ECM

STATEMENT OF QUALIFICATIONS

Supplemental Coastal Engineering and Consulting Services
Jefferson Parish, Louisiana

Resolution No. 139868 SOQ 22-036

Submitted To:

Jefferson Purchasing Department
Attn: Donna Evans
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

In Association with:
BFM Corporation, Inc.
ELOS Environmental, LLC.
The Beta Group Engineering and Construction Services, LLC.
Desire Line LLC

August 12, 2022

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Jefferson Parish, Louisiana
SOQ 22-036 Resolution No. 139868

ECM Consultants, Inc.

Engineers • Architects • Construction Managers

www.ecmconsultants.com mail@ecmconsultants.com

8048 One Calais Avenue, Suite F
Baton Rouge, LA 70809
Phone (225) 615-7885

Corporate Office
1301 Clearview Parkway, Suite 200
Metairie, LA 70001
Phone (504) 885-4080

120 Rue Beauregard, Suite 120
Lafayette, LA 70508
Phone (504) 885-4080

August 12, 2022

Jefferson Parish Purchasing Department
c/o Donna Evans
200 Derbigny Street
General Government Building, Suite 4400
Gretna, LA 70053

Re: Letter of Interest and Statement of Qualifications
Supplemental Coastal Engineering and Consulting Services
Resolution No. 139868

Jefferson Parish Council:

ECM Consultants, Inc. (ECM) is pleased to submit electronically our Statement of Qualifications in response to your Request for Qualifications for the Coastal Engineering and Consulting Services project. ECM Consultants, Inc. is an established, Metairie-based engineering firm highly qualified to provide professional services for coastal projects in Jefferson Parish.

For Coastal projects such as marsh and ridge restoration, 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. ECM has overseen many coastal projects with environmental, survey and geotechnical components for a variety of clients in the state of Louisiana.

Our team includes 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 a multitude of projects in Southeast Louisiana involving coastal restoration & protection and 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, flap gated culverts. 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 includes BFM Corporation, LLC for surveying services, ELOS Environmental, LLC. for environmental services, The Beta Group for geotechnical services, Desire Line, LLC for grant writing and coastal outreach support, marketing, and education. All firms are experts in their respective fields.

We appreciate the opportunity to submit this statement of qualifications and hope our interest will receive favorable consideration. We are poised for immediate assignment and look forward to providing exceptional services to Jefferson Parish.

Very truly yours,

Kazem Alikhani, P.E.
Chief Executive Officer

Section 1

ECM Consultants, Inc.

TEC Professional Services Questionnaire

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:
Supplemental Coastal Engineering and Consulting Services
Resolution No. 139868 SOQ 22-036

B. Firm Name & Address:
ECM Consultants, Inc.
1301 Clearview Parkway, Suite 200
Metairie, LA 70001

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:

Principal:
Ujjal DasGupta, P.E., President
Louisiana Licensed Professional Engineer
P.E. License No. 19849
Tel: (504) 885-4080 Fax: (504) 885-1439
Email: ujjal@ecmconsultants.com

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

Professional in Charge of Project:
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: kazem@ecmconsultants.com

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

8 Administrative	0 Estimators	0 Specification Writers
1 Architects (Licensed)	0 Geologists	3 Structural Engineers
0 Chemical Engineers	0 Geotechnical Engineers	___ Graduate Engineers
12 Civil Engineers	0 Interior Designers	4 Project Managers
26 Construction Inspectors	0 Landscape Architects	0 Clerical
0 Ecologists	0 Land Surveyor	1 Grant/Funding Specialist
1 Electrical Engineers	2 Mechanical Engineers	0 Sanitary Engineers
4 Engineer Intern	0 Environmental Engineers	
0 Professional Land Surveyors		**62 TOTAL**

F. Is this submittal by a JOINT-VENTURE? Please check: YES_____ NO ✓_____

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

TEC Professional Services Questionnaire

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

1. N/A

2. N/A

H. Has this JOINT-VENTURE previously worked together? Please check:
YES_____NO _____ N/A

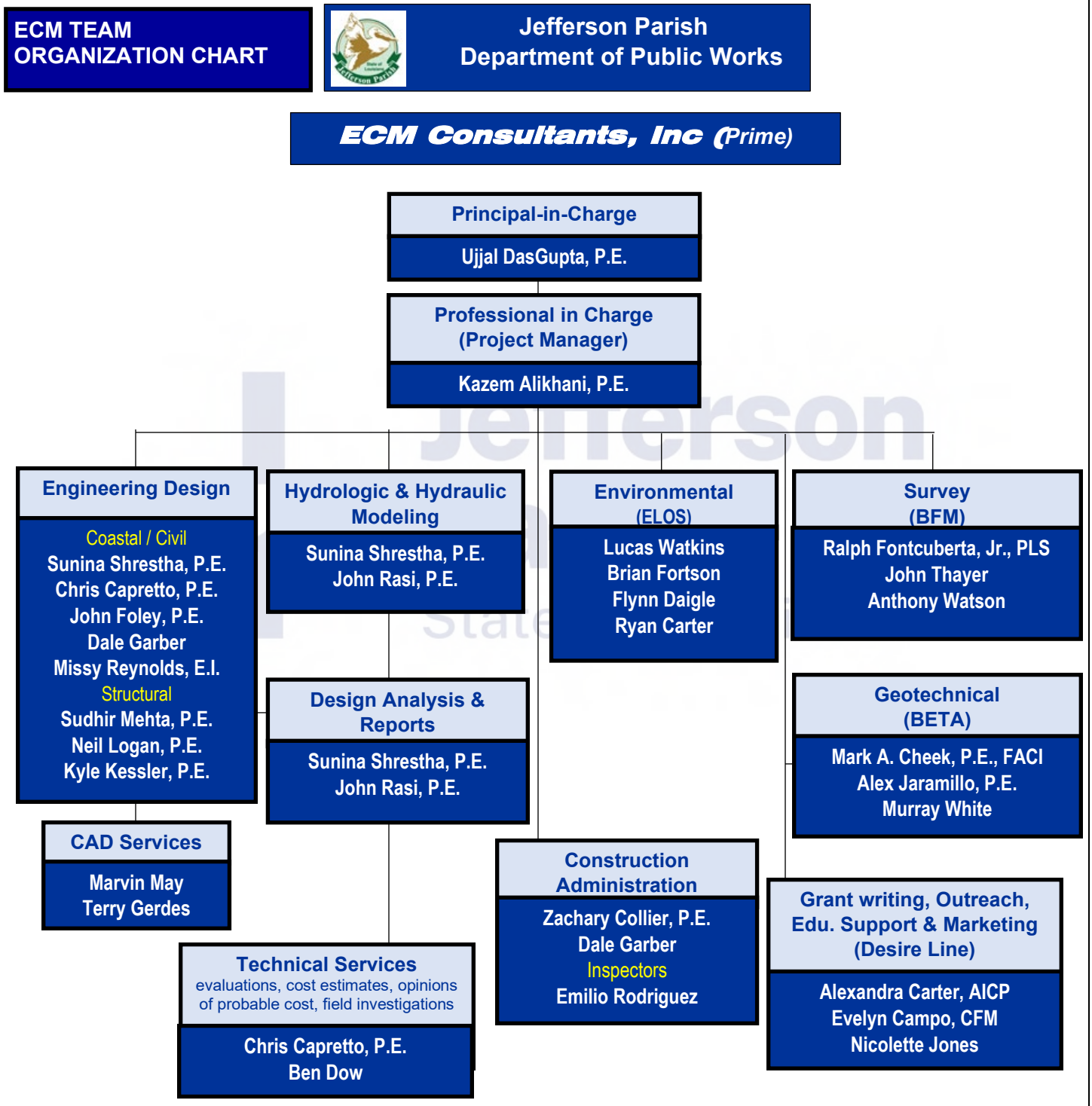
I. List all subcontractors anticipated for this Project. Please note that all subcontractors must submit a fully completed copy of this questionnaire, applicable licenses, and any other information required by the advertisement. See Jefferson Parish Code of Ordinances, Sec. 2-928(a)(3). Please attach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

Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
1. BFM Corporation, LLC. 534 Williams Blvd., Kenner, LA 70062	Surveying Services	Yes
2. The Beta Group Engineering and Construction Services, LLC. 1428 ½ Claire Avenue Gretna, LA 70053	Geotechnical Services	Yes
3. ELOS Environmental, LLC. 43177 East Pleasant Ridge Road Hammond, LA 70403	Environmental Services	Yes
4. Desire Line LLC 1348 Chickasaw Avenue Metairie, LA70005	Grant writing, Outreach, Edu. Support & Marketing	No

J. Please specify the total number of support personnel that may assist in the completion of this Project:
16

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.



TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT
Name & Title:
Ujjal DasGupta, P.E., President
Project Assignment:
Principal-In-Charge
Name of Firm with which Associated:
ECM Consultants, Inc.
Years' experience with this Firm:
26
Education: Degree(s)/Year/Specialization:
B.S./1968/Civil Engineering
Active registration: Year first registered/discipline:
1982/Civil Engineering/LA License No. 19849
Other experience and qualifications relevant to the proposed Project:

Mr. DasGupta has 51 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:

Employment History:

- ECM Consultants Inc., LA, *President (1995-present)*
- C&S Consultants, Inc., LA, *Vice President (1983-1995)*
- Pepper & Associates & Kiddie Consultants, LA, *Sr. Engineer (1980-1983)*
- McDermott, Inc., LA, *Sr. Structural Engineer (1980-1982)*
- Dunbar & Dickson, Inc., TX, *Project Engineer (1976-1980)*
- Public Works Department., India, *Assistant Engineer (1968-1976)*

BA-41 South Shore of the Pen, Contract No. AG-7217-C-0031, Task Order 1, USDA-NRCS, Jefferson Parish, LA: 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.

TE-48 Raccoon Island Marsh Creation, Contract No. AG-7217-C-09-0031, Task Order 2, USDA-NRCS, Terrebonne Parish, LA: 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.

BA-27 Barataria Basin Landbridge Shoreline Protection, Construction Unit #7&8, USDA-NRCS: 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.

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

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:
6
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 41 **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 secure 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 Agcy. 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 is serving 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 is providing 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.

USDA Natural Resources Conservation Service IDIQ Contract for AE Design Services related to CWPPRA/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.

TEC Professional Services Questionnaire

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.

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)**

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

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:

14

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 sixteen 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. 4400003970: 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:
8
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 twelve 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

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
John Foley, III, P.E., Civil Engineer
Project Assignment:
Civil Engineer/Design
Name of Firm with which Associated:
ECM Consultants, Inc.
Years' experience with this Firm:
3
Education: Degree(s)/Year/Specialization:
B.S./2018/Civil Engineering
Active registration: Year first registered/discipline:
2018/Civil Engineering/LA License No. 42740
Other experience and qualifications relevant to the proposed Project:

Mr. Foley is a Registered Professional Engineer with **6 years of experience** in designing LADOTD and public works projects including feasibility studies, environmental assessments, roadway, drainage and utilities relocations. He is very familiar with City of New Orleans General Specifications for Street Paving and the City Standard drawings.

Program Management for 2017 Jefferson Parish Road Bond Issue East Bank of Jefferson Parish, LA.: 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 **$208 million** of construction projects that includes the design and construction of **roadways, drainage**, 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.

LA 931 at Roddy Road Roundabout, Ascension Parish, Gonzales, LA. Mr. Foley provided design services for **a single-lane asphalt roundabout** 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), **subsurface drainage,** 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 **roadway geometry,** prepared plan and profile and typical sections for preliminary design plans and roundabout report.

Lake Terrace Oaks, Group-C, Neighborhood Roadway Improvements. City of New Orleans, LA: Mr. Folley is serving as project civil Engineer and providing design services for this **$10 million** project that involves complete reconstruction of **17 blocks of neighborhood residential roadway including subsurface drainage system,** 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 City of New Orleans General Specifications for Street Paving.

West Metairie Avenue Restoration, Jefferson Parish, LA. Mr. Foley provided condition assessment, design, and construction documentation for the replacement of **failed concrete panels, drainage structure repairs**, and canal banks slope stabilization. Project Designer responsible for designing plans and calculating quantities

Harrison Avenue Improvements, Covington, St. Tammany Parish, LA: 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 **two-lane roadway with raised median**, sidewalks, two roundabouts, and subsurface drainage. He designed and prepared line and grade sheets for this project.

Transit Improvement Design for District 3 Jefferson Parish, LA: 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 latest LADOTD criteria and Standard Specifications for Roads and Bridges. 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.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Dale Garber, Coastal Project Manager

Project Assignment:

Coastal project management/Construction Contract administration

Name of Firm with which Associated:

ECM Consultants, Inc.

Years' experience with this Firm:

3

Education: Degree(s)/Year/Specialization:

B.S. / Agricultural Engineering

Active registration: Year first registered/discipline:

Other experience and qualifications relevant to the proposed Project:

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.

Northwest Turtle Bay Marsh Creation, Jefferson Parish, LA: Mr. Garber is the 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.

BA-41 South Shore of the Pen-Marsh Creation, Jefferson Parish, LA: 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.

BS-16 South Lake Lery Shoreline and Marsh Restoration Project, Braithwaite, Plaquemines Parish, LA: 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.

Post Hurricane Maria – Damage Survey Reports, Puerto Rico: Under a $10 million, ECM+M&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.

TE-48 Raccoon Island Marsh Creation -Phase B, Terrebonne Parish, LA: 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.

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

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Missy Reynolds, E.I., Deputy Program Manager
Project Assignment:
Coastal/Civil Engineering
Name of Firm with which Associated:
ECM Consultants, Inc.
Years' experience with this Firm:
5
Education: Degree(s)/Year/Specialization:
B.S./1994/Civil Engineering
Active registration: Year first registered/discipline:
E.I./LA/No. 16639
Other experience and qualifications relevant to the proposed Project:

Ms. Reynolds has 27 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.

Employment History:

- ECM Consultants Inc., LA, *Deputy Program Mgr. (2017-present)*
- Barowka & Bonura Engineering & Consultants, LLC, LA *Senior Project Manager/Construction Manager (2008-2017)*
- URS Corporation, LA, *Project Manager (1998-2008)*
- Frederic R. Harris, *Project Engineer (1996-1998)*
- C&S Consultants, *Project Engineer (1994-1996)*

Waggaman Hydraulic Study, Jefferson Parish, LA: 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.

Cypress Park & Erindale Subdivisions Hydraulic Study, St. Tammany Parish, LA: 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.

Jean Lafitte Drain Line Replacement, St. Bernard Parish, LA: 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.

East Bank Water Treatment Plant, Jefferson Parish, LA: 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.

Congressman Hebert Canal Widening & Stabilization, St. Bernard Parish, LA: 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

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.

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:

4

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 44 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.

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 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.

TEC Professional Services Questionnaire

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.

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.

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

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Neil Logan, P.E., Senior Structural Engineer

Project Assignment:

Structural Engineering

Name of Firm with which Associated:

ECM Consultants, Inc.

Years' experience with this Firm:

18

Education: Degree(s)/Year/Specialization:

B.S./1961/Civil Engineering

Active registration: Year first registered/discipline:

1974/Civil Engineer/LA License No. 14607

Other experience and qualifications relevant to the proposed Project:

Mr. Logan has over 54 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.

