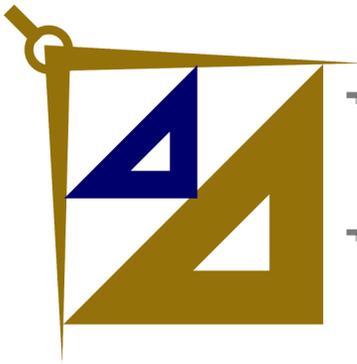


Statement of Qualifications

Routine Engineering Services for Sewer Projects

Jefferson Parish Government
Resolution No. 138812

Submitted By:



PRINCIPAL
Engineering, Inc.

March 25, 2022



PRINCIPAL Infrastructure[®]

Architecture ♦ Engineering ♦ Construction



1011 N Causeway Blvd, Suite 19 ♦ Mandeville, Louisiana 70471 ♦ Phone: 985.624.5001 ♦ Fax: 985.624.5303

March 22, 2022

Jefferson Parish
Procurement Department
200 Derbigny St., Suite 4400
Gretna, LA 70053

Re: Statement of Qualifications to provide routine engineering services for **Sewer Projects**
Resolution No. 138812

Dear Sir or Madam,

PRINCIPAL Engineering, Inc. is pleased to submit our Statement of Qualifications for Routine Engineering Services for Sewer Projects in Jefferson Parish. We are a federal verified *Service-Disabled Veteran Owned Small Business (SDVOSB)* with an exceptionally qualified team of professionals capable of providing consulting engineering services.

We look forward to the opportunity to serve Jefferson Parish Government by providing quality engineering consulting services on an as-needed basis for miscellaneous projects located throughout Jefferson Parish. If you have any questions or require additional information, please contact me at the number above.

Sincerely,
PRINCIPAL Engineering, Inc.

A handwritten signature in blue ink that reads 'Henry I. DiFranco, Jr.'.

Henry I. DiFranco, Jr. PE
President



PRINCIPAL Infrastructure®

Architecture ♦ Engineering ♦ Construction

www.pi-aec.com ♦ info@pi-aec.com

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

Routine Engineering Services for Sewer Projects – Resolution No. 138812

B. Firm Name & Address:



1011 N. Causeway Blvd., Suite 19
Mandeville, LA 70471

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:

Henry I. DiFranco, Jr., PE
President
1011 N. Causeway Blvd., Suite 19
Mandeville, LA 70471
(985) 624-5001 | henry@pi-aec.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.

Brien Croff, PE
President
1011 N. Causeway Blvd., Suite 19
Mandeville, LA 70471
(985) 624-5001 | brien@pi-aec.com

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> </u> Geologists	<u>1</u> Structural Engineers
<u> </u> Chemical Engineers	<u> </u> Geotechnical Engineers	<u>3</u> Graduate Engineers
<u>5</u> Civil Engineers	<u> </u> Interior Designers	<u>2</u> Project Managers
<u>6</u> Construction Inspectors	<u> </u> Landscape Architects	<u>2</u> Clerical
<u> </u> Ecologists	<u> </u> Land Surveyor	<u> </u> Grant/Funding Specialist
<u>1</u> Electrical Engineers	<u> </u> Mechanical Engineers	<u> </u> Sanitary Engineers
<u>2</u> Engineer Intern	<u> </u> Environmental Engineers	
<u> </u> Professional Land Surveyors	<u>6</u> Other (Planners, Tech Support)	<u>32</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. NA

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):
N/A		

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

10

TEC Professional Services Questionnaire

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

PROFESSIONAL IN CHARGE OF PROJECT:

Name & Title:

Andre C. Monnot, P.E., Vice President

Project Assignment:

Professional In Charge/Project Manager – Meets the Minimum Requirement #2-, “A professional in charge of the Project who is a licensed, registered engineer in the State of Louisiana with a minimum of five (5) years’ experience in the disciplines involved.

Name of Firm with which associated:



Years' experience with this Firm:

13

Education: Degree(s)/Year/Specialization:

Bachelor of Science in Civil Engineering, 2002.

Active registration: Year first registered/discipline:

Professional Engineer – 2007, Civil, Louisiana, License No. 33626

Other experience and qualifications relevant to the proposed Project:

Mr. Monnot has a diverse range of engineering and management experience in both the public sector as a military engineer and as a private consultant. He was deployed in support of Operation Iraqi Freedom, during which time he was the Chief Maintenance Engineer for the installation. He led construction on several emergency power projects, completed a comprehensive mapping and inventory of the base's roadway and drainage systems, and managed \$5 million in service contracts for garbage collection, custodial services, and potable water delivery. Since 2000, in the military and as a consultant, Mr. Monnot has designed an array of projects encompassing water, wastewater, roadway, drainage, structural, and airfield paving. This included preparation of engineering calculations, drawings, technical specifications, and contract documents; and managing personnel and costs related to the projects.

Andre Monnot will interface with Jefferson Parish on the overall direction and major project decisions; advise JP of key planning, design, or construction decisions that may have cost, schedule, health, safety, or operational implications; oversee project progress and provide direction and support to the project team; and be responsible for the day-to-day correspondence, schedule, budget development, progress assessment, risk management, quality management, and reporting.



TEC Professional Services Questionnaire

Mr. Monnot Continued...

Hwy 21 WWTP to Mandeville WWTP- Lift Station 21 Relocation, Mandeville, LA

Principal Engineering was responsible for design of the new station, including hydraulic calculations to size pumps and associated piping, contract administration and construction oversight. EPA Grant funds were applied for, approved and used for design. Mr. Monnot was the project engineer for this project. St. Tammany Parish planned to construct a sanitary pumping station at the site of an existing wastewater treatment plant (WWTP) that will send sanitary wastewater via a new force main to the City of Mandeville's Lift Station 21 (LS21), which required an upgrade. The new station was constructed on Heavens Drive, in close proximity to Lift Station 20 (LS20). The existing stations LS20 and LS21 were demolished and replaced with the new LS21. The new station was designed so that it has enough capacity to account for the discharge at the existing LS20, LS21, and the proposed new Parish LS on Hwy. 22. The new station was designed for a capacity of approximately 1,070 gallons per minute (gpm). The pump station constructed at the site of the Parish WWTP will require a capacity of approximately 520 gpm. Project Cost: \$1.3M.

Causeway & Central Sewer Pump Station Multiple Force Main Manifold Project, Mandeville, LA

This \$1.7M project manifolds sanitary force mains presently discharging into a central 10,000 gpm station to be re-pumped to the city WWTP. With this manifold and dispersed mechanical and electrical upgrades at the seven upstream stations, the City's largest and most O&M intense station will be eliminated, and a persistent source of odor complaints likewise eliminated. Mr Monnot developed the project concept, performed hydraulic modeling and design to prove the feasibility, then designed complete mechanical and electrical rehabilitation/improvement at the seven upstream sanitary lift stations, varying in capacity from 200 gpm to 3600 gpm.

