA:** Ms. Shrestha provided civil engineering design for preparation of plans and specifications for remediation measures necessary to remediate canal walls and levees in specific reaches of Orleans Avenue Outfall Canal in Orleans Parish. The scope of work involved remediation of seepage and stability concerns and included design of a sheet pile cut-off for approximately 2,390' of Orleans Avenue Canal to eliminate seepage. The project also involved design for a tie into existing protection and design for stability berms including deep soil mixing.

**Flood Plain Analysis of Bayou Tete L'Ours, St. Tammany, LA:** Ms. Shrestha provided H&H engineering services for this project that involved analysis of the flood plain of Bayou Tete L'Ours using different modeling tools. The HEC HMS model calculated the runoff of the watershed for design period of 25, 50, and 100 years. The HEC RAS model was used to calculate water flow in the channel. GIS was used to obtain the data.

**Ward 1, East McNeese Street Drainage Basins, Calcasieu Parish, LA:** Ms. Shrestha conducted GIS, HEC-RAS, HEC-HMS for all phases, and contributed to the development of a Master Drainage Plan. Phase I of this project included a detailed hydrologic and hydraulic modeling of Marsh Bayou, located near the northeast corner of the Ward I drainage basin and several other tributaries on the southern end of the Ward 1 Drainage Basin. Phase II involved hydrologic and hydraulic modeling of the drainage basin at the McNeese Street Extension, which links Highway 14 and Highway 397.

**Levee Design and Pump Station Fronting Protection- NOV 6, 7, 8 USACE-New Orleans District, Plaquemines Parish, LA:** Ms. Shrestha served as Project Civil Engineer for NOV-8, under T.O. 18 for USACE, \$90 million (fees) IDIQ contract No. W912-P8-07-D-0031. Projects involved preparation of plans and specifications for design of the New Orleans to Venice back levees as part of the Plaquemines Parish Hurricane Protection Projects. The T.O. 18 included design for restoration of total 33.68 miles and NOV-8 included design of for lifting 8.7 miles of existing levees to the authorized grade plus overbuild to compensate for fill shrinkage and foundation settlement.



TEC Professional Services Questionnaire

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

**Name & Title:**

Christopher Capretto, P.E., Civil Engineer

**Project Assignment:**

Coastal/Civil Engineer

**Name of Firm with which Associated:**

**ECM Consultants, Inc.**

**Years' experience with this Firm:**

10

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

B.S./2009/Civil Engineering

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

2014/Civil Engineering/LA License No. 38641

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

Mr. Capretto has over 16 years of experience in civil design of public works projects, including roadway, drainage, utilities design and construction administration. Mr. Capretto's experience includes:

**Employment History:**

- ECM Consultants, Inc., LA, *Civil Engineer (2014-present)*
- Atlas Engineering, Inc./S&B Infrastructure, Ltd., *Civil Engineer (2008-2014)*

**Cavern Replacement at Bayou Choctaw Site, Cavern 102, U.S. DOE, SPR, Plaquemine, Louisiana:** Mr. Capretto served as a project engineer in the preparation of design of all roadways, earthworks, steel structures, concrete foundations, bridge repairs, and drainage structure to support development of oil storage facility. Project included new piping, cable tray, switch racks, camera and light poles, wellhead and oil containment sumps, subsurface drainage, and containment berm. Developed maps and exhibits to support permitting for clearing and filling in wetlands, including strategies to reduce wetland impacts. Designed concrete foundations for security light and camera poles within the new cavern vicinity.

**Brine Disposal Pump Replacement at Bryan Mound Site, U.S. DOE Strategic Petroleum Reserve, Freeport, TX:** Mr. Capretto served as design engineer for the replacement of two grossly oversized brine disposal pumps (1500 hp each) with smaller, more appropriately sized ones (350 hp each). These new pumps reduced energy costs as well as material costs from the wear and tear on the brine disposal piping due to excessive velocity. These changes will save DOE over \$2.9 million over the life of the new pumps while not sacrificing any functionality of the system. Maintaining the same top of pipe elevations was essential in the scope of the project, which required design of modifications to the two existing concrete pump/motor platforms in order to raise the new, physically smaller pumps.

**FEMA Recovery Roads, City Park & St. Bernard Neighborhood, City of New Orleans-DPW, New Orleans, LA:** Mr. Capretto performed civil engineering design services for this project including preparing scope report, preparing PS&E, and updating eligible damages, and revising PW Work Sheets. Work included cold mill and overlay, pavement base repairs, curb, and sidewalk repairs. The project also included utility adjustments and new ramps for all intersections.

**Veterans Blvd. Pump, Jefferson Parish Drainage Dept., Jefferson Parish, LA:** Mr. Capretto is providing detailed design plans, specifications and contract documents for construction of three drainage pump stations, two stations at Veterans Blvd with capacities of a 60 CFS & 85 CFS discharging into the 17th Street Canal, and one station at W. Esplanade with capacity of 170 CFS. Work Includes: new wet wells and piping systems with force main discharges over the 17th Street Canal floodwall, new diesel-powered electric generators as secondary power supply with hurricane protection enclosures, fuel storage tanks; miscellaneous civil, structural, mechanical, and electrical work, and some demolition work.

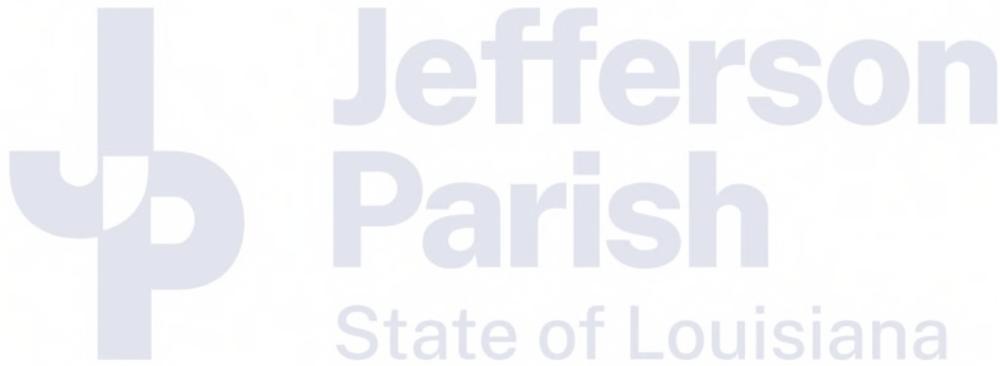
**Off-System Bridge Replacements, Jefferson Parish, LA:** Mr. Capretto served as project designer for the design of preliminary plans for two concrete bridges. Work included hydraulic and structural calculations and plans. He identified waterline and gas utility conflicts for projects and coordinated utility relocation in new design. He also drafted structural sections, plan and profile sheets, and vicinity map.

## TEC Professional Services Questionnaire

**LADOTD Safety Inspections of State Regulated Dams, Districts 61, 62 and 03, LA, S.P. No. 4400011393:** Mr. Capretto is performing periodic inspections of earthen and concrete dams throughout central and southeast Louisiana. Inspections are focused on structural stability of dams, particularly noting any seepage, leakage, erosion, settlement, cracking, etc. noting overall existing condition of principal and emergency spillways. Findings are discussed with dam owners at sites as well as included in reports prepared and submitted to DOTD.

**Underwater Bridge Inspection Services, LA, LADOTD:** Mr. Capretto is provided engineering support for underwater bridge inspection services for LADOTD maintained bridges. ECM's task included approximately 400 bridges under this five-year retainer contract. Scope of work included detailed inspection reports of dive operations, including elements and conditions rating of each element with documentation that included significant deviations from as-built conditions for each bridge, as well as other pertinent data for submerged portion of the bridges.

**Gravier Street Improvements, City of New Orleans-DPW; New Orleans, LA:** Mr. Capretto provided civil engineering design and construction administration for this \$5.2 million project which consisted of design, preparation of PS&E for roadway reconstruction including new storm drainage, and water and sewer systems. The project involved extensive coordination with the S&WB and other utility entities regarding both vertical and horizontal location of utilities.



**TEC Professional Services Questionnaire**

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>	
<b>Name &amp; Title:</b>	<b>John Foley, III, P.E., Civil Engineer</b>
<b>Project Assignment:</b>	<b>Civil Engineer/Design</b>
<b>Name of Firm with which Associated:</b>	<b><i>ECM Consultants, Inc.</i></b>
<b>Years' experience with this Firm:</b>	<b>5</b>
<b>Education: Degree(s)/Year/Specialization:</b>	<b>B.S./2018/Civil Engineering</b>
<b>Active registration: Year first registered/discipline:</b>	<b>2018/Civil Engineering/LA License No. 42740</b>
<b>Other experience and qualifications relevant to the proposed Project:</b>	<p>Mr. Foley is a Registered Professional Engineer with 10 <b>years of experience</b> in designing LADOTD and public works projects including feasibility studies, environmental assessments, roadway, drainage and utilities relocations. He is very familiar with <a href="#">City of New Orleans General Specifications for Street Paving</a> and the <a href="#">City Standard drawings</a>.</p> <p><b>Program Management for 2017 Jefferson Parish Road Bond Issue East Bank of Jefferson Parish, LA:</b> Mr. Foley is serving as Project Engineer for the 2017 Jefferson Parish Road Bond Projects on the East bank of Jefferson Parish. This Program currently has <b>\$208 million</b> of construction projects that includes the design and construction of <b>roadways, drainage</b>, utilities, bridges and pedestrian bike paths. Mr. Foley reviews consultants' plans and specifications for conformance with Jefferson Parish Standards and technical specifications. He also reviews engineering construction cost estimates prepared by the consultants for accuracy and compliance with the project's budgets.</p> <p><b>LA 931 at Roddy Road Roundabout, Ascension Parish, Gonzales, LA.</b> Mr. Foley provided design services for a <b>single-lane asphalt roundabout</b> at the intersection of LA 931 and Roddy Road in Gonzales, LA. Services included preparing a roundabout report (crash analysis, cost-benefit analysis, traffic analysis, speed study, safety analysis), <b>subsurface drainage</b>, preliminary and final design plans, specifications, special provisions, construction estimates, and engineering calculations. The design complied with state and federal guidelines. As project engineer, he performed design of <b>roadway geometry</b>, prepared plan and profile and typical sections for preliminary design plans and roundabout report.</p> <p><b>Lake Terrace Oaks, Group-C, Neighborhood Roadway Improvements. City of New Orleans, LA:</b> Mr. Folley is serving as project civil Engineer and providing design services for this <b>\$10 million</b> project that involves complete reconstruction of <b>17 blocks of neighborhood residential roadway including subsurface drainage system</b>, replacement of water and sewer systems as required. Work includes PCC paving, new base, concrete curb, sidewalks, driveway aprons and ADA compliant ramps at roadway intersection. He is performing all design conforming to <a href="#">City of New Orleans General Specifications for Street Paving</a>.</p> <p><b>West Metairie Avenue Restoration, Jefferson Parish, LA.</b> Mr. Foley provided condition assessment, design, and construction documentation for the replacement of <b>failed concrete panels, drainage structure repairs</b>, and canal banks slope stabilization. Project Designer responsible for designing plans and calculating quantities</p> <p><b>Harrison Avenue Improvements, Covington, St. Tammany Parish, LA:</b> Mr. Foley was a part of the project team that conducted a feasibility study and subsequent design and construction management of recommended improvements. He, as a part of the design team, evaluated two proposed alternates for the reconstruction of Harrison Avenue and provided design services for a <b>two-lane roadway with raised median</b>, sidewalks, two roundabouts, and subsurface drainage. He designed and prepared line and grade sheets for this project.</p> <p><b>Transit Improvement Design for District 3 Jefferson Parish, LA:</b> Mr. Foley is serving as Project Engineer for design for improvements to 317 transit facilities within Council District 3 for Jefferson Parish. Scope of work included preparing detailed construction plans and technical specifications conforming with the <a href="#">latest LADOTD criteria and Standard Specifications for Roads and Bridges</a>. He prepared plans that included locations of all utilities affected by proposed construction, improvements to the transit shelters and stops and adjacent intersections. Improvements included enhancements for accessibility, safety and features needed to achieve ADA compliance. Work also included sidewalks, ADA ramps, crosswalks, signage, striping, boarding and a lighting areas, benches, and shelters.</p>

**TEC Professional Services Questionnaire**

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>	
<b>Name &amp; Title:</b>	<b>Dale Garber, Coastal Project Manager</b>
<b>Project Assignment:</b>	<b>Coastal project management/Construction Contract administration</b>
<b>Name of Firm with which Associated:</b>	<b><i>ECM Consultants, Inc.</i></b>
<b>Years' experience with this Firm:</b>	<b>5</b>
<b>Education: Degree(s)/Year/Specialization:</b>	<b>B.S. / Agricultural Engineering</b>
<b>Active registration: Year first registered/discipline:</b>	
<b>Other experience and qualifications relevant to the proposed Project:</b>	<p>Mr. Garber has more than 37 years of experience in design, design reviews, construction administration and management of watershed planning, coastal restoration, marsh creations &amp; restoration, rock dikes, levees, dams and breakwater structures in the southeast Louisiana coastal environment. His 35 years of experience with USDA-NRCS and CPRA projects will be an asset for this coastal engineering contract.</p> <p><b>Northwest Turtle Bay Marsh Creation, Jefferson Parish, LA:</b> Mr. Garber served as Project Manager overseeing construction administration and inspection services for this \$12.5 Million project that will create and nourish 791 acres of marsh in the Barataria Basin. The project lies south of the communities of Lafitte, Barataria, and Jean Lafitte which sit upon the Barataria Bay Waterway. ECM has drone and is providing drone flown construction progress aerials as required by this CPRA contract. Mr. Garber is a FAA certified drone operator.</p> <p><b>BA-41 South Shore of the Pen-Marsh Creation, Jefferson Parish, LA:</b> As the Supervising Civil Engineer for NCRS, Mr. Garber managed and supervised the construction of approximately 11,556 linear feet of geotextile reinforced rock dike utilizing 42,800 tons of rock riprap and dredging of a flotation access channel along the south shoreline of "The Pen", construction of about 11,400 linear feet of containment dike by bucket dredging and subsequent placement of 630,000 cubic yards of hydraulically dredged fill to create approximately 75 acres of marsh land.</p> <p><b>BS-16 South Lake Lery Shoreline and Marsh Restoration Project, Braithwaite, Plaquemines Parish, LA:</b> Mr. Garber served as Contracting Officers Representative (COR) for the USDA-NRCS on this \$22 Million Coastal Restoration Project funded through CWPPRA Program which consisted of 36,000 LF of Lake Rim Embankment restoration and 549 Acres of Marsh Creation. 3.7M CY of earthen material was hydraulically dredged from Lake Leery and 50,500 LF of earthen containment dikes were constructed to create the 549 acres of marsh. Supervised two construction inspectors and 2-man survey crew for performance of Contract Management and Quality Assurance duties for the NRCS. Construction time was approximately 2-1/2 years.</p> <p><b>Post Hurricane Maria – Damage Survey Reports, Puerto Rico:</b> Under a \$10 million, ECM+M&amp;E Joint Venture IDIQ contract, Task Order 001, Mr. Garber served a Project Manager on this post disaster mission to complete Damage Survey Reports (DSRs) and Environmental Evaluation Worksheets for 64 sites located in Puerto Rico as a result of Hurricane Maria. Each of the 64 sites were visited in the field by a team consisting of an engineers, technicians, and biologist to assess the impairment. Forty-three of the sites consisted of sediment and debris at culvert and bridge crossings impairing drainage. Twenty-one of the sites consisted of channel slope erosion or failures impairing drainage channels and structures. At each site photos, measurements, and basic surveys were performed, and sketches were developed. Quantity calculations and cost estimates were developed for the required work at each site. Affected properties, facilities, infrastructure, were assessed to consider the impact, if work was not performed, and an economic justification was developed.</p> <p><b>TE-48 Raccoon Island Marsh Creation -Phase B, Terrebonne Parish, LA:</b> As the Supervising Civil Engineer for NCRS, Mr. Garber managed and supervised TE-48 Raccoon Island – Phase B is to create Marshland to extend the longevity of the northern back bay area of the barrier island by creating approximately 58 acres of intertidal wetlands that will serve as bird habitat for one of the largest colonies of the Louisiana Brown Pelican and many other barrier island species. Restoration of the barrier island will also serve as protection of inland marshes and infrastructure of coastal Louisiana by reducing impact of land falling tropical systems. This island is critical to the future sustainability of coastal Louisiana while also providing valuable habitat to multiple coastal bird species.</p>

## TEC Professional Services Questionnaire

**CS-29 Black Bayou Culverts Hydrologic Restoration Repair Project, Lake Charles, LA, Calcasieu Parish, LA:** Mr. Garber served as Contracting Officers Representative (COR) for USDA-NRCS on this \$7M Coastal Restoration Project funded through CWPPRA, consisting of repair of major water control structure with a ten (10) barrel 10' X 10' concrete box culvert system with aluminum flap gates through LA Hwy. 384. The project consisted of installing two steel sheet pile cutoff walls on each side of structure and reinforced concrete tie-in aprons. Installed 128 steel push piers under the structure to provide stabilization and prevent future differential settlement. New trash racks were installed, and existing flap gates were removed, refurbished, recoated then reinstalled on the structure. Additional rock rip-rap scour aprons were installed upstream and downstream of the structure. Additional channel excavation and slope protection was constructed.

**Supervisory Civil Engineer – Thibodaux Watershed Construction Office, LA:** Mr. Garber performed and supervised planning and design surveys, construction stakeout, construction survey checks, as-built surveys and contract administration and inspection for a wide variety of coastal restoration projects that included water control structures, shoreline protection features to include rock riprap and concrete walls, marsh creation, vegetative re-establishment, sand fencing, and earthen terraces. He assisted the CO with contract administration and technical recommendations, constructability reviews, cost estimates, pre-construction meetings, submittal review, payments, and close out. Mr. Garber performed survey, engineering and construction administration for projects through the Emergency Watershed Protection (EWP) Program for Hurricanes Andrew, Katrina and Rita.



**TEC Professional Services Questionnaire**

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>	
<b>Name &amp; Title:</b>	Missy Reynolds, E.I., Deputy Program Manager
<b>Project Assignment:</b>	Coastal/Civil Engineering
<b>Name of Firm with which Associated:</b>	<b><i>ECM Consultants, Inc.</i></b>
<b>Years' experience with this Firm:</b>	7
<b>Education: Degree(s)/Year/Specialization:</b>	B.S./1994/Civil Engineering
<b>Active registration: Year first registered/discipline:</b>	E.I./LA/No. 16639
<b>Other experience and qualifications relevant to the proposed Project:</b>	<p>Ms. Reynolds has 31 years of experience in project management, construction management, and engineering design and support for construction of roadways, water facilities, canals and drainage structures, and development projects. She has provided oversight for civil and hydraulic studies, reconstruction, new construction and other improvements across the Greater New Orleans region. Ms. Reynolds also has experience in disaster-related projects including verification of high-water marks, implementing temporary roofing (blue roof), debris removal, asbestos abatement and removal, and working with federal, state and local agencies.</p> <p><b>Employment History:</b></p> <ul style="list-style-type: none"> <li>• ECM Consultants Inc., LA, <i>Deputy Program Mgr. (2017-present)</i></li> <li>• Barowka &amp; Bonura Engineering &amp; Consultants, LLC, LA <i>Senior Project Manager/Construction Manager (2008-2017)</i></li> <li>• URS Corporation, LA, <i>Project Manager (1998-2008)</i></li> <li>• Frederic R. Harris, <i>Project Engineer (1996-1998)</i></li> <li>• C&amp;S Consultants, <i>Project Engineer (1994-1996)</i></li> </ul> <p><b>Waggaman Hydraulic Study, Jefferson Parish, LA:</b> Ms. Reynolds performed a hydrologic study for the subdivisions Waggaman, South Kenner and Manor Lane in Waggaman, LA. Each subdivision was 200-600 acres and included residential, industrial and unimproved areas. Ms. Reynolds utilized the Storm Water Management Model (EPA SWMM) to evaluate existing conditions and develop and hydrologic and hydraulic design model for each subdivision, recommending design improvements to reduce flooding. She also presented a detailed Hydraulic and Hydrology Report to show existing and proposed conditions.</p> <p><b>Cypress Park &amp; Erindale Subdivisions Hydraulic Study, St. Tammany Parish, LA:</b> Ms. Reynolds performed a hydrologic study for two residential subdivisions utilizing Autodesk Storm Water Management Model (EPA SWMM) to evaluate the existing drainage capacities and contributions to bayous. She developed a hydrologic and hydraulic design model for each area and presented a detailed report showing existing and proposed design conditions along with associated probable construction costs.</p> <p><b>Jean Lafitte Drain Line Replacement, St. Bernard Parish, LA:</b> Ms. Reynolds designed 4,500 LF of major drain line and an outfall in conjunction with the Parish Drainage Master Plan and FEMA funding guidelines. The plans also included design for several large junction boxes, catch basins, roadway restoration, and redirection of smaller drain lines to intercept runoff and tie directly into the junction boxes.</p> <p><b>East Bank Water Treatment Plant, Jefferson Parish, LA:</b> Ms. Reynolds designed the civil site plan for a 10-acre expansion of an existing water treatment plant to include a new laboratory building and P4 plant with process piping, access roadways, driveways, parking lots, rerouted subsurface drainage, sewer and water utilities.</p> <p><b>Congressman Hebert Canal Widening &amp; Stabilization, St. Bernard Parish, LA:</b> Ms. Reynolds provided Project Management and design services to examine existing drainage capacity and bank stabilization for one of the major outfall canals in St. Bernard, which</p>

## TEC Professional Services Questionnaire

was adjacent to residences and schools. She utilized Autodesk SWMM to size the approximately 3,000 LF proposed earthen canal, box culverts, and concrete U-channel in accordance with the Parish Drainage Master Plan. The design also included relocation of several subsurface utilities, tying in existing drainage culverts, and roadway/bridge rehabilitation.

**Mid-City Street Improvements, Gentilly Woods & Read Boulevard East Group C Neighborhoods, New Orleans, LA:** Ms. Reynolds performed engineering services for rehabilitation and reconstruction of roadways in several neighborhoods, identifying storm-related damages to both roadways and subsurface utilities totaling more than \$15 million. She prepared detailed scoping reports to capture each damaged area in accordance with FEMA guidelines; created an in-depth tracking system to detail location, scope and eligibility of each item; developed drawings for FEMA eligibility approval along with corresponding support documentation for federal funding. She also performed construction cost estimates and tracked individual quantities to multiple funding sources, and prepared specifications.



Jefferson  
Parish  
State of Louisiana

**KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT****Name & Title:**

Sudhir Mehta, P.E., Structural Engineer

**Project Assignment:**

Structural Engineering

**Name of Firm with which Associated:*****ECM Consultants, Inc.*****Years' experience with this Firm:**

6

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

BS/ Civil Engineering/1972; MS/Civil Engineering/1974

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

1980/Civil Engineering/LA License No. 18950

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

Mr. Mehta has 49 years of experience in the design, analysis and construction of major hydraulic structures such as pumping stations, floodwalls, floodgates and other flood control structures for multiple USACE districts, states and municipalities.

**Employment History:**

- ECM Consultants, Inc., *Structural Engineer (2018-present)*
- Brown, Cunningham and Gannuch, LA, *Sr. Structural Engineer (2006-2018)*
- URS Corp, LA, *Sr. Structural Engineer (2005-2006)*
- Pepper & Associates, LA, *Structural Engineer (1975-2005)*

**Caernarvon Freshwater Diversion-Floodwalls, USACE New Orleans District, St. Bernard Parish, LA.** Mr. Mehta was the structural engineer responsible for the preparation of a design report to heighten floodwalls, swing gate and roller gate in the area near the Caernarvon Freshwater Diversion Structure. Construction cost estimates were prepared for various alternatives.

**Sector Gate at Bayou St. John, Orleans Levee Board, New Orleans, LA.** Mr. Mehta served as Project Structural Engineer/Project Manager, providing planning and designing from conceptual stage to conclusion; structural design of reinforced concrete gate structure and T-walls; design of fabricated steel sector gates; preparing specifications and coordinating with various local, state and federal agencies. Structural steel design for this project was performed using finite element software. Pile supported concrete foundation was analyzed using USACE case group 3D pile analysis program. The structure is located in New Orleans in Bayou St. John and is part of the Lake Pontchartrain and Vicinity Hurricane Flood Protection System.

**Bayou DeChene Reservoir Outfall Structure and Spillway, Caldwell Parish, LA.** Mr. Mehta served as Structural Engineer for design of this project that included spillway and outfall structures consisting of a two-cell reinforced concrete box culvert with an inlet flume and a gated riser at the upstream end and a stilling basin at the downstream end.

**West Shore Lake Pontchartrain Flood Risk Reduction Project, Segments WSLP 102 and 106, St. Charles Parish, LA: Project Structural Engineer.** The purpose of this project is to construct a 100-year level flood risk reduction system for the residents of the three parishes. The WSLP 102 and WSLP 106 of approximately 2 miles, is a part of 18.5 miles long West Shore Lake Pontchartrain project at its east approach. The salient features of this contract are earthen Levees, T-walls, and a Drainage Structure in the Montz canal with four (4) stainless steel sluice gates. The flood mitigation configuration is such that a portion of T-wall construction in this reach crosses the existing I-10 alignment and must be constructed under the I-10 east bound and west bound bridges. The scope of work of the WSLP 102 & 106 contracts includes engineering design, preparation of PS&E for all civil, structural, mechanical, electrical, and geotechnical engineering considerations. Mr. Mehta is responsible for all structural design for Flood walls, and gated drainage structure in Montz canal for both the segments.

**Bulkhead for Sea Gate Community, Coney Island, NY.** Mr. Mehta served as Structural Engineer for this \$3 million project funded by FEMA to replace an existing bulkhead damaged during Super Storm Sandy in 2012. A variety of alternatives were investigated for the bulkhead, including tied-back PVC steel sheet piles and cantilevered steel sheet pile walls. The final design included steel sheet pile cantilever bulkhead and was chosen as the economical alternative to meet available funding.

**Frontal Protection & Discharge Basin Modifications, Drainage Pumping Station No. 3, SW&B/Orleans Levee Board, New Orleans, LA.** Mr. Mehta served as Project Manager/Project Engineer responsible for design of reinforced concrete discharge tubes for five horizontal pumps at Station No. 3. He provided design of frontal protection which included a gate structure at the discharge end of

## TEC Professional Services Questionnaire

the discharge tubes with 13 electrically operated sluice gates, T-walls and I-walls all tied into existing flood protection at London Avenue Canal; devising construction sequence to minimize settlement of existing railroad bridge which spanned the discharge basin. He coordinated with various state and local agencies.

**Drainage Pumping Station No. 19, Sewerage & Water Board of New Orleans, New Orleans, LA.** Mr. Mehta served as Structural Engineer for planning, design, and construction of this multi-phase, multi-million-dollar project consisting of construction of a multi-cell box culvert suction canal, the width of which varies from 30 ft at the existing Florida Avenue drainage canal to more than 120 ft at the suction basin of the pump station. The pump station building is a structural steel and reinforced masonry building with copper roof and houses three 11'-0" diameter 1,200 cfs horizontal pumps and two 7'-0" diameter 350 cfs vertical pumps giving the pump station a capacity of approximately 4,300 cfs. The discharge basin consists of reinforced concrete discharge tubes with water passages that provide equal velocity transition as it changes shape from circular section at the diffuser to rectangular section at the discharge end. The suction elbows of horizontal pumps frame into reinforced concrete suction tubes designed to transition from a rectangular section at the trash screen to the circular section at the suction elbow. This project also included tying into existing flood protection with approximately 1,000 lf T-walls and closure structures. The discharge end of the pump station was provided with electrically operated sluice gates to keep the surge from entering the water passages of the discharge tubes and flooding the city. Also included was relocation of 54" and 48" diameter steel sewer force mains and the water main respectively as well as S&WB of New Orleans high voltage underground cables.

**Fronting Protection at Bonnabel and Suburban Pumping Stations, USACE New Orleans District, Jefferson Parish, LA.** Mr. Mehta served as Project Manager/Structural Engineer for this project to add new surge protection structures which consisted of gated structures at the discharge end of the water passages of the existing horizontal pumps and T-walls at vertical pump discharge. Existing steel discharge pipes of the vertical pumps were extended through the T-wall structures. Also included were new T-walls tie the fronting protection structures on both sides of the discharge channel to the existing flood protection levees. The bid price for the Bonnabel and Suburban fronting protection was approximately \$85M.

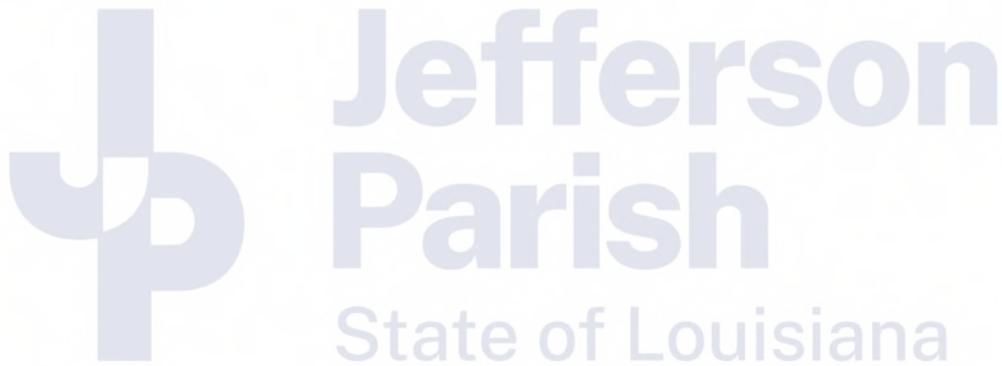


TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>	
<b>Name &amp; Title:</b>	
<b>Neil Logan, P.E., Senior Structural Engineer</b>	
<b>Project Assignment:</b>	
<b>Structural Engineering</b>	
<b>Name of Firm with which Associated:</b>	
<b><i>ECM Consultants, Inc.</i></b>	
<b>Years' experience with this Firm:</b>	
<b>20</b>	
<b>Education: Degree(s)/Year/Specialization:</b>	
<b>B.S./1961/Civil Engineering</b>	
<b>Active registration: Year first registered/discipline:</b>	
<b>1974/Civil Engineer/LA License No. 14607</b>	
<b>Other experience and qualifications relevant to the proposed Project:</b>	
<p>Mr. Logan has over 48 years of experience as a structural engineer, with project experience including floodwalls, breakwaters, drainage pumping stations, hurricane and storm damaged risk reduction structures, commercial buildings, vehicle maintenance facilities, industrial facilities and bridges.</p>	
<p><b>Employment History:</b></p> <ul style="list-style-type: none"><li>• ECM Consultants Inc., LA, Sr. Structural Engineer (Contract) (2001-to date)</li><li>• N-Y Assoc., Structural Engineer (Contract) (1994-to date)</li><li>• N-Y Associates, Structural Engineer (1976-1991)</li></ul>	
<p><b>Off-System Bridge Replacement-Poplas St Bridge over Coburn Creek &amp; Noble Cemetery Rd Bridge over Thomas Creek, LADOTD; Washington Parish, LA:</b> Mr. Logan provided structural designs for the the 5-span bridges for both the Poplas Street Bridge over Coburn Creek and Noble Cemetery Road Bridge over Thomas Creek in Washington Parish. The project involved hydraulic analysis; bridge scour analysis, design; preparation of plans, specifications, and estimates (PS&amp;E) for the removal of existing bridge; new pile foundation substructure; bridge superstructure; concrete barrier rails; asphalt roadway transition; striping; ripraps; and guardrails.</p>	
<p><b>Storm Proofing Jefferson Parish Pump Stations, LA USACE-New Orleans District:</b> Mr. Logan provided Structural Engineering design services for Cousins Pump Stations No. 1, 2 and 3 and Elmwood No. 1 and 2 Pump Stations. The purpose was to provide storm proofing for the building envelopes as well as the ancillary systems in order to achieve reliable and redundant systems and ensure sustained operation during storm events. Structural design included retrofit metal roofs, hardening of siding's steel structural systems, and concrete foundations for generators and fuel tanks and other ancillary systems.</p>	
<p><b>USACE-Vicksburg District, under USACE-NOD, West Bank Mississippi River Levee, Phase II, Empire to Buras (NOV-16), Plaquemines Parish, LA.</b> Mr. Logan provided structural design of final construction plans and specifications for main line of the West Bank Mississippi River Levee, Empire to Buras reach in Plaquemines Parish for this T.O., under the above \$ 90 Million IDIQ ECM-GEC J/V contract. The project involved enlargement of approx. 6.7 miles of existing levee as a storm damage risk reduction measure. Design allowed the levee to be built to authorized grade plus overbuild to compensate for fill shrinkage/foundation settlement. Design features included demolition of existing floodwalls, deep soil mixing, new wave berm armorment, and access ramps.</p>	
<p><b>West Bank Mississippi River Levee, Venice Floodwall (NOV 15), Plaquemines Parish, LA, USACE Vicksburg Dist. under USACE NOD, Contract No. W912P8-07-D-0031, T.O. 0036:</b> Mr. Logan provided structural engineering services for this project involving Preliminary Engineering Design (PED) to evaluate a T-wall alternative for providing hurricane protection to the authorized grade, replacing the existing I-Wall at Venice as part of the New Orleans to Venice (NOV) Hurricane Protection Project. The design analysis was performed for 2,590 LF of batter-pile supported T-wall as an alternative to the existing I-wall and a closeable perpendicular flood gate at the Jump Basin Road crossing. Overall design considerations included Safe Water Level, Wave Loads and Barge impacts.</p>	

## TEC Professional Services Questionnaire

**Duncan Canal Breakwater and Bridges, USACE-New Orleans District, Kenner, LA, USACE Contract No. W912P8-07-D-0055, T.O. 0002:** This project involved design of a breakwater structure and two bridges north of Duncan Canal Drainage Pumping Station. As structural engineer, Mr. Logan designed two bridges and supervised the preparation of plans and specifications. Design included prestressed precast concrete piles, pile caps, prestressed concrete girders, concrete slab, concrete barrier and wing walls. This was designed for wave load provided by govt. He used an innovative design of a 45' prestressed concrete girder span removable section instead of conventional steel section. Removable section is required for barge/barge crane access to the drainage pumping station.