Employment History:

- ECM Consultants Inc., LA, *Sr. Structural Engineer (Contract) (2001-to date)*
- N-Y Assoc., *Structural Engineer (Contract) (1994-to date)*
- N-Y Associates, *Structural Engineer (1976-1991)*

Off-System Bridge Replacement-Poplas St Bridge over Coburn Creek & Noble Cemetery Rd Bridge over Thomas Creek, LADOTD; Washington Parish, LA: 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&E) for the removal of existing bridge; new pile foundation substructure; bridge superstructure; concrete barrier rails; asphalt roadway transition; striping; ripraps; and guardrails.

Storm Proofing Jefferson Parish Pump Stations, LA USACE-New Orleans District: 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.

USACE-Vicksburg District, under USACE-NOD, West Bank Mississippi River Levee, Phase II, Empire to Buras (NOV-16), Plaquemines Parish, LA. 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.

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: 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.

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

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Kyle Kessler, P.E., Civil/Structural Engineer

Project Assignment:

Civil Engineer /Design

Name of Firm with which Associated:

ECM Consultants, Inc.

Years' experience with this Firm:

2

Education: Degree(s)/Year/Specialization:

B.S./2009/Civil Engineering

Active registration: Year first registered/discipline:

2019/Civil Engineering/LA License No. 43807

Other experience and qualifications relevant to the proposed Project:

Mr. Kessler is a registered professional Civil Engineer with more than 7 years of engineering experience in roads & bridges and drainage design and project coordination. His project experience included design and preparation of plans, specifications, and estimates (PS&E) for roadway rehabilitation, drainage repair and enhancements, bridges, pump station, and foundations for various structures. His duties and responsibilities for construction administration services included, site inspections, submittal reviews, responding to RFIs, review of change order requests and attending progress meetings as part of construction phase services.

West Shore Lake Pontchartrain Flood Risk Reduction Project Segments WSLP 102 and 106, St. Charles Parish, LA: Junior 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. Kessler performing structural modelling and design computations for Flood walls, and gated drainage structure in Montz canal. **Estimated Construction Cost: $118 Million**

Causeway Widening, Jefferson Parish, LA: This project included a traffic study of Causeway Blvd. to assess the need for lane widening. Mr. Kessler performed traffic counts at multiple intersections along South Causeway and assisted with inputting/interpreting the data.

Wolf Bay Bridge, Orange Beach, AL: This project's scope included adding a new high-rise bridge, approximately 1 mile long, across Wolf Bay in Alabama. Mr. Kessler served as a Design Civil/Structural Engineer for this project involving bridge design including concrete girder design, concrete barrier design, concrete bent cap design, concrete deck design, preparing girder camber charts, preparing roadway super elevation charts, review of general arrangement and structural plans.

Causeway/Earhart Interchange, Jefferson Parish, LA: This project's scope included adding an interchange between Causeway Blvd. and the Earhart Expressway. Existing bridges were to be modified with additional lanes and new ramps were to be constructed. Mr. Kessler served as an Assistant Civil/Structural Engineer and was responsible for review of structural plans and quantity take-offs.

West Roadway Drainage Improvements, New Orleans, LA: This project included repairs to the **drainage system** underneath a roadway section that frequently flooded. Scope of work included removal of the existing pavement, installation of new drainpipes on aggregate bedding and new drainage structures including outfall structure. New roadway section included scarifying, grading and compacting aggregate base including additional base material, and **new asphaltic concrete pavement**. Mr. Kessler served as Project Engineer and performed design and prepared plans, specifications and quantity/cost estimates. During the construction phase, Mr. Kessler provided project oversight including, site visits, review and approval of submittals, RFIs and change orders etc. as construction phase services.

Citrus Lakefront Drainage Improvements, New Orleans, LA: This project scope included improvement to the **drainage** between the existing Lakefront Levee and the Norfolk Southern Railroad. Existing catch basins were located and raised, new outfalls were installed underneath rip rap, existing drainage pipes were repaired with new resin liner, and surrounding area was regraded to promote better drainage. Mr. Kessler served as Project Engineer, performed design and prepared plans, specifications and quantity/cost estimates. During the construction phase, Mr. Kessler provided construction administration including site inspections, review of submittal/RFI/bid/change orders.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
John Rasi, P.E., Senior Hydraulic Engineer
Project Assignment:
Hydrologic & Hydraulic Modeling
Name of Firm with which Associated:
ECM Consultants, Inc.
Years' experience with this Firm:
10
Education: Degree(s)/Year/Specialization:
B.S./1978/Civil Engineering
Active registration: Year first registered/discipline:
1983/Civil Engineering/LA License No. 20841
Other experience and qualifications relevant to the proposed Project:

Mr. Rasi has over 39 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.

Employment History:

- ECM Consultants Inc., LA, *Sr. Hydraulic Engr. (2012-to date)*
- Louisiana Department of Transportation LADOTD, *Hydraulic Manager (2002-2011)*
- Louisiana Department of Transportation, LADOTD, *Construction Grant and Permit Engineer (1994-2002)*
- Louisiana Department of Natural Resources (Coastal Restoration Division), *Hydraulic Engineer (1990-1994*)
- Louisiana Department of Transportation, LADOTD, *Hydraulic Engineer, (1983-1990)*

Hydraulic Engineer, Louisiana Department of Natural Resources (Coastal Restoration Division): 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.

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 the17th 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 17th Street Canal.

TEC Professional Services Questionnaire

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 review 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:

Zachary Collier, P.E., Civil Engineer

Project Assignment:

Coastal Restoration /Constructability Reviews/Construction Administration

Name of Firm with which Associated:

ECM Consultants, Inc.

Years' experience with this Firm:

3

Education: Degree(s)/Year/Specialization:

B.S./2014/Civil Engineering

Active registration: Year first registered/discipline:

2018/Civil Engineering/LA License No. 42957

Other experience and qualifications relevant to the proposed Project:

Mr. Collier is a civil engineer with **seven years of experience** 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:

PO-0033 Goose Point/Point Platte Marsh Creation, for CPRA in Coastal, LA: Mr. Collier served as the **Project Engineer** 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.

BA-0026 Barataria Waterway East Side Shoreline Protection, for CPRA in Coastal, LA: Mr. Collier served as the **Maintenance Manager** 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.

PO-104 Bayou Bonfouca Marsh Creation, for CPRA in Coastal, LA: Mr. Collier served as the **Project Engineer 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.

S.P. No. H.012912 – I-110 Ramps at Convention and Florida, for LADOTD in East Baton Rouge Parish, LA: As the **Assistant Project Engineer** 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.

S.P. No. H.010560 – Essen Lane Widening, for LADOTD in East Baton Rouge Parish, LA: 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.

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.

TEC Professional Services Questionnaire

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

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:
19
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 20 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.

TEC Professional Services Questionnaire

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

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Terry Gerdes – CAD Technician
Project Assignment:
CAD Services
Name of Firm with which Associated:
ECM Consultants, Inc.
Years' experience with this Firm:
<1
Education: Degree(s)/Year/Specialization:
Active registration: Year first registered/discipline:
Other experience and qualifications relevant to the proposed Project:

Mr. Gerdes has over 35 years drafting experience, including roadway and highway reconstruction, as well as levee and drainage systems. He is trained in both AutoCAD and Microstation V8.2 drafting programs.

Employment History:

- ECM Consultants Inc, LA, *CAD Technician (2022-to date)*
- Volkert Engineering, LA, CAD *Draftsman* (2019 – 2020)
- Aims Group, Inc., LA, CAD *Draftsman* (2008 – 2017)
- Associated Design Group, LA, CAD *Draftsman* (2007 – 2008)
- Gaskins Surveying Company, GA, CAD *Draftsman* (2006 – 2007)
- Morphy Makofsky Engineering, Inc., LA, CAD *Draftsman* (2004 – 2005)
- C&S Consultants, Inc., LA, *Draftsman* (1997 – 2003)

CAD Technician, West Shore Lake Ponchartrain Hurricane and Storm Damage, Mr. Gerdes is providing planning and profiles of T-walls, cross sections, and **structural drainage systems**.

CAD Design Draftsman, Volkert Engineering Civil, roadway, and highway reconstruction which includes drainages, levee systems, sewage, **structural systems**, plans and profile and cross sections using Autocad Civil 3d.

CAD Design Draftsman, Aims Group, Inc. Civil, roadway, and highway reconstruction which includes drainages, levee systems, sewage, **structural systems**, plans and profile and cross sections using Autocad Civil 3d.

CAD Design Draftsman, Associated Design Group HVAC, piping plumbing riser plans, schematics, electrical.

CAD Design Draftsman, Gaskins Surveying Company Civil site development, writing legal, boundaries survey, final plats, alta surveys and elevations certificates etc.

CAD Design Draftsman, Morphy Makofsky Engineering, Inc. Civil, roadway, and highway reconstruction which includes drainages, sewage, structural systems, plans and profile and cross sections.

CAD Design Draftsman, C&S Consulting Engineers Inc. Civil, roadway, and highway reconstruction which includes drainages, sewage, structural systems, plans and profile and cross sections.

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:

13

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 19 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)*

BA-27c Barataria Basin Landbridge CU 7 & 8, AG-7217-C-12-0006, Task Order 1, USDA-NRCS, Jefferson Parish, LA: Mr. Dow provided construction quality assurance inspection services for the construction of BA-27c Barataria Basin Landbridge. 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 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.

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. 4400003970: Mr. Dow performed 489 safety 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.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Emilio Rodriguez, Construction Inspector
Project Assignment:
Construction Inspection
Name of Firm with which Associated:
ECM Consultants, Inc.
Years' experience with this Firm:
12
Education: Degree(s)/Year/Specialization:
Architectural CAD / 2005 Technical Architecture (Construction) / 1989
Active registration: Year first registered/discipline:
Other experience and qualifications relevant to the proposed Project:

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 & details CAD drawings for new construction and renovation projects.

Training & Certifications: NACE Coating Inspector Level 1; NHI Certified Safety Inspection of In-Service Bridges; Aerial Boom & Scissor Lift Operator; LADOTD Moveable Bridge Inspection Workshop; Work Zone Traffic Control Flagger/Tech/Spvsr.

Employment History:

- ECM Consultants Inc., LA, *Technician (2006-to date)*
- Arctex Group Construction, TX, *Draftsman (2004-2006)*
- ER Construction, *TX, Assistant Manager (2003-2006)*
- Raytheon Engineers & Constructors, TX, *CAD Operator/Corrosion Technician (1994-2002)*

Northwest Turtle Bay Marsh Creation Jefferson Parish, LA: Mr. Rodriguez is providing 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.

Lake Borgne Shoreline Protection in St. Bernard Parish: 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.

S.P. No 750-99-0135: State Regulated Dams, LADOTD; Statewide, LA: 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.

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 documention 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

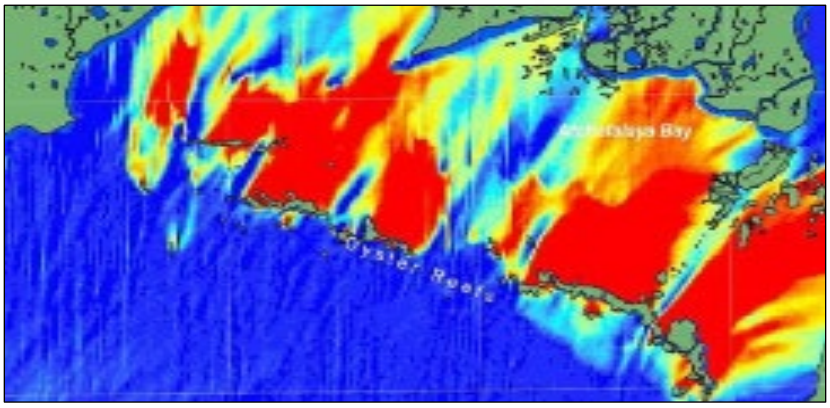
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:
TE-48 Raccoon Island Marsh Creation - Phase B **NRCS Contract No. AG-7217-C-09-0031, Task Order 0002** **Terrebonne Parish, LA** **USDA-NRCS** **646 Cajun dome Blvd, Ste. 180** **Lafayette, LA 70506** **Key Personnel** **Ujjal DasGupta, P.E.** **Dale Garber**   	**Project Purpose:** The purpose of the 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 barriers 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. **Project Details:** The Scope of Work for this project consisted of constructing 9,769 linear feet of **earthen containment dikes** 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 **constant erosive wave action** 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 **to maximize the retention of solids** within the system. In addition, one additional dewatering structure was placed on the east end of the marsh creation area. The borrow area **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.** 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. 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. **Work Performed:** 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.

Completion Date: (Actual or Estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2013	$10.2M	$700K (fees)

TEC Professional Services Questionnaire

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

PROJECT NO. 2

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:
Study to Determine Hydrologic Impact of Chenier & Natural Ridges in Storm Surge Protection **Coastal Louisiana** **LA Department of Natural Resources** **617 North 3rd St,** **Baton Rouge, LA- 70804** **Key Personnel** **Sunina Shrestha, P.E.**  	**Project Purpose:** The purpose of this project was to perform **a hydrological study** on change in storm surge protection to determine the efficacy of cheniers and natural ridges in storm surge protection via attenuation. **Project Details:** 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. **Worked Performed:** Hydrological study on effect of chenier and natural ridges in storm surge protection, **coastal modeling** to predict the impact of the **coastal erosion**. 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. 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 **synergistic interactions of hydrodynamics and the marsh morphology.** 

Completion Date: (Actual or Estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2009	$	$75K (fees)

TEC Professional Services Questionnaire

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

PROJECT NO. 3

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:
Duncan Canal Breakwater and Bridges **Contract No. W912P8-07-D-0055** **Task Order No. 0002** **Jefferson Parish, LA** **USACE-New Orleans District** **7400 Leake Avenue** **New Orleans, LA 70118** **Key Personnel** **Ujjal DasGupta, P.E.** **Sunina Shrestha, P.E.** **Neil Logan, P.E.**   	This task order was awarded under the 5year, $5 million IDIQ, ECM-GEC Joint venture contact for Planning ang 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. 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. 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. 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.

Completion Date: (Actual or Estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2014	$8.5M	$600K (fees)

TEC Professional Services Questionnaire

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

PROJECT NO. 4

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:
Northwest Turtle Bay Marsh Creation (BA-0125) **Jefferson Parish, LA** **CPRA, The Water Campus** **150 Terrace Avenue,** **Baton Rouge, LA 70802** **Key Personnel** **Kazem Alikhani, P.E.** **Dale Garber** **Benjamin Dow** **Emilio Rodriguez**  	**Project Purpose.** The purpose of the project is **to create and nourish 1093 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 in four separate Marsh Creation Areas (MCAs): The West MCA, **434 acres,** the East MCA, **357 acres,** MCA 3, **68 acres** and MCA 4, **234 acres.** 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. **Project Details:** Earthen fill material is being **hydraulically dredged** 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 **Earthen Containment Dikes** 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 **steel sheet pile** due to the existing water depths. Approximately 2,000,000 CY of fill material is pumped utilizing 16" diameter **hydraulic dredges** 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 **Articulated Concrete Mats** are being installed along 2,623 LF of the MCA 3 Earthen Containment Dikes for **erosion protection.** **Work Performed:** ECM serves as Engineer and CPRA's Resident Project Representative (RPR) between the construction contractor and CPRA from contract award to final acceptance of the project. **Construction administration and inspection** duties include conducting Pre-Construction conference, Bi-Weekly Progress Meetings, daily on-site inspections and Quality Assurance reports, photo documentation including aerial photos from Drone, 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. **Drone Capabilities.** ECM is **fully licensed, and FAA cleared** to operate **two DJI Mavic Pro Zoom aerial drones** and is providing **aerial progress photographs and videos** 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.