Sewer Improvement & Rehabilitation Program, Abita Springs, LA

This Program is a \$6,000,000 CWSRF-funded rehabilitation of the Town's 15 sanitary lift stations and gravity collection system; focused on modernizing the lift station mechanical and electrical components, reducing O&M costs through equipment selection, and eliminating sanitary overflows by right-sizing pumping capacities and performing gravity collection system I&I remediation. Mr. Monnot conducted an evaluation of the system to develop technical scope (see evaluation phase, separate project), then facilitated loan closing through LA DEQ for a Clean Water State Revolving Fund.

Lafitte & Pritchard Sewer Lift Station Rehab (L-14-10), Jefferson Parish, LA

This \$2.5M sanitary pump station rehabilitation project consists of a total mechanical & electrical component replacement, while maintaining the 18,000 gpm pumping capacity. Principal Engineering is designing the project phasing to construct electrical components and controls, including integral-logic VFDs, to be completely on-line via new 480V service prior to de-activation of the old controls; such that each of the four 100 HP pumps may be cut over one at a time, minimizing bypass pumping duration. Standby power generation, air-conditioned control enclosures, and elimination of high voltage transformers are features of the electrical design that dramatically increase reliability and O&M ease of the rehabilitated station. Mr. Monnot is the PM for this project.

Morton & Ingrid Sewer LS & FM Rehabilitation (E6-3A) SCIP Project No. D5718; Jefferson Parish, LA

This project accomplished consolidation of two separate sewer lift stations functioning as the Morton and Ingrid Stations into a single submersible station, within an existing station structure, increasing the pumping capacity by 60%, and performing a total structural, mechanical, & electrical rehabilitation. In addition, approximately 3,000 linear feet of new sewer force main was constructed by directional drilling. Principal Engineering performed design, preparation of construction documents and specifications and performed bidding and construction phase services.

Other Sewer Related Project Experience:

- Jung Blvd. & Falcone Street Sewer Improvements Owner: **Jefferson Parish Government, La**
- Marrero WWTP Headworks Modifications Owner: **Jefferson Parish Government, La.**
- Live Oak Manor Sewer Improvements (LS C-8-1) Owner: **Jefferson Parish Government, La.**
- St. Bernard Parish Water Treatment Plant – New 12.0 MGD WTP Owner: **St. Bernard Parish Government, La.**
- WWTP Headworks Modification & Sluice Gates Replacement Owner: **City of Mandeville, La.**
- Carondelet Sewer Gravity Rehabilitation Owner: **City of Mandeville, La.**
- Sanitary Sewer System Evaluation Survey (SSES) & Rehabilitation of Lift Stations Owner: **City of Mandeville, La**

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Henry I. DiFranco, Jr., P.E., President

Project Assignment:

Contract Oversight, Final Quality Assurance – Meets the minimum requirement for #1 – “One principal who is a professional engineer who shall be registered as such in LA”

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

18

Education: Degree(s)/Year/Specialization:

Bachelor of Science in Civil Engineering (BSCE), 1991
Master of Business Administration (MBA), 1998

Active registration: Year first registered/discipline:

Professional Engineer – 1997, Civil, Louisiana, License No. 27448

Other experience and qualifications relevant to the proposed Project:

Mr. DiFranco has extensive experience in Public Works engineering serving as the Director of Public Works & Utilities for St. John Parish and holding numerous positions as a public works engineer and consulting engineer over his 31-year career. Mr. DiFranco once served as the city Engineer for the City of Mandeville—the Senior Manager for design and construction of capital improvement projects, the maintenance projects, and planning the future program for the City’s water, sewer, street, and drainage infrastructure.

He has been responsible for numerous water distribution and treatment improvement projects and programs. He planned and managed a parish-wide water system mapping and modeling program in St. John Parish to identify system needs. He was instrumental in analyzing the existing conditions model to develop a list of recommended alternatives to address system needs. As a result of this effort, the Parish Government approved a \$10 million dollar capital improvement program to repair and construct new water system infrastructure. The projects included the construction of new elevated and ground water storage tanks to the installation of new water treatment & disinfection equipment. The program also consisted of identifying methods to reduce water loss from distribution system leaks. Various point repairs and water meter replacements were completed which resulted in a decrease of water loss. Other significant projects throughout his career includes the expansion of the Lyons water treatment plant and the analysis and alternate water treatment methods for trihalomethan (THM) and haloacetic (HAA) reduction in the Ruddock water system for St. John Parish. He also performed the design, preparation of construction documents and contract administration of the Terrytown Water System Improvements (Phase IV – Priority 4) for Jefferson Parish while working as a design consultant.

TEC Professional Services Questionnaire

Mr. DiFranco Continued...

RELEVANT EXPERIENCE: Mr. DiFranco provided planning, design guidance and quality assurance/final design review for the following relevant Sewer/WWTP projects:

Ground & Elevated Water Storage Tank Inspection and Rehabilitation; St. John the Baptist Parish, La.

Principal Engineering performed a condition assessment and prepared the construction documents for a combination of 15 elevated and ground steel water storage tanks. The tanks range in size from 500,000 gallons to 1.0M gallons. Coating failures, structural deterioration, and electrical & mechanical deficiencies were analyzed, and engineering design/construction documents prepared for a comprehensive rehabilitation of the water tanks. The total construction cost is \$3M. Principal is providing complete construction phase services. Construction Phase Services for this project include phasing of the work to ensure the three water systems affected maintain sufficient capacity for fire protection and demand satisfaction. This required coordination with the Parish Utility Department, Fire Protection officials, and the three construction contractors. Construction management tasks include review and enforcement of performance schedules, review of technical submittals for compliance with the contract documents, review and approval of pay requests, change order preparation/negotiation, and coordination between the Owner and Contractor. QA services include resident inspection: verifying the repairs made by the contractor comply with the contract, that materials delivered to the site comply with specifications and that relevant safety regulation and policies are adhered to, and documentation of progress in both written and photographic formats for progress measurement and award of weather extensions. Additionally, surface preparation for coating application is audited by a corrosion engineer, followed by primer thickness and quality audit, followed by completed coating thickness and quality audit. Coating audits are done to the Steel Structures Painting Council standards. Thorough reports are prepared with instrument readings and photographs.

Chinchuba Area Sewer Collection and Lift Stations; St. Tammany Parish Government, La.

