



STATEMENT OF QUALIFICATIONS

**Independence Park Drainage
Pump Station Project**

SOQ 24-029 – Resolution No. 144443

Prepared For: Jefferson Parish

August 29, 2024



ATTN:

August 29, 2024

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

RE: Independence Park Drainage Pump Station Project in Jefferson Parish, SOQ 24-029

Dear Council Members,

Trigon Associates, LLC (Trigon) is delighted to present our Statement of Qualifications (SOQ) to Jefferson Parish (Parish) for the specified project. Our submission aligns seamlessly with the advertised Request for Qualifications.

As a Louisiana Small Business Enterprise (SBE) and a woman-owned business, Trigon specializes in delivering engineering, consulting, and management services. Our team boasts over 125 years of collective expertise, particularly in municipal and public works projects, focusing on drainage/ stormwater, water, sewer, and transportation domains. We bring extensive experience with federal, state, and local grant programs, positioning us as a capable partner for the Parish's needs.

Key highlights of our qualifications include:

- Trigon's leadership features two former Jefferson Parish employees, amassing over 15 years of service within the Parish. One held roles as the Sewerage Capital Improvements Program Manager, Assistant Director, and Acting Director within the Department of Sewerage.
- Our team includes seasoned program managers, design managers, construction managers, and engineers with diverse backgrounds across multiple capital improvement programs, notably in sewer projects.
- We are proud to have professional engineers registered in Louisiana, Alabama, Arkansas, California, Florida, Mississippi, New York, Oklahoma, Texas, Virginia, and Washington, DC.
- Trigon has a proven track record in planning, engineering, design, construction inspection, construction management, and certification efforts for drainage projects.

We are grateful for the opportunity to present our SOQ and eagerly anticipate the chance to strengthen Trigon's partnership with the Parish through successful collaborations. Should you require any further information during the evaluation process, please feel free to reach out to us at your convenience.

Sincerely,

A handwritten signature in blue ink that reads 'Michelle Herbert'.

Michelle Herbert
Chief Executive Officer



TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

Professional Engineering Services for the Independence Park Drainage Pump Station Project

SOQ 24-029, Resolution No. 144443

B. Firm Name & Address:



Trigon Associates, LLC

1515 Poydras Street, Suite 930
New Orleans, LA 70112

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:

Gregory A. Kolenovsky, PE, PMP, PgMP (LA Professional Civil Engineer #30266)

Managing Partner/Principal-in-Charge

Trigon Associates, LLC

1515 Poydras Street, Suite 930, New Orleans, LA 70112

P: 504.585.5767 F: 504.585.5747

gkolenovsky@trigonassociates.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

SAME AS ITEM C.

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

<u>3</u> Administrative	<u> </u> Estimators	<u> </u> Specification Writers
<u>1</u> Architects (Licensed)	<u>2</u> Geologists	<u>1</u> Structural Engineers
<u>1</u> Chemical Engineers	<u> </u> Geotechnical Engineers	<u> </u> Graduate Engineers
<u>6</u> Civil Engineers	<u> </u> Interior Designers	<u>2</u> Project Managers
<u>4</u> Construction Inspectors	<u> </u> Landscape Architects	<u> </u> Clerical
<u> </u> Ecologists	<u> </u> Land Surveyor	<u>1</u> Grant/Funding Specialist
<u> </u> Electrical Engineers	<u>1</u> Mechanical Engineers	<u> </u> Sanitary Engineers
<u> </u> Engineer Intern	<u>2</u> Environmental Engineers	<u>9</u> Other
<u> </u> Professional Land Surveyors		<u>33</u> TOTAL

F. Is this submittal 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: N/A
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. BFM Corporation, LLC 534 Williams Boulevard Kenner LA 70062 504-468-8800	Surveying	Yes
2. Eustis Engineering Services, LLC 3011 28th Street Metairie, LA 70002 (504) 834-0157	Geotechnical Engineering	Yes

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

N/A



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:

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Greg Kolenovsky, PE, PMP, PgMP

Managing Partner

Project Assignment:

Review/QA & QC

Name of Firm with which associated:



Years' experience with this Firm:

15

Education: Degree(s)/Year/Specialization:

BS in Civil Engineering, University of Texas at Austin, 1998

Active registration: Year first registered/discipline:

2002, Civil Engineer, Louisiana (also registered in AL, AR, FL, MS, OK, TX and D.C.)

2005, Project Management Professional (PMP), Project Management Institute

2010, Program Management Professional (PgMP), Project Management Institute

Other experience and qualifications relevant to the proposed Project:



Greg brings over 25 years of experience in planning, design, and management. His expertise includes managing drainage, water, sewer, transportation, environmental, and construction projects, as well as large capital improvement and international development programs. Greg excels in system analysis, troubleshooting, and computer modeling of hydrologic and water resource systems, and his experience extends to designing treatment, storage, and distribution projects. As Principal-in-Charge, Greg ensures the highest standards of quality assurance and control (QA/QC) for all of Trigon's infrastructure projects. He has led numerous federally funded disaster recovery, hazard mitigation, and coastal restoration programs, with a project portfolio that includes initiatives in the Middle East, Jordan, and Asia. Greg is a licensed Professional Engineer (PE) in Louisiana and seven other states. He also holds certifications as a Project Management Professional (PMP) and Program Management Professional (PgMP) from the Project Management Institute, making him one of the few PgMPs worldwide and among a select group in Louisiana.

As Principal-in-Charge, Greg ensures the highest standards of quality assurance and control (QA/QC) for all of Trigon's infrastructure projects. He has led numerous federally funded disaster recovery, hazard mitigation, and coastal restoration programs, with a project portfolio that includes initiatives in the Middle East, Jordan, and Asia. Greg is a licensed Professional Engineer (PE) in Louisiana and seven other states. He also holds certifications as a Project Management Professional (PMP) and Program Management Professional (PgMP) from the Project Management Institute, making him one of the few PgMPs worldwide and among a select group in Louisiana.

RELEVANT PROJECT EXPERIENCE

Abita Nursery Drainage Improvements; St. Tammany Parish, LA. Principal-in Charge for design improvements based on a prior hydrologic and hydraulic (H&H) study of the Abita Nursery Subdivision and surrounding area, which Trigon also completed. The improvements included two (2) new retention ponds, improvements to existing drainage channels, new ditches and culverts, and updating the hydrologic/hydraulic model for the area.



TEC Professional Services Questionnaire

Kolenovsky, continued.

Other experience and qualifications relevant to the proposed Project:

Abita Nursery Drainage Study; St. Tammany Parish, LA. Principal-in Charge for a hydrologic and hydraulic (H&H) study of an approximately 130-acre area, inclusive of the Abita Nursery Subdivision and surrounding area. The area experiences nuisance flooding due to inadequate drainage, and this project aims to remedy the situation. Drainage infrastructure in the project area consists primarily of a surface drainage system of ditches within the rights-of-way and culverts beneath numerous driveways and access roads into private property. Project was recently completed in July 2018.

Engineers Road/Cazalard Road Hazard Mitigation Drainage Improvements; Plaquemines Parish, LA. Serving as Principal-In-Charge for this project which consists of a Phase I study and design services associated with Hazard Mitigation drainage improvements in the vicinity of Engineers Rd and Cazalard Rd, under HMGP #1603-075-009, FEMA-1603-DR-LA, Project #0240. Generally includes evaluating multiple drainage canals and ditches, a culvert crossing of a major roadway, and evaluation to construct a new drainage pump station to replace a temporary “tractor pump” currently being used by the Parish. Includes necessary surveying and data collection, a hydrologic and hydraulic (H&H) study, identification of necessary improvements, preparation of a preliminary cost estimate, and performing preliminary and final engineering design services.

Barriere Road Drainage Improvements; Plaquemines Parish, LA. Served as project manager for this project which consists of the design of drainage improvements at the existing Barriere Road retention pond, located adjacent to the Medal of Honor Park. These improvements were intended to increase the drainage capacity in the area and better handle wet weather conditions. Efforts generally consisted of the design and construction of improvements to the retention pond (including improvements to a bar screen and the suction basin for an existing pumping station), a new pumping station, along with its associated discharge piping.

Drainage System Engineering Analysis, New Orleans, LA. Provided Project Management and oversight to Trigon staff for an engineering analysis of the condition of select sections of the City’s minor drainage system to determine if damage related to Hurricane Katrina or its immediate aftermath existed. This project included planning, coordination, and control of activities required to perform a drainage system assessment, as well as resident inspection services during the drainage system analysis and the analysis of GIS data on the locations of full block length FEMA eligible Katrina-related water line and sewer line replacement work.

Drainage Master Plan; New Orleans, LA. Served as a project engineer for this effort, which consisted of developing a master plan for the subsurface drainage system in the city. Main tasks/ components include building and calibrating a hydraulic model, assessing the hydraulic capacity of the system, assessing physical condition, reviewing regulatory requirements for storm water, establishing design standards and guidelines, developing a maintenance program, performing an economic rate study and developing a capital improvement plan.



TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Regina Cassanova, PE

Principal

Project Assignment:

Project Manager

Name of Firm with which associated:



Years' experience with this Firm:

13

Education: Degree(s)/Year/Specialization:

BS in Civil Engineering, University of New Orleans, 2003

Active registration: Year first registered/discipline:

2010, Civil Engineer, Louisiana (Also registered in FL and TX)

Other experience and qualifications relevant to the proposed Project:



Regina has over 23 years of extensive experience in the planning, engineering, design, construction, and management of municipal flood control, water and wastewater systems. She brings a wealth of expertise in the development of collection and distribution systems, pumping stations, and water and wastewater treatment plants. Her diverse skill set encompasses process and mechanical design, civil engineering, and recycled water treatment. Before joining Trigon, Ms. Cassanova served as a process engineer for two internationally recognized engineering firms, where she specialized in membrane technology and water/wastewater treatment. She is a licensed Professional Engineer in Louisiana, Florida, and Texas, and holds a Bachelor of Science in Civil Engineering. Regina excels in project and program management, regulatory compliance, and capital improvement programs. Her experience also includes managing projects related to drainage, storm water, roads, buildings, and facilities, as well as disaster recovery and hazard mitigation projects involving FEMA and GOHSEP. Her project portfolio also includes international work in the United States, Australia, Haiti, Jordan, Libya, and Palestine.

RELEVANT PROJECT EXPERIENCE

Abita Nursery Drainage Study; St. Tammany Parish, LA. Project Manager for a hydrologic and hydraulic (H&H) study of an approximately 130-acre area, inclusive of the Abita Nursery Subdivision and surrounding area. The area experienced nuisance flooding due to inadequate drainage, and this project aims to remedy the situation. Drainage infrastructure in the project area consisted primarily of a surface drainage system of ditches within the rights-of-way and culverts beneath numerous driveways and access roads into private property.

Abita Nursery Drainage Improvements; St. Tammany Parish, LA. Served as Project Manager for design improvements based on a prior hydrologic and hydraulic (H&H) study of the Abita Nursery Subdivision and surrounding area, for which she also served as Project Manager. The improvements included two (2) new retention ponds, improvements to existing drainage channels, new ditches and culverts, and updating the hydrologic/hydraulic model for the area.



TEC Professional Services Questionnaire

Cassanova, continued.

Other experience and qualifications relevant to the proposed Project:

Engineers Road/Cazalard Road Hazard Mitigation Drainage Improvements; Plaquemines Parish, LA.

Serving as Project Engineer for this project which consists of a Phase I study and design services associated with Hazard Mitigation drainage improvements in the vicinity of Engineers Rd and Cazalard Rd, under HMGP #1603-075-009, FEMA-1603-DR-LA, Project #0240. Generally includes evaluating multiple drainage canals and ditches, a culvert crossing of a major roadway, and evaluation to construct a new drainage pump station to replace a temporary “tractor pump” currently being used by the Parish. Includes necessary surveying and data collection, a hydrologic and hydraulic (H&H) study, identification of necessary improvements, preparation of a preliminary cost estimate, and performing preliminary and final engineering design services.

Barriere Road Drainage Improvements; Plaquemines Parish, LA. Project Engineer for this project, which consists of the design of improvements to existing Barriere Road retention pond as part of the overall improvements to the Medal of Honor Park. Improvements include design and construction of a new pumping station along with its associated discharge force main into the Intracoastal Canal. These improvements were intended to increase the drainage discharge capacity to accommodate wet weather conditions.

Post-Katrina Cleaning of Subsurface Drainage System; New Orleans, LA. Fast-track project to clean the city’s storm drainage system of debris following Hurricane Katrina. Generally consisted of cleaning drainage catch basins, manholes and pipelines. Required mobilization of approximately 100 vacuum trucks from around the country and management of over 300 project staff. This \$34 million project was completed within three months.

Delta Aire Drive Infrastructure Improvements, Plaquemines Parish, LA. Served as project engineer for this effort to improve the infrastructure along this concrete street. Scope included improvements to the existing drainage system to increase capacity and minimize street flooding, installation of a new water line, repairs to the sewerage systems, and associated roadway reconstruction.

Louis Morel Lane Infrastructure Improvements, Buras, LA. Included assessment design, bid support and construction phase services for rehabilitating a portion and reconstructing a portion of a 1,300’ residential asphalt street. Also included re-designing/improving drainage capacity along the street by installing new catch basins and culverts and re-shaping/relocating a drainage ditch along the street. A new outlet for the storm water was installed to discharge to a large drainage canal at the back of the street. Project also included significant water system improvements, with over 1,200 LF of new water mains, valves and hydrants.

Northeast Turtle Bay Marsh Creation & Critical Area Shoreline Protection Project (BA-206); Lafitte, LA. Provided project management, design and engineering for this coastal restoration and environmental resilience project to protect the critical reaches of shoreline on the Northeast side of Turtle Bay and involved marsh creation, shoreline protection utilizing borrow material from Turtle Bay, and channel liners to protect current channels from erosion and widening. The project was assigned as a task order under an IDIQ contract with the USDA NRCS for which Trigon is the Prime contract holder. Regina served as Trigon’s PM through 95% Design before transitioning that role to another person and continuing to provide technical and management support.



TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Erin Lyons-Villatoro, PE

Senior Engineer

Project Assignment:

Sr. Project Engineer

Name of Firm with which associated:



Years' experience with this Firm:

7

Education: Degree(s)/Year/Specialization:

MS in Civil Engineering, Arizona State University, 2005

BS in Agricultural Engineering, Texas A&M, 2003

Active registration: Year first registered/discipline:

2010, Civil Engineer, Texas

Other experience and qualifications relevant to the proposed Project:



Erin is a seasoned civil engineer with 17 years of experience in process design, mechanical design, and civil engineering. She has worked extensively with multidisciplinary teams to deliver successful municipal infrastructure projects, such as water treatment facilities, water transmission systems, sewer systems, and drainage systems. Erin's expertise extends beyond general civil engineering to specialized areas.

She has a robust background in water system evaluation, chemical storage and delivery systems, and low-pressure membrane systems. She is also proficient in groundwater well design and various water resources projects. Additionally, her skills include detailed project cost estimating, ensuring that projects are completed within budget and on schedule.

RELEVANT PROJECT EXPERIENCE

Engineers Road/Cazalard Road Hazard Mitigation Drainage Improvements, Belle Chasse, LA. Project Engineer for preliminary and final design phases of this FEMA-funded HMGP project. Improvements generally consisted of new subsurface drainage, improving ditches and canals, replacing multiple culverts, and constructing a new drainage pump station to replace a temporary pump station.

Abita Nursery Drainage Study; St. Tammany Parish, LA. Served as Project Engineer for a hydrologic and hydraulic (H&H) study of an approximately 130-acre area, inclusive of the Abita Nursery Subdivision and surrounding area. The area experiences nuisance flooding due to inadequate drainage, and this project aims to remedy the situation. Drainage infrastructure in the project area consists primarily of a surface drainage system of ditches within the rights-of-way and culverts beneath numerous driveways and access roads into private property.



TEC Professional Services Questionnaire

Lyons-Villatoro, continued.

Other experience and qualifications relevant to the proposed Project:

Abita Nursery Drainage Improvements; St. Tammany Parish, LA. Project Engineer for design improvements based on a prior hydrologic and hydraulic (H&H) study of the Abita Nursery Subdivision and surrounding area, which Trigon also conducted. The improvements included two (2) new retention ponds, improvements to existing drainage channels, new ditches and culverts, and updating the hydrologic/hydraulic model for the area.

Modifications to Return Activated Sludge PS and Pipeline, New Orleans, LA. Project engineer for the design of modifications to the discharge header in the North RAS Pump Station and replacement of the associated RAS pipeline to the raw sewage channel at the S&WB's 200 MGD East Bank Sewage Treatment Plant. Also includes permanent relocation of the infrastructure where sludge from the West Bank Sewage Treatment Plant is received.

E. 9th Avenue Lift Station Improvements; Shreveport, LA. Project Engineer for this project that consists of replacing/converting an existing suction-lift sewage pumping station to a submersible pump station.

District B Miscellaneous Water Improvements; Shreveport, LA. Project Engineer for detailed design in support of replacement of 4,000 linear feet of 8-inch potable water line for the City of Shreveport (COS). Responsibilities included field-confirmation of survey, coordination with existing utilities, design of new water line locations in plan and profile in accordance with COS standard specifications and details, and coordination with CAD support team.

East Bank Wastewater Treatment Plant Bleach Disinfection System, New Orleans, LA. Project Engineer for the design of a bleach disinfection system that will replace the existing gaseous chlorine injection system at the Sewerage & Water Board of New Orleans' 200 MG East Bank WWTP. The existing disinfection system used gaseous chlorine delivered via railway and stored onsite in the delivered tank cars. Recent changes in the ability to receive gaseous chlorine via railway created the need for another disinfection method to be available for use at the WWTP.

West Bank Wastewater Treatment Plant Piping & Valve Identification and Rehabilitation Master Plan, New Orleans, LA. Project Engineer for a physical evaluation and assessment of the WBWWTP, a 20 MGD trickling filter facility. This project focused on creating an inventory of all the piping and valves, assessing the physical and operational condition of the assets, and then developing a master plan to replace and/or rehabilitate the assets to ensure long-term reliability and sustainability.



TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Barry Breaux, PE

Engineer

Project Assignment:

Project Engineer

Name of Firm with which associated:



Years' experience with this Firm:

7

Education: Degree(s)/Year/Specialization:

BS in Civil Engineering, Louisiana State University, 2017

Active registration: Year first registered/discipline:

2022, Professional Engineer, Louisiana

Other experience and qualifications relevant to the proposed Project:



Barry is an accomplished civil engineer with over 7 years of experience. His diverse portfolio includes municipal infrastructure assessments and improvements, environmental laboratory work, testing, and sustainability initiatives. As a licensed Professional Engineer (PE) in Louisiana and Texas, Barry delivers design and engineering services across a broad spectrum of municipal infrastructure projects, such as drainage studies and improvements, wastewater facilities and treatment, and water system projects. His previous role as Trigon's on-site engineer and construction inspector at two Sewerage and Water Board of New Orleans Wastewater Treatment Plants underscores his hands-on experience and commitment to ensuring the integrity of critical infrastructure. In addition to his professional endeavors, Barry actively engages with professional associations such as the Louisiana Water Environmental Association. He also contributes his expertise to humanitarian efforts as a member of Engineers Without Borders, reflecting his dedication to leveraging engineering for positive societal impact.

RELEVANT PROJECT EXPERIENCE

Engineers Road/Cazalard Road Hydrologic & Hydraulic Study and Drainage Improvements; Belle Chasse, LA. Provided field verification and design support services for improvements to multiple drainage canals and ditches, a culvert crossing of a major roadway, subsurface drainage, and evaluation and design to construct a new drainage pump station that discharges over a levee into the Intracoastal Waterway (GIWW). Also supporting environmental permitting efforts for the project.

Abita Nursery Drainage Study; St. Tammany Parish, LA. Project Engineer for a hydrologic and hydraulic (H&H) study of an approximately 130-acre area, inclusive of the Abita Nursery Subdivision and surrounding area. The area experienced nuisance flooding due to inadequate drainage, and this project aims to remedy the situation. Drainage infrastructure in the project area consisted primarily of a surface drainage system of ditches within the rights-of-way and culverts beneath numerous driveways and access roads into private property.



TEC Professional Services Questionnaire

Breaux, continued.

Other experience and qualifications relevant to the proposed Project:

Abita Nursery Drainage Improvements; St. Tammany Parish, LA. Served as Project Engineer for design improvements based on a prior hydrologic and hydraulic (H&H) study of the Abita Nursery Subdivision and surrounding area, which Trigon also conducted. The improvements included two (2) new retention ponds, improvements to existing drainage channels, new ditches and culverts, and updating the hydrologic/hydraulic model for the area.

Hurricane Harvey Disaster Cost Recovery for Wastewater Lift Stations; City of Houston, TX. Provided engineering support services related to detailed asset inventories, damage assessments, and documentation for 36 lift stations damaged during the Hurricane Harvey disaster.

E. 9th Avenue Lift Station (LS#4) Improvements; Covington, LA. Engineer support for site survey, preliminary and final design, bidding and construction phase services associated with the removal of the existing lift station pumps, rehabilitation of the wet well, installation of two (2) new submersible pumps, upgrades to the control panel and various site improvements such as new fencing and lighting.

West Bank Wastewater Treatment Plant Piping & Valve Identification and Rehabilitation Master Plan, New Orleans, LA. Engineering support for a physical evaluation and assessment of the WBWWTP, a 20 MGD trickling filter facility. This project focused on creating an inventory of all the piping and valves, assessing the physical and operational condition of the assets, and then developing a master plan to replace and/or rehabilitate the assets to ensure long-term reliability and sustainability.

East and West Wastewater Treatment Plants – Staff Extension Services; New Orleans, LA. Staff extension services to the Sewerage and Water Board of New Orleans to assist with capital improvement projects at the East Bank and West Bank Wastewater Treatment Plants (WWTPs). In support of these efforts, Trigon furnished a full-time on-site engineer for a period of one (1) year to provide engineering support and construction inspection services. Project responsibilities include: design input and review, construction management, inspection services, and coordination with WWTP operators during design and construction phases.

Site Plan Development for Daybrook Fisheries; Empire, LA. Trigon performed various services/projects for Daybrook Fisheries, Inc. at their processing facility in southern Plaquemines Parish, which is situated between the Mississippi River and the Buras Navigation Canal. One project consisted of developing a comprehensive site plan for the entire property, which generally includes surveying the property; identifying all major property features such as buildings, equipment, storage tanks, docks, loading and unloading facilities, river intake pump station, river outfall, etc.; and creating a scale-drawing of the facility with identification of all features. Barry provided services to check the survey data and incorporate it into the drawing(s), including site visits to verify the accuracy of information.



TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Barrett Crook, PE, LEED AP

Structural Engineer

Project Assignment:

Structural Engineering

Name of Firm with which associated:**Years' experience with this Firm:**

3

Education: Degree(s)/Year/Specialization:

BS, Civil Engineering, Santa Clara University

BA, Business Administration, Santa Clara University

BA, Spanish, Santa Clara University

Active registration: Year first registered/discipline:

Registered Professional Engineer: LA (also registered in CA, CT, FL, GA, HI, ID, IO, KS, MA, MI, MS, NE, NV, NC, ND, OK, SC, VA, and WA)

Leadership in Energy and Environment Design Accredited Professional (LEED AP)

Other experience and qualifications relevant to the proposed Project:

Barrett has over 25 years of experience in engineering, planning, detailed design, construction inspection, and field operations. Throughout his career, Mr. Crook has served as Project Engineer for numerous structures, facilities, water, wastewater, and transportation projects with capital costs ranging from \$500,000 to \$41 million. His experience includes providing inspection services for active construction and natural disaster sites; structural engineering design, assessment, and drawings for public, industrial, commercial and residential projects throughout the United States; field engineering services, such as v-zone certifications and uplift/buoyancy calculations; cost estimating and budget tracking; and preparing reports and recommendations for mitigation and/or project improvements.