Completion Date: (Actual or Estimated):	Estimated Cost:	
	Entire Project:	**Work for which Firm was Responsible:**
2021	**$22M**	**$1.3M (fees)**

TEC Professional Services Questionnaire

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

PROJECT NO. 5

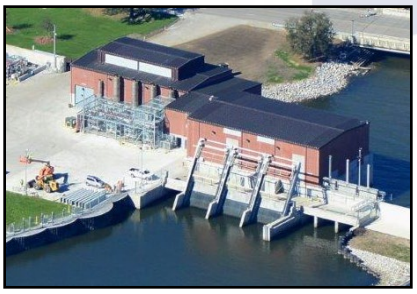
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:
West Bank Mississippi River Levee, Venice Floodwall (NOV 15), Contract No. W912P8-07-D-0031 **Task Order No. 0036** **Plaquemines Parish, LA** **U.S. Army Corps of Engineers** **Vicksburg District** **4155 Clay Street** **Vicksburg, MS 39183-3435** **Key Personnel** **Ujjal DasGupta, P.E.** **Neil Logan, P.E.** **Sunina Shrestha, P.E.** **Marvin May** **Benjamin Dow**	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. 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. 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.  

Completion Date: (Actual or Estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2014 (A)	**$38M**	**$400K (fees)**

TEC Professional Services Questionnaire

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

PROJECT NO. 6

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:
Planning, Hydraulic Modeling, and Conceptual Design for PCCP at Outfall Canals at 17th Street, Orleans Avenue, and London Avenue. **USACE Contract No. W912WP8-07-D-0031, Task Orders 0001 & 0007** **Orleans Parish, LA** **USACE-New Orleans District** **7400 Leake Avenue** **New Orleans, LA 70160** **Key Personnel** **Ujjal DasGupta, P.E.** **Sunina Shrestha, P.E.** **John Rasi, P.E.** **Marvin May**  	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 & Beach for construction of 17th St. (12,600 cfs), Orleans Ave. (2,700 cfs) and London Ave. (9,000 cfs) Permanent Canal Closure & 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. 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. 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. 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 17th street canal, Orleans Avenue and London Avenue canals.

Completion Date: (Actual or Estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2014	**$700M**	**$6.2M (fees)**

TEC Professional Services Questionnaire

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

PROJECT NO. 7

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:
Lake Borgne Shoreline Protection Maintenance Project (PO-30) **St. Bernard Parish, LA** **Coastal Protection and Restoration Authority (CPRA)** **450 Laurel Street** **Baton Rouge, LA 70801**  **Key Personnel** **Ujjal DasGupta, P.E.**	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. 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. 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 & 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. 

Completion Date: (Actual or Estimated):	Estimated Cost:	
	Entire Project:	**Work for which Firm was Responsible:**
2015 (A)	**$3M**	**$350K (fees)**

TEC Professional Services Questionnaire

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

PROJECT NO. 8

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:
BA-41 South Shore of the Pen- Marsh Creation, **NRCS Contract No. AG-7217-C-09-0031, Task Order 0001** **Jefferson Parish, LA** **USDA-NRCS** **646 Cajun dome Blvd, Ste. 180** **Lafayette, LA 70506** **Key Personnel** **Ujjal DasGupta, P.E.** **Dale Garber**  	**Project Purpose:** The purpose of this project was to create 75 acres of **Marshland** in the BA-41 South Shore of the Pen in Jefferson Parish to protect the adjacent marsh. **Project Details:** Project consisted of constructing 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. **Work Performed:** 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. 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. 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. 

Completion Date: (Actual or Estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2012	$8.6M	$1.5M (fees)

TEC Professional Services Questionnaire

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

PROJECT NO. 9

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:
BA-27 Barataria Basin Landbridge Shoreline Protection, USDA-NRCS **Lafourche Parish, LA** **USDA-NRCS** **3737 Government Street** **Alexandria, LA 71302** **Key Personnel** **Ujjal DasGupta, P.E.** **Dale Garber** **Emilio Rodriguez**  	**Project Overview.** 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 **reduce the wave energy impacting the shorelines** of Little Lake and Bayou Perot and to protect the adjacent marsh areas from further degradation. **Project Details:** This project included construction of 21,400 LF of composite Rock/Lightweight aggregate **dikes and revetments** 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 **mechanical bucket dredge** was utilized for **dredging** flotation channels for access to the entire length of the project. 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 **geotextile fabric** 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 **armoring.** A total of 145,000 tons of **rock riprap** 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. **Work Performed:** 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

Completion Date: (Actual or Estimated):	Estimated Cost:	
	Entire Project:	**Work for which Firm was Responsible:**
2017 (A)	**$14.3M**	**$1.3M (fees)**

TEC Professional Services Questionnaire

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

PROJECT NO. 10

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:
West Bank Mississippi River Levee, Port Sulphur to Fort Jackson (NOV-11) & Fort Jackson to Venice (NOV-12), **Plaquemines Parish, LA** **U.S. Army Corps of Engineers** **Vicksburg District** **4155 Clay Street** **Vicksburg, MS 39183-3435** **Key Personnel** **Ujjal DasGupta, P.E.** **Sunina Shrestha, P.E.** **Neil Logan, P.E.** **Marvin May**  	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 For Jackson to Venice (NOV 12) in Plaquemines Parish, LA. 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'. 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. 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.

Completion Date: (Actual or Estimated):	Estimated Cost:	
	Entire Project:	**Work for which Firm was Responsible:**
2013 (A)	**$162.6M**	**$1.5M**

TEC Professional Services Questionnaire

M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary. NONE		
Parties:		**Status/Result of Case:**
Plaintiff:	**Defendant:**	
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 41 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 41 years' experience Sunina Shrestha, P.E. LA License No. 37901 16 years' experience

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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 full-service 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 25 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.

The Beta Group is a Gretna-based full-service geotechnical and construction materials testing laboratory providing construction materials testing and inspection on projects since 1997. Beta will provide geotechnical services as-needed.

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.

Desire Line LLC Desire Line has more than 30 years of experience delivering enhanced planning services for communities across Louisiana, including urban and regional planning, disaster recovery and mitigation services, and local government support. Desire Line LLC is an emerging, 100 percent locally owned and operated limited liability company. It is recognized by the Louisiana Economic Development (LED) Commission as both a Certified-Active Small Entrepreneurship and a Small and Emerging Business Enterprise; and is certified as a Disadvantaged Business Enterprise as part of the Louisiana DOTD Unified Certification Program.

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 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

The Beta Group 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:
  - Lafitte Tidal Protection Levees
  - Clovelly and Brenton Canal Weirs
  - Bougue Falaya Park Shoreline (also included bulkhead and lateral pile analysis)
  - Bayou Terre Aux Bouefs Ridge Restoration Armoring System

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

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

- Wetland delineation for proposes 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: 51 years of experience managing design and construction of levees, coastal protection and erosion control projects, flood control structures and

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

stormwater drainage among other projects in Jefferson Parish and southeast Louisiana.

Kazem Alikhani, P.E., Professional in Charge/Project Manager: 41 years of experience managing public works projects including planning, design and construction 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 Agcy. 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.

John Rasi, P.E., Hydraulic Engineer: Over 39 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.

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.

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.

Mark A. Cheek, P.E. FACI, Geotechnical (BETA): 31 years of experience in construction materials field and laboratory testing, serving as resident project engineer, structural design engineer, geotechnical engineer, and construction materials testing agency manager.

Alex Jaramillo, P.E., Geotechnical (BETA): 26 years of experience geotechnical analyses for projects and completion of the geotechnical reports, soil testing, subsoil explorations as well as supervision of all geotechnical activities.

Ralph P. Fontcuberta, Jr., Land Surveyor (BFM): 40 years of experience in all facets of surveying.

Lucas Watkins, Environmental Specialist (ELOS): 15 years of experience as a biologist and regulatory compliance specialist.

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.

Alexandra Carter, Outreach, Educational Support, Grant Writing (Desire Line): Alex is a Certified Planner with 10+ years of experience implementing best practices in community, state, and federal codes, grants, metrics, and programs and has a thorough understanding of federal guidelines and state enabling statues governing floodplain management, coastal zone management, drainage, comprehensive planning, and development. Alex was recognized in 2013 as Jefferson Parish Planning Employee of the Year and recognized by APA's Small Town and Rural Planning Division in 2017.

2. SIZE OF FIRM

ECM has 62 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 project 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 will be performed from Hammond, LA, Surveying services will be performed from Kenner, LA and Geotechnical Services will be performed from Gretna, LA. Community Outreach, Educational support and Marketing will be performed from Metairie, 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 17th 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 case 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:** 08/12/2022

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

Name:	Public Address:
ECM Consultants, Inc.	Mr. Ujjal DasGupta1301 Clearview Parkway, Suite 200 Metairie, Louisiana 70001

License/Certificate Information w/ Supervision

License	Status	First Issuance Date	Expiration Date	Supervisor(s)
EF.0002003	Active	10/24/1995	03/31/2024	Mr. Ujjal DasGupta # PE.0019849 - Active ; Mr. Kazem Hadjialikhani # PE.0025073 - Active

Section 2

BFM Corporation, LLC.

TEC Professional Services Questionnaire

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

Supplemental Coastal Engineering and Consulting Services

SOQ **22-036** | Resolution No. **139866**

B. Firm Name & Address:

BFM Corporation, LLC
15 Veterans Memorial Boulevard
Kenner LA 70062

C. Name, title, & 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
504-468-8800 • 504-460-5239 cell • cpoche@bfmcorporation.com
Registered Professional Civil Engineer, Louisiana No. 27667 (since 1998)

D. Name, title, & 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., Executive Vice President • LA License No. 4329 (1974)
504-468-8800 • 504-451-7500 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:

4	Administrative	-	Estimators	-	Specification Writers
-	Architects (Licensed)	-	Geologists	-	Structural Engineers
-	Chemical Engineers	1	Geotechnical Engineers	-	Graduate Engineers
-	Civil Engineers	-	Interior Designers	2*	Project Managers
-	Construction Inspectors	-	Landscape Architects	-	Clerical (*see Administrative*)
-	Ecologists	-	Land Surveyor (*see PLS*)	-	Grant/Funding Specialist
-	Electrical Engineers	-	Mechanical Engineers	-	Sanitary Engineers
-	Engineer Intern	-	Environmental Engineers	*1*	*Principals*
2	Professional Land Surveyors			*1*	*Researcher/Archivist*
				3	*Drafting/AutoCADD*
				5	*Survey Crew Chiefs*
				6	*Instrument Men*
				24	**TOTAL**

** Project Manager also noted in Professional Land Surveyor, but overall employee count is correct.*

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

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

1. N/A

2.

H. Has this JOINT-VENTURE previously worked together? Please check:
YES _____ NO _____ N/A

I. List all subcontractors anticipated for this Project. Please note that <u>all subcontractors must submit a fully completed copy of this questionnaire</u>, 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 Prime Before (Yes or No):
1. N/A		
2.		
3.		

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

<u>24</u> *(all personnel, primary and support, will be available on all assigned projects)*

TEC Professional Services Questionnaire

K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e., résumé) that demonstrates the employment history 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:

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

Project Assignment:

Registered Professional Land Surveyor

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years experience with this Firm:

40 years (Founding Principal of BFM in 1982); 55 years total (1967)

Education: Degree(s)/Year/Specialization:

Coursework, Building, Delgado College, New Orleans
Coursework, Math, University of New Orleans

Active registration: Year first registered/discipline:

1974, Professional Land Surveyor (Louisiana Lic. No. 4329)
1974, Professional Land Surveyor (Mississippi Lic. No. 1633)

Other experience and qualifications relevant to the proposed Project:

Ralph P. Fontcuberta, Jr., PLS has better than half a century of experience in the field of surveying and has been a registered Professional Land Surveyor (PLS) since 1974. He is thoroughly knowledgeable in all aspects of surveying: topographic, hydrographic, boundary, right-of-way surveying, and all facets thereof. He has provided surveying services for residential, plant, and industrial layout projects, ranging from small private lots & buildings to multi-million dollar programs, including the New Orleans FEMA Streets/Recovery Roads Program.

Since the beginning of his career, his work has entailed computations, drafting, and field work for various industrial, commercial, municipal, and private clients. Project work has included topographic surveying needed for a wide variety of engineering, architectural, and related endeavors.

TEC Professional Services Questionnaire

Other experience and qualifications relevant to the proposed Project:

Ralph P. Fontcuberta, Jr., PLS (continued)

Mr. Fontcuberta's **surveying experience with Jefferson Parish can be traced back to BFM's inception in 1982**, and before 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:

- *Pailet Basin Tidal Protection Levee, Town of Jean Lafitte, Jefferson Parish, LA*
- *Orange Lane Drainage Pump Station Project (Drainage Mapping), Grand Isle, Jefferson Parish, LA*
- *Locate 16-inch Water Line between Valve Stations 18 & 24, Grand Isle, Jefferson Parish, LA*
- *Lafitte Tidal Protection, Phase II, Lafitte Area Independent Levee District, Jefferson Parish, LA*
- *Lafitte Area Levee Repair (BA-82) (CPRA 4400007082, Task 8), Jefferson Parish, LA*
- *Bayou Segnette Topographic Survey, Westwego, Jefferson Parish, LA*
- *Bayou Segnette State Park Settlement Reference Marker Checks, Westwego, Jefferson Parish, LA*
- *Marsh Island (Lafreniere Park), Metairie, Jefferson Parish, LA*
- *Fisher Basin Alignment Extension (Fisher/Lafitte Tidal Protection Alignment), Jefferson Parish, LA*
- *Bayou Segnette Fronting Protection/New Pump Station, Westwego, Jefferson Parish, LA*
- *Waterline Location, Lower Lafitte Shoreline Stabilization, Jefferson Parish, LA*
- *Fifi Island Restoration Extension, Jefferson Parish, LA*
- *Lower Lafitte Shoreline Stabilization at Bayou Rigolets, Segments AU1 and AU5, Jefferson Parish, LA*
- *Grand Isle Jetty Project, Grand Isle, 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*
- *Elmer's Island Surveying Services, Grand Isle, Jefferson Parish, LA*
- *Hydrographic Survey of the Mississippi River Range Line 1-9, Westwego, Jefferson Parish, LA*
- *Rosethorne Basin, Lafitte Independent Levee District, Lafitte, Jefferson Parish, LA*
- *Mazoue Ditch Sheet Piles, Jefferson Parish, LA*
- *Harahan Pump-to-the-River Outfall Legals, Jefferson Parish, LA*
- *Evans Road Waterline Repair – Mississippi River Levee Cross Section, Jefferson Parish, LA*
- *Rosethorne Levee Staking, Lafitte Independent Levee District, Jefferson Parish, LA*
- *Mississippi River Levee 7.1 (Emergency Temporary Levee), West Bank Vicinity*
- *Lafitte Hurricane Protection Levee – Fisher Basin, Jefferson Parish, LA*
- *USACE W912HY-09-C-0015, WBV-24, Segnette State Park Floodwall, Jefferson Parish, LA*
- *Update Survey Plats for the Lafitte Area Hurricane Protection Levee, Lafitte, Jefferson Parish, LA*
- *Hurricane Protection Systems, Parishes of St. Charles and Jefferson, Louisiana*
- *25th Street & Adjacent Canal, Gretna, Jefferson Parish, LA*
- *JP 2017-003-DR, West Metairie Canal Bank Stabilization, Jefferson Parish, LA*
- *The Pen Levee, Lafitte, Jefferson Parish, LA*
- *Floodwall Location, Marvis Grove Subdivision, Town of Jean Lafitte, Jefferson Parish, LA*

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

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

Project Assignment:

Engineering Liaison

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years experience with this Firm:

5 years (became partial owner of BFM in 2017); 29 years total (1993)

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:

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

Other experience and qualifications relevant to the proposed Project:

Mr. Poché 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 more than 20 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 expert witness testimony. 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.