**TEC Professional Services Questionnaire**

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>	
<b>Name &amp; Title:</b>	<b>John Rasi, P.E., Senior Hydraulic Engineer</b>
<b>Project Assignment:</b>	<b>Hydrologic &amp; Hydraulic Modeling</b>
<b>Name of Firm with which Associated:</b>	<b><i>ECM Consultants, Inc.</i></b>
<b>Years' experience with this Firm:</b>	12
<b>Education: Degree(s)/Year/Specialization:</b>	<b>B.S./1978/Civil Engineering</b>
<b>Active registration: Year first registered/discipline:</b>	<b>1983/Civil Engineering/LA License No. 20841</b>
<b>Other experience and qualifications relevant to the proposed Project:</b>	<p>Mr. Rasi has over 41 years of hydraulic and hydrologic experience that includes a 25-year career with LADOTD and a 4-year career with Louisiana Department of Natural Resources (Coastal Restoration Division). He is highly experienced in the use of HEC-RAS, HEC-HMS, SWMM, DAMBREAK, FLOODWAVE, and LADOTD Hydraulics computer models for hydrologic and hydraulic analyses of watersheds, roadways, bridges, and coastal estuaries. He also has extensive experience working with US Army Corps of Engineers on projects such as Comite River Diversion to the Mississippi River.</p> <p><b>Employment History:</b></p> <ul style="list-style-type: none"> <li>• ECM Consultants Inc., LA, <i>Sr. Hydraulic Engr. (2012-to date)</i></li> <li>• Louisiana Department of Transportation LADOTD, <i>Hydraulic Manager (2002-2011)</i></li> <li>• Louisiana Department of Transportation, LADOTD, <i>Construction Grant and Permit Engineer (1994-2002)</i></li> <li>• Louisiana Department of Natural Resources (Coastal Restoration Division), <i>Hydraulic Engineer (1990-1994)</i></li> <li>• Louisiana Department of Transportation, LADOTD, <i>Hydraulic Engineer, (1983-1990)</i></li> </ul> <p><b>Port Hudson Bridge Replacement, Baton Rouge, LA:</b> Mr. Rasi served as the Hydraulic Engineer for this project for which ECM is providing engineering design services for the replacement of Port Hudson Pride Road Bridge at Copper Mill Bayou. He performed hydraulic design and assisted in preparation of the design study for the bridge for incorporating hydraulic analysis data.</p> <p><b>Hydraulic Analysis for Strain Road Bridge Replacement, Baton Rouge/East Baton Rouge Parish, LA;</b> Senior Hydraulic Engineer. Reviewed preliminary design and hydraulic analysis of Strain Road, noting the area frequently flooded due to backwater from the Amite River. Mr. Rasi used a USGS Gage Station on the Amite River at US 190, about two miles upstream of I-10, and spatially moved the Discharge vs. Stage hydrograph downstream. He then used this spatially corrected rating curve to run several profiles for 25, 50 and 100-year storm events with and without backwater to determine if raising the road several feet would cause flooding upstream. It only caused a modest elevated water surface for the 100-year design event without backwater.</p> <p><b>LADOTD Dam Safety Program, Louisiana Statewide:</b> Mr. Rasi is serving as Senior Hydraulic Engineer for the State Dam Safety Program. An average of 200 publicly and privately owned dams are inspected by ECM each year to ensure that the man-made impoundment structures and the attendant water control devices are functioning to design capabilities. Inspections include all accessible features of the project including embankments, concrete sections, spillways, galleries, intakes, outlet works, and discharge channels. The project also includes performing hydraulic engineering and dam breach analyses as well as development of flood inundation maps. The condition of dams, adequacy and quality of maintenance and operating procedures as they pertain to the safety of the dam and operation of the control facilities are also assessed, and rehabilitation and corrective measures are recommended.</p> <p><b>Hydraulic Engineer, Louisiana Department of Natural Resources (Coastal Restoration Division):</b> Mr. Rasi provided hydraulic modeling of coastal estuaries of southern Louisiana to study the effects of freshwater diversions from the Mississippi River. The modeling consisted of investigations of salinity, temperature, stage changes, tidal effects, and sediment transport. The results of modeling were used to control the diversion of water through gated structures along the Mississippi River levee as well as diverted water through siphons over the Mississippi River in order to affect stabilizing changes through Louisiana's deteriorating wetlands.</p>

## TEC Professional Services Questionnaire

**Dam Safety Program, LADOTD, Louisiana Statewide:** Mr. Rasi is serving as Senior Hydraulic Engineer for these projects include hydrologic and hydraulic modeling of watersheds using LIDAR survey data and preparation of EAP reports for 22 dams throughout Louisiana. Studies involve field reconnaissance, dam breach analysis, and preparation of inundation maps. He utilizes ArcGIS, HEC-RAS and HEC-GeoRAS computer programs for this project.

**Conceptual Hydrologic Design Services for Permanent Protection Systems for Outfall Canals at 17th Street, Orleans Avenue, and London Avenue, USACE Contract No. W912P8-07-D-0031, TO. 0007, Orleans Parish, LA:** Senior Hydraulic Engineer. Mr. Rasi performed hydrologic analysis of outfall canals, canal hydraulic review, and review of existing reports and available data. The project involved monitoring and collection of rainfall and discharge data for the entire watershed, calibration of hydraulic models, and evaluation and costing of several scenarios.

**Veterans Boulevard (North & South) and West Esplanade Avenue Drainage Pump Stations, Metairie, LA:** Mr. Rasi assisted in obtaining permits from USACE for several proposed pump stations. He developed discharge hydrographs for each pump station and routed each singularly and as a group into the 17th Street Canal as it was passing its peak flow using the unsteady USACE HEC-RAS computer model. ECM successfully illustrated that the pump stations would not cause flooding issues with discharge from the pump stations into the 17<sup>th</sup> Street Canal.

**Hydraulic Engineer for LADOTD (Office of Public Works):** Mr. Rasi provided hydraulic design for pump stations, channels, dams, and bridges as well as watershed flood studies, flood forecasting along streams, and the review and correction of Federal Emergency Management Agency flood maps.

**Construction Grant and Permit Engineer for LADOTD (Office of Public Works), Baton Rouge, LA:** Mr. Rasi reviewed applications and construction administration of the Louisiana Statewide Flood Control Program and the Louisiana Port Priority Program as well as the approval of permits near Louisiana levees. He was responsible for application review, compliance to public bid laws, partial payments during construction, and project closeout.

**Hydraulic Manager and Senior Hydraulic Engineer for LADOTD (Office of Public Works), Baton Rouge, LA:** Mr. Rasi served as Hydraulic Manager and was responsible for managing groups of engineers and engineering technicians in the review and design of projects from the Port Priority Program, the Statewide Flood Program, the Dam Safety Program, and Federal projects funded in part by the State of Louisiana. He supervised engineers in hydraulic design, drainage studies, dam breach analysis, and pump station design. He was also responsible for reviewing and approval of levee board permits within Louisiana. Additionally, he supervised flood plain specialists who were responsible for enforcing FEMA Flood Plain Laws and Regulations. Prior to his position as Hydraulic Manager, Mr. Rasi served as Senior Hydraulic Engineer responsible for approving hydraulic designs of projects in the Louisiana Statewide Flood Control Program.

**Caernarvon Freshwater Diversion Structure, DNR - Coastal Restoration Division.** In his role as Hydraulic Engineer, Mr. Rasi was part of the hydraulic modeling team consisting of members from USACE and LA Department of Natural Resources. The USACE two-dimensional mesh hydraulic model was run on the USACE Vicksburg supercomputer and was used to study the effect of the Caernarvon Freshwater Diversion Structure, located on the left descending Mississippi riverbank just south of New Orleans, on the Breton Sound Estuary. The original model mesh extended several miles out into the Gulf of Mexico; it was wrapped around Breton Sound Estuary and included the Mississippi River. The boundary conditions included the Gulf of Mexico's lunar and wind driven tides, the Mississippi River flow from just south of New Orleans to its mouth, and the freshwater diversion located at Caernarvon, LA. Many different scenarios were looked at and once hydraulic results were obtained, a second model was used to study effects of salinity on the estuary by the freshwater diversion structure by using the results of the hydraulic model. The original reason for the structure was to enhance the oyster beds located in Breton Sound during the summer months by lowering salinity to promote oyster bed growth and health.

TEC Professional Services Questionnaire

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

**Name & Title:**

Marvin May, CAD Technician

**Project Assignment:**

CAD Services

**Name of Firm with which Associated:**

***ECM Consultants, Inc.***

**Years' experience with this Firm:**

21

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

1999/AutoCAD Drafting

Active registration: Year first registered/discipline: NA

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

Mr. May has over 22 years of experience in AutoCAD drafting. His experience includes preparation of plan and profiles, cross sections and miscellaneous details for drainage, pump stations, levees, floodwalls, roadway, and utilities projects. He is trained in both AutoCAD and Microstation V8.2. His experience includes:

Employment History:

- ECM Consultants Inc., LA, CAD Technician (2002-present)

**Remediation of Levees for Orleans Avenue Outfall Canal, U.S. Army Corps of Engineers-New Orleans District, Orleans Parish, LA:** Mr. May provided CAD services for the remediation of levees in specific reaches of the Orleans Avenue Outfall Canal. Design included a sheet pile cut-off for approximately 2390' of Orleans Avenue Canal to eliminate seepage. This also involved design to tie the sheet pile into the existing protection at the ends of the design reaches to form a seamless wall of protection.

**Duncan Canal Breakwater Bridges, USACE-New Orleans District, Jefferson Parish, LA:** Mr. May provided CAD services for this project that involved preparation of plans, profiles, and details of two concrete girder bridges. Project included piles, pile caps, prestressed concrete girders, concrete slab, concrete barrier, and wing walls.

**Storm proofing Jefferson Parish Pump Stations, U.S. Army Corps of Engineers-New Orleans District, Jefferson Parish, LA:** Mr. May performed CAD drafting for storm proofing of Jefferson Parish pump stations including Parish Line, Westminster, Bayou Segnette, Whitney Barataria, and Canal Street Pump Stations. Mr. May was responsible for civil drafting including title sheets, index sheets, location maps, & R.O.W. maps. He also provided architectural/structural/mechanical drafting including plans, elevations, sections & details.

**West Bank Mississippi River Levee, NOV-16, U.S. Army Corps of Engineers-New Orleans District, Plaquemines Parish, LA:** Mr. May provided CAD services for the enlargement of 6.7 miles of existing levee. This project involved design for raising levee elevation to the authorized grade, plus overbuild, to compensate for fill shrinkage and foundation settlement. The project also included design for utility relocation and roadway relocation.

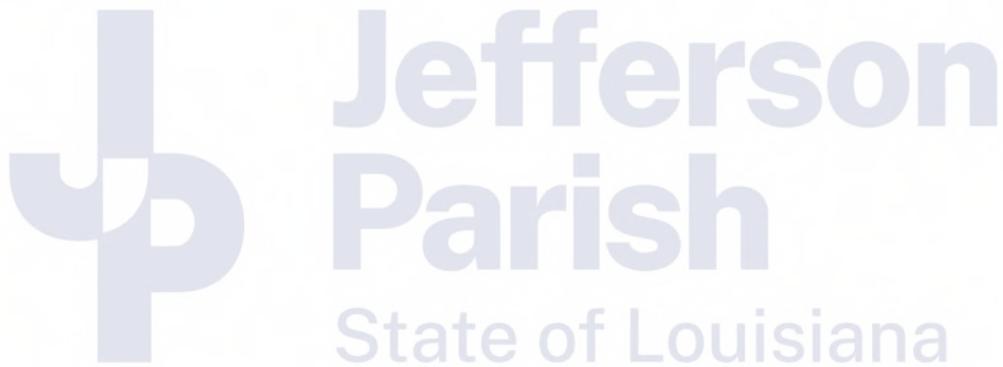
**Improvements to B&C Canal, Jefferson Parish Dept. of Public Works, Marrero, LA:** Mr. May provided CAD Support of design of an 8'x12' and 2500 L.F. concrete box culvert for B&C Canal, a major drainage canal. The project involved new subsurface drainage designs and structural designs for the box culvert.

**US Army Corps of Engineers- Vicksburg District under USACE NOD, Contract No. W912P8-07-D-0031, T.O #36 West Bank Mississippi River Levee, Venice Floodwall (NOV 15), Plaquemines Parish, LA:** Mr. May performed CADD drafting and support for this project in which ECM provided Preliminary Engineering Design (PED) to evaluate a T-wall alternative for providing hurricane protection to the authorized grade, replacing the existing I-Wall at Venice as part of the New Orleans to Venice (NOV) Hurricane Protection Project. Design analysis was performed for 2,590 LF of batter-pile supported T-wall as an alternative to the existing I-wall and a closeable perpendicular flood gate at the Jump Basin Road crossing. Design considerations included Safe Water Level, Wave Loads & Barge impacts.

**US Army Corps of Engineers- Vicksburg District under USACE NOD Contract No. W912P8-07-D-0031, T.O. #30 West Bank**

## TEC Professional Services Questionnaire

**Mississippi River Levee, Port Sulphur to Jackson (NOV-11) and Fort Jackson to Venice (NOV-12), Plaquemines Parish, LA** Mr. May performed CADD drafting and support for this project in which ECM provided preliminary design analysis for the construction for the New Orleans to Venice (NOV) main line West Bank Mississippi River Levee (MRL), Port Sulphur to Fort Jackson reach (NOV-11). The project involved the enlargement of approximately 13.36 miles of the existing levee. The design involved evaluation of geotechnical data including preparation of Geotechnical Soils Report and flood elevations and hydraulic data.



**TEC Professional Services Questionnaire**

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

**Name & Title:**

Alexandra Dupuis, CAD Technician

**Project Assignment:**

CAD Technician

**Name of Firm with which Associated:**

***ECM Consultants, Inc.***

**Years' experience with this Firm:**

>1

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

2017/AutoCAD Drafting

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

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

Ms. Dupuis has more than 7 years of experience in AutoCAD drafting. Her experience includes creating 3D models and making 2D out of the 3D models, preparing layouts as directed by engineers/architects, preparation of plans and profiles, X-sections and various details for roadways, drainage, and utilities system projects

**Employment History:**

- ECM Consultants Inc., LA, *Sr. Structural Engineer (2023-to date)*
- Project Consulting Services, Inc., *Piping Designer (2022-2023)*
- Huntington Ingalls, *Designer II (2018-2022)*
- American Metal Fab, Inc., *Drafter (2016-2017)*

*The following are examples of his relevant experience:*

**Transit Improvement Design for District 2, Jefferson Parish, LA** Ms. Dupuis provides CAD services for the changes being made to 252 bus stops that follow the latest standards given by the Jefferson Parish, LA DOTD, and AASHTO. The project includes photos of bus stop locations with documentation of changes being done to follow updated standards. The views of the bus stops will be designed to include detailed information on proposed concrete layouts, dimensions, street name callouts, and placement of bus stop signs.

**Chateau Elementary School-Hurricane Ida Repairs, Kenner, LA** Ms. Dupuis provided CAD services to Chateau Elementary School in Kenner, Louisiana by designing plans and adding information on damage repairs that needed to be done because of the hurricane. She created and modified floor plans that have detailed callouts referencing to photos of damage done by hurricane. Photos are then documented with descriptions of damage and what needs to be repaired. Floor plans, details, and photos document repairs to floors, walls, and ceilings of school building.

**Grand Isle Water Systems Improvements, Grand Isle, LA** Ms. Dupuis provided CAD services by designing one-line piping diagrams to show the chemical feed systems at the East Grand Isle and Cheniere sites. The one-line piping diagrams consist of showing how the chemicals from the ammonia room flow through the pipes and how they travel to specific designated areas where needed. The diagram also includes an equipment list that is required for each individual site.

**Hope Haven Main Building, Marrero, LA** Ms. Dupuis is providing CAD services by preparing restoration plans for Hope Haven. The project includes the breakdown of damaged material that is identified in floor plans of building and suggested routes of construction walkway. Photos have been included in plans to show physical damage done to the structure. Roof plans are also incorporated in blueprints with documentation of damage and photos as well. The shoring layouts have also been designed to show locations, dimensions, and material need for restoration after debris and damage has been removed.

**HANO On Call AE Services for Agency Wide Housing Communities and Scattered Sites, New Orleans, LA** Ms. Dupuis provides CAD services to design changes to the interior of Guste III Community, Lafitte Senior Housing, and Fisher Senior Housing to apply modernization and redevelopment of multi-family housing units in New Orleans. She has designed site plans, floor plans, and detailed views to describe and callout changes being applied to units. Data tables are created to show scope of work for units that show the work item description, quantity, and reference notes/reports. Detailed views offer layouts of changes being done to kitchen and bathroom and consist of appliance callouts, dimensioning, and notes that describe and offer information of changes needed to be done per unit.

TEC Professional Services Questionnaire

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

**Name & Title:**

Ben Dow, Inspector

**Project Assignment:**

Technical Services, Construction Inspection

**Name of Firm with which Associated:**

***ECM Consultants, Inc.***

**Years' experience with this Firm:**

16

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

High School Diploma, USACE Levee Inspection Workshop, NHI Certified-Safety Inspection of In-Service Bridges Movable Bridge Inspection Workshop

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

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

Mr. Dow has over 22 years of experience performing assessment inspection services for levees, bridges, and dams. His experience includes performing safety inspections, verifying structural stability, daily inspections of construction activities, and preparing and submitting reports.

**Training & Certifications:** NHI Training Certification-Introduction to Safety Inspection of In-Service Bridges; NHI Certified-Safety Inspection of In-Service Bridges; Movable Bridge Inspection Workshop; USACE Levee Inspection Workshop; Training Aids for Dam Safety (TADS)

**Employment History:**

- ECM Consultants, Inc., LA, Inspector (2008- present)
- Eustis Engineering, LA, Geotechnical Lab Mgr. (2002-2008)
- Channel Shipyard & Fleet, Inc., LA, Fleetmate (1998-2002)

**Northwest Turtle Bay Marsh Creation for CPRA, Jefferson Parish, LA:** As Senior Technician, Mr. Dow provided construction inspection services for this project that will create and nourish 791 acres of marsh in the Barataria Basin. The project lies south of the communities of Lafitte, Barataria, and Jean Lafitte which sit upon the Barataria Bay Waterway.

**BA-27c Barataria Basin Land Bridge CU 7 & 8, USDA-NRCS, AG-7217-C-12-0006, Task Order 1, Jefferson Parish, LA:** As Sr. Technician, Mr. Dow provided construction quality assurance inspection services for Rock Dike Construction for the BA-27c Barataria Basin Land Bridge. This project was designed to significantly reduce the wave energy impacting the shorelines of Little Lake and Bayou Perot and to protect the adjacent marsh areas from further degradation.

**Periodic Inspection of Mississippi River East Bank Levee System, USACE-New Orleans District, Baton Rouge to New Orleans:** Mr. Dow served as Inspector for this project which consisted of conducting Periodic Inspections (PI) of the Mississippi River East Bank Levee System (Baton Rouge to New Orleans). The work included 107 miles of levees and floodwall sections and several closure structures and pumping stations. The purpose of the PI was to assess the general condition of the levee system based on visual inspections and gathering and documenting existing historical information and data, evaluate operational adequacy and structural stability of the Levee system. The project also included development of Periodic Inspection report consisting of reviews of structural integrity and operational adequacy of levee system components, and recommendations for actions to correct noted deficiencies.

**Permanent Protection System for Outfall Canals at 17th St., Orleans and London Avenue, Orleans Parish, US Army Corps of Engineers-New Orleans District:** Mr. Dow was responsible for rainfall and water level monitoring for this project that involved construction of levees, levee enlargement, steel sheet pile and concrete flood walls, drainage canal improvements, drainage structures, culverts and stone revetments, and concrete mats.

**Periodic Inspection of West of Atchafalaya Floodway Levee System, USACE-New Orleans District, St. Martin Parish to Melville:** Mr. Dow served as Inspector for this project which consisted of conducting Periodic Inspections (PI) of the West of Atchafalaya Floodway Levee System (St. Martin Parish to Melville, LA). The work included 63.74 miles of levees and floodwall sections and several closure structures and pumping stations. The purpose of the PI was to verify proper operation and maintenance, evaluate operational adequacy and structural stability, review design criteria to identify changes in current design standards, identify features to monitor over time, and improve the ability to communicate the overall condition.

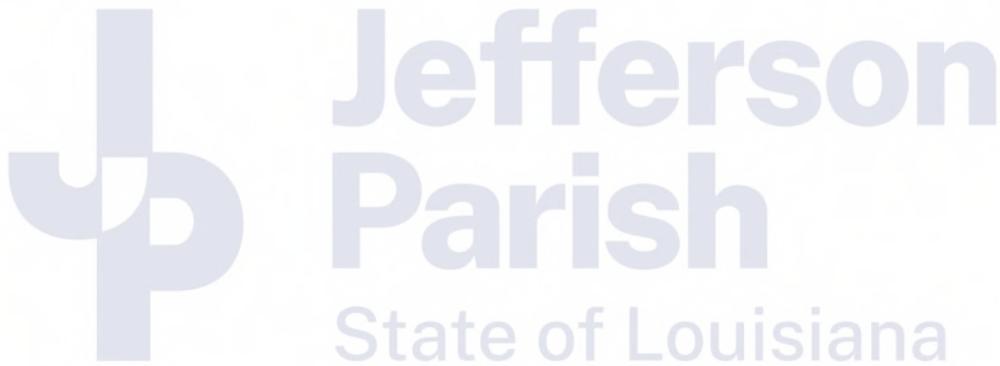
**IDIQ Dam Safety Inspection of State Regulated Dams, Statewide, LA, State Project No. 440003970:** Mr. Dow performed 489 safety

## TEC Professional Services Questionnaire

inspections for 289 dams under this three-year IDIQ contract. He was responsible for inspection and documentation of various features of dams including embankment, concrete section, spillways, galleries, intake and outlet works and channels. This also included documenting evidence of leakage, erosion, seepage, instability, undue settlement, cracking, tilting, displacement, etc.

**Orleans Avenue Canal, Remediation of Canal Flood Walls and Levees, USACE IDIQ Contract No. W912WP8-07-D0031, Task Order 0052, Orleans Parish, LA:** Mr. Dow served as a QA Inspector during construction of this project. In the aftermath of hurricane Katrina, the flood walls, levees, and canal banks of the Orleans Avenue canal suffered damages at some locations due to breaches. As mandated by the Corps, ECM completed design in 90 days and construction was completed in nine months. The scope of work included construction for remediation of seepage by driving steel sheet pile cut-off for approximately 2,390' of the flood wall, and deep soil mixing for the levee and canal bank for stabilization.

**Retainer Contract for Underwater Bridge Inspection Services, LADOTD; Statewide, LA:** Mr. Dow is providing underwater bridge inspection services for approximately 400 bridges. This is a five-year retainer contract. The scope of work includes detailed reports involving elements and conditions rating and documentation of any significant deviations from as-built conditions for each inspection, as well as other pertinent data.



TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
<b>Name &amp; Title:</b>
Zachary Collier, P.E., Civil Engineer
<b>Project Assignment:</b>
Coastal Restoration /Constructability Reviews/Construction Administration
<b>Name of Firm with which Associated:</b>
<b><i>ECM Consultants, Inc.</i></b>
<b>Years' experience with this Firm:</b>
5
<b>Education: Degree(s)/Year/Specialization:</b>
B.S./2014/Civil Engineering
<b>Active registration: Year first registered/discipline:</b>
2018/Civil Engineering/LA License No. 42957
<b>Other experience and qualifications relevant to the proposed Project:</b>
Mr. Collier is a civil engineer with 10 <b>years of experience</b> in construction engineering, construction administration and construction inspection at the LADOTD and Coastal Protection and Restoration Authority (CPRA), where he managed construction administration, inspection, operations and maintenance phase of projects. He directed and supervised crews on highways and bridge construction projects. He attended meetings and coordinated with contractors to resolves field issues. His project experience includes: <b>Employment History:</b> <ul style="list-style-type: none"><li>• ECM Consultants, Inc., LA, <i>Civil/Construction Engineer (2020-present)</i></li><li>• Coastal Protection and Restoration Authority, <i>Construction &amp; Operations Manager (2018-2020)</i></li><li>• LADOTD, <i>Assistant Project Engineer (2017-2018)</i></li></ul>
<b>PO-0033 Goose Point/Point Platte Marsh Creation, for CPRA in Coastal, LA:</b> Mr. Collier served as the <b>Project Engineer</b> for this project. This project consists of creating approximately 384 acres and nourishing 65 acres of marsh along the Lake Pontchartrain shoreline. Mr. Collier was responsible for contract administration for the maintenance project to dike gap and establish channels within the marsh.
<b>BA-0026 Barataria Waterway East Side Shoreline Protection, for CPRA in Coastal, LA:</b> Mr. Collier served as the <b>Maintenance Manager</b> for this project. He was responsible for yearly inspection, preparation of inspection report detailing all findings and recommendations for remediations. He oversaw all maintenance activities.
<b>PO-104 Bayou Bonfouca Marsh Creation, for CPRA in Coastal, LA:</b> Mr. Collier served as the <b>Project Engineer</b> for this project. The project objectives are to restore and nourish approximately 621 acres of interior marsh and reestablish the lake rim shoreline. Mr. Collier was responsible for contract administration for the maintenance project to close dike gaps and establish channels within the marsh.
<b>S.P. No. H.012912 – I-110 Ramps at Convention and Florida, for LADOTD in East Baton Rouge Parish, LA:</b> As the <b>Assistant Project Engineer</b> Mr. Collier was responsible for the construction administration of this project, which included maintaining invoices and inspection personnel. This project involved widening and rehabilitating the I-110 northbound exit ramp at Convention Street and the I-110 southbound entrance ramp at Florida Street.
<b>S.P. No. H.010560 – Essen Lane Widening, for LADOTD in East Baton Rouge Parish, LA:</b> Mr. Collier served on the Project Engineering team for this \$8 million widening project. Work included adding an additional travel lane on northbound Essen Lane, new signalized intersections, new ADA ramps at all driveways and intersections, and additional drainage capacity.

## TEC Professional Services Questionnaire

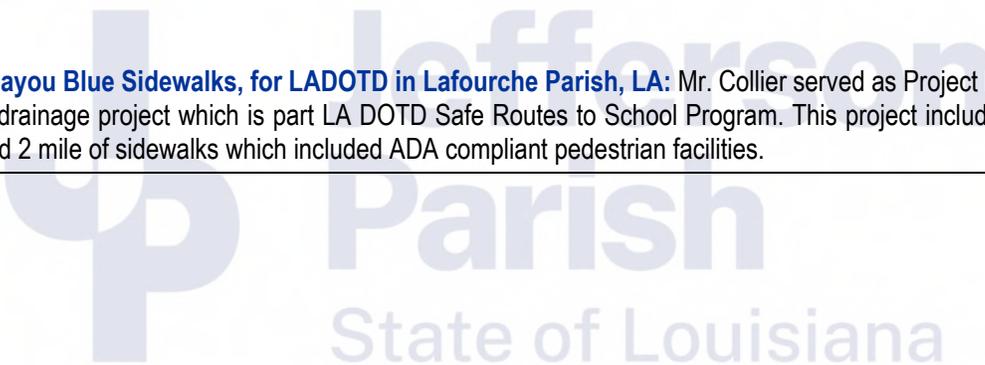
**BA-0020 Johnathan Davis Wetland Protection, for CPRA in Coastal, LA:** Mr. Collier served as the Construction, Operations, and Maintenance Manager for this project. He was responsible for yearly inspection reports and overseeing any maintenance required.

**Pecue Lane/I-10 Interchange Phase II: Bridges Over I-10, LADOTD, S.P. No. H.013579, East Baton Rouge Parish, LA.** Mr. Collier serves as the **Project Engineer** for this \$14.6 million overpass construction project includes two new multi-lane bridges over I-10 in Baton Rouge which will form the center of one of the state's first diverging diamond interchanges. He is providing contract administration services that includes project coordination, attending progress meetings, document management, data entry in SiteManager, manage RFIs and submittals, review plan change requests, review monthly pay estimates, prepare plan changes, keep concise record of all documents in chronological order so that project closeout documentation for final acceptance, including the 2059 will be arranged and completed properly on time. Mr. Collier's responsibilities included making plan changes during construction to ensure the project complied with ADA requirements.

**Severn Avenue Reconstruction (Veterans to W. Esplanade), Jefferson Parish, LA:** Mr. Collier is currently serving as the **Project Engineer** for this \$11.5 million complete street construction project. This project includes PCC paving, major drainage improvements, ADA facilities, the addition of dedicated bike lanes, addition of turn lanes, traffic and pedestrian signals, street lighting and landscaping etc. Avenue. He is providing CE&I services that includes project coordination, managing inspection services, data entry in SiteManager, manage RFIs and submittals, review monthly pay estimates, analysis, and preparation of inundation maps. He utilizes ArcGIS, HEC-RAS and HEC-GeoRAS computer programs for this project.

**S.P. No. H.011322 – River Road: Florida to Phlox – Multi-use Path, for LADOTD in East Baton Rouge Parish, LA:** This project included constructing a multi-use path, ADA accessible ramps and crosswalks, and rehabilitating the roadway on River Road (US-61X). Mr. Collier served at the Assistant Project Engineer and was responsible for overseeing contract administration, inspection, and final closeout.

**Raceland and Bayou Blue Sidewalks, for LADOTD in Lafourche Parish, LA:** Mr. Collier served as Project Engineer for this \$1.05 M sidewalk and drainage project which is part LA DOTD Safe Routes to School Program. This project included nearly 3000 feet of new drainage and 2 mile of sidewalks which included ADA compliant pedestrian facilities.



TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>	
<b>Name &amp; Title:</b>	<b>Emilio Rodriguez, Construction Inspector</b>
<b>Project Assignment:</b>	<b>Construction Inspection</b>
<b>Name of Firm with which Associated:</b>	<b><i>ECM Consultants, Inc.</i></b>
<b>Years' experience with this Firm:</b>	<b>12</b>
<b>Education: Degree(s)/Year/Specialization:</b>	<b>Architectural CAD / 2005 Technical Architecture (Construction) / 1989</b>
<b>Active registration: Year first registered/discipline:</b>	
<b>Other experience and qualifications relevant to the proposed Project:</b>	
<p>Mr. Rodriguez has over 32 years of experience as a technician for projects including multifamily housing, education facilities, warehouse buildings, and transportation projects. His responsibilities have included: preparation of plans &amp; details CAD drawings for new construction and renovation projects.</p>	
<p><b>Training &amp; Certifications:</b> NACE Coating Inspector Level 1; NHI Certified Safety Inspection of In-Service Bridges; Aerial Boom &amp; Scissor Lift Operator; LADOTD Moveable Bridge Inspection Workshop; Work Zone Traffic Control Flagger/Tech/Spvsr.</p>	
<p><b>Employment History:</b></p> <ul style="list-style-type: none"><li>• ECM Consultants Inc., LA, <i>Technician (2006-to date)</i></li><li>• Arctex Group Construction, TX, <i>Draftsman (2004-2006)</i></li><li>• ER Construction, TX, <i>Assistant Manager (2003-2006)</i></li><li>• Raytheon Engineers &amp; Constructors, TX, <i>CAD Operator/Corrosion Technician (1994-2002)</i></li></ul>	
<p><b>Northwest Turtle Bay Marsh Creation Jefferson Parish, LA:</b> Mr. Rodriguez provided construction inspection services for this \$23 million project that will create and nourish over 791 acres of marsh in the Barataria Basin. The project lies south of the communities of Lafitte, Barataria, and Jean Lafitte which sit upon the Barataria Bay Waterway in Jefferson Parish. This project involves creating marsh in current open-water and broken marsh areas, including two separate cells: The West cell, approximately 434 acres, and the East Cell, approximately 357 acres. The marsh creation area was designed to minimize the use of traditional earthen containment dikes by relying on existing marsh and vegetation to contain the hydraulically dredged fill from a nearby borrow source. Mr. Rodriguez is a FAA certified drone operator and is providing drone flown construction progress aerials for this project.</p>	
<p><b>Lake Borgne Shoreline Protection in St. Bernard Parish:</b> Mr. Rodriguez provided construction inspection for this project that involved the construction of a nearshore rock and fiber reinforced sheet pile wall breakwater for shoreline protection. Project included placement of 13,568 tons of 250 lb. class rock and 4,000 tons of 30 lb. class rock along with 67,650 sf of fiber reinforced sheet pile. The scope of the project included dredging, placement of the dredged material, and construction in this environmentally sensitive area.</p>	
<p><b>S.P. No 750-99-0135: State Regulated Dams, LADOTD; Statewide, LA:</b> Mr. Rodriguez performed safety inspections for publicly and privately-owned dams annually throughout the state of Louisiana to the extent deemed necessary to ensure that the impoundment structures and the water-control devices are functioning to design capabilities. Responsibilities included: notifying the dam owner, other interested parties, and DOTD of impending inspections; reviewing available plans; reviewing previous DOTD Dam Evaluation Reports and documents; performing safety inspections of high hazard, significant hazard, and low hazard category dams; and assisting with Dam Evaluation and Assessment Reports for DOTD.</p>	

## TEC Professional Services Questionnaire

**S.P. No. 700-99-0405, Crescent City Connection Division Annual Bridge Inspection, LA DOTD, New Orleans, LA:** Mr. Rodriguez provided bridge and facility inspection services of the Main Bridge couplet (east and west bound structures) over the Mississippi River, structural steel paint condition inspection, approaches, ferry facilities, pontoons, mooring, toll facilities, pedestrian bridges, pump station, and buildings at CCD-owned facilities in Orleans, Jefferson, and St. Bernard Parishes. He also participated in preparing the report that detailed specific findings of the inspection.