RELEVANT PROJECT EXPERIENCE

East Baton Rouge Pump Station 42; East Baton Rouge, LA. Project Structural Engineer responsible for the design of a large, buried, reinforced concrete pump station and above grade adjacent CMU electrical building.

Panama Canal Third Lock Expansion; Panama. Served as Project Structural Engineer and supervised the design of pipe supports and pump cages on the third set of locks.



TEC Professional Services Questionnaire

Crook, continued.

Other experience and qualifications relevant to the proposed Project:

West Sacramento Flood Control Project; West Sacramento, CA. As the Project Structural Engineer, Barrett utilized the drawing and specification standards of the USACE, designed a double leaf, steel, mitre gate to span a set of railroad tracks; and coordinated work between the USACE, Caltrans and Union Pacific for the successful completion of this project.

Biloxi Water Well Improvements; Biloxi, MS. Project Structural Engineer responsible for working with FEMA and Biloxi to rebuild and raise water well platforms and distribution stations following Hurricane Katrina including V-Zone Certifications, BFE's and RFPE's.

E. 9th Avenue Lift Station (LS#4) Improvements; Covington, LA. Served as Structural Engineer for this project that consisted of replacing/converting an existing suction-lift sewage pumping station to a submersible pump station.

Hazard Mitigation Retrofit Power Plant Program at Carrollton Water Treatment Plant; New Orleans, LA. Structural Engineer supporting Trigon's efforts for this approximately \$184M hazard mitigation grant program project to retrofit a unique power plant owned and operated by the S&WB. Work included repairs and upgrades to generators, fuel tanks, boilers, turbines, and electrical instrumentation & controls infrastructure, as well as ancillary facilities at the Carrollton Water Treatment Plant complex where the power plant is co-located. Work also included major renovations to a raw water pump station. Trigon staff served in major/lead roles on several projects within this program.

Orange County Disaster Recovery Grants Funds Management; Orange County, TX. Principal Structural Engineer for activities associated with federal and state recovery grant programs for the Orange County government, including all county-owned buildings and facilities (pump stations, treatment plants, roads, and drainage infrastructure) following Hurricane Harvey. He performed structural damage assessments on numerous County facilities and infrastructure. Assisted in scope and cost estimate development for project delivery. Supported development of corrective action plans for numerous County facilities and infrastructure.

USAID, A-E Services for Dioxin Remediation at Bien Hoa Airbase Area; Bien Hoa, Vietnam. Principal Structural Engineer. Providing review and QA/QC services for this project to develop a Project Implementation Masterplan for engineering design, construction management implementation and related project support services for dioxin remediation at the Bien Hoa Airbase Area in Vietnam - the largest remaining hotspot of dioxin contamination in Vietnam. Recently supported completion of design efforts for Interim Measures #2, particularly related to the structural design of a Long-Term Storage Area facility (landfill) and multiple road projects throughout the airbase.



TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Dennis Strecker, PE
Mechanical Engineer

Project Assignment:

Mechanical Engineering

Name of Firm with which associated:**Years' experience with this Firm:**

8

Education: Degree(s)/Year/Specialization:

MS, Mechanical Engineering, Tulane University, 1979
BS, Mechanical Engineering, Tulane University, 1969

Active registration: Year first registered/discipline:

1974, Civil Engineer, Louisiana

Other experience and qualifications relevant to the proposed Project:

Mr. Strecker has over 50 years of experience in mechanical engineering for major hydraulic structures such as navigation locks, floodgates; gated outlet works for dams, pumping stations and other waterway facilities, including pneumatic and hydraulic systems, HVAC systems and plumbing systems. He has worked primarily for the USACE New Orleans District on major navigation and flood control projects. Served as Senior Project Manager for the USACE IHNC Flood protection project during which he reviewed A/E mechanical design submittals for compliance with contract requirements and USACE design criteria. Mr. Strecker

has also designed operating equipment for several floodgates and performed independent technical reviews (ITR) on numerous pump station storm-proofing modifications. He has also prepared cost estimates, and mechanical portions of design memoranda.

RELEVANT PROJECT EXPERIENCE

Floodgate Projects; Jefferson Parish, LA. Served as Mechanical Engineer for project for sector gates for Bayou Segnette and Company Canal.

Drainage Pump Station Storm Proofing; New Orleans, LA. Served as ITR Mechanical Engineer Reunion for project. Performed ITR on 10 drainage pump station storm proofing contracts. Contracts included adding dewatering sump pumps to stations, adding generators, ventilation, fuel storage and required plumbing modifications.



TEC Professional Services Questionnaire

Strecker, continued.

Other experience and qualifications relevant to the proposed Project:

Floodgate Projects; Jefferson Parish, LA. Served as Mechanical Engineer for project for sector gates for Bayou Segnette and Company Canal.

IHNC, Seabrook, Carnarvan, Dupre, Segnette and Seller Gates, LA. Dennis worked on the behalf of the USACE New Orleans District as the embedded mechanical engineer reviewing and overseeing the design of mechanical and operational features for of the IHNC barrier complex including the GIWW sector and barge gates and the Bayou Beinviu gate. Also served as lead mechanical reviewer representing the USACE for the Seabrook Gate Complex. Tasked with resolving design and construction issues on both the Carnarvan and Bayou Dupre sector gates. He prepared preliminary machinery design for Empire flood gates alternatives report, and provided ITR support for several of Jefferson Parish drainage pump station modifications.

Hydraulic Gate Hoists, USACE New Orleans District, LA. Served as Mechanical Engineer for Project. Retrofitted 18 sluice gates built immediately after Hurricane Katrina and originally designed to be operated with a crane with hydraulic driven gate hoist operated from a central hydraulic power unit.

Sector Gate Machinery for Pointe Au Chene, LA. Served as Mechanical Engineer for project. Designed hydraulic machinery for a sector gated structure. Gate operation is with a high torque low speed Haggulands motor pinion driving a rack on the sector gate. Provided the design for the gate hinge and pintles using self-aligning spherical bearings approximately 20 inches in diameter.

Replacement Machinery for IHNC Lock, LA. Served as Mechanical Engineer for USACE Project. Machinery design replaced Panama Canal Linkage used on the miter gate with direct acting hydraulic cylinder and hydraulic system.

Various Lock, Floodgate and Storm Water Pump Projects, LA. Served as Lead Mechanical Engineer for the USACE New Orleans District. Designed and prepared plans and specifications for modernizing locks and floodgate gates operating machinery in the New Orleans District for hydraulic structures including Calcasieu floodgate and Calcasieu, Bayou Boeuf, Berwick, Bayou Sorrel, and Freshwater Bayou locks. Designed replacement sluice gate machinery for Harvey and IHNC locks. He designed operating machinery for Davis Pond sluice gate which included direct operating cylinders and designed sector gate machinery for Harvey floodgate. On the Harvey floodgate, he designed the floating self-adjusting bottom seal. The seal design was incorporated on the Gulf Intracoastal Water Way GIWW and the Western Closure sector gates.



TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Wagner Enrique

Designer

Project Assignment:

CADD Technician

Name of Firm with which associated:**Years' experience with this Firm:**

10

Education: Degree(s)/Year/Specialization:

AAS, Computer Aided Design & Drafting, Delgado Community College, 1994

Active registration: Year first registered/discipline:

N/A

Other experience and qualifications relevant to the proposed Project:

Wagner has over 24 years of experience using AutoCAD and Microstation to develop detailed construction drawings, topographical profiles, related maps and specifications used in planning and construction of civil and structural engineering projects, including features related to water & wastewater infrastructure, flood control/protection, drainage, navigation, bridges and roadways. Besides acting in a designer role to support engineers in the preparation and/or review of drawings, sketches, maps, specifications, and other engineering data, he has also provided construction inspection services, ensuring that contract documents were adhered to during construction. Other construction-related support that he has provided includes general QA, compliance monitoring, quantity verification, documentation, CAD and working plans/drawings during construction.

RELEVANT PROJECT EXPERIENCE

Engineers Road/Cazalard Road HMGP Drainage Improvements; Belle Chasse, LA. Following final approval from FEMA and GOHSEP of the Hydrologic and Hydraulic Study report, Wagner supported the design of drainage improvements in the vicinity of Engineers Rd and Cazalard Rd. Generally includes replacing subsurface drainage, improving multiple drainage canals and ditches, culvert crossings of a major roadway and railroads, and construction of a new drainage pump station and influent channel to replace a temporary pump currently being used by the Parish.



TEC Professional Services Questionnaire

Enrique, continued.

Other experience and qualifications relevant to the proposed Project:

USACE – Hollygrove Drainage Improvements; New Orleans, LA. On this project with the USACE and Sewerage and Water Board of New Orleans, Mr. Enrique prepared preliminary and detailed plans for construction of drainage improvements in the Hollygrove area of the city as part of the Southeast Louisiana Flood Control Project (SELA). Primary improvements included installation of major concrete box culverts and modifications to local subsurface drainage pipes.

USACE – 17th Street Canal Breach Repairs and Interim Drainage Pumping Station; New Orleans, LA. Supported engineers in preparation of plans for construction of an initial emergency breach closure of the damaged floodwall followed by permanent breach repairs. He also prepared plans for an interim canal closure structure and the temporary drainage pumping station put in place as a result of damages from Hurricane Katrina.

USACE – Swing Flood Gates at East of Harvey Floodwall; New Orleans, LA. Served as a CADD Designer for this USACE project, preparing detailed plans for construction of T-walls and swing gates for automobiles, railroads and pedestrian crossings.

USACE – Various Projects at the Inner Harbor Navigation Canal; New Orleans, LA. CADD Designer for multiple projects related to the IHNC. He prepared preliminary & detailed plans for construction of floodwalls to block storm surges. Wagner prepared preliminary & detailed plans for construction of multi-functional bulkhead structures used for both temporary dewatering of the IHNC during construction as well as permanent flood protection measures. Relative to a Safe House and Control Room, he prepared preliminary & detailed plans for construction of facilities at the GIWW to be used under extreme storm conditions to allow operators to remain safe during the event and still operate the flood control structures.

Hoey’s Drainage Canal Improvements, Jefferson Parish, LA. CADD Designer/Construction Inspector responsible for the preparation of plans and specifications for improvements to the Hoey’s Canal, a major drainage canal in Jefferson Parish that connects to the 17th Street Canal. Primary improvements consisted of paving the canal. He also performed inspection services during construction.

East Bank WWTP Effluent Pump Station Improvements; New Orleans, LA. CAD designs for improvements to Effluent Pump Station Modifications at the Sewerage & Water Board’s 200 MGD East Bank Wastewater Treatment Plant (EBWWTP).



TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Paul Fleming

Construction Inspector

Project Assignment:

Construction Management and Inspection

Name of Firm with which associated:**Years' experience with this Firm:**

6

Education: Degree(s)/Year/Specialization:

Delgado Community College, General Studies

University of New Orleans, Environmental Engineering

Active registration: Year first registered/discipline:**Other experience and qualifications relevant to the proposed Project:**

Mr. Fleming has 24 years of experience in the construction industry in the New Orleans metropolitan area for multiple water and wastewater projects, including construction/contracting, contractor oversight and resident inspection/quality assurance. He has significant experience with development and public infrastructure projects, including many involving drainage, water, and sewerage infrastructure and facilities. Mr. Fleming was also previously in the US Army for five years, during which he was selected for the Air Borne Ranger Battalion.

RELEVANT PROJECT EXPERIENCE

Drainage System Engineering Analysis; New Orleans, LA. Field Monitor responsible for providing written reports of field activities, making measurements to determine footage of cleaning and CCTV performed, communicating with third-party cleaning and CCTV Crews, and providing reports to engineer for urgent or immediate action items.

Inspection of Various Public Works Construction Projects, LA. As Lead Inspector, supervised daily construction activities, ensured compliance with approved traffic plans, and reviewed pre-construction videotapes prior to the start of construction. Verified accuracy of repair locations and approved material for use in construction, verified delivery of public notices to residents in a timely manner prior to the start of construction, communicated with residents to answer questions and resolve complaints. Enforced traffic plans and approved contractor payments. Ensured that contractors' work did not adversely affect residents and/or residents' property. Provided final restoration damage report/estimate for each assigned repair site.



TEC Professional Services Questionnaire

Fleming, continued.

Other experience and qualifications relevant to the proposed Project:

Water Line Replacement Program (WLRP); New Orleans, LA. In support of Trigon's design work under the S&WB's FEMA-funded WLRP, Paul performed field reconnaissance efforts in multiple neighborhoods assigned to Trigon to verify existing, and collect additional, information that was incorporated into the design documents. Worked closely with Trigon's project engineers and project manager to effectively complete the tasks assigned to him.

Drainage System Engineering Analysis; New Orleans, LA. Field Monitor responsible for providing written reports of field activities, making measurements to determine footage of cleaning and CCTV performed, communicating with third-party cleaning and CCTV Crews, and providing reports to engineer for urgent or immediate action items.

Inspection of Various Public Works Construction Projects, LA. As Lead Inspector, supervised daily construction activities, ensured compliance with approved traffic plans, and reviewed pre-construction videotapes prior to the start of construction. Verified accuracy of repair locations and approved material for use in construction, verified delivery of public notices to residents in a timely manner prior to the start of construction, communicated with residents to answer questions and resolve complaints. Enforced traffic plans and approved contractor payments. Ensured that contractors' work did not adversely affect residents and/or residents' property. Provided final restoration damage report/estimate for each assigned repair site.

Fleming Equipment and Construction; New Orleans, LA. Primary responsibilities consisted of but were not limited to: new housing construction, drainage ditches, demolition and replacement of driveways, carpentry work and operating heavy machinery. Oversaw daily operations and insured work crews were operating efficiently in all aspects of company's duties.

Various Construction Projects; New Orleans, LA. Estimated all jobs performed all work to complete to customer satisfaction. Primary duties included but not limited to general contracting, framing, sheetrock, painting, plumbing, electrical and cement work. Also included heavy equipment operations such as land clearing, primitive roads, and bush hogging.



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	Nature of Firm's Responsibility:	
<p>Abita Nursery Drainage Improvements; Abita Springs, LA</p> <p>St. Tammany Parish Government Bob Moeinian, PE – Project Manager 504.812.7748</p> 	<p>Trigon served as the Prime Consultant for a comprehensive drainage improvements for approximately 130 acres encompassing the Abita Nursery Subdivision and its vicinity in Abita Springs, LA. This area was plagued by nuisance flooding due to inadequate drainage. Following the initial H&H study, Trigon was engaged to engineer and design critical improvements intended to decrease both the frequency and severity of flooding. The improvements included: two (2) new detention ponds; improvements to existing drainage channels; new drainage channels; improvements to existing ditches, culverts, and cross culverts; an updated hydrologic & hydraulics (H&H) model; and utility relocation, as necessary.</p> <p>As the Prime Consultant, Trigon's role extended beyond technical duties to encompass comprehensive project management and oversight. This included coordinating a team of consultants responsible for surveying, geotechnical studies, wetlands assessment, and environmental permitting, ensuring a cohesive approach to tackling the area's flooding challenges.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
Ongoing	\$281k (fee)	\$281k (fee)

PROJECT NO. 2

Project Name, Location and Owner's contact	Nature of Firm's Responsibility:	
<p>Engineers Road/Cazalard Road Drainage Improvements; Belle Chasse, LA</p> <p>Ken Dugas, Chief Engineer Plaquemines Parish Government 504.297.5343</p> 	<p>Trigon is the prime engineer for study, engineering, design and construction services for over \$3M of Hazard Mitigation drainage work. The project consists of evaluating and designing improvements for a 100+ acre drainage basin – multiple open canals and ditches (approximately 3,000 LF), culvert crossings of major roadways and railroads, subsurface drainage, and a temporary pump station. Included necessary surveying and data collection, a hydrologic and hydraulic (H&H) study, identification of improvements, preparation of a preliminary cost estimate, and preliminary and final engineering design services. Design is being finalized.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
Ongoing	\$3.4M	\$3.4M



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	Nature of Firm's Responsibility:	
<p>Barriere Road / Medal of Honor Park Drainage Improvements; Plaquemines Parish, LA</p> <p>Ken Dugas, Chief Engineer Plaquemines Parish Government 504.297.5343</p> 	<p>Trigon was the prime engineer for this project, which includes the design of various drainage improvements at the Barriere Road Retention Pond, adjacent to the Medal of Honor Park and just on the protected side of the Intracoastal Canal levee. These improvements were intended to increase drainage capacity and better accommodate wet weather conditions. Trigon performed all professional services for the engineering and design of improvements at this location, including bid support and construction phase services. The crossing of the federal levee required design in accordance with all USACE and US Coast Guard permitting requirements. Provisions were incorporated into the design to ensure stability of the levee. Due to funding constraints, the project is currently on hold.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2017 (Actual)	\$64k	\$64k

PROJECT NO. 4

Project Name, Location and Owner's contact	Nature of Firm's Responsibility:	
<p>Permanent Protection for Drainage Outfall Canals and Pump Stations; New Orleans, LA</p> <p>Joe Becker, PE – [frm] Gen'l Superintendent Sewerage & Water Board of New Orleans 504.666.0282</p>	<p>Trigon served as the primary/sole sub-consultant on this project, which included evaluating multiple options for providing increased flood protection along three (3) major outfall canals in New Orleans – the 17th Street, Orleans Avenue and London Avenue Canals – and developing opinions of probable cost. These three outfall canals handle the majority of storm water runoff from the City of New Orleans and a portion of Jefferson Parish and connect pump stations located on the interior of the City to Lake Pontchartrain, where the storm water is discharged. Levees and floodwalls were constructed on both sides of the outfall canals as features of the Lake Pontchartrain and Vicinity Hurricane Protection System. Trigon's primary focus included the mechanical, electrical, geotechnical and real estate aspects of the project.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2010 (Actual)	\$405k	\$142k



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	Nature of Firm's Responsibility:	
<p>Cross Bayou Drainage Pump Station; St. Charles Parish, LA</p> <p>Dan Wagner, President BLD Services 504.466.1344</p> 	<p>Trigon provided engineering services to the construction contractor during the pre-construction and construction phases of this project, which consisted of the construction of a new six-pump storm water drainage pump station with a total capacity of 1,300 cubic feet per second. The project generally included a large pile-supported foundation, multi-story building structure, pumps and engines, integrated intake structure, suction and discharge basins, discharge piping, bar screens and cleaners, diesel oil storage tanks, utilities, electrical and controls systems, power generation and distribution, pilings, site work, levee T-wall, approach roadway and drive, and other ancillary work. The site is located on the Lake Pontchartrain Hurricane Protection Levee at Cross Bayou Canal near Ormond in St. Charles Parish. The project was performed for the Pontchartrain Levee District and is part of the Louisiana Department of Transportation and Development's Statewide Flood Control Program. The U.S. Army Corps of Engineers was also a key stakeholder in this project.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2010 (Actual)	\$18M	\$15k

PROJECT NO. 6

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Schexnayder Drainage Pump Station Improvements; St. Charles Parish, LA</p> <p>Dan Wagner, President BLD Services 504.466.1344</p> 	<p>Trigon provided engineering services to the construction contractor during the pre-construction and construction phases of this project, which generally consisted of the construction of improvements at an existing storm water drainage pump station in the New Sarpy area of St. Charles Parish. The work included construction associated with the installation of a pre-fabricated bridge deck and four (4) new trash screen cleaners. The deck and screen cleaners were installed on a foundation that consists of approximately 30 precast concrete piles and pile caps. The work also included the installation of new steel sheet pile walls around the perimeter of the new deck and sheet pile wing walls at the influent for the New Sarpy Mid West Canal. Approximately 700 feet of wooden bulkhead was constructed along the New Sarpy Mid Canal, which also feeds the station. A temporary access road was built to facilitate construction of the project, and a concrete approach slab, perimeter fencing and gates were included. Site work included reshaping and grading of the site.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2012 (Actual)	\$142k (fee)	\$142k (fee)



TEC Professional Services Questionnaire

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

PROJECT NO. 7

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>USACE New Orleans District Flood Protection PM/CM; New Orleans, LA</p> <p>Steve Berckenhoff, PE Vice President AECOM 713.267.3266</p> 	<p>Trigon served as a subcontractor to the program management team for the U.S. Army Corps of Engineers, New Orleans District Protection Restoration Office (PRO). Trigon staff provided various services, including project controls, project management and construction management services for projects within the PRO that are in design and construction. This work included levee, floodwall and other drainage and flood protection Civil Works projects within the Hurricane and Storm Damage Risk Reduction System in Orleans (on the West Bank), Jefferson and St. Charles Parishes.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2010 (Actual)	\$10M+	\$223k (fee)

PROJECT NO. 8

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Abita Nursery Drainage Study; Abita Springs, LA</p> <p>St. Tammany Parish Government Bob Moeinian, PE – Project Manager 504.812.7748</p>	<p>Trigon served as the Prime Consultant for a comprehensive hydrologic and hydraulic (H&H) study covering approximately 130 acres, including the Abita Nursery Subdivision and its vicinity. This area, plagued by nuisance flooding due to inadequate drainage, was the focus of the study, which aimed to devise effective mitigation strategies. The drainage infrastructure within this area mainly comprised surface drainage systems, including ditches along rights-of-way and culverts under driveways and access roads.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2018 (Actual)	\$123k (fee)	\$123k (fee)



TEC Professional Services Questionnaire

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

PROJECT NO. 9

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Drainage System Engineering Analysis; New Orleans, LA</p> <p>Brian Jones, PE (Formerly, City of New Orleans, Department of Public Works) 504.723.6623</p>	<p>Trigon was part of the team selected by the City of New Orleans to perform an engineering analysis of the condition of select sections of the City's minor drainage system to determine if damage related to Hurricane Katrina or its immediate aftermath existed. Trigon supported the planning, coordination, and control of activities required to perform a drainage system assessment. Trigon also provided staff for resident inspection services during the drainage system analysis and the analysis of GIS data on the locations of full block length FEMA eligible Katrina-related water line and sewer line replacement work and as directed by DPW to determine areas where Katrina-related damage to drain lines could be expected. The project team then identified locations of drain line segments, drain line size, rationale for investigation, relationship between locations and Katrina-related water, sewer, and/or other damage, and submitted a recommended plan for repairs. Certain line segments were flushed and inspected via CCTV, and damages found were reported for rehabilitation. Trigon monitored a portion of the third-party CCTV contractors completing the field work.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2015 (Actual)	\$1.2M	\$127k

PROJECT NO. 10

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Drainage Master Plan; New Orleans, LA</p> <p>Robert Mendoza, former Director City of New Orleans Dept. of Public Works 504.338.9735</p> 	<p>The Drainage Master Plan (DMP) for the City of New Orleans consisted of the evaluation of the existing surface and street sub-surface drainage system maintained by the Department of Public Works (DPW), including ditches, catch basins and drainage pipes up to 36 inches in diameter, the development of a drainage system hydraulic computer model to assist in the determination of the existing pipe capacity, and the development of capital improvement recommendations. The DMP identifies facilities which are unable to convey peak dry or wet weather design flows under existing and future conditions to reduce flood risk. A structural assessment was conducted as part of the master plan to identify critical facilities that require structure rehabilitation or replacement.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2010 (Actual)	\$1M	\$88k



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. TRIGON has no active or pending litigation at the present time, and our principals and staff have never been involved in litigation regarding our professional services.		
2.		
3.		
4.		

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

 **Trigon Associates, LLC (TRIGON)** is pleased to submit this Statement of Qualifications (SOQ) to Jefferson Parish (Parish) in response to your *Request for Qualifications to Provide Routine Engineering Services for the Independence Park Drainage Pump Station Project in Jefferson Parish (SOQ 24-029, Resolution No. 144443)*.

TRIGON offers Jefferson Parish the full range of services required to successfully execute this project and our staff has an extensive amount of directly applicable experience.

1. BACKGROUND AND EXPERIENCE OF THE FIRM

TRIGON is a local, woman-owned small business and a State-certified Disadvantaged Business Enterprise (DBE) providing engineering, consulting, and management services. With over 125 years of combined experience, TRIGON's principals have expertise in public infrastructure, utilities, and facility work, including **drainage/stormwater, sewer, water, water resources, coastal restoration, transportation systems, buildings and facilities, general civil and structural engineering, and site development**. Their experience, along with that of our exceptionally skilled team, spans the entire project lifecycle, from planning through design and construction, with a strong track record in managing diverse teams of consultants and contractors to complete projects of all sizes on time and within budget.