The Chinchuba area of St. Tammany Parish has municipal sewer by a combination of individual package plants and septic systems, low pressure pumping systems, and gravity collection discharging to open ditches and to the City of Mandeville's system, respectively. The proposed project consolidated sanitary wastewater and conveyed it totally to the City of Mandeville system. The project scope included installation of new sanitary sewer collection piping in existing street rights-of-way, service lines terminating at the property boundary, pumping stations and force mains, and HMA overlay of the affected streets, within the project limits. The proposed gravity collection lines total over 20,000 linear feet, and pressure pipelines total just over 3,000 linear feet. Principal Engineering performed a hydraulic and geometric study to determine the most cost effective and convenient alternative. Conceptual design options were presented for Parish selection. Principal Engineering then provided engineering design and construction services for sanitary sewer collection and pumping to service the residences and commercial buildings in the project limits. Conceptually, 8-inch diameter gravity sewer main will be installed collecting wastewater and delivering it to a rebuilt Lift Station 42 (City of Mandeville) and to a rebuilt Lift Station 24 (City of Mandeville). New force mains convey pumped effluent to City of Mandeville pump stations #26 and #25, respectively. Pump upgrades are anticipated at lift station #26.

Morton & Ingrid Sewer Lift Station Rehabilitation SCIP Project No. D5718; Jefferson Parish Government, La.

Principal Engineering was selected by Jefferson Parish to evaluate the consolidation of the two separate sewer lift stations into a single submersible station. The flooded suction station will be abandoned, and the project will include the installation of approximately 3,000 linear feet of new sewer force main by directional drilling. Principal Engineering performed design, prepared construction documents and specifications and will perform bidding and construction phase services upon construction funding approval. Work is being performed under the direction and management of the Sewer Capital Improvement Office. Est. Construction Cost: \$1.1M

Veterans & Indiana Sewer Lift Station Rehabilitation; City of Kenner, La.

This project consists of the evaluation, conceptual design and final design of the selected alternative of rehabilitation to the Veterans & Indiana Station. The evaluation consisted of a study of the service area's sanitary sewer flows and the evaluation of the existing overflow conditions; a draw down test was also performed by Principal Engineering. The design memorandum developed the conceptual basis to conduct design of improvements to the lift station and associated force main at Veterans Blvd. and Indiana Ave. The alternatives explored included the replacement of the existing pumps, motors, controls, electrical equipment, and re-alignment of the force main to discharge at the 24th St. and Delaware lift station or the

TEC Professional Services Questionnaire

Mr. DiFranco Continued...

alternative to design and construct a new lift station. Principal Engineering prepared construction documents and provided construction administration. A new lift station was constructed to replace the existing one, and approximately 4,400 linear feet of new 10-inch sewer force main was installed. Construction Cost: \$1.5M.

WWTP Headworks Modification & Sluice Gates Replacement; City of Mandeville, La.

Principal Engineering prepared plans and specifications for structural modifications to the headworks at the Mandeville WWTP, as well as replacement of 8 non-functioning sluice gates. Sluice gates ranged from 40" to 46". Headworks' modifications included construction of two new cast-in-place concrete junction boxes, pipe abandonment, and installation of a new 36" diameter section of pipe. Principal Engineering prepared construction documents, and performed construction administration and resident inspection services. Construction Cost: \$370,000

Live Oak Manor Sewer Improvements (LS C-8-1); Jefferson Parish Government, La.

Principal prepared plans and specifications for the removal and replacement of approximately 3,500 linear feet of sewer gravity main. Principal prepared design calculations to size the gravity main and is providing design documents to upgrade an existing sewer pump station. The project includes the removal and replacement of the concrete roadway to install the sewer gravity main and roadway profiles will be provided to restore the roadway. Const. Cost: \$4M.

St. Bernard Parish Water Treatment Plant – New 12.0 MGD WTP; St. Bernard Parish Government, La.

Mr. DiFranco established design criteria and performed QA/QC reviews for this project. Principal Engineering provided Structural Engineering for this new 12.0 MGD Water Treatment Plant in St. Bernard Parish. The Structure was for the Water Treatment Plant Transfer Pump Station Excavation located in the Mississippi River Batture. Principal designed the cofferdams that were deep excavations with ground water control.

Lyons & Edgard Water Treatment Plant 2.0 MGD Expansion; St. John the Baptist Parish, La.

Mr. DiFranco established design criteria and performed PM services for this project to include design/plan reviews. The Lyons WTP project included a 2 MGD filter addition, new office building, 2.5 MGD clarifier replacement, and the Edgard WTP project consists of a 3.0 MGD clarifier reconditioning and sludge pit expansion. It includes the installation of a second clarifier at the Edgard Water Treatment Facility including flow controls, blow-down piping and valves, piping modifications, foundation with piles, and other miscellaneous work. This project will split the flow between the existing clarifier and the new clarifier. Also, with the addition of the new clarifier, either of the two clarifiers can be removed from service and clean or rehabilitated without the loss of production of potable water. Additionally, a walkway for the Edgard Water Treatment Plant's raw water structure was included.

Carondelet Sewer Gravity Rehabilitation; City of Mandeville, La.

Principal was engaged to perform field investigative work to determine areas of failed sanitary sewer gravity main and sewer manholes in the Old Mandeville area of the City. Point repair areas were identified and alternatives to re-locate and re-align approximately 1,000 linear feet of gravity sewer along Carondelet Street was presented and approved for design and construction. Principal prepared construction documents and performed construction administration and resident inspection services.

Sanitary Sewer System Evaluation Survey (SSES) & Rehabilitation of Lift Stations; City of Mandeville, La.

Principal is managing a comprehensive SSES program and collection system maintenance/repair program and sewer lift station rehabilitation for a complete sanitary sewer system comprised of 60 sewer lift and pump stations, 1,264 sewer manholes, 21 miles of sewer force main and 62 miles of gravity sewer main. The SSES includes smoke and/or dye testing, manhole inspections, sanitary sewer line cleaning, and closed-circuit television (CCTV). The information obtained is used to analyze infiltration/inflow (I/I) quantities assigned to detected sources, including sewer services within and outside of the right-of-way. Defect locations and characteristics and their associated I/I quantities are separated into the following categories: main lines, lateral lines (within public rights of way and easements) and service lines (on private property). Principal determines the most advantageous methods for rehabilitation of detected I/I sources with associated cost recommendations.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Dwayne Marlborough, P.E.

Project Assignment:

Project Engineer - Meets the Minimum Requirement #3- "The persons or firms under consideration shall have one (1) employee who is a licensed, registered architect and/or professional engineer in the State of Louisiana in the applicable discipline involved."