BFM Corporation projects overseen by Mr. Poché would include:

TEC Professional Services Questionnaire

Other experience and qualifications relevant to the proposed Project:

Chad M. Poché, P.E. (continued)

Pailet 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)

Lapalco Boulevard Bridge at Harvey Canal, (PW 2017-046-RBP; DOTD H.004396), Jefferson Parish, LA. BFM Corporation provided extensive surveying services for a topographic survey and right-of-way (R/W) determination for the project. Project elements included setting GPS Static Control (5 permanent control points), traversing a proposed survey line, and land topography surveying. Additional phases include hydrographic topography/bathymetric surveying of the project area, the right-of-way determination, and subsurface utility engineering (SUE). Drone Surveying was utilized throughout the project. A Route Topographic Survey was also included as part of the scope, as was Subsurface Utility Engineering (SUE). ($478,744 (fee); 2020)

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 taken into account. ($118,873 (fee); 2019)

Orange Lane Pump Station Project, Grand Isle, Jefferson Parish, LA. The project consists of a new storm water pumping station on the intersection of Orange Lane at Orleans Avenue in Grand Isle, Louisiana. The scope of services includes obtaining topographical survey information and the preparation of a drainage map for the project. Phase 1 of the project involved the topographic and right of way surveying services; BFM conducted a site topographic survey at the proposed lift station site and provided boundary surveying to determine rights of way. Phase 2 of the project established the Drainage Map. BFM located all drainage structures within the Limits of Survey; this included ditches, culverts, drain inlets, and catch basins. A drone survey was executed to gather a 25 ft elevation grid throughout the project area. ($32,280 (fee); 2020)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

John Philip Thayer
Field Operations Supervisor

Project Assignment:

Field Operations Supervisor

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years experience with this Firm:

14 years (joined BFM in 2008); 15 years total (2007)

Education: Degree(s)/Year/Specialization:

B.S., 2007, Physical Education, Trevecca Nazarene University

Active registration: Year first registered/discipline:

Professional Land Surveyor Registration in process, State of Louisiana

Other experience and qualifications relevant to the proposed Project:

Mr. Thayer is a Field Operations Supervisor with considerable experience in field surveying services, including ALTA/as-built surveying, construction layout, boundary, topographic, cross-sections, GPS use, and numerous other surveying types.

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)

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)

TEC Professional Services Questionnaire

Other experience and qualifications relevant to the proposed Project:

John Philip Thayer (continued)

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)

Segnette Park Settlement Reference Marker Checks, Westwego, Jefferson Parish, LA. BFM Corporation provided multiple surveying services for the project at the Bayou Segnette State Park in Jefferson Parish. The scope of services included performing an elevation survey of the settlement monuments at the Bayou Segnette Flood Wall. BFM tied into the controlling monuments for the project and executed a first order level loop through the settlement markers. ($4,080 (fee); 2016)

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 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)

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)

CPRA BA-75-1, SP H.009252, 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)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Gary J. Lambert, Jr., PLS
Registered Professional Land Surveyor

Project Assignment:

Registered Professional Land Surveyor; Project Manager/Drafting Supervisor

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years experience with this Firm:

4 years (joined BFM in 2018); 11 years total

Education: Degree(s)/Year/Specialization:

B.S., 2018, Geomatics, Nicholls State University
B.S., 2014, Construction Management, Louisiana State University

Active registration: Year first registered/discipline:

2021, Professional Land Surveyor (Louisiana Lic. No. 5929)

Other experience and qualifications relevant to the proposed Project:

Mr. Lambert provides Project Management and Drafting Oversight for the firm. He has also provided Survey Crew Chief Services since joining BFM and offers a well-rounded experience overview for any project. Mr. Lambert has completed Basic OSHA Training and holds license with the Gulf Coast Safety Council (08SSV, ID429523).

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 taken into account. ($118,873 (fee); 2019)

2700 Destrehan Sewer Lift Station Servitude Survey, Harvey, Jefferson Parish, LA. BFM prepared a Servitude Survey for the 2700 Destrehan Sewer Lift Station; the survey built upon and served to revise BFM's previous work on the project site in 2019 which involved a full boundary survey update. The scope of services involved establishing both a temporary construction servitude (105 ft. x 70 ft.) and a permanent servitude (45 ft. x 40 ft.). ($4,200 (fee); 2022)

TEC Professional Services Questionnaire

Other experience and qualifications relevant to the proposed Project:

Gary J. Lambert, Jr., PLS (continued)

Three Sewer Lift Station Sites (G8-1, G8-3, & H8-4B) & Sewer Force Main Construction Survey, Jefferson Parish, LA. BFM Corporation provided Topographic & Route Topographic Surveying services (along a proposed force main route) for three lift station sites in Jefferson Parish. The lift stations included LS G8-1, G8-3, and H8-4B. The Scope of Services for the project involved establishing a baseline, Temporary Benchmarks (TBM), and spot elevations. Existing improvements (natural and man-made) were located, as were visible above-ground & underground utilities. The survey also located property corners to assist in verifying the apparent rights-of-way, per project scope. ($28,950 (fee); 2021)

Sewer Lift Station D4-5 (S. Laurel Street & Mistletoe Street), Metairie, Jefferson Parish, LA. BFM Corporation was selected by the Jefferson Parish Sewerage Department to provide comprehensive topographic & right-of-way surveying services for the Sewer Lift Station D4-5 upgrade project located at S. Laurel Street & Mistletoe Street in Metairie, LA. With this upgrade project, the equipment must be confirmed to be elevated above the 100 year flood elevation. Project plans included relocation of the existing control panel. Other utilities in the area were identified so that there would be no conflicts. BFM provided all surveying services requested (defining/locating elevations, right of ways, servitudes, utilities, etc.) to ensure the successful completion of the project. ($5,930 (fee); 2022)

Lapalco Boulevard Bridge at Harvey Canal, (PW 2017-046-RBP; DOTD H.004396), Jefferson Parish, LA. BFM Corporation provided extensive surveying services for a topographic survey and right-of-way (R/W) determination for the project. Project elements included setting GPS Static Control (5 permanent control points), traversing a proposed survey line, and land topography surveying. Additional phases include hydrographic topography/bathymetric surveying of the project area, the right-of-way determination, and subsurface utility engineering (SUE). Drone Surveying was utilized throughout the project. A Route Topographic Survey was also included as part of the scope, as was Subsurface Utility Engineering (SUE). ($478,744 (fee); 2020)

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)

Cypress Lakes Country Club, Destrehan, St. Charles Parish, LA. BFM provided topographic and hydrographic surveying services for the project site at Cypress Lakes Country Club in Destrehan. The pre-dredge scope involved providing the X, Y, and Z file for all points collected. Both pre-dredge and post-dredge surveying involved cross sections (taken within the Limits of Survey on a grid not exceeding 10 feet) and Top-of-Water shots (which were collected at each pond location). ($87,750 (fee); 2019)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Christopher Lemley
Quality Control Supervisor

Project Assignment:

Quality Control Supervisor

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years experience with this Firm:

8 years (joined BFM in 2014); 16 years total (2006)

Education: Degree(s)/Year/Specialization:

High School Diploma

Active registration: Year first registered/discipline:

N/A

Other experience and qualifications relevant to the proposed Project:

Mr. Lemley serves as BFM's Quality Control Supervisor, overseeing all work and activity by the firm's personnel to be sure all is kept up to our exacting standards. 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.

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)

Pailet 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

Other experience and qualifications relevant to the proposed Project:

Christopher Lemley (continued)

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)

CPRA BA-75-1, SP H.009252, 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)

Orange Lane Pump Station Project, Grand Isle, Jefferson Parish, LA. The project consists of a new storm water pumping station on the intersection of Orange Lane at Orleans Avenue in Grand Isle, Louisiana. The scope of services includes obtaining topographical survey information and the preparation of a drainage map for the project. Phase 1 of the project involved the topographic and right of way surveying services; BFM conducted a site topographic survey at the proposed lift station site and provided boundary surveying to determine rights of way. Phase 2 of the project established the Drainage Map. BFM located all drainage structures within the Limits of Survey; this included ditches, culverts, drain inlets, and catch basins. A drone survey was executed to gather a 25 ft elevation grid throughout the project area. ($32,280 (fee); 2020)

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)

Pailet 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)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Thomas O. Wright
Survey Crew Chief

Project Assignment:

Survey Crew Chief

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years experience with this Firm:

14 years (joined BFM in 2008); 45 years total (1977)

Education: Degree(s)/Year/Specialization:

High School Diploma

Active registration: Year first registered/discipline:

American Traffic Safety Service Assn. – Traffic Flagger/Control Technician/Control Supervisor
Basic OSHA Training - Completed
Transportation Work Identification Card (TWIC)

Other experience and qualifications relevant to the proposed Project:

Mr. Wright has over 40 years of experience in surveying services, including a multitude of project types (water, wastewater, stormwater, drainage, roadway, etc.) throughout the region.

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)

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:

Curtis "Jay" Barrios
Survey Crew Chief

Project Assignment:

Survey Crew Chief

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years experience with this Firm:

32 years (joined BFM in 1990); 32 years total (1990)

Education: Degree(s)/Year/Specialization:

High School Diploma

Active registration: Year first registered/discipline:

American Traffic Safety Service Assn. – Traffic Flagger
Transportation Work Identification Card (TWIC)

Other experience and qualifications relevant to the proposed Project:

Mr. Barrios' surveying experience includes boundary, hydrographic, and topographic. He has worked on location and performed topographic surveys for a number of major projects.

CPRA BA-75-1, SP H.009252, Lafitte Tidal Protection, Phase II, Lafitte Area Independent Levee District, Jefferson Parish, LA. BFM's surveying services included establishing horizontal & vertical control (referenced to established benchmark and LA State Plane Coordinate System), 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. ($23,220 (fee); 2017)

Elmer's Island Surveying Services, Grand Isle, Jefferson Parish, LA. BFM provided cross sections of Elmer's Island at 100 ft. intervals for approximately 8,000 feet, extending approx. 1500 feet east of breach across Elmer's Island and to the west past the breach. Notably, the cross sections were extended to wading depth from the shoreline. Equipment used included Leica System 1200 GPS, Odom Hydrotrac Echo Sounder, Hi Pack Hydrographic software, and a 23 ft Sea Ark boat. ($19,763 (fee); 2006)

Waterline Location, Lower Lafitte Shoreline Stabilization, Jefferson Parish, LA. BFM provided surveying services associated with the location of a 16 in plastic waterline in the Barataria Waterway as part of the Lower Lafitte Shoreline Stabilization project. ($27,825 (fee); 2011)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Eric Gladney
Survey Crew Chief

Project Assignment:

Survey Crew Chief

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years experience with this Firm:

8 years (joined BFM in 2014); 21 years total (2001)

Education: Degree(s)/Year/Specialization:

High School Diploma

Active registration: Year first registered/discipline:

American Traffic Safety Service Assn. – Traffic Flagger
Norfolk Southern Roadway Worker Protection Contractor Safety Cert.
Transportation Work Identification Card (TWIC)

Other experience and qualifications relevant to the proposed Project:

Segnette Park Settlement Reference Marker Checks, Westwego, Jefferson Parish, LA. BFM Corporation provided multiple surveying services for the project at the Bayou Segnette State Park in Jefferson Parish. The scope of services included performing an elevation survey of the settlement monuments at the Bayou Segnette Flood Wall. BFM tied into the controlling monuments for the project and executed a first order level loop through the settlement markers. ($4,080 (fee); 2016)

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)

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)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Jeff Patin
Survey Crew Chief

Project Assignment:

Survey Crew Chief

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years experience with this Firm:

3 years (joined BFM in 2019); 23 years total (1999)

Education: Degree(s)/Year/Specialization:

High School Diploma

Active registration: Year first registered/discipline:

Transportation Work Identification Card (TWIC)

Other experience and qualifications relevant to the proposed Project:

Mr. Patin has worked as a Survey Crew Chief & Instrumentman for over 20 years for a number of southeastern Louisiana surveying firms on projects throughout the region. His work history includes supervision of field crew personnel, operation of various survey equipment (Topcon GPT, Leica GPS, Total Station, etc.), calculations, information collection, and any & all work required to execute the survey and obtain the information needed. Mr. Patin has worked on projects for various public & private clients, and has performed field work under the direction of the Corps of Engineers.

Three Sewer Lift Station Sites (G8-1, G8-3, & H8-4B) & Sewer Force Main Construction Survey, Jefferson Parish, LA. BFM Corporation provided Topographic & Route Topographic Surveying services (along a proposed force main route) for three lift station sites in Jefferson Parish. The lift stations included LS G8-1, G8-3, and H8-4B. Scope involved establishing a baseline, Temporary Benchmarks (TBM), and spot elevations. Existing improvements (natural and man-made) were located, as were visible above-ground & underground utilities. The survey also located property corners to assist in verifying the apparent rights-of-way, per project scope. ($28,950 (fee); 2021)

Sewer Lift Station D4-5 (S. Laurel Street & Mistletoe Street), Metairie, Jefferson Parish, LA. BFM provided topographic & right-of-way surveying services for the upgrade project; the upgrade stated that the equipment must be confirmed to be elevated above the 100 year flood elevation. Project included relocation of the existing control panel. Other utilities in the area were identified so that there would be no conflicts. BFM provided all surveying services requested (defining/locating elevations, right of ways, servitudes, utilities, etc.) to ensure the successful completion. ($5,930 (fee); 2022)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Anthony Watson
CADD Technician

Project Assignment:

CADD Technician

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years experience with this Firm:

11 years (joined BFM in 2011); 31 years total (1992)

Education: Degree(s)/Year/Specialization:

Coursework - CAD, Avatech Solutions, Los Colinas, TX

Active registration: Year first registered/discipline:

NA

Other experience and qualifications relevant to the proposed Project:

Mr. Watson has experience as a draftsman/CADD technician, having started his career as an intern with the Surveying Department of the City of Plano, TX. 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.