The principals and key staff for TRIGON include:

- Engineers of all disciplines registered in Louisiana, Texas, Mississippi, Alabama, Arkansas, California, Florida, New York, Oklahoma, Virginia, and the District of Columbia
- Certified Project Management Professional and Program Management Professional with the Project Management Institute
- A former Jefferson Parish Sewerage Dept. Capital Improvements Program Manager, Assistant Director and Acting Director
- Former program and project managers, design and construction managers and engineers for multiple capital improvement programs



TEC Professional Services Questionnaire

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

TRIGON'S staff have been involved in numerous projects that required the knowledge and skills necessary for execution of drainage projects similar to those undertaken by the Parish, resulting in a strong team that has experience executing work of a very similar nature to what may be required.

TRIGON proposes to provide any required supplemental surveying and geotechnical services through subconsultants. To that end, we have included qualifications for **BFM Corporation, LLC and Eustis Engineering, Inc.** Both firms have extensive experience with similar projects in the Parish and are well-known to Parish staff. Should any additional subconsultants be required, TRIGON would gain approval to utilize a firm(s) acceptable to the Parish.

2. RELATED EXPERIENCE OF TEAM

As shown in the example projects in Section L, as well as the resumes of our proposed project staff in *Section K*, our team has extensive and directly applicable experience and technical competence to successfully complete any work under this project. Our experience encompasses a wide range of services, including planning, hydraulic modeling, engineering, design, project and program management, construction management, permitting, controls, grant management, disaster recovery and general administration.

Areas of focus include:

- Drainage (master planning, hydraulic modeling, CIP development, pump stations, collection systems)
- Wastewater (master planning, CIP development, sewer system evaluation studies, treatment, pump stations, collection/transmission systems, condition assessment, trenchless rehabilitation technologies)
- Water (master planning, CIP development, treatment, pump/booster stations, distribution systems, storage tanks/reservoirs, condition assessment)
- Disaster Recovery (project worksheet development, version management, appeal preparation and tracking, hazard mitigation planning, general FEMA coordination)
- Stormwater (permitting, pollution prevention, water quality)
- Coastal (planning, restoration design, environmental assessments)
- Transportation (streets, streetscapes)

Examples of previous projects our members/staff have been involved with include but are not limited to:

- Drainage and Roadway Improvements on East 70th Street Water Main Relocation Design, Shreveport, LA
- Louis Morel Lane Infrastructure Improvements, Plaquemines Parish, LA
- Delta Aire Drive Infrastructure Improvements, Plaquemines Parish, LA
- Barriere Road Retention Pond and Drainage Pump Station Improvements, Plaquemines Parish, LA
- Levee, Floodwall and Drainage Project/Construction Management, New Orleans, LA
- Drainage Master Plan, New Orleans, LA
- Land Acquisition, Regulatory Compliance, Permitting, Grant Administration, Jefferson Parish, LA



TEC Professional Services Questionnaire

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

- Pump Station Control Panel Replacement, Slidell, LA
- Northshore Mall Area Pump Station and Force Main Improvements, Slidell, LA
- Post-Katrina Rehabilitation of Storm Drainage System, Slidell, LA
- Post-Katrina Emergency Debris Cleanup, New Orleans, LA
- Post-Katrina Emergency Storm Drain Cleaning, New Orleans, LA
- Sewerage Capital Improvement Program, Jefferson Parish, LA
- Sewer Pump Station Inspections, St. Bernard Parish, LA
- Sewerage System Hydraulic Model, St. Bernard Parish, LA
- Sewer System Evaluation and Rehabilitation Program, New Orleans, LA
- Post-Katrina Rehabilitation of Sewage Collection System, Slidell, LA
- East Bank Sewage Treatment Plant Evaluation, New Orleans, LA
- FY 08/09 Sewer Pump Station Rehabilitation, Slidell, LA
- Corrective Action Plan for East Bank Sewerage System (Master Plan), New Orleans, LA Emergency Sew2
- er Pump Station Design, New Orleans, LA
- Emergency Sewer System Assessment Phase I and II, New Orleans, LA
- Sanitary Sewer Overflow Control Program, St. Bernard Parish, LA
- NPDES Storm Water Permitting, Jefferson Parish, LA
- Water Hammer Hazard Mitigation Grant Program Project, New Orleans, LA
- Water Distribution Modeling, Jefferson Parish, LA
- Water Asset Management Plan (Master Plan), Jefferson Parish, LA
- Storm Water Pollution Prevention Plans and Spill Prevention, Control and Countermeasures, Jefferson Parish, LA
- Water Line Replacement Program – Lakeview Neighborhoods, Groups 1 and 2, New Orleans, LA
- Water Line Replacement Program – 6 Areas
- Highway 11 Water Line Improvements, Buras, LA
- Water Distribution System Assessment and Capital Improvement Plan (Master Plan), New Orleans, LA
- Post-Katrina Water Distribution System Assessment/Rehabilitation, New Orleans, LA
- Clean Water Atlanta (SSO/CSO) Program, Atlanta, GA
- Dura Water System Improvements, West Bank, Palestine
- Streets Program/Construction Management, New Orleans, LA
- Wind Retrofit of Parish-Owned Facilities, Plaquemines Parish, LA
- Design and Construction Management Services for World's Fair, New Orleans, LA



TEC Professional Services Questionnaire

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

3. LOCAL PRESENCE AND KNOWLEDGE



TRIGON is based in New Orleans, and our corporate office is located on Poydras Street in the CBD—just a short drive from Jefferson Parish. Any resulting work that TRIGON is involved with would be managed and executed from here.

Additionally, all of TRIGON's managing partners live within the New Orleans metropolitan area and have significant prior experience working with the Parish on public works and infrastructure projects. Our principals and staff are very familiar with the local, state and federal standards and guidelines for performing environmental, design and construction in the area, particularly to public infrastructure.

Having lived here for many years, TRIGON's principals and staff are very knowledgeable of the region and local conditions that could impact these projects.

4. LITIGATION STATEMENT

TRIGON has no active or pending litigation at the present time, and our principals and staff have never been involved in litigation regarding our professional services.

5. DBE PARTICIPATION



TRIGON is certified as a Disadvantaged Business Enterprise (DBE) under the State of Louisiana's Unified Certification Program (UCP).

Additionally, TRIGON is certified under other state and local DBE programs such as those utilized by both the City and Sewerage and Water Board of New Orleans. As such, any resulting work awarded to TRIGON would be a 100% DBE contract.

6. PRODUCTION CAPABILITIES

TRIGON employs the latest industry-standard production software to efficiently create and coordinate design documents across multiple platforms. This includes software such as Autodesk products (e.g., AutoCAD, AutoCAD Civil 3D), Bentley products (e.g., MicroStation, ProjectWise), and ESRI products (e.g., ArcGIS).

Our team is proficient in using these software packages, enabling us to develop plans and documents tailored to our clients' needs and preferences. This proficiency also enhances collaboration with other companies and team members, allowing us to seamlessly integrate survey data into our design drawings.

In addition to our CAD, GIS, and presentation capabilities, TRIGON utilizes the Microsoft Office suite for standard word processing, spreadsheets, calculations, database creation and manipulation, and slide presentations.



TEC Professional Services Questionnaire

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

7. CAPACITY FOR TIMELY COMPLETION



TRIGON has the professional staff, support staff and equipment necessary to successfully complete any drainage projects in a timely manner. Our current workload is under the capacity of our staff, which means we are in a position to accept new work with the ability to mobilize immediately. Besides the team members specifically shown within this SOQ, we have additional staff that we can draw upon, when necessary, if project needs dictate.



The majority of the work will be performed in TRIGON's New Orleans office, depending on the exact nature and scope of the work required. Our project manager, staff and principals will meet with Parish staff, as well as make field visits to project sites as required to successfully complete the work. We understand what it takes to successfully execute projects of this sort and are ready and willing to meet with the Parish whenever necessary.

TRIGON is fully committed to providing the Parish with professional services in a timely manner that achieve agreed-upon goals and objectives.

8. REFERENCES

One of the best ways to judge our experience, attention to detail, quality of work and customer focus is through the personal testimonials of people that have worked with us before. The project experience included in *Section L* includes owner contact information that can be utilized as references. Additionally, we encourage contact with the following individuals to find out more about our client service & capabilities:

REFERENCES			
NAME	POSITION/TITLE	ORGANIZATION	PHONE
Billy Nungesser	Lt. Governor / [fmr] Plaquemines Parish President	State of Louisiana	225-342-7009
Blaine Clancy, PE	City Engineer	City of Slidell, LA	985-646-4270
Robert J. Morgan, Jr.	Contracting Officer	Inframark	504-392-4177
Richard Roberg	Contracting Officer	Department of Homeland Security/FEMA	504-762-2268
Bob Moeinian, PE	Interim Sewer/Water Director	St. Tammany Parish Government	504-812-7748
Nguyen Phan, PE	Chief Engineer	City of New Orleans, Department of Public Works	504-658-8000
Ali Mustapha, PE	Administrator	Caddo Levee District	318-221-2654
Autumn Permenter, PE	[fmr] Director	City of Shreveport, LA, Dept. of Water & Sewerage	318-227-6657
Ken Dugas, PE	Parish Engineer	Plaquemines Parish Government	504-297-5343
Dan Wagner	President	BLD Services, LLC	504-466-1344



TEC Professional Services Questionnaire

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

9. OUR COMMITMENT



TRIGON is fully committed to supporting Jefferson Parish and successfully delivering this project, should we be selected. We are excited about this opportunity and look forward to providing the Parish with exceptional service.

Should you require additional information during your review of our SOQ, please do not hesitate to contact us for an immediate response.

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

Signature: Michelle Herbert **Print Name:** Michelle Herbert

Title: Chief Executive Officer **Date:** August 29, 2024



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

Name:

Public Address:

Trigon Associates, LLC

1515 Poydras Street,
Suite 930

License/Certificate Information w/ Supervision

License	Status	First Issuance Date	Expiration Date	Supervisor(s)
EF.0004041	Active	04/20/2009	09/30/2025	Mr. Gregory Alan Kolenovsky # PE.0030266



UCP SEARCH RESULTS

[New Search](#) [Export to Excel](#)

Contractor

Business Type

License

Owner

Minority Type

FAX

Certifying Agency

Phone

E-Mail Address

Work Type

Service Type

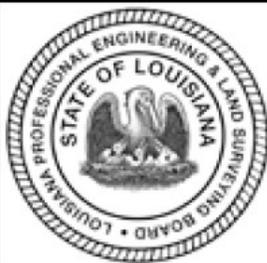
TRIGON ASSOCIATES, LLC
 1515 POYDRAS ST., STE. 2200
 NEW ORLEANS, LA 70112
 HERBERT, MICHELLE

White Women Owned Business

Louis Armstrong New Orleans International Airport
 541618-Other Management Consulting Services
 541618-Other Management Consulting Services
 541330-Engineering Services
 C74-Construction Management

504-585-5767
 MHERBERT@TRIGONASSOCIATES.COM
 ARCHITECTURE SERVICES, ENGINEERING SERVICES, PROFESSIONAL SERVICES, CONSTRUCTION

504-585-5747



LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)

9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Gregory Alan Kolenovsky

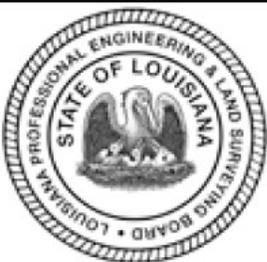
License/Certificate Type - Number

PE.0030266

Expiration Date

09/30/2026

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

Ms. Regina Ann Cassanova

License/Certificate Type - Number

PE.0035639

Expiration Date

09/30/2024

Status: **Active**

BFM CORPORATION, LLC
TEC Professional Services Questionnaire



TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

Independence Park Drainage Pump Station

SOQ **24-029** | Resolution No. **144443**

B. Firm Name & Address:



BFM Corporation, LLC

15 Veterans Memorial Boulevard | Kenner LA 70062

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

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

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

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

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

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

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

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

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

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

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

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

TEC Professional Services Questionnaire

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 _____ 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. N/A		
2.		
3.		
J. Please specify the total number of support personnel that may assist in the completion of the Project: <u>26</u> (all personnel will be available for assignment to the project)		

TEC Professional Services Questionnaire

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

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

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

- Coventry Drainage Pump Station Cross Section Survey Update, River Ridge, Jefferson Parish, LA
- Levee Intake Pump Station Cell Inspection at the New East Bank Water Treatment Plant, Jefferson Parish, LA
- Veterans Boulevard Pump Station, Metairie, Jefferson Parish, LA
- Timberview Lane Sewer Pump Station, Harvey, Jefferson Parish, LA
- Orange Lane Drainage Pump Station Project (Drainage Mapping), Grand Isle, Jefferson Parish, LA
- Bayou Segnette Drainage Pump Station No. 1 Survey Verification, Jefferson Parish, LA
- Coventry Drainage Pump Stations, River Ridge, Jefferson Parish, LA
- North Arnoult Drainage Pump Station Improvements, Jefferson Parish, LA
- Fisher School Phase 2 Levee, Lafitte, Jefferson Parish, LA
- Paillet Basin Tidal Protection Levee, Town of Jean Lafitte, Jefferson Parish, LA
- Westwego Drainage Pump Station No. 1, Jefferson Parish, LA
- Parish Line Pump Station No. 5, Kenner, Jefferson Parish, LA
- Hero Pump Station, Harvey, Jefferson Parish, LA
- Fulton Street Pump Station, Jefferson Parish, LA
- Improvements to Bayou Segnette Drainage Pump Station No. 1, Jefferson Parish, LA
- Goose Bayou Drainage Pump Station, Lafitte, Jefferson Parish, LA
- Drainage Pump Station, Veterans North & South, Right-of-Way, 17th Street Canal, Jefferson Parish, LA
- Drainage Pump Station, West Esplanade and 17th Street Canals, Jefferson Parish, LA
- Ames Boulevard Drainage Pump Station Warehouse, Jefferson Parish, LA
- Bayou Segnette Fronting Protection/New Pump Station, Westwego, Jefferson Parish, LA
- Emergency Generators for Sewer Lift Stations and Helios and West Napoleon Pump Stations, Jefferson Parish, LA
- Morton & Ingrid Pump Station, Jefferson Parish, LA
- Estelle Bridge Crossing at Canal G (Estelle Pump Station No. 2), Jefferson Parish, LA
- Storm Proofing, Ames & Duncan Drainage Pump Stations, Jefferson Parish, LA
- Upper Kraak Pump Station, Jefferson Parish, LA
- Taft Park Pump Station and Drain Line Path, Jefferson Parish, LA
- Clearview Drainage Pump Station and St. Peter's Ditch, Jefferson Parish, LA

TEC Professional Services Questionnaire

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

- Effluent Pump Station & Structures at Harvey Wastewater Treatment Plant, Jefferson Parish, LA
- Paillet Pump Station Access Road and Drainage Improvements, Jefferson Parish, LA
- Taft Park Pump Station and Drain Line Path, Jefferson Parish, LA
- Parish Line Pump Station (Pump Station No. 5), Jefferson Parish, LA
- Estelle Pump Station Survey Update, Jefferson Parish, LA
- Westwego Pump Station No. 2, Jefferson Parish, LA
- Canal "D" Drainage Improvements, Westwego Pump Station Nos. 1 & 2, Jefferson Parish, LA
- Parish-Wide Safe House Program: Planters Pump Station Safe House, Jefferson Parish, LA
- Estelle Pump Station No. 2, Jefferson Parish, LA
- Lake Cataouatche Pump Station, Jefferson Parish, LA
- Estelle Pump Station Boundary Survey, Jefferson Parish, LA
- Harahan Pump-to-the-River, Jefferson Parish, LA
- Emergency Generators at 13 Pump Station Sites, Jefferson Parish, LA
- Parish-Wide Safe House Program: West Bank Water Treatment Plant Safe House, Jefferson Parish, LA
- Parish-Wide Safe House Program: East Bank Water Plant Safe House, Jefferson Parish, LA
- Parish-Wide Safe House Program: Waverly Street Pump Station Safe House, Jefferson Parish, LA
- Parish-Wide Safe House Program: Whitney-Barataria Pump Station Safe House, Jefferson Parish, LA
- Parish-Wide Safe House Program: Westwego No. 1 Pump Station Safe House, Jefferson Parish, LA
- Parish-Wide Safe House Program: Lake Cataouatche II Pump Station Safe House, Jefferson Parish, LA
- Parish-Wide Safe House Program: Canal Street Pump Station Safe House, Jefferson Parish, LA
- Parish-Wide Safe House Program: Bonnabel Pump Station Safe House, Jefferson Parish, LA
- Parish-Wide Safe House Program: Parish Line Pump Station Safe House, Jefferson Parish, LA
- Parish-Wide Safe House Program: Westminster-Lincolnshire PS Safe House, Jefferson Parish, LA
- Parish-Wide Safe House Program: Bayou Segnette Pump Station Safe House, Jefferson Parish, LA
- Parish-Wide Safe House Program: Estelle Pump Station No. 2 Safe House, Jefferson Parish, LA
- Parish-Wide Safe House Program: Cousins Pump Station Safe House, Jefferson Parish, LA
- Parish-Wide Safe House Program: Duncan Pump Station Safe House, Jefferson Parish, LA
- Parish-Wide Safe House Program: Suburban Pump Station Safe House, Jefferson Parish, LA
- Parish-Wide Safe House Program: Elmwood Pump Station Safe House, Jefferson Parish, LA
- Parish-Wide Safe House Program: Hero Pump Station Safe House, Jefferson Parish, LA
- Lift Stations F6-11 & G6-4, Jefferson Parish, LA
- Rehabilitation of Sewer Lift Station F7-13 at Veterans Blvd & Neyrey Dr, Metairie, Jefferson Parish, LA
- Rehabilitation of Sewer Lift Station D4-7A at Sauve Rd & Generes Dr, Harahan, Jefferson Parish, LA
- Sewer Lift Station at Midway Drive & Soniat Canal, Harahan, Jefferson Parish, LA
- Proposed Sewer Lift Station Near Ehret Road & Broas Drive, Jefferson Parish, LA
- Sewer Lift Station D4-5 (S. Laurel Street & Mistletoe Street), Metairie, Jefferson Parish, LA

TEC Professional Services Questionnaire

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

- 2700 Destrehan Sewer Lift Station Servitude Survey, Harvey, Jefferson Parish, LA
- Sewer Lift Station Sites (G8-1, G8-3, & H8-4B) & Sewer Force Main Construction Survey, Jefferson Parish, LA
- Sewer Lift Station L-11-1, Saddler Road at West Bank Expressway, Marrero, Jefferson Parish, LA
- Sewer Lift Station F8-3, W. Esplanade Avenue at Houma Boulevard, Metairie, Jefferson Parish, LA
- Sewer Lift Station (Coventry Court & Jefferson Highway), River Ridge, Jefferson Parish, LA
- Sewer Lift Station K-11-1, Marrero, Jefferson Parish, LA
- Lift Station F8-3, Metairie, Jefferson Parish, LA
- Destrehan Lift Station Upgrades, Jefferson Parish, LA
- Destrehan Lift Station Upgrades, Harvey, Jefferson Parish, LA
- Sewer Lift Station L-13-6, Ehret Road, Marrero, Jefferson Parish, LA
- Sewer Lift Station Upgrades (5th Avenue and 9th Street), Harvey, Jefferson Parish, LA
- Lift Station E3-2 (Elmwood & Citrus), Metairie, Jefferson Parish, LA
- Saddler Street Sewer Lift Station, Marrero, Jefferson Parish, LA
- Lift Station No. 6 Improvements, City of Harahan, Jefferson Parish, LA
- Lift Station K-11-3, Marrero, Jefferson Parish, LA
- Lift Station F7-12 (Grace King and Rockford), Metairie, Jefferson Parish, LA
- Lift Station F7-13B (SCIP Project No. D55102), Jefferson Parish, LA
- Lift Station E5-4, Jefferson Parish, LA
- Lift Station F1-1, Elmwood Industrial Park Subdivision, Jefferson Parish, LA
- Sewer Lift Station Generator Installation (L-11-2, West Bank Expressway & Eiseman, SCIP D2532), Marrero, Jefferson Parish, LA
- Lift Station G4-2B Sewer Lift Station Rehabilitation (Scott St at Causeway Blvd), Jefferson Parish, LA
- Lift Station C4-1A (N. Sibley and Boone), Metairie, Jefferson Parish, LA
- Lift Station F1-1, Elmwood Industrial Park Subdivision, Jefferson Parish, LA
- Kennedy Heights Sewer Lift Station C9-2 (Live Oak Boulevard), Westwego, Jefferson Parish, LA
- N-12-1 (41st & Gardere Canal) Lift Station, Jefferson Parish, LA
- Cleary Avenue & West Napoleon Lift Station & Force Main, Jefferson Parish, LA
- Rehabilitation of D8-3 Lift Station (Purdue Drive & 37th Street), Metairie, Jefferson Parish, LA
- N-12-1 (41st & Gardere Canal) Lift Station, Jefferson Parish, LA
- Route Topographic (including Lift Station/Force Main) Surveying Services, Jefferson Parish, LA
- Lift Station D4-2 and Proposed D4-2B Surveying Services, Metairie, Jefferson Parish, LA
- Lakeside Mall Lift Station Servitude, Jefferson Parish, LA
- Elizabeth & Utica Sewerage Lift Station, Jefferson Parish, LA

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

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

Project Assignment:

Engineering Liaison

Name of Firm with which associated:



Years' experience with this Firm:

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

Education: Degree(s)/Year/Specialization:

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

Active Registration: Year first registered/discipline:

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

Other experience and qualifications relevant to the proposed Project:

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

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

TEC Professional Services Questionnaire

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

Coventry Drainage Pump Stations, River Ridge, Jefferson Parish, LA. BFM Corporation provided a Route Topographic Survey with Hydrographic Survey for the project, located in River Ridge, Louisiana. The levee and hydrographic survey area was noted as 400 feet wide (200 ft. in either direction of the extended centerline of Colonial Heights Road). The hydrographic survey extended 500 feet into the river from the water's edge. The full scope of the project also included research of public land records; location of property corners; establishing a baseline along the rear property line and; establishing Temporary Benchmarks. Existing improvements were located, as well as visible above ground utilities and those underground utilities with visible surface evidence. The survey further determined the depth, size, and type of pipes within surface observable drainage, sewerage, and water structures as established above. Trees were also located. Spot elevations were taken at 50-foot intervals within the Limits of Survey. (\$89,780 (fee); 2020)

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)

Fulton Street Pump Station, Jefferson Parish, LA. BFM Corporation provided boundary with topographic survey for the Fulton Street Pump Station project. The scope of services included establishing horizontal control, setting Temporary Benchmarks, and plotting the location of improvements & topographic elements (man-made and natural). BFM also determined the depth, size, and type of pipes within surface observable drainage, sewerage, and water structures as established. For the topographic survey, spot elevations did not exceed a 25-foot grid within the Limits of Survey and included bottom of canal elevations along adjacent wall. (\$11,890 (fee); 2017)

North Arnoult Drainage Pump Station Improvements, Jefferson Parish, LA. Project involved a boundary with topographic survey, establishing a baseline parallel to the right-of-way. Points of intersection set were referenced by 3-point ties to topographic features in the area. Two temporary benchmarks were established. Existing improvements were located, including utilities, piping, and natural elements. Building corners within the limits of survey were also located, as were property corners in order to determine the rights-of-way and property boundary limits. (\$6,870 (fee); 2019)

Hero Pump Station, Harvey, Jefferson Parish, LA. BFM provided topographic surveying services for the project. (\$16,380 (fee); 2018)

Westwego Drainage Pump Station No. 1, Jefferson Parish, LA. BFM Corporation provided services for a Limited Topographic Survey at the project site, Westwego Drainage Pump No. 1. The scope of services first re-established Site Horizontal and Vertical control, as these were established as part of a previous BFM project (BFM No. 9730). Services next included locating existing improvements within the designated Limits of Survey, taking elevations and cross sections, and verification of piping and utilities. (\$4,725 (fee); 2018)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Gary J. Lambert, Jr., PLS
Vice President / Registered Professional Land Surveyor

Project Assignment:

Project Manager/Drafting Supervisor

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years' experience with this Firm:

6 years (joined BFM in 2018);
13 years total (2011)

BFM Corporation, LLC | 2018 to present
Riverlands Surveying | 2016 to 2018
Bertucci Contracting | 2011 to 2016

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 No. 5929)

Other experience and qualifications relevant to the proposed Project:

Gary J. Lambert, Jr., is a registered Professional Land Surveyor in Louisiana and provides Project Management and Drafting Oversight for BFM Corporation. He is the first point of contact for clients on technical matters, scheduling, and deliverables for project work, and conducts meetings with engineering, architectural, and government officials to discuss various project needs. His project work has encompassed all manner of surveying services, from basic home lots to 100+ acre tract boundary surveys.