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

2 (others, 26)

Education: Degree(s)/Year/Specialization:

Bachelor of Science/1993/Civil Engineering

Active registration: Year first registered/discipline:

Professional Engineer—2001, Civil Engineer Louisiana, License No. 29318

Other experience and qualifications relevant to the proposed Project:

Mr. Marlborough has over twenty-eight years of extensive experience in civil/structural engineering which include various types of flood control infrastructure design. Mr. Marlborough has designed numerous drainage projects to include coastal and structural protection efforts. He is well experienced in civil design, site, and structural design, developing and interpreting plans, cost estimating and on-site construction inspection and reporting. Mr. Marlborough is also a licensed Civil Engineering in Mississippi (No. 20138); Texas (No. 130981) Mr. Marlborough recently began the design for the **East Bank Treatment Plant Roof** in St. Charles Parish.

PROEJCT EXPERIENCE:**Bucktown Marsh Overlook | Lake Pontchartrain South Shore Coastal Reclamation and Reengagement Project
Jefferson Parish Ecosystem and Coastal Management | Jefferson Parish, LA**

Mr. Marlborough is assisting in the design of this project. The 900 sq ft deck platform is supported by five 20" diameter timber poles, projecting 25 ft above the platform, with fabricated metal branches and leaves, invoking forested swamp surroundings. The foundation is pile-supported reinforced concrete slab, designed to resist breaking waves. PRINCIPAL is providing engineering design, bidding, construction phase and project close-out services, including access to the pavilion (ramps), benches, and/or shade tree planting, and designation of location for educational signs. The project features are designed to engage local residents and tourists in activities that promote coastal and wetland education opportunities as well as enhanced recreational spaces.



TEC Professional Services Questionnaire

Mr. Marlborough continued...

Mid-Barataria Sediment Diversion - CPRA, Plaquemines Parish, Belle Chasse, LA
Mr. Marlborough is providing structural engineering for a siphon in the Barataria Basin for the Mid-Barataria Basin Sediment Diversion project for the State of Louisiana. The drainage structure includes 900 LF of six (6) 96-inch steel pipes with a variety of T-walls, wing walls and a 29-foot siphon wall. This project is one of the largest sediment capture and transport projects being undertaken under this aggressive program to rebuild the coast of Louisiana. PRINCIPAL developed criteria to govern the alternative screening & selection, design, and detailing of armoring on the MRLs, headworks, and channel. PRINCIPAL used H&H model result parameters (including inverted siphon diameters, profiles, weir geometry and elevations, approach geometry, outfall geometry, required blow-off locations and diameters) and operational requirements to develop concept-level plan and profile drawings of the inverted siphon conveyances and structures. This project consisted of the analysis and design of different siphon structures to be integrated into the guide levees as well as the cost feasibility of alternatives. Elements of design include reinforced-concrete design and construction, using deep soil mixing for founding the structures and large-diameter pipelines, and access roads to and across the primary structures. (Ongoing Client: LA Coastal Restoration and Protection Authority).

St. Charles East Bank Master Drainage Plan – Phase I - St. Charles Parish Government
This project is Phase I of the East Bank Master Drainage Plan for St. Charles Parish for the Montz, Norco, New Sarpy, and Ormond drainage basins (approximately 5,000 acres of study area). Modeling platforms employed included XPSTORM, USEPA SWMM, and AutoDesk's Storm and Sanitary Analysis. Hydrology and hydraulic modeling for the 25-year and 100-year design storms (NOAA Atlas14) was accomplished, and an integrated program of improvement projects was developed for the design criteria. Datasets incorporated were drainage network GIS information validated against field surveys, prior flood/drainage studies performed for the Parish in these areas, lidar topography, public input and anecdotal evidence, present and historical aerial photography, and anticipated future flood control project effects (namely, West Lakeshore). The recommended program of Phase I projects totals \$148 million in construction cost, consisting of pumping station, conveyance, and detention improvements. (2021)

Ozone Woods Drainage Improvements (H&H Modeling Report) - St. Tammany Parish Gov't, LA
Mr. Marlborough provided civil engineering drainage support for this project that included the H&H Modeling of the Ozone Woods Drainage basin in St. Tammany Parish, that consisted of detailed topographic survey, build of a calibrated existing condition hydrologic & hydraulic model in the EPA SWMM software platform for the 10-yr and 100-yr recurrence rainfall event, and modeling of improvement alternatives (~600 acres). Hydrologic and Hydraulic analysis of widespread area was performed to achieve desired water surface elevations through the pipe and ditch network. Design criteria for improvement modeling was established for the 10-yr event as storm water runoff contained within the ditch banks, and for the 100-yr event as generally below the finished floor elevation of structures. Two improvement alternatives, each satisfying one of the design criteria were developed, and the construction cost estimated. Given fiscal constraints, a reduced-criteria alternative was developed at lower construction cost; named the Modified 10-yr Improvement Alternative. *Mr. Marlborough developed alternatives and cost estimates based on the design criteria.*

Tchefuncte Marsh Shoreline Restoration City of Mandeville - Mandeville, LA
Mr. Marlborough completed a feasibility document and environmental pre-assessment for shoreline protection alternatives for a 3.1-mile segment of fresh and mixed marsh shore of Lake Pontchartrain between the Tchefuncte River and the Lake Pontchartrain Causeway Bridge. A temporal analysis using historical documents, historical surveys, lidar, and aerial images was performed, demonstrating the accelerating retreat of the shoreline from 1871 to the present. Rapid marsh loss in recent years has been attributed to localized breach of a Pleistocene-age Gulf Coast sand bank at marsh edge. Design considerations include the underlying geologic framework (including an active fault zone), preservation of submerged aquatic vegetation, preservation of habitat, wave characteristics, mean sea level rise, navigation, constructability, and property rights of adjacent private landowners. (2020)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Brien Croff, P.E. Project Manager
Project Assignment:
Engineering Design – meets minimum requirement #3 “one employee who is a professional engineer registered as such in Louisiana in the field or fields of expertise required for the project (A sub-consultant may meet the requirement only if the advertised project involves more than one discipline.”
Name of Firm with which associated:

Years' experience with this Firm:
1
Education: Degree(s)/Year/Specialization:
Bachelor of Science in Civil Engineering, 2015
Active registration: Year first registered/discipline:
Professional Engineer - Civil, 2022, Louisiana License No. 46408 Professional Engineer - Civil, 2020, Ohio License No. 86190.
Other experience and qualifications relevant to the proposed Project:
<p>Mr. Croff will have responsibility for planning, reports, and reviews. Brien has experience in project management, design drafting, hydraulic modeling and analysis, and technical report writing specifically in the areas of water supply and wastewater infrastructure.</p> <p><i>Experience in Program/Contract Management:</i></p> <ul style="list-style-type: none">-Data Analysis and Management-Environmental, Biological and Infrastructure Surveys-Environmental Studies and Reports-Water Resources Planning-Meeting/Reporting Requirements

TEC Professional Services Questionnaire

Mr. Croff Continued...

Fontainebleau State Park Force Main, City of Mandeville, La.