**Contract No. 4400003534: Retainer Contract for Underwater Bridge Inspection Services, LADOTD; Statewide, LA:** Mr. Rodriguez provided **underwater bridge inspection** services in conjunction with divers, for approximately 400 bridges for LADOTD, under this three-year retainer contract. Scope of services include level I and level II inspection of the structure to identify significant defects and anomalies. Level I Inspection included visual, tactile inspection of submerged elements according to the LADOTD PONTIS Inspection Manual and documentation on LADOTD Underwater Inspection Form to assign NBI substructure rating. The scope of work included inspection and preparation of detailed reports involving elements and conditions rating and documentation of any significant deviations from as-built conditions for each inspection. This included inspection of pile bents as well as related elements such as columns, concrete piers, abutments, caps etc. The inspection team documented all cracking/holes, levels of hard/soft marine growth, scaling, exposed rebar and steel, corrosion of steel plates, scour, drift build-up, riprap, and spalls etc. Sounding and/or Underwater Acoustic Imaging (UAI) was also used to augment dive inspections when dive conditions were hazardous.

**BA-27c Barataria Basin Land Bridge CU 7 & 8, AG-7217-C-12-0006, Task Order 1, USDA-NRCS, Jefferson Parish, LA:** Mr. Rodriguez is providing construction quality assurance inspection services for the construction of BA-27c Barataria Basin Land Bridge. This project was designed to significantly reduce the wave energy impacting the shorelines of Little Lake and Bayou Perot and to protect the adjacent marsh areas from further degradation. This involved dredging for access channels to construct approximately 4 miles of rock dike utilizing 143,000 Tons of R-300 Rip Rap, 27,000 CY's of Encapsulated Light Weight Aggregated and 118,000 SY's of Geotextile fabric. He was responsible for daily inspection, coordination with COTRs, attending progress meetings, preparation of daily dairies and recordation of work quantities and maintaining project progress photo album in ECM's FTP site.

**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>Northwest Turtle Bay Marsh Creation (BA-0125)</b>  <b>Jefferson Parish, LA</b></p> <p><b>CPRA, The Water Campus</b>  <b>150 Terrace Avenue,</b>  <b>Baton Rouge, LA 70802</b></p> <div data-bbox="126 741 423 955" style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>Key Personnel</b>                      Kazem Alikhani, P.E.                      Dale Garber                      Benjamin Dow                      Emilio Rodriguez</p> </div> <div data-bbox="126 995 532 1320" style="margin-top: 10px;"> </div> <div data-bbox="118 1358 597 1684" style="margin-top: 10px;"> </div>	<p><b>Project Purpose.</b> The purpose of the project was <b>to create and nourish 1093 acres of marsh in the Barataria Basin.</b> The project lies south of the communities of Lafitte, Barataria, and Jean Lafitte which sit upon the Barataria Bay Waterway in Jefferson Parish. This project involves creating marsh in current open-water and broken marsh in four separate Marsh Creation Areas (MCAs): The West MCA, <b>434 acres</b>, the East MCA, <b>357 acres</b>, MCA 3, <b>68 acres</b> and MCA 4, <b>234 acres</b>. Two of the marsh creation areas (WMCA and MCA 4) were designed to minimize the use of traditional earthen containment dikes by relying on existing marsh and vegetation to contain the hydraulically dredged earthen fill.</p> <p><b>Project Details:</b> Earthen fill material is being <b>hydraulically dredged</b> from a borrow area located in Turtle Bay just south of the project area and pumped into each marsh creation area. The WMCA and MCA 4 are semi-contained areas utilizing existing marsh and earthen material from within the MCAs to construct 2,875 LF of Earthen Gap Closures and 20,767 LF of <b>Earthen Containment Dikes</b> at existing openings or low elevation areas. Long-reach Marsh Buggy Excavators were utilized to construct these closures in multiple lifts. One closure consisted of 112 LF of <b>steel sheet pile</b> due to the existing water depths. Approximately 2,000,000 CY of fill material is pumped utilizing 16" diameter <b>hydraulic dredges</b> not to exceed 700 CY/hour into the WMCA. The East Marsh Creation Area (EMCA) and MCA 3 will be fully contained with 29,688 LF of earthen containment dikes and approximately 1,826,000 CY of fill is utilized. Dewatering structures were used to manage the fill material within these two areas. All MCA's have a target elevation of a +1.5'. There are existing oil and gas pipelines within each MCA. The owners must be coordinated with, and the project constructed over each pipeline without causing any impact. 7,296 SY of <b>Articulated Concrete Mats</b> are being installed along 2,623 LF of the MCA 3 Earthen Containment Dikes for <b>erosion protection</b>.</p> <p><b>Work Performed:</b> ECM served as Engineer and CPRA's Resident Project Representative (RPR) between the construction contractor and CPRA from contract award to final acceptance of the project. <b>Construction administration and inspection</b> duties include conducting Pre-Construction conference, Bi-Weekly Progress Meetings, daily on-site inspections and Quality Assurance reports, photo documentation including <b>aerial photos from Drone</b>, review of shop drawings and submittals and recommend approval, review and approval of all survey deliverables, review and recommended approval of contractor monthly invoices, interpretation of contract documents, preparing any change orders for approval by CPRA, reviewing and providing response to contractor's Request for Information (RFI). ECM is also responsible for daily coordination with CPRA Construction Manager and PM on progress, scheduling, issues on job site to include any impending change orders, weather delays, landowner and utility owner coordination, labor interviews, compliance with plans and specifications and contractor's safety plan.</p> <p><b>Drone Capabilities.</b> ECM is <b>fully licensed, and FAA cleared</b> to operate <b>two DJI Mavic Pro Zoom aerial drones</b> and is providing <b>aerial progress photographs and videos</b> for this project to meet the contract requirements. With this unique resource we can capture crystal clear images and video feed from any desired height up to 400 ft.</p>	
<p><b>Completion Date: (Actual or Estimated):</b></p>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
<b>2021</b>	<b>\$22M</b>	<b>\$1.3M (fees)</b>

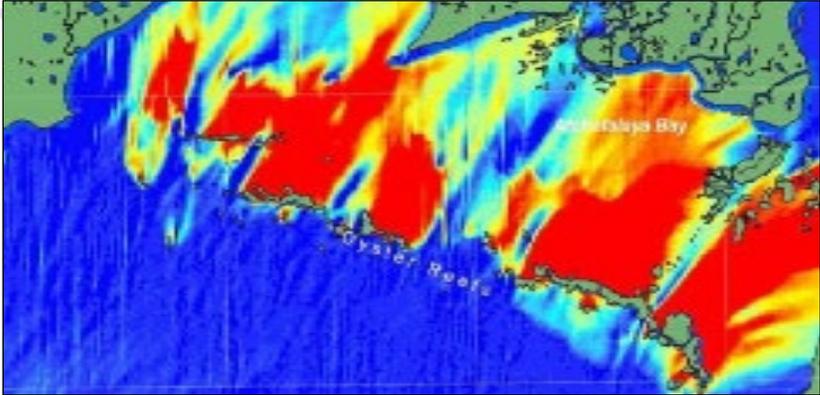
**TEC Professional Services Questionnaire**

PROJECT NO. 2		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>TE-48 Raccoon Island Marsh Creation - Phase B</b>  <b>NRCS Contract No. AG-7217-C-09-0031, Task Order 0002</b></p> <p>Terrebonne Parish, LA</p> <p><b>USDA-NRCS</b>  <b>646 Cajun dome Blvd, Ste. 180</b>  <b>Lafayette, LA 70506</b></p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><u>Key Personnel</u>  <b>Ujjal DasGupta, P.E.</b>  <b>Dale Garber</b></p> </div> <div style="margin-top: 10px;">    </div>	<p><b>Project Purpose:</b> The purpose of the TE-48 Raccoon Island – Phase B is to <b>create Marshland</b> to extend the longevity of the northern back bay area of the barrier island by creating approximately 58 acres of <b>intertidal wetlands that will serve as bird habitat</b> for one of the largest colonies of the Louisiana Brown Pelican and many other barriers island species. Restoration of the barrier island will also serve <b>as protection of inland marshes and infrastructure of coastal Louisiana</b> by reducing impact of land falling tropical systems. This island is critical to the future sustainability of coastal Louisiana while also providing valuable habitat to multiple coastal bird species.</p> <p><b>Project Details:</b> The Scope of Work for this project consisted of constructing 9,769 linear feet of <b>earthen containment dikes</b> and creating approximately 58 acres of the northern segment of the dike had to be protected with 400 linear feet of geotextile tubes and 4,620 linear feet of geotextile fabric covering due to the sandy soils used to construct the dikes and the <b>constant erosive wave action</b> from Caillou Bay to the north. A dewatering area was constructed on the west end of the marsh creation area which consisted of 9 double-barrel variable crested weir boxes that could be used to control the effluent being discharged from the system <b>to maximize the retention of solids</b> within the system. In addition, one additional dewatering structure was placed on the east end of the marsh creation area. The borrow area <b>was located 5.5 miles offshore in the Gulf of Mexico and the material was dredged using a 30” hydraulic cutterhead dredge and materials were transported to the site using 30” dia. Pipeline.</b> A 30” dia. Booster pump was utilized inline to facilitate the transport of material through the steel submerge pipeline. The marsh creation portion of the work was performed 24 hours a day to fully utilize the capabilities of the large dredge. Near the marsh creation area HDPE plastic pipe was connected to the discharge pipeline for easier maneuverability of the discharge end of the pipe. The contractor kept a marsh buggy excavator inside the marsh creation area for continuous management of the discharge. 735,340 Cubic Yards of material was placed to an average elevation of +3.0’ to create a sustainable marsh platform. Upon completion one of the dredge fill operations one of the dewatering structures was left in place to control water flow into the area.</p> <p>The project was completed in approximately 190 days of performance time. Also, as a follow-up to this work, NRCS plans to install vegetation to accelerate the growth of plant material in this area for use by the nesting bird's population.</p> <p><b>Work Performed:</b> ECM provided construction administration and construction inspection services for this project. ECM's inspection services included 6 days per week 12 hours per day of inspection consisting of monitoring contractor's performance for compliance with plans and specifications, monitoring contractor's safety compliance with safety plan, dredge quantity tracking, labor interviews, equipment logs, daily photos with logs, daily inspection logs and reports, and coordination on a daily basis with the Contracting Officer's Technical Representative (COTR) for the USDA-NRCS on construction progress. Conducted site visits with NRCS personnel and coordinated boat transportation on a daily basis.</p>	
<b>Completion Date: (Actual or Estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
<b>2013</b>	<b>\$10.2M</b>	<b>\$700K (fees)</b>

**TEC Professional Services Questionnaire**

PROJECT NO. 3		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Duncan Canal Breakwater and Bridges</b>  <b>Contract No. W912P8-07-D-0055</b>  <b>Task Order No. 0002</b>  <b>Jefferson Parish, LA</b></p> <p><b>USACE-New Orleans District</b>  <b>7400 Leake Avenue</b>  <b>New Orleans, LA 70118</b></p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>Key Personnel</b>  <b>Ujjal DasGupta, P.E.</b>  <b>Sunina Shrestha, P.E.</b>  <b>Neil Logan, P.E.</b></p> </div> <div style="margin-top: 10px;">    </div>	<p>This task order was awarded under the 5year, \$5 million IDIQ, ECM-GEC Joint venture contact for Planning and engineering services for USACE-New Orleans District. This \$8.5 million project included floatation channel for access to the construction site, a massive concrete breakwater structure, two concrete bridges and shoreline stabilization of Lake Pontchartrain on the discharge side of the Duncan Canal Drainage Pumping Station. The project is in Jefferson Parish, Louisiana, and is part of the Lake Pontchartrain and Vicinity, New Orleans, LA, Hurricane Risk Reduction Program for the US Army Corps of Engineers-New Orleans District.</p> <p>The breakwater structure, located in the Lake Pontchartrain on northwest of the Duncan Canal Pumping station, is a pile founded structure, founded on steel-pipe piles with a concrete cap. Steel Sheet piling, coated with coal tar epoxy, was installed to serve as the load transfer mechanism to the cap. The structure was designed for the wave loads provided by the U.S. Army Corps of Engineers. Additionally, work for the breakwater structure included heavy concrete structure, access bridge to the breakwater structure and rock placement on both sides of the steel sheet pile for wave energy dissipation and scour protection. Project scope also included rock placement for shore protection within project limit, and Navigational Aid lighting on the breakwater structure.</p> <p>One of the new bridges provides access to the breakwater and the other bridge connects the All-weather Road (AWR) on the east and west side of the discharge basin at the northern end. The work included driving concrete piles in Lake Pontchartrain, pouring pile caps, concrete slab, and concrete barrier railing. The ECM engineering team used an innovative design of a 45' prestressed concrete girder spans movable section instead of a conventional steel section to provide access for barge and barge cranes to the pumping station and asphalt roadway transitions. ECM received "Commendation" from USACE for this unique design.</p> <p>As managing member of the Joint venture and POC, ECM was responsible for project management and coordinating with USACE, US Coast Guard for construction in navigational waterways, all local, and State authorities. ECM also provided construction administration and engineering during construction (EDC) that included attending progress meetings, resolutions of RFIs, review shop drawings and submittals and site visits. This project was part of an IDIQ Planning and General Design Support Services Contract with USACE and included many task orders that included design, construction administration, and EDC services for flood risk reduction projects in marine environment.</p>	
<b>Completion Date: (Actual or Estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
<b>2014</b>	<b>\$8.5M</b>	<b>\$600K (fees)</b>

**TEC Professional Services Questionnaire**

PROJECT NO. 4		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Study to Determine Hydrologic Impact of Chenier &amp; Natural Ridges in Storm Surge Protection</b></p> <p><b>Coastal Louisiana</b></p> <p><b>LA Department of Natural Resources</b>                      617 North 3<sup>rd</sup> St,                      Baton Rouge, LA- 70804</p> <div style="border: 1px solid black; padding: 5px; margin-top: 20px;"> <p><b>Key Personnel</b>  <b>Sunina Shrestha, P.E.</b></p> </div> <div style="margin-top: 20px;">  </div>	<p><b>Project Purpose:</b> The purpose of this project was to perform a <b>hydrological study</b> on change in storm surge protection to determine the efficacy of cheniers and natural ridges in storm surge protection via attenuation.</p> <p><b>Project Details:</b> The study of features was implemented through on-site field evaluations, review of available technical studies and hydraulic analysis. Historical and current aerial photography were interpreted to quantify and qualify feature impact the study also included input of permitted activities to cheniers and natural ridges, report on wildlife diversity and changes in wildlife distribution.</p> <p><b>Worked Performed:</b> Hydrological study on effect of chenier and natural ridges in storm surge protection, <b>coastal modeling</b> to predict the impact of the <b>coastal erosion</b>. The study revealed that cheniers and natural ridges combined with reefs and marshes reduce wave and surge fields and provide protection via attenuation of storm surge and wave heights. Loss of landforms due to increased coastal erosion has resulted in transformation from low to higher energy marine environments which significantly impact the future coastal restoration efforts in Louisiana.</p> <p>It was also found that the attenuation of storm surges and waves are significantly greater over vegetated surfaces. The reduction in the wave height and velocity resulted from presences of cheniers and natural ridges reduced coastal erosion. Additionally, it was revealed that vegetated surfaces induce deposition of sediments in marshes. Deposition of such sediments will largely depend on <b>synergistic interactions of hydrodynamics and the marsh morphology</b>.</p> <div style="margin-top: 20px;">  </div>	
<b>Completion Date: (Actual or Estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
<b>2009</b>	<b>\$</b>	<b>\$75K (fees)</b>

**TEC Professional Services Questionnaire**

PROJECT NO. 5		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Lake Borgne Shoreline Protection Maintenance Project (PO-30)</b>  <b>St. Bernard Parish, LA</b></p> <p><b>Coastal Protection and Restoration Authority (CPRA)</b>  <b>450 Laurel Street</b>  <b>Baton Rouge, LA 70801</b></p>  <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>Key Personnel</b>  <b>Ujjal DasGupta, P.E.</b></p> </div>	<p>ECM provided Quality Assurance inspection services for this shoreline protection project located on the southwest shoreline of Lake Borgne at Old Shell Beach and Bayou Dupre in St. Bernard Parish, LA.</p> <p>This project involved the construction of a nearshore rock and fiber reinforced sheet pile wall breakwater for shoreline protection. This construction of the breakwater will help to maintain the integrity of the narrow strip of marsh that separates Lake Borgne from the Mississippi River Gulf Outlet (MRGO). This land protects the communities of Shell Beach, Yscloskey, and Hopedale from direct exposure to lake wave energy and storm surges. Project included placement of 13,568 tons of 250 lb. class rock and 4,000 tons of 30 lb. class rock along with 67,650 sf of Fiber reinforced sheet pile.</p> <p>Quality Assurance work under this contract involved providing construction administration and inspection services for the project. ECM inspection services included 5 days per week 10 hours per day of inspection consisting of preparation of daily inspection diaries, barge measurements &amp; computations, calculating and keeping record of quantities of work performed, labor interviews, equipment logs, progress meeting attendance; monitoring contractor's work activities; maintaining daily photograph log; maintaining samples and test reports; and monitoring safety compliance with safety plan. ECM's construction administration services consisted of tracking cumulative quantity of materials using spreadsheets; rock quantities by barge measurement, and fiber reinforced sheet pile quantities used on the job. Work also included attending monthly field progress meetings with CPRA and contractor and review and recommendation of contractors pay requests.</p> 	
<p><b>Completion Date: (Actual or Estimated):</b></p> <p align="center"><b>2015 (A)</b></p>	<b>Estimated Cost:</b>	
	<p><b>Entire Project:</b></p> <p align="center"><b>\$3M</b></p>	<p><b>Work for which Firm was Responsible:</b></p> <p align="center"><b>\$350K (fees)</b></p>

**TEC Professional Services Questionnaire**

PROJECT NO. 6		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>BA-41 South Shore of the Pen- Marsh Creation,</b>  <b>NRCS Contract No. AG-7217-C-09-0031,</b>  <b>Task Order 0001</b></p> <p><b>Jefferson Parish, LA</b></p> <p><b>USDA-NRCS</b>  <b>646 Cajun dome Blvd, Ste. 180</b>  <b>Lafayette, LA 70506</b></p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><u>Key Personnel</u>  <b>Ujjal DasGupta, P.E.</b>  <b>Dale Garber</b></p> </div>  	<p><b>Project Purpose:</b> The purpose of this project was to create 75 acres of <b>Marshland</b> in the BA-41 South Shore of the Pen in Jefferson Parish to protect the adjacent marsh.</p> <p><b>Project Details:</b> Project consisted of constructing approximately 11,556 linear feet of <b>geotextile</b> reinforced rock dike utilizing 42,800 tons of rock riprap and <b>dredging</b> of a flotation access channel along the south shoreline of "The Pen", construction of about 11,400 linear feet of containment dike by bucket dredging and subsequent placement of 630,000 cubic yards of <b>hydraulically dredged fill</b> to create approximately 75 acres of marsh land.</p> <p><b>Work Performed:</b> ECM provided construction administration and inspection services for the project. ECM inspection services included 6 days per week 10 hours per day of inspection consisting of daily inspection to monitor contractor's performance, compliance with plans and specifications, monitoring contractor's compliance with safety plan, barge measurements and computations, material tracking, labor interviews, equipment logs, daily photos with logs, daily inspection reports, and coordination with COTR for the USDA/NRCS on construction progress and field issues.</p> <p>This project was specially challenging because of presence of very soft soil. Construction of the earthen containment dike was extremely difficult because of frequent failure of the dike due to settlement and ultimate collapse of the same at several sections of the earthen dike. The dredged fill materials were getting lost through these collapsed locations. Subsequently, after several meetings were NRCS to resolve the issues, contractor used wood sheet piles as well as steel sheet piles at areas of severe collapse to prevent loss of dredged materials. Even though delayed, the project was completed and is functioning as intended.</p> <p>ECM's construction quality assurance inspection for this project also included construction layout, field testing and sampling of construction materials, tracking cumulative quantities of various of materials using spreadsheets, barge measurement of rock quantities, geotextile fabric quantities, recordation of settlement plates data, and review of contractor's monthly pay estimates. ECM's Project Engineer and the inspector attended monthly field progress meetings with NRCS and contractor, performed final inspection, prepared as-built plans and submitted all final documents to NRCS ECM also provided and coordinated marine transportation to facilitate inspection activities throughout the site.</p> 	
<b>Completion Date: (Actual or Estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
<b>2012</b>	<b>\$8.6M</b>	<b>\$1.5M (fees)</b>

**TEC Professional Services Questionnaire**

PROJECT NO. 7		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>West Bank Mississippi River Levee, Venice Floodwall (NOV 15), Contract No. W912P8-07-D-0031 Task Order No. 0036</b></p> <p><b>Plaquemines Parish, LA</b></p> <p><b>U.S. Army Corps of Engineers Vicksburg District 4155 Clay Street Vicksburg, MS 39183-3435</b></p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>Key Personnel</b> Ujjal DasGupta, P.E. Neil Logan, P.E. Sunina Shrestha, P.E. Marvin May Benjamin Dow</p> </div>	<p>As Managing Partner of ECM-GEC Joint Venture for this five-year, \$90 million IDIQ Contract for the USACE, ECM was responsible for Preliminary Engineering Design (PED) to evaluate a T-wall alternative to provide hurricane protection to the authorized grade. The replacement of the Venice Floodwall (NOV-15) in Plaquemines Parish was a part of the New Orleans to Venice (NOV) Hurricane Protection Project. The Venice floodwall is located on the west bank of Plaquemines Parish. The study covered the reach of the Venice floodwall located from B/L Sta. 1747+10 to B/L Sta. 1764+00 and from B/L Sta. 1766+50 to B/L Sta. 1777+50, Jump Basin Road.</p> <p>ECM provided engineering services for these projects to Vicksburg District to assist New Orleans District for improvements of hurricane and flood protection system in Plaquemines Parish in the aftermath of Hurricane Katrina.</p> <p>The NOV-15 project involved Preliminary Engineering Design (PED) to evaluate a T-wall alternative, provide engineering design and cost estimates for providing hurricane protection to the authorized grade, replacing the existing I-Wall at Venice as part of the New Orleans to Venice (NOV) Hurricane Protection Project. The design analysis was performed for 2,590 LF of batter-pile supported T-wall as an alternative to the existing I-wall and a closeable perpendicular flood gate at the Jump Basin Road crossing. Overall design considerations included Safe Water Level, Wave Loads and Barge impacts in addition to Geotechnical analysis which included computer programs to evaluate stability with Uplift and Slope/W. Structural analysis included; the use of CPGA for pile group analysis and the strength design for reinforced concrete hydraulic structures.</p> <div style="display: flex; justify-content: space-around; margin-top: 20px;">   </div>	
<b>Completion Date: (Actual or Estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
<b>2014 (A)</b>	<b>\$38M</b>	<b>\$400K (fees)</b>

**TEC Professional Services Questionnaire**

PROJECT NO. 8		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>BA-27 Barataria Basin Landbridge Shoreline Protection, USDA-NRCS</b></p> <p><b>Lafourche Parish, LA</b></p> <p><b>USDA-NRCS</b>  <b>3737 Government Street</b>  <b>Alexandria, LA 71302</b></p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><u>Key Personnel</u>  <b>Ujjal DasGupta, P.E.</b>  <b>Dale Garber</b>  <b>Emilio Rodriguez</b></p> </div> <div style="margin-top: 10px;">   </div>	<p><b>Project Overview.</b> BA-27c Barataria Basin Land Bridge Shoreline Protection CU#7 is a \$14.3M shoreline protection project undertaken by the USDA-NRCS. It is located approximately 14 miles southwest of the town of Lafitte in Lafourche Parish. The purpose of this project is to significantly <b>reduce the wave energy impacting the shorelines</b> of Little Lake and Bayou Perot and to protect the adjacent marsh areas from further degradation.</p> <p><b>Project Details:</b> This project included construction of 21,400 LF of composite Rock/Lightweight aggregate <b>dikes and revetments</b> constructed in seven separate segments. There were five Fish Dips constructed for fisheries access and egress. The entire project was protected with Twenty-two permanent warning signs with lights per US Coast Guard requirements. Seventeen Settlement Plates at an interval of 1000 LF were installed within the Dikes and Revetments for monitoring settlement. A <b>mechanical bucket dredge</b> was utilized for <b>dredging</b> flotation channels for access to the entire length of the project.</p> <p>Approximately 26,800 CY of lightweight aggregate was encapsulated in geotextile bags and placed in the dike/revetment to reduce the overall weight of the shoreline protection features. A base layer of <b>geotextile fabric</b> was initially placed along the existing shoreline and then each bag of lightweight aggregate was stacked in the center of the structure. Once the bags were placed then rock riprap approximately two feet in thickness was placed over the bags to provide <b>armoring</b>. A total of 145,000 tons of <b>rock riprap</b> was utilized to construct this project. The rock had to be placed in two lifts to allow for settlement during construction. Upon completion of the rock placement, permanent warning signs with flashing lights were placed in accordance with the US Coast Guard requirements to warn boaters of potential hazards along the shoreline.</p> <p><b>Work Performed:</b> ECM provided construction administration and construction inspection services as a sub-contractor to Aucoin and Associates, Inc. ECM's inspection services included 6 days per week 12 hours per day consisting of monitoring contractor's performance for compliance with plans and specifications, monitoring contractor's safety compliance with safety plan, barge measurements and computations, material tracking, labor interviews, equipment logs, daily photos with logs, daily inspection logs and reports, and coordination on a daily basis construction progress. and coordination on a daily basis with the Contracting Officer's Technical Representative (COTR) for the USDA-NRCS on construction progress</p>	
<p><b>Completion Date: (Actual or Estimated):</b></p> <p align="center"><b>2017 (A)</b></p>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
	<b>\$14.3M</b>	<b>\$1.3M (fees)</b>

**TEC Professional Services Questionnaire**

PROJECT NO. 9		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Planning, Hydraulic Modeling, and Conceptual Design for PCCP at Outfall Canals at 17th Street, Orleans Avenue, and London Avenue.</b>  <b>USACE Contract No. W912WP8-07-D-0031, Task Orders 0001 &amp; 0007</b>  <b>Orleans Parish, LA</b></p> <p><b>USACE-New Orleans District</b>  <b>7400 Leake Avenue</b>  <b>New Orleans, LA 70160</b></p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><u>Key Personnel</u>  <b>Ujjal DasGupta, P.E.</b>  <b>Sunina Shrestha, P.E.</b>  <b>John Rasi, P.E.</b>  <b>Marvin May</b></p> </div> <div style="margin-top: 10px;">   </div>	<p>This flood damage risk reduction project is located near the juncture of Lake Pontchartrain and three drainage outfall canals (17th Street, Orleans Avenue, and London Avenue) serving the portions of New Orleans and Jefferson Parish. As Managing Partner for this 5-year \$90 million (fees), ECM-GEC Joint Venture IDIQ Contract, (DUNS: 62-1641435), ECM provided a Process Management Plan, Technical Support, Alternatives Review, Outfall Canal Capacity Technical Analysis, and 17th Street Canal Upgrade Review. ECM also assisted in preparation of Design-Build RFP packages in association with subconsultant Black &amp; Beach for construction of 17th St. (12,600 cfs), Orleans Ave. (2,700 cfs) and London Ave. (9,000 cfs) Permanent Canal Closure &amp; Pump (PCCP) stations. Concept design included gated water control structures to prevent back flow from the lake to the canals during storm surge and large capacity pump stations including intake and discharge structures. Estimated construction cost was \$700 million. Tasks included planning, establishing performance driven design criteria and site selection including analyses, canal hydraulic reviews, incorporating existing reports and available data, and meetings with sponsors. The scopes of work provided a progressive, intelligent development process of project planning.</p> <p>Tasks included establishing performance driven design criteria for site selection including analyses, canal hydraulic reviews, incorporation of existing reports and available data, and interactive meetings with sponsors. These scopes of work provided a progressive, intelligent development process of the planning of the project. ECM also performed monitoring and collection of rainfall and discharge data for the entire watershed, calibration of hydraulic models, analysis of safe water elevations and evaluation and costing of several scenarios.</p> <p>ECM worked with the Hurricane Protection Office to review the government furnished numerical hydraulic model developed by the Corps using HEC-HMS and unsteady HEC-RAS numerical models of the Orleans East Basin to handle the basin inflow as well as the pump function and the open channel flow through all pertinent hydraulic structures. Based on these reviews, ECM provided recommendations for model revisions and usage in addition to facilitating modeling workshops.</p> <p>Under separate contract and Task Orders, ECM provided (1) Design, EDC, Quality Assurance (QA) inspection and related services for remediation of Orleans Avenue outfall canals' levee structures that included deep soil mixing, stability berms and steel sheet pile cutoff walls to prevent seepage. (2) QA inspection services for construction of T-Walls to replace I-Walls that were damaged by hurricane Katrina at several locations of 17<sup>th</sup> street canal, Orleans Avenue and London Avenue canals.</p>	
<b>Completion Date: (Actual or Estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
<b>2014</b>	<b>\$700M</b>	<b>\$6.2M (fees)</b>

**TEC Professional Services Questionnaire**

PROJECT NO. 10		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>West Bank Mississippi River Levee, Port Sulphur to Fort Jackson (NOV-11) &amp; Fort Jackson to Venice (NOV-12),</b></p> <p><b>Plaquemines Parish, LA</b></p> <p><b>U.S. Army Corps of Engineers Vicksburg District 4155 Clay Street Vicksburg, MS 39183-3435</b></p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>Key Personnel</b> Ujjal DasGupta, P.E. Sunina Shrestha, P.E. Neil Logan, P.E. Marvin May</p> </div> 	<p>Under the IDIQ, \$90 million (fees), ECM-GEC Joint Venture Contract with the USACE New Orleans District, this project was done under the Task Order No. 0030 and was managed by USACE Vicksburg District in support of USACE- Hurricane Protection Office (HPO). ECM performed engineering design analysis for the enlargement of the New Orleans to Venice (NOV) main line West Bank Mississippi River Levee (MRL), Port Sulphur to Fort Jackson reach (NOV-11) and Fort Jackson to Venice (NOV 12) in Plaquemines Parish, LA.</p> <p>The NOV-11 project included enlargement of 5.13 miles of Mississippi River main line levee (between approx. river mile 46.5 and 54.0 AHP) and included lifting the levee ranging 0'-3' to elevation 17.5', the authorized grade. The NOV-12 project included enlargement of 8.23 miles of Mississippi River main line levee and included lifting the levee to authorized grade elevation of 16.0' to 17.0'.</p> <p>The design involved evaluation of hydraulic and geotechnical data and design flood elevations, preparation of a Geotechnical Soils Report and Preliminary Design Report (PDR), engineering analysis and design, preparation of plans and specifications and cost estimates. Geotechnical design included development of design shear strength and settlement parameters and analyses for slope stability, settlement, and seepage. Design alternatives included analyses of straddle enlargement, a rock berm on the river side and a landside setback. The design included required overbuilds to prevent the levee grade from settling below elevation 17.0' within 10 years of completion of construction. Wave berms were added as prescribed by the General Design Memorandum (GDM) and seepage or stability berms were included as required by the design.</p> <p>Design features included demolition of existing floodwalls, earthen levee enlargement, new wave berm armorment, and access ramps. All design features were in accordance to the latest Hurricane and Storm Damage Risk Reduction System (HSDRRS) Design Guidelines. The method that produced the least impact (environmental, economic, right-of-way, etc.) was recommended and used for preparation of construction plans and specifications. All construction plans were prepared in AutoCAD and specifications were prepared using Specsintect. Design ITR was performed by GEC, JV partner. Design reviews were performed by USACE and posted in DrChecks. ECM responded to all comments in DrChecks. ECM also coordinated the design with USACE, State, and Local authorities having jurisdiction. ECM also prepared a Design Quality Control Plan (DQCP) in accordance with the HSDSSR Quality Management Plan.</p>	
<b>Completion Date: (Actual or Estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
<b>2013 (A)</b>	<b>\$162.6M</b>	<b>\$1.5M</b>

**TEC Professional Services Questionnaire**

<b>M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary. NONE</b>		
<b>Parties:</b>		<b>Status/Result of Case:</b>
<b>Plaintiff:</b>	<b>Defendant:</b>	
1. N/A	N/A	N/A
2. N/A	N/A	N/A
3. N/A	N/A	N/A
4. N/A	N/A	N/A

ECM Consultants, Inc. **has never been involved** in any litigation and/or adversarial proceedings with Jefferson Parish.

**TEC Professional Services Questionnaire**

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

MINIMUM REQUIREMENTS	PERSONNEL MEETING REQUIREMENT
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 (Section C. of TEC Professional Services Questionnaire)	Ujjal DasGupta, P.E., President LA License No. 19849
2. The persons or firms under consideration shall have a professional in charge of the Project who is a licensed, registered engineer or architect in the State of Louisiana with a minimum of five (5) years' experience (Section K. "PROFESSIONAL IN CHARGE OF PROJECT:" of TEC Professional Services Questionnaire).	Kazem Alikhani, P.E. LA License No. 25073 44 years' experience
3. The persons or firms under consideration shall have one (1) employee who is a licensed, registered architect or professional engineer in the State of Louisiana in the applicable discipline involved. A subcontractor may meet this requirement only if the advertised Project involves more than one discipline (Section D. of TEC Professional Services Questionnaire)	Kazem Alikhani, P.E. LA License No. 25073 44 years' experience  Sunina Shrestha, P.E. LA License No. 37901 16 years' experience

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**FIRM PROFILE**

**EVALUATION CRITERIA**

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4. Past Performance
5. Location of Principal Office
6. Adversarial Legal Proceedings with Parish
7. Prior Successful Completion of Projects

**QUALITY CONTROL PLAN**

**CONCLUSION**

**FIRM PROFILE**

***ECM Consultants, Inc.*** is a Small and 100% Minority-Owned, engineering, architectural, QA inspection and construction management firm headquartered in Metairie, LA with a branch office in Baton Rouge and Lafayette, LA. The company was incorporated under the laws of the State of Louisiana on August 31, 1995 and holds current licenses in Professional Engineering (No. 2003) and Construction Management (No. 31739). Over the last 28 years, the firm has provided professional services for over 780 various projects for clients including: CPRA, USDA-NRCS, LA Dept. of Natural Resources, Jefferson Parish Department of Public Works, LA DOTD, City of New Orleans Dept. of Public Works, Sewerage & Water Board of New Orleans, City of Baton Rouge/Parish of East Baton Rouge Dept. of Public Works, City of Kenner Dept. of Public Works, U.S. HUD, and USACE New Orleans, Mobile, Vicksburg, Louisville and Charleston Districts.