In the field, Mr. Lambert has provided services as a Survey Crew Chief, using both traditional and robotic surveying methods, since the start of his professional career, and has experience with Leica, Hypack, AutoCAD, AutoCAD 3D, Trimble, and RTK surveying technologies. He further trains employees in the use of an aerial drone, laser scanner, and remote-controlled hydrographic survey boat. This survey experience includes topographic, boundary, ALTA/NSPS, FEMA, and various construction surveying. Mr. Lambert has also conducted hydrographic surveys in the Mississippi River and various other bodies of water throughout the Gulf Coast area.

Mr. Lambert has completed Basic OSHA Training and holds license with the Gulf Coast Safety Council (08SSV, ID429523).

TEC Professional Services Questionnaire

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

North Arnoult Drainage Pump Station Improvements, Jefferson Parish, LA. Project involved a boundary with topographic survey, establishing a baseline parallel to the right-of-way. Points of intersection set were referenced by 3-point ties to topographic features in the area. Two temporary benchmarks were established. Existing improvements were located, including utilities, piping, and natural elements. Building corners within the limits of survey were also located, as were property corners in order to determine the rights-of-way and property boundary limits. (\$6,870 (fee); 2019)

Coventry Drainage Pump Stations, River Ridge, Jefferson Parish, LA. BFM Corporation provided a Route Topographic Survey with Hydrographic Survey for the project, located in River Ridge, Louisiana. The levee and hydrographic survey area was noted as 400 feet wide (200 ft. in either direction of the extended centerline of Colonial Heights Road). The hydrographic survey extended 500 feet into the river from the water's edge. The full scope of the project also included research of public land records; location of property corners; establishing a baseline along the rear property line and; establishing Temporary Benchmarks. Existing improvements were located, as well as visible above ground utilities and those underground utilities with visible surface evidence. The survey further determined the depth, size, and type of pipes within surface observable drainage, sewerage, and water structures as established above. Trees were also located. Spot elevations were taken at 50-foot intervals within the Limits of Survey. (\$89,780 (fee); 2020)

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)

Bayou Segnette Drainage Pump Station No. 1 Survey Verification, Jefferson Parish, LA. BFM Corporation provided surveying services to verify horizontal and vertical control for the project site; an extension of a previous BFM project (#9303) where the firm provided topographic surveying services. Full documentation for the horizontal and vertical values of the control points established was provided. (\$550 (fee); 2020)

Veterans Boulevard Pump Station, Metairie, Jefferson Parish, LA. BFM executed a Survey Control Verification for the project; scope included locating and verifying the horizontal and vertical control points from a previous BFM surveying project (No. 8244; 2013/2014); a minimum of 2 horizontal and 1 vertical control points were to be provided per site. Project deliverables included a detailed indelible print with an aerial background image clearly showing point location, Northing, Easting, elevation, and description, and a high-resolution PDF of the document. (\$2,975 (fee); 2023)

Coventry Drainage Pump Station Cross Section Survey Update, River Ridge, Jefferson Parish, LA. BFM Corporation provided a single cross section for the project which then updated a previous BFM Survey Project (No. 101214) in order to include the information obtained under this scope of work. (\$6,775 (fee); 2023)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Christopher Lemley
Field Operations Manager/Survey Crew Chief

Project Assignment:

Field Operations Manager/Survey Crew Chief

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years' experience with this Firm:

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

Education: Degree(s)/Year/Specialization:

High School Diploma

Active Registration: Year first registered/discipline:

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

Other experience and qualifications relevant to the proposed Project:

Chris Lemley's services as BFM's Field Operations Manager includes overseeing all field work and activity by company personnel. His surveying experience includes over 8 years as a Survey Crew Chief. His survey software experience includes projects involving Trimble, Topcon, Leica, and Hypack, and has maintained and operated GPS, Auto-Level, and Total Station.

Goose Bayou Drainage Pump Station, Lafitte, Jefferson Parish, LA. BFM provided boundary and topographic surveying services; this included obtaining available title data, supplemented with courthouse research. Located property corners to establish rights-of-way, setting a closed traverse around the site, establishing Temporary Benchmarks, taking elevations, and plotting the location of improvements & topographic features, both natural and man-made. Also included producing cross sections and plotting spot elevations on paving or other hard surfaces. (\$11,905 (fee); 2016)

Fulton Street Pump Station, Jefferson Parish, LA. BFM provided boundary with topographic survey for the project. The scope included establishing horizontal control, setting Temporary Benchmarks, and plotting the location of improvements & topographic elements (man-made and natural). BFM also determined the depth, size, and type of pipes within surface observable drainage, sewerage, and water structures as established. For the topographic survey, spot elevations did not exceed a 25-foot grid within the Limits of Survey and included bottom of canal elevations along adjacent wall. (\$11,890 (fee); 2017)

TEC Professional Services Questionnaire

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

Westwego Drainage Pump Station No. 1, Jefferson Parish, LA. BFM Corporation provided services for a Limited Topographic Survey at the project site, Westwego Drainage Pump No. 1. The scope of services first re-established Site Horizontal and Vertical control, as these were established as part of a previous BFM project (BFM No. 9730). Services next included locating existing improvements within the designated Limits of Survey, taking elevations and cross sections, and verification of piping and utilities. (\$4,725 (fee); 2018)

North Arnoult Drainage Pump Station Improvements, Jefferson Parish, LA. Project involved a boundary with topographic survey, establishing a baseline parallel to the right-of-way. Points of intersection set were referenced by 3-point ties to topographic features in the area. Two temporary benchmarks were established. Existing improvements were located, including utilities, piping, and natural elements. Building corners within the limits of survey were also located, as were property corners in order to determine the rights-of-way and property boundary limits. (\$6,870 (fee); 2019)

Coventry Drainage Pump Stations, River Ridge, Jefferson Parish, LA. BFM Corporation provided a Route Topographic Survey with Hydrographic Survey for the project, located in River Ridge, Louisiana. The levee and hydrographic survey area was noted as 400 feet wide (200 ft. in either direction of the extended centerline of Colonial Heights Road). The hydrographic survey extended 500 feet into the river from the water's edge. The full scope of the project also included research of public land records; location of property corners; establishing a baseline along the rear property line and; establishing Temporary Benchmarks. Existing improvements were located, as well as visible above ground utilities and those underground utilities with visible surface evidence. The survey further determined the depth, size, and type of pipes within surface observable drainage, sewerage, and water structures as established above. Trees were also located. Spot elevations were taken at 50-foot intervals within the Limits of Survey. (\$89,780 (fee); 2020)

Bayou Segnette Drainage Pump Station No. 1 Survey Verification, Jefferson Parish, LA. BFM Corporation provided surveying services to verify horizontal and vertical control for the project site; an extension of a previous BFM project (#9303) where the firm provided topographic surveying services. Full documentation for the horizontal and vertical values of the control points established was provided. (\$550 (fee); 2020)

Levee Intake Pump Station Cell Inspection at the New East Bank Water Treatment Plant, Jefferson Parish, LA. BFM was selected by Jefferson Parish to provide a cell inspection survey for the project. Diving services were subcontracted to Specialty Diving of Louisiana, with BFM personnel supervising all data collection and resultant underwater 3D scanning (Teledyne BlueView BV5000, 3D Mechanical Scanning Sonar). (\$8,175 (fee); 2023)

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
Procurement Director (Proposals & Project Management Support)

Project Assignment:

Project Management Support

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years' experience with this Firm:

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

Education: Degree(s)/Year/Specialization:

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

Active Registration: Year first registered/discipline:

N/A

Other experience and qualifications relevant to the proposed Project:

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

Westwego Drainage Pump Station No. 1, Jefferson Parish, LA. BFM provided services for a Limited Topographic Survey at the project site. The scope first re-established Site Horizontal and Vertical control, as these were established as part of a previous BFM project (No. 9730). Services next included locating existing improvements within the designated Limits of Survey, taking elevations and cross sections, and verification of piping and utilities. (\$4,725 (fee); 2018)

Hero Pump Station, Harvey, Jefferson Parish, LA. BFM provided topographic surveying services for the project. (\$16,380 (fee); 2018)

Fulton Street Pump Station, Jefferson Parish, LA. BFM provided boundary with topographic survey for the project. The scope included establishing horizontal control, setting Temporary Benchmarks, and plotting the location of improvements & topographic elements (man-made and natural). BFM also determined the depth, size, and type of pipes within surface observable drainage, sewerage, and water structures as established. For the topographic survey, spot elevations did not exceed a 25-foot grid within the Limits of Survey and included bottom of canal elevations along adjacent wall. (\$11,890 (fee); 2017)

TEC Professional Services Questionnaire

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

Improvements to Bayou Segnette Drainage Pump Station No. 1, Jefferson Parish, LA. BFM provided topographic surveying services for the project. (\$13,650 (fee); 2016)

Goose Bayou Drainage Pump Station, Lafitte, Jefferson Parish, LA. BFM Corporation provided boundary and topographic surveying services for the project. The scope of services included obtaining available title data, supplemented with courthouse research. BFM located property corners to establish rights-of-way, setting a closed traverse around the site, establishing Temporary Benchmarks (TBM), taking elevations, and plotting the location of improvements and topographic features, both natural and man-made. The scope of services included producing cross sections and plotting spot elevations on paving or other hard surfaces. (\$11,905 (fee); 2016)

Drainage Pump Station, West Esplanade and 17th Street Canals, Jefferson Parish, LA. Topographic survey with right of way and underground utilities for proposed pump stations. (\$5,976 (fee); 2014)

Drainage Pump Station, Veterans North & South, Right-of-Way, 17th Street Canal, Jefferson Parish, LA. BFM prepared a topographic survey (with right of way & underground utilities locations) for this proposed pump station project. (\$26,540 (fee); 2014)

Emergency Generators for Sewer Lift Stations and Helios and West Napoleon Pump Stations, Jefferson Parish, LA. BFM prepared topographic surveys at the Helios PS and at the West Napoleon PS for the placement of emergency generators. (\$5,888 (fee); 2012)

Harahan Pump-to-the-River, Jefferson Parish, LA. Starting in the mid 00s, BFM Corporation has been providing various surveying services to the Pump To The River project located in Harahan, Louisiana. Project work has involved setting offsite control; this included tying in to the baseline with station/offset (with northing and easting). BFM also surveyed the route for the pipeline and pump station site, starting at Mazoue Ditch/Soniat Canal intersection, and over to land adjacent to the existing Sewer treatment plant (parallel with Hickory Avenue to the Mississippi River). For the next element, BFM took soundings in the River; two lines 75 ft. apart and 200 ft. out into the river every 25 ft. BFM created legals for permanent and temporary servitudes, and provided additional topographic surveying necessary for a west-ward shift. BFM later provided updates to the overall topographic survey and provided surveying for the right-of-way and DOTD boundary. The most recent element involved writing legals for permanent and temporary servitudes for the outfall portion of the project. (2005 thru 2012)

Upper Kraak Pump Station, Jefferson Parish, LA. BFM provided topographic surveying services for the project. (\$14,895 (fee); 2010)

Paillet Pump Station Access Road and Drainage Improvements, Jefferson Parish, LA. BFM provided topographic surveying services for the project. (\$19,637 (fee); 2009)

Effluent Pump Station & Structures at Harvey Wastewater Treatment Plant, Jefferson Parish, LA. BFM provided surveying services to locate the effluent pump station and all structures for a section of the Harvey WWTP in Jefferson Parish. The project also included all necessary topographic surveying services. (\$2,418 (fee); 2009)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:	
Name & Title:	
Dawn Hoffman Researcher/Archivist	
Project Assignment:	
Researcher/Archivist	
Name of Firm with which associated:	
 BFM CORPORATION, LLC Professional Land & Hydrographic Surveying	
Years' experience with this Firm:	
15 years (joined BFM in 2009); 27 years total (1997)	<i>BFM Corporation, LLC 2009 to present</i> <i>Fluor Corporation 2007 to 2009</i> <i>Geographic Computer Technologies, LLC 2000 to 2007</i>
Education: Degree(s)/Year/Specialization:	
A.D., 1999, Computer-Aided Drafting, Southeast College of Technology Certificate, 2003, Introduction to ArcGIS, Louisiana State University	
Active Registration: Year first registered/discipline:	
N/A	
Other experience and qualifications relevant to the proposed Project:	
<p>Dawn Hoffman serves as BFM's primary researcher and has more than 25 years of experience in this field. She is extremely knowledgeable with researching in various parishes and cities.</p> <p>Goose Bayou Drainage Pump Station, Lafitte, Jefferson Parish, LA. BFM Corporation provided boundary and topographic surveying services for the project. The scope of services included obtaining available title data, supplemented with courthouse research. BFM located property corners to establish rights-of-way, setting a closed traverse around the site, establishing Temporary Benchmarks (TBM), taking elevations, and plotting the location of improvements and topographic features, both natural and man-made. The scope of services included producing cross sections and plotting spot elevations on paving or other hard surfaces. (\$11,905 (fee); 2016)</p> <p>Fulton Street Pump Station, Jefferson Parish, LA. BFM Corporation provided boundary with topographic survey for the Fulton Street Pump Station project. The scope of services included establishing horizontal control, setting Temporary Benchmarks, and plotting the location of improvements & topographic elements (man-made and natural). BFM also determined the depth, size, and type of pipes within surface observable drainage, sewerage, and water structures as established. For the topographic survey, spot elevations did not exceed a 25-foot grid within the Limits of Survey and included bottom of canal elevations along adjacent wall. (\$11,890 (fee); 2017)</p>	

TEC Professional Services Questionnaire

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

Westwego Drainage Pump Station No. 1, Jefferson Parish, LA. BFM Corporation provided services for a Limited Topographic Survey at the project site, Westwego Drainage Pump No. 1. The scope of services first re-established Site Horizontal and Vertical control, as these were established as part of a previous BFM project (BFM No. 9730). Services next included locating existing improvements within the designated Limits of Survey, taking elevations and cross sections, and verification of piping and utilities. (\$4,725 (fee); 2018)

North Arnoult Drainage Pump Station Improvements, Jefferson Parish, LA. Project involved a boundary with topographic survey, establishing a baseline parallel to the right-of-way. Points of intersection set were referenced by 3-point ties to topographic features in the area. Two temporary benchmarks were established. Existing improvements were located, including utilities, piping, and natural elements. Building corners within the limits of survey were also located, as were property corners in order to determine the rights-of-way and property boundary limits. (\$6,870 (fee); 2019)

Coventry Drainage Pump Stations, River Ridge, Jefferson Parish, LA. BFM Corporation provided a Route Topographic Survey with Hydrographic Survey for the project, located in River Ridge, Louisiana. The levee and hydrographic survey area was noted as 400 feet wide (200 ft. in either direction of the extended centerline of Colonial Heights Road). The hydrographic survey extended 500 feet into the river from the water's edge. The full scope of the project also included research of public land records; location of property corners; establishing a baseline along the rear property line and; establishing Temporary Benchmarks. Existing improvements were located, as well as visible above ground utilities and those underground utilities with visible surface evidence. The survey further determined the depth, size, and type of pipes within surface observable drainage, sewerage, and water structures as established above. Trees were also located. Spot elevations were taken at 50-foot intervals within the Limits of Survey. (\$89,780 (fee); 2020)

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)

Bayou Segnette Drainage Pump Station No. 1 Survey Verification, Jefferson Parish, LA. BFM Corporation provided surveying services to verify horizontal and vertical control for the project site; an extension of a previous BFM project (#9303) where the firm provided topographic surveying services. Full documentation for the horizontal and vertical values of the control points established was provided. (\$550 (fee); 2020)

Coventry Drainage Pump Station Cross Section Survey Update, River Ridge, Jefferson Parish, LA. BFM Corporation provided a single cross section for the project which then updated a previous BFM Survey Project (No. 101214) in order to include the information obtained under this scope of work. (\$6,775 (fee); 2023)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Anthony Watson
CADD Technician (AutoCADD Drafting Services)

Project Assignment:

CADD Technician (AutoCADD Drafting Services)

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years' experience with this Firm:

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

Education: Degree(s)/Year/Specialization:

Coursework - CAD, Avatech Solutions, Los Colinas, TX

Active Registration: Year first registered/discipline:

N/A

Other experience and qualifications relevant to the proposed Project:

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

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)

Coventry Drainage Pump Stations, River Ridge, Jefferson Parish, LA. BFM Corporation provided a Route Topographic Survey with Hydrographic Survey for the project, located in River Ridge, Louisiana. The levee and hydrographic survey area was noted as 400 feet wide (200 ft. in either

TEC Professional Services Questionnaire

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

direction of the extended centerline of Colonial Heights Road). The hydrographic survey extended 500 feet into the river from the water's edge. The full scope of the project also included research of public land records; location of property corners; establishing a baseline along the rear property line and; establishing Temporary Benchmarks. Existing improvements were located, as well as visible above ground utilities and those underground utilities with visible surface evidence. The survey further determined the depth, size, and type of pipes within surface observable drainage, sewerage, and water structures as established above. Trees were also located. Spot elevations were taken at 50-foot intervals within the Limits of Survey. (\$89,780 (fee); 2020)

Goose Bayou Drainage Pump Station, Lafitte, Jefferson Parish, LA. BFM Corporation provided boundary and topographic surveying services for the project. The scope of services included obtaining available title data, supplemented with courthouse research. BFM located property corners to establish rights-of-way, setting a closed traverse around the site, establishing Temporary Benchmarks (TBM), taking elevations, and plotting the location of improvements and topographic features, both natural and man-made. The scope of services included producing cross sections and plotting spot elevations on paving or other hard surfaces. (\$11,905 (fee); 2016)

Parish Line Pump Station No. 5, Kenner, Jefferson Parish, LA. BFM's surveying services included setting control points (recover existing control references) and verification of existing control (horizontal & vertical values on new control points). (\$2,175 (fee), 2018)

Hero Pump Station, Harvey, Jefferson Parish, LA. BFM Corporation provided topographic surveying services for the project. (\$16,380 (fee); 2018)

Improvements to Bayou Segnette Drainage Pump Station No. 1, Jefferson Parish, LA. BFM provided topographic surveying services for the project. (\$13,650 (fee); 2016)

Drainage Pump Station, Veterans North & South, Right-of-Way, 17th Street Canal, Jefferson Parish, LA. BFM prepared a topographic survey (with right of way & underground utilities locations) for this proposed pump station project. (\$26,540 (fee); 2014)

Drainage Pump Station, West Esplanade and 17th Street Canals, Jefferson Parish, LA. Topographic survey with right of way and underground utilities for proposed pump stations. (\$5,976 (fee); 2014)

Ames Boulevard Drainage Pump Station Warehouse, Jefferson Parish, LA. BFM provided topographic surveying services for a new warehouse building at the Ames Boulevard Pumping Station. (2014)

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

Morton & Ingrid Pump Station, Jefferson Parish, LA. BFM executed a topographic survey, beginning at the Morton & Ingrid Pump Station, with said survey running along Morton Street to Elizabeth Street then continuing along Elizabeth Street towards West Napoleon Avenue and ending at the Elizabeth Street Pump Station. (\$27,500 (fee); 2012)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Kevin A. Roberts
CADD Technician (AutoCADD Drafting Services)

Project Assignment:

CADD Technician (AutoCADD Drafting Services)

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years' experience with this Firm:

6 years (joined BFM in 2018);	<i>BFM Corporation, LLC 2018 to present</i>
39 years total (1985)	<i>J.V. Burkes and Associates 2017 to 2018</i>
	<i>Evans-Graves Engineers 2003 to 2017</i>
	<i>J. Ray McDermott 2002 to 2003</i>
	<i>MECO (Drafting Dept) 2002 to 2003</i>
	<i>Advanced Commercial Contracting (Drafting Dept) 1999 to 2002</i>
	<i>SOTEC (Drafting Dept) 1999</i>
	<i>UNO Purchasing & Physical Plant Depts. 1985 to 1997</i>

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:

N/A

Other experience and qualifications relevant to the proposed Project:

Kevin Roberts has direct drafting experience with civil engineering, offshore engineering, water purification systems, and general architectural and construction design & terminology. He joined BFM in 2018 and provides drafting services to the firm.

Coventry Drainage Pump Stations, River Ridge, Jefferson Parish, LA. BFM Corporation provided a Route Topographic Survey with Hydrographic Survey for the project, located in River Ridge, Louisiana. The levee and hydrographic survey area was noted as 400 feet wide (200 ft. in either direction of the extended centerline of Colonial Heights Road). The hydrographic survey extended 500 feet into the river from the water's edge. The full scope of the project also included research of public land records; location of property corners; establishing a baseline along the rear property line and; establishing Temporary Benchmarks. Existing improvements were located, as well as visible above ground utilities and those underground utilities with visible surface evidence. The survey further determined the depth, size, and type of pipes within surface observable drainage, sewerage, and water structures as established above. Trees were also located. Spot elevations were taken at 50-foot intervals within the Limits of Survey. (\$89,780 (fee); 2020)

TEC Professional Services Questionnaire

Other experience and qualifications: **Kevin A. Roberts (continued)**

North Arnoult Drainage Pump Station Improvements, Jefferson Parish, LA. Project involved a boundary with topographic survey, establishing a baseline parallel to the right-of-way. Points of intersection set were referenced by 3-point ties to topographic features in the area. Two temporary benchmarks were established. Existing improvements were located, including utilities, piping, and natural elements. Building corners within the limits of survey were also located, as were property corners in order to determine the rights-of-way and property boundary limits. (\$6,870 (fee); 2019)

Fisher School Phase 2 Levee, Lafitte, Jefferson Parish, LA. For this project, BFM established a Temporary Benchmark (TBM) on both ends of the proposed Fisher School Phase 2 Levee project in order to establish site elevations for the project's engineer. BFM further confirmed the Top of Wall elevation near the end of the Phase 1 project location, which was at Fleming Park Road. Per engineer request, a second TBM was set near the project site's pump station. (\$950 (fee); 2019)

Coventry Drainage Pump Station Cross Section Survey Update, River Ridge, Jefferson Parish, LA. BFM Corporation provided a single cross section for the project which then updated a previous BFM Survey Project (No. 101214) in order to include the information obtained under this scope of work. (\$6,775 (fee); 2023)

Avenue D Drainage Improvements (Phase VIII: Allo Street), Metairie, Jefferson Parish, LA. BFM Corporation executed a Route Topographic Survey for the Allo Street project area, which extended from 4th Street to 6th Street. A baseline was established along the centerline of Allo Street, with Temporary Benchmarks at each intersection along the route. Cross sections taken on a 25 ft. grid. Existing improvements were located within the designated Limits of Survey, as were visible above-ground and underground utilities, piping, and natural features including trees and shrubbery. (\$12,855 (fee); 2019)

Metairie Road Drainage Evaluation, Metairie, Jefferson Parish, LA. BFM Corporation provided Route Topographic Surveying for this Drainage Evaluation Project (PW 2018-024-DR) in Jefferson Parish. The scope of services included a full Route Topographic Survey (includes all services, utilities, properties, elevations and items necessary to perform any and all engineering and construction work) from gutter line to gutter line along Metairie Road from the westerly apparent right-of-way (ROW) of Causeway Boulevard to easterly apparent R/W of Focis Street. The project encompassed approximately 10,400 linear feet, with cross-sections and elevations surveyed included as part of the scope. (\$18,350 (fee); 2020)

Lafitte Drainage Project, Town of Jean Lafitte, Jefferson Parish, LA. BFM Corporation provided Route Topographic Surveying services for a proposed drainage servitude project in the Town of Jean Lafitte in Jefferson Parish, LA. The project built on a previous BFM project (No. 10309). The project also included provision of boundary surveying in order to provide a servitude plat with legal description. The topographic survey element included establishing a baseline along the route, location of existing improvements, location of drainage, sewerage, and water structures, locating trees and drip lines, and taking spot elevations. For the Servitude Survey, BFM located property corners on the affected properties, and adjacent lots, to verify the boundary. Deliverables included a detailed indelible prints and high-resolution PDFs, cross sections & Three-Point TIE worksheet, a metes-and-bounds legal description of the servitude, and AutoCAD drawing files in DWG format. (\$11,875 (fee); 2022)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Will Farber, E.I.
Land Surveyor Apprentice/Drafting Services

Project Assignment:

Land Surveyor Apprentice/Drafting Services

Name of Firm with which associated:

BFM CORPORATION, LLC
Professional Land & Hydrographic Surveying

Years' experience with this Firm:

2 years (joined BFM in 2022);	<i>BFM Corporation, LLC 2022 to present</i>
12 years total (2012)	<i>Statewide Land Surveying 2022</i>
	<i>AKS Engineering & Forestry 2020 to 2022</i>
	<i>Bridge Diagnostics Inc. 2018 to 2020</i>

Education: Degree(s)/Year/Specialization:

B.S., 2018, Civil Engineering (minor in Surveying), LSU

Active Registration: Year first registered/discipline:

2018, Engineer Intern (Louisiana, No. 33903)

Other experience and qualifications relevant to the proposed Project:

Will Farber, E.I., serves as a Land Surveyor Apprentice; his work with BFM includes survey field services and CADD drafting services (including Civil 3D). His experience also includes working with Leica Infinity, Carlson, InfraWorks, and ReCap, and has worked with Total Station for land surveying, bathymetry, and photogrammetry. Will's past experience includes providing services as an NDE Field Engineer for numerous projects with several types of field inspection testing & monitoring methods; this included Photogrammetry, ultraseismic testing, ground penetrating radar (GPR), and infrared thermography, among others. This project work has included bridge dams, culverts, telecommunication structures, pavements, and other civil infrastructures.