Mr. Croff is assisting with the design of this project in addition to completing the Coastal use permit application, permit drawings in progress, & submission of preliminary design draft as of early Jan. 2022. PRINCIPAL is performing Engineering Design and producing plans and specifications suitable for public bid, to replace the sanitary force main between City Lift Station 3, and the east bank of Bayou Castine. Design Submittals include 60%, 95% Pre-Final, and 100% Final. Engineer shall revise documents in accordance with City comments. Technical scope shall be according to the revised Pontchartrain Restoration Program (PRP) Work Plan.

Lyons Water Treatment Plant 1.0 MGD Expansion; St. John the Baptist Parish, La.

Mr. Croff established design criteria and is performing design services for this project that includes a 1.0 MGD expansion of the WTP. The Lyons WTP project includes a 1.0 MGD filter addition, existing filter media replacement, new filter building and sludge pit expansion.

Quentin Road EQ Basin and Pump Station Improvements, Eastlake, Ohio

On this project, Mr. Croff was the design engineer. Responsibilities included developing a basis of design, drafting of construction plans, cost estimate, permit applications, and specifications. The purpose of the project was to construct a 1-million-gallon equalization storage basin on the site of an existing sewage pump station, as well as improvements to the existing pump station. The cost of the project was \$2.2 million.

Troy Oaks Pump Station – Geauga County, Ohio

On this project, Mr. Croff had the role of County project manager during design and construction. The purpose of the project was to decommission an existing wastewater treatment plant and construct a 75,000 gpd pump station in its place, which would discharge to another nearby treatment facility. The cost of the project was \$1.8 million.

Chardon Township Sanitary Sewer and WWTP, Geauga County, OH.

The scope of this project was design and construction of a new sanitary sewer collection system and WWTP facility which would serve 115 residential properties. During the design phase of the project, I worked collaboratively with a consulting engineering firm to develop the plans for the WWTP facility, pump station and sanitary sewer. As assistant sanitary engineer for the County, I made decisions on process control, facility layout, specifications, and other operational needs. During the bidding phase I worked with the County administration to advertise and commission the project. During the construction phase I reviewed submittals from the contractor and made the decisions on whether to approve or reject products on the basis on conformance to specifications. I made decisions on change orders, partial payment applications, and RFIs.

List of Most Recent Projects Working:

- **Third Street Drainage – Jefferson Parish**
- **Stall Ditch Drainage – Jefferson Parish**
- **Jung & Falcone Lift Station Improvements – Jefferson Parish**
- **Herwig Bluff Lift Station Improvements – St. Tammany Parish**
- **Water Storage Tank Inspection and Rehab. – St. John The Baptist**
- **Rachel St. Pump Station – Lafitte Levee Dist.**
- **Effluent Pipeline Extension – City of Mandeville**

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Natalya Munger, P.H., E.I. Project Manager
Project Assignment:
Engineering Design Support
Name of Firm with which associated:

Years' experience with this Firm:
1 (others, 22)
Education: Degree(s)/Year/Specialization:
Master's Degree/1995/Civil Engineering
Active registration: Year first registered/discipline:
American Institute of Hydrology/Professional Hydrologist (P.H.) No. 11-H-3005 E.I. Louisiana No. 0030985
Other experience and qualifications relevant to the proposed Project:
<p>Ms. Munger received her degree in civil engineering with minors in surface water hydrology and surveying (Accreditation Board for Engineering and Technology [ABET] accredited). Furthermore, Ms. Munger has professional qualifications as a professional hydrologist (surface water) from the American Institute of Hydrology and has received professional qualifications as a Certified Engineer Intern.</p> <p>Ms. Munger holds computer skills that enhance her credentials even further. Her computer skills include but are not limited to <i>AutoCAD</i>, <i>LA DOTD HYDROWINT</i>, <i>PCSWMM</i>, <i>FHWA WSPRO</i>, <i>HEC-18</i>, and <i>HEC-RA</i>.</p> <p>Natalya Munger will be the key engineer and professional hydrologist for hydrologic and hydraulic (H&H) and specialized modeling and overall environmental compliance.</p>

TEC Professional Services Questionnaire

Ms. Munger continued...

Prior Related Contract Roles:

- H&H Modeling
- Environmental and Risk Assessment Modeling
- Water Resources Planning

PROJECT EXPERIENCE:

Lake Vista Neighborhood Group E / FEMA Recovery Roads Program – New Orleans, LA (RR077)

The scope of this project includes subsurface drainage improvements, concrete roadway re-design and replacement, and water main improvements. Principal performed the engineering design of all roadway and drainage improvements, and partial water main improvements. Mr. Melendez assisted with the preparation and design of construction drawings.

St. Charles Parish East Bank Master Drainage Plan | St. Charles Parish, LA

Ms. Munger assisted in the preparation of Phase I of the East Bank Master Drainage Plan for the Montz, Norco, New Sarpy, and Ormond drainage basins. The model for this effort was developed through analysis of various datasets provided by the parish using XPSTORM, EPASWMM, and AutoDesk's Storm and Sanitary Analysis, resulting in detailed drainage improvement recommendations. (2020-2021)

Subsurface Drainage Design City of New Orleans Department of Public Works, Multiple Locations | New Orleans, Louisiana (ILSI Engineering, Inc.)

Ms. Munger prepared subsurface drainage design and hydraulic analysis using LADOTD HYDR6000 and HYDR6020 for multiple phases of New Orleans Department of Public Works project. Her work also included providing data points showing similar size and complexity. (2018 to 2020)

Southeast Louisiana Drainage Projects in Jefferson Parish | Jefferson Parish Department of Capital Projects | U.S. Army Corps of Engineers, Jefferson, Louisiana (BCG Engineering & Consulting)

Ms. Munger prepared design and construction cost credit reports for Southeast Louisiana Drainage Projects in Jefferson Parish. So far, 59 contracts have been issued under this program for drainage improvements, which included drainage canals, pumping stations, and bridges on both sides of the Mississippi River. The total program cost was \$650 million. (2012 to 2017)

Florida Avenue Development Federal Emergency Management Agency (FEMA) Eligible Road Repair | City of New Orleans Department of Public Works, New Orleans, LA (BCG Engineering & Consulting)

Ms. Munger prepared construction drawings and scoping reports for the Florida Avenue Development for road improvement projects that were eligible for FEMA funding. (2015 to 2018)

English Turn Drainage, City of New Orleans Sewerage and Water Board | New Orleans, LA (ILSI Engineering, Inc.)