## TEC Professional Services Questionnaire

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

ECM will serve as the Prime consultant on this contract with the following specialty firms as sub-consultants:

**BFM Corporation, LLC**, Professional Land & Hydrographic Surveying, has provided services to public & private concerns throughout the Gulf South. BFM provides surveying services covering all facets of engineering, construction, and forensics; topographic, hydrographic, and high definition laser scanning. BFM will provide surveying services as-needed.

**Gulf South Engineering & Testing, Inc.** (Gulf South) is a geotechnical engineering and construction materials testing and inspection company that began operations in 2011. Since that time, they have grown to 2 offices and over 30 employees. Gulf South provides a broad range of geotechnical related services. Our key employees' combined work experience totals more than 75 years and thousands of projects. The qualifications, integrity, reliability, and commitment of our personnel to provide quality professional services have earned the ECM Team an excellent reputation and repeat work from all our clients.

**ELOS Environmental, LLC** provides a wide range of environmental compliance and monitoring services. They have built their practice on accurate data collection and rapid assessment techniques. ELOS will provide all environmental services as-needed.

Cameron Parish Shoreline

- Design of two bridges involving breakwater structure and shoreline stabilization
- Construction of land bridge to reduce wave energy impacting shorelines and provide marsh protection
- Design and analysis of Hydrologic and Hydraulic systems and remediation of levee structures for three outfall canals

#### ***Gulf South experience includes:***

- Geotechnical Engineering including Allowable Pile Load Capacities, Slope Stability Analysis, Sheet Pile Analysis, Estimates of Settlement, and General Construction Procedures and Recommendations for projects such as:
  - Tchefuncte Marsh Shoreline
  - Estuary Mitigation Bank (GIWW)
  - Marsh Island Wildlife Refuge Levee/ Bulkhead Repair
  - Northshore Living Shoreline Protection

#### ***BFM Corporation experience includes:***

- Topographic and Hydrographic survey for many coastal projects such as:
  - Lafitte Area Levee Repair
  - Waterline Location, Lower Lafitte, Shoreline Stabilization
  - Grand Isle Jetty
  - Marsh Island (Lafreniere Park)
  - Deer Island Pass

### **1. PROFESSIONAL TRAINING AND EXPERIENCE**

#### **RELEVANT PROJECT EXPERIENCE**

Our experience includes civil, coastal support, hydraulic and hydrologic, and structural engineering design; architecture; project management; construction management; construction administration and QA inspection services for a variety of coastal restoration and protection, environmental, flood control, and other public infrastructure projects throughout the Gulf South, including many projects in coastal Louisiana. Our relevant experience includes the following:

- Construction of Dikes, Dredging and Creation of 75 Acres of Marshland
- Construction of Nearshore Rock Breakwater on the southwest shoreline of Lake Borgne.
- Construction of Marsh and Dikes and hydraulic dredged fill for Racoon Island.
- Quality Assurance services for maintenance hydraulic/mechanical dredging within the Delta National Wildlife Refuge and Pass-A-Loutre
- Dredging to increase the barrier headland for the

#### ***ELOS Environmental has provided a variety of environmental services for coastal project such as:***

- Wetland delineation for proposed ring levee for Crown Point Basin Levee System
- Ecological assessments for 7 large scale coastal ridge and marsh restoration projects for Plaquemines Parish
- Environmental planning, permitting, and cost analysis for Jesuit Bend Flood Protection project
- Permitting and wetland delineation for Lakeshore Estates
- Coastal permitting and technical assistance for Laurel Ridge Levee project

#### **EXPERIENCE OF KEY PERSONNEL**

**Ujjal DasGupta, P.E., Principal:** 53 years of experience managing design and construction of levees, coastal protection and erosion control projects, flood control structures and stormwater drainage among other projects in Jefferson Parish and southeast Louisiana.

**Kazem Alikhani, P.E., Professional in Charge/Project Manager:** 44 years of experience managing public works projects including planning, design and construction

## TEC Professional Services Questionnaire

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

management. Under his direction as Jefferson Parish Director of Public Works, the Environmental Dept. secured a number of grants for Parish coastal & water resource projects, including the following awarded grants: LA Dept. of Natural Resources grant to assist with implementing Local Coastal Program; US Environmental Protection Agency grant for Lafreniere Park Floating Islands Project; Lake Pontchartrain Basin Restoration Program for coastal restoration; Deep Water Horizon Oil Spill Restoration Funding for beach nourishment, stabilization and canal backfilling. He is highly experienced in all aspects of environmental projects that included the Coastal Division, Floodplain Management and Hazard Mitigation, engineering.

**Sunina Shrestha, P.E., Hydraulic Engineer and Design:** Ms. Shrestha has 16 years of experience in civil, hydraulic and hydrologic engineering and design and project management for water projects. She is a Louisiana licensed P.E. and holds an M.S. in Civil Engineering with a concentration in Water Resources and Environmental Engineering.

**Dale Garber, Project Manager,** Mr. Garber has more than 37 years of experience in design, design reviews, construction administration and management of watershed planning, coastal restoration, marsh creations & restoration, rock dikes, levees, dams and breakwater structures in the southeast Louisiana coastal environment. His 35 years of experience with USDA-NRCS and CPRA projects will be an asset for this coastal engineering contract.

**Sudhir Mehta, P.E., Structural Engineering:** Mr. Mehta has 49 years of experience in the design, analysis and construction of major hydraulic structures such as pumping stations, floodwalls, floodgates and other flood control structures for multiple USACE districts, states and municipalities.

**John Rasi, P.E., Hydraulic Engineer:** Over 41 years of hydraulic design experience that includes a 25-year career with LADOTD. He has a BS in Civil Engineering and is experienced in computer modeling for hydrologic and hydraulic analyses of watersheds. Mr. Rasi is a Louisiana registered P.E. and served as Senior Hydraulic Engineer at LADOTD and was promoted to Hydraulic Manager. He is highly experienced in the use of HEC-RAS and HEC-HMS.

**Lucas Watkins, Environmental Specialist (ELOS):** 24 years of experience as a biologist and regulatory compliance specialist that includes management of large-scale, multi-faceted projects, such as disaster recovery debris removal efforts, wetland restoration implementation, government grant management, and complex construction projects.

**Brian Fortson, Senior Environmental Specialist (ELOS):** 32 years of experience serving as a planner, Environmental Specialist and Coastal Wetland and Environmental Resources Manager. He leads permitting efforts and provides expert technical support.

**Chad Poche', P.E., Geotechnical (Gulf South):** He has been a consulting geotechnical engineer for nearly 30 years in South Louisiana, working on traditional and unique geotechnical engineering projects (shallow and deep foundation design, slope stability, pavement design, etc.). Mr. Poché has also provided construction oversight for virtually every type of earthwork related project. He has been the geotechnical engineer of record for thousands of projects throughout his career.

**Bryson Beard, P.E., ACI, Geotechnical (Gulf South):** who serves as a Project Manager. He has performed geotechnical engineering analyses consisting of shallow and deep foundations, slope stability, TRS and sheet pile wall design, settlement, pavement design, etc., and has prepared engineering reports. Mr. Beard's experience in the field includes surface and subsurface soil sampling, water sampling, and soil classification.

**Ralph P. Fontcuberta, Jr., PLS Land Surveyor (BFM):** 42 years of experience in all facets of surveying.

**Gary Lambert, Jr., PLS Land Surveyor (BFM):** He provides Project Management and Drafting Oversight for BFM Corporation. His project work has encompassed all manner of surveying services, from basic home lots to 100+ acre tract boundary surveys.

**Lacy Landrum, Project Manager/Grants Admin (ELOS):** She has more than 16 years writing and managing grants, writing and reviewing ordinances and technical policies and procedures for local governments, and preparing permit applications for major facilities and infrastructure construction projects.

### **2. SIZE OF FIRM**

ECM has 72 qualified individuals in the fields necessary to provide high quality services on this contract. Our team includes four specialty subconsultants who combine bring a total of 114 professional and support individuals available to work on projects under this contract.

### **3. CAPACITY FOR TIMELY COMPLETION OF WORK**

ECM understands the requirements of successfully managing and executing contracts. Contracts will be staffed by personnel with the technical expertise, resources, and capacity to effectively fill the needs of the project. Our efficient approach to scheduling our work allows ECM personnel to provide all required man-hours for each of our ongoing projects.

## TEC Professional Services Questionnaire

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

### **4. PAST PERFORMANCE ON SIMILAR PROJECTS**

ECM has successfully completed a number of projects for Jefferson Parish and various federal and state government agencies and has received **"Exceptional"** performance ratings relative to controlling costs, quality of work, and maintaining the contract's schedule. We take pride in completing projects on-schedule and within budget, and as a result we have been rewarded with repeat contracts.

Below are examples of projects completed within budget and on time:

- **Contract No. W912P80-07-D-0031 for the U.S. Army Corps of Engineers- HPO:** ECM was the managing J/V partner. A total of 97 Task Orders were issued, 90 percent of which received *"Exceptional"* ratings and the remaining 10 percent received *"Very Good"* ratings.
- **Contract No. AG-7217-D10-0046 USDA-NRCS for USACE's Alexandria, Louisiana:** ECM received a *"Very Good"* performance rating.
- **Contract No. W912P80-07-D-0067; U.S. Army Corps of Engineers, New Orleans District:** ECM was the managing J/V partner. A total of 275 task orders were issued and we received *"Exceptional"* rating for all task orders.
- **Contracts No. C-FTW-00366 and 00411; U.S. HUD, Atlanta Contracting Operations, Fort Worth Texas:** ECM received an *"Outstanding"* performance rating for both of these contracts. *The evaluation report states: "The contractor has demonstrated an outstanding performance level that was significantly in excess of anticipated achievements and is commendable as an example for others, so that it justifies adding a point to the score. It is expected that this rating will be used in those rare circumstances where contractor performance clearly exceeds the performance levels described as Excellent"*

ECM has been working with and for Jefferson Parish for two decades on a variety of different types of projects such as water, drainage, sewer, roadway and bridges. We have performed services in **multiple capacities from design, inspection to support services** for other disciplines such as coastal, electrical and mechanical. Our 20+ year history with the Parish should speak for itself on our past performance.

### **5. LOCATION OF PRINCIPAL OFFICE**

The ECM Consultants, Inc. principal office is located in Jefferson Parish at 1301 Clearview Parkway, Suite 200, Metairie, LA 70001.

All work by the prime consultant will be performed from this office. Environmental Services and Community Outreach, Educational support and Marketing will be performed from Hammond, LA, Surveying services and Geotechnical Services will be performed from Kenner, LA.

### **6. ADVERSARIAL LEGAL PROCEEDINGS BETWEEN THE PARISH AND FIRM**

ECM Consultants, Inc. **has never been involved** in any litigation and/or adversarial legal proceedings with Jefferson Parish. Nor have any of our sub-consultants.

### **7. PRIOR SUCCESSFUL COMPLETION OF PROJECTS**

ECM has received *"Exceptional"* performance ratings from various USACE Districts, an *"Outstanding"* performance rating from U.S. HUD, and *"Letters of Commendation"* from the U.S. Customs Service, USDA, U.S. HUD, U.S. Army Corps of Engineers-NOD, and various other local government agencies such as Jefferson Parish, City of New Orleans-DPW, Calcasieu Parish Policy Jury, and many more. **Below are references from some of our related projects:**

- **Lake Borne Shoreline Protection Maintenance Project**  
Peter Hopkins, CPRA, 504-280-4070
- **Duncan Canal Breakwater Structure and Bridges**  
Charles Brandstetter, P.E., USACE New Orleans, (504) 862-2501
- **BA-27 Barataria Basin Landbridge Shoreline Protection**  
Vicki Supler, USDA/NRCS, 337-291-3142
- **Conceptual Design of Hydrologic Systems and Remediation for Outfall Canals at 17<sup>th</sup> street, Orleans Avenue & London Avenue:**  
Dan Bradley, P.E., USACE New Orleans, 504-862-2201
- **Stormproofing Jefferson Parish Pump Station and Replacement of West Bank Mississippi River Levee, Empire to Buras (NOV 16) Phase II:**  
Dan Bradley, P.E., USACE New Orleans, 504-862-2201
- **IDIQ Construction Inspection for Various Water Projects:**  
Vicki Supler, USDA/NRCS, 337-291-3142
- **Delta-Wide Crevasses Maintenance Project (MR-09):**  
Peter Hopkins, CPRA, 504-280-4070
- **Cameron Parish Shoreline:**  
Peter Hopkins, CPRA, 504-280-4070

## TEC Professional Services Questionnaire

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

### **QUALITY CONTROL PLAN**

ECM Consultants, Inc. has an excellent quality control program. During the design phase the project manager is responsible for establishing design criteria in consultation with the owner. Before the start of a project, the project manager will meet with all staff (project engineers, junior engineers, and the CAD operator) to communicate the project scope, design criteria, drafting standards, coordination requirements with various disciplines, completion schedules for various phases, and, most importantly, the project goal and Owner's expectation of high-quality professional work. The project manager is responsible for coordination with the owner and project engineers. All of our staff members are conscientious, thorough and understand the importance of preparing construction documents with a standard of care exceeding the industry standard. The criticality of following design procedures is consistently emphasized, and all drafting is thoroughly checked by the design engineers.

Routine progress meetings are held to determine progress, coordination, and resolution of challenges associated with the project. The project engineer checks design computations and drawings at every stage for quality assurance.

After completion of the construction documents, our experienced personnel perform a "constructability review" to avoid any conflicts which may arise during construction. The final review is performed by the project manager and then submitted to a third party for peer review depending upon the complexity of the project. Our quality control program has resulted in the production of virtually error-free construction documents and has minimized possible change orders during construction.

The quality control program during construction is also the responsibility of the project manager, who, accompanied by the design engineer, is required to visit the site at least once a week and also during important and critical work activities. If required, an experienced full-time resident inspector is assigned to the project to monitor work activities of the Contractor to ascertain that the project is constructed strictly in accordance with the plans and specifications and high standards of workmanship. No deviations from plans and specifications are allowed unless approved by Owner in writing.

### **CONCLUSION**

**ECM Consultants, Inc. meets the required qualifications, experience, and resources to perform engineering services for coastal projects.**

**We are poised for immediate assignment and look forward to providing excellent professional services. We hope to receive favorable consideration.**

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

**Signature:**  \_\_\_\_\_

**Print Name:** Kazem Alikhani, P.E.

**Title:** Chief Executive Officer

**Date:** 07/15/2024

## **Section 2**

**ELOS Environmental, LLC**

*TEC Professional Services Questionnaire*

## TEC Professional Services Questionnaire

<b>A. Project Name and Advertisement Resolution Number:</b> Coastal Engineering Consulting Services as Needed Parish Wide SOQ 24-020, Res. No. 144205, Jefferson Parish																											
<b>B. Firm Name &amp; Address:</b> ELOS Environmental, LLC 607 W. Morris Ave. Hammond, LA 70403																											
<b>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:</b> Lucas Watkins, Principal lwatkins@elosenv.com 985-662-5501																											
<b>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.</b> None																											
<b>E. Please provide the number of employees whose primary function corresponds with each category:</b> <table style="width: 100%; border: none;"><tr><td style="width: 33%;"><u>10</u> Administrative</td><td style="width: 33%;"><u>   </u> Estimators</td><td style="width: 33%;"><u>   </u> Specification Writers</td></tr><tr><td><u>   </u> Architects (Licensed)</td><td><u>1</u> Geologists</td><td><u>   </u> Structural Engineers</td></tr><tr><td><u>   </u> Chemical Engineers</td><td><u>   </u> Geotechnical Engineers</td><td><u>   </u> Graduate Engineers</td></tr><tr><td><u>   </u> Civil Engineers</td><td><u>   </u> Interior Designers</td><td><u>10</u> Project Managers</td></tr><tr><td><u>2</u> Construction Inspectors</td><td><u>   </u> Landscape Architects</td><td><u>6</u> Clerical</td></tr><tr><td><u>28</u> Ecologists</td><td><u>   </u> Land Surveyor</td><td><u>2</u> Grant/Funding Specialist</td></tr><tr><td><u>   </u> Electrical Engineers</td><td><u>   </u> Mechanical Engineers</td><td><u>   </u> Sanitary Engineers</td></tr><tr><td><u>   </u> Engineer Intern</td><td><u>   </u> Environmental Engineers</td><td></td></tr><tr><td><u>   </u> Professional Land Surveyors</td><td></td><td><u>59</u> TOTAL</td></tr></table>	<u>10</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>   </u> Geotechnical Engineers	<u>   </u> Graduate Engineers	<u>   </u> Civil Engineers	<u>   </u> Interior Designers	<u>10</u> Project Managers	<u>2</u> Construction Inspectors	<u>   </u> Landscape Architects	<u>6</u> Clerical	<u>28</u> Ecologists	<u>   </u> Land Surveyor	<u>2</u> Grant/Funding Specialist	<u>   </u> Electrical Engineers	<u>   </u> Mechanical Engineers	<u>   </u> Sanitary Engineers	<u>   </u> Engineer Intern	<u>   </u> Environmental Engineers		<u>   </u> Professional Land Surveyors		<u>59</u> TOTAL
<u>10</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>   </u> Geotechnical Engineers	<u>   </u> Graduate Engineers																									
<u>   </u> Civil Engineers	<u>   </u> Interior Designers	<u>10</u> Project Managers																									
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<u>   </u> Engineer Intern	<u>   </u> Environmental Engineers																										
<u>   </u> Professional Land Surveyors		<u>59</u> TOTAL																									
<b>F. Is this submittal by a JOINT-VENTURE? Please check: YES:                      NO: X</b>  <b>If marked "No" skip to Section I. If marked "yes" complete Sections G-H.</b>																											

## 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.**

2.

**H. Has this JOINT-VENTURE previously worked together? Please check:  
YES: X 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. ELOS Environmental, LLC 607 West Morris Ave Hammond, LA 70403	Environmental Consulting	Yes
2.		
3.		

**J. Please specify the total number of support personnel that may assist in the completion of this Project:  
Total Number: 59**

\_\_\_\_\_

## 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:**

Lucas Watkins, Principal

**Project Assignment:**

Principal

**Name of Firm with which associated:**

ELOS Environmental, LLC

**Years' experience with this Firm:**

18 years

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

MS / 2005 / Biological Sciences

BS / 2000 / Forest Management

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

--2010/LA Arborist, License No. 19-1827; --LA Licensed Horticulturist; --LA Licensed Nuisance Wildlife Control Operator; --Certified FERC Regulatory Overview and Guidance; --Certified Prescribed Burn Manager; --Certified NPDES Erosion Inspector; --Certified Commercial Pesticide Applicator; --Certified National Highway Institute: NEPA and the Transportation Decision Making Process

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

Mr. Watkins is the founding Principal of ELOS. Mr. Watkins ensures that ELOS acquires the best tools and techniques to guarantee efficient and cost-effective delivery of services to clients. His experience includes environmental regulatory compliance and project management. This includes the management of large-scale, multi-faceted projects, such as wetland restoration implementation, government grant management, complex construction projects, and disaster recovery debris removal efforts. His key strengths include wetland delineations, wetland permitting, wetland restoration, NEPA compliance, ASTM Phase I ESAs, stormwater management, FERC regulatory overview and guidance, endangered species surveys, and timber and forest management.

**Tangipahoa Parish Coastal Master Plan, Tangipahoa Parish, LA, Principal:** ELOS has been contracted to prepare the Parish's master plan to develop a comprehensive and actionable strategy for coastal resilience, protection, and sustainable development. Mr. Watkins is reviewing plan strategies and working with Parish leaders to evaluate the best options.

**Lafitte Area Levees and Pump Stations, Jefferson Parish, LA, Principal:** ELOS was contracted to perform environmental services for ten levee improvement projects including levee lifts, new levee segments, and corresponding pump stations for those levee systems. Services included wetland delineations, joint permit applications to USACE and LDENR, environmental assessments, and cultural resource surveys. Mr. Watkins has reviewed wetland delineation findings, edited final reports, and assisted with agency coordination for permit completion.

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Brian Fortson, Senior Project Manager
<b>Project Assignment:</b>
Senior Project Manager
<b>Name of Firm with which associated:</b>
ELOS Environmental, LLC
<b>Years' experience with this Firm:</b>
11 years
<b>Education: Degree(s)/Year/Specialization:</b>
BS / 1995 / Wetland Ecology JD / 2006 / Civil Law
<b>Active registration: Year first registered/discipline:</b>
--Wetland Delineation Course, Louisiana State University Wetland Biochemistry Institute, 1996
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p>Mr. Fortson leads the permitting efforts for multiple projects for local development and infrastructure improvements efforts. Mr. Fortson provides technical expertise on many other projects for which he is not the lead scientist. He served as a Planning Technician, Land Use Planner, Environmental Specialist, and Coastal Wetland and Environmental Specialist, and Coastal Wetland and Environmental Resources Manager for St. Tammany Parish Government from 1988 to 2013. He was responsible for the administration of the St. Tammany Parish Local Coastal Program under the Coastal Zone Management Act and was responsible for managing the natural resource permitting efforts. Mr. Fortson was the Coastal Wetlands Planning Protection and Restoration Act (CWPPRA) representative for St. Tammany Parish and has proposed and presented multiple coastal restoration projects and facilitated the approval of projects through the permitting process.</p> <p><b>Lafitte Area Levees and Pump Stations, Jefferson Parish, LA, Project Manager:</b> ELOS was contracted to perform environmental services for ten levee improvement projects including levee lifts, new levee segments, and corresponding pump stations for those levee systems. Services included wetland delineations, joint permit applications to USACE and LDENR, environmental assessments, and cultural resource surveys. Mr. Fortson has coordinated permit applications, reviewed project data, reviewed environmental assessments, and written and reviewed final reports</p> <p><b>St. Charles Parish, Drainage Consulting Environmental Services, St. Charles Parish, Environmental Scientist:</b> ELOS has been contracted to perform environmental services related to permitting projects in St. Charles Parish. During the last year, ELOS has been working on a wetland delineation, a habitat analysis report (also involving drone services), and a joint permit application for two new pump stations in the Town of Montz. Also in 2023, ELOS began a Phase I Environmental Site Assessment for the Sunset pump station and the Crawford Canal widening. In 2021, one major task order involved submitting emergency authorization requests and environmental permits for a 607-acre (33.4 miles) waterway cleaning project in St. Charles Parish, Louisiana. Mr. Fortson has reviewed hydrology studies and wetland delineations, written wetland and habitat reports, reviewed GIS data/maps, reviewed changes requested for the jurisdictional determination, and coordinated with state and federal agencies.</p>

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Cory Ricks, Senior Project Manager/ Field Crew Manager
<b>Project Assignment:</b>
Project Manager and / Field Crew Manager
<b>Name of Firm with which associated:</b>
ELOS Environmental, LLC
<b>Years' experience with this Firm:</b>
8 years
<b>Education: Degree(s)/Year/Specialization:</b>
BS, Biology, 2015
<b>Active registration: Year first registered/discipline:</b>
-USACE Wetland Certification, 2017 -LDAF Commercial Pesticide Application #00177825, 20196 -Wetland Training Institute Delineator
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p>Cory Ricks serves as ELOS' wetland delineation specialist. Mr. Ricks has led wetland delineation efforts for multiple projects for local development, mitigation banks, and infrastructure developments. He has assisted with NEPA documentation, permitting, wetland delineations, GIS mapping, and cultural resources for a variety of projects. He currently manages a team of environmental scientists, field biologists, and data processors who assist with various environmental and debris monitoring projects.</p> <p><b>St. Charles Parish, Drainage Consulting Environmental Services, St. Charles Parish, Environmental Scientist:</b> ELOS has been contracted to perform environmental services related to permitting projects in St. Charles Parish. During the last year, ELOS has been working on a wetland delineation, a habitat analysis report (also involving drone services), and a joint permit application for two new pump stations in the Town of Montz. Also in 2023, ELOS began a Phase I Environmental Site Assessment for the Sunset pump station and the Crawford Canal widening. Mr. Ricks has reviewed field data collected, researched permit information and maps, and written the wetland delineation reports.</p> <p><b>Livingston Parish Drainage Improvements – Environmental Services, Livingston Parish, LA, Project Manager:</b> ELOS is contracted to perform environmental services for the Parish's LWI project that involves lateral drainage work, reshaping banks, repairing levees, and removing debris from 145 miles of targeted waterways. Mr. Ricks has managed the field crews who conduct wetland delineations and perform threatened and endangered species surveys. He has also completed wetland delineation reports and submitted permit applications to the U.S. Army Corps of Engineers (USACE), Louisiana Department of Energy and Natural Resources (LDENR), and Louisiana Department of Environmental Quality (LDEQ).</p>

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Michael Bellone, Director of Environmental Services and Regulatory Affairs
<b>Project Assignment:</b>
Director of Environmental Services and Regulatory Affairs
<b>Name of Firm with which associated:</b>
ELOS Environmental, LLC
<b>Years' experience with this Firm:</b>
1 year
<b>Education: Degree(s)/Year/Specialization:</b>
MS / 1991 / Environmental Sciences BS / 1983 / Geological Sciences
<b>Active registration: Year first registered/discipline:</b>
--Registered Professional Geologist in the following states: Mississippi #520; Alabama #800; Tennessee #3924; Wisconsin #320; Texas #4344; --LA Licensed Contractor #50824; --LA Licensed Louisiana Contractor-Hazardous Waste Treatment or Removal #50824; --OSHA Certified Waste Site Supervisor; --Certified Hazardous Materials Manager #3849
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p>Mr. Bellone has directed multi-disciplinary environmental projects at over 1,200 sites throughout the United States, including 700 Phase I and Phase II Environmental Site Assessments (ESA) for governmental agencies, commercial clients, and private industry. He is experienced in conducting and managing multimedia environmental audits, Phase I, II, and III ESAs, contamination assessments, and remedial actions (soil, groundwater, and surface water). His specialties include hydrogeological investigations, site assessments, hazardous waste site closures, environmental permitting, compliance audits and health and safety audits, and the design of multimedia remedial systems. Mr. Bellone provides senior oversight and assists ELOS with fieldwork, report writing, data processing, and file organization to complete projects concerning Phase I and II ESAs and other NEPA-related environmental assessment documentation.</p> <p>St. Charles Parish Crawford Canal – Sunset Pump Station, St. Charles Parish, LA, Project Manager: ELOS is contracted to perform an American Society of Testing and Materials (ASTM) Phase I Environmental Site Assessment (Phase I ESA) for the Crawford Canal Widening located on approximately 46.15 acres. Mr. Bellone provides project oversight and coordinating various aspects of the assessment process to ensure compliance with environmental regulations and best practices. He oversees the entire Phase I ESA process, from initial planning to final reporting. This includes defining the scope of work, setting timelines, and managing resources effectively.</p> <p><b>Port of South Louisiana, Avondale Shipyard – Phase I Environmental Site Assessment (ESA), Jefferson Parish, LA, Project Manager:</b> ELOS was contracted to conduct a Phase I Environmental Site Assessment (ESA) for the 320-acre site known as Avondale Shipyard. The purpose of the assessment was to identify any potentially hazardous substances, to evaluate the potential for soil and ground water contamination, and to provide final conclusions. Mr. Bellone provided project oversight and coordinated the assessment process to ensure compliance with environmental regulations and best practices, from initial planning to final reporting.</p>

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Lacy Landrum, Senior Grants Project Manager
<b>Project Assignment:</b>
Senior Grants Project Manager
<b>Name of Firm with which associated:</b>
ELOS Environmental, LLC
<b>Years' experience with this Firm:</b>
1 year
<b>Education: Degree(s)/Year/Specialization:</b>
PhD / 2008 / Technical Communication MA / 2000 / English BA / 1998 / English & Sociology
<b>Active registration: Year first registered/discipline:</b>
--Louisiana Public Agency Responsible Charge --Louisiana Public Agency Project Development and Design Process
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p>Dr. Landrum has more than 16 years writing and managing grants, writing and reviewing ordinances and technical policies and procedures for local governments, presenting in public meetings, and preparing permit applications for major facilities and infrastructure construction projects. She has administered HUD-CDBG, FEMA, ARPA, CARES, FAA, LWCF, LADOTD, LGAP, CWF, and Louisiana Capital Outlay grant projects from project and application design to full completion and close-out, requesting reimbursements, providing progress reports, and ensuring compliance during monitoring visits and audits. She has also written and updated hazard mitigation plans, citizen participation plans, ADA transition plans, infrastructure assessment plans, and annual water and sewer reports. Her background as a city administrator and teacher means that she finds ways to communicate complex information to various audiences and ensures that stakeholders understand the science and engineering to support critical decision making.</p> <p><b>Tangipahoa Parish Government, Louisiana Watershed Initiative, CDBG Drainage Improvements &amp; Retention Pond Tangipahoa Parish, LA, Project Manager:</b> After compiling environmental data and writing grant applications to secure a \$25 million LWI project, ELOS has been contracted to perform environmental and grant management services for drainage improvements in several neighborhoods, replace two bridges, acquire property and construct a detention pond, and clean laterals. Dr. Landrum is overseeing the grant administration for the project to include contractor clearance, wage compliance, progress reports, reimbursement requests, civil rights compliance, agency coordination, and monitoring visits, and project close-out.</p> <p><b>Clean Water Revolving Loan Projects, City of Hammond, LA, Director of Administration:</b> The City of Hammond has received and managed two Clean Water Revolving Loan projects within the last ten years. Dr. Landrum wrote both project applications. The first was in 2013 for \$5 million in sewer rehabilitation to correct inflow and infiltration in the sewer collection system. The second was in 2020 for \$2.1 million to add a treatment lagoon, install aerators and baffles, and add an emergency generator to increase the city's detention capacity and to add aeration for effluent limits compliance. The second application also involved marketing materials since the voters had to approve the project prior to application submission. After the projects were funded, She was responsible for progress reporting during construction and annual sewer bond calculations during and after construction.</p>

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Lance Barber, Senior Project Manager
<b>Project Assignment:</b>
Senior Project Manager
<b>Name of Firm with which associated:</b>
ELOS Environmental, LLC
<b>Years' experience with this Firm:</b>
1 year
<b>Education: Degree(s)/Year/Specialization:</b>
BS / 2014 / Accounting
<b>Active registration: Year first registered/discipline:</b>
<b>Other experience and qualifications relevant to the proposed Project:</b>
<p>Mr. Barber has grants management experience from both sides of the table – as the awardee and as the auditor, so he knows how the grant documentation must show the story of compliance with state and federal regulations. His strength is in FEMA public assistance from initial project development to final closeout. He has worked for state emergency management agencies and the Louisiana Legislative Auditor in addition to his more recent experience in the private sector. His expertise in project management, construction management, grant management, and disaster recovery enables him to work proactively to keep recovery efforts moving forward quickly and efficiently.</p> <p><b>Lafourche Disaster Recovery Program Management, Lafourche Parish, Project Manager:</b> ELOS was contracted to provide project management services for the FEMA Public Assistance (PA) grant program, including the full scope of local support: completing project worksheets, securing program funding, managing each project from procurement through construction, maintaining adequate documentation, requesting and receiving federal reimbursements, and closing out projects. Mr. Barber has maintained a comprehensive project master schedule, had ongoing coordination with the delivery team, and provided regular project status updates. Using the QuickBase software platform, his team has been able to mitigate risk and reduce unexpected costs with automated workflows and granular permissions, allowing the Parish and other stakeholders to access pertinent information through the life of each project. Client Reference: Mitch Orgeron, Lafourche Parish Government, 402 Green St, Thibodaux, LA 70301, 985-537-7603, orgeronma@lafourchegov.org</p> <p><b>FEMA Public Assistance Reimbursements – New Mexico Department of Homeland Security and Emergency Management:</b> Mr. Barber coordinated the review team for FEMA Public Assistance reimbursement requests. He also assisted local entities with applications, specifically for COVID-19 related disaster events. His knowledge includes current FEMA PA Program and Policy Guide, 44 CFR, 2 CFR and FEMA 598 PA Pilot Program to ensure he can help local entities and the state with compliance.</p>

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b> Basile Dardar, Project Manager
<b>Project Assignment:</b> Project Manager and Environmental Scientist
<b>Name of Firm with which associated:</b> ELOS Environmental, LLC
<b>Years' experience with this Firm:</b> 2.5 years
<b>Education: Degree(s)/Year/Specialization:</b> BS / 2014 / Biological Sciences
<b>Active registration: Year first registered/discipline:</b> --2018/USACE Wetland Delineation --2020/OLDEB Certified Oyster Biologist --2019/Open Water Diving Certification --TWIC Card
<b>Other experience and qualifications relevant to the proposed Project:</b> Mr. Dardar is a project manager and environmental scientist who has a wide range of experience including: permitting, environmental surveying, damage surveying, developing reports, research, sampling, testing, and coordinating with agencies and clients. Mr. Dardar provides environmental expertise, accurate reporting, and a high degree of professionalism to every project. He is also a certified oyster biologist, as well as a certified diver. His experience with marine biology in Louisiana coastal waters, including his experience as a commercial fisherman, makes him a unique asset to the ELOS team.