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)

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)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Shaun Clements
CADD Technician

Project Assignment:

CADD Technician

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years experience with this Firm:

4 years (joined BFM in 2018); 7 years total (2015)

Education: Degree(s)/Year/Specialization:

Associates of Applied Sciences, 2015, Computer Drafting and Design (ITT)

Active registration: Year first registered/discipline:

NA

Other experience and qualifications relevant to the proposed Project:

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)

Orange Lane Pump Station Project, Grand Isle, Jefferson Parish, LA. The project consists of a new storm water pumping station on the intersection of Orange Lane at Orleans Avenue in Grand Isle, Louisiana. The scope of services includes obtaining topographical survey information and the preparation of a drainage map for the project. Phase 1 of the project involved the topographic and right of way surveying services; BFM conducted a site topographic survey at the proposed lift station site and provided boundary surveying to determine rights of way. Phase 2 of the project established the Drainage Map. BFM located all drainage structures within the Limits of Survey; this included ditches, culverts, drain inlets, and catch basins. A drone survey was executed to gather a 25 ft elevation grid throughout the project area. ($32,280 (fee); 2020)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Kevin A. Roberts
CADD Technician

Project Assignment:

CADD Technician

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years experience with this Firm:

4 years (joined BFM in 2018); 37 years total (1985)

Education: Degree(s)/Year/Specialization:

A.D., 1999, Drafting & Design, Louisiana Technical College
Coursework, 1994-1997, Nunez Community College
Coursework, 1984-1988, Delgado Community College
Coursework, 1982-1983, University of New Orleans

Active registration: Year first registered/discipline:

NA

Other experience and qualifications relevant to the proposed Project:

Mr. Roberts has experience with civil engineering, offshore engineering, water purification systems, and general architectural and construction design & terminology. He obtained his A.D. in Drafting in 1999, and has taken additional coursework throughout his career.

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 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 taken into account. ($118,873 (fee); 2019)

The Westshore Enhancements Storm Surge Protection Project (Phase 1 & 2), Ascension Parish, LA. BFM Corporation is providing Route Topographic and Hydrographic Surveying for the project in Ascension Parish, LA; as established, the project will be executed in two phases as noted below. The project engineer is providing proposed alignment for the Flood Protection Structures to enable BFM to accurately cover the Limits of Survey as requested. BFM is executing 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 (est fee); ongoing)

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:

13 years (joined BFM in 2009); 25 years total (1997)

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:

NA

Other experience and qualifications relevant to the proposed Project:

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

The Westshore Enhancements Storm Surge Protection Project (Phase 1 & 2), Ascension Parish, LA. BFM Corporation is providing Route Topographic and Hydrographic Surveying for the project in Ascension Parish, LA; as established, the project will be executed in two phases as noted below. The project engineer is providing proposed alignment for the Flood Protection Structures to enable BFM to accurately cover the Limits of Survey as requested. BFM is executing 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 (est fee); ongoing)

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. Hydrographic surveying included the mouths of the Vacherie Canal and Oil Well Canal, noting any significant features. Geotechnical borings were located (for plan identification). BFM further 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)

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:**	
The Westshore Enhancements Storm Surge Protection Project (Phase 1 & 2), Ascension Parish, Louisiana **Burk-Kleinpeter, Inc.** 4176 Canal Street New Orleans LA 70119 **David Boyd, P.E.**, 504-483-6271 dboyd@bkiusa.com	BFM Corporation is providing Route Topographic and Hydrographic Surveying for the project in Ascension Parish, LA; as established, the project will be executed in two phases as noted below. The project engineer is providing proposed alignment for the Flood Protection Structures to enable BFM to accurately cover the Limits of Survey as requested. BFM is executing 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.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
ongoing	N/A	$477,340 (est fee)

PROJECT NO. 2		
Project Name, Location, and Owner's Contact Information:	**Nature of Firm's Responsibility:**	
Pailet Basin Tidal Protection Levee, Town of Jean Lafitte, Jefferson Parish, Louisiana **APTIM** 2424 Edenborn Avenue Suite 450 Metairie LA 70001 **Gene S. Gillen, P.E.**, 504-832-4881 info@aptim.com	Topographic & hydrographic surveying services; 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. BFM set vertical control TBMs which were referenced to horizontal control points. Plotted a cross section depicting the ground, edge of water, top and toe of earthen levee, and levee centerline. Located visible above-ground utilities as well as underground utilities with visible surface evidence, as well as existing wall, center of pumps, and discharge pipes at the existing pump station. Existing improvements and trees were included in general location surveying.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2018 June	N/A	$150,000 (fee)

TEC Professional Services Questionnaire

PROJECT NO. 3		
Project Name, Location, and Owner's Contact Information:	**Nature of Firm's Responsibility:**	
Lafitte Area Levee Repair (BA-82) (CPRA 4400007082, Task 8), Jefferson Parish, Louisiana **CB&I** 2424 Edenborn Avenue Suite 450 Metairie LA 70001 **Gene S. Gillen, P.E.**, 504-832-4881 gene.gillen@cbi.com	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.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2017 March	N/A	$8,924 (fee)

PROJECT NO. 4		
Project Name, Location, and Owner's Contact Information:	**Nature of Firm's Responsibility:**	
Upper Barataria Basin Risk Reduction (UBRR) Project, Segment 3, Lafourche Parish, Louisiana **Greenup Industries, LLC** 2200 Veterans Memorial Blvd Ste 114 Kenner LA 70062 **Rodney Greenup, Jr.**, 225-283-4843 rodney@greenupind.com	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 taken into account.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2019 July	N/A	$118,873 (fee)

TEC Professional Services Questionnaire

PROJECT NO. 5		
Project Name, Location, and Owner's Contact Information:	**Nature of Firm's Responsibility:**	
CPRA BA-75-1, Lafitte Tidal Protection, Phase II, Lafitte Area Independent Levee District, Jefferson Parish, Louisiana **Lafitte Area Independent Levee District c/o BCG Engineering & Consulting, Inc.** 9619 Interline Avenue, Suite A Baton Rouge LA 70809 **David T. Dodgen**, 225-924-3116 **Nicole Cooper**, 504-233-1109 ncooper@townofjeanlafitte.com	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.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2017 June	N/A	$23,220 (fee)

PROJECT NO. 6		
Project Name, Location, and Owner's Contact Information:	**Nature of Firm's Responsibility:**	
Marsh Island (Lafreniere Park), Metairie, Jefferson Parish, Louisiana **Mathes Brierre Architects** 201 St. Charles Avenue, Suite 4100 New Orleans LA 70170-4100 **Scott Evans, AIA**, 504-586-9303 talfortish@mathesbrierre.com	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.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2016 February	N/A	$9,568 (fee)

TEC Professional Services Questionnaire

PROJECT NO. 7		
Project Name, Location, and Owner's Contact Information:	**Nature of Firm's Responsibility:**	
Fisher Basin Alignment Extension (Fisher/ Lafitte Tidal Protection Alignment), Jefferson Parish, Louisiana **Brown Cunningham Gannuch** 3012 26th Street Metairie LA 70002 **Ann Sprinston**, 504-454-3866 aspringston@ardurragroup.com	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.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2015 April	N/A	$12,197 (fee)

PROJECT NO. 8		
Project Name, Location, and Owner's Contact Information:	**Nature of Firm's Responsibility:**	
SLFPA-E Levee Certification Phase 2 Survey - 40 Arpent & Maxent Levees, Orleans & St. Bernard Levee Systems, Orleans Parish, Louisiana **Southeast Louisiana Flood Protection Authority - East (SLFPA–E)** CERM Bldg Ste 422 2045 Lakeshore Drive New Orleans LA 70122 **Robert A. Turner, P.E., CFM**, 504-280-2411 rturner@slfpae.com	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. 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. 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.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2013 May	N/A	$166,500 (fee)

TEC Professional Services Questionnaire

PROJECT NO. 9		
Project Name, Location, and Owner's Contact Information:	**Nature of Firm's Responsibility:**	
Orange Lane Drainage Pump Station Project (Drainage Mapping), Grand Isle, Jefferson Parish, Louisiana **AIMS Group, Inc.** 4421 Zenith Street Metairie LA 70001 **Lowell Pitré, P.E.**, 504-887-7045 ljp@aimsgroupinc.com	The project consists of a new storm water pumping station on the intersection of Orange Lane at Orleans Avenue. Scope includes obtaining topographical survey information and the preparation of a drainage map for the project. Phase 1 of the project involved the topographic and right of way surveying services; BFM conducted a site topographic survey at the proposed lift station site and provided boundary surveying to determine rights of way. Phase 2 of the project established the Drainage Map. BFM located all drainage structures within the Limits of Survey; this included ditches, culverts, drain inlets, and catch basins. A drone survey was executed to gather a 25 ft elevation grid throughout the project area.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2020 August	N/A	($32,280 (fee); 2020)

PROJECT NO. 10		
Project Name, Location, and Owner's Contact Information:	**Nature of Firm's Responsibility:**	
Lac Des Allemands Shoreline Protection & Restorations, St. John the Baptist Parish, Louisiana **GSA Consulting Engineers** 1022 S Pupera Avenue Gonzales LA 70707 **Jake Lambert**, 225-644-5523	The project extended from Vacherie Canal southeast along the shoreline of Lac Des Allemands to Pointe Aux Herbes (approx. 11,000 ft). Surveying included 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 mouths of the Vacherie Canal and Oil Well Canal, noting significant features. Geotechnical borings were located (for plan identification). BFM further 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.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2010 August	N/A	$38,399 (fee)

TEC Professional Services Questionnaire

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

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

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

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

CRITERIA 1 • PROFESSIONAL TRAINING AND RELEVANT PROJECT 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, and now offers 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 and LiDAR**
- **Bathymetric / Hydrographic Surveys**
- **Property, Boundary, and Right-of-Way Surveys**

N. continued.

- **Maps, Cross-Sections, and Data Sets**
- **3D Laser Scanning**
- **Benchmarks**
- **Construction-Related Surveying**
- **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 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). Crews are outfitted with Leica TS series robotic total stations, simplifying and expediting projects. Furthermore, BFM has photogrammetry included into our GS18 GPS Receivers that allow our technicians to capture and utilize point cloud data in the field. The tilt functionality built into the GPS receivers allows for shooting without leveling the rod; this greatly increases speed of fieldwork while keeping accuracy and precision intact. BFM's crews are trained to use this equipment to its full potential to maximize efficiency and accuracy 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). At a flight ceiling of 165 feet, pixel quality is 0.71 CM); this allows 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.

BFM Corporation provides **bathymetric surveying** to handle any **hydrographic surveying tasks**. For large rivers and bodies of water, BFM is 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. The firm uses Hypack Software to process collected data. Further, BFM can execute multi-beam scans, side scans and magnetometer surveys upon request.

Please refer to the projects presented in Item L of this form as well as our personnel bios for an overview of relevant project work executed by BFM Corporation.

TEC Professional Services Questionnaire

N. continued.

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.

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 OF NEWLY-ASSIGNED WORK

BFM Corporation has the manpower and equipment to execute any surveying task within the reasonable time set forth by the contract or project engineer. It is our continual 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**, 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.

BFM's **Chad M. Poché, P.E.** 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 throughout his career.

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 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 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 nearly 40 years with BFM. He has provided professional surveying services for **thousands of projects for and throughout Jefferson Parish**. Additional information beyond the scope of this RFQ response is available upon request.

N. continued.

CRITERIA 5 • LOCATION OF 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 • ADVERSARIAL LEGAL PROCEEDINGS WITH PARISH

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 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 Department
(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)

Greg Cromer, Mayor, City of Slidell
(985-646-4333 | gcromer@cityofslidell.org)

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:** **July 26, 2022**

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

Name:	Public Address:
BFM Corporation, LLC	15 Veterans Memorial Boulevard Kenner, Louisiana 70062

License/Certificate Information w/ Supervision

License	Status	First Issuance Date	Expiration Date	Supervisor(s)
VF.0000008	Active	09/11/1984	09/30/2023	Mr. Ralph P. Fontcuberta Jr. # PLS.0004329 - Active

LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Ralph P. Fontcuberta Jr.

License/Certificate Type - Number	Expiration Date
PLS.0004329	09/30/2022

Status: Active

LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Chad Mitchell Poche

License/Certificate Type - Number	Expiration Date
PE.0027667	09/30/2022

Status: Active

LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Gary James Lambert Jr.

License/Certificate Type - Number	Expiration Date
PLS.0005259	03/31/2023

Status: Active

LOUISIANA ECONOMIC DEVELOPMENT

Division of Small and Emerging Business Development

SEBD CERTIFICATION

BFM CORPORATION, LLC

is hereby certified as a Small and Emerging Business Enterprise.

This certification is valid beginning 7/19/2019 and supersedes any registration or listing previously issued. At any time there is a change in ownership or control of the firm, notification must be made immediately to the Division of Small and Emerging Business Development.

Issued at Baton Rouge, Louisiana 7/19/2019

This certification expires on: 7/19/2029

Certification No. 9551

John W. Matthews, Jr.,
Executive Director, Entrepreneurial Services

LOUISIANA ECONOMIC DEVELOPMENT

DIVISION OF SMALL BUSINESS SERVICES

This certification acknowledges that

BFM CORPORATION, LLC

is Certified-Active as a Small Entrepreneurship with Louisiana Economic Development's Hudson Initiative.

This certification is valid from 9/28/2021 to 9/28/2022 .

Certification No. 9551

Stephanie Hartman,
Director, Small Business Services

Section 3

ELOS Environmental, LLC.

TEC Professional Services Questionnaire

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:
Jefferson Parish Coastal Engineering Consulting Services
138902

B. Firm Name & Address where Project work will be performed:
ELOS Environmental, LLC
607 W. Morris Avenue
Hammond, LA 70403

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:
N/A

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.
N/A

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

2 Administrative	___Estimators	___Specification Writers
___ Architects (Licensed)	___Geologists	___Structural Engineers
___ Chemical Engineers	___Geotechnical Engineers	___Graduate Engineers
___ Civil Engineers	___Interior Designers	3 Project Managers
___ Construction Inspectors	___Landscape Architects	2 Clerical
12 Ecologists	___Land Surveyor	___Grant/Funding Specialist
___ Electrical Engineers	___Mechanical Engineers	1 Sanitary Engineers
___ Engineer Intern	1 Environmental Engineers	
___ Professional Land Surveyors		21 **TOTAL**

F. Is this submittal by a JOINT-VENTURE? Pleasecheck: YES_____ NO ✓

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

TEC Professional Services Questionnaire

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

1. N/A

2.