Ms. Munger prepared a hydraulic model using PCSWMM for English Turn Subdivision to improve the capacity of the existing canals in the Algiers Sub-Basin and to increase the capacity of the nearby pump station. (2019)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Eric Glynn, E.I.
Project Assignment:
Engineer Intern; Project Engineer
Name of Firm with which associated:

Years' experience with this Firm:
<1
Education: Degree(s)/Year/Specialization:
Bachelor of Science in Mechanical Engineering/2020/University of New Orleans.
Active registration: Year first registered/discipline:
2021/Engineer Intern (E.I.); Louisiana No. 0035028
Other experience and qualifications relevant to the proposed Project:
Mr. Glynn is currently assisting with modeling, site visits, plan markups, etc. etc. for PRINCIPAL on the following projects:
<ul style="list-style-type: none">• Pointe a la Hache Pump Station Rehabilitation – Plaquemines’ Parish Gov.• Lift Station 35 & 38 Rehabilitation – City of Mandeville• St. Charles Parish East Bank Drainage Master Plan – St. Charles Parish• Ozone Woods Drainage Conveyance - St. Tammany Parish• Lake Vista Group E Roadway & Water Imp. - New Orleans Department of Public Works

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Emile Barré; Construction Manager
Project Assignment:
Construction Management
Name of Firm with which associated:

Years' experience with this Firm:
2
Education: Degree(s)/Year/Specialization:
Bachelor of Science/1994/Mechanical Engineering
Active registration: Year first registered/discipline:
Certified Engineer Intern (E.I.), No. 0001569 (currently in process to renew E.I.)
Other experience and qualifications relevant to the proposed Project:
<p>Mr. Barré is a dynamic professional with a proven record of building relationships, managing projects, guiding a team, while covering and reporting the details and finishing on time. Mr. Barré has over 27 years of experience in the construction and engineering profession. For the following projects, Mr. Barré serves as our construction manager.</p> <p>Sewer and Water Maintenance Project, City of Mandeville, LA This project is to provide maintenance to the City of Mandeville sewer and water system, including repair and/or replacement of sewer and water mains, service connections, manholes and fire hydrants. Project value \$2M.</p> <p>Abita Springs Gravity Sewer Rehabilitation, St. Tammany Parish, LA This project includes the rehabilitation of existing sanitary sewer mains, sanitary sewer laterals, sanitary sewer manholes and related appurtenances. Sewer mains predominantly rehabilitated by cured-in-place pipe. Sewer Laterals predominantly rehabilitated by chemical grout sealing. Some sections of sewer laterals dig and replace within roadway and include the rehabilitation of roadway. Project value \$2.5M.</p>

TEC Professional Services Questionnaire

Mr. Barré continued...

Central Avenue Rehabilitation, Jefferson Parish, LA

The project objective is to replace a 6" asbestos cement water main in the Central Ave. right of way between Airline Dr. and Karen Ave., with 12" C-900 PVC and 18" DR 11 HDPE. Existing fire hydrants, fittings, valves, domestic services, and fire services in the project limits will be replaced. Principal is providing engineering design, bidding, construction phase and project close-out services for the water main replacement. Project value \$3M.

David Drive Corridor Improvements, Jefferson Parish, LA

This project includes subsurface drainage improvements, concrete roadway replacement/widening, asphalt roadway mill and overlay with widening, 12" waterline installation, sidewalk replacement, driveway replacement and traffic signal modifications. Principal is administering construction. Project value \$8M.

Roadway & Drainage Capital Improvement Program, City of Mandeville, LA

This project includes mill and overlay of asphalt streets citywide, concrete panel slab replacement, intersection redesigns, bridge repairs, and drainage improvements. Principal created the contract documents, performed engineering design, is administering construction, and providing resident inspection services. The contract has a value of \$5M.

List of Projects most recently worked / working:

- Upgrades to Leo Kerner Lafitte & Pritchard Sewer Lift Station (L-14-10) – Jefferson Parish – Pre-Con.
- N. Pierce & Versailles Lift Station – Jefferson Parish – 97% Construction complete
- Lift Station 12 & 24 Rehab – City of Mandeville – 100% Close out
- Lift Station 16 & 26 Rehab – City of Mandeville – Beginning Construction
- Lift Station 35 & 38 Rehab – City of Mandeville – Bidding phase
- Life Station Rehabilitation – Town of Abita – 75% Construction complete
- Effluent Pump Station Rehab – City of Mandeville – 100% Close Out
- Sunset Point Restrooms – City of Mandeville – 96% Construction complete
- Westbank Trailhead – St. Charles – 99% Construction complete
- VA Fisher House Site Utility Design – Dept. of VA - 100% Close Out
- River Road Spillway Repair – St. Charles Parish - 100% Close Out
- Bayou Castine Bulkhead Repair – City of Mandeville – 100% Close Out
- Jesuit Bend Drainage Rehab – Plaquemines Parish Gov. – 100% Close Out
- Barrier Road Drainage Improvements – Plaquemines Parish Gov. – Beginning Construction
- Sisters Road Bridge Replacement – Tangipahoa Parish – 5% Construction complete

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

**Michael Melendez
Senior Engineering Technician**

Project Assignment:

CADD

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

17

Education: Degree(s)/Year/Specialization:

Associates Degree of Occupational Science in Computer Aided Drafting, 1999.

Active registration: Year first registered/discipline:

NA

Other experience and qualifications relevant to the proposed Project:

Mr. Melendez has an associate's degree of Occupational Science in Computer Aided Drafting from Southeast College of Technology. His coursework included drafting classes for architectural, mechanical, civil, piping, and electrical. It also included classes for Microsoft Word and Excel. During his studies, he maintained a 4.0 GPA and graduated with honors. His professional qualities include the ability to analyze a problem and present an accurate resolution. He is also detail oriented, and focuses on quality and accuracy. Mr. Melendez is Proficient with AutoCAD, Civil 3D, GIS and many design software programs to include project scheduling.

RELEVANT EXPERIENCE: Mr. Melendez was the lead Engineering CAD Technician on the following projects:**Causeway & Central Sewer Pump Station Multiple Force Main Manifold Project; City of Mandeville, LA**

This \$1.7M project manifolds sanitary force mains presently discharging into a central 10,000 gpm station to be re-pumped to the City WWTP. With this manifold and dispersed mechanical and electrical upgrades at the seven upstream stations, the City's largest and most O&M intense station will be eliminated, and a persistent source of odor complaints likewise eliminated. Principal Engineering developed the project concept, performed hydraulic modeling and design to prove the feasibility, then designed complete mechanical and electrical rehabilitation/improvement at the seven upstream sanitary lift stations, varying in capacity from 200 gpm to 3600 gpm. Key items of interest include right-sizing pumping capacities and pressures to actual conditions, preventing overflows or reducing wasteful overcapacity; rehabilitation of concrete wet well structures, replacement of control panels and level sensors with modern equipment; use of soft-starts to eliminate hydraulic transients in the force main network, piping replacements and rehab, and site improvements.



TEC Professional Services Questionnaire

Mr. Melendez Continued...