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>
<b>Name &amp; Title:</b>
Karim Belhadjali, Senior Coastal Project Manager
<b>Project Assignment:</b>
Senior Coastal Project Manager
<b>Name of Firm with which associated:</b>
ELOS Environmental, LLC
<b>Years' experience with this Firm:</b>
1 year
<b>Education: Degree(s)/Year/Specialization:</b>
MS / 1994 / Fisheries
BS / 1991 / Marine Biology
<b>Active registration: Year first registered/discipline:</b>
--2008/Interagency Consultation for Endangered Species --2010/USACE Planning Principles and Procedures --2013/Coastal and Marine Spatial Planning Advancement Training --2013/NOAA Public Issues and Conflict Management
<b>Other experience and qualifications relevant to the proposed Project:</b>
With a profound understanding of habitat restoration and its vital role in fostering resilient communities, Mr. Belhadjali brings forward-thinking expertise to coastal resilience planning. For the past two decades, he has led transformative coastal ecosystem restoration and flood risk reduction projects in Louisiana as the program manager for the State of Louisiana's Coastal Master Plan. With a track record of adeptly collaborating and fostering partnerships between diverse governmental agencies, the private sector, local leaders, and other stakeholders, Mr. Belhadjali manages projects calling for significant environmental assessments and those impacting coastal resiliency and restoration. He knows how to explain coastal resiliency strategies and projects to different audiences and is adept at presenting information for public hearings and community meetings to gain consensus on needs and priorities.

## TEC Professional Services Questionnaire

<b>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>		
<b>PROJECT NO. 1</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p>Bucktown Wheel Wash Emergency Authorization Requests Jefferson Parish, LA</p> <p>Michelle M. Gonzales, CFM Director Ecosystem and Coastal Management Jefferson Parish Government 1221 Elmwood Pk Blvd Suite 310 Jefferson, LA 70123 mgonzales@jeffparish.net O: 504-736-6653 C: 225-223-2719</p>	<p>ELOS was contracted to prepare and submit emergency authorization requests and to prepare and submit formal permit applications requesting authorization from the U.S. Army Corps of Engineers (USACE) to conduct prop-washing at the mouth of Bucktown Marina basin near its confluence with Lake Pontchartrain on an approximately 1.50-acre site located in New Orleans, LA to provide sufficient draft for vessel access, especially during emergency situations.</p> <p>ELOS obtained emergency authorization requests and submitted an after-the-fact permit application from the USACE for identifying the possibility of impacting waters under federal jurisdiction, including wetlands and navigable waters. ELOS provided clear documentation demonstrating the emergency nature of the situation, prompting USACE to swiftly evaluate the request and potentially issue authorization to proceed with necessary activities such as flood response or environmental remediation.</p> <p>The wheel wash system is positioned at exits of construction sites or quarries where vehicles are required to pass through before entering public roads to help in maintaining road safety by reducing the risk of accidents caused by slippery road conditions due to mud and debris from construction vehicles. Additionally, the wheel wash systems contributed to environmental protection by minimizing soil erosion and contamination of nearby water bodies with sediment-laden runoff from construction sites.</p>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
June 2023	NA	\$30,000

**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>	
Veterans Memorial Boulevard Pump Stations Jefferson Parish, LA  Blake Vutera, P.E. Gulf South Engineering and Testing, Inc. 15 Veterans Memorial Blvd Kenner, LA 70062 504-305-4401 ex 103 bvutera@gulfsoutheng.com	ELOS is currently contracted to provide Environmental Services in support of the Jefferson Parish Pump Stations Project on Veterans Memorial Boulevard in Jefferson Parish, LA. ELOS is responsible for applying for Coastal Use, Clean Water Act Section 404, and Rivers and Harbors Act Section 408, and levee permits for two pump stations located north and south of Veterans Memorial Boulevard along the west bank of the 17th Street Canal in New Orleans. The designs include the outflow pipe being lifted above the existing levee and through the existing floodwall. Additional access gates are also included in the designs to allow for maintenance. Due to the proposed impacts to the levee and floodwalls, the project must be reviewed by the Completed Works section of the U.S. Army Corps of Engineers for compliance with Section 408. This review process includes preparing an Environmental Assessment to determine potential impacts on cultural resources, threatened and endangered species, essential fish habitat, water quality, air quality, etc. The project's purpose is to improve street drainage at the Veterans Boulevard crossing of the 17th Street Canal.	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
Ongoing	NA	\$46,969

## 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>West Esplanade Boulevard Pump Station Jefferson Parish, LA</p> <p>Kazem Alikhani ECM Consultants, Inc. 1301 Clearview Parkway Suite 200 Metairie, LA 70001 504.885.4080 kazem@ecmconsultants.com</p>	<p>ELOS was contracted to provide Environmental Services in support of the Jefferson Parish Pump Stations Project on Veterans Memorial Boulevard at the 17<sup>th</sup> Street Canal. ELOS was responsible for analyzing permit requirements and completing applications related to Coastal Use, Clean Water Act Section 404, Rivers and Harbors Act Section 408, and levee permits for two pump stations located on the north and south sides of Veterans Memorial Boulevard along the west bank of the 17<sup>th</sup> Street Canal in Metairie, LA. The design included the outflow pipe being lifted above the existing levee and through the existing floodwall. Additional access gates were included to allow for maintenance.</p> <p>Due to the proposed impacts to the levee and floodwalls, the project was reviewed by the U.S. Army Corps of Engineers (USACE) for compliance with Section 408, and the USACE determined that an Environmental Assessment needed to be completed in addition to coordination with USACE and the levee district for Safe Assurance Review, Independent External Peer Review, and additional stability analysis. Because the project was located in the Chitimacha Aboriginal Grounds, a higher level of project impact assessment was triggered at the federal level.</p> <p>The Environmental Assessment evaluated potential impacts on cultural resources, threatened and endangered species, essential fish habitat, water quality, and air quality with the overall goal of improving street drainage at the Veterans Boulevard crossing of the 17th Street Canal.</p> <p>Meanwhile, due to the length of additional review, the Coastal Use exemption expired, requiring a new joint permit application to be completed in 2021 for the project to continue moving forward. ELOS continued to ensure full compliance of the project at every step.</p>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
2022	NA	\$24,306

## 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>	
Lafitte Area Levees Jefferson Parish, LA  Mark Schutt Engineer Meyer Engineers 4937 Hearst Street, Suite 1B Metairie, LA 70001 504-885-9892	ELOS was contracted to perform a wetland delineation and submit a joint permit application to the U.S. Army Corps of Engineers and the Louisiana Department of Energy and Natural Resources, Office of Coastal Management for several proposed levee improvements including levee lifts, new levee segments, and corresponding pump stations for those levee systems. ELOS also conducted environmental assessments and cultural resources surveys for several of these sites: Lower Lafitte Orange Street, Goose Bayou, Pen Levee, Goose Bayou Rachel Street Pump Station, Jones Point Levee, Jones Point Carmelite Pump Station, Jones Point Trahan & Jones Point Pump Station, Paillet Levee, Town of Jean Lafitte Gloria Drive Pump Station, Town of Jean Lafitte Highway 45 Pump Station, and Upper LA 45. The scope of work included: wetland delineations, permitting, agency communication, cultural resources surveys, environmental assessments, and section 106 reviews.  Project Sites: Lower Lafitte Orange Street Goose Bayou Pen Levee Goose Bayou Rachel Street Pump Station Jones Point Levee Jones Point Carmelite Pump Station Jones Point Trahan & Jones Point Pump Station Paillet Levee Town of Jean Lafitte Gloria Drive Pump Station Town of Jean Lafitte Highway 45 Pump Station Upper LA 45	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
Ongoing	NA	\$975,586

## 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>Tangipahoa Parish RESTORE Act Breakwater Project, Phases I &amp; II Tangipahoa Parish, LA</p> <p>Robby Miller Parish President 206 E Mulberry St Amite City, LA 70422 985-748-3211</p>	<p>To move forward several projects in Tangipahoa Parish's multiyear plan under the RESTORE Act, which dedicated oil spill funds to restoring the Gulf Coast region, ELOS was contracted to complete a feasibility study for dredging the bar channel at the mouth of the Tangipahoa River and restoration of a boat launch. The study included a summary of economic and environmental benefits, a mitigation plan and its costs, a permitting plan, and other regulatory requirements.</p> <p>ELOS also updated prior Geographic Information System (GIS) analysis of sediment and land accretion behind a previously built rock breakwater. Land loss between 1989 and 2013 at the shoreline in this area was calculated to be 55 acres. Between 2014, when the first phase of the project was completed, and 2016, approximately 45 acres of land and sediment have been captured behind the breakwater through natural processes. This analysis was not only key to securing additional funding from the U.S. Army Corps of Engineers (USACE), but more importantly, it enabled the parish to use the dredged material beneficially to accelerate the natural land-building process.</p> <p>During Phase II of the breakwater project, ELOS prepared the and received the complex construction permits, completed cultural resources management services to relocate any existing, submerged, or eroding archaeological sites, and monitored construction and the project's post-construction, land-building success. The "Lake Pontchartrain Shoreline Protection Project" was given the Best Restored Shores Award for 2023 by the American Shore &amp; Beach Preservation Association.</p>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
Ongoing	NA	\$130,000

## TEC Professional Services Questionnaire

<b>PROJECT NO. 6</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility</b>	
<p>Tangipahoa Parish – Louisiana Watershed Initiative CDBG-MIT Tangipahoa Parish, LA</p> <p>Robby Miller Parish President 206 E Mulberry St Amite City, LA 70422 985-748-3211</p>	<p>ELOS has been contracted to support Tangipahoa Parish with applications and projects under the Louisiana Watershed Initiative (LWI) Community Development Block Grant Mitigation (CDBG-MIT) grant program. To secure funding, ELOS reviewed applications that were awarded in Round 1, collected existing Parish data for previously identified projects, developed summary score cards for project ranking, and assisted the Parish with identifying new projects in watersheds with the highest potential of reducing flood risk. ELOS then wrote the grant proposal and submitted GIS maps, data tables, and updated low-to-moderate income information for the application. The Parish was awarded \$25 million to complete drainage improvements in several neighborhoods, replace two bridges, acquire property and construct a detention pond, and clean laterals.</p> <p>After providing the successful application services, ELOS is now contracted to provide all environmental and grant management services for the LWI projects. Specifically, ELOS is completing the Environmental Review Records in compliance with CDBG-MIT, coordinating all project permitting (wetlands delineation, jurisdictional determinations and permits to the U.S. Army Corps of Engineers and to the Louisiana Department of Energy and Natural Resources), and communicating with the local, state, and federal agencies. ELOS is also providing grant management services to include project documentation and compliance with CDBG-MIT for procurement, financial management, citizen participation, federal acquisition of property, contractor monitoring, Davis-Bacon labor compliance, civil rights compliance, reimbursement requests, monthly/quarterly reporting, and uploads into the IGX project portal.</p>	
<b>Completion Date (Actual or estimated)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
Ongoing	NA	\$350,000

## 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>	
<p>Plaquemines Parish Coastal Team Consulting Plaquemines Parish, LA</p> <p>Vincent Frelich Director of Coastal Restoration Plaquemines Parish Government 333 F. Edward Hebert Blvd., Building 100, Suite 212, Belle Chasse, LA 70037 (504) 297-5629 vfrelich@ppgov.net</p>	<p>ELOS participated as a consulting team member for the implementation of the seven primary Plaquemines Parish Coastal Strategic Implementation Plan ridge restoration projects, conceptualized as part of the Plaquemines Parish Coastal Plan. ELOS assisted in designing, evaluating, and permitting a series of potential ridge and marsh restoration projects in Plaquemines Parish. The ridge projects are evaluated for their potential to reduce impacts. The assessment for these projects evaluated plant species, height, diameter, and densities along the ridges. ELOS performed ecological assessments for the large-scale coastal ridge and marsh restoration projects for inclusion in its Coastal Master Plan.</p> <p>ELOS worked with different engineering firms to design and assess the benefits and impacts associated with the construction of ridge formations and adjacent marsh platform creation through the use of dedicated sediment delivery from dredging in the Mississippi River and transporting the sediment through long distance pipelines to the project site. ELOS also coordinated the geotechnical and soil boring effort associated with the design and compiled the design footprint information from A&amp;E Teams associated with the Plaquemines Parish Ridge Restoration Projects and worked with those A&amp;E Teams to ensure that the ratio between marsh impacts from ridge construction and benefits resulting from marsh creation was adequate to establish a net benefit in habitat credits when constructed.</p> <p>All teams have submitted shape files and tabulated impact data which has been assessed and compiled by ELOS. A spreadsheet containing all relevant impact estimations has been produced and published on the Coastal Team Project Management website at Huddle.com.</p>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
2014	NA	\$143,000

## TEC Professional Services Questionnaire

<b>PROJECT NO. 8</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p>Tangipahoa Parish Coastal Master Plan</p> <p>Robby Miller Parish President 206 E Mulberry St Amite City, LA 70422 985-748-3211</p>	<p>ELOS has been contracted to provide consulting services to Tangipahoa Parish Government in developing and updating its Coastal Master Plan. The primary objective of this plan is to develop a comprehensive and actionable strategy for coastal resilience, protection, and sustainable development in the parish. The plan addresses the critical challenges and opportunities associated with the coastal region of Tangipahoa Parish, including wetland restoration, shoreline protection, drainage improvements, and floodplain management. It is a multifaceted approach that integrates scientific, engineering, economic, and community perspectives to ensure the long-term sustainability and resilience of the parish's coastal areas.</p> <p>To develop the original plan, ELOS collected and analyzed data related to the coastal geography, storm surge modeling, hazard data, and existing studies on coastal restoration and flood protection throughout the region. Stakeholder meetings with residents, local businesses, governmental agencies, and non-governmental agencies were held to make sure the plan's components aligned with the needs and aspirations of Tangipahoa Parish residents. The resilience strategies were then aligned with priorities of similar plans including coastal plans and RESTORE Act plans. The final component of the plan involved feasibility and financial implementation with reliable funding sources and timelines.</p> <p>ELOS is currently working with the Parish to add new projects into the plan using the same comprehensive approach.</p>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
Ongoing	NA	\$148,640

## 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>Bayou Terre Aux Boeufs Ridge Restoration Armoring</p> <p>St. Bernard Parish, LA</p> <p>John Lane St. Bernard Parish Government 8201 West Judge Perez Drive Chalmette, LA 70043 504.278.4223 jlane@sbsp.net</p>	<p>ELOS was contracted to provide the wetlands delineation and permitting for 20,420 linear feet of armoring of the Bayou Terre Aux Boeufs Ridge Restoration Project in Delacroix, LA. ELOS field crews collected soil, vegetation, and hydrology data for the wetlands delineation of 16 acres, and prepared a request for jurisdictional determination (JD). The JD was approved in August 2017.</p> <p>ELOS prepared a permitting strategy prior to submitting any applications that accounted for the need for a cultural resource survey as a condition of permits for both the geotechnical borings as well as construction. ELOS identified sensitive areas within the project and worked with geotechnical engineers to modify the boring plan to avoid these. Subsequently, ELOS arranged a pre-application meeting with the Louisiana State Historic Preservation Office and received approval on the modified work plan. This strategy prevented cost overruns and delays.</p> <p>Approximately 250 shovel test plots were investigated for the presence of artifacts, which were then evaluated and cataloged. All data points were located with GPS points and organized in a GIS database allowing ELOS to share the data by way of shapefiles and map displays that are accurate at sub-meter resolution. ELOS submitted the geotechnical permit application to the USACE (borings are assigned a No Determination of Significant Impacts by the Office of Coastal Management). ELOS also provided on-site monitoring once the construction phase of the project commenced.</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	NA	\$126,000

## TEC Professional Services Questionnaire

### PROJECT NO. 10

<b>PROJECT NO. 10</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p>Lake Lery Marsh Creation and Rim Restoration</p> <p>St. Bernard Parish, LA</p> <p>John Lane St. Bernard Parish Government 8201 West Judge Perez Drive Chalmette, LA 70043 504.278.4223 jlane@sbgp.net</p>	<p>ELOS was contracted to assist St. Bernard Parish Government with professional environmental and cultural resource investigations to support the large-scale marsh creation and rim restoration initiative. The project created 177 acres of vital marsh within Lake Lery, nourished an additional 209 acres, and developed a rock embankment along the northwestern sector of Lake Lery that improved shoreline protection. ELOS personnel collected data, with the assistance of our marine archaeologist, and completed an environmental review of site conditions to support a joint permit application to the regulatory agencies authorizing the project. ELOS concurrently consulted with the U.S. Army Corps of Engineers and the Louisiana State Historic Preservation Office to establish the Area of Potential Effect and determine the required level of cultural resource investigations. Subsequently, ELOS personnel completed a review of available cultural resource data and previous investigations to determine the potential likelihood of the presence of cultural resources. The collected information and data were provided to Parish personnel for use in completing the 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>
2022	NA	\$121,440

**TEC Professional Services Questionnaire**

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

<b>Parties:</b>		<b>Status/Result of Case:</b>
<b>Plaintiff:</b>	<b>Defendant:</b>	
<b>1. None</b>	<b>None</b>	<b>None</b>
<b>2.</b>		
<b>3.</b>		
<b>4.</b>		

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

See attached items below.

## TEC Professional Services Questionnaire



έλος (élos)  
1. marsh, swamp, bog

### Overview & History

Established in 2006 by two young entrepreneurs from southeast Louisiana, ELOS is a professional consulting firm with a background in environmental services, offering an interdisciplinary approach to program and project management. We are part of Environmental Systems Group, backed by Bernhard Capital.

Our familiarity with federal, state, and local agencies – combined with rich expertise in relevant scientific technologies – has resulted in streamlined services for our clients, saving them immeasurable time and money while achieving their goals. Because of our familiarity with government programs and project processes, ELOS can provide invaluable services and support to private businesses and government entities at all levels – giving them more time to do what matters.

We help manage resources, develop grant proposals, and secure environmental clearances and permits for various projects. Our storied company history and background allow us to provide world-class program management, environmental consulting, Geographic Information System (GIS) services, and other innovative technological solutions to meet even the most complex client needs.



541620, 541370GIS

[www.elosenv.com](http://www.elosenv.com)  
985.662.5501

## TEC Professional Services Questionnaire

Our Services

### Program & Project Management

- Program Management
- Grant Management
- FEMA Public Assistance
- Disaster Recovery
- Construction Management

### Permitting Applications and Regulatory Compliance

- Wetland Delineations / Jurisdictional Determinations
- Permitting
- Biological Assessments and Monitoring
- Cultural Resources

### Environmental Services

- NEPA Compliance
- Environmental Due Diligence
- Environmental Impact Analysis
- Categorical Exclusions
- Phase I, Phase II and Phase III Environmental Site Assessments
- Brownfields Program
- Soil and Ground Water Investigations
- Environmental Remediation Services
- Air Quality Services
- Water/ Wastewater / Storm Water Permitting
- Solid and Hazardous Waste
- Industrial Hygiene Services

### Coastal Restoration and Resilience Services

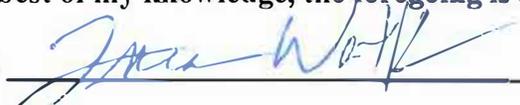
- Coastal Restoration Planning, Project Development, and Funding
- Coastal Resilience Planning
- Site Assessment and Analysis
- Ecosystem Restoration
- Climate Adaptation Strategies
- National Environmental Protection Act (NEPA) Compliance
- Coastal Use Permitting & Mitigation
- Construction Management and Environmental Monitoring
- Grant Procurement for Local Communities
- Watershed Management and Flood Mitigation Planning, Project Development, and Funding

### Innovative Technologies

- Renewable Energy Site Selection
- Leak-Detection & Repair (LDAR)
- GIS
- Drones
- Abstracting Services

TEC Professional Services Questionnaire

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

Signature:  Print Name: Lucas Watkins

Title: Principal Date: 7/11/24



# **Section 3**

**BFM Corporation, LLC**

*TEC Professional Services Questionnaire*

## TEC Professional Services Questionnaire

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

As-Needed Parish-Wide

# Coastal Engineering Consulting Services

SOQ **24-020** | Resolution No. **144205**

**B. Firm Name & Address:**



## BFM Corporation, LLC

15 Veterans Memorial Boulevard | Kenner LA 70062

**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:**

**Ralph P. Fontcuberta, Jr., PLS, Executive Vice President**

504-468-8800 | 504-468-8800 cell | ralph@bfmcorporation.com

Registered Professional Land Surveyor (**Louisiana No. 4329; since 1974**)

**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:**

**Ralph P. Fontcuberta, Jr., PLS, Executive Vice President**

504-468-8800 | 504-468-8800 cell | ralph@bfmcorporation.com

Registered Professional Land Surveyor (**Louisiana No. 4329; since 1974**)

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

<u>4</u> Administrative	<u>        </u> Estimators	<u>        </u> Specification Writers
<u>        </u> Architects (Licensed)	<u>        </u> Geologists	<u>        </u> Structural Engineers
<u>        </u> Chemical Engineers	<u>1</u> Geotechnical Engineers	<u>        </u> Graduate Engineers
<u>        </u> Civil Engineers	<u>        </u> Interior Designers	<u>2</u> Project Managers
<u>        </u> Construction Inspectors	<u>        </u> Landscape Architects	<u>        </u> Clerical ( <i>see Administrative</i> )
<u>        </u> Ecologists	<u>1</u> Land Surveyor ( <i>Apprentice</i> )	<u>        </u> Grant/Funding Specialist
<u>        </u> Electrical Engineers	<u>        </u> Mechanical Engineers	<u>        </u> Sanitary Engineers
<u>        </u> Engineer Intern	<u>        </u> Environmental Engineers	<u>1</u> <i>Researcher/Archivist</i>
<u>2</u> Professional Land Surveyors		<u>3</u> <i>CADD Technicians</i>
		<u>6</u> <i>Survey Crew Chief</i>
		<u>6</u> <i>Survey Crew Instrumentman</i>
		<u>26</u> <b>TOTAL</b>

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

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

## TEC Professional Services Questionnaire

<b>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.</b>		
1. <span style="margin-left: 40px;">N/A</span>		
2.		
<b>H. Has this JOINT-VENTURE previously worked together? Please check:</b> YES _____ NO _____ N/A		
<b>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.</b>		
Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
1. <span style="margin-left: 40px;">N/A</span>		
2.		
3.		
<b>J. Please specify the total number of support personnel that may assist in the completion of the Project:</b> <span style="margin-left: 40px;"><u>26</u> (all personnel will be available for assignment to the project)</span>		



## TEC Professional Services Questionnaire

Other experience and qualifications: **Ralph P. Fontcuberta, Jr., PLS (continued)**

Dept. of Transportation & Development (LADOTD), MS Dept. of Transportation (MDOT), and others), Federal agencies (U.S. Army Corps of Engineers (USACE), Dept. of the Navy, etc.), private/public companies (Entergy, BellSouth, Cox Cable, etc.), and numerous other public/private entities.

**Mr. Fontcuberta's surveying experience with Jefferson Parish can be traced back to BFM's inception in 1982, and to 1967 then while working as a surveyor with another firm.** He has over half a century of experience with surveying throughout the region and specifically with Jefferson Parish. He has served as the PLS for projects throughout every corner of Jefferson Parish. Relevant project history includes, but is certainly not limited to, the following:

- Paillet Basin Tidal Protection Levee, Town of Jean Lafitte, Jefferson Parish, LA
- Upper Barataria Basin Risk Reduction (UBRR) Project, Segment 3, Lafourche Parish, LA
- The Westshore Enhancements Storm Surge Protection Project (Phase 1 & 2), Ascension Parish, LA
- Abita River Regional Detention Pond Expansion, St. Tammany Parish, LA
- Tchefuncte Marsh Shoreline Protection Project (Magnetometer & Hydrographic Survey), St. Tammany Parish, LA
- Lafitte Tidal Protection, Phase II, Lafitte Area Independent Levee District, Jefferson Parish, LA
- Fisher Basin Alignment Extension (Fisher/Lafitte Tidal Protection Alignment), Jefferson Parish, LA
- Marsh Island (Lafreniere Park), Metairie, Jefferson Parish, LA
- Alexis Bay Marsh Creation Project, Venice, Plaquemines Parish, LA
- Bayou Segnette Topographic Survey, Westwego, Jefferson Parish, LA
- Trapp Canal Improvements, Bayou Fatma to Bayou Barataria, Jefferson Parish, LA
- Grand Isle State Park Breakwater Survey for Erosion, Jefferson Parish, LA
- Lower Lafitte Shoreline Stabilization at Bayou Rigolets, Segments AU1 and AU5, Jefferson Parish, LA
- Elmer's Island Surveying Services, Grand Isle, Jefferson Parish, LA
- Grand Isle Jetty Project, Grand Isle, Jefferson Parish, LA
- Fifi Island Restoration Extension, Jefferson Parish, LA
- Hydrographic Survey of the Mississippi River Range Line 1-9, Westwego, Jefferson Parish, LA
- Bayou Segnette Fronting Protection/New Pump Station, Westwego, Jefferson Parish, LA
- Lake Pontchartrain LPV149 - Caernarvon Canal Floodwall Construction Layout Survey, St. Bernard/Plaquemines Parish, LA
- Tchefuncte River Area Surveys, Tchefuncte River, LA
- Multibeam Hydrographic Survey, Pelican Island, Plaquemines Parish, LA
- SLFPA-E Levee Certification Phase 2 Survey - 40 Arpent & Maxent Levees, Orleans & St. Bernard Levee Systems, Orleans Parish, LA
- Forested Ridge Reach B-2, Fort Jackson to Venice, Plaquemines Parish, LA
- Bayou Sale Shoreline Protection Project (TV-20), Terrebonne Parish, LA
- Bayou Henderson, Ascension Parish, LA

## TEC Professional Services Questionnaire

Other experience and qualifications: **Ralph P. Fontcuberta, Jr., PLS (continued)**

- LPV 107 Lincoln Beach Levee & Gate, Orleans Parish, LA
- Lac Des Allemands Shoreline Protection & Restorations, St. John the Baptist Parish, LA
- Upper Barataria Basin Risk Reduction (UBRR) Project, Segment 3, Lafourche Parish, LA
- Hydrographic/Reclamation Monitoring at Multiple Sites, Terrebonne Parish, LA
- Upper Barataria Basin Risk Reduction (UBRR) Project, Segment 4, St. Charles Parish, LA
- Lake Pontchartrain Shoreline Projection and Enhancement Design Survey, St. Charles Parish, LA
- Louisiana DNR 2503-00-40; Bathymetric Surveying for Lake Borgne at Shell Beach (PO-30), LA
- Lincoln Beach Restoration, Orleans Parish, LA
- Goose Bayou Ridge Creation and Shoreline Protection Project, Goose Bayou at Cypress Bayou, LA
- Barataria Bridge, Jonathan Davis Wetland Restoration, LA
- USCG Belmont Ranges, St. James Parish, Gramercy, LA
- Barataria Basin Landbridge Shoreline Protection, LA
- Upper Barataria Basin Risk Reduction (UBRR) Project, Segment 1, St. Charles Parish, LA
- Walnut Street, Orleans Street, and Oak Park Pond, St. Tammany Parish, LA
- Central Wetlands Unit and 40 Arpent Canal Access & Enhancement Project, St. Bernard Parish, LA
- WBV-MRL 4.1, English Turn Bend to Belle Chasse, Plaquemines Parish, LA
- Plaquemines Parish Coastal Restoration, Plaquemines Parish, LA
- Louisiana DNR 2503-00-40; Violet Canal - South of Chalmette on LA 46, St. Bernard Parish, LA
- Naomi Siphon Outfall Management (BA-03C) and Barataria Bay Waterway East Bank Protection (BA-26), LA
- WBV-MRL 6.1, Parish Line to English Turn Bend, Orleans & Plaquemines Parishes, LA
- USA Right-of-Way Line, Intracoastal Waterway in Belle Chasse, Plaquemines Parish, LA
- Shrimp Factory Alternative Site, SE Louisiana Flood Protection Authority - East, St. Bernard Parish, LA
- Rigolets Shoreline Protection Development, Third District, Orleans Parish, LA
- Deer Island Pass, St. Mary Parish, LA
- Fort Pike (State Historic Site), Slidell, St. Tammany Parish, LA
- Cat Island Restoration Project, Plaquemines Parish, LA
- Bayou Dupre Flood Gate, St. Bernard Parish, LA
- Black Bayou Surveying Services, Lake Charles, Calcasieu Parish, LA
- Bayou St. John Hydrographic Survey, New Orleans, LA
- Port of Manchac Soundings, Lake Pontchartrain, Manchac, Tangipahoa Parish, LA
- Tiger Pass Hydrographic Survey, Venice Boat Harbor Road, Belle Chasse, LA
- Intracoastal Waterway Cross Sections (including Engineers Road), Belle Chasse, Plaquemines Parish, LA
- Upper Barataria Basin Risk Reduction (UBRR) Project, Segment 2, Lafourche Parish, LA

## TEC Professional Services Questionnaire

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

**Name & Title:**

**Chad M. Poché, P.E.**  
Executive Vice President / Registered Professional Geotechnical Engineer

**Project Assignment:**

Engineering Liaison

**Name of Firm with which associated:**

**BFM CORPORATION, LLC**  
Professional Land & Hydrographic Surveying

**Years' experience with this Firm:**

7 years (became partial owner of BFM in 2017); *BFM Corporation, LLC | 2017 to present*  
31 years total (1993) *Gulf South Engineering and Testing, Inc. | 2011 to present*  
*Ardaman and Associates, Inc. | 2007 to 2011*  
*Soil Testing Engineers, Inc. | 2001 to 2007*  
*Eustis Engineering | 1996 to 2001*  
*Soil Testing Engineers, Inc. | 1993 to 1996*

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

M.S., 1998, Civil Engineering, University of New Orleans  
B.S., 1993, Civil Engineering, Louisiana State University

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

1998, Civil Engineer (Louisiana No. 27667)  
2002, Civil Engineer (Mississippi No. 15405)

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

Chad M. Poché, P.E. is an Executive Vice President with (and partial owner of) BFM Corporation, LLC, and a co-founder of BFM's sister company, Gulf South Engineering and Testing, Inc. He has been a consulting geotechnical engineer for nearly 30 years in South Louisiana, working on traditional and unique geotechnical engineering projects (shallow and deep foundation design, slope stability, pavement design, etc.). Mr. Poché has also provided construction oversight for waste facilities and virtually every type of earthwork related project. He has been the geotechnical engineer of record for thousands of projects throughout his career.

Mr. Poché's experience includes the development of appropriate scopes of work and proposals for a broad range of projects; planning and coordinating analyses; preparing technical reports; foundation and geotechnical engineering design; construction recommendations; Miss. River facility permitting; managing personnel and office operations, and; serving as an Expert Witness. Mr. Poché has logged soil borings; overseen the installation of ground water monitoring wells, piezometers, and inclinometers; overseen and evaluated pile load tests; overseen, performed, and evaluated dynamic pile testing (PDA and PIT); performed CMT field testing and inspection; and performed laboratory testing.