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

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

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

J. Please specify the total number of support personnel that may assist in the completion of this Project:
10
_____

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, President

Project Assignment:

ELOS Principal/Senior Environmental Scientist

Name of Firm with which associated:

ELOS Environmental, LLC

Years' experience with this Firm:

15

Education: Degree(s)/Year/Specialization:

Master of Science, 2005, Biological Sciences
Bachelor of Science, 2000, Forest Management

Active registration: Year first registered/discipline:

2010, LA Department of Agriculture and Forestry, Arborist, License No. 19-1827

Other experience and qualifications relevant to the proposed Project:

Lucas Watkins has over 21 years of experience as a professional consultant. His experience covers environmental regulatory compliance as well as program and project management. This includes the management of large scale, multi-faceted projects, such as disaster recovery debris removal efforts, wetland restoration implementation, government grant management, and complex construction projects. His extensive experience as a professional consultant and involvement in identifying and addressing environmental compliance issues covering a wide range of the environmental industry is instrumental to the support of ELOS clients and projects. Mr. Watkins' key strengths include wetland delineations, wetland permitting, wetland restoration, NEPA compliance, ASTM Phase I ESAs, storm water management, FERC regulatory overview and guidance, endangered species surveys, and timber and forest management. He has substantial experience in permitting municipal infrastructure, levees, borrow pits, oil and gas exploration, productions, and transmission activities as well as working on other public and private sector environmental related issues. He works to ensure that ELOS acquires the best tools and techniques to guarantee efficient and cost-effective delivery of services to clients.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Brian Fortson, Senior Environmental Scientist
Project Assignment:
Senior Ecologist
Name of Firm with which associated:
ELOS Environmental, LLC
Years' experience with this Firm:
8
Education: Degree(s)/Year/Specialization:
Bachelor of Science, 1995, Wetland Ecology Juris Doctor, 2006, Civil Law
Active registration: Year first registered/discipline:
Other experience and qualifications relevant to the proposed Project:
Mr. Fortson served as a Planner, Environmental Specialist and Coastal Wetland and Environmental Resources Manager for St. Tammany Parish Government from 1990 to 2012. 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 for Parish Government. Mr. Fortson was the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) representative for St. Tammany Parish beginning with Project Priority List 1 and has proposed and presented multiple coastal restoration projects and facilitated the approval of projects through that process. With ELOS, Mr. Fortson has led permitting efforts for multiple projects for local development and infrastructure improvement efforts. Mr. Fortson provides technical expertise on many other projects for which he is not the lead scientist.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Jerry Graves PhD, VP of Coastal Resiliency
Project Assignment:
Biological and Environmental assessments
Name of Firm with which associated:
ELOS Environmental, LLC
Years' experience with this Firm:
<1
Education: Degree(s)/Year/Specialization:
BA, Political Science, University of Louisiana at Lafayette, 2003 MPA, Hazard Policy, University of New Orleans, 2007 PhD, Urban Studies, University of New Orleans, 2012
Active registration: Year first registered/discipline:
Other experience and qualifications relevant to the proposed Project:
Jerry V. Graves specializes in project management, urban and environmental planning, and emergency management. Dr. Graves is an experienced hazard mitigation, resilience, and coastal restoration planner. He is also an experienced administrator who previously worked in the public sector for over a decade. Dr. Graves currently serves as the Vice President of Coastal Resilience at ELOS, where he provides a wide range of project management and consulting services to clients throughout the region.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Ryan Carter, Geographical Information Systems (GIS) Manager
Project Assignment:
GIS Manager
Name of Firm with which associated:
ELOS Environmental, LLC
Years' experience with this Firm:
2
Education: Degree(s)/Year/Specialization:
BA, Urban Planning, Minor in GIS, University of New Orleans, 2017
Active registration: Year first registered/discipline:
Other experience and qualifications relevant to the proposed Project:
Almost all ELOS projects begin with data collection and mapping. As such, Mr. Carter and his team touch every project providing data collection and mapping services for clients. Mr. Carter has served as a GIS Technician at ELOS since he began in December 2019 and has since become GIS Manager. His responsibilities have included assisting in preparing technical reports and analyzing collected data through the use of GIS on nearly all ELOS projects. He has experience with ArcGIS Online, ArcGIS Pro, AutoCAD, Collector of ArcGIS, Survey 123, Expert GPS, BaseCamp, and Google Earth. With the use of these software programs, he collects and interprets field data in support of environmental analyses and impact assessments. The figures and maps he creates are vital to the development of National Environmental Policy Act (NEPA) documentation, Threatened and Endangered Species Surveys, Wetland Delineations and Jurisdictional Determinations, Phase I Environmental Site Assessments, Section 404/10 and Coastal Use Permit applications, and wetlands assessment models. He has also completed a land title course conducted by the American Land Title Association (ALTA).

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Flynn Daigle, Project Manager
Project Assignment:
Project Manager / Environmental Specialist
Name of Firm with which associated:
ELOS Environmental, LLC
Years' experience with this Firm:
7
Education: Degree(s)/Year/Specialization:
Bachelor of Science, 2005, Environmental Management Systems
Active registration: Year first registered/discipline:
Other experience and qualifications relevant to the proposed Project:
Mr. Daigle is the Lead Project Manager and an Environmental Scientist with experience in many phases of Environmental compliance, including National Environmental Policy Act (NEPA), Section 10 and 404 permitting, wetland delineations, Phase I and II subsurface investigation, and Floodplain Management. He is a Certified Floodplain Manager (CFM) accredited through the Association of State Floodplain Managers (ASFPM). He is well-versed in regulations governing Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act.

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:	
Laketown Harbor GOMESA Project Jefferson Parish, LA Michelle M. Gonzales Jefferson Parish Dept. of Coastal Management 1221 Elmwood Park Blvd., Suite 310 Jefferson, LA 70123 (504)736-6719 MGonzales@jeffparish.net	ELOS collected data, prepared a wetland delineation report, submitted a joint permit application, a levee permit application, and conducted cultural resources review for authorization from the U.S. Army Corps of Engineers (USACE), the Louisiana Department of Natural Resources (LDNR), the Southeast Louisiana Flood Protection Authority – East (SLFPA-E), and the Louisiana Office of State Lands (OSL) for the proposed Laketown Harbor Project located in Jefferson Parish, LA. The project area includes the 60-acre Laketown area located north of the terminus of Williams Boulevard and the Lake Pontchartrain levee, including the boat launch, fishing pier, parking areas, Treasure Chest Casino, and undeveloped property along the western property boundary.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
June 2020 – Present	N/A	$91,500

PROJECT NO. 2

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Bucktown Living Shoreline Jefferson Parish, LA Michelle M. Gonzales Jefferson Parish Dept. of Coastal Management 1221 Elmwood Park Blvd., Suite 310 Jefferson, LA 70123 (504)736-6719 MGonzales@jeffparish.net	ELOS was sub-contracted to provide Cultural Resources tasks in support of the Bucktown Living Shoreline Project located in Jefferson Parish, LA. This $1.7 million project funded by the parish and the EPA will include a boardwalk, breakwaters, high-marsh shrubs, and mainland fringing tidal marsh to create a natural resilient shore. The tasks included a Desktop Cultural Resources Analysis covering the shoreline project area and all potential borrow areas identified on the attached figure and an underwater Phase I Cultural Resources Investigation of the 100-acre portion (13.63 transect miles) of the northeastern borrow area.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
February 2021	N/A	$41,500

TEC Professional Services Questionnaire

PROJECT NO. 3		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility**	
Veterans Memorial Boulevard Pump Stations New Orleans, LA Gary E. Lehmann, P.E. Jefferson Parish Dept. of Capital Projects 1221 Elmwood Park Blvd., Suite 906 Jefferson, LA 70123 (504)736-6779 GLehmann@jeffparish.net	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 the 17th Street Canal.	
Completion Date (Actual or estimated)	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
July 2023 (estimated)	N/A	$21,380

PROJECT NO. 4		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Canal Street Ferry Terminal Phase I ESA Jefferson Parish, LA Taylor Marcantel, AICP Senior Transportation Planner Transdev, in service to the New Orleans RTA 2817 Canal Street, New Orleans, LA 70119 (504) 827-8315 taylor.marcantel@transdev.com	ELOS conducted a Phase I Environmental Site Assessment (ESA) on behalf of Royal Engineers & Consultants, the New Orleans Regional Transit Authority (RTA), and the Federal Transit Administration (FTA). The project goal was to demolish the existing complex of buildings and replace it with a smaller ferry terminal building. The ESA was performed in accordance with the E1527-13 methodology and the *All Appropriate Inquiries (AAI)* documentation requirements set forth in 40 Code of Federal Regulations (CFR) Part 312. The Purpose was to identify recognized environmental conditions (REC) in, on, or at the Subject Property and to make a recommendation about the need for additional assessments or actions prior to construction of the project.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
July 2021	N/A	$16,500

TEC Professional Services Questionnaire

PROJECT NO. 5		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
West Esplanade Boulevard Pump Station Jefferson Parish, LA Gary E. Lehmann, P.E. Jefferson Parish Dept. of Capital Projects 1221 Elmwood Park Blvd., Suite 906 Jefferson, LA 70123 (504)736-6779 GLehmann@jeffparish.net	ELOS is currently sub-contracted by ECM Consultants, Inc. to provide Environmental Services in support of the Jefferson Parish Pump Station Project 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 a proposed pump station to be located in the neutral ground of West Esplanade Boulevard across Orpheum Avenue from the 17th Street Canal. The designs include the outflow pipe being lifted above the existing levee and floodwall into the canal. Due to the proposed impacts to the levee from outflow pipe support piles, 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 in the West Esplanade/Lake Avenue vicinity.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
June 2023 (estimated)	N/A	$14,920

PROJECT NO. 6	
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**
Jefferson Transit Bus Stop Improvements District 4 Jefferson Parish, LA Gary E. Lehmann, P.E. Jefferson Parish Dept. of Capital Projects 1221 Elmwood Park Blvd., Suite 906 Jefferson, LA 70123 (504)736-6779 GLehmann@jeffparish.net	ELOS was contracted by the Jefferson Parish Government to assess and analyze the current condition of Jefferson Transit (JeT) bus stops in Jefferson Parish Council District 5 to assist in improvements to advance compliance with the Americans with Disabilities Act (ADA) of 1990 and 2009 by investigating the pedestrian facilities nearby, identifying priority areas, and creating a plan for connectivity and accessibility of bicycle, transit, and pedestrian facilities. ELOS utilized Geographic Information System (GIS) tools to assess and analyze transit assets and conditions to facilitate compliance with the "Louisiana Complete Streets" policy established by the Louisiana Department of Transportation and Development. The data collected included roadways, bus routes, and council district boundaries. A list of stops with geographic coordinates from the 2011 inventory report was cross-referenced with the COA list, which included ridership information. This dataset, along with other GIS mapping and imagery databases, were the basis for development of the GIS database for the project. In addition to these layers, the GIS team created fields for field assessment of the existing condition of transit-related infrastructure and immediate access at each stop. Each stop was paired with the nearest corner at the intersection of the bus route road way and the next cross street as determined by measurements using GIS

	data. Attributes in the GIS database were created for condition survey data such as pathways in the immediate vicinity of the bus stop, access to and from the corner along with curb conditions, crosswalks, and pedestrian aids such as detectable warning and signals.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
August 2018	N/A	$126,000

PROJECT NO. 7	
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**
Bayou Terre Aux Boeufs Ridge Restoration Armoring St. Bernard Parish John Lane St. Bernard Parish Government 8201 West Judge Perez Drive Chalmette, LA 70043 504.278.4223 jlane@sbpg.net	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. 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 area and worked with the geotechnical engineer to modify the boring plan to avoid these. Subsequently, ELOS arranged a pre-application meeting with the LASHPO and received approval on the modified work plan. This strategy prevented cost overruns and delays. Approximately 250 shovel test plots were investigated for the presence of artifacts, which were then evaluated and catalogued. 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 Corps (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.
Completion Date (Actual or estimated):	**Estimated Cost:**
	Entire Project: / **Work for which Firm was Responsible:**
August 2018	N/A / $126,000

TEC Professional Services Questionnaire

PROJECT NO. 8		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Plaquemines Parish Coastal Team Consulting Plaquemines Parish, LA Vincent Frelich Director of Coastal Restoration Plaquemines Parish Government 333 F. Edward Hebert Blvd., Bldg. 100, Suite 212, Belle Chasse, LA, 70037 504.297.5629 vfrelich@ppgov.net	ELOS was a key member of the Plaquemines Parish Coastal Team that 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 7 large scale coastal ridge and marsh restoration projects proposed by Plaquemines Parish Government for inclusion in its Coastal Master Plan. ELOS worked with 7 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.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
August 2014	N/A	$143,000

PROJECT NO. 9		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Lake Lery Marsh Creation and Rim Restoration St. Bernard Parish, LA John Lane St. Bernard Parish Government 8201 West Judge Perez Drive Chalmette, LA 70043 (504) 278-4223 jlane@sbpg.net	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 and completed an environmental review of site conditions to support a joint permit application to the regulatory agencies authorizing the project. ELOS has concurrently consulted with the USACE 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 has 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 are to be provided to Parish personnel for use in completing the project.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
May 2021	N/A	$59,000

TEC Professional Services Questionnaire

PROJECT NO. 10		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Lake Pontchartrain Shoreline Protection Tangipahoa Parish, LA Hon. Robby Miller Parish President Tangipahoa Parish Government 206 East Mulberry Street, Amite City, LA 70442	The Lake Pontchartrain Shoreline Protection Project involved the construction of two offshore breakwaters to protect the rapidly eroding shoreline extending from the existing breakwaters south to Pass Manchac and from the Tangipahoa River north to the Tangipahoa/St. Tammany Parish Line. In anticipation of the proposed constriction, ELOS was contracted to provide a section 106 review and pedestrian survey, and a phase I underwater cultural resources investigation to identify any cultural resources materials. ELOS also collected data and submitted applications for several permits to obtain authorization from the office of coastal management, USACE, Louisiana Department of Environmental Quality, and the Office of State Lands.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
December 2021	N/A	$93,400

TEC Professional Services Questionnaire

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

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

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

ELOS Environmental, LLC (ELOS) is a professional consulting firm established in 2006 by two young entrepreneurs and biologists from Tangipahoa Parish, Louisiana. Since its founding, ELOS has become one of the premier professional consulting firms in the state of Louisiana, performing a variety of technical services and managing projects at all levels of government. ELOS is a privately owned Limited Liability Company and a certified Louisiana Small and Emerging Business Enterprise (Certification No. 11198). ELOS's familiarity with federal, state, and local agencies and processes in combination with expertise in relevant scientific technologies result in streamlined environmental services for our clients, saving them time and money.

Our services include:

- Environmental Assessments & Monitoring
- Permit Applications
- Cultural Resources Services
- Mold, Asbestos, & Lead Testing
- Inspection Services
- GIS Services
- Drone Services
- Program Management
- Grant Management & Support

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

Signature: _____ **Print Name:** Lucas Watkins

Title: President **Date:** 7/26/22

City of Hammond, Louisiana

P.O. BOX 2788
HAMMOND, LA 70404
(985) 277-5616

2022

CITY LICENSE

DATE: 02/15/2022 LICENSE NUMBER: 120929

ACCOUNT#: 00029490

BUSINESS: ELOS ENVIRONMENTAL
607 W. MORRIS AVE
HAMMOND LA 70403

OWNERS:

LOCATION: 607 W MORRIS AVE
HAMMOND LA

LICENSES: Professional Services

PERIOD: January 1, 2022 TO DECEMBER 31, 2022

POST IN A CONSPICUOUS PLACE

THIS LICENSE IS NOT TRANSFERABLE

REVENUE & TAX COLLECTOR
CITY OF HAMMOND
Laura Hammett

Section 4

The Beta Group Engineering and Construction Services, LLC.

TEC Professional Services Questionnaire

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

Coastal Engineering Supplemental
Resolution No. 139868

B. Firm Name & Address:

The Beta Group Engineering and Construction Services, LLC
1428 1/2 Claire Avenue
Gretna, LA 70053

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:

Mark A. Cheek, P.E., FACI
Vice President/ Technical Manager
Email: mcheek@betagroupgc.com
(504)227-2273

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.