Mid-Barataria Sediment Diversion – LA CPRA, Plaquemines Parish, LA – LA CPRA

The Mid-Barataria Sediment Diversion project is one of the largest sediment capture and transport projects being undertaken under this aggressive program to rebuild the coast of Louisiana. Principal developed criteria to govern the alternative screening & selection, design, and detailing of armoring on the MRLs, headworks, and channel. Principal used H&H model result parameters (including inverted siphon diameters, profiles, weir geometry and elevations, approach geometry, outfall geometry, required blow-off locations and diameters) and operational requirements to develop concept-level plan and profile drawings of the inverted siphon conveyances and structures.

Marrero WWTP Head Works Rehab Project – JP SCIP No. D2133; Jefferson Parish, LA

This project consisted of design/construction of improvements to the existing headworks at the Marrero WWTP which has a capacity of 12.6 MGD with wet weather events pushing the capacity in excess of 40 MGD. The scope included the replacement of 2 mechanical bar screens and one manual bar screen as well as replacement of the grit pumps, classifier and all piping and valves. The manual bar screen replacement included a passive by-pass feature. The scope also included the design of an outdoor overhead crane to assist in the removal of the submersible grit pumps for future maintenance, inspection and cleaning of the grit chambers for coating repairs. The design also included the relocation of first story controls and power distribution to a pile supported auxiliary prefabricated climate-controlled building to the north of the existing headworks, replacement of all external headworks, blower room, polymer room, truck bay and abandoned first floor MCC room incandescent and fluorescent lighting with LED fixtures.

City-Wide Lift Station Rehabilitation Program; City of Mandeville, LA

Principal Engineering is managing a rehabilitation program covering the city's 61 sanitary sewer lift stations, programed at a total cost of \$15M. This includes production of an asset inventory, condition evaluation, rehabilitation method selection, design, CA /RI, contract close-out, and on-going asset management. Common rehabilitative measures include pump replacement & pumping capacity correction, piping and valve replacement; concrete structure blasting, section rebuild, and lining; site access and safety improvements, control panel modernization & level sensing instrument replacement; electrical component code compliance corrections; selected station reconfigurations from self-priming to submersible and isolated force main upgrade. To date, construction has been completed on 19 lift stations, 8 lift stations are in design, and the remaining lift stations are programmed for future rehabilitation.

Morton & Ingrid Sewer Lift Station Rehabilitation; Jefferson Parish Government, La.

Principal Engineering was selected by Jefferson Parish to evaluate the consolidation of the two separate sewer lift stations into a single submersible station. The flooded suction station will be abandoned, and the project will include the installation of approximately 3,000 linear feet of new sewer force main by directional drilling. Principal performed design, prepared construction documents and specifications and will perform bidding and construction phase services upon construction funding approval. Work is being performed under the direction and management of the Sewer Capital Improvement Office. Construction Cost: \$1.1M.

Water & Sewer System Improvements; Housing Authority of Jefferson Parish, La. – Marrero

This project included the removal and replacement of approximately 13,000 linear feet of sewer gravity service main and the removal and replacement of water system valves to achieve isolation within the system. The project was constructed for a cost of \$950K with no change orders and within the established budget and schedule to utilize grant funding for the project. Principal prepared the design and construction documents, permitting, construction administration and resident inspection services for this project.

Lift Station 21 Relocation Owner: City of Mandeville, La.

This project is a collaborating effort between St. Tammany Parish and the City of Mandeville to regionalize wastewater treatment. Principal designed a 1,500-gpm submersible sanitary pump station and performed hydraulic modeling to select the appropriate pumping equipment and operating conditions. The existing Lift Station 21 will be relocated; the existing Lift Station 20 will be demolished as part of this project. This project is currently under construction. Construction Cost: \$1.2M.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title: Logan Richard Engineering Technician
Project Assignment: CAD Design
Name of Firm with which associated: 
Years' experience with this Firm: 1
Education: Degree(s)/Year/Specialization: Bachelor of Science in Engineering Technology, 2019.
Active registration: Year first registered/discipline: NA
Other experience and qualifications relevant to the proposed Project: Mr. Richard has a Bachelor of Science in Engineering Technology. He has experience in the production of CADD designs for intricate coastal and drainage projects. Mr. Richard's strong work ethic and attention to detail does not go unnoticed by the PRINCIPAL <i>Engineering, Inc.</i> team. Logan Richard will perform computer-aided design and drafting of figures and conceptual designs on projects as directed.
List of Most Recent Projects Worked/Working: <ul style="list-style-type: none">• Grand Isle Pump Station – Jefferson Parish• Third Street Drainage – Jefferson Parish• Woodmere Youth Center Improvements – Jefferson Parish• Woodmere Playground – Jefferson Parish / Meyer Engineers• Delambert Pump Station Rehab – St. Bernard Parish• Harbor Breakwater Repair – City of Mandeville• Fontainebleau SP Force Main – City of Mandeville• Ozone Woods Drainage – St. Tammany Parish• Grafton Dr. Pavement Rehab – Slidell• Eastbank Drainage Master Plan – St. Charles Parish• EB Treatment Plant Roof – St. Charles Parish

TEC Professional Services Questionnaire

L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.		
PROJECT NO. 1		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Marrero WWTP Head Works Rehab Project – JP SCIP No. D2133 Jefferson Parish, LA Jefferson Parish Government Sewer Capital Improvement Program 1221 Elmwood Park Blvd., Suite 906 Jefferson, La. 70123 Sid Trouard, PE Phone: (504) 736-6833	This project consisted of design/construction of improvements to the existing headworks at the Marrero WWTP which has a capacity of 12.6 MGD with wet weather events pushing the capacity in excess of 40 MGD. The scope included the replacement of 2 mechanical bar screens and one manual bar screen as well as replacement of the grit pumps, classifier and all piping and valves. The manual bar screen replacement included a passive by-pass feature. The scope also included the design of an outdoor overhead crane to assist in the removal of the submersible grit pumps for future maintenance, inspection and cleaning of the grit chambers for coating repairs. The design also included the relocation of first story controls and power distribution to a pile supported auxiliary prefabricated climate-controlled building to the north of the existing headworks, replacement of all external headworks, blower room, polymer room, truck bay and abandoned first floor MCC room incandescent and fluorescent lighting with LED fixtures.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
October 2019 – Design 2020 – Construction	\$2.5M	40%
PROJECT NO. 2		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Lafitte & Pritchard Sewer Lift Station Rehab (L-14-10) Jefferson Parish, LA Jefferson Parish Government Sewer Capital Improvement Program 1221 Elmwood Park Blvd., Suite 906 Jefferson, La. 70123 Sid Trouard, PE Phone: (504) 736-6833	This \$2.5M sanitary pump station rehabilitation project consists of a total mechanical & electrical component replacement, while maintaining the 18,000-gpm pumping capacity. Principal Engineering is designing the project phasing to construct electrical components and controls, including integral-logic VFDs, to be completely on-line via new 480V service prior to de-activation of the old controls; such that each of the four 100 HP pumps may be cut over one at a time, minimizing bypass pumping duration. Standby power generation, air-conditioned control enclosures, and elimination of high voltage transformers are features of the electrical design that dramatically increase reliability and O&M ease of the rehabilitated station. Mechanical design consists of pump replacement, discharge header replacement, and appurtenant mechanical component replacements around the station. In addition, complete renovation of the Station's restroom facility is being performed. The wet well lining system has been evaluated and judged to be in serviceable condition.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
95% Design Completion – Nov 2019 2020 (Est.) – Construction	\$2.5M	100%