## TEC Professional Services Questionnaire

Other experience and qualifications: **Chad M. Poché, P.E. (continued)**

**Paillet Basin Tidal Protection Levee, Town of Jean Lafitte, Jefferson Parish, LA.** BFM provided topographic and hydrographic surveying services for the project. Scope included establishing three static GPS observation points at major turns on the levee to ensure baseline is constrained to State Plane Coordinates; BFM also established a baseline along the centerline of the existing earthen levee (referenced to NAD 1983 2011). BFM set vertical control Temporary Benchmarks (TBM) which were referenced to horizontal control points (NAVD 1988 Geoid 12B). Plotted a cross section depicting the ground, edge of water, top and toe of earthen levee, and levee centerline at typical widths of 100 feet. Located visible above-ground utilities as well as underground utilities with visible surface evidence (where available, BFM obtained record drawings from relevant agencies to further plot utilities), as well as existing wall, center of pumps, and discharge pipes at the existing pump station. Trees and large shrubbery & etc. were located and described. Existing improvements (such as sheds, piers, and buildings) and trees were included in general location surveying. Deliverables included hardcopy, PDF, and AutoCAD DWG files. (\$150,000 (fee); 2018)

**The Westshore Enhancements Storm Surge Protection Project (Phase 1 & 2), Ascension Parish, LA.** BFM provided Boundary and Route Topographic & Hydrographic Surveying for the project in Ascension Parish, LA; as established, the project was executed in two phases. BFM executed a Route Topographic Survey; the full scope plan & profile included all services, utilities, properties, elevations and items necessary to perform any and all engineering and construction work. (\$477,340 (fee); 2023)

**Tchefuncte Marsh Shoreline Protection Project (Magnetometer & Hydrographic Survey), St. Tammany Parish, LA.** BFM provided Magnetometer & Hydrographic surveying services for the Tchefuncte Marsh Shoreline Protection Project. Prior to field work, BFM reviewed the Prime's design work plan (September 2021), reviewing existing and previous CPRA projects to identify previously permitted and approved marsh fill borrow areas in Lake Pontchartrain within 6 miles of the project's area. The scope of services included conducting a Magnetometer Survey throughout the site to identify any potential pipelines or other metallic obstructions. Services included surveying along four transects, parallel to the shoreline. A Hydrographic Survey of two 50-acre borrow pit locations was conducted. Cross Sections were taken at 250 ft. intervals within the borrow pits. (\$68,300 (fee); 2022)

**Upper Barataria Basin Risk Reduction (UBRR) Project, Segment 3, Lafourche Parish, LA.** BFM's scope of services included all topographic & hydrographic surveying as directed; magnetometer surveying was utilized to determine the presence of pipelines within the subject survey area. BFM established as client-supplied baseline and Temporary Benchmarks (TBM). Provided cross sections along Bayou Des Allemands and located elements & existing improvements within the designated limits of survey, as well as above- & below-ground utilities. As-built data was also considered. (\$118,873 (fee); 2019)

**Upper Barataria Basin Risk Reduction (UBRR) Project, Segment 1, St. Charles Parish, LA.** BFM provided topographic and hydrographic surveying services for Segment 1 of the Upper Barataria Basin Risk Reduction (UBRR) Project; this involved the Davis Pond West Guide Levee in St. Charles Parish. (\$19,147 (fee); 2019)

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>	
<b>Name &amp; Title:</b>	
<p><b>Gary J. Lambert, Jr., PLS</b> Vice President / Registered Professional Land Surveyor</p>	
<b>Project Assignment:</b>	
Project Manager/Drafting Supervisor	
<b>Name of Firm with which associated:</b>	
	
<b>Years' experience with this Firm:</b>	
6 years (joined BFM in 2018); 13 years total (2011)	<i>BFM Corporation, LLC   2018 to present</i> <i>Riverlands Surveying   2016 to 2018</i> <i>Bertucci Contracting   2011 to 2016</i>
<b>Education: Degree(s)/Year/Specialization:</b>	
B.S., 2018, Geomatics, Nicholls State University B.S., 2014, Construction Management, Louisiana State University	
<b>Active Registration: Year first registered/discipline:</b>	
2021, Professional Land Surveyor (Louisiana No. 5929)	
<b>Other experience and qualifications relevant to the proposed Project:</b>	
<p>Gary J. Lambert, Jr., is a registered Professional Land Surveyor in Louisiana and provides Project Management and Drafting Oversight for BFM Corporation. He is the first point of contact for clients on technical matters, scheduling, and deliverables for project work, and conducts meetings with engineering, architectural, and government officials to discuss various project needs. His project work has encompassed all manner of surveying services, from basic home lots to 100+ acre tract boundary surveys.</p> <p>In the field, Mr. Lambert has provided services as a Survey Crew Chief, using both traditional and robotic surveying methods, since the start of his professional career, and has experience with Leica, Hypack, AutoCAD, AutoCAD 3D, Trimble, and RTK surveying technologies. He further trains employees in the use of an aerial drone, laser scanner, and remote-controlled hydrographic survey boat. This survey experience includes topographic, boundary, ALTA/NSPS, FEMA, and various construction surveying. Mr. Lambert has also conducted hydrographic surveys in the Mississippi River and various other bodies of water throughout the Gulf Coast area.</p> <p>Mr. Lambert has completed Basic OSHA Training and holds license with the Gulf Coast Safety Council (08SSV, ID429523).</p>	

## TEC Professional Services Questionnaire

Other experience and qualifications: **Gary J. Lambert, Jr., PLS (continued)**

**Paillet Basin Tidal Protection Levee, Town of Jean Lafitte, Jefferson Parish, LA.** BFM provided topographic and hydrographic surveying services for the project. Scope included establishing three static GPS observation points at major turns on the levee to ensure baseline is constrained to State Plane Coordinates; BFM also established a baseline along the centerline of the existing earthen levee (referenced to NAD 1983 2011). BFM set vertical control Temporary Benchmarks (TBM) which were referenced to horizontal control points (NAVD 1988 Geoid 12B). Plotted a cross section depicting the ground, edge of water, top and toe of earthen levee, and levee centerline at typical widths of 100 feet. Located visible above-ground utilities as well as underground utilities with visible surface evidence (where available, BFM obtained record drawings from relevant agencies to further plot utilities), as well as existing wall, center of pumps, and discharge pipes at the existing pump station. Trees and large shrubbery & etc. were located and described. Existing improvements (such as sheds, piers, and buildings) and trees were included in general location surveying. Deliverables included hardcopy, PDF, and AutoCAD DWG files. (\$150,000 (fee); 2018)

**Tchefuncte Marsh Shoreline Protection Project (Magnetometer & Hydrographic Survey), St. Tammany Parish, LA.** BFM provided Magnetometer & Hydrographic surveying services for the Tchefuncte Marsh Shoreline Protection Project. Prior to field work, BFM reviewed the Prime's design work plan (September 2021), reviewing existing and previous CPRA projects to identify previously permitted and approved marsh fill borrow areas in Lake Pontchartrain within 6 miles of the project's area. The scope of services included conducting a Magnetometer Survey throughout the site to identify any potential pipelines or other metallic obstructions. Services included surveying along four transects, parallel to the shoreline. A Hydrographic Survey of two 50-acre borrow pit locations was conducted. Cross Sections were taken at 250 ft. intervals within the borrow pits. (\$68,300 (fee); 2022)

**Upper Barataria Basin Risk Reduction (UBRR) Project, Segment 3, Lafourche Parish, LA.** BFM's scope of services included all topographic & hydrographic surveying as directed; magnetometer surveying was utilized to determine the presence of pipelines within the subject survey area. BFM established as client-supplied baseline and Temporary Benchmarks (TBM). Provided cross sections along Bayou Des Allemands and located elements & existing improvements within the designated limits of survey, as well as above- & below-ground utilities. As-built data was also considered. (\$118,873 (fee); 2019)

**Abita River Regional Detention Pond Expansion, St. Tammany Parish, LA.** BFM provided topographic and hydrographic surveying services for the project, whose Limits of Survey consisted of Parcel A3-A, a portion of Lambert Investments Minor Subdivision, in St. Tammany Parish. BFM established two temporary benchmarks (TBMs) along Harrison Avenue near the project site, with the vertical datum referenced to NAVD 1988. Surveying services included location of the existing pond, adjoining swales and culverts, and two ditches which exist within the remainder of Parcel A3-A. Spot elevations were taken at 200 ft. intervals on land and 50 ft. within the limits of the pond. Deliverables included detailed indelible prints showing plan & profile views with cross-sections along with digital files. (\$68,400 (fee); 2019)

**The Westshore Enhancements Storm Surge Protection Project (Phase 1 & 2), Ascension Parish, LA.** BFM provided Boundary and Route Topographic & Hydrographic Surveying for the project in Ascension Parish, LA; as established, the project was executed in two phases. BFM executed a Route Topographic Survey; the full scope plan & profile included all services, utilities, properties, elevations and items necessary to perform any and all engineering and construction work. (\$477,340 (fee); 2023)

## TEC Professional Services Questionnaire

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

**Name & Title:**

**Christopher Lemley**  
Field Operations Manager/Survey Crew Chief

**Project Assignment:**

Field Operations Manager/Survey Crew Chief

**Name of Firm with which associated:**

**BFM CORPORATION, LLC**  
Professional Land & Hydrographic Surveying

**Years' experience with this Firm:**

10 years (joined BFM in 2014); *BFM Corporation, LLC | 2014 to present*  
18 years total (2006) *G.E.C., Inc. | 2010 to 2014*  
*Krebs, LaSalle, LeMieux Consultants, Inc. | 2006 to 2010*

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

*High School Diploma*

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

*American Traffic Safety Service Assn. – Traffic Flagger*  
*Louisiana Boater Education - Boating Safety Certificate*  
*Norfolk Southern Roadway Worker Protection Contractor Safety Certificate*

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

Chris Lemley's services as BFM's Field Operations Manager includes overseeing all field work and activity by company personnel. His surveying experience includes over 8 years as a Survey Crew Chief. His survey software experience includes projects involving Trimble, Topcon, Leica, and Hypack, and has maintained and operated GPS, Auto-Level, and Total Station. Notable past project work has included the New Orleans Museum of Art, Jackson Barracks Restoration, US Highway 11, NASA Michoud Cells 3 & 4, the St. Bernard Lot Next Door Program, and multiple Orleans Parish School Recovery projects (including L.B. Landry, George Washington Carver, and Alice M. Harte schools).

**Lafitte Area Levee Repair (BA-82) (CPRA 4400007082, Task 8), Jefferson Parish, LA.** BFM provided all topographic and hydrographic surveying services as required by the project. This included establishing a baseline parallel to the shoreline, establishing temporary benchmarks, plotting location of improvements, determining pipeline aspects (size, depth, etc.), and taking cross sections, as well as all elements of the hydrographic survey of the waterway. (\$8,924 (fee); 2017)

**Lower Lafitte Waterline, Jefferson Parish, LA.** BFM provided surveying services associated with the location of a 16 inch plastic waterline in the Baratavia Waterway as part of the Lower Lafitte Shoreline Stabilization project. BFM provided stakeout surveying for the project, staking the water

## TEC Professional Services Questionnaire

Other experience and qualifications: **Christopher Lemley (continued)**

line every 50 feet (with 4 ft. wooden stakes). Certain areas were very deep and the line was not accurately located in this area. BFM set markers where approximate locations were based on the areas where the line was found. (\$38,205 (fee); 2017)

**Fisher Basin Alignment Extension (Fisher/Lafitte Tidal Protection Alignment), Jefferson Parish, LA.** BFM provided topographic, bathymetric, and boundary surveying services for the project. The scope of services included extension of the project baseline along the shoreline of Bayou Barataria and towards LA45. The topographic survey was executed with sufficient intermittent shots to establish grade, and located all topographic features that could interfere with the proposed floodwalls and levee. Cross sections were also taken, with hydrographic surveys continuing out into the water and terminating at the thalweg. Overall, the surveying and mapping included sufficient topographic surveys and cross sections necessary to design, layout, access, construct, and perform the work. (\$12,197 (fee); 2015)

**Tchefuncte Marsh Shoreline Protection Project (Magnetometer & Hydrographic Survey), St. Tammany Parish, LA.** BFM provided Magnetometer & Hydrographic surveying services for the Tchefuncte Marsh Shoreline Protection Project. Prior to field work, BFM reviewed the Prime's design work plan (September 2021), reviewing existing and previous CPRA projects to identify previously permitted and approved marsh fill borrow areas in Lake Pontchartrain within 6 miles of the project's area. The scope of services included conducting a Magnetometer Survey throughout the site to identify any potential pipelines or other metallic obstructions. Services included surveying along four transects, parallel to the shoreline. A Hydrographic Survey of two 50-acre borrow pit locations was conducted. Cross Sections were taken at 250 ft. intervals within the borrow pits. (\$68,300 (fee); 2022)

**Alexis Bay Marsh Creation Project, Venice, Plaquemines Parish, LA.** BFM provided multiple survey services for this marsh creation project, including elevations, locations, establishing control points, and plat preparation. The project, which specifically involved the creation of a terrace field in Alexis Bay near Venice, Louisiana, also included general topographic surveying services of the project's island location. Hydrographic surveying via airboat was a project element. (\$8,625 (fee); 2015)

**Upper Barataria Basin Risk Reduction (UBRR) Project, Segment 1, St. Charles Parish, LA.** BFM provided topographic and hydrographic surveying services for Segment 1 of the Upper Barataria Basin Risk Reduction (UBRR) Project; this involved the Davis Pond West Guide Levee in St. Charles Parish. (\$19,147 (fee); 2019)

**Hydrographic/Reclamation Monitoring at Multiple Sites, Vermilion Parish, LA.** BFM provided topographic and hydrographic surveying services for ongoing reclamation monitoring at multiple sites, including Blue Hammock, Bay Goreau, Bay Goreau (West), and Hellhole Bay. GPS surveying services included elevations based on NAVD 1988 vertical (Geoid 12A epoch 2006.85), which utilized land-based laser scanning. Spot elevations were also provided. For the hydrographic surveying elements, BFM's dual frequency Z-boat took soundings in the same area (to show depth of silt and hard pan with a minimum water depth of 18 inches to show dual frequency); as the soundings got closer to the water's edge the surface of the silt was utilized to tie into the bank. Further, BFM plotted location of improvements within the designated limits of the survey. Deliverables included hardcopy, PDF, and AutoCAD DWG files. (\$35,500 (fee); 2016)

## TEC Professional Services Questionnaire

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

**Name & Title:**

**John Philip Thayer**  
Procurement Director (Proposals & Project Management Support)

**Project Assignment:**

Project Management Support

**Name of Firm with which associated:**

**BFM CORPORATION, LLC**  
Professional Land & Hydrographic Surveying

**Years' experience with this Firm:**

16 years (joined BFM in 2008); *BFM Corporation, LLC | 2008 to present*  
17 years total (2007) *Delle Land Surveying | 2007 to 2008*

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

Certificate, 2015, Land Surveying Services  
B.S., 2007, Physical Education, Trevecca Nazarene University

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

N/A

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

Phil Thayer serves as BFM's Procurement Director, providing proposal preparation and Project Management Support, having considerable experience in field surveying services, including ALTA/as-built surveying, construction layout, boundary, topographic, cross-sections, GPS use, and numerous other surveying types.

**Lafitte Tidal Protection, Phase II, Lafitte Area Independent Levee District, Jefferson Parish, LA.** BFM's surveying services on the project included establishing horizontal & vertical control (referenced to established benchmark and LA State Plane Coordinate System, NAD 1983 2011), coordination of proposed bulkhead/I-wall centerline, and collection of spot elevation every 25 feet along the centerline. BFM also plotted collected data with centerline overlaid for reference purposes. Deliverables include hardcopy, PDF, and AutoCAD DWG files. (\$23,220 (fee); 2017)

**Lac Des Allemands Shoreline Restorations, St. John the Baptist Parish, LA.** BFM provided surveying services for the project, which extended from Vacherie Canal southeast along the shoreline of Lac Des Allemands to Pointe Aux Herbes, a distance of approximately 11,000 feet. Surveying services included the research & review of any existing survey data and establishing a project baseline along the existing shoreline. Cross-sections extended from the baseline, 100 ft. in shore to 500 ft. off shore, every 300 ft. and perpendicular along the baseline. Hydrographic surveying included the mouth of the Vacherie Canal and mouth of Oil Well Canal, noting any significant features. Geotechnical borings were located (for plan identification). BFM further

## TEC Professional Services Questionnaire

Other experience and qualifications: **John Philip Thayer (continued)**

established control (for use by contractor during construction), and prepared drawings of the survey results to include a plan view of the survey and a profile view of each transect. (\$38,399 (fee); 2010)

**Lake Pontchartrain Shoreline Projection and Enhancement Design Survey, St. Charles Parish, LA.** For the project, BFM provided topographic and hydrographic survey in the Labranche Wetlands area on the south shore of Lake Pontchartrain. The project begins at the easterly end of the previously constructed shoreline protection project east to the St. Charles-Jefferson Parish line. BFM also surveyed canals, sloughs and bayous that emptied into Lake Pontchartrain a minimum of 100 feet from the point of entry into the lake. Controls were established following the shoreline of Lake Pontchartrain for the entire project length. All sections taken were stationed along this baseline, which was based on the Louisiana State Plane Coordinate System, Lambert Grid, NAD 1983 (2007) as established by GPS observations. Elevations were established on each control point (based on NAVD 1988) and transects along the survey baseline taken at 300 ft. intervals (shorter intervals where necessary to define the shoreline). Transects extended 100 ft. inland to 500 ft. off the shoreline, with additional shots taken in-between to define it accurately. BFM further located existing weirs, dams or levees constructed across canals, sloughs or bayous, as well as any soil boring sites in the project area. (\$32,295 (fee); 2010)

**Lower Lafitte Shoreline Stabilization at Bayou Rigolets, Segments AU1 and AU5, Jefferson Parish, LA.** BFM provided topographic and hydrographic surveying services for the project. (\$33,370 (fee); 2010)

**Fifi Island Restoration Extension, Jefferson Parish, LA.** BFM provided topographic and hydrographic surveying services for the project. The scope of services involved mapping of property lines and existing servitudes for the railroad, cemetery, private residences, and a commercial establishment (Dive Shop) north of Airline Boulevard. The project also included preparation of a servitude document across the railroad property. (\$10,210 (fee); 2011)

**Port of Manchac Soundings, Lake Pontchartrain, Manchac, Tangipahoa Parish, LA.** BFM provided surveying services for the project involving a centerline of channel soundings from Lake Pontchartrain to the Port of Manchac Harbor on North Pass. (\$3,300 (fee); 2010)

**Alexis Bay Marsh Creation Project, Venice, Plaquemines Parish, LA.** BFM provided multiple survey services for this marsh creation project, including elevations, locations, establishing control points, and plat preparation. The project, which specifically involved the creation of a terrace field in Alexis Bay near Venice, Louisiana, also included general topographic surveying services of the project's island location. Hydrographic surveying via airboat was a project element. (\$8,625 (fee); 2015)

**Goose Bayou Ridge Creation and Shoreline Protection Project, Goose Bayou at Cypress Bayou, LA.** BFM located the western shoreline of Goose Bayou from the Pen in Lafitte to its intersection with Cypress Bayou. Surveying services included cross sections every 300 feet extending 100 feet into the marsh and sounding out the centerline of Goose Bayou. (\$25,325 (fee); 2009)

## TEC Professional Services Questionnaire

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

Name & Title:

**Dawn Hoffman**  
Researcher/Archivist

Project Assignment:

Researcher/Archivist

Name of Firm with which associated:

**BFM CORPORATION, LLC**  
Professional Land & Hydrographic Surveying

Years' experience with this Firm:

15 years (joined BFM in 2009);  
27 years total (1997)

*BFM Corporation, LLC | 2009 to present*  
*Fluor Corporation | 2007 to 2009*  
*Geographic Computer Technologies, LLC | 2000 to 2007*

Education: Degree(s)/Year/Specialization:

A.D., 1999, Computer-Aided Drafting, Southeast College of Technology  
Certificate, 2003, Introduction to ArcGIS, Louisiana State University

Active Registration: Year first registered/discipline:

N/A

Other experience and qualifications relevant to the proposed Project:

Dawn Hoffman serves as BFM's primary researcher and has more than 25 years of experience in this field. She is extremely knowledgeable with researching in various parishes and cities.

**Paillet Basin Tidal Protection Levee, Town of Jean Lafitte, Jefferson Parish, LA.** BFM provided topographic and hydrographic surveying services for the project. Scope included establishing three static GPS observation points at major turns on the levee to ensure baseline is constrained to State Plane Coordinates; BFM also established a baseline along the centerline of the existing earthen levee (referenced to NAD 1983 2011). BFM set vertical control Temporary Benchmarks (TBM) which were referenced to horizontal control points (NAVD 1988 Geoid 12B). Plotted a cross section depicting the ground, edge of water, top and toe of earthen levee, and levee centerline at typical widths of 100 feet. Located visible above-ground utilities as well as underground utilities with visible surface evidence (where available, BFM obtained record drawings from relevant agencies to further plot utilities), as well as existing wall, center of pumps, and discharge pipes at the existing pump station. Trees and large shrubbery & etc. were located and described. Existing improvements (such as sheds, piers, and buildings) and trees were included in general location surveying. Deliverables included hardcopy, PDF, and AutoCAD DWG files. (\$150,000 (fee); 2018)

**Fisher Basin Alignment Extension (Fisher/Lafitte Tidal Protection Alignment), Jefferson Parish, LA.** BFM provided topographic, bathymetric, and boundary surveying services for the project. The scope of services included extension of the project baseline along the shoreline of Bayou Barataria and towards LA45. The topographic survey was executed with sufficient intermittent shots to

## TEC Professional Services Questionnaire

Other experience and qualifications: **Dawn Hoffman (continued)**

establish grade, and located all topographic features that could interfere with the proposed floodwalls and levee. Cross sections were also taken, with hydrographic surveys continuing out into the water and terminating at the thalweg. Overall, the surveying and mapping included sufficient topographic surveys and cross sections necessary to design, layout, access, construct, and perform the work. (\$12,197 (fee); 2015)

**Lafitte Tidal Protection, Phase II, Lafitte Area Independent Levee District, Jefferson Parish, LA.** BFM's surveying services on the project included establishing horizontal & vertical control (referenced to established benchmark and LA State Plane Coordinate System, NAD 1983 2011), coordination of proposed bulkhead/I-wall centerline, and collection of spot elevation every 25 feet along the centerline. BFM also plotted collected data with centerline overlaid for reference purposes. Deliverables include hardcopy, PDF, and AutoCAD DWG files. (\$23,220 (fee); 2017)

**Marsh Island (Lafreniere Park), Metairie, Jefferson Parish, LA.** BFM Corporation provided bathymetric and topographic surveying services for the Marsh Island project at Lafreniere Park in Jefferson Parish, Louisiana. The survey encompassed the island and surrounding waters up to and including the sidewalk. Cross sections of the island and surrounding waters were cut after the topographic and hydrographic surveying was completed. (\$9,568 (fee); 2016)

**SLFPA-E Levee Certification Phase 2 Survey - 40 Arpent & Maxent Levees, Orleans & St. Bernard Levee Systems, Orleans Parish, LA.** BFM surveyed the centerline of the 40 Arpent "Back" Levee (in excess of 124,000 lf on a 100 ft grid). Control points were established utilizing RTK GPS. In addition, each pump station was surveyed and all grade breaks/roads were obtained along the centerline of the levee. The old shrimp building at Violet Canal was also located as part of the survey. Surveys included utility locations (based on field evidence, investigation, and available utility records) as well as foundation of above-ground utility poles, wet wells, and pipeline crossings. Bathymetry information was incorporated into cross-section point file and combined with ground survey; this information was further converted to the same elevations as the levee profile work. Additional cross sections were surveyed to support detailed geotechnical analysis; locations were coordinated with the geotechnical engineer of record for the project. These cross sections extended 100 ft from the toe of the levee in both directions and included bathymetry of the lake, wetland, or canal, depending on location, and extended until depth of the body was determined. (\$166,500 (fee); 2013)

**Tchefuncte Marsh Shoreline Protection Project (Magnetometer & Hydrographic Survey), St. Tammany Parish, LA.** BFM provided Magnetometer & Hydrographic surveying services for the Tchefuncte Marsh Shoreline Protection Project. Prior to field work, BFM reviewed the Prime's design work plan (September 2021), reviewing existing and previous CPRA projects to identify previously permitted and approved marsh fill borrow areas in Lake Pontchartrain within 6 miles of the project's area. The scope of services included conducting a Magnetometer Survey throughout the site to identify any potential pipelines or other metallic obstructions. Services included surveying along four transects, parallel to the shoreline. A Hydrographic Survey of two 50-acre borrow pit locations was conducted. Cross Sections were taken at 250 ft. intervals within the borrow pits. (\$68,300 (fee); 2022)

## TEC Professional Services Questionnaire

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

**Name & Title:**

**Anthony Watson**  
CADD Technician (AutoCADD Drafting Services)

**Project Assignment:**

CADD Technician (AutoCADD Drafting Services)

**Name of Firm with which associated:**

**BFM CORPORATION, LLC**  
Professional Land & Hydrographic Surveying

**Years' experience with this Firm:**

13 years (joined BFM in 2011); *BFM Corporation, LLC | 2011 to present*  
33 years total (1991) *Krebs LaSalle Lemieux / GEC | 2008 to 2011*  
*Doug Connally and Associates Land Surveying (Dallas, TX) | 1995-2008*  
*Electrician | 1991 to 1995*  
*City of Plano TX (Part-Time Drafting Services) | 1991*

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

Coursework - CAD, Avatech Solutions, Los Colinas, TX

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

N/A

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

Anthony Watson has experience as a draftsman/survey technician, having started his career as an intern with the Surveying Department of the City of Plano, Texas. His experience through the years includes manual and computer-aided drafting for a wide range of projects, ranging from small lot surveys to subdivisions to municipal treatment and private industrial plants. He has experience in all facets of surveying (boundary, topographic, ALTA/ACSM, plan & profile, etc.) in both drafting and field environments.

**Lafitte Tidal Protection, Phase II, Lafitte Area Independent Levee District, Jefferson Parish, LA.** BFM's surveying services on the project included establishing horizontal & vertical control (referenced to established benchmark and LA State Plane Coordinate System, NAD 1983 2011), coordination of proposed bulkhead/I-wall centerline, and collection of spot elevation every 25 feet along the centerline. BFM also plotted collected data with centerline overlaid for reference purposes. Deliverables include hardcopy, PDF, and AutoCAD DWG files. (\$23,220 (fee); 2017)

**Fisher Basin Alignment Extension (Fisher/Lafitte Tidal Protection Alignment), Jefferson Parish, LA.** BFM provided topographic, bathymetric, and boundary surveying services for the project. The scope of services included extension of the project baseline along the shoreline of Bayou Barataria and towards LA45. The topographic survey was executed with sufficient intermittent shots to establish grade, and located all topographic features that could interfere with the proposed

## TEC Professional Services Questionnaire

Other experience and qualifications: **Anthony Watson (continued)**

floodwalls and levee. Cross sections were also taken, with hydrographic surveys continuing out into the water and terminating at the thalweg. Overall, the surveying and mapping included sufficient topographic surveys and cross sections necessary to design, layout, access, construct, and perform the work. (\$12,197 (fee); 2015)

**Tchefuncte Marsh Shoreline Protection Project (Magnetometer & Hydrographic Survey), St. Tammany Parish, LA.** BFM provided Magnetometer & Hydrographic surveying services for the Tchefuncte Marsh Shoreline Protection Project. Prior to field work, BFM reviewed the Prime's design work plan (September 2021), reviewing existing and previous CPRA projects to identify previously permitted and approved marsh fill borrow areas in Lake Pontchartrain within 6 miles of the project's area. The scope of services included conducting a Magnetometer Survey throughout the site to identify any potential pipelines or other metallic obstructions. Services included surveying along four transects, parallel to the shoreline. A Hydrographic Survey of two 50-acre borrow pit locations was conducted. Cross Sections were taken at 250 ft. intervals within the borrow pits. (\$68,300 (fee); 2022)

**The Westshore Enhancements Storm Surge Protection Project (Phase 1 & 2), Ascension Parish, LA.** BFM provided Boundary and Route Topographic & Hydrographic Surveying for the project in Ascension Parish, LA; as established, the project was executed in two phases. BFM executed a Route Topographic Survey; the full scope plan & profile included all services, utilities, properties, elevations and items necessary to perform any and all engineering and construction work. (\$477,340 (fee); 2023)

**Bayou Segnette Fronting Protection/New Pump Station, Westwego, Jefferson Parish, LA.** BFM's surveying services included establishment of vertical control for a new pump station. Total Station services were utilized for the project. (\$3,435 (fee); 2012)

**Paillet Basin Tidal Protection Levee, Town of Jean Lafitte, Jefferson Parish, LA.** BFM provided topographic and hydrographic surveying services for the project. Scope included establishing three static GPS observation points at major turns on the levee to ensure baseline is constrained to State Plane Coordinates; BFM also established a baseline along the centerline of the existing earthen levee (referenced to NAD 1983 2011). BFM set vertical control Temporary Benchmarks (TBM) which were referenced to horizontal control points (NAVD 1988 Geoid 12B). Plotted a cross section depicting the ground, edge of water, top and toe of earthen levee, and levee centerline at typical widths of 100 feet. Located visible above-ground utilities as well as underground utilities with visible surface evidence (where available, BFM obtained record drawings from relevant agencies to further plot utilities), as well as existing wall, center of pumps, and discharge pipes at the existing pump station. Trees and large shrubbery & etc. were located and described. Existing improvements (such as sheds, piers, and buildings) and trees were included in general location surveying. Deliverables included hardcopy, PDF, and AutoCAD DWG files. (\$150,000 (fee); 2018)

**Upper Barataria Basin Risk Reduction (UBRR) Project, Segment 3, Lafourche Parish, LA.** BFM's scope of services included all topographic & hydrographic surveying as directed; magnetometer surveying was utilized to determine the presence of pipelines within the subject survey area. BFM established as client-supplied baseline and Temporary Benchmarks (TBM). Provided cross sections along Bayou Des Allemands and located elements & existing improvements within the designated limits of survey, as well as above- & below-ground utilities. As-built data was also considered. (\$118,873 (fee); 2019)

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:</b>	
<b>Name &amp; Title:</b>	
<b>Curtis "Jay" Barrios</b> Survey Crew Chief	
<b>Project Assignment:</b>	
Survey Crew Chief	
<b>Name of Firm with which associated:</b>	
 <b>BFM CORPORATION, LLC</b> Professional Land & Hydrographic Surveying	
<b>Years' experience with this Firm:</b>	
34 years (joined BFM in 1990); 39 years total (1985)	<i>BFM Corporation, LLC   1990 to present</i> <i>Benson Mercedes Benz   1989 to 1990</i> <i>SECO Electric   1987</i> <i>Frishhertz Electric   1986 to 1987</i> <i>Plain Construction   1985 to 1986</i>
<b>Education: Degree(s)/Year/Specialization:</b>	
<i>High School Diploma</i>	
<b>Active Registration: Year first registered/discipline:</b>	
<i>American Traffic Safety Service Assn. – Traffic Flagger</i> <i>Basic OSHA Training Class Completion</i> <i>Transportation Work Identification Card (TWIC)</i>	
<b>Other experience and qualifications relevant to the proposed Project:</b>	
<p>Jay Barrios' surveying experience includes boundary, hydrographic, and topographic. He has been the Survey Crew Chief for thousands of projects and is one of the more experienced surveyors in the area. Further, Mr. Barrios has been involved on major transmission projects for Entergy and South Central Bell (AT&amp;T).</p> <p><b>Lafitte Tidal Protection, Phase II, Lafitte Area Independent Levee District, Jefferson Parish, LA.</b>          BFM's surveying services on the project included establishing horizontal &amp; vertical control (referenced to established benchmark and LA State Plane Coordinate System, NAD 1983 2011), coordination of proposed bulkhead/I-wall centerline, and collection of spot elevation every 25 feet along the centerline. BFM also plotted collected data with centerline overlaid for reference purposes. Deliverables include hardcopy, PDF, and AutoCAD DWG files. (\$23,220 (fee); 2017)</p> <p><b>Lake Pontchartrain Shoreline Projection and Enhancement Design Survey, St. Charles Parish, LA.</b>          For the project, BFM provided topographic and hydrographic survey in the Labranche Wetlands area on the south shore of Lake Pontchartrain. The project begins at the easterly end of the previously constructed shoreline protection project east to the St. Charles-Jefferson Parish line. BFM also surveyed canals, sloughs and bayous that emptied into Lake Pontchartrain a minimum of</p>	

## TEC Professional Services Questionnaire

Other experience and qualifications: **Curtis "Jay" Barrios (continued)**

100 feet from the point of entry into the lake. Controls were established following the shoreline of Lake Pontchartrain for the entire project length. All sections taken were stationed along this baseline, which was based on the Louisiana State Plane Coordinate System, Lambert Grid, NAD 1983 (2007) as established by GPS observations. Elevations were established on each control point (based on NAVD 1988) and transects along the survey baseline taken at 300 ft. intervals (shorter intervals where necessary to define the shoreline). Transects extended 100 ft. inland to 500 ft. off the shoreline, with additional shots taken in-between to define it accurately. BFM further located existing weirs, dams or levees constructed across canals, sloughs or bayous, as well as any soil boring sites in the project area. (\$32,295 (fee); 2010)

**Fisher Basin Alignment Extension (Fisher/Lafitte Tidal Protection Alignment), Jefferson Parish, LA.** BFM provided topographic, bathymetric, and boundary surveying services for the project. The scope of services included extension of the project baseline along the shoreline of Bayou Barataria and towards LA45. The topographic survey was executed with sufficient intermittent shots to establish grade, and located all topographic features that could interfere with the proposed floodwalls and levee. Cross sections were also taken, with hydrographic surveys continuing out into the water and terminating at the thalweg. Overall, the surveying and mapping included sufficient topographic surveys and cross sections necessary to design, layout, access, construct, and perform the work. (\$12,197 (fee); 2015)

**Fifi Island Restoration Extension, Jefferson Parish, LA.** BFM provided topographic and hydrographic surveying services for the project. The scope of services involved mapping of property lines and existing servitudes for the railroad, cemetery, private residences, and a commercial establishment (Dive Shop) north of Airline Boulevard. The project also included preparation of a servitude document across the railroad property. (\$10,210 (fee); 2011)

**Paillet Basin Tidal Protection Levee, Town of Jean Lafitte, Jefferson Parish, LA.** BFM provided topographic and hydrographic surveying services for the project. Scope included establishing three static GPS observation points at major turns on the levee to ensure baseline is constrained to State Plane Coordinates; BFM also established a baseline along the centerline of the existing earthen levee (referenced to NAD 1983 2011). BFM set vertical control Temporary Benchmarks (TBM) which were referenced to horizontal control points (NAVD 1988 Geoid 12B). Plotted a cross section depicting the ground, edge of water, top and toe of earthen levee, and levee centerline at typical widths of 100 feet. Located visible above-ground utilities as well as underground utilities with visible surface evidence (where available, BFM obtained record drawings from relevant agencies to further plot utilities), as well as existing wall, center of pumps, and discharge pipes at the existing pump station. Trees and large shrubbery & etc. were located and described. Existing improvements (such as sheds, piers, and buildings) and trees were included in general location surveying. Deliverables included hardcopy, PDF, and AutoCAD DWG files. (\$150,000 (fee); 2018)

**The Westshore Enhancements Storm Surge Protection Project (Phase 1 & 2), Ascension Parish, LA.** BFM provided Boundary and Route Topographic & Hydrographic Surveying for the project in Ascension Parish, LA; as established, the project was executed in two phases. BFM executed a Route Topographic Survey; the full scope plan & profile included all services, utilities, properties, elevations and items necessary to perform any and all engineering and construction work. (\$477,340 (fee); 2023)

## TEC Professional Services Questionnaire

**L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this project. Please include 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>Paillet Basin Tidal Protection Levee</b>, Town of Jean Lafitte, Jefferson Parish, Louisiana</p> <p><b>APTIM</b> 2424 Edenborn Avenue Suite 450 Metairie LA 70001</p> <p><b>Gene S. Gillen, P.E.</b>, 504-832-4881 info@aptim.com</p>	<p>BFM provided topographic and hydrographic surveying; scope included establishing three static GPS observation points at major turns on the levee to ensure baseline is constrained to State Plane Coordinates; also established a baseline along the centerline of the existing earthen levee. Set vertical control TBMs and plotted a cross section depicting the ground, edge of water, top and toe of earthen levee, and levee centerline at typical widths of 100 feet. Located utilities, existing wall, center of pumps, and discharge pipes at the existing pump station. Existing improvements (sheds, piers, buildings) and trees were included in general location surveying.</p>	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
June 2018	N/A	\$150,000 (fee)

### PROJECT NO. 2

Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Upper Barataria Basin Risk Reduction (UBRR) Project, Segment 3</b>, Lafourche Parish, Louisiana</p> <p><b>Greenup Industries, LLC</b> 2200 Veterans Memorial Blvd Ste 114 Kenner LA 70062</p> <p><b>Rodney Greenup, Jr.</b>, 225-283-4843 rodney@greenupind.com</p>	<p>BFM's scope of services included all topographic &amp; hydrographic surveying as directed; magnetometer surveying was utilized to determine the presence of pipelines within the subject survey area. BFM established as client-supplied baseline and Temporary Benchmarks (TBM). Provided cross sections along Bayou Des Allemands and located elements &amp; existing improvements within the designated limits of survey, as well as above- &amp; below-ground utilities. As-built data was also considered.</p>	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
July 2019	N/A	\$118,873 (fee)