Alex Jaramillo, P.E.
Geotechnical Engineer
Email: alexj@betagroupgc.com
(504)227-2273

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

3 Administrative	2 Estimators	___ Specification Writers
___ Architects (Licensed)	___ Geologists	___ Structural Engineers
___ Chemical Engineers	___ Geotechnical Engineers	___ Graduate Engineers
3 Civil Engineers	___ Interior Designers	10 Project Managers
25 Construction Inspectors	___ Landscape Architects	3 Clerical
___ Ecologists	___ Land Surveyor	___ Grant/Funding Specialist
___ Electrical Engineers	___ Mechanical Engineers	___ Sanitary Engineers
1 Engineer Intern	___ Environmental Engineers	
___ Professional Land Surveyors		47 **TOTAL**

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

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

TEC Professional Services Questionnaire

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

1.
N/A

2.

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

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

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

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

50

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:

Mark A. Cheek, P.E. FACI
Vice President/ Technical Manager

Project Assignment:

Technical Manager

Name of Firm with which associated:

The Beta Group Engineering and Construction Services

Years' experience with this Firm:

23 with the Beta Group
7 with other firms

Education: Degree(s)/Year/Specialization:

B.S./1993/Civil Engineering, University of New Orleans
MS-Level Coursework since 1995

Active registration: Year first registered/discipline:

1999, Civil Engineer, Louisiana No. 28531
1999, Civil Engineer, Mississippi No. 14491

Other experience and qualifications relevant to the proposed Project:

As technical manager of Beta, Mr. Cheek is responsible for maintaining proper supervision and training for inspection personnel. He conducts technical classes and participates in the formulation of company policies. He solves problems with ongoing projects, reviews inspection reports for accuracy and completeness, and analyzes and interprets lab test results. When needed, he troubleshoots concrete field problems. Finally, as technical manager, he maintains the laboratory accreditation and technical competence.

Mr. Cheek's experience was gained in positions such as: construction materials field and laboratory testing technician, resident project engineer, structural design engineer, geotechnical engineer, and construction materials testing agency manager. His certifications include: ACI (Field Grade 1, Strength, Flatwork, Aggregate and Laboratory Testing Technician), F-Number Measurement Floor Profiler, Troxler, NRMCA Inspecting Engineer, and NRMCA Examiner for Pervious Concrete.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Murray D. White President/ Principle/ Quality Assurance
Project Assignment:
Quality Assurance
Name of Firm with which associated:
The Beta Group Engineering and Construction Services
Years' experience with this Firm:
23 with The Beta Group 2 with other firms
Education: Degree(s)/Year/Specialization:
1991-1994, coursework, University of Mississippi 1994-1995, coursework, Nicholls State University
Active registration: Year first registered/discipline:
N/A
Other experience and qualifications relevant to the proposed Project:
Mr. White has served as President of Beta since 1999. In his years with the firm, he established and maintained an appropriate quality assurance program at various levels of the organization. He has performed all required inspections and tests to maintain quality control and assure compliance to specifications, codes, and standards on multiple projects. Further, Mr. White established and maintained equipment calibration procedures and records, and provided detailed inspection procedures for various projects. In his career, Mr. White served as a Field Technician with another firm. He performed all necessary inspections and tests required to maintain quality control and assure adherence to project specifications, codes, and standards. He also dispatched inspectors to requested project sites to perform numerous tasks for contractors.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Alex Jaramillo, P.E. Geotechnical Engineer
Project Assignment:
Geotechnical Engineer
Name of Firm with which associated:
The Beta Group Engineering and Construction Services
Years' experience with this Firm:
11 with The Beta Group 16 with other firms
Education: Degree(s)/Year/Specialization:
B.S./1999/Civil Engineering, University of New Orleans
Active registration: Year first registered/discipline:
2011, Civil Engineering, Louisiana No. 36324
Other experience and qualifications relevant to the proposed Project:
Mr. Jaramillo is responsible for: All geotechnical activities including performing subsoil explorations, completion of soils laboratory testing, geotechnical analyses for projects and completion of the geotechnical report; Preparation, presentation and management of scope, budget, and work plan; Review daily field inspection reports for accuracy and completeness; Monitor the soil laboratory activities; Coordinate logistics; Supervise and interpret field & laboratory testing/data for use in engineering analyses; Ensure services provided are technically satisfactory and effective; Monitor that the project goals and quality objectives are being provided; Responsible for routine communication with client during the project; Prepare and review technical reports and ensure on-time delivery.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Hanna Jenkins, E.I. Project Engineer
Project Assignment:
Project Engineer
Name of Firm with which associated:
The Beta Group Engineering and Construction Services
Years' experience with this Firm:
10 Months
Education: Degree(s)/Year/Specialization:
B.S. Civil Engineering, 2022 University of New Orleans
Active registration: Year first registered/discipline:
2022, Civil Engineering, Louisiana No. 0035170
Other experience and qualifications relevant to the proposed Project:
Geotechnical Engineer BETA Group, Gretna LA / May 2022- Present • Perform analyses including, but not limited to: o Deep Foundation Design, Lateral Pile Analyses, Pavement Design, Seepage Analyses, Settlement Analyses, Sheet Pile Analyses, Slope Stability, Time Rate Analyses • Work with a variety of clients to perform analyses under the respective standards and regulations required at State and Local levels • Write proposals, fee schedules, and reports to be delivered to clients. Geotechnical Internship BETA Group, Gretna LA / September 2021 – May 2022 • Experience with gINT, other Geotechnical programs • Prepared Proposals and Fees in a precise, timely manner • Hands-on experience testing materials in the Materials Testing Lab and logging soil samples in the field • Practiced a multitude of analyses under the direction of a professional engineer

TEC Professional Services Questionnaire

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

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:	
Lafitte Tidal Protection Levee, Crown Point Basin Lafitte, LA Lafitte Levee District Mayor Tim Kerner 504-233-1109	The Beta Group provided geotechnical services relating to subsurface explorations. Geotechnical Engineering Analysis included: Allowable Pile Load Capacities, Slope Stability Analysis, Sheet Pile Analysis, Estimates of Settlement, and General Construction Procedures and Recommendations.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
Dec. 2018 (Estimated)	N/A	$348,000 (fee)

PROJECT NO. 2

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Lafitte Tidal Protection Levee, Pailet Tidal Levee Lafitte, LA Lafitte Levee District Mayor Tim Kerner 504-233-1109	The Beta Group provided geotechnical services relating to subsurface explorations. Geotechnical Engineering Analysis included: Allowable Pile Load Capacities, Estimates of Settlement, Slope Stability Analysis, Sheet Pile Analysis (if needed) and General Construction Procedures and Recommendations.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
Dec. 2018 (Estimated)	N/A	$92,000 (fee)

TEC Professional Services Questionnaire

PROJECT NO. 3		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility**	
Lafitte Tidal Protection Levee Lower 45 Lafitte, LA Lafitte Levee District Mayor Tim Kerner 504-233-1109	The Beta Group provided geotechnical services relating to subsurface explorations. Geotechnical Engineering Analysis included: Allowable Pile Load Capacities, Estimates of Settlement, Slope Stability Analysis, Sheet Pile Analysis and General Construction Procedures and Recommendations.	
Completion Date (Actual or estimated)	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2019 (Estimated)	N/A	$75,000 (fee)

PROJECT NO. 4		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Lafitte Tidal Protection Levee, Pailet Tidal Levee Lafitte, LA Lafitte Levee District Mayor Tim Kerner 504-233-1109	The Beta Group provided geotechnical services relating to subsurface explorations. Geotechnical Engineering Analysis included: Allowable Pile Load Capacities, Estimates of Settlement, Slop Stability Analysis, Sheet Pile Analysis (if needed) and General Construction Procedures and Recommendations.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2019 (Estimated)	N/A	$77,000 (fee)

TEC Professional Services Questionnaire

PROJECT NO. 5		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Levee Repair Project Lafitte, LA Lafitte Levee District Mayor Tim Kerner 504-233-1109	The Beta Group provided geotechnical services relating to subsurface explorations. Geotechnical Engineering Analysis included: Estimates of Settlement, Slope Stability Analysis, Acceptable Crown Widths and General Construction Procedures and Recommendations.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
Dec. 2018 (Estimated)	N/A	$27,000 (fee)

PROJECT NO. 6		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
West Barataria Marsh Creation Corridor Project Jefferson Parish, LA Aptim 2424 Edenborn Ave., Suite 450 Metairie Louisiana	The Beta Group provided geotechnical services relating to subsurface explorations. Geotechnical Engineering Analysis included: Allowable Pile Load Capacities, Estimates of Settlement, Slop Stability Analysis, Sheet Pile Analysis (if needed) and General Construction Procedures and Recommendations.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
Current Project	N/A	$192,000 (to date)

TEC Professional Services Questionnaire

PROJECT NO. 7		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Cheniere Caminada Breakwater Project Jefferson Parish, LA GIS Engineering 197 Elysian Drive Houma, Louisiana	The Beta Group provided geotechnical services relating to subsurface explorations. Geotechnical Engineering Analysis included: Allowable Pile Load Capacities, Estimates of Settlement, Slop Stability Analysis, Sheet Pile Analysis (if needed) and General Construction Procedures and Recommendations.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
Current Project	N/A	$95,000 (to date)

PROJECT NO. 8		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Lafitte Tidal Protection Levee Goose Bayou (Penn Levee), Basin Tidal Levee Lafitte, LA Lafitte Levee District Mayor Tim Kerner 504-233-1109	Beta provided geotechnical services relating to subsurface explorations. Geotechnical Engineering Analysis included: Allowable Pile Load Capacities, Estimates of Settlement, Slop Stability Analysis, Sheet Pile Analysis and General Construction Procedures and Recommendations.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
August 2017 (Actual)	N/A	$65,000 (fee)

TEC Professional Services Questionnaire

PROJECT NO. 9		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Clovelly and Brenton Canal Wiers Lafourche Parish, LA South Lafourche Levee District Windell Curole 985-632-7554	Beta provided geotechnical services relating to subsurface explorations. Geotechnical Engineering Analysis included: Allowable Pile Load Capacities, Estimates of Settlement, Slope Stability Analysis and General Construction Procedures and Recommendations.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2013 (Actual)	N/A	$10,000 (fee)

PROJECT NO. 10		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Ellendale Levee Rehabilitation Houma, LA Providence/GSE Bryan Breaud, PE 985-876-6380	Beta provided geotechnical services relating to subsurface explorations. Geotechnical Engineering Analysis included: Estimates of Settlement, Slope Stability Analysis and General Construction Procedures and Recommendations.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2015 (Actual)	N/A	$25,000 (fee)

TEC Professional Services Questionnaire

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

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

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

The Beta Group is a Gretna-based full-service geotechnical and construction materials testing laboratory. The Beta Group has provided construction materials testing and inspection on over 6,000 projects since 1997; key personnel have a combined 96 years of experience in construction materials testing. The firm is fully licensed to provide engineering services in the State of Louisiana. Our technicians are capable of performing the following services:
Geotechnical Services. Beta provides a full range of geotechnical services relating to subsurface explorations, soils laboratory testing and geotechnical engineering analyses. Our engineering staff includes Louisiana-registered professional engineers and has extensive experience in a wide range of projects that include buildings, drainage structures, roads, etc. Our geotechnical experience includes shallow foundations including settlement analyses, deep foundation systems including driven piles, drilled shafts and auger cast piles, pavement design including rigid and flexible pavements, full scale pile load testing and construction inspections. Our soils laboratory offers a variety of geotechnical testing such as moisture contents, Atterberg limits, unconfined compression tests, sieve analyses, specific gravities, organic contents, etc.
TBG has over 50 employees and is expanding in order to meet our growing client base. Our work force is composed of three registered professional engineers, a business development manager, an operations manager, three secretaries, and over 25 technicians. Our laboratory has been inspected by the U.S. Army Corps of Engineers and several independent calibration laboratories. We are also certified with the American Association of State Highway and Transportation Officials (AASHTO). We have the manpower and equipment to meet the deadlines and time-frame requirements set forth by our clients.

Further, TBG has an exemplary record in regards to cost control. We employ a comprehensive cost checking program throughout the execution of the project, and have had no problems in meeting budgetary guidelines.
The Beta Group is a recognized Disadvantaged Business Enterprise (DBE) by the following entities:
- Louisiana Unified Certification Program
- Mississippi Unified Certification Program
- Federal Aviation Administration (FAA)
- New Orleans Aviation Board (NOAB)
- Mayor's Office of Economic Development, City of New Orleans
- Sewerage & Water Board of New Orleans
- City of Jackson, Mississippi (MBE)

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

Signature: _____ **Print Name:** Murray White

Title: President **Date:** 7/26/22

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

Name:	Public Address:
Beta Group Engineering & Construction Services, LLC	Mr. Murray White1428 1/2 Claire Avenue Gretna, Louisiana 70053

License/Certificate Information w/ Supervision

License	Status	First Issuance Date	Expiration Date	Supervisor(s)
EF.0004838	Active	06/09/2011	09/30/2023	Mr. Mark Andrew Cheek # PE.0028531 - Active

Section 5

Desire Line, LLC.

TEC Professional Services Questionnaire

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

SOQ No. 22-036 Coastal Engineering Supplemental
Resolution No. 139868

B. Firm Name & Address:

Desire Line LLC
3813 Division Street
Metairie, LA 70002

(previously 1348 Chickasaw Avenue, Metairie, LA 70005)

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:

Alexandra "Alex" Gelpi Carter, AICP
President and CEO
Phone: 504-388-0482
Email: AlexGelpiCarter@Desire-Line.com

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

NA

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

1 Administrative	___ Estimators	___ Specification Writers
___ Architects (Licensed)	___ Geologists	___ Structural Engineers
___ Chemical Engineers	___ Geotechnical Engineers	___ Graduate Engineers
___ Civil Engineers	___ Interior Designers	1 Project Managers
___ Construction Inspectors	___ Landscape Architects	___ Clerical
___ Ecologists	___ Land Surveyor	1 Grant/Funding Specialist
___ Electrical Engineers	___ Mechanical Engineers	___ Sanitary Engineers
___ Engineer Intern	___ Environmental Engineers	
___ Professional Land Surveyors	4 Urban & Regional Planner	7 **TOTAL**

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

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

TEC Professional Services Questionnaire

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

1.
NA

2.
NA

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

I. List all subcontractors anticipated for this Project. Please note that <u>all subcontractors must submit a fully completed copy of this questionnaire</u>, 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. NA	NA	NA
2. NA	NA	NA
3. NA	NA	NA

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

4

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:

Alexandra Gelpi Carter, AICP
President & CEO

Project Assignment:

Project Manager
Senior Planner
Policy Writer
Outreach & Engagement Specialist
FEMA, CDBG-MIT and DR Subject Matter Expert

Name of Firm with which associated:

Desire Line LLC

Years' experience with this Firm:

1 year

Education: Degree(s)/Year/Specialization:

Master of Urban and Regional Planning, Housing and Finance Specialization, GPA 4.0 - University of New Orleans (2011)
Bachelor of Fine Arts, GPA 4.0 - Loyola University of New Orleans (2009)

Active registration: Year first registered/discipline:

AICP – American Institute of Certified Planners (2016 – Present)

Other experience and qualifications relevant to the proposed Project:

Alex is a Certified Planner with 12+ years of experience implementing best practices in community, state, and federal codes, grants, metrics, and programs and has a thorough understanding of federal guidelines and state enabling statues governing floodplain management, coastal zone management, drainage, comprehensive planning, and development. Alex was recognized in 2013 as Jefferson Parish Planning Employee of the Year and recognized by APA's Small Town and Rural Planning Division in 2017.