Veterans Boulevard Pump Station, Metairie, Jefferson Parish, LA. BFM executed a Survey Control Verification for the project; scope included locating and verifying the horizontal and vertical control points from a previous BFM surveying project (No. 8244; 2013/2014); a minimum of 2 horizontal and 1 vertical control points were to be provided per site. Project deliverables included a detailed indelible print with an aerial background image clearly showing point location, Northing, Easting, elevation, and description, and a high-resolution PDF of the document. (\$2,975 (fee); 2023)

Coventry Drainage Pump Station Cross Section Survey Update, River Ridge, Jefferson Parish, LA. BFM Corporation provided a single cross section for the project which then updated a previous BFM Survey Project (No. 101214) in order to include the information obtained under this scope of work. (\$6,775 (fee); 2023)

TEC Professional Services Questionnaire

Other experience and qualifications: **Will Farber, E.I. (continued)**

Levee Intake Pump Station Cell Inspection at the New East Bank Water Treatment Plant, Jefferson Parish, LA. BFM Corporation was selected by Jefferson Parish to provide a cell inspection survey for the project. Diving services were subcontracted to Specialty Diving of Louisiana, with BFM personnel supervising all data collection and resultant underwater 3D scanning (Teledyne BlueView BV5000, 3D Mechanical Scanning Sonar). (\$8,175 (fee); 2023)

Central Avenue Roadway Drainage & Water Main Improvements, Jefferson Parish, LA. BFM Corporation provided surveying services for the project; the scope of which consisted of verifying pipe sizes and inverts for drainage structures along the west side (only) of Central Avenue, which was located during a previous BFM project. BFM located any new drainage structures within the previous survey limits and determined the depth, size, and type of pipes within each drainage structure which were shown on the previous survey. This included catch basins, drop inlets, and ditch culvert pipes. Alterations/updates were noted on an updated version of the previous survey. (\$2,850 (fee); 2022)

Rehabilitation of Sewer Lift Station D4-7A at Sauve Road and Generes Drive, Harahan, Jefferson Parish, LA. BFM was contracted to prepare a Topographic Survey of an existing sewer lift station in Harahan. The project involved establishing a baseline as well as a Construction Benchmark and Temporary Benchmark. The survey further located improvements, utilities, and applicable trees. Spot elevations were taken at 25 foot intervals. (\$6,830 (fee); 2022)

Rehabilitation of Sewer Lift Station F7-13 at Veterans Boulevard and Neyrey Drive, Metairie, Jefferson Parish, LA. BFM was contracted to prepare a Topographic Survey of an existing sewer lift station in Metairie. The project involved establishing a baseline as well as a Construction Benchmark and Temporary Benchmark. The survey further located improvements, utilities, and applicable trees. Spot elevations were taken at 50-foot intervals. Property corners were located to establish the rights-of-way, with the final survey showing the ROW and adjacent boundary information. (\$11,570 (fee); 2022)

Sewer Lift Station at Midway Drive & Soniat Canal, Harahan, Jefferson Parish, LA. BFM Corporation executed a Topographic Surveying of the Sewer Lift Station at Midway Drive & Soniat Canal in Harahan, LA. The project included establishing a baseline and setting a Construction Benchmark, located improvements, utilities, and applicable trees, with spot elevations taken at 25 foot intervals. Apparent right-of-ways were shown on the final survey. Deliverables included detailed indelible prints, a Three-Point Tie Worksheet, and Construction Benchmark Certificate. (\$6,560 (fee); 2022)

Bonnabel Canal, from W. Esplanade Avenue to Veterans Boulevard, Metairie, Jefferson Parish, LA. The project, being executed for the Jefferson Parish Department of Capital Projects, involves establishing a baseline and setting Temporary Benchmarks. Scope includes location of improvements, utilities, and applicable trees. Spot elevations are included. The project is utilizing established Jefferson Parish GIS to show the apparent rights-of-way. The project involves 4100 lf of topographic survey along the Bonnabel Canal, from West Esplanade Avenue to Veterans Memorial Boulevard. (\$63,000 (fee); 2022)

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:

34 years (joined BFM in 1990);
39 years total (1985)

BFM Corporation, LLC | 1990 to present
Benson Mercedes Benz | 1989 to 1990
SECO Electric | 1987
Frishhertz Electric | 1986 to 1987
Plain Construction | 1985 to 1986

Education: Degree(s)/Year/Specialization:

High School Diploma

Active Registration: Year first registered/discipline:

American Traffic Safety Service Assn. – Traffic Flagger
Basic OSHA Training Class Completion
Transportation Work Identification Card (TWIC)

Other experience and qualifications relevant to the proposed Project:

Jay Barrios' surveying experience includes boundary, hydrographic, and topographic. He has been the Survey Crew Chief for thousands of projects and is one of the more experienced surveyors in the area. Further, Mr. Barrios has been involved on major transmission projects for Entergy and South Central Bell (AT&T).

North Arnoult Drainage Pump Station Improvements, Jefferson Parish, LA. Project involved a boundary with topographic survey, establishing a baseline parallel to the right-of-way. Points of intersection set were referenced by 3-point ties to topographic features in the area. Two temporary benchmarks were established. Existing improvements were located, including utilities, piping, and natural elements. Building corners within the limits of survey were also located, as were property corners in order to determine the rights-of-way and property boundary limits. (\$6,870 (fee); 2019)

Veterans Boulevard Pump Station, Metairie, Jefferson Parish, LA. BFM executed a Survey Control Verification for the project; scope included locating and verifying the horizontal and vertical control points from a previous BFM surveying project (No. 8244; 2013/2014); a minimum of 2 horizontal and 1 vertical control points were to be provided per site. Project deliverables

TEC Professional Services Questionnaire

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

included a detailed indelible print with an aerial background image clearly showing point location, Northing, Easting, elevation, and description, and a high-resolution PDF of the document. (\$2,975 (fee); 2023)

Fulton Street Pump Station, Jefferson Parish, LA. BFM Corporation provided boundary with topographic survey for the Fulton Street Pump Station project. The scope of services included establishing horizontal control, setting Temporary Benchmarks, and plotting the location of improvements & topographic elements (man-made and natural). BFM also determined the depth, size, and type of pipes within surface observable drainage, sewerage, and water structures as established. For the topographic survey, spot elevations did not exceed a 25-foot grid within the Limits of Survey and included bottom of canal elevations along adjacent wall. (\$11,890 (fee); 2017)

East Bank Water Treatment Plant Improvements Project (including Laser Scanning), Jefferson Parish, LA. BFM provided surveying services for Tasks 1 (topographic) and 2 (boundary) of the project, part of a major improvements project for the East Bank Water Treatment Plant located at 3600 Jefferson Highway in Jefferson Parish. This included executing a 3D Laser Scan for an As-Built Utilities survey. Draft surveying (in conjunction with the Prime Firm) as well as provision of final survey were prepared as directed. (\$166,230 (fee); 2017)

Lafitte Drainage Project, Town of Jean Lafitte, Jefferson Parish, LA. BFM Corporation provided Route Topographic Surveying services for a proposed drainage servitude project in the Town of Jean Lafitte in Jefferson Parish, LA. The project built on a previous BFM project (No. 10309). The project also included provision of boundary surveying in order to provide a servitude plat with legal description. The topographic survey element included establishing a baseline along the route, location of existing improvements, location of drainage, sewerage, and water structures, locating trees and drip lines, and taking spot elevations. For the Servitude Survey, BFM located property corners on the affected properties, and adjacent lots, to verify the boundary. Deliverables included a detailed indelible prints and high-resolution PDFs, cross sections & Three-Point TIE worksheet, a metes-and-bounds legal description of the servitude, and AutoCAD drawing files in DWG format. (\$11,875 (fee); 2022)

Taft Park Pump Station and Drain Line Path, Jefferson Parish, LA. BFM executed Topographic Surveying services involving location & elevations of the drainage structures for monitoring of the Taft Park Pump Station. The survey encompassed the area extending from 33rd Street (Vernon Street) to West Napoleon Avenue. The scope included establishing a project baseline that could be recovered for construction; elevations & spot elevations, and; cross sections. The survey also plotted the location of improvements within the designated limits of survey. (\$23,531 (fee); 2009)

Parish-Wide Safe House Program, Jefferson Parish, LA. BFM provided surveying services associated with elevated safe houses at multiple locations throughout Jefferson Parish; this was part of a Parish-wide project to establish safe houses for pumping stations at multiple locations which will allow pump operators to safely remain at their station, ensuring the pumps continue to operate, during a hurricane event. (\$112,490 (fee); 2005 - 2007)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Eric Gladney II
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:

10 years (joined BFM in 2014);
23 years total (2001)

BFM Corporation, LLC | 2014 to present
Seatech Industries | 2010 to 2012
Richmond W. Krebs & Associates, LLC | 2008 to 2010
Krebbs, LaSalle, LeMieux Consultants Inc. | 2003 to 2008

Education: Degree(s)/Year/Specialization:

High School Diploma

Active Registration: Year first registered/discipline:

American Traffic Safety Service Assn. – Traffic Flagger
Basic OSHA Training Class Completion
Norfolk Southern Roadway Worker Protection Contractor Safety Certificate
Transportation Work Identification Card (TWIC)

Other experience and qualifications relevant to the proposed Project:

Coventry Drainage Pump Stations, River Ridge, Jefferson Parish, LA. BFM Corporation provided a Route Topographic Survey with Hydrographic Survey for the project, located in River Ridge, Louisiana. The levee and hydrographic survey area was noted as 400 feet wide (200 ft. in either direction of the extended centerline of Colonial Heights Road). The hydrographic survey extended 500 feet into the river from the water's edge. The full scope of the project also included research of public land records; location of property corners; establishing a baseline along the rear property line and; establishing Temporary Benchmarks. Existing improvements were located, as well as visible above ground utilities and those underground utilities with visible surface evidence. The survey further determined the depth, size, and type of pipes within surface observable drainage, sewerage, and water structures as established above. Trees were also located. Spot elevations were taken at 50-foot intervals within the Limits of Survey. (\$89,780 (fee); 2020)

Coventry Drainage Pump Station Cross Section Survey Update, River Ridge, Jefferson Parish, LA. BFM Corporation provided a single cross section for the project which then updated a previous BFM Survey Project (No. 101214) in order to include the information obtained under this scope of work. (\$6,775 (fee); 2023)

TEC Professional Services Questionnaire

Other experience and qualifications: **Eric Gladney II (continued)**

Central Avenue Roadway Drainage & Water Main Improvements, Jefferson Parish, LA. BFM Corporation provided surveying services for the project; the scope of which consisted of verifying pipe sizes and inverts for drainage structures along the west side (only) of Central Avenue, which was located during a previous BFM project. BFM located any new drainage structures within the previous survey limits and determined the depth, size, and type of pipes within each drainage structure which were shown on the previous survey. This included catch basins, drop inlets, and ditch culvert pipes. Alterations/updates were noted on an updated version of the previous survey. (\$2,850 (fee); 2022)

The Westshore Enhancements Storm Surge Protection Project (Phase 1 & 2), Ascension Parish, LA. BFM provided Boundary and Route Topographic and Hydrographic Surveying for the project in Ascension Parish, LA; as established, the project was executed in two phases. For both phases, BFM established a baseline along the route with the beginning, end, and points of intersection referenced by three-point ties to topographic features in the area. Existing improvements within the designated Limits of Survey were located; as were above ground and underground utilities. The survey also determined the depth, size, and type of pipes within surface observable drainage, sewerage, and water structures. Deliverables for both phases included detailed prints, a Three-Point Tie Worksheet, and a high-resolution PDF and AutoCAD DWG files. (\$477,340 (fee); 2023)

Proposed Sewer Lift Station Near Ehret Road & Broas Drive, Jefferson Parish, LA. BFM Corporation provided boundary with topographic surveying services for the proposed Sewer Lift Station project located near Ehret Road and Broad Drive. The survey was incorporated into BFM previous project #10009 (Sewer Lift Station L-1 3-6; February 2019). Project included establishing a baseline, taking spot elevations, locating improvements & utilities, and preparing a Construction Benchmark. The scope also involved property acquisition surveys, including setting property corners. (\$9,760 (fee); 2022)

Proposed Baton Rouge Ground Storage Tank, East Baton Rouge Parish, City of Baton Rouge, LA. For the project, BFM Corporation provided boundary and topographic surveying services, including establishing a baseline and setting both a Construction Benchmark (CBM) and Temporary Benchmark (TBM). The survey further located improvements, utilities, property corners, edge of wooded areas, geotechnical bore holes, and swale (minor swales/ditches & existing sewer manholes) for sewer trunkline. Spot elevations were also taken, as were finished floor elevations (FFE). (\$46,210 (fee); 2021)

Route Topographic Survey for Jefferson Parish Waterline Replacement Project, Central Avenue, Karen Avenue, and Newman Avenue, JPPW 2023-007-WRB, Jefferson Parish, LA. BFM Corporation was selected to prepare a Route Topographic Survey for the project (approximately 5,650 linear feet). The project will establish a baseline throughout the project, a Construction Benchmark (CBM), and set Temporary Benchmarks (TBMs) along each route. Existing improvements and utilities will be located. BFM will determine depth, size, and type of pipes and locate and identify trees. BFM will also locate property corners to establish the rights-of-way. BFM has provided surveying on multiple Waterline Projects as part of a larger overall Waterline Improvements Program for Jefferson Parish. (\$67,740 (fee); 2023)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Zachary D. Pittman
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:

1 year (joined BFM in 2023);
27 years total (1997)

BFM Corporation, LLC | 2023 to present
Atwell Oil and Gas | 2020 to 2023
Universal Pegasus-Hill | 2017 to 2020
Altura Land Consultants (CO) | 2017 to 2017
NOLA Construction | 2016 to 2017
Gandolfo Kuhn | 2014 to 2016
Cavada Surveyors (CO) | 2013 to 2014
McClone Construction (CO) | 2013 to 2013
GEC Engineering (fm Krebs Lasalle Lemeiux Eng) | 2010 to 2013
Jerry Rugg PLS | 2007 to 2010
Mike Duty PLS | 2006 to 2007
Sage Alliance Co Engineers (AZ) | 2006 to 2006
Tommy Semmes Jr. Surveying | 2005 to 2005
Mike Duty PLS | 2004 to 2005
Cross Country Surveyors | 2002 to 2003
Falcon Surveying (CO) | 2002 to 2002
Charlie Peterson PLS (FL) | 2002 to 2002
Maroney Engineering | 2001 to 2002
Eastside Glass and Sealants (WA) | 2000 to 2000
Jerry Rugg PLS | 1999 to 2000
Mike Duty PLS | 1997 to 1999

Education: Degree(s)/Year/Specialization:

High School Diploma
Bachelor of Arts Coursework (2 years), University of Louisiana at Monroe

Active Registration: Year first registered/discipline:

N/A

Other experience and qualifications relevant to the proposed Project:

Zachary Pittman has worked in the industry since 1997 and has vast experience in surveying services, including a multitude of project types and thousands of projects throughout the region, having served as both Survey Crew Chief and Instrumentman/Rodman. As a field layout engineer, he was in charge of layout and quality control for a large concrete construction company and

TEC Professional Services Questionnaire

Other experience and qualifications: **Zachary D. Pittman (continued)**

further served as a part-time foreman for oversight of foundation, wall, and caisson crews. Mr. Pittman's project experience includes topographic and hydrographic surveying tasks, including ALTA, boundary, elevation certificates, land planning, lot stakeouts, construction layout, and civil engineering projects. Projects have included cell towers, large and small pipeline construction programs, a large light rail project, sports complex buildings, bridge layouts, gas compressor station as-built and natural gas projects, meter stations and main line replacements, and industrial/gas plants and mines.

Mr. Pittman has Multiple Operator Qualifications for all aspects of pipeline locating and surveying, and is experienced with all instrumentation and various other aspects of surveying involved. This includes Static and RTK GPS; Leica, TDS, Trimble, and Topcon operating systems; Robotic Total Station, and Leica, Trimble, and FARO scanning systems. He also is knowledgeable with JSA, job task, and quality control documents as well as Bluebeam Construction Software, Trimble Business Center, Captivate, and CAD.

Lift Stations F6-11 & G6-4, Jefferson Parish, LA. BFM provided Topographic & Right-of-Way Surveying; scope included establishing a baseline, taking spot elevations (25 ft intervals), location of existing improvements and natural elements as well as utilities (above- and below-ground) and piping (drainage, sewerage, and water structures). BFM also located property corners to establish the rights-of-way and property ownership for the two sites. Project deliverables included prints, high-resolution PDF, Three-Point Tie Worksheet, and AutoCAD drawing files. A Construction Benchmark Certificate was provided for each site. (\$17,860 (fee); 2024)

Bonnabel Canal Right-Of-Way Survey, Jefferson Parish, LA. BFM was selected to provide Right-of-Way Surveying services for the project area along a portion of the Bonnabel Canal; the survey established the easterly & westerly right-of-way for Bonnabel Canal in relation to the properties along the east of the canal (Bonnabel Place Subdivision) and the westerly side of the canal (Beverly Garden Extension). Scope included providing an abstract to trace the chain of title (including any known or recorded servitudes), and locating property corners and the top of bank along the east and west of Bonnabel Canal to show it in relation to the rights-of-way/servitude. Project deliverables included a Signed & Sealed Survey Plat and high-resolution PDF. (\$47,680 (fee); 2024)

West Esplanade Avenue U-Turn at Bonnabel Canal, Metairie, Jefferson Parish, LA. BFM provided topographic and right-of-way (R/W) surveying services for the project located in Metairie. The scope of services included establishing a baseline, two Temporary Benchmarks (TBM), and spot elevations. BFM also located property corners to establish the rights-of-way and property ownership. The survey located existing improvements, utilities, and pipes (drainage, water, sewerage). Project deliverables included physical & digital files as well as a Three-Point Tie Worksheet. (\$11,310 (fee); 2024)

TEC Professional Services Questionnaire

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

PROJECT NO. 1

Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Coventry Drainage Pump Stations, River Ridge, Jefferson Parish, Louisiana</p> <p>ECM Consultants, Inc. 1301 Clearview Pkwy Ste 200 Metairie LA 70006</p> <p>Sunina Shrestha, P.E., 504-885-4080 sshrestha@ecmconsultants.com</p>	<p>BFM provided a Route Topographic Survey with Hydrographic Survey; the levee and hydrographic survey area was noted as 400 ft. wide (200 ft. in either direction of the extended centerline of Colonial Heights Rd.). The hydrographic survey extended 500 ft. into the river from the water's edge. Project scope also included research of public land records; location of property corners; establishing a baseline along the rear property line, and; establishing Temporary Benchmarks. Existing improvements were located, as well as above & below-ground. The survey further determined the depth, size, and type of pipes within surface observable drainage, sewerage, and water structures as established above. Trees were also located. Spot elevations were taken at 50-foot intervals within the Limits of Survey.</p>	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
June 2020	N/A	\$89,780 (fee)

PROJECT NO. 2

Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Fulton Street Pump Station, Jefferson Parish, Louisiana</p> <p>Burk-Kleinpeter, Inc. 4176 Canal Street New Orleans LA 70119</p> <p>Tony Moschella, 504-486-5901 tmaschella@bkiusa.com</p>	<p>BFM provided boundary with topographic survey for the project. The scope of services included establishing horizontal control, setting Temporary Benchmarks, and plotting the location of improvements & topographic elements (man-made and natural). BFM also determined the depth, size, and type of pipes within surface observable drainage, sewerage, and water structures as established. For the topographic survey, spot elevations did not exceed a 25-foot grid within the Limits of Survey and included bottom of canal elevations along adjacent wall.</p>	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
December 2017	N/A	\$11,890 (fee)

TEC Professional Services Questionnaire

PROJECT NO. 3		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Orange Lane Drainage Pump Station Project (Drainage Mapping), Grand Isle, Jefferson Parish, Louisiana</p> <p>AIMS Group, Inc. 4421 Zenith Street Metairie LA 70001</p> <p>Lowell Pitré, P.E., 504-887-7045 ljp@aimsgroupinc.com</p>	<p>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.</p>	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
August 2020	N/A	\$32,280 (fee)

PROJECT NO. 4		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Westwego Drainage Pump Station No. 1, Jefferson Parish, Louisiana</p> <p>Jefferson Parish Department of Drainage 1221 Elmwood Park Blvd Ste 907 Harahan LA 70123</p> <p>Ben Lepine, 504-736-6759 blepine@jeffparish.net</p>	<p>BFM provided services for a Limited Topographic Survey at the project site, Westwego Drainage Pump No. 1. The scope of services first re-established Site Horizontal and Vertical control, as these were established as part of a previous BFM project (BFM No. 9730). Services next included locating existing improvements within the designated Limits of Survey, taking elevations and cross sections, and verification of piping and utilities.</p>	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
May 2018	N/A	\$4,725 (fee)

TEC Professional Services Questionnaire

PROJECT NO. 5		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
<p>North Arnoult Drainage Pump Station Improvements, Jefferson Parish, Louisiana</p> <p>Hartman Engineering, Inc. 527 W. Esplanade Ave Suite 300 Kenner LA 70065</p> <p>Rolland A. Mura, 504-466-5667 rmura@harteng.com</p>	<p>The project involved a boundary with topographic survey, establishing a baseline parallel to the right-of-way. Points of intersection set were referenced by 3-point ties to topographic features in the area. Two temporary benchmarks were established. Existing improvements were located, including utilities, piping, and natural elements. Building corners within the limits of survey were also located, as were property corners in order to determine the rights-of-way and property boundary limits.</p>	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
May 2019	N/A	\$6,870 (fee)