## 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><b>The Westshore Enhancements Storm Surge Protection Project (Phase 1 &amp; 2),</b> Ascension Parish, Louisiana</p> <p><b>Burk-Kleinpeter, Inc.</b> 4176 Canal Street New Orleans LA 70119</p> <p><b>David Boyd, P.E.,</b> 504-483-6271 dboyd@bkusa.com</p>	<p>BFM provided Boundary and Route Topographic &amp; Hydrographic Surveying for the project in Ascension Parish, LA; as established, the project was executed in two phases. BFM executed a Route Topographic Survey; the full scope plan &amp; profile included all services, utilities, properties, elevations and items necessary to perform any and all engineering and construction work.</p>	
<b>Completion Date (Actual or estimated:)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
October 2023	N/A	\$477,340 (fee)

<b>PROJECT NO. 4</b>		
<b>Project Name, Location, and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p><b>Abita River Regional Detention Pond Expansion,</b> St. Tammany Parish, Louisiana</p> <p><b>CSRS Inc.</b> 6767 Perkins Road, Suite 200 Baton Rouge LA 70808</p> <p><b>Scott Hoffeld,</b> 225-769-0546 scott.hoffeld@csrsinc.com</p>	<p>BFM provided topographic and hydrographic surveying for the project, whose Limits of Survey consisted of Parcel A3-A, a portion of Lambert Investments Minor Subdivision, in St. Tammany Parish. BFM established two temporary benchmarks (TBMs) along Harrison Avenue near the project site, with the vertical datum referenced to NAVD 1988. Surveying services included location of the existing pond, adjoining swales and culverts, and two ditches which exist within the remainder of Parcel A3-A. Spot elevations were taken at 200 ft. intervals on land and 50 ft. within the limits of the pond. Deliverables included detailed indelible prints showing plan &amp; profile views with cross-sections along with digital files.</p>	
<b>Completion Date (Actual or estimated:)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
July 2019	N/A	\$68,400 (fee)

## 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><b>Tchefuncte Marsh Shoreline Protection Project (Magnetometer &amp; Hydrographic Survey),</b> St. Tammany Parish, Louisiana</p> <p><b>Volkert, Inc.</b> 7967 Office Park Blvd 2nd Floor Baton Rouge LA 70809</p> <p><b>Matt Salmon, P.E.,</b> 214-478-4754 matt.salmon@volkert.com</p>	<p>BFM provided Magnetometer &amp; Hydrographic surveying services for the Tchefuncte Marsh Shoreline Protection Project. Prior to field work, BFM reviewed the Prime's design work plan (September 2021), reviewing existing and previous CPRA projects to identify previously permitted and approved marsh fill borrow areas in Lake Pontchartrain within 6 miles of the project's area. The scope of services included conducting a Magnetometer Survey throughout the site to identify any potential pipelines or other metallic obstructions. Services included surveying along four transects, parallel to the shoreline. A Hydrographic Survey of two 50-acre borrow pit locations was conducted. Cross Sections were taken at 250 ft. intervals within the borrow pits.</p>	
<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	N/A	\$63,800 (fee)

<b>PROJECT NO. 6</b>		
<b>Project Name, Location, and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p><b>Lafitte Tidal Protection, Phase II, Lafitte Area Independent Levee District,</b> Jefferson Parish, Louisiana</p> <p><b>BCG Engineering &amp; Consulting, Inc.</b> 9619 Interline Avenue, Suite A Baton Rouge LA 70809</p> <p><b>David T. Dodgen,</b> 225-924-3116</p>	<p>BFM's surveying services on the project included establishing horizontal &amp; vertical control (referenced to established benchmark and LA State Plane Coordinate System, NAD 1983 2011), coordination of proposed bulkhead/l-wall centerline, and collection of spot elevation every 25 feet along the centerline. BFM also plotted collected data with centerline overlaid for reference purposes. Deliverables include hardcopy, PDF, and AutoCAD DWG files.</p>	
<b>Completion Date (Actual or estimated:)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
June 2017	N/A	\$23,220 (fee)

## 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><b>Fisher Basin Alignment Extension (Fisher/Lafitte Tidal Protection Alignment),</b> Jefferson Parish, Louisiana</p> <p><b>Brown Cunningham Gannuch</b> 3012 26th Street Metairie LA 70002</p> <p><b>Ann L. Springston, P.E.,</b> 504-454-3866 aspringston@ardurragroup.com</p>	<p>BFM provided topographic, bathymetric, and boundary surveying services for the project. The scope of services included extension of the project baseline along the shoreline of Bayou Barataria and towards LA45. The topographic survey was executed with sufficient intermittent shots to establish grade, and located all topographic features that could interfere with the proposed floodwalls and levee. Cross sections were also taken, with hydrographic surveys continuing out into the water and terminating at the thalweg. Overall, the surveying and mapping included sufficient topographic surveys and cross sections necessary to design, layout, access, construct, and perform the work.</p>	
<b>Completion Date (Actual or estimated:)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
April 2015	N/A	\$12,197 (fee)

<b>PROJECT NO. 8</b>		
<b>Project Name, Location, and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p><b>Marsh Island (Lafreniere Park),</b> Metairie, Jefferson Parish, Louisiana</p> <p><b>Mathes Brierre Architects</b> 201 St. Charles Avenue, Suite 4100 New Orleans LA 70170-4100</p> <p><b>Scott Evans, AIA,</b> 504-586-9303 talfortish@mathesbrierre.com</p>	<p>BFM Corporation provided bathymetric and topographic surveying services for the Marsh Island project at Lafreniere Park in Jefferson Parish, Louisiana. The survey encompassed the island and surrounding waters up to and including the sidewalk. Cross sections of the island and surrounding waters were cut after the topographic and hydrographic surveying was completed.</p>	
<b>Completion Date (Actual or estimated:)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
February 2016	N/A	\$9,568 (fee)

## 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><b>Alexis Bay Marsh Creation Project,</b> Venice, Plaquemines Parish, Louisiana</p> <p><b>Manchac Consulting Group, Inc.</b> 2137-A Quail Run Drive, Suite A Baton Rouge LA 70808</p> <p><b>Daniel Duhon, 225-448-3972</b></p>	<p>BFM provided multiple survey services for this marsh creation project, including elevations, locations, establishing control points, and plat preparation. The project, which specifically involved the creation of a terrace field in Alexis Bay near Venice, Louisiana, also included general topographic surveying services of the project's island location. Hydrographic surveying via airboat was a project element.</p>	
<b>Completion Date (Actual or estimated:)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
February 2015	N/A	\$8,625 (fee)

<b>PROJECT NO. 10</b>		
<b>Project Name, Location, and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p><b>Lower Lafitte Waterline Stakeout,</b> Jefferson Parish, Louisiana</p> <p><b>CB&amp;I</b> 2424 Edenborn Avenue Suite 450 Metairie LA 70001</p> <p><b>Gene S. Gillen, P.E., 504-832-4881</b> gene.gillen@cbi.com</p>	<p>BFM provided surveying services associated with the location of a 16 inch plastic waterline in the Barataria Waterway as part of the Lower Lafitte Shoreline Stabilization project. BFM provided stakeout surveying for the project, staking the water line every 50 feet (with 4 ft. wooden stakes). Certain areas were very deep and the line was not accurately located in this area. BFM set markers where approximate locations were based on the areas where the line was found.</p>	
<b>Completion Date (Actual or estimated:)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
January 2017	N/A	\$38,205 (fee)

## TEC Professional Services Questionnaire

<b>M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary.</b>		
<b>Parties:</b>		<b>Status/Result of Case:</b>
<b>Plaintiff:</b>	<b>Defendant:</b>	
1.	<i>BFM Corporation is not currently, nor has it previously been involved, in litigation with Jefferson Parish.</i>	
2.		
3.		
4.		

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



**CRITERIA 1 | PROFESSIONAL TRAINING AND EXPERIENCE**

Established in 1982, **BFM Corporation, LLC, Professional Land & Hydrographic Surveying**, provides services to public & private concerns throughout Louisiana and the Gulf South. For over 40 years, BFM has provided surveying services covering all facets of engineering, construction, and forensics; topographic, and hydrographic, as well as drone-based surveying and high-definition laser scanning.

**BFM Corporation is a majority Woman-Owned Business Enterprise (WBE) as well as a Hudson Initiative certified Small & Emerging Business and Small Entrepreneurship in Louisiana.**

Our capabilities include the following and more:

- Topographic Surveying
- Drone Surveying
- Photogrammic & LiDAR and 3D Laser Scanning
- Bathymetric / Hydrographic Surveys
- Property, Boundary, and Right-of-Way Surveys
- Maps, Cross-Sections, & Data Sets; Benchmarks

## TEC Professional Services Questionnaire

N. continued.

- Construction-Related Surveying and Builder's Package Surveys
- American Land Title Association (ALTA) Surveys

BFM's project work routinely involves **extensive records and related research** as an element of successful completion, as well as coordination with the client, agency or department. BFM has the personnel to make sure this is done correctly and expeditiously.

Our **Survey Field Crews** are equipped with Leica Viva and Leica Captivate Data Collectors, as well as Leica GPS Smart Antennas. Each GPS unit is linked to the Leica SmartNet Network, giving each crew the ability for Real Time Kinematic Positioning (RTK), derived from the Global Navigation Satellite System (GNSS). Furthermore, each crew is outfitted with Leica TS series robotic total stations, simplifying and expediting projects. BFM can also use in-house drones and 3D scanners to further analyze sites and projects. BFM's crews are trained to use this equipment to its full potential to maximize accuracy and efficiency in the field.

BFM offers **Drone Surveying Services**, featuring a DJI Matrice 600 Pro drone outfitted with a Sony A7R3 42-megapixel camera, Pixhawk Triggering System, VMAP PPK system, and an A3 Pro Flight Controller. It can capture 50 acres of land allowing BFM to quickly & accurately capture data and facilitates quicker field work to produce highly accurate and precise surveying information. Deliverables feature Clean Point Cloud, 3D Mesh, Orthomosaic, and AutoCAD DWG Topographic.

BFM's **3D modeling capabilities** allow us to process & model for any design purpose. High-definition scanner data is processed using software from Leica and Autodesk. BFM is working on non-traditional survey deliverables, including virtual tours, live walkthroughs, detailed pipe rack modeling, and modeling for use with Autodesk Revit Architecture.

When needed, BFM provides **bathymetric surveying** to handle **any hydrographic surveying tasks**. For large rivers and bodies of water, we are equipped with Teledyne Odom Hydro Solutions' Hydro Trac Single Beam Echo Sounder. For smaller bodies of water, BFM uses an SL20 Remote Controlled Boat equipped with CEE Scope Dual Channel Echo Sounder. We use Hypack Software to process collected data. Further, BFM can execute multi-beam scans, side scans and magnetometer surveys upon request.

**Please refer to our projects included in Item L and in our personnel listings in Item K for specific type project examples and an overview of our surveying experience with this project type.**

### CRITERIA 2 | SIZE OF FIRM

As noted, BFM has the manpower and equipment to execute any surveying task within the reasonable time set forth by the contract or project engineer. BFM has no issue with meeting the project deadlines set forth by our clients, both municipal and private. It is our continual goal to keep this reputation solid. Further, we establish base costs and fees for our services, and work with our clients to meet all project budgets.

## TEC Professional Services Questionnaire

N. continued.

As noted in **item E** of this form, BFM currently has a **full-time staff of two dozen people**, including **two Registered Professional Land Surveyors, Survey Field Crew Personnel, and AutoCAD drafting personnel**, as well as **complete administrative and support staff**.

### **CRITERIA 3 | CAPACITY FOR TIMELY COMPLETION**

BFM has the manpower and equipment to execute any surveying task within the reasonable time set forth by a contract or project engineer. It is our goal to keep this reputation solid. We establish base costs and fees for our services, and work with our clients to meet all project budgets. Our workload and scheduling, and proximity to the project site, will allow for quick assignment of personnel to any directed project.

BFM Corporation's **Ralph P. Fontcuberta, Jr., PLS**, Executive Vice President, is a **Louisiana-Registered Professional Land Surveyor (since 1974)** and meets or exceeds any minimum requirements for any surveying project. He has been **providing surveying services in Louisiana for over 50 years** and brings an almost incalculable wealth of experience in the region to any project, especially in Southeast Louisiana.

**Chad M. Poché, P.E.**, Executive Vice President, brings **more than 25 years of experience** to assist in completing projects on time and within budget. He has been a consulting geotechnical engineer for more than 20 years in South Louisiana and has been the geotechnical engineer of record for thousands of projects.

**Gary J. Lambert, Jr., PLS**, Vice President is a **registered Professional Land Surveyor** and provides Project Management & Drafting Oversight and is the first point of contact for clients on technical matters. He meets with engineering, architectural, and government officials to discuss various project needs.

Our personnel included **multiple survey crews** and a **fully-staffed drafting department** to handle any project needs; they are thoroughly trained and extensively familiar with the region and needs of various types of surveying projects.

### **CRITERIA 4 | PAST PERFORMANCE ON PARISH CONTRACTS**

BFM Corporation has provided **surveying services in Jefferson Parish since 1982**, both **directly to Parish agencies and as a consultant to firms serving the Parish**. The firm has executed many hundreds of projects in the Parish, including both direct Parish projects and State agency projects (CPRA, Louisiana DOTD, etc.), not to mention the scores of surveying projects for private individuals and industry.

As noted, Mr. Fontcuberta has **over half a century of professional land surveying experience**, including over 40 years with BFM. **He has provided professional surveying services for thousands of projects for and throughout Jefferson Parish.**

## TEC Professional Services Questionnaire

N. continued.

### CRITERIA 5 | LOCATION OF THE PRINCIPAL OFFICE

**BFM has called Jefferson Parish home office location since the firm's inception in 1982; our principal office is located in Jefferson Parish at 15 Veterans Memorial Boulevard in Kenner.**

### CRITERIA 6 | LEGAL STATEMENT

BFM Corporation is **not involved in litigation with Jefferson Parish** nor with any of our clients, as is noted in Item M of this form.

### CRITERIA 7 | PRIOR SUCCESSFUL COMPLETION OF PROJECTS

For over 40 years, BFM Corporation has completed thousands of projects throughout Jefferson Parish and Southeast Louisiana, both to municipal and various private clients, similar to the project at hand, not to mention other drainage projects in a wide range of sizes, from small lot to Parish-wide endeavors. **Multiple examples of this work are included throughout this form in both the Personnel Résumés section (Item K) and Representative Project Work (Item L).** Further, BFM has worked with virtually every municipality in the region. We enjoy a high repeat-business rate with all our clients. We offer the following specific references for contact:

**Mark R. Drewes, P.E., Director, Jefferson Parish Public Works Department**  
(504-736-6783 | JPPW@jeffparish.net)

**Neil Schneider, CCM, P.E., Director, Capital Projects, Jefferson Parish Public Works Dept.**  
(504-736-6783 | JPPW@jeffparish.net)

**José A. Gonzales, CAO, City of Kenner**  
(504-468-4090 | jgonzalez@kenner.la.us)

**Angela DeSoto, P.E., Director of Engineering, Jefferson Parish**  
(504-736-6511 | ADeSoto@jeffparish.net)

**Sid Trouard, P.E., Program Manager, Jefferson Parish Sewerage Capital Improvement Program**  
(504-736-6386 | STrouard@jeffparish.net)

**Ben Lapine, Acting Director, Department of Drainage, Jefferson Parish**  
(504-736-6661 | JPSewerage@jeffparish.net)

Our professional work history is exemplary. We strive to provide on-time and technically thorough project deliverables at the budget set by our clients.

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

Signature: \_\_\_\_\_

Print Name: Chad M. Poché, P.E.

Title: Executive Vice President

Date: June 25, 2024

## **Section 4**

### **Gulf South Engineering & Testing, Inc.**

*TEC Professional Services Questionnaire*

## TEC Professional Services Questionnaire

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

As-Needed Parish-Wide

# Coastal Engineering Consulting Services

SOQ **24-020** | Resolution No. **144205**

**B. Firm Name & Address:**



**Gulf South Engineering and Testing, Inc.**

15 Veterans Memorial Boulevard | Kenner LA 70062

**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:**

**Chad M. Poché, P.E., Executive Vice President**

504-305-4401 | 504-460-5239 cell | cpoche@gulfsoutheng.com

Registered Professional Civil Engineer (Louisiana No. 27667; since 1998)

**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:**

**Chad M. Poché, P.E., Executive Vice President**

504-305-4401 | 504-460-5239 cell | cpoche@gulfsoutheng.com

Registered Professional Civil Engineer (Louisiana No. 27667; since 1998)

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

<u>7</u> Administrative	<u>      </u> Estimators	<u>      </u> Specification Writers
<u>      </u> Architects (Licensed)	<u>      </u> Geologists	<u>      </u> Structural Engineers
<u>      </u> Chemical Engineers	<u>2</u> Geotechnical Engineers	<u>      </u> Graduate Engineers
<u>      </u> Civil Engineers	<u>      </u> Interior Designers	<u>1</u> Project Managers
<u>10</u> Construction Inspectors	<u>      </u> Landscape Architects	<u>      </u> Clerical ( <i>see Administrative</i> )
<u>      </u> Ecologists	<u>      </u> Land Surveyor ( <i>Apprentice</i> )	<u>      </u> Grant/Funding Specialist
<u>      </u> Electrical Engineers	<u>      </u> Mechanical Engineers	<u>      </u> Sanitary Engineers
<u>      </u> Engineer Intern	<u>      </u> Environmental Engineers	<u>1</u> CMT Supervisor
<u>1</u> Professional Land Surveyors		<u>1</u> Construction Svcs Manager
		<u>4</u> Laboratory Personnel
		<u>3</u> Soil Boring Personnel
		<u>30</u> TOTAL

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

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

## TEC Professional Services Questionnaire

<b>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.</b>		
1. <span style="margin-left: 40px;">N/A</span>		
2.		
<b>H. Has this JOINT-VENTURE previously worked together? Please check:</b> YES _____ NO _____ N/A		
<b>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.</b>		
Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
1. <span style="margin-left: 40px;">N/A</span>		
2.		
3.		
<b>J. Please specify the total number of support personnel that may assist in the completion of the Project:</b> <span style="margin-left: 40px;">30</span> (all personnel will be available for assignment to the project)		

## 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., résumé) 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:**

**Chad M. Poché, P.E.**

Executive Vice President / Registered Professional Geotechnical Engineer

**Project Assignment:**

Geotechnical Engineer / Principal In Charge

**Name of Firm with which associated:**



**Years' experience with this Firm:**

13 years (founded Gulf South in 2011);  
31 years total (1993)

*BFM Corporation, LLC | 2017 to present*  
*Gulf South Engineering and Testing, Inc. | 2011 to present*  
*Ardaman and Associates, Inc. | 2007 to 2011*  
*Soil Testing Engineers, Inc. | 2001 to 2007*  
*Eustis Engineering | 1996 to 2001*  
*Soil Testing Engineers, Inc. | 1993 to 1996*

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

M.S., 1998, Civil Engineering, University of New Orleans  
B.S., 1993, Civil Engineering, Louisiana State University

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

1998, Civil Engineer (Louisiana No. 27667)  
2002, Civil Engineer (Mississippi No. 15405)

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

Chad M. Poché, P.E., is Executive Vice President, co-founder, and a Principal in Gulf South. He has been a consulting geotechnical engineer for nearly 30 years in South Louisiana, working on traditional and unique geotechnical engineering projects (shallow and deep foundation design, slope stability, pavement design, etc.). Mr. Poché has also provided construction oversight for virtually every type of earthwork related project. He has been the geotechnical engineer of record for thousands of projects throughout his career.

Mr. Poché's experience includes the development of appropriate scopes of work and proposals for a broad range of projects; planning and coordinating analyses; preparing technical reports; foundation and geotechnical engineering design; construction recommendations; Miss. River facility permitting; managing personnel and office operations and serving as an Expert Witness.

## TEC Professional Services Questionnaire

Other experience and qualifications: **Chad M. Poché, P.E. (continued)**

Mr. Poché has logged soil borings; overseen the installation of ground water monitoring wells, piezometers, and inclinometers; overseen and evaluated pile load tests; overseen, performed, and evaluated dynamic pile testing (PDA and PIT); performed CMT field testing and inspection; and performed laboratory testing.

**Marsh Island Restoration Project, Lafreniere Park, Metairie, Jefferson Parish, LA.** Geotechnical investigation for construction of a new bulkhead wall around Marsh Island. Gulf South's scope includes drilling two soil borings each to a depth of 30 feet on the island, lab testing, and geotechnical engineering analyses including sheetpile and/or retaining wall design parameters, earth pressures, and general construction procedures and recommendations. (\$5,000 (fee); 2017)

**Tchefuncte Marsh Shoreline Protection Project: New Borrow Fill Area, Lake Pontchartrain, St. Tammany Parish, LA.** Geotechnical engineering services for shoreline protection along the Lake Pontchartrain coastline by construction of a rock dike (approx. 15,000 lf) and marsh fill area located east of the mouth of the Tchefuncte River in St. Tammany Parish, LA. Scope includes drilling 14 borings within the lake, each to a depth of 40 feet below the water surface, laboratory testing, engineering analyses and general construction procedures and recommendations. Gulf South provided recommendations for allowable soil bearing values, estimates of settlement, slope stability analyses, time rate of settlement, and strength gain estimates. (\$90,000 (fee); 2021)

**Northshore Living Shoreline Protection, Lake Pontchartrain, St. Tammany Parish, LA.** Geotechnical engineering services for shore protection along the northshore of Lake Pontchartrain coastline in two areas by constructing rock dikes in St. Tammany Parish, LA. Gulf South's scope includes drilling 16 borings each to a depth of 30 feet below the ground surface, laboratory testing, engineering analyses and general construction procedures and recommendations. Gulf South provided recommendations for allowable soil bearing values, estimates of settlement, slope stability analyses, time rate of settlement, and strength gain estimates. (\$65,000 (fee); 2023)

**Tchefuncte Marsh Shoreline Protection - New Rock Dikes, Lake Pontchartrain, St. Tammany Parish, LA.** Geotechnical engineering services for the shore protection along Lake Pontchartrain coastline by constructing a rock dike at Tchefuncte Marsh in St. Tammany Parish, LA. Gulf South's scope includes drilling undisturbed soil borings (18 at 30 ft) in Lake Pontchartrain, laboratory testing (including consolidation tests), engineering analyses (bearing values, settlement, slope stability, construction procedures & recommendations). The project utilized shallow-draft barge equipment. (\$65,000 (fee); 2020)

**Proposed Estuary Mitigation Bank (EMB) GIWW - Deadend Canal, Vendome Canal, Hockey Stick Canal, Crown Point, Jefferson Parish, LA.** Geotechnical investigation for construction of a new wetland restoration project near Crown Point, LA. Gulf South's scope includes drilling nine soil borings to depths of 15 and 40 feet in water and marsh, lab testing (including settlement column test), and geotechnical engineering analysis including estimates of settlement, time rate of settlement, borrow/fill ratios, and general construction recommendations. (\$26,500 (fee); 2016)

**Engineering Analysis Review (EAR) - Lafitte Tidal Protection Project (Phase I), Lafitte, Jefferson Parish, LA.** Engineering analysis review of alternative pile type/size recommendations (provided by Client) for drainage structure site in Jefferson Parish, near Lafitte, LA. Gulf South's scope includes engineering analysis consisting of LPILE analysis and general construction recommendations. (\$5,000 (fee); 2016)

## TEC Professional Services Questionnaire

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

**Name & Title:**

**Bryson S. Beard, P.E., ACI**  
Associate Geotechnical Engineer/Field Engineer

**Project Assignment:**

Associate Geotechnical Engineer/Field Engineer

**Name of Firm with which associated:**

**Years' experience with this Firm:**

2 years (joined Gulf South in 2022); *Gulf South Engineering and Testing, Inc. | 2022 to present*  
3 years total (2021) *TetraTech, Inc. | 2021 to 2022*

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

B.S., Geological Engineering (2021; University of Mississippi)

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

Louisiana P.E. License Passed October 2023  
Georgia, Engineering Intern (No. EIT029180, 2022)

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

Bryson S. Beard, P.E., is an Associate Geotechnical Engineer/Field Engineer who serves as a Project Manager. He has performed geotechnical engineering analyses consisting of shallow and deep foundations, slope stability, TRS and sheetpile wall design, settlement, pavement design, etc., and has prepared engineering reports. Mr. Beard's experience in the field includes surface and subsurface soil sampling, water sampling, and soil classification. His work experience further includes core logging and oversight of groundwater monitoring well installations, piezometers, and inclinometers. He has been responsible for the preparation of reports and Facility Response Plans. He is experienced with laboratory sample preparation and testing as well as air sampling and soil gas sampling.

**Mr. Bryson recently passed his Louisiana Professional Engineering test and will be a noted P.E. for the State of Louisiana once he fulfills the apprenticeship requirements set forth by LAPELS.**

**Northshore Living Shoreline Protection, Lake Pontchartrain, St. Tammany Parish, LA.** Geotechnical engineering services for shore protection along the northshore of Lake Pontchartrain coastline in two areas by constructing rock dikes in St. Tammany Parish, LA. Gulf South's scope includes drilling 16 borings each to a depth of 30 feet below the ground surface, laboratory testing, engineering analyses and general construction procedures and recommendations. Gulf South provided recommendations for allowable soil bearing values, estimates of settlement, slope stability analyses, time rate of settlement, and strength gain estimates. (\$65,000 (fee); 2023)

## TEC Professional Services Questionnaire

Other experience and qualifications: **Bryson S. Beard, P.E., ACI (continued)**

**LaPlace Water Source Project: New Intake, Pump Stations & Pretreatment Facility, LaPlace, St. John the Baptist Parish, LA.** Geotechnical engineering services for the construction of a new water source infrastructure project between the Mississippi River (MSR; east bank) and railway just north of 5th street in LaPlace, LA. Proposed structures will consist of water intake structure, pump stations, pipeline crossing levee, below grade pipelines, and a pretreatment plant. Gulf South's scope includes permitting, clearing, drilling ten undisturbed soil borings (3 at 80 ft, 3 at 30 ft, 3 at 100 ft, and 1 at 150 ft) below the ground surface, laboratory testing, engineering analyses and general construction procedures and recommendations. (\$100,000 (fee); ongoing)

**Barber Road Bank Stabilization, Paradis, St. Charles Parish, LA.** Geotechnical engineering services for portions of the road that have failed or are failing into the ditch along Barber Road in Paradis, LA. Gulf South's scope includes drilling five borings (depth of 40 feet below ground surface), laboratory testing, engineering analyses (slope stability analyses, pavement design) and general construction procedures and recommendations. (\$12,000 (fee); 2022)

**Bucktown Paddlers Launch, Metairie, Jefferson Parish, LA.** Gulf South provided construction materials testing and inspection during construction of the project. Gulf South's scope of work includes building earthwork, paving & concrete, concrete testing, soil density tests, pile inspection and modeling, and vibration monitoring. (\$15,000; 2023)

**Geotechnical Exploration Proposal (LED Site Certification), Port of Terrebonne, Houma, LA.** Geotechnical services regarding LED Certification for a 35-acre site along Rome Woodard Drive for the Port of Terrebonne in Houma, Drilled undisturbed soil borings. Geotechnical laboratory testing performed in accordance with ASTM standards, and includes strength tests (unconfined and/or triaxial), classification tests (Atterberg Limits and/or particle size), and other testing as appropriate. Geotechnical evaluation includes subsoil conditions, allowable soil bearing values, allowable pile load capacities, settlement estimates, and general construction procedures & recommendations. (\$5,900 (fee); 2024)

**City of New Orleans Municipal Yacht Harbor Fishing Pier and Restroom, City of New Orleans, LA.** Gulf South performed the Geotechnical Investigation for the project, which consists of a new fishing pier and restroom building at the Municipal Yacht Harbor along the south shore of Lake Pontchartrain in New Orleans, LA. The restroom will be an elevated structure, approximately 700 square feet, and constructed on land. The pier will be approximately 300 to 400 feet in length and extend from shore into Lake Pontchartrain. The project involves field investigation, laboratory testing, and geotechnical engineering services. (\$42,070 (fee); 2023)

**Bucktown Harbor New Dock and Loading Area, Metairie, Jefferson Parish, LA.** Geotechnical engineering services for construction of a new dock and bulkhead at Jefferson Parish's Bucktown Harbor in Metairie, LA. Gulf South's scope includes drilling one boring to a depth of 50 feet below the ground surface and one boring in Lake Pontchartrain to a depth of 50 feet below mudline, laboratory testing, engineering analyses (allowable pile load capacities, slope stability, sheetpile wall analyses), and general construction procedures and recommendations. (\$10,500 (fee); 2022)

## TEC Professional Services Questionnaire

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

**Name & Title:**

**Joseph H. "Trey" Binder, III, ACI**  
Laboratory Manager

**Project Assignment:**

Laboratory Manager; Laboratory Technician

**Name of Firm with which associated:**

**Years' experience with this Firm:**

13 years (joined Gulf South in 2011);  
13 years total (2011)

*Gulf South Engineering and Testing, Inc. | 2011 to present*  
*Ardaman and Associates, Inc. | 2007 to 2011*  
*Soil Testing Engineers, Inc. | 2006 to 2007*

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

A.D., General Studies (2006; Nunez Community College)

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

HAZMAT Awareness  
HAZMAT Operations Training  
ACI Aggregate Base Testing Technician  
ACI Concrete Strength Testing Technician

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

Trey Binder has direct experience with field and laboratory testing services. Mr. Binder's field work includes soil inspection and testing consisting of nuclear density testing and soil boring logging, vibration monitoring, pile inspection, concrete testing and inspection, asphalt testing and inspection, and pavement coring. In the laboratory, Mr. Binder has performed soil laboratory testing consisting of unconfined compression strength tests, triaxial strength tests, Atterberg limits, organic content tests, moisture and density tests, Proctor compaction tests, sieve analyses, and sample extrusion.