Alex has extensive experience providing outreach and engagement services including meeting speaker, moderator, facilitator, logistics manager, pre-meeting messaging and material preparation, and post meeting summaries, minutes and task follow-up. As Statewide Program Manager responsible for implementing the Louisiana Watershed Initiative, Alex developed, managed, and implemented a statewide outreach program, including development issuance the LWI Outreach and Engagement Toolkit. She hosted hundreds of community outreach events (both in person and virtual) to build consensus around opportunities to align and better manage water resources and flood risk statewide. She has demonstrated an ability to expertly lead and manage difficult discussions with the public, ensuring understanding while building trust towards mutual goals. Her work history as a Planning Director (St. John the Baptist Parish) and Comprehensive Planner (Jefferson Parish) has also developed an uncanny ability to focus discussions, capture and align public input, and ensure project goals remain the center of public debate.

In her development, management and delivery of the Statewide Data and Modeling Program ($142M), State Projects and Programs ($213M) and Local and Regional Projects and Programs ($570M), Alex has demonstrated an unparalleled capability to support other's understanding of recovery processes, leverage fund sources, establish local short and long-term priorities and assist clients with all administrative tasks both direct and indirect associated with executing all project phases. Her work history also demonstrates a keen ability to manage obligation of grant funding, reimbursement, and timely grant closeout. To this effect, in her three years working at the LA OCD, she facilitated the award of over $500M in local and regional projects.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Evelyn Cade Campo, CFM
Deputy CEO

Project Assignment:

Certified Floodplain Manager
Senior Planner
Policy & Outreach Specialist
FEMA, CDBG-MIT and DR Subject Matter Expert
Buyout and Elevation Housing Specialist

Name of Firm with which associated:

Desire Line LLC

Years' experience with this Firm:

1 year

Education: Degree(s)/Year/Specialization:

Master of Urban and Regional Planning, GPA 4.0, University of New Orleans (2013)
Concentration in Environmental and Hazard Mitigation Planning
Hazard Planning Certificate, University of New Orleans (2013)
Bachelor of Fine Arts, Savannah College of Art and Design, Savannah, GA (2010)

Active registration: Year first registered/discipline:

Certified Floodplain Manager (2013)

Other experience and qualifications relevant to the proposed Project:

Evelyn is a Certified Floodplain Manager (CFM) with 10+ years of multi-departmental governmental coordination experience. She has designed programs to invest over $1.2 billion in federal funding by multiple state agencies for innovative watershed management and resilience projects, and has proven expertise in drafting, researching, and administering resilience programs and policy. She has built a reputation for detail-oriented research, land use and regulatory analysis; developing highly effective, community-specific long-term recommendations; and feasible implementation schedules as part of studies that meaningfully advance community goals.

Evelyn has a keen understanding of local permitting, floodplain management and coastal zone management from firsthand experience administering these functions at the parish level in St. John. In addition to her local floodplain management experience, she is a seasoned project manager for state and federal grant projects, including a specialized focus in compliance for HUD and FEMA programs including CDBG, Public Assistance, HMGP, BRIC (formerly PDM), federal coastal programs like RESTORE Act Funding and GOMESA, and WRDA and USACE funded projects. Through her involvement in major infrastructure project management, she has stretched federal dollars and brought innovation and simplicity to complex multi-stakeholder projects. She is an expert in finding and administering grants on aggressive timelines, including CDBG-MIT and CDBG-CV programs and most recently mobilized a buyout program in Lake Charles, Louisiana in one month and managed a project expending $5 billion in coronavirus recovery funding.

Evelyn has extensive experience providing services including meeting speaker, moderator, facilitator, logistics manager, pre-meeting messaging preparation, and post meeting summaries and minutes. As a Resilience Planning Specialist supporting the implementation of the Louisiana Watershed Initiative, Evelyn supported all outreach efforts associated with Region 7 (Capital Region Planning Commission) and Region 8 (New Orleans Regional Planning Commission) including hosting in person and virtual meetings in support of building consensus around opportunities to align and better manage water resources and flood risk statewide.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Nicolette Jones
Senior Planner & Grants Manager

Project Assignment:

Senior Planner
Grants Manager
Outreach Specialist

Name of Firm with which associated:

Desire Line LLC

Years' experience with this Firm:

1 year

Education: Degree(s)/Year/Specialization:

Master of Urban and Regional Planning, University of New Orleans, LA (2012)
Specialization in Transportation Planning
Bachelor of Political Economy, Tulane University, New Orleans, LA (2005)

Active registration: Year first registered/discipline:

NA

Other experience and qualifications relevant to the proposed Project:

Nicolette Jones is a professional urban and regional planner with over 10 years of experience. She has been involved in the development of several major planning and policy initiatives involving extensive public outreach in Greater New Orleans and in the state of Louisiana. She has expertise in land use regulation and zoning administration, CDBG-DR and CDBG-MIT grants management, climate action planning, municipal capital improvement planning, as well as pedestrian and bicycle planning. Her skills include technical writing, policy research and data collection, stakeholder engagement, development of plans, studies and recommendations to address planning issues, intergovernmental relations, data analysis, Spanish language fluency, and project management.

As a Senior Planner working with the New Orleans Board of Zoning Adjustments and City Planning Commission; she led, authored, and publicly presented comprehensive planning studies to advise the New Orleans City Council on land use and development policy; prepared staff reports and recommendations for the City Planning Commission and Board of Zoning Adjustments, providing technical support regarding specific land use, subdivision, or variance requests; and contributed to the development of transportation plans and projects in consultation with local transportation agencies and stakeholder groups including the New Orleans Department of Public Works and the New Orleans Regional Transit Authority.

Nicolette has extensive experience providing services including facilitator, pre-meeting messaging preparation, and post meeting summaries and minutes. As a Resilience Planning Specialist supporting the implementation of the Louisiana Watershed Initiative, Nicolette supported all outreach efforts associated with the Regional Capacity Building Grant Program including hosting in person and virtual meetings in support of building consensus around opportunities to align and better manage water resources and flood risk statewide.

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:	
Project Name: Code and Integrated Green Infrastructure Strategy Location: Jefferson Parish, LA Contact: Brooke Perry Tolbert Assistant Director, Planning Department Jefferson Parish Government 1221 Elmwood Park Blvd, Suite 601 Jefferson, LA 70123 O: 504-736-6354 E: BPerry@JeffParish.net	In partnership with Volkert, Inc. (prime) and Meyer Engineers, Ltd., Alex Carter developed the December 2021 Draft Jefferson Parish Stormwater and Green Infrastructure Plan and Code Update. Project included analysis of parishwide flood risk and project development location priorities, recommendations to leverage grants in furtherance of Plan objectives, production of draft Code amendments to incorporate recommended plan standards into land development review processes, presentation of drafting findings and analysis at public meetings, and long-term implementation schedule to assist the parish in organizing efforts to effectively reduce flood risk, including the incorporation of natural and green infrastructure parishwide.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
12/23/2021	$200,000	$28,000

PROJECT NO. 2

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Project Name: Unified Development Code Update Location: St. Tammany Parish, LA Contact: Ross P. Liner, AICP, PTP, CFM Director of Planning and Development St. Tammany Parish Government 21454 Koop Drive, Building B, Mandeville, LA 70471 P: 985.898.2529 E: rliner@stpgov.org	In partnership with Fairway Consulting & Engineering LLC (prime) and Villavaso and Associates LLC, Desire Line LLC has drafted a code rewrite of St. Tammany Parish Code of Ordinances, Part II, Land Development Code, including reorganization and reformatting Part II into a Unified Development Code, development of new zoning district, sign, landscaping, accessory uses, nonconforming uses, definitions, stormwater, and subdivision standards and regulations, as well as land development processes, in accordance with best practices. Responsibilities include project management, code research, code drafting, code formatting, comment resolution, development of meeting agendas, development and maintenance of comment/decision resolution matrices, meeting presentations, meeting facilitation and moderation, summaries, and next steps tracking.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
12/31/2022	$350,000	$100,000

TEC Professional Services Questionnaire

PROJECT NO. 3		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility**	
Project Name: Land Development Code Update Location: West Feliciana Parish, LA Contact: Stephen D. Villavaso, President Villavaso & Associates, LLC 6304 Beauregard Avenue New Orleans, LA 70124 P:(504) 343 - 9096 E: svillavaso@cox.net	In partnership with Villavaso and Associates LLC (prime), Desire Line LLC has completed a re-write of West Feliciana's Code of Ordinances, Land Development Code, including new procedures, subdivision standards, zoning district regulations, and land development processes to reflect the parish's rural character, preserve open space and natural functions of the floodplain, and support future growth in alignment with flood risk and the natural environment. Responsibilities include development of meeting agendas, comment/decision resolution matrices, meeting presentations, meeting facilitation and moderation, summaries, and next steps tracking.	
Completion Date (Actual or estimated)	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
05/31/2022	$40,000	$20,000

PROJECT NO. 4		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Project Name: Belle Terre Gateway Project Location: St. John the Baptist Parish, LA Contact: Mr. Rene Pastorek Planning and Zoning Director St. John the Baptist Parish 1801 West Airline Highway LaPlace, LA 70068 P: (985) 651- 5565 E: r.pastorek@stjohn-la.gov	In partnership with Meyer Engineers, Ltd (prime) and Dana Brown and Associates, Desire Line LLC provided project management services and developed a scope report and alternatives analysis for the clearing and redevelopment of the Interstate 10 interchange at the Belle Terre Exit to LaPlace, Louisiana. Responsibilities included project management, meeting facilitation with parish staff; review of existing plans in accordance with state and federal guidelines and best practices in gateway alternatives; coordination with DOTD and DNR regarding ongoing awareness and identification of relevant processes to complete; and site research, analysis, and mapping.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
04/31/2022	$35,000	$13,200

TEC Professional Services Questionnaire

PROJECT NO. 5		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Project Name: Floodplain Management Support for Substantial Damage Estimates Location: Terrebonne Parish, LA Contact: Christopher M. Pulaski, PLA Director, Planning & Zoning Terrebonne Parish Consolidated Government P: (985) 873-6569 E: cpulaski@tpcg.org	As a result of Hurricane Ida impacts, Desire Line (prime) completed FEMA substantial damage determinations in coordination with Terrebonne Parish Planning and Permitting staff in fulfillment of minimum NFIP requirements. Work included field data collection on more than 35,000 private properties, development of damage determination methodology, daily reporting, permitting staff support, elevation certification scanning support services, preparation and presentation of final report and presentation. Ongoing services include permitting staff support to ensure continued FEMA compliance.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
12/31/2022	$270,000	$230,000

PROJECT NO. 6		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Project Name: Floodplain Management Support for Substantial Damage Estimates Location: City of Kenner, LA Contact: Tiffany Wilken Interim Director Inspection & Code Enforcement City of Kenner P: (504)975-8976 E:twilken@kenner.la.us	Desire Line LLC (prime) completed FEMA substantial damage determinations in coordination with the City of Kenner Code Enforcement staff in fulfillment of minimum NFIP requirements. Work included review of field data collected to-date, select field data collection and verification, development of damage determination methodology, completion of substantial damage determinations for properties identified by the City and suspected by FEMA as substantially damaged, weekly reporting, preparation and presentation of final report and presentation, and permitting staff support.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
03/31/2022	$165,000	$165,000

TEC Professional Services Questionnaire

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

Parties:		Status/Result of Case:
Plaintiff:	**Defendant:**	
1. NA	NA	NA
2. NA	NA	NA
3. NA	NA	NA
4. NA	NA	NA

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

Desire Line LLC is a local, woman-owned and operated limited liability company, a Certified-Active Small Entrepreneurship, a Small and Emerging Business Enterprise, and DOTD Certified DBE. President and CEO, Alex Carter, is a lifelong resident of Jefferson Parish and able to translate her experience into studies, plans and projects that local stakeholders identify with and support. To this effect, Desire Line staff have first-hand experience (1) advancing economic development in Louisiana communities, (2) furthering neighborhood revitalization efforts built upon major infrastructure investments, (3) submitting compliance documentation to FEMA and HUD regarding unique floodplain issues such as: functionally dependent uses, V-Zone and floodway construction and retrofit, temporary and non-traditional building types, (4) funding/managing local project/permitting large infrastructure assets in high hazard areas, (5) providing environmental review and clearance for institutional buildings, acquisition, and infrastructure projects, (6) reviewing BCA and eligible cost analysis for FEMA funded projects, (7) performing duplication of benefits review and verification, (7) conducting Stafford Act and Cross-Cutting federal compliance review.

Desire Line staff have won awards for work performed to this effect (Planner of the Year, Jefferson Parish) and been recognized nationally (APA Small Town and Rural Planning Division) for their accomplishments. Desire Line staff have built a reputation for high-quality project management, effective public outreach, elevated standards in meeting facilitation, messaging, communication management, deliverable development and finalization, specialized expertise in issue resolution, and ingenuity in smart growth, coastal, nature-based solutions, water management and revitalization projects. We are detail-oriented and can provide support to develop highly effective, community-specific projects, with feasible implementation schedules that meaningfully advance community goals.

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

Signature: _____ **Print Name:** Alexandra G. Carter

Title: President & CEO **Date:** July 28, 2022

ARTICLES OF INCORPORATION

UNITED STATES OF AMERICA

State of Louisiana

R. Kyle Ardoin

SECRETARY OF STATE

As Secretary of State of the State of Louisiana, I do hereby Certify that

a copy of the Articles of Organization and Initial Report of

DESIRE LINE LLC

Domiciled at METAIRIE, LOUISIANA,

Was filed and recorded in this Office on August 09, 2021,

And all fees having been paid as required by law, the limited liability company is authorized to transact business in this State, subject to the restrictions imposed by law, including the provisions of R.S. Title 12, Chapter 22.

In testimony whereof, I have hereunto set my hand and caused the Seal of my Office to be affixed at the City of Baton Rouge on,

August 9, 2021

Secretary of State

WEB 44542527K

STATE OF LOUISIANA · UNION · JUSTICE · CONFIDENCE · SECRETARY OF STATE

Certificate ID: 11439433#EGG62

To validate this certificate, visit the following web site, go to **Business Services**, **Search for Louisiana Business Filings**, **Validate a Certificate**, then follow the instructions displayed.
www.sos.la.gov

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SECRETARY OF STATE

Agent Affidavit and Acknowledgement of Acceptance

Charter Number: 44542527K

Charter Name: DESIRE LINE LLC

The agent / agents listed below accept the appointment of registered agent for and on behalf of the Charter Name above.

Date Responded	Agent(s)	Agent(s) Electronic Signature
08/09/2021	ALEXANDRA CARTER	ALEXANDRA CARTER

ECM Consultants, Inc.
1301 Clearview Parkway, Suite 200, Metairie, Louisiana 70001