PROJECT NO. 6		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Timberview Lane Pump Station, Harvey, Jefferson Parish, Louisiana</p> <p>H. Davis Cole & Associates, Inc. 1340 Poydras Street Suite 1850 New Orleans LA 70112</p> <p>H. Davis Cole, P.E., 504-836-2020 hdcole@hdaviscole.com</p>	<p>BFM was selected to provide topographic surveying services for the project, which involved establishing a baseline and construction benchmark, locating improvements and above & below ground utilities (for each utility, BFM located the upstream/downstream structures), and taking spot elevations at 10 ft. intervals.</p>	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
September 2022	N/A	\$4,530 (fee)

TEC Professional Services Questionnaire

PROJECT NO. 7		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Veterans Boulevard Pump Station, Metairie, Jefferson Parish, Louisiana</p> <p>Jefferson Parish Department of Engineering 1221 Elmwood Pk Blvd Ste 802 Jefferson LA 70123</p> <p>Matthew Zeringue, 504-736-6500 meringue@jeffparish.net</p>	<p>BFM executed a Survey Control Verification for the project; scope included locating and verifying the horizontal and vertical control points from a previous BFM surveying project (No. 8244; 2013/2014); a minimum of 2 horizontal and 1 vertical control points were to be provided per site. Project deliverables included a detailed indelible print with an aerial background image clearly showing point location, Northing, Easting, elevation, and description, and a high-resolution PDF of the document.</p>	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
January 2023	N/A	\$2,975 (fee)

PROJECT NO. 8		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Coventry Drainage Pump Station Cross Section Survey Update, River Ridge, Jefferson Parish, Louisiana</p> <p>ECM Consultants, Inc. 1301 Clearview Pkwy Ste 200 Metairie LA 70006</p> <p>Sunina Shrestha, P.E., 504-885-4080 sshrestha@ecmconsultants.com</p>	<p>BFM Corporation provided a single cross section for the project which then updated a previous BFM Survey Project (No. 101214) in order to include the information obtained under this scope of work.</p>	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
April 2023	N/A	\$6,775 (fee)

TEC Professional Services Questionnaire

PROJECT NO. 9		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Bayou Segnette Drainage Pump Station No. 1 Survey Verification, Jefferson Parish, Louisiana</p> <p>Jefferson Parish Department of Drainage 1221 Elmwood Park Blvd Ste 907 Harahan LA 70123</p> <p>Ben Lepine, 504-736-6759 blepine@jeffparish.net</p>	<p>BFM Corporation provided surveying services to verify horizontal and vertical control for the project site; an extension of a previous BFM project (#9303) where the firm provided topographic surveying services. Full documentation for the horizontal and vertical values of the control points established was provided.</p>	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
July 2020	N/A	\$550 (fee)

PROJECT NO. 10		
Project Name, Location, and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Goose Bayou Drainage Pump Station, Lafitte, Jefferson Parish, Louisiana</p> <p>CB&I Coastal, Inc. 2424 Edenborn Ave Ste 450 Metairie LA 70001-6463</p> <p>Gene S. Gillen, P.E., 504-832-4878 gene.gillen@CBI.com</p>	<p>BFM provided boundary and topographic surveying services for the project. The scope of services included obtaining available title data, supplemented with courthouse research. BFM located property corners to establish rights-of-way, setting a closed traverse around the site, establishing Temporary Benchmarks (TBM), taking elevations, and plotting the location of improvements and topographic features, both natural and man-made. The scope of services included producing cross sections and plotting spot elevations on paving or other hard surfaces.</p>	
Completion Date (Actual or estimated:)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
March 2016	N/A	\$11,905 (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.	<p><i>BFM Corporation is not currently, nor has it previously been involved, in litigation with Jefferson Parish.</i></p>	
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 EXPERIENCE

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

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

Please refer to our projects noted in our personnel listings in Item K as well as the representative projects shown in Item L for specific project examples and an overview of our surveying experience with Jefferson Parish.

BFM’s capabilities include the following and more:

- Topographic Surveying
- Drone Surveying / Photogrammic and LiDAR

TEC Professional Services Questionnaire

N. continued.

- Bathymetric / Hydrographic Surveys
- Property, Boundary, and Right-of-Way Surveys
- 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 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's Drone Surveying features a DJI Matrice drone; 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.

When needed, BFM 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.

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 over two dozen people**, including **two Registered Professional Land Surveyors, Survey Field Crew Personnel, and AutoCAD drafting personnel**, as well as **complete administrative and support staff**.

CRITERIA 3 | CAPACITY FOR TIMELY COMPLETION

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

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

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

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

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

Our workload will allow for quick assignment of key personnel to any project assigned under this task. Our 40+ year history with the Parish is evidence of our responsiveness and our commitment to the Parish, its Departments, and its citizens.

TEC Professional Services Questionnaire

N. continued.

CRITERIA 4 | PAST PERFORMANCE

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

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

Please refer to our projects noted in our personnel listings in Item K as well as the representative projects shown in Item L for specific project examples and an overview of our surveying experience with Jefferson Parish.

CRITERIA 5 | LOCATION OF THE PRINCIPAL OFFICE

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

CRITERIA 6 | LEGAL STATEMENT

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

CRITERIA 7 | REFERENCES

For over 40 years, BFM Corporation has completed thousands of projects throughout Jefferson Parish and Southeast Louisiana, both to municipal and various private clients, similar to the project at hand, not to mention other drainage projects in a wide range of sizes, from small lot to Parish-wide endeavors. **Multiple examples of this work are included throughout this form in both the Personnel Résumés section (Item K) and Representative Project Work (Item L).** We invite you to discuss our project work with the references noted for each project.

BFM Corporation has worked with virtually every municipality in the region. We enjoy a high repeat-business rate with all our clients. **We offer the following specific references for contact:**

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

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

TEC Professional Services Questionnaire

N. continued.

Angela DeSoto, P.E., Director of Engineering, Jefferson Parish

(504-736-6511 | ADeSoto@jeffparish.net)

Sid Trouard, P.E., Program Manager, Jefferson Parish Sewerage Capital Improvement Program

(504-736-6386 | STrouard@jeffparish.net)

Ben Lapine, Acting Director, Department of Drainage, Jefferson Parish

(504-736-6661 | JPSewerage@jeffparish.net)

Michael B. Cooper, Parish President, St. Tammany Parish

(985-898-2362 | president@stpgov.org)

José A. Gonzales, CAO, City of Kenner

(504-468-4090 | jgonzalez@kenner.la.us)

Khalid L. Saleh, PhD, Capital Program Administrator, New Orleans Public Works Dept.

(504-658-8000 | khsaleh@nola.gov)

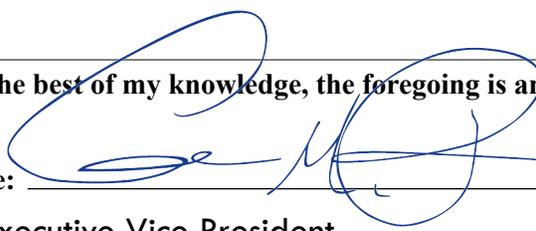
Greg Cromer, Mayor, City of Slidell

(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: August 22, 2024

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

Name: Public Address:

15 Veterans Memorial Boulevard
Kenner, Louisiana 70062
BFM Corporation, LLC

License/Certificate Information w/ Supervision

License	Status	First Issuance Date	Expiration Date	Supervisor(s)
VF.0000008	Active	09/11/1984	09/30/2025	Mr. Ralph P. Fontcuberta Jr. # PLS.0004329



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 **09/30/2024**

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 **09/30/2024**

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 **03/31/2026**

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. William Mead Farber

License/Certificate Type - Number Expiration Date
EI.0033903 **03/31/2025**

Status: **Active**



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



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 9/13/2023 to 9/13/2024 .

Certification No. 9551

Stephanie Hartman,
Director, Entrepreneurial Services

EUSTIS ENGINEERING, LLC
TEC Professional Services Questionnaire



TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

SOQ 24-029, Resolution No. 144443
Independence Park Drainage Pump Station

B. Firm Name & Address:

Eustis Engineering L.L.C.
3011 28th Street, Metairie, Louisiana 70002

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:

Gwendolyn P. Sanders, P.E. / President / 504-834-0157 / gsanders@eustiseng.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.

Gwendolyn P. Sanders, P.E. / President / 504-834-0157 / gsanders@eustiseng.com

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

<u> 7 </u> Administrative	<u> </u> Estimators	<u> </u> Specification Writers
<u> </u> Architects (Licensed)	<u> 2 </u> Geologists	<u> </u> Structural Engineers
<u> </u> Chemical Engineers	<u> 17 </u> Geotechnical Engineers	<u> 3 </u> Graduate Engineers
<u> </u> Civil Engineers	<u> </u> Interior Designers	<u> </u> Project Managers
<u> </u> Construction Inspectors	<u> </u> Landscape Architects	<u> 11 </u> Clerical
<u> </u> Ecologists	<u> </u> Land Surveyor	<u> </u> Grant/Funding Specialist
<u> </u> Electrical Engineers	<u> </u> Mechanical Engineers	<u> </u> Sanitary Engineers
<u> 5 </u> Engineer Intern	<u> </u> Environmental Engineers	<u> 47 </u> Other
<u> </u> Professional Land Surveyors		<u> 92 </u> TOTAL

F. Is this submittal is 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. Not applicable.

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. Not Applicable.		
2.		
3.		

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

We estimate **16** individuals will be needed to complete the geotechnical services associated with projects under this advertisement. This includes a three-member drill crew as well as laboratory, clerical, and engineering staff. More employees can be added, as necessary, to complete any project.

TEC Professional Services Questionnaire

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

Gwendolyn P. Sanders, P.E. / President and Project Principal

Project Assignment:

Project Principal / Limited Liability Corporation Member

Name of Firm with which Associated:

Eustis Engineering L.L.C.

Years' Experience with This Firm:

31

Education: Degree(s)/Year/Specialization:

Master of Science / 1992 / Civil Engineering

Bachelor of Science / 1990 / Civil Engineering

Active Registration: Year First Registered/Discipline:

Louisiana: 1997 / Civil Engineering

Mississippi: 2003 / Engineering

Texas: 2020 / Civil Engineering

Other Experience and Qualifications Relevant to the Proposed Project:

Mrs. Sanders began her professional career with Eustis Engineering L.L.C. in 1993. Over the past 31 years, she has worked her way up through the ranks of the engineering department including Associate Engineer, Project Engineer, Project Manager, and Engineering Manager. She has been on Eustis Engineering's Board of Directors since 1997. In 2020, Mrs. Sanders became Eustis Engineering's first woman president after previously serving as a Vice President and Executive Vice President. As President, she is responsible for day-to-day business operations including quality, safety, marketing, and long-term strategic growth. She also actively participates in the engineering design and review processes.

Considering her experience with Eustis Engineering, a leading Gulf Coast geotechnical firm, Mrs. Sanders has extensive experience in soft soils and working on projects in coastal Louisiana. She has been directly and indirectly involved in numerous projects throughout the Gulf Coast area, particularly in Jefferson Parish. Mrs. Sanders has been involved in and managed every aspect of a geotechnical engineering project; namely, developing appropriate scopes of work for projects, planning and coordinating field investigations, assigning laboratory testing, performing geotechnical engineering analyses, preparing detailed reports with engineering analyses and recommendations, reviewing reports prepared by other professionals, and consulting with clients. Much of her work experience has dealt with identifying soil properties, developing criteria for design of foundations, and determining an appropriate foundation to support the structure under consideration.

In 2017, Mrs. Sanders served as program advisor for the Deep Foundations Institute's 42nd annual conference. She has twice been named one of the 50 Women of the Year by New Orleans CityBusiness, first in 2017 and again in 2021. She is currently serving as an associate member of the ASCE Standards Committee for the Design of Foundations. She has a keen eye for detail and is a stickler for quality. Her work ethic, combined with her communication skills, translates to Mrs. Sanders' ability to deliver successful geotechnical engineering projects to her clients.

Over the years, Mrs. Sanders has been involved with more than 2,800 projects in some capacity, including the following contained within this submittal:

- **Jefferson Parish – Department of Public Works**, Proposed Pump Station, West Esplanade at the 17th Street Canal, Jefferson Parish, Louisiana, Eustis Engineering Project No. 24427

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:

Gwendolyn P. Sanders, P.E. / President and Project Principal

- **Jefferson Parish** – Veterans Boulevard, Pump Stations, Jefferson Parish, Louisiana, Eustis Engineering Project Nos. 23396.00, .01, & 24426
- **Southeast Louisiana Flood Protection Authority – East**, East Jefferson Levee District, Gabrielle Subdivision Runoff Control Piping, Near the Duncan Canal Pump Station, Kenner, Louisiana, Eustis Engineering Project Nos. 22537, 23474, & 24245
- **Jefferson Parish** – Proposed Drainage Improvements, Geisenheimer Canal Between Loumor Ditch and Hoey's Cut, Metairie, Louisiana, Eustis Engineering Project No. 24281

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
James J. Hance, P.E. / Senior Project Manager and Vice President (Finance)
Project Assignment:
Senior Project Manager / Limited Liability Corporation Member
Name of Firm with which Associated:
Eustis Engineering L.L.C.
Years' Experience with This Firm:
21
Education: Degree(s)/Year/Specialization:
Master of Business Administration / 2011 / Business Administration Master of Science / 2003 / Civil Engineering (Geotechnical) Bachelor of Science / 1998 / Civil Engineering
Active Registration: Year First Registered/Discipline:
Louisiana: 2004 / Civil Engineering Mississippi: 2012 / Engineering Texas: 2010 / Civil Engineering
Other Experience and Qualifications Relevant to the Proposed Project:
<p>For 3 years, Mr. Hance was a Staff Engineer and Assistant Project Manager on numerous design and construction phase projects in the Washington, D.C. metropolitan area. His duties included management of field technicians who performed concrete, asphalt, and soils testing as well as foundation construction observations of spread footings, mats, drilled shafts, augercast piles, driven steel H-piles, tiebacks, and underpinning piers.</p> <p>After relocating to Austin, Texas, to eventually pursue graduate studies in engineering, Mr. Hance acted as an Assistant Project Engineer for several design phase projects. These projects involved retention and stream bank stabilization applications. The types of systems designed included mechanically stabilized earth (MSE), single and multi-tiered walls and slopes utilizing geogrid reinforcement, and the use of geosynthetic materials in engineering applications such as erosion control solutions for open channel flow conditions. Mr. Hance was a graduate research assistant at the University of Texas at Austin where he published his master's thesis in association with a Master of Science in Civil Engineering degree: <i>Assessment of Seafloor Slope Stability Based on a Database of Published Submarine Slope Failures</i>.</p> <p>Mr. Hance has spent the past 20 years with Eustis Engineering, L.L.C. and has worked on many projects for Jefferson Parish. During his tenure at Eustis Engineering, he has earned four promotions: Project Engineer (July 2004), Project Manager (November 2007), Vice President (August 2011), and Chief Financial Officer (August 2012). Mr. Hance manages geotechnical services associated with commercial, industrial, environmental, and civil works projects. His responsibilities include managing a wide variety of design and construction phase projects (public and private sectors), management of staff engineers and development of their skill assets, developing scopes of work and appropriate fees for new projects with clients, participating in business development and marketing ventures, and negotiating contracts.</p> <p>Some of his experience relative to this submittal includes the following:</p> <ul style="list-style-type: none">• Jefferson Parish – Jung and Falcone Lift Station Upgrades (K-11-3), New Sanitary Sewer Lift Station, Marrero, Louisiana, Eustis Engineering Project No. 23819• Jefferson Parish – Proposed Pump Station, Blanchard Lane, Grand Isle, Louisiana, Eustis Engineering Project No. 24160• Jefferson Parish – Hoey's Canal Drainage Improvements (Phases II and III), Deckbar Avenue to Labarre Road and Labarre Road to Causeway Boulevard, Jefferson Parish, Louisiana, Eustis Engineering Project Nos. 21458 & 22532.00, .01

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

James J. Hance, P.E. / Senior Project Manager and Vice President (Finance)

- **Jefferson Parish** – Proposed Lift Station, Melody Drive and West Esplanade Avenue, Metairie, Louisiana, Eustis Engineering Project No. 24782

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Benjamin M. Cody, P.E. / Principal Engineer
Project Assignment:
Project Manager
Name of Firm with which Associated:
Eustis Engineering L.L.C.
Years' Experience with This Firm:
22
Education: Degree(s)/Year/Specialization:
Master of Science / 1999 / Civil Engineering Bachelor of Science / 1996 / Civil Engineering
Active Registration: Year First Registered/Discipline:
Louisiana: 2002 / Civil Engineering Mississippi: 2007 / Engineering Texas: 2014 / Civil Engineering Florida: 2001 / Engineering Alabama: 2003 / Engineering Arkansas: 2014 / Engineering
Other Experience and Qualifications Relevant to the Proposed Project:
<p>From 1993 to 1994, Mr. Cody first worked with Eustis Engineering as a part-time laboratory soil technician while obtaining his undergraduate degree. After leaving Eustis Engineering in 1994, Mr. Cody worked as an engineering technician with the Sewerage & Water Board of New Orleans and as a student laboratory coordinator at Tulane University's Department of Civil Engineering. Mr. Cody also assisted in teaching the introductory soil mechanics laboratory sessions. For more than a year, he then worked as a graduate research assistant at Tulane University while pursuing his Master's degree. At that time, he was responsible for the design, construction, and implementation of the bench scale testing system in contaminated soil remediation.</p> <p>From 1998 until 2001, Mr. Cody worked for engineering firms in Florida. He performed such duties as soil evaluation and engineering recommendations for projects of varying sizes including multi-story structures, bridges, and roadways. He performed Phase I environmental site assessments as well as geotechnical sensor installation.</p> <p>In 2001, he returned to the New Orleans area and to Eustis Engineering as a Project Engineer. He now serves as a Principal Engineer with the firm. Since his return, Mr. Cody has performed a wide variety of engineering services including geotechnical project management, engineering design, engineering during construction, and dynamic pile testing. Private sector projects have varied from small private or commercial structures to multi-story high-rise structures, storage tanks, and other industrial facilities. Public projects have included general infrastructure, roads and bridges, port facilities, government buildings and facilities, schools, utilities, and hurricane protection system improvements.</p> <p>Some of Mr. Cody's project experience, shown in this submittal, includes the following:</p> <ul style="list-style-type: none">• Jefferson Parish – Department of Public Works, Proposed Pump Station, West Esplanade at the 17th Street Canal, Jefferson Parish, Louisiana, Eustis Engineering Project No. 24427• Jefferson Parish – Veterans Boulevard, Pump Stations, Jefferson Parish, Louisiana, Eustis Engineering Project Nos. 23396.00, .01, & 24426

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Benjamin M. Cody, P.E. / Principal Engineer

- **Jefferson Parish** – Jung and Falcone Lift Station Upgrades (K-11-3), New Sanitary Sewer Lift Station, Marrero, Louisiana, Eustis Engineering Project No. 23819
- **Southeast Louisiana Flood Protection Authority – East**, East Jefferson Levee District, Gabrielle Subdivision Runoff Control Piping, Near the Duncan Canal Pump Station, Kenner, Louisiana, Eustis Engineering Project Nos. 22537, 23474, & 24245
- **Jefferson Parish** – Proposed Drainage Improvements, Geisenheimer Canal Between Loumor Ditch and Hoey's Cut, Metairie, Louisiana, Eustis Engineering Project No. 24281
- **Jefferson Parish** – Hoey's Canal Drainage Improvements (Phases II and III), Deckbar Avenue to Labarre Road and Labarre Road to Causeway Boulevard, Jefferson Parish, Louisiana, Eustis Engineering Project Nos. 21458 & 22532.00, .01
- **Jefferson Parish** – L & A Road Improvements, Dakin Street to Earhart Expressway, Jefferson Parish, Louisiana, Eustis Engineering Project No. 24196
- **Jefferson Parish** – Proposed Lift Station, Melody Drive and West Esplanade Avenue, Metairie, Louisiana, Eustis Engineering Project No. 24782

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Sean G. Walsh, P.E. / Engineering Manager and Vice President (Engineering)
Project Assignment:
Project Manager
Name of Firm with which Associated:
Eustis Engineering L.L.C.
Years' Experience with This Firm:
11
Education: Degree(s)/Year/Specialization:
Master of Science / 2010 / Civil Engineering Bachelor of Science / 2007 / Civil Engineering
Active Registration: Year First Registered/Discipline:
Louisiana: 2013 / Civil Engineering
Other Experience and Qualifications Relevant to the Proposed Project:
<p>For his first 5 years after graduation, Mr. Walsh was a Project Engineer on numerous projects in New York and the New Orleans metropolitan area where he gained experience in civil, geotechnical, and geo-environmental engineering projects for a variety of public and private clients.</p> <p>Since joining Eustis Engineering in 2012 as a Project Engineer, Mr. Walsh has been responsible for developing and managing engineering package preparations (e.g., engineering design and analysis, reporting, developing construction and permit drawings, contract specifications, cost estimates, and design reporting) for a diverse range of design and analysis projects including deep foundations, excavation support systems, utility foundations, slope stabilization, solid waste closure systems, levee inspection/safety, and seepage modeling.</p> <p>Mr. Walsh was promoted to Project Manager in 2017, Engineering Manager in 2019, and Vice President in 2020. Mr. Walsh is also a graduate of the 2017 New Orleans Regional Leadership Institute (NORLI), a 1-year training program designed to help shape community leaders.</p> <p>During his employment with Eustis Engineering, Mr. Walsh has provided engineering services on more than 900 projects. Mr. Walsh has risen to the level of Vice President and Engineering Manager, in which he is responsible for personnel resource allocation, the overall engineering schedule, and execution of engineering services. Mr. Walsh also functions as a mentor to the engineering staff.</p> <p>A large portion of Mr. Walsh's experience, before and after joining Eustis Engineering, involved development of design and construction recommendations associated with flood protection systems in southeastern Louisiana. Mr. Walsh has served as the project engineer and project manager responsible for the development and implementation of geotechnical exploration programs; development of soil testing laboratory programs; and interpretation of the results to evaluate strength, compressibility, and general soil characterization. Mr. Walsh used these data for geotechnical designs comprising pile capacity curves; bearing capacity analyses; cantilever retaining analyses; anchored retaining wall analyses; temporary retaining structure design; time-settlement projections for earthen levees with lift schedules; soil pressure profiles; structural and earthen levee under seepage analyses; levee and bank stability by Spencer's Method of Slices and Method of Planes; reinforced embankment design; stability analyses of flood protection walls (e.g., T-walls, I-walls, L-walls, and braced 'A-Frame' walls); downdrag and settlement analyses; settlement induced bending moments (SIBM) in foundation piles; piping analyses; uplift analyses; heave analyses; three-dimensional modeling of fill and structural load placements for predictions of time-rate settlements of foundation systems; and</p>

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Sean G. Walsh, P.E. / Engineering Manager and Vice President (Engineering)

numerical modeling of soil-structure interaction (SSI) of flood protection structures by the finite element method (FEM).

Mr. Walsh has also worked on many local government projects in towns and cities including New Orleans, Golden Meadow, and Kentwood; numerous projects in Jefferson, Orleans, St. Bernard, St. Charles, and Plaquemines Parishes; several Port Commissions (e.g., Baton Rouge, New Orleans, South Louisiana); the Sewerage & Water Board of New Orleans; etc.

Regardless of the types of projects engineered for these agencies, his responsibilities have remained the same; namely, defining the project philosophy; developing and maintaining the schedule; providing status reports to clients; controlling expenditures; overseeing project personnel; and reviewing the project design for compliance with engineering principles, company standards, and client requirements. He is hands-on in coordinating activities concerned with technical developments and in resolving engineering design/test problems.