**Tchefuncte Marsh Shoreline Protection Project: New Borrow Fill Area, Lake Pontchartrain, St. Tammany Parish, LA.** Geotechnical engineering services for shoreline protection along the Lake Pontchartrain coastline by construction of a rock dike (approximately 15,000 linear feet) and marsh fill area located east of the mouth of the Tchefuncte River in St. Tammany Parish, LA. Gulf South's scope includes drilling 14 borings within the lake, each to a depth of 40 feet below the water surface, laboratory testing, engineering analyses and general construction procedures and recommendations. Gulf South provided recommendations for allowable soil bearing values, estimates of settlement, slope stability analyses, time rate of settlement, and strength gain estimates. (\$90,000 (fee); 2021)

## TEC Professional Services Questionnaire

Other experience and qualifications: **Joseph H. "Trey" Binder, III, ACI (continued)**

**Northshore Living Shoreline Protection, Lake Pontchartrain, St. Tammany Parish, LA.** Geotechnical engineering services for shore protection along the northshore of Lake Pontchartrain coastline in two areas by constructing rock dikes in St. Tammany Parish, LA. Gulf South's scope includes drilling 16 borings each to a depth of 30 feet below the ground surface, laboratory testing, engineering analyses and general construction procedures and recommendations. Gulf South provided recommendations for allowable soil bearing values, estimates of settlement, slope stability analyses, time rate of settlement, and strength gain estimates. (\$65,000 (fee); 2023)

**Bayou Des Allemands Gate, Upper Barataria Risk Reduction Program Segment 3, St. Charles Parish, LA.** Geotechnical investigation for construction of a new swinging barge gate structure within the UBRR flood protection/risk reduction system in St. Charles Parish, LA. Gulf South's scope includes drilling undisturbed soil borings (1 at 200 ft., 2 at 120 ft., 1 at 100 ft.), lab testing (including consolidation tests), and engineering analyses including site/soil characterization, global/local SSA for floodwalls, levee tie-ins, and floodgates, seepage analyses for sheetpile walls, settlement/downdrag analyses, unbalanced forces for structures, pile load capacities, pile foundation load-deflection relationship, estimates of settlement, ground improvement recommendations, and general construction procedures and recommendations. One boring was performed over water; the remaining borings were performed over land. (\$145,885 (fee); 2021)

**Highway 90 Tie-In Levee, Upper Barataria Risk Reduction Program Segment 4, St. Charles Parish, LA.** Geotechnical investigation for construction of a new earthen levee within the flood protection/risk reduction system in St. Charles Parish, LA. Scope includes drilling undisturbed soil borings, CPT probes, lab testing, and engineering analyses (site/soil characterization, global/local SSA for floodwalls, levee tie-ins, and floodgates, seepage analyses for sheetpile walls, settlement/downdrag analyses, unbalanced forces for structures, pile load capacities, pile foundation load-deflection relationship), estimates of settlement, ground improvement recommendations, and general construction procedures and recommendations. (\$174,720 (fee); 2021)

**Bayou Gauche/Sunset Levee - New Roller Gate, Upper Barataria Risk Reduction Program Segment 2, St. Charles Parish, LA.** Geotechnical investigation for construction of a new roller gate and T-wall structures. Gulf South's scope includes drilling undisturbed soil borings (2 at 200 ft.), CPT probes (2 at 200 ft.), lab testing (including consolidation tests), and engineering analyses including site/soil characterization, global/local SSA for floodwalls, levee tie-ins, and floodgates, design levee lift stability, seepage analyses for sheetpile walls, settlement/downdrag analyses, unbalanced forces for structures, pile load capacities, pile foundation load-deflection relationship, estimates of settlement, ground improvement recommendations, and general construction procedures and recommendations. The borings and CPT were performed over water using barge-mounted equipment. (\$110,880 (fee); 2020)

**Airline Highway Backwater Protection Project, St. John the Baptist Parish, LA.** Geotechnical engineering services for the construction of a new water source infrastructure project between the Mississippi River (MSR; east bank) and railway just north of 5th street in LaPlace, LA. Proposed structures will consist of water intake structure, pump stations, pipeline crossing levee, below grade pipelines, and a pretreatment plant. Gulf South's scope includes permitting, clearing, drilling ten undisturbed soil borings below the ground surface, execution of laboratory testing, provision of engineering analyses (bearing values, bedding & backfills settlement, pile capacities, earth pressures, slope stability, cofferdam analyses, levee analyses) and establishing general construction procedures and recommendations. (\$55,000 (fee); 2020)

## TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:	
<b>Name &amp; Title:</b>	
<b>Eric A. Paille, C.E.T., ACI</b> Construction Services Manager	
<b>Project Assignment:</b>	
Construction Services Manager	
<b>Name of Firm with which associated:</b>	
 <b>ENGINEERING AND TESTING, INC.</b> Geotechnical & Materials Consultants	
<b>Years' experience with this Firm:</b>	
13 years (joined Gulf South in 2011); 35 years total (1989)	<i>Gulf South Engineering and Testing, Inc.   2011 to present</i> <i>Ardaman and Associates, Inc.   2007 to 2011</i> <i>Soil Testing Engineers, Inc.   1988 to 2007</i>
<b>Education: Degree(s)/Year/Specialization:</b>	
<i>High School Diploma</i>	
<b>Active Registration: Year first registered/discipline:</b>	
<i>ACI-I Field Technician (since 1991; No. 929012)</i> <i>Certified Engineering Technician (since 1992)</i> <i>Nuclear Gauge Safety Training (since 1994; No. 061321)</i> <i>Pile Driving Analyzer/CAPWAP, OSHA 40 HAZWOPER</i>	
<b>Other experience and qualifications relevant to the proposed Project:</b>	
<p>Eric A. Paille, C.E.T., ACI, serves as Gulf South's Construction Services Manager as well as the manager of our Gonzales office. He has experience as a technician, inspector, and testing manager, and is knowledgeable in all aspects of construction materials testing and construction inspection. Mr. Paille has performed all applicable field and soil tests over the past 30+ years. In addition, he is certified in the safe use and handling of the nuclear density gauge. He received PDA training in 2003 and has knowledge of PDA testing along with significant experience with pile driving analyzers. Mr. Paille is one of the most knowledgeable people in our industry.</p> <p><b>Highway 90 Tie-In Levee, Upper Barataria Risk Reduction Program Segment 4, St. Charles Parish, LA.</b> Geotechnical investigation for construction of a new earthen levee within the flood protection/risk reduction system in St. Charles Parish, LA. Gulf South's scope includes drilling undisturbed soil borings (1 at 200 ft., 3 at 75 ft.), CPT probes (6 at 75 ft.), lab testing, and engineering analyses including site/soil characterization, global/local SSA for floodwalls, levee tie-ins, and floodgates, seepage analyses for sheetpile walls, settlement/downdrag analyses, unbalanced forces for structures, pile load capacities, pile foundation load-deflection relationship, estimates of settlement, ground improvement recommendations, and general construction procedures and recommendations. (\$174,720 (fee); 2021)</p>	

## TEC Professional Services Questionnaire

Other experience and qualifications: **Eric A. Paille, C.E.T., ACI (continued)**

**Marsh Island Wildlife Refuge Levee/Bulkhead Repairs (Louisiana DNR), Vermillion Bay, New Iberia, Iberia Parish, LA.** Geotechnical investigation for various repairs to a dam, levee, and bulkhead at Marsh Island Wildlife Refuge in Iberia Parish, LA. Gulf South's scope of work includes drilling five soil borings each to a depth of 60 feet using marsh drilling equipment, laboratory testing, and geotechnical engineering services consisting of providing allowable soil bearing values, allowable pile capacities, bulkhead design parameters, slope stability analyses, estimates of settlement, and general construction recommendations. (\$51,250 (fee); 2014)

**Proposed Estuary Mitigation Bank (EMB) GIWW - Deadend Canal, Vendome Canal, Hockey Stick Canal, Crown Point, Jefferson Parish, LA.** Geotechnical investigation for construction of a new wetland restoration project near Crown Point, LA. Gulf South's scope includes drilling nine soil borings to depths of 15 and 40 feet in water and marsh, lab testing (including settlement column test), and geotechnical engineering analysis including estimates of settlement, time rate of settlement, borrow/fill ratios, and general construction recommendations. (\$26,500 (fee); 2016)

**Marsh Island Restoration Project, Lafreniere Park, Metairie, Jefferson Parish, LA.** Geotechnical investigation for construction of a new bulkhead wall around Marsh Island within Lafreniere Park in Metairie, LA. Gulf South's scope includes drilling two soil borings each to a depth of 30 feet on the island, lab testing, and geotechnical engineering analyses including sheetpile and/or retaining wall design parameters, earth pressures, and general construction procedures and recommendations. (\$5,000 (fee); 2017)

**South Lafourche Levee District - Morganza to the Gulf (Reach K Mitigation Area), Lafourche Parish, LA.** Geotechnical investigation for a wetlands mitigation project in Lafourche Parish, LA. Project consists of dredging various canals (totaling approx. 2.6 miles or 13,750 lf) and creating wetlands (approx. 40 acres). Gulf South's scope includes drilling 18 undisturbed soil borings to depths of 10 feet (12 borings in canals) and 30 feet (6 borings in fill area) below apparent mud line, lab testing (including consolidation tests & Settlement Column tests), and engineering analyses (inclusive of estimates of settlement, borrow/fill ratios, time rate settlement, slope stability analyses), and general construction recommendations. All borings were performed over water using barge and marsh buggy equipment. Analyses submitted, reviewed, and approved by the Louisiana Department of Natural Resources and the U.S. Army Corps of Engineers. (\$42,000 (fee); 2017)

**Bayou Des Allemands Gate, Upper Barataria Risk Reduction Program Segment 3, St. Charles Parish, LA.** Geotechnical investigation for construction of a new swinging barge gate structure within the UBRR flood protection/risk reduction system in St. Charles Parish, LA. Gulf South's scope includes drilling undisturbed soil borings (1 at 200 ft., 2 at 120 ft., 1 at 100 ft.), lab testing (including consolidation tests), and engineering analyses including site/soil characterization, global/local SSA for floodwalls, levee tie-ins, and floodgates, seepage analyses for sheetpile walls, settlement/downdrag analyses, unbalanced forces for structures, pile load capacities, pile foundation load-deflection relationship, estimates of settlement, ground improvement recommendations, and general construction procedures and recommendations. One boring was performed over water; the remaining borings were performed over land. (\$145,885 (fee); 2021)

## TEC Professional Services Questionnaire

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

**Name & Title:**

**Ian Kerner Poché, ACI**  
Assistant Laboratory Supervisor

**Project Assignment:**

Assistant Laboratory Supervisor

**Name of Firm with which associated:**

**Years' experience with this Firm:**

7 years (joined Gulf South in 2017); Gulf South Engineering and Testing, Inc. | 2017 to present  
7 years total (2017)

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

High School Diploma

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

ACI Concrete Field Testing Technician - Grade 1 (exp 2028 03)  
ACI Aggregate Testing Technician - Level 1 (exp 2029 02 27)

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

Ian Poché has worked in Gulf South's laboratory for several years and has experience with virtually every type of soil test. He has also helped when needed in the CMT department and has concrete testing experience, and is an ACI-certified Concrete Field Testing Technician.

**Bayou Des Allemands Gate, Upper Barataria Risk Reduction Program Segment 3, St. Charles Parish, LA.** Geotechnical investigation for construction of a new swinging barge gate structure within the UBRR flood protection/risk reduction system in St. Charles Parish, LA. Gulf South's scope includes drilling undisturbed soil borings (1 at 200 ft., 2 at 120 ft., 1 at 100 ft.), lab testing (including consolidation tests), and engineering analyses including site/soil characterization, global/local SSA for floodwalls, levee tie-ins, and floodgates, seepage analyses for sheetpile walls, settlement/downdrag analyses, unbalanced forces for structures, pile load capacities, pile foundation load-deflection relationship, estimates of settlement, ground improvement recommendations, and general construction procedures and recommendations. One boring was performed over water; the remaining borings were performed over land. (\$145,885 (fee); 2021)

**City of New Orleans Municipal Yacht Harbor Fishing Pier and Restroom, City of New Orleans, LA.** Gulf South performed the Geotechnical Investigation for the project, which consists of a new fishing pier and restroom building at the Municipal Yacht Harbor along the south shore of Lake Pontchartrain in New Orleans, LA. The restroom will be an elevated structure, approximately 700 square feet, and constructed on land. The pier will be approximately 300 to 400 feet in length and extend from shore into Lake Pontchartrain. The project involves field investigation, laboratory testing, and geotechnical engineering services. (\$42,070 (fee); 2023)

## TEC Professional Services Questionnaire

Other experience and qualifications: **Ian Kerner Poché, ACI (continued)**

**Geotechnical Exploration Proposal (LED Site Certification), Port of Terrebonne, Houma, LA.** Geotechnical services regarding LED Certification for a 35-acre site along Rome Woodard Drive for the Port of Terrebonne in Houma, Drilled undisturbed soil borings. Geotechnical laboratory testing performed in accordance with ASTM standards, and includes strength tests (unconfined and/or triaxial), classification tests (Atterberg Limits and/or particle size), and other testing as appropriate. Geotechnical evaluation includes subsoil conditions, allowable soil bearing values, allowable pile load capacities, settlement estimates, and general construction procedures & recommendations. (\$5,900 (fee); 2024)

**Improvements to Sewer Lift Station M-11-3 (13th & Farrington) and Force Main, Marrero, Jefferson Parish, LA.** Gulf South provided the materials testing and inspection during construction. Gulf South's scope of services included vibration monitoring, bedding and backfill testing, compaction/density tests, and concrete testing and inspection. (\$15,000 (fee); 2019)

**Lake Cataouatche Drainage Pump Station Replacement (Chighizola Lane), Grand Isle, Jefferson Parish, LA.** Geotechnical engineering services for the construction of a replacement Lake Cataouatche drainage pump station at the end of Chighizola Lane in Grand Isle. Gulf South's scope includes drilling one undisturbed soil borings to a depth of 80 feet below the ground surface, laboratory testing, engineering analyses and general construction procedures and recommendations. Pump station is close to a USACE floodwall so coordination and geotechnical engineering analyses were required to show the new pump station would not adversely affect the integrity of the floodwall. (\$7,500 (fee); 2020)

**Lift Station F-8-3 Replacement, Metairie, Jefferson Parish, LA.** Geotechnical engineering services for the construction of a new lift station to replace the existing Jefferson Parish lift station (LS F-8-3) station off West Esplanade Avenue (between Houma Boulevard and Hudson Street) in Metairie, LA. Gulf South's scope includes drilling a single undisturbed soil boring to a depth of 100 feet below the ground surface, laboratory testing, engineering analyses and general construction procedures and recommendations. (\$8,500 (fee); 2020)

**Ole Miss Sewer Force Main, City of Kenner, LA.** Geotechnical engineering services for the construction of a new sewer force main along Ole Miss Drive from the John Hopkins Lift Station to 35th Street within Kenner, LA. The force main will be 10-inches in diameter, approximately 2,100 linear feet, and installed 10 to 15 feet deep via directional drilling. Gulf South's scope includes drilling four undisturbed soil borings to depths of 20 feet below the ground surface, laboratory testing, engineering analyses (including soil bearing values, bedding & backfill, and settlement) and general construction procedures and recommendations. (\$8,000 (fee); 2021)

**Lift Station Upgrade (24th St. and Delaware Ave.), City of Kenner, LA.** Geotechnical engineering services for construction of a new generator pad and wet well located at 24th Street and Delaware Avenue in Kenner, LA. Gulf South's scope of services includes drilling two borings to a depths of 70 feet (1 boring for wet well) and 50 feet (1 boring for generator pad) below the ground surface, laboratory testing, engineering analyses (soil bearing values, pile capacities, bedding & backfill, and estimates of settlement) and general construction procedures and recommendations. (\$7,500 (fee); 2022)

## TEC Professional Services Questionnaire

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

**Name & Title:**

**Brandon A. Paille, ACI**

Construction Materials Testing (CMT) Supervisor/Project Manager

**Project Assignment:**

Construction Materials Testing (CMT) Supervisor/Project Manager

**Name of Firm with which associated:**

**Years' experience with this Firm:**

5 years (2012-2016; 2023 to present);  
14 years total (2010)

*Gulf South Engineering and Testing, Inc. | 2023 to present*  
*Ascension Parish Sheriff's Office | 2016 to 2023*  
*Gulf South Engineering and Testing, Inc. | 2012 to 2016*  
*Ardaman and Associates, Inc. | 2010 to 2012*

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

*High School Diploma*

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

APNGA Nuclear Gauge Safety  
ACI Field Technician Level 1  
OSHA Safety Training – 8 hr.

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

Brandon A. Paille, ACI has performed soil laboratory testing consisting of unconfined compression strength tests, triaxial strength tests, hydrometers, Atterberg limits, organic contents, moisture contents, proctor compaction tests, sieve analyses, as well as extrusion of samples. Mr. Paille's field experience includes soil inspection and testing consisting of nuclear density testing, soil boring logging, concrete testing and inspections, timber and precast pile logging and vibration monitoring. In Mr. Paille's years in the construction materials testing industry, he has obtained a vast amount of knowledge and experience which makes him an integral part of our Gulf South Team.

**Bayou Sauvage Water Control Pipe Replacement, U.S. Wildlife & Fisheries, New Orleans, LA.** Geotechnical investigation for drainage pipe replacement at 2 sites for the U. S. Fish and Wildlife in New Orleans, LA. New drainage pipes will be 6 feet in diameter. Drill 1 boring to 20 feet in depth at each site and perform laboratory testing and geotechnical engineering analyses consisting of allowable soil bearing values, bedding and backfill recommendations, estimates of settlement, and general construction recommendations. (\$3,500 (fee); 2012)

**Bucktown Paddlers Launch, Metairie, Jefferson Parish, LA.** Gulf South provided construction materials testing and inspection during construction of the project. Gulf South's scope of work includes building earthwork, paving & concrete, concrete testing, soil density tests, pile inspection and modeling, and vibration monitoring. (\$15,000; 2023)

## TEC Professional Services Questionnaire

Other experience and qualifications: **Brandon A. Paille, ACI (continued)**

**Bonanza Pump Station Flood Protection, Houma, Terrebonne Parish, LA.** Geotechnical investigation for replacement of an existing bulkhead at Terrebonne Parish's Bonanza Pump Station in Houma, LA. Gulf South's scope of work included performing a soil boring to a depth of 80 feet, laboratory testing, and geotechnical engineering analyses consisting of bulkhead design parameters (tip depth, bending moment, anchor force, etc.), and general construction recommendations. (\$4,500 (fee); 2013)

**Casing Installation - 40 Arpent Canal Floodwall, Chalmette, St. Bernard Parish, LA.** Geotechnical investigation for casing installations at 40 Arpent Canal floodwall in Chalmette, LA. Casings installed to perform sonic tests to determine sheet pile lengths. Casings installed to depths of 40 to 60 feet below the ground surface and within 15 feet of the existing sheet pile. (\$18,900 (fee); 2014)

**Bonnabel Boat Launch Ramp Replacement, Jefferson Parish, LA.** Geotechnical investigation for improvement/replacement of the existing boat ramps at the Bonnabel Boat Launch in Metairie, LA. The expansion consists of 3 (50'x60') pile supported concrete ramps. Scope of work included drilling two (2) soil borings to a depth of 60 feet each and providing laboratory testing, and geotechnical engineering analysis consisting of pile load capacities, estimates of settlement, and general construction recommendations. (\$4,000 (fee), 2014)

**Drainage System Engineering Analysis – CCTV Drain Line Inspections, City of New Orleans, LA.** Project management and oversight of cleaning/flushing and inspection of sewer drainage pipelines in New Orleans, LA. Gulf South oversaw field operations and coordinated project phases with subcontractors. Subcontractor's inspection methods will utilize CCTV camera equipment to record drain line data. During post processing phase, all data was compiled and consolidated to create a digital database of the drain line information. (\$20,000 (fee); 2014)

**New Pump/Lift Station, Airline Park Boulevard at West Metairie Avenue, Jefferson Parish, LA.** Geotechnical investigation for a new pump/lift station for Jefferson Parish near the intersection of Airline Park Blvd. and W. Metairie Avenue. Scope of work consisted of performing one soil boring to 50 feet, laboratory testing, and geotechnical engineering analyses consisting of allowable soil bearing values, bedding and backfill recommendations, estimates of settlement, and general construction recommendations. (\$5,000 (fee); 2013)

**Taft Park Drainage Improvements, Jefferson Parish, LA.** Perform inspection and testing during construction of various drainage improvements at Taft Park. Scope of services provided by Gulf South included asphalt and/or concrete testing and inspection, field density tests, on-site inspection and documentation, and laboratory testing. (\$25,000 (fee); 2015)

**Water Sampling in Mobile Bay, U.S. Coast Guard – Aviation Training Center, Mobile, AL.** Surface water sampling in Mobile Bay at 3 locations, 2 times per month for period of 1 year. Samples were tested for Enterococci, Organic Carbon, and TSS. Gulf South reported every event as well as summarized every 3 months of sampling, and further compared results to EPA thresholds. Report rainfall levels were noted 3 days prior and after sampling. (\$33,000 (fee); 2012)

## TEC Professional Services Questionnaire

**L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this project. Please include 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>Tchefuncte Marsh Shoreline Protection Project: New Borrow Fill Area, Lake Pontchartrain, St. Tammany Parish, Louisiana</b></p> <p><b>Volkert, Inc.</b> 9448 Brookline Ave Baton Rouge LA 70809</p> <p><b>Matt Salmon, 225-218-9440</b> matt.salmon@volkert.com</p>	<p>Geotechnical engineering services for shoreline protection along the Lake Pontchartrain coastline by construction of a rock dike (approximately 15,000 linear feet) and marsh fill area located east of the mouth of the Tchefuncte River in St. Tammany Parish, LA. Gulf South's scope includes drilling 14 borings within the lake, each to a depth of 40 feet below the water surface, laboratory testing, engineering analyses and general construction procedures and recommendations. Gulf South provided recommendations for allowable soil bearing values, estimates of settlement, slope stability analyses, time rate of settlement, and strength gain estimates.</p>	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
December 2021	N/A	\$90,000 (fee)

### PROJECT NO. 2

Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
<p><b>Proposed Estuary Mitigation Bank (EMB) GIWW - Deadend Canal, Vendome Canal, Hockey Stick Canal, Crown Point, Jefferson Parish, Louisiana</b></p> <p><b>The Natural Resources Investment Group, LLC</b> 3801 Woodland Heights Rd Ste 110 Little Rock AR 72217</p> <p><b>Robert Stainton III, PE,</b> 501-716-2884 robert@tnrig.com</p>	<p>Geotechnical investigation for construction of a new wetland restoration project near Crown Point, LA. Gulf South's scope includes drilling nine soil borings to depths of 15 and 40 feet in water and marsh, lab testing (including settlement column test), and geotechnical engineering analysis including estimates of settlement, time rate of settlement, borrow/fill ratios, and general construction recommendations.</p>	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
October 2016	N/A	\$26,500 (fee)

## 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><b>Northshore Living Shoreline Protection, Lake Pontchartrain, St. Tammany Parish, Louisiana</b></p> <p><b>Barowka &amp; Bonura Engineers</b> 209 Canal Street Metairie LA 70005</p> <p><b>Jeff Bonura, P.E., 504-828-0030</b> jbonura@bbecllc.com</p>	<p>Geotechnical engineering services for shore protection along the northshore of Lake Pontchartrain coastline in two areas by constructing rock dikes in St. Tammany Parish, LA. Gulf South's scope includes drilling 16 borings each to a depth of 30 feet below the ground surface, laboratory testing, engineering analyses and general construction procedures and recommendations. Gulf South provided recommendations for allowable soil bearing values, estimates of settlement, slope stability analyses, time rate of settlement, and strength gain estimates.</p>	
<b>Completion Date (Actual or estimated:)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
February 2023	N/A	\$65,000 (fee)

<b>PROJECT NO. 4</b>		
<b>Project Name, Location, and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p><b>Marsh Island Wildlife Refuge Levee/ Bulkhead Repairs (Louisiana DNR), Vermillion Bay, New Iberia, Iberia Parish, Louisiana</b></p> <p><b>Royal Engineers &amp; Consultants, LLC</b> 3909 Ambassador Caffery Pkwy. Lafayette LA 70503</p> <p><b>Beau Tate, 337-456-5351</b> btate@royalengineering.net</p>	<p>Geotechnical investigation for various repairs to a dam, levee, and bulkhead at Marsh Island Wildlife Refuge in Iberia Parish, LA. Gulf South's scope of work includes drilling five (5) soil borings each to a depth of 60 feet using marsh drilling equipment, laboratory testing, and geotechnical engineering services consisting of providing allowable soil bearing values, allowable pile capacities, bulkhead design parameters, slope stability analyses, estimates of settlement, and general construction recommendations.</p>	
<b>Completion Date (Actual or estimated:)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
May 2015	N/A	\$51,250 (fee)

## 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><b>Tchefuncte Marsh Shoreline Protection - New Rock Dikes, Lake Pontchartrain, St. Tammany Parish, Louisiana</b></p> <p><b>Principal Engineering, Inc.</b> 1011 North Causeway Blvd, Suite 19 Mandeville LA 70471</p> <p><b>Andre Monnot, P.E., 985-624-5001</b> andre@pi-aec.com</p>	<p>Geotechnical engineering services for the shore protection along Lake Pontchartrain coastline by constructing a rock dike at Tchefuncte Marsh in St. Tammany Parish, LA. Gulf South's scope includes drilling undisturbed soil borings (18 at 30 ft) in Lake Pontchartrain, laboratory testing (including consolidation tests), engineering analyses (bearing values, settlement, slope stability, construction procedures &amp; recommendations). The project utilized shallow-draft barge equipment.</p>	
<b>Completion Date (Actual or estimated:)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
June 2020	N/A	\$65,000 (fee)

<b>PROJECT NO. 6</b>		
<b>Project Name, Location, and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p><b>Highway 90 Tie-In Levee, Upper Barataria Risk Reduction Program (UBRR) Segment 4, St. Charles Parish, Louisiana</b></p> <p><b>Lafourche Basin Levee District</b> 21380 Highway 20 Vacherie LA 70090</p> <p><b>Donald Ray Henry, 225-265-7545</b> drhenry@lbld.us.com</p>	<p>Geotechnical investigation for construction of a new earthen levee within the UBRR flood protection/risk reduction system in St. Charles Parish, LA. Gulf South's scope includes drilling undisturbed soil borings (1 at 200 ft., 3 at 75 ft.), CPT probes (6 at 75 ft.), lab testing (including consolidation tests), and engineering analyses including site/soil characterization, global/local SSA for floodwalls, levee tie-ins, and floodgates, seepage analyses for sheetpile walls, settlement/downdrag analyses, unbalanced forces for structures, pile load capacities, pile foundation load-deflection relationship, estimates of settlement, ground improvement recommendations, and general construction procedures and recommendations.</p>	
<b>Completion Date (Actual or estimated:)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
January 2021	N/A	\$174,720 (fee)

## 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><b>Marsh Island Restoration Project, Lafreniere Park</b>, Metairie, Jefferson Parish, Louisiana</p> <p><b>Mathes Brierre Architect</b> 201 St. Charles Street, Suite 4100 New Orleans LA 70170-4100</p> <p><b>Scott Evans, AIA</b>, 504-586-9303 sevans@mathiesbrierre.com</p>	<p>Geotechnical investigation for construction of a new bulkhead wall around Marsh Island within Lafreniere Park in Metairie, LA. Gulf South's scope includes drilling two soil borings each to a depth of 30 feet on the island, lab testing, and geotechnical engineering analyses including sheetpile and/or retaining wall design parameters, earth pressures, and general construction procedures and recommendations.</p>	
<b>Completion Date (Actual or estimated:)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
May 2017	N/A	\$5,000 (fee)

<b>PROJECT NO. 8</b>		
<b>Project Name, Location, and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p><b>Bayou Des Allemands Gate, Upper Barataria Risk Reduction (UBRR) Program Segment 3</b>, St. Charles Parish, Louisiana</p> <p><b>Lafourche Basin Levee District</b> 21380 Highway 20 Vacherie LA 70090</p> <p><b>Donald Ray Henry</b>, 225-265-7545 drhenry@lbld.us.com</p>	<p>Geotechnical investigation for construction of a new earthen levee within the UBRR flood protection/risk reduction system in St. Charles Parish, LA. Gulf South's scope includes drilling undisturbed soil borings (1 at 200 ft., 3 at 75 ft.), CPT probes (6 at 75 ft.), lab testing (including consolidation tests), and engineering analyses including site/soil characterization, global/local SSA for floodwalls, levee tie-ins, and floodgates, seepage analyses for sheetpile walls, settlement/downdrag analyses, unbalanced forces for structures, pile load capacities, pile foundation load-deflection relationship, estimates of settlement, ground improvement recommendations, and general construction procedures and recommendations.</p>	
<b>Completion Date (Actual or estimated:)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
February 2021	N/A	\$145,885 (fee)

## 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><b>Engineering Analysis Review (EAR) - Lafitte Tidal Protection Project (Phase I), Lafitte, Jefferson Parish, Louisiana</b></p> <p><b>G&amp;S Engineering, LLC</b> Post Office Box 71 Mandeville LA 70470</p> <p><b>Scott Gros, 504-744-0630</b> scottgros@gmail.com</p>	<p>Engineering analysis review of alternative pile type/size recommendations (provided by Client) for drainage structure site in Jefferson Parish, near Lafitte, LA. Gulf South's scope includes engineering analysis consisting of LPILE analysis and general construction recommendations.</p>	
<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	N/A	\$5,000 (fee)

<b>PROJECT NO. 10</b>		
<b>Project Name, Location, and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p><b>Laketown Boat Launch Improvements - New Rock Jetty, South Shore Lake Pontchartrain, City of Kenner, Jefferson Parish, Louisiana</b></p> <p><b>Jefferson Parish</b> 1221 Elmwood Park Blvd Ste 310 Jefferson LA 70123</p> <p><b>Michelle M. Gonzales, CFM,</b> 504-736-6653 mgonzales@jeffparish.net</p>	<p>Geotechnical engineering services for the construction of a rock jetty dike and boat launch protection along the Lake Pontchartrain shoreline at the Laketown Boat Launch in Kenner. Gulf South's scope includes drilling undisturbed soil borings (two at 50 ft bgs), laboratory testing, engineering analyses and general construction procedures and recommendations. One boring was drilled within Lake Pontchartrain (using barge-mounted drilling equipment) and one boring was drilled on land.</p>	
<b>Completion Date (Actual or estimated:)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
January 2021	N/A	\$21,500 (fee)

## TEC Professional Services Questionnaire

<b>M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary.</b>		
<b>Parties:</b>		<b>Status/Result of Case:</b>
<b>Plaintiff:</b>	<b>Defendant:</b>	
1.	<i>Gulf South Engineering and Testing, Inc. is not currently, nor has it previously been involved, in litigation with Jefferson Parish.</i>	
2.		
3.		
4.		

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



### CRITERIA 1 | PROFESSIONAL TRAINING AND EXPERIENCE

**Gulf South Engineering and Testing, Inc.** (Gulf South) is a geotechnical engineering and construction materials testing and inspection company which began operations in 2011. Since that time, we have grown to two offices and nearly three dozen employees.

**Gulf South provides a broad range of geotechnical related services, completing more than 100 geotechnical engineering projects and 300 construction materials testing and inspection projects each year.** These projects typically include soil borings (shallow and deep borings), laboratory testing (AASHTO, ASTM methods, etc.), soil classification (USCS), geotechnical engineering, and construction material testing and field inspection.

**Gulf South is a woman-owned, Hudson Initiative-certified small entrepreneurship in Louisiana. Our laboratory is AASHTO and CCRL certified and USACE validated.**

#### **Geotechnical Engineering Services**

Gulf South’s ownership and senior management have decades of combined experience in the profession and have completed thousands of projects. One of Gulf South’s Principals, Chad M. Poché, P.E., a founding principal and Professional Engineer registered in Civil Engineering in Louisiana and Mississippi, has specific and extensive training & experience in geotechnical engineering. He has three decades of experience in planning, administering, and conducting geotechnical investigations.

## TEC Professional Services Questionnaire

N. continued.

The firm has specific engineering experience and training in **Geotechnical Engineering, Foundation Design, and Geology & Geohydrology**; our staff has extensive experience in all aspects of soil mechanics and geotechnical engineering with specific knowledge in the following areas:

- Shallow and deep foundations (piles, shafts, augercast, screw/anchor piles)
- Deep excavations, cofferdams, retaining walls
- Levees and soft ground construction; slope stability & seepage
- Earthwork; settlement analyses
- Shoreline protection
- Scour analyses
- LRFD Design
- Mechanically Stabilized Earth (MSE) Walls
- Development of load test programs
- Geotechnical instrumentation and construction monitoring
- Canals and pump station foundations
- Pipe bedding and backfill
- Roadways, bridges, pavements

### **Field Investigation Services**

Gulf South owns truck mounted (ARDCO C-1000) and track mounted (ARDCO SD 350) drilling rigs with associated and appurtenant support equipment (water trucks and buggy). Our equipment and crews are capable of drilling soil borings to depths of up to 300 feet and installing monitor wells, piezometers, and inclinometers. We can also perform CPT soundings, geoprobe borings, and field testing at any site. Our staff has extensive experience in planning, oversight, and direction of field investigations.

### **Laboratory Testing Services**

Gulf South's laboratory is equipped to serve the specific needs of our clients and managed by trained and experienced personnel. All testing is performed in accordance with ASTM, AASHTO, and/or other approved procedures. Gulf South routinely performs soil and concrete strength testing (unconfined and triaxial), soil classification tests (Atterberg limits, moisture content, density, particle size), soil and aggregate sieves, organic content, pH, soil resistivity, and moisture/density relationships (Proctor tests). Gulf South's laboratories are managed by full time, experienced, managers and staff. Further, Gulf South's Kenner laboratory is AASHTO and CCRL certified and USACE validated.

### **Construction Materials Testing & Inspection**

Gulf South provides a full range of construction materials testing & inspection services for structures, earthwork, foundations, pipelines, and pavements. The range of services provided includes:

- Fill and base compaction and density testing
- Vibration monitoring
- Pre- and post-construction inspection

## TEC Professional Services Questionnaire

N. continued.

- Concrete testing and inspection
- Soil testing (field and laboratory)
- Asphalt testing
- Pile (driven & augercast) and shaft installation monitoring
- Load tests
- Earthwork/proof roll inspection
- Welding inspection
- Steel inspection
- Noise monitoring
- Prepare daily field reports and/or field books
- Maintain records per the client's directive

We have provided construction testing & oversight for projects as small as a house pad to as large as the **\$1.2 billion Louis Armstrong New Orleans International Airport North Terminal** project.

**Please refer to our projects included in Item L and in our personnel listings in Item K for specific type project examples and an overview of our professional experience with this project type.**

### CRITERIA 2 | SIZE OF FIRM

At over 30 employees, Gulf South has the appropriate number of employees and personnel for this project. We will complete our scope of services on time and within budget. Further said, Gulf South can readily meet the time and budget constraints for projects assigned to this contract. Our current workload is such that we can expeditiously complete projects for this contract.

### CRITERIA 3 | CAPACITY FOR TIMELY COMPLETION

Activity is dependent on the scope of work as well as site access and conditions, however; typically soil borings can be started within one week of receiving notice to proceed with a final product delivered within 3 to 4 weeks of completing the borings. Gulf South's workload & scheduling, coupled with our headquarters being nearby, will allow for assignment of key personnel shortly after any project is assigned.

### CRITERIA 4 | PAST PERFORMANCE ON PARISH CONTRACTS

Gulf South has worked both directly and indirectly for various Jefferson Parish Departments (Public Works, Engineering Department, Drainage Department, Jefferson Parish School Board, etc.) throughout our history. Beyond the projects included within this form, additional project information (including listings, background, & client contacts) are available upon request. We have also completed similar services for Public and Private concerns throughout the region.

### CRITERIA 5 | LOCATION OF THE PRINCIPAL OFFICE

**Gulf South Engineering and Testing has been headquartered in Jefferson Parish since beginning operations in 2011;** our principal office is located in Jefferson Parish at 15 Veterans Memorial Boulevard in Kenner. We also maintain an office in Gonzales, LA.

## TEC Professional Services Questionnaire

N. continued.

### CRITERIA 6 | LEGAL STATEMENT

As stated in Item M, Gulf South has had no litigation, past or present, with Jefferson Parish, nor any of our clients.

### CRITERIA 7 | PRIOR SUCCESSFUL COMPLETION OF PROJECTS

The Principals and key employees of Gulf South have many years of applicable experience in working for and with Government Agencies and private industry. Founding principal and Executive Vice President of Gulf South, Chad M. Poché, P.E., has been a practicing registered geotechnical engineer in South Louisiana since 1998. He has specialized training and experience in geotechnical engineering throughout Louisiana.

As evidenced in the provided projects and personnel résumés, key personnel experience includes the completion of thousands of projects in the region throughout their careers for a broad range of clients, including both the government and private sectors. We can submit data in formats acceptable and customized to our clients' needs.

Gulf South invites you to contact any of our clients for a candid discussion of our service and professionalism, and offer these direct references:

**Neil Schneider, CCM, P.E., Director, Capital Projects, Jefferson Parish**  
(504-736-6783 | JPPW@jeffparish.net)

**Ben Lepine, Acting Director, Drainage Department, Jefferson Parish**  
(504-736-6751 | JPDrainage@jeffparish.net)

**Angela DeSoto, P.E., Director, Engineering Department, Jefferson Parish**  
(504-736-6511 | ADeSoto@jeffparish.net)

**Mark R. Drewes, P.E., Director, Public Works Department, Jefferson Parish**  
(504-736-6783 | JPPW@jeffparish.net)

**Michael B. Cooper, Parish President, St. Tammany Parish**  
(985-898-2362 | president@stpgov.org)

**Joey Tureau, Director of Transportation, Ascension Parish**  
(225-450-1013 | jtureau@apgov.us)

**José A. Gonzales, CAO, City of Kenner**  
(504-468-4090 | jgonzalez@kenner.la.us)

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

Signature: \_\_\_\_\_

Print Name: Chad M. Poché, P.E.

Title: Executive Vice President

Date: June 25, 2024

***ECM Consultants, Inc.***

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1301 Clearview Parkway, Suite 200, Metairie, Louisiana 70001