Mr. Walsh's skills over the past 16 years in the industry have developed exponentially with the variety of projects that have crossed his desk. Regarding this submittal, Mr. Walsh has been directly involved with the following projects:

- **Gretna City Park** – Proposed Water Capacity Improvements, 910 Gretna Boulevard, Gretna, Louisiana, Eustis Engineering Project No. 24290
- **Jefferson Parish** – Jung and Falcone Lift Station Upgrades (K-11-3), New Sanitary Sewer Lift Station, Marrero, Louisiana, Eustis Engineering Project No. 23819
- **Jefferson Parish** – Proposed Pump Station, Blanchard Lane, Grand Isle, Louisiana, Eustis Engineering Project No. 24160
- **Jefferson Parish** – Proposed Drainage Improvements, Geisenheimer Canal Between Loumor Ditch and Hoey's Cut, Metairie, Louisiana, Eustis Engineering Project No. 24281

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Lawrence W. Rome, C.E.T. / Operations Manager and Vice President (Operations)

Project Assignment:

Operations Manager / Limited Liability Corporation Member

Name of Firm with which Associated:

Eustis Engineering L.L.C.

Years' Experience with This Firm:

29

Education: Degree(s)/Year/Specialization:

Associate of Applied Sciences / 1998 / Safety

Active Registration: Year First Registered/Discipline:

LA Driller's License /2013

Other Experience and Qualifications Relevant to the Proposed Project:**Accreditations / Affiliations / Certifications**

American Society of Certified Engineering Technicians
Confined Space Entry Certification
Greater New Orleans Industrial Education Council Safety Training
Medic First Aid and CPR Course 2015
HAZMAT Certification, 49 CFR 172, Subpart H, Nuclear Gauges

International Code Council: Soils Special Inspector

National Institute for Certification in Engineering Technologies:

- Level I: Construction Materials Testing, Asphalt
- Level II: Construction Materials Testing, Concrete
- Level IV: Construction Materials Testing, Soils
- Level II: Geotechnical Engineering Technology, Construction
- Level III: Geotechnical Engineering Technology, Generalist
- Level IV: Geotechnical Engineering Technology, Exploration
- Level IV: Geotechnical Engineering Technology, Laboratory
- Level III: Transportation Engineering Technology, Highway Materials

10-Hour OSHA Training

Transportation Workers Identification Card (TWIC)

Registered Well Driller for the States of Louisiana and Mississippi

Professional Experience

After joining Eustis Engineering in 1994, Mr. Rome has worked in several departments throughout our firm. He began as a laboratory technician, performing simple testing such as grain size analyses, Atterberg liquid limits and plastic limits, and unconfined compression shear. Mr. Rome has become involved in more complex testing procedures such as permeability and consolidation tests. His capabilities have expanded to include lime stabilization studies, California Bearing Ratio tests, hysteresis, direct shear tests, swelling pressure and percent swell tests, consolidated undrained triaxial shear tests, relative density tests, and compaction tests.

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Lawrence W. Rome, C.E.T. / Operations Manager and Vice President (Operations)

Mr. Rome is thoroughly familiar with the performance of the following types of testing.

- Atterberg limits
- Consolidated drained triaxial shear tests
- Consolidation tests
- Direct simple shear
- Hydrometer
- Moisture content of soil and rock
- Particle size analysis of soils and aggregates
- Pocket penetrometer
- Settlement column testing of dredged materials
- Soil constants
- Standard and modified compaction
- Torvane shear tests
- Unconsolidated undrained triaxial shear tests
- Unit weight
- Moisture density relationships of soil-cement mixtures
- Molded sand triaxial test using Mississippi Department of Transportation specifications
- U.S. Army Corps of Engineers' New Orleans District Classification System
- CBR of laboratory compacted soils
- Consolidated undrained triaxial shear tests
- Direct shear
- Flexible wall permeability test
- Miniature vane shear
- Organic content
- Percent finer than U.S. Standard No. 200 sieve
- Relative density tests
- Sieve analyses
- Specific gravity of soils
- Swell pressure tests
- Unconfined compressive strength of soil
- Unified Soil Classification System
- Visual classification of soils

In early 1998, Mr. Rome joined the Drilling Department as a soil technician, assisting the drilling crew as a wrenchman. In November 1998, Mr. Rome became a driller for Eustis Engineering. In this capacity, he performed sampling operations using 3-in. diameter Shelby tubes and 5-in. diameter U.S. Army Corps of Engineers' (USACE's) fixed piston sampling. He is quite familiar with splitspoon, pitcher, Osterberg, Denison, and hollow stem auger sampling operations. He also performs down hole vane shear testing. He is competent in the installation of piezometers, monitoring wells, inclinometers, and pore pressure transducers. Mr. Rome has drilled to depths in excess of 300 feet utilizing 5-in. fixed piston samplers, and in excess of 400 feet for 3-in. diameter Shelby tube sampling. Mr. Rome has drilled from various types of equipment including pontoons, cargo buggies, shallow draft elevating boats, barges, and pull boats using CME, Diedrich, and Failing drill rigs. Mr. Rome has also served as a Quality Assurance/Quality Control inspector for drilling operations for FFEB JV. This included ensuring as many as 22 drill crews were performing sampling operations in strict compliance with USACE specifications.

In the early 2000s, Mr. Rome attended the University of Missouri at Rolla for Advanced Soil Mechanics training. In 2005, he began serving as Operations Manager overseeing the laboratory department's daily objectives, reviewing calculations, and developing new skills in laboratory personnel, as well as other duties. In the drilling department, he oversees up to five drilling crews which involves ordering parts, looking at prospective sites, making crew schedules, lining up subcontract equipment, and ensuring the highest quality samples are obtained by drill crews and subcontractors. Mr. Rome also serves as a driller or soil technician when his experience is required, or to train new employees.

In 2013, Mr. Rome added the CMT Department under his operational duties in addition to his operational duties within the lab and drilling departments. Mr. Rome works closely with the operations supervisor for CMT, overseeing the department's daily objectives, reviewing reports, reviewing invoices, addressing staffing needs, fleet management, as well as other duties.

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Lawrence W. Rome, C.E.T. / Operations Manager and Vice President (Operations)

Mr. Rome has direct involvement with the following projects related to this submittal:

- **Jefferson Parish** – Jung and Falcone Lift Station Upgrades (K-11-3), New Sanitary Sewer Lift Station, Marrero, Louisiana, Eustis Engineering Project No. 23819
- **Jefferson Parish** – Proposed Pump Station, Blanchard Lane, Grand Isle, Louisiana, Eustis Engineering Project No. 24160

PROJECT NO. 01

Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p align="center"> Jefferson Parish Department of Public Works Proposed Pump Station West Esplanade at the 17th Street Canal Jefferson Parish, Louisiana Eustis Engineering Project No. 24427 </p> <p align="center"> Contact Information: Jefferson Parish Through ECM Consultants, Inc. Suite 200 1301 Clearview Parkway Metairie, Louisiana 70001 Sunina Shrestha, P.E. @ 504-885-4080 </p>	<p>Jefferson Parish proposed a pump station at the intersection of the 17th Street Canal and West Esplanade Avenue in Metairie, Louisiana. The pump station would be built on the west bank of the canal.</p> <p>The pump station was planned to have approximate dimensions of 50' × 36' with a sump depth of approximately 18 feet. A new 78" × 122" arch-shaped reinforced concrete pipe would feed collected drainage water to the pump station. A new generator pad with approximate plan dimensions of 16' × 37' would be located southwest of the pump station.</p> <p>Discharge pipes, 32 inches in diameter, would be installed from the pump station, extending over the levee and floodwall to discharge stormwater from the pump station into the 17th Street Canal. The discharge pipes were to be pile-supported on the land and flood sides of the levee and floodwall.</p> <p>Eustis Engineering performed engineering analyses based on data obtained from previous subsurface explorations at the site supplemented by those in the project area.</p> <p>The scope of service for this project included compiling and updating geotechnical analyses from previous reports that were still applicable to the pump station plans. These previous analyses included deep-seated global stability analyses, seepage potential evaluation, and estimates of pile load capacities for various types and sizes of piles.</p> <p>We performed supplemental deep-seated global stability analyses to provide an alternative analysis as part of the Safety Assurance Review (SAR) required by the U.S. Army Corps of Engineers for the construction permit application. We also furnished supporting documentation for temporary retaining structure design as well as seepage and heave analyses. Finally, we generated recommendations for general site preparation and foundation construction procedures.</p>	
<p align="center">Completion Date (Actual or Estimated)</p>	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
<p align="center">09/2021 (A)</p>	Unknown	\$25,500

PROJECT NO. 02

Project Name, Location, and Owner's Contact Information:

Nature of Firm's Responsibility:

**Jefferson Parish
Veterans Boulevard
Drainage Pump Stations
Jefferson Parish, Louisiana
Eustis Engineering Project Nos.
22024, 22631, 23396.00-.01, and 24426.00-.01**

Contact Information:
Jefferson Parish Through
ECM Consultants, Inc.
Suite 200
1301 Clearview Parkway
Metairie, Louisiana 70001
Sunina Shrestha, P.E. @ 504-885-4080

Two new drainage pump stations are proposed on the north and south sides of Veterans Memorial Boulevard at the 17th Street Canal. Each of these pump stations will discharge into the 17th Street Canal. Due to a planned bike path along the hurricane protection floodwall, these discharge pipes will need to penetrate the flood protection. As a result, plans called for the replacement of portions of the existing West 17th Street Canal I-walls (which cannot be penetrated and still comply with the U.S. Army Corps of Engineers' [USACE] guidelines) with T-walls. Both pump stations would require demolition of approximately 20 feet of existing concrete I-wall for installation of the new T-wall in order to accommodate a discharge pipe through each wall. Access gates will also be provided as part of the floodwall modifications. For additional data at the site, Eustis Engineering L.L.C. used soil boring and laboratory test data contained in our own files from prior explorations as well as data obtained through a Freedom of Information of Act request to the USACE.

Due to the modifications to the flood protection, a safety assurance review (SAR) was conducted by an independent reviewer. The SAR included a review of the plans and specifications as well as design reports and calculations. Comments from the SAR were incorporated into the permit package submitted to the review agencies. The project plans have civil, structural, mechanical, and electrical components. Engineering analyses for the evaluation of the proposed T-wall to support the construction permit application and the SAR followed the USACE's Hurricane and Storm Damage Risk Reduction System Design Guidelines, dated June 2012. Global and local stability analyses were performed to evaluate the design and construction of the T-wall, including temporary flood protection (TFP) and temporary retaining structures (TRS). Stability analyses were also performed to address construction dewatering requirements for the pump station excavation with respect to the existing and proposed flood protection.

Our work to support the design included estimates of allowable axial pile load capacity for piles supporting the T-wall foundations as well as the pump station and discharge pipes. We also performed analyses to evaluate the potential for seepage and heave during and after construction for the proposed features. New generator pads were located adjacent to each pump station to house controls outside the new intake excavation.

Eustis Engineering is currently performing Engineering During Construction (EDC) services as required by the SAR. To date, we have responded to contractor requests for information (RFIs) and have performed submittal reviews. The EDC submittal reviews include the test pile program (TPP) plan, TRS and TFP methods, and sequences

PROJECT NO. 02

PROJECT NO. 02		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
	proposed by the contractor. We evaluated the results of the TPP to confirm the design pile capacity as well as installation criteria. We will review the results of geotechnical instrumentation to monitor the excavation and dewatering, including piezometers and inclinometers.	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
04/2025 (E)	Unknown	\$109,826 (to date)

PROJECT NO. 03

Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p align="center"> Gretna City Park Proposed Water Capacity Improvements 910 Gretna Boulevard Gretna, Louisiana Eustis Engineering Project No. 24290 </p> <p align="center"> Contact Information: Gretna City Park Through Waggoner & Ball Architects, APC 2200 Prytania Street New Orleans, Louisiana 70130 Andy Sternad @ 504-524-5308 </p>	<p>Open-air pavilion and pedestrian bridge structures were anticipated as part of the Gretna City Park upgrades. The pavilion structure would consist of an approximate 25' x 30' timber frame structure.</p> <p>In the field, Eustis Engineering's drill crew completed nine undisturbed soil borings, varying in depth from 10 to 75 feet below the existing ground surface. Additionally, our personnel performed two infiltration tests on site using the Compact Constant Head Permeameter (Amoozemeter®) procedure. Following the field investigation, our Metairie laboratory conducted natural water content, unconfined compression shear, and one-point unconsolidated undrained triaxial compression shear tests to inform the engineering design.</p> <p>Engineering analyses and recommendations included the following:</p> <ul style="list-style-type: none"> • slope stability analyses; • site preparation recommendations including drainage (both during construction and permanent) and subgrade preparation. • fill selection as well as its recommended compaction and its estimated settlement; • estimates of load capacity for treated ASTM D25 quality timber piles, as well as settlement estimates; • pile installation recommendations; • pavement design; and • material recommendations including components of the pavement itself and the use of geotextiles. <div align="center" data-bbox="711 1276 1479 1535"> </div>	
<p align="center">Completion Date (Actual or Estimated)</p>	<p align="center">Estimated Cost:</p>	
<p align="center">04/2020 (A)</p>	<p align="center">Entire Project:</p>	<p align="center">Work for Which Firm Was Responsible:</p>
	<p align="center">Unknown</p>	<p align="center">\$13,250</p>

PROJECT NO. 04

Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p align="center"> Jefferson Parish Jung and Falcone Lift Station Upgrades (K-11-3) New Sanitary Sewer Lift Station Marrero, Louisiana Eustis Engineering Project No. 23819 </p> <p align="center"> Contact Information: Jefferson Parish Through Principal Engineering, Inc. Suite 19 1011 North Causeway Boulevard Mandeville, Louisiana 70471 Jeneva Hinojosa, E.I. @ 985-624-5001 </p>	<p>The new lift station was to consist of a fiberglass wet well and fiberglass valve pit. The wet well was to be approximately 6 feet in diameter and 18 feet in depth. The valve pit was to be approximately 6 feet in diameter and 8 feet in depth. Site improvements were to include a gravity sewer line installed approximately 12 feet below grade and a force main approximately 4 feet below grade.</p> <p>Our field investigation included the drilling of one soil boring to a depth of 80 feet below the existing ground surface using one of our truck-mounted rigs. Once in our laboratory, samples selected by our engineering staff were subjected to soil mechanics laboratory tests including visual classification, natural water content, unit weight, unconfined compression shear, and one-point unconsolidated undrained triaxial compression shear.</p> <p>Using these data, our staff performed engineering analyses and developed recommendations for the project documented in a report including:</p> <ul style="list-style-type: none"> • recommendations for site preparation encompassing temporary and permanent drainage, dewatering and pressure relief of excavations, and ways to limit lateral movement; • methods for excavation, base preparation, and bedding associated with the sanitary gravity sewer line, wet well, and valve box; • estimates of lateral earthen pressures; • recommendations for material placement and compaction of backfill for the force main and sanitary sewer line; • allowable soil bearing value recommendations for the wet well and valve box; • allowable pile load capacities, in compression and tension, for treated ASTM D25 quality timber piles; and • settlement estimates for both ground-supported and pile-supported project features. 	
<p align="center">Completion Date (Actual or Estimated)</p>	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
<p align="center">06/2018 (A)</p>	<p align="center">Unknown</p>	<p align="center">\$4,900</p>

PROJECT NO. 05

Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p align="center"> Southeast Louisiana Flood Protection Authority - East East Jefferson Levee District Gabrielle Subdivision Runoff Control Piping Near the Duncan Canal Pump Station Kenner, Louisiana Eustis Engineering Project Nos. 22537, 23474, and 24245 </p> <p> Contact Information: Southeast Louisiana Flood Protection Authority – East 6001 Stars and Stripes Boulevard Suite 225 New Orleans, Louisiana 70126 Chris Humphreys @ 504-262-8922 </p>	<p> This project began with proposed pipeline rerouting at Pump Station No. 4, near Duncan Canal Pump Station, in Kenner, Louisiana. Eustis Engineering used existing geotechnical data obtained from previous projects at the site to perform global stability analyses to evaluate the existing hurricane protection levee and floodwall during and after construction of the proposed pipeline. Slope stability analyses for the proposed trench/excavation for the installation of the pipe followed the criteria provided in the U.S. Army Corps of Engineers' (USACE) Hurricane and Storm Damage Risk Reduction System Design Guidelines and were performed using the Spencer's Method of Slices coded within SLOPE/W. The slope stability analyses were performed for the T-wall and proposed protected side excavation for pipeline installation. We also computed Lane's Weighted Creep Ratio to evaluate piping potential into the excavation as the result of seepage during a high-water event. </p> <p> Using data obtained from these calculations, we provided construction recommendations for the contractor's use on the project. </p> <p> Fleming Construction Company, L.L.C., was contracted to install a 40-in. PVC drainage pipe in the proposed excavation. They provided construction drawings delineating the configuration of a Temporary Retaining Structure (TRS). In order to ensure the contractor's TRS design met the requirements of the construction permit, including review by the USACE, Eustis Engineering was retained to evaluate these drawings and provide comments. Subsequently, we provided clarification, revised calculations to accommodate plan changes, and responded to further queries and comments as needed. </p> <p> When this review process was completed and construction commenced, Eustis Engineering provided additional geotechnical services on this project, sampling earthwork and subjecting the samples to laboratory testing including compaction, Atterberg liquid and plastic limits testing, and the percent passing the No. 200 sieve. We also evaluated the results of monitoring operations performed by the contractor to confirm the TRS was behaving as predicted and within permit requirements. </p>	
<p align="center">Completion Date (Actual or Estimated)</p>	<p align="center">Estimated Cost:</p>	
<p align="center">05/2020 (A)</p>	<p align="center">Entire Project:</p> <p align="center">Unknown</p>	<p align="center">Work for Which Firm Was Responsible:</p> <p align="center">\$32,200</p>

PROJECT NO. 06		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p style="text-align: center;">Jefferson Parish Proposed Pump Station Blanchard Lane Grand Isle, Louisiana Eustis Engineering Project No. 24160</p> <p>Contact Information: Jefferson Parish Through GIS Engineering, L.L.C. 197 Elysian Drive Houma, Louisiana 70363 Kyle Galloway @ 985-219-1000</p>	<p>Plans called for the pump station to be supported on timber or concrete piles. Three reinforced concrete inlet pipes were planned and two 24-in. diameter discharge pipes would be connected to the pump station. Each of the discharge pipes would be connected to a vertical pump with an electric motor housed on an elevated platform above the pump station. The pump station would have approximate plan dimensions of 14' x 16.33'. A design alternative, consisting of a grade-supported pump station (without pile support), was also evaluated as part of our investigation.</p> <p>In the field, one undisturbed boring was drilled for the project extending to a depth of 150 feet below the existing ground surface. In the laboratory, soil mechanics laboratory tests included visual classification, natural water content, unit weight, unconfined compression shear, and unconsolidated undrained triaxial compression shear tests.</p> <p>Engineering analyses and recommendations included the following:</p> <ul style="list-style-type: none"> • recommendations for groundwater management; • site preparation recommendations including excavation preparation and development of a working platform/bedding as well as a sealant slab; • recommended construction materials including geotextile fabric as well as structural fills and their compaction; • minimum requirements for temporary retaining structures; • dewatering and pressure relief associated with a working platform; • allowable soil bearing values for the pump station, net applied soil pressure, and settlement of the mat/slab-supported pump station; • consideration of hydrostatic uplift pressures; • lateral earthen pressures; • estimated allowable load capacities for various sizes of treated ASTM D25 quality timber piles and square, precast concrete piles; • estimated pile settlement due to sustained structural loads; and • pile installation recommendations. 	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
08/2019 (A)	Unknown	\$14,465

PROJECT NO. 07		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p style="text-align: center;">Jefferson Parish Proposed Drainage Improvements Geisenheimer Canal Between Loumor Ditch and Hoey's Cut Metairie, Louisiana Eustis Engineering Project No. 24281</p> <p style="text-align: center;">Contact Information: Jefferson Parish Through Design Engineering, Inc. Suite 205 3330 West Esplanade Avenue Metairie, Louisiana 70002 John Holtgreve, P.E. @ 504-836-2155</p>	<p>Drainage improvements were planned for a portion of Geisenheimer Drainage Canal between Loumor Ditch and Hoey's Cut in Metairie, Louisiana. A new box culvert would be installed north of and parallel to the existing Geisenheimer Drainage Canal over a distance of approximately 2,800 linear feet. The purpose of this project was to increase flow capacity. Tie-ins in the form of junction boxes would be required at three locations including the new and existing Loumor Ditch, Woodvine Ditch, and at Hoey's Cut. The existing covered canal generally consisted of an 8' x 15' box culvert supported by timber piles. A section of the Hoey's Cut covered canal indicated a 9.5' x 25' structure comprising concrete sheetpiles as the sidewalls. The new structure was planned to be an 8' x 12' box culvert supported at grade.</p>	
	<p>Eustis Engineering had previously performed geotechnical explorations for prior project phases. To supplement these historic data, Eustis Engineering performed four cone penetration tests (CPTs) to a depth of 60 feet each below the existing ground surface. The CPTs were made with a track-mounted cone penetrometer rig. This exploration scope was selected to expedite the project schedule and keep field costs contained.</p>	
	<p>Geotechnical engineering recommendations for the project included site preparation, managing drainage during and after construction, identifying demolition of existing features interfering with new construction, and the need for a temporary retaining structure (TRS) for excavations.</p> <p>Eustis Engineering analyzed at least one concept of a TRS considering application of factors of safety to the sheetpile penetration or to the soil design parameters. Other considerations for the TRS included recommendations for construction sequence; excavation; dewatering; lateral movement and soil subsidence; preparation of the excavation base; the bridge lift and bedding; sealant slab; and material selection and compaction for structural, non-structural, and embankment fill.</p> <p>Our personnel also analyzed earth and water pressures associated with the box culvert as well as the use of a grade-supported culvert base slab. Analyses associated with the slab included allowable soil bearing values, net applied pressure intensity, and settlement estimates. Differential settlement was considered in association with pavements, the existing pile-supported box culvert, and underground utilities.</p>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
03/2020 (A)	Unknown	\$12,100

PROJECT NO. 08

Project Name, Location, and Owner's Contact Information:

Nature of Firm's Responsibility:

**Jefferson Parish
Hoey's Canal Drainage Improvements
(Phases II and III)
Deckbar Avenue to Labarre Road and
Labarre Road to Causeway Boulevard
Jefferson Parish, Louisiana
Eustis Engineering Project Nos.
21458, 22532, and 22532.01**

Contact Information:
Jefferson Parish Through
Linfield, Hunter & Junius, Inc.
3608 18th Street
Metairie, Louisiana 70002
Robert Nockton, P.E. @ 504-833-5300

Eustis Engineering has performed multiple geotechnical explorations dating back to 1966 along Hoey's Canal for various modifications and improvements. Phases II and III of the proposed drainage improvements along Hoey's Canal included the deepening and lining of the canal using sheetpile walls and concrete slope paving for the upper slopes of the canal. Phase II extended from Deckbar Avenue (LA Highway 3139) to the railroad crossing near Labarre Road in Jefferson Parish, Louisiana. This portion of the drainage improvements was approximately 1,715 feet long and was a continuation of an earlier phase of the project that extended from Deckbar Avenue to Betz Avenue (approximately 805 feet long) tying into an existing sheetpile-lined canal. Phase III consisted of improvements to approximately 1,625 feet of Hoey's Canal from Causeway Boulevard to Labarre Road. Eustis Engineering was retained for Phase III because of our ability to deliver high quality geotechnical recommendations in a timely fashion to our clients and to Jefferson Parish.

For Phase II, Eustis Engineering drilled four undisturbed soil test borings using a truck-mounted, rotary-type drill rig. We drilled one soil boring to a depth of 130 feet and three borings to depths of 60 feet below the existing ground surface. For the Phase III exploration, we utilized data from one of the soil borings we obtained in Phase II in addition to drilling three borings to depths of 60 feet with a low ground pressure track-mounted drill rig. We coordinated with the New Orleans Public Belt Railroad (NOPBR) and Jefferson Parish to ensure our field exploration was performed safely and met the NOPBR and Parish requirements. The Phase III borings were drilled on the southern side of the canal because borings were not feasible on the northern side due to overhead electrical lines. Eustis Engineering performed soil mechanics laboratory tests on samples obtained from the borings during Phases II and III to evaluate the physical properties of the subsoils.

Based on existing data, soil borings, and laboratory test results, Eustis Engineering provided recommendations regarding site preparation, sheetpile analyses, global stability analyses, estimates of allowable pile load capacities for alternative flume support, estimates of allowable pile load capacities for the railroad bridge which would replace an existing culvert, and general construction recommendations. We also evaluated dewatering/pressure relief and heave which were major design challenges due to a shallow subsurface sand deposit located near the bottom of the deepened canal.

For Phase II, we provided supplemental engineering analyses which included addressing requests for information posed by the construction contractor and evaluating the pile load capacity results

PROJECT NO. 08		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
	<p>from a static load test program. Our Phase III engineering scope addressed geotechnical related issues during construction with the construction contractor.</p> <p>We also performed additional engineering analyses for the project after our client discovered a new NOPBR track closer to Hoey's Canal. This new construction altered the cross-sections we evaluated in our previous study, requiring an evaluation of the impact on the proposed walls within Hoey's Canal.</p>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
03/2017 (A)	Unknown	\$37,800

PROJECT NO. 09

Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p align="center"> Jefferson Parish Proposed Lift Station Melody Drive and West Esplanade Avenue Metairie, Louisiana Eustis Engineering Project No. 24782 </p> <p align="center"> Contact Information: Jefferson Parish Through ECM Consultants, Inc. 1301 Clearview Parkway Suite 200 Metairie, Louisiana 70006 Sunina Shrestha P.E. @ 504-885-4080 </p>	<p>A new lift station was proposed to be constructed at the intersection of Melody Drive and West Esplanade Avenue in Metairie, Louisiana, just east of the existing lift stations. The structure's wet well and valve pit would have a 2-ft (thick) base slab extending 2 feet beyond all sides. Two options regarding the wet well size and dimensions were being considered. A new pile-supported sewer force main aerial canal crossing was also proposed.</p> <p>Eustis Engineering's subsurface exploration comprised one undisturbed sample type soil test boring to a depth of 70 feet below the existing ground surface using a truck-mounted rotary-type drill rig. Due to the existing site features and overhead and underground utilities, our crew coordinated closely with the designer and representatives of Jefferson Parish to select the boring location. After completion of the field work, the samples were transported to our certified Metairie laboratory for testing. Soil mechanics laboratory tests consisted of visual classification, natural water content, unit weight, unconfined compression shear, unconsolidated undrained triaxial compression shear, and Atterberg liquid and plastic limits tests. These test results were utilized to develop soil design parameters for the geotechnical analyses.</p> <p>We made recommendations for both shallow (mat/slab) and deep (driven pile) foundation design, installation, and materials.</p> <p>Engineering analyses included settlement and lateral earthen pressures (at-rest, active, and passive). For mat foundations, we calculated allowable soil bearing values, net applied pressure intensity, estimated settlement, and uplift pressure. For pile foundations, we calculated allowable pile load capacities in compression and tension and estimated settlement. We also provided recommendations for pile materials, size, and installation methods.</p>	
<p align="center">Completion Date (Actual or Estimated)</p>	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
<p align="center">05/2022 (A)</p>	<p align="center">Unknown</p>	<p align="center">\$6,160</p>

PROJECT NO. 10

Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p align="center"> Jefferson Parish L & A Road Improvements Dakin Street to Earhart Expressway Jefferson Parish, Louisiana Eustis Engineering Project No. 24196 </p> <p align="center"> Contact Information: Jefferson Parish Through Linfield, Hunter & Junius, Inc. 3608 18th Street Metairie, Louisiana 70002 Anthony Goodgion @ 504-833-5300 </p>	<p>Jefferson Parish proposed drainage improvements near the intersection of L & A Road and Blue Jay Way near a commercial section of Jefferson Parish.</p> <p>The Department of Public Works proposed a new box culvert be constructed within the existing 70-ft wide 11-ft deep Hoey's Canal. The new culvert, measuring 21 feet wide, with a 23-ft wide base, would span across approximately 340 linear feet along the southern stretch of L & A Road.</p> <p>Based on furnished data, we understood the culvert floor and top surface elevations would require 2 to 3 feet of fill above the culvert roof. In addition, the annular space between the existing canal bank and the culvert side walls would be backfilled to create a smooth transition between the existing canal bank crowns and the grade above the culvert.</p> <p>Two paved access roads would cross the culvert perpendicularly. Lastly, the southern end of the culvert would transition to the existing canal bank slopes with the assistance of wingwalls. Eustis Engineering was requested to analyze the culvert supported on shallow and deep foundations.</p> <p>We directed our drill crew to conduct one soil boring to a depth of 75 feet in the approximate culvert footprint. We then selected soil samples to perform soil mechanics laboratory tests to facilitate development of design parameters.</p> <p>We transmitted the results of the exploration and analyses in a formal report signed and sealed by one of our professional engineers. These analyses and recommendations included:</p> <ul style="list-style-type: none"> • site preparation and drainage, • excavations and dewatering/pressure relief (including temporary retaining structures), • fill material and compaction for pipe bedding, • allowable soil bearing values, • local and global stability analyses, • allowable pile load capacities for box culvert construction, • settlement due to structural loads, and • general construction procedures. 	
<p align="center">Completion Date (Actual or Estimated)</p>	<p align="center">Estimated Cost:</p>	
<p align="center">09/2019 (A)</p>	<p align="center">Entire Project:</p> <p align="center">Unknown</p>	<p align="center">Work for Which Firm Was Responsible:</p> <p align="center">\$6,150</p>

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. None at this time.		
2.		
3.		
4.		

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

When Eustis Engineering L.L.C. opened its first office in Vicksburg, Mississippi, in 1946, it housed its entire operation in less than 500 square feet of space. *Seventy-eight years later*, our personnel and equipment occupy 40,000+ square feet of space in five locations.

Eustis Engineering is the third oldest, continually operating geotechnical firm in the United States. From a single two-man office to approximately 115 individuals in five offices, the firm has grown to house accounting, administrative, quality control, safety, drilling, engineering, laboratory, and construction materials testing departments. These departments work together to provide our clients with the quality work desired in a cost efficient and timely manner.

Eustis Engineering is headquartered in Metairie, Louisiana, in the heart of Jefferson Parish’s East Bank. We also operate branch offices in Baton Rouge and Lafayette, Louisiana, Gulfport, Mississippi, and Houston, Texas. Our offices and staff collaborate seamlessly using Microsoft Teams and other virtual platforms.

Eustis Engineering’s services encompass many disciplines including the performance of:

- subsurface exploration (drilling of soil borings, cone penetration testing, downhole vane, and Geoprobe®);
- soil mechanics laboratory tests;
- field instrumentation and monitoring;
- non-destructive testing of piles and shafts including dynamic pile testing, crosshole sonic logging, single-hole sonic logging, low strain pile integrity testing, and thermal integrity profiling;
- geotechnical engineering design;
- special inspections; and
- construction quality control and materials testing services.

Eustis Engineering L.L.C. Important Numbers	
Item	Number
Unique Entity Identifier (UEI)	R83MG9NLTMS4
CAGE Code	4MOP2
Firm License - Louisiana	EF.0003558
Firm License - Mississippi	2078
Firm Registration – Texas	13895

Eustis Engineering has worked on over 850 geotechnical and construction materials testing projects for Jefferson Parish Government entities, many of which focused on water facilities and infrastructure. We have also worked on over 4,000 projects of all types throughout the east and west banks of Jefferson Parish alone, not considering similar projects in the surrounding parishes. This work history gives our engineering staff

unparalleled familiarity with the foundation conditions in the Gulf Coast and the challenges that may arise for projects associated with this contract.

ENGINEERING SERVICES

Eustis Engineering has geotechnical engineering capabilities to fulfill the requirements of nearly any project. As evidenced by the included write-ups in this package, our experience with various water, sewer and drainage infrastructure projects is varied and extensive.

We have developed pile capacity and bearing capacity analyses for projects throughout Jefferson Parish and the coastal areas of the United States. Eustis Engineering’s evaluation of piles includes estimates of vertical capacity for groups. We also perform lateral analyses of individual piles and pile groups using LPILE® and GROUP® software. Our evaluation of bearing capacity considers the excavation depth, base preparation and utility diameter.

We evaluate local and deep-seated global stability of canals, waterway slopes and embankments as well as excavation shoring and sheeting. We provide assessments of heave, seepage and erosion control measures. We evaluate floodwalls, including I-walls, L-walls, T-walls and gates.

We perform settlement studies including estimates of settlement and time-rate of settlement with and without wick drains to enhance consolidation. These settlement studies include estimates and recommendations for lift construction affecting a gain-in-strength of foundation soils associated with subsoil consolidation. Preload/surcharge operations are also a component of our settlement evaluations.

In our practice, Eustis Engineering has developed methodologies associated with the estimates of negative skin friction on pile foundations. The methods are the current state of practice. The extension of these methods is an evaluation of settlement induced bending moments. Eustis Engineering is also utilizing a numerical model program, SIGMA/W, in association with the rigorous settlement program Settle3.

Engineering Staffing

Our engineering staff has 20 master’s degrees in Civil Engineering, Engineering, Engineering Management, Geology, and Business Administration. Participation in post-Bachelor of Science curricula, as well as continuing education and professional registration that emphasizes engineering management and technical issues, is very important to Eustis Engineering. Our engineers also regularly present at technical conferences. We encourage and fund our staff for these activities and programs.

Employee	Education	Experience	
		Years with Eustis Engineering	Total Years
Professional Engineers (P.E.)			
Benjamin M. Cody	M.S. / Civil Engineering	22	26
Brian A. Deschamp	B.A. / Business Administration	12	12
	M.S. / Civil Engineering – Geotechnical		

P. Tennant Duckworth	M.S. / Civil Engineering	3	3
James J. Hance	M.S. / Civil Engineering	20	24
	M.B.A. / Business Administration		
Chad L. Held	M.S. / Civil Engineering	33	33
Matthew K. Morales	B.S. / Civil Engineering	15	15
Tomas K. Morales	B.S. / Civil Engineering	10	10
Travis R. Richards	M.S. / Engineering	17	24
	M.S. / Engineering Management		
	Coastal Engineering Certificate		
Chad D. Roe	M.S. / Civil Engineering	1	11
Gwendolyn P. Sanders	M.S. / Engineering	31	31
Sanjay S. Shahji	M.S. / Civil Engineering	1	18
Shaun R. Simon	M.S. / Civil Engineering	24	24
Alice E. Stark	M.S. / Civil and Environmental Engineering	<1	8
Patrick A. Thurmond	M.S. / Engineering Management	9	9
	M.S. / Civil Engineering		
	Coastal Engineering Certificate		
Sean G. Walsh	M.S. / Civil Engineering	11	16
James M. Williams	M.S. / Civil Engineering	6	6
Henry C. Worley	M.S. / Engineering	6	7
	Coastal Engineering Certificate		
Engineering Interns (E.I.)			
Adam K. Abdulbagi	B.S. / Civil Engineering	1	1
Naba Almofraji	B.S. / Civil Engineering	<1	6
Alvaro E. Carvajal	B.S. / Civil Engineering	1	1
Joseph P. DiGiovanni	B.S. / Civil Engineering	1	1
Steven B. Tidwell	B.S. / Geological Engineering	<1	13
Engineering Graduates			
Alexander Soriano Doninelli	B.S. / Civil Engineering	<1	4
Lesley L. Reitmeyer	B.S. / Civil Engineering	15	15
Xia (Bruce) Xialong	PhD / Geotechnical Engineering	<1	10
	M.S. / Geotechnical Engineering		
Geologists			
Matthew J. Blasini, G.I.T.	B.S. / Geology	5	6
Nathan A. Quick, P.G.	M.S. / Geology	2	7
Total Years of Experience		246	341

Reviewing our table, the majority of Eustis Engineering's professional engineers have at least ten years of experience in geotechnical engineering.

Cone Penetration Testing Capabilities

Eustis Engineering owns two dedicated track-mounted cone penetration test (CPT) rigs and operates four other multi-purpose rigs capable of performing CPTs. Operators are either specifically trained engineering technicians or engineers who perform field operations utilizing the CPT equipment. Engineers with specialized knowledge and experience operating the rigs evaluate the sounds and produce the CPT logs. Five of our rigs can be placed on a cargo buggy, shallow draft barge, or airboat to access coastal marsh or open water. We have sounded to depths of 180 feet and have the ability to perform dissipation and seismic testing. Field testing is performed according to ASTM D5778 and common industry practices. Eustis Engineering has been performing CPTs and using CPT technology since the early 2000s.

A CPT can be accomplished rapidly with four or five being performed in the same time frame as a standard geotechnical boring; therefore, CPTs are typically cost-effective in providing enhanced subsurface exploration and better delineation of subsurface conditions at a project site.

Dynamic Pile Testing Capabilities

Eustis Engineering was the first private consulting firm to own and operate dynamic pile testing equipment in the States of Louisiana and Mississippi. The pile types tested include timber piles; small size pipe piles; square, precast concrete piles and large (60 to 72-in. diameter) spun-cast, prestressed concrete piles; open-end and closed-end steel pipe piles; and steel H-piles.

We often upgrade our data collectors and operate four Pile Driving Analyzers® (PDAs): one PAX unit and three PDA-8G units. These units can be battery operated and use wireless gauge transmitters to eliminate the need for a main cable to connect directly to the units. We also stock and use underwater gauges to monitor pile driving in marine environments when the pile head descends below the water surface. To support our four PDA units, Eustis Engineering maintains an extensive inventory of calibrated gauges and accessories. To provide quality assurance and rapid responses to issues in the field, all PDAs have wireless communication, enabling our engineers direct oversight of the dynamic pile testing process in real time.

We also use this PDA equipment to maintain the calibrations of our automatic Standard Penetration Test (SPT) hammers on our drill rigs.

Other Non-Destructive Testing Capabilities

Our engineering staff at Eustis Engineering performs other non-destructive testing services to verify the structural integrity of drilled shafts, augercast piles, and precast concrete piles. Some of these processes include crosshole/single-hole sonic logging (CSL or SSL), low strain pile integrity testing (PIT), and thermal integrity profiling (TIP™). We also perform parallel seismic testing to evaluate existing foundation depths.

INSTRUMENTATION

Eustis Engineering has installed geotechnical instrumentation for decades. Our instrumentation programs have resulted in substantial cost savings to our clients by reducing preload durations, providing refinement of geotechnical design parameters through full-scale testing, and verifying the performance of cutting-edge designs. Our services go beyond the construction phase, as long-term monitoring programs enable owners to maximize utilization of their facilities throughout the design life by verifying if soil behavior is within acceptable limits.

Eustis Engineering provides the following instrumentation services:

- Vibrating wire devices including piezometers, extensometers, settlement gauges, and strain gauges
- Data loggers to enable periodic collection of data for vibrating wire devices
- Data links for remote web access to data loggers in near real time
- Settlement plates
- Conventional slope inclinometers or MEM sensor array inclinometers
- Monitoring services of all instrumentation devices with geotechnical interpretation

Instrumentation is a natural complement to our design services, providing data to verify or modify recommendations based on the observational method. Ongoing monitoring enables us to provide continuing services from project inception to the end of a project's design life.

DRILLING/FIELD EXPLORATION

Eustis Engineering possesses licenses and credentials to perform geotechnical drilling in Louisiana and Mississippi (no license is needed in Texas). With our licenses and credentials, Eustis Engineering drills soil borings and performs sampling operations for our clients' projects in all types of environments including land, marsh, swamp, and marine. Our personnel have the capability and experience to provide these services from trucks, barges, pontoons, and swamp or marsh buggies. We also have portable units that can be used inside structures planned for retrofit/renovations.

Field Exploration Personnel

We can provide up to nine drillers and drill rigs capable of obtaining standard 3-in. diameter Shelby tube samples and 5-in. diameter fixed piston samples, sounding CPT, advancing Geoprobe samplers, and installing geotechnical instrumentation on land, in water, and in marsh environments as indicated in the following table.

Capabilities of Eustis Engineering's Field Exploration Staff	Blair Armant	Scott Bombard	James Cordes	Tevin Crawford	Rene Davidson	Eric Held	James Lubben	George Reitmeyer	Lawrence Rome
Hand Auger Borings	X	X	X	X	X	X	X	X	X
General Type (3-in. Diameter Borings)	X	X	X	X	X	X	X		X
General Type (3-in. Diameter Borings) in Hard Access Locations (Marsh, Swamp, Heavily Forested)	X	X	X	X	X	X	X		X
Undisturbed Type (5-in. Diameter Borings)	X	X	X	X	X	X	X		X
Undisturbed Type (5-in. Diameter Borings) in Hard Access Locations (Marsh, Swamp, Heavily Forested)	X		X	X	X	X	X		X
Location Information (Latitude, Longitude)	X		X	X	X	X	X		X
Set Permanent Benchmarks	X		X	X	X	X	X		X
Install Instrumentation	X		X	X	X	X	X		X
Cone Penetration Tests						X		X	
Geoprobe Sampling		X	X			X	X		X

Field Exploration Equipment

Eustis Engineering owns and operates six wet rotary drill rigs, both truck-mounted and skid-mounted. This equipment includes one Diedrich truck-mounted D-50 turbo drill rig (with an automatic SPT hammer); one Failing skid only rig (with an automatic SPT hammer); one truck-mounted CME-55 rig; one track-mounted CME-850X rig with an automatic hammer; one track-mounted CME-850XR rig with an automatic hammer; and one truck-mounted CME-55 rig with a detachable CME-55 skid unit and automatic hammer. We also own two track-mounted cone penetrometer systems capable of providing up to 15 tons of reaction. Our CME track rigs provide low ground pressure and are designed to traverse soft ground surfaces, steep slopes, and lightly wooded areas. Eustis Engineering also owns four direct push Geoprobe units: two 3230DTs, the 6620DT, and the 540M. Eustis Engineering's 6620DT/3230DT Geoprobe with their 12-in. tracks allow this equipment to be used on pavement as well as off road and in rugged terrain. The 6620DT and 3230DT rigs also can be placed on specialized equipment. This includes a jack-up barge and a cargo buggy for operations over marsh/water. These units can install shallow monitoring wells and other instrumentation. We also have the capability to perform CPTs and downhole vanes using the 3230DT rigs.

Our 540M Geoprobe can fit into confined spaces as narrow as 32 inches. The 540M can also be utilized on an airboat for coastal terrains.

Other Specialized Soil Sampling Equipment

In addition to our drill rigs, Eustis Engineering owns and operates an Acker Vane Shear to perform down hole in-situ testing. We also have hand augers to obtain samples at various depths for use in classification and stratification of soil deposits. This equipment can be used in association with handheld piston samplers to obtain small diameter samples. Finally, we operate a dynamic cone penetration tests (DCPTs) to assess the in-situ strength of undisturbed soils and compacted materials in accordance with ASTM D 6951.

Drone Capabilities

Eustis Engineering utilizes small Unmanned Aerial Systems (sUAS), more commonly known as “drones,” to enhance our services. We use drones to perform site inspections, field reconnaissance, pre/post-construction condition surveys, construction inspections, and other forms of visual monitoring. We currently operate a DJI Mavic Air 2S Drone piloted by a Part 107 Certified Remote Pilot.

LABORATORY SERVICES

Eustis Engineering’s laboratories are constantly evolving with the purchase of new equipment on a yearly basis. Our gINT® data management software from Bentley allows for maximum efficiency in the production of boring logs and data entry.

Eustis Engineering has also acquired OpenGround®, Bentley’s Cloud platform, which interfaces with a collection of geotechnical applications. OpenGround provides a comprehensive solution for collecting, reporting, managing, visualizing, analyzing, and accessing data. Its advanced digital workflows combine both subsurface and surface data into one cohesive design. This software provides Eustis Engineering’s team members access to a data source via connected applications or a web portal, increasing both collaboration and efficiency. Improved access and reliability will save time and money in the planning, design, analysis, construction, and operation of infrastructure projects.

Eustis Engineering has also acquired KeyLAB® from Bentley. KeyLAB is the leading laboratory management system built specifically for geotechnical and construction materials testing laboratories. It improves our laboratory efficiency at every stage of the geotechnical and construction testing process, including sample and storeroom management, as well as electronic scheduling, testing, and reporting. It integrates with Microsoft Excel®, allowing for the efficient development of customized worksheets and reports.

Technical testing common to our laboratories includes ASTM; American Concrete Institute (ACI); State of Louisiana, Department of Transportation and Development (LaDOTD); AASHTO; FAA; and the U.S. Army Corps of Engineers (USACE). Our laboratories hold accreditations from AASHTO, LaDOTD, and the USACE.

Laboratory Staffing

Eustis Engineering currently has qualified technicians to sample construction materials and perform soil mechanics laboratory testing. These technicians are versed in the latest standards from ASTM, LaDOTD, MDOT, AASHTO, FAA, and the USACE. Many of our technicians have earned certifications with the National Institute for Certification in Engineering Technologies (NICET) in the area of geotechnical engineering technology and in the subfields of construction, exploration, generalist, and laboratory.

Laboratory Quality Control

In our effort to ensure the quality of our laboratory and materials testing, our programs are regularly inspected by outside agencies such as the USACE, the AMRL Group of the American Association of State Highway and Transportation Officials, and the CCRL Group of AASHTO. Eustis Engineering is also accredited by the Mississippi Department of Transportation.

Eustis Engineering has three soil mechanics laboratories where our laboratory practices and quality management system meet the requirements of AASHTO R 18 and ASTM E329. These offices are located in Metairie, Baton Rouge, and Gulfport. Individual offices may comply with ASTM quality system specifications including ASTM C1077, ASTM D366, and ASTM D3740. Accreditations in the various areas are shown below.

Metairie	Baton Rouge	Gulfport
Aggregate	Aggregate	Aggregate
Concrete	Soil	Asphalt
Masonry	Concrete	Concrete
Soil	Spray Fire-Resistive Material	Soil
		Spray Fire-Resistive Material

To further show quality is paramount to Eustis Engineering, we have two individuals in charge of maintaining quality in our testing. Travis R. Richards, P.E., is the Engineer-In-Charge. Timmy Holleman, dedicated Quality Control Manager, oversees the calibration of our equipment and maintenance of our quality system. The biggest reward of our quality system is knowing our clients are confident our testing laboratories produce the highest quality results and conform to state and national standards.

CONSTRUCTION MATERIALS TESTING

Eustis Engineering has been involved in construction materials testing (CMT) and inspection on a regular basis since the mid-1980s. Over the past 30+ years, Eustis Engineering has accumulated a wealth of experienced technicians in these areas. Whether 20 feet down in an excavation or 20 stories up in a high rise, our CMT technicians are there providing the inspection services needed on individual projects.

Staffing

Eustis Engineering currently has nearly 30 technicians on staff to provide construction inspection services on a daily basis. These services encompass the areas of soils, piling, asphalt, concrete, steel, and others.

Services

Soils testing in the field is performed by means of density tests, fill placement inspection, and depth checks. These services are performed by technicians who have attended courses by Troxler or Humboldt in the use of nuclear density devices.

Piling services include the inspection of various types of piles, logging these piles, and performance of pile load tests with calibrated equipment. Load test results are, in turn, interpreted and reported by a registered engineer on our staff.

Our realm of concrete inspection includes the formulation and review of mix designs, quality control at the plant and in the field, materials testing and sampling, precast piling inspection, post tension inspection, floor flatness, and mortar and grout inspection. These services are performed by our ACI and NICET certified technicians.

Steel inspection may include the visual inspection of structural steel at the site or in the shop, steel and pipe coating sampling, post tension and welder certification witnessing, and the performance of ultrasonic and x-ray testing. These services are performed by members of our staff currently certified with AWS, ASNT, and/or ASME.

Other CMT services provided by Eustis Engineering personnel include fireproofing inspection, vibration and acoustical monitoring, paint inspection, and more.

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

Signature: 
Title: President

Print Name: Gwendolyn P. Sanders, P.E.
Date: 20 August 2024



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