TEC Professional Services Questionnaire

PROJECT NO. 3		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Sewer Improvement & Rehabilitation Program Town of Abita Springs, LA</p> <p>Town of Abita Springs Dan Curtis, Mayor 22161 Level Street Abita Springs, LA 70420 Phone: (985) 892-0711</p>	<p>This Program is a \$6,000,000 CWSRF-funded rehabilitation of the Town's 15 sanitary lift stations and gravity collection system; focused on modernizing the lift station mechanical and electrical components, reducing O&M costs through equipment selection, and eliminating sanitary overflows by right-sizing pumping capacities and performing gravity collection system I&I remediation.</p> <p>Principal conducted an evaluation of the system to develop technical scope (see evaluation phase, separate project), then facilitated loan closing through LA DEQ for a Clean Water State Revolving Fund. This included the following: Completion of Pre-Application; Successful processing of Categorical Exclusion (CATEX), eliminating the need for costly Preliminary Engineering Report and Environmental Information Document (PER/EID); Completion of Full Application; Coordination with City Bond Attorney; Preparation of Documents for approval by State Bond Commission; Coordination with & support to Town Financial Officers for revenue projection; First Draw Request for Loan Closing.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
<p>Multiple Phases On-Going: Gravity – Construction Phase Lift Stations – Design Phase</p>	<p>\$6.0M</p>	<p>100%</p>
PROJECT NO. 4		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Sanitary Sewer System Evaluation Town of Abita Springs, LA</p> <p>Town of Abita Springs Dan Curtis, Mayor 22161 Level Street Abita Springs, LA 70420 Phone: (985) 892-0711</p>	<p>This \$85K evaluation, accomplished with EPA-administered Pontchartrain Restoration Program (PRP) funds, yielded a comprehensive assessment of the Town's Sanitary Sewerage System. A system inventory and component condition rating for the 14 miles of gravity mains, 1015 service connections, 220 manholes, and 15 lift stations was produced, and technical scope established for rehabilitation to acceptable condition. Principal's lift station technical evaluation team consisted of 1) Civil Engineer, 2) Electrical Engineer, and 3) Certified Class IV Wastewater Operator. The team conducted detailed field study of each of the Town's 15 lift stations followed by engineering analysis. Capacity analysis included analysis of service basin characteristics, hydraulic system characteristics, and measured flows; to determine theoretical pumping capacity (based on existing pump curve & force main), nominal pumping capacity (read from Town records), actual in-place pumping capacity, and required pumping capacity. O&M, operation ease, and code considerations were considered, developing complete rehabilitation recommendations (presented in standardized, tabulated format) and an opinion of probable construction cost. Lift station rehabilitation component of the total Town Sanitary Sewer Improvement & Rehab program is valued at just over \$2M</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
<p>2016</p>	<p>\$85K (Fee)</p>	<p>100%</p>

TEC Professional Services Questionnaire

PROJECT NO. 5		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility	
<p>Causeway & Central Sewer Pump Station Multiple Force Main Manifold Project City of Mandeville, LA</p> <p>City of Mandeville Dept. of Public Works 1100 Mandeville High Blvd Mandeville, La. 70471 Phone: (985) 624-3169</p>	<p>This \$1.7M project manifolds sanitary force mains presently discharging into a central 10,000 gpm station to be re-pumped to the City WWTP. With this manifold and dispersed mechanical and electrical upgrades at the seven upstream stations, the City's largest and most O&M intense station will be eliminated, and a persistent source of odor complaints likewise eliminated. Principal Engineering developed the project concept, performed hydraulic modeling and design to prove the feasibility, then designed complete mechanical and electrical rehabilitation/improvement at the seven upstream sanitary lift stations, varying in capacity from 200 gpm to 3600 gpm. Key items of interest include right-sizing pumping capacities and pressures to actual conditions, preventing overflows or reducing wasteful overcapacity; rehabilitation of concrete wet well structures, replacement of control panels and level sensors with modern equipment; use of soft-starts to eliminate hydraulic transients in the force main network, piping replacements and rehab, and site improvements.</p>	
Completion Date (Actual or estimated)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
November 2019	\$1.7M	100%

PROJECT NO. 6		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Morton & Ingrid Sewer Lift Station & Force Main Rehabilitation (E6-3A) SCIP Project No. D5718 Jefferson Parish, LA</p> <p>Jefferson Parish Government Sewer Capital Improvement Program 1221 Elmwood Park Blvd., Suite 906 Jefferson, La. 70123 Sid Trouard, PE Phone: (504) 736-6833</p>	<p>Principal Engineering was selected by Jefferson Parish to evaluate the consolidation of the two separate sewer lift stations currently functioning as the Morton and Ingrid Station into a single submersible station. The flooded suction station will be abandoned, and the project will include the installation of approximately 3,000 linear feet of new sewer force main by directional drilling. Principal Engineering performed design, preparation of construction documents and specifications and performed bidding and construction phase services for the project.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
July 2016	\$1.0M	100%

TEC Professional Services Questionnaire

PROJECT NO. 7		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
City-Wide Lift Station Rehabilitation Program City of Mandeville, LA City of Mandeville Dept. of Public Works 1100 Mandeville High Blvd Mandeville, La. 70471 Phone: (985) 624-3169	Principal Engineering is managing a rehabilitation program covering the city's 61 sanitary sewer lift stations, programed at a total cost of \$15M. This includes production of an asset inventory, condition evaluation, rehabilitation method selection, design, CA /RI, contract close-out, and on-going asset management. Common rehabilitative measures include pump replacement & pumping capacity correction, piping and valve replacement; concrete structure blasting, section rebuild, and lining; site access and safety improvements, control panel modernization & level sensing instrument replacement; electrical component code compliance corrections; selected station reconfigurations from self-priming to submersible and isolated force main upgrade. To date, construction has been completed on 19 lift stations, 8 lift stations are in design, and the remaining lift stations are programmed for future rehabilitation.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
On-Going	\$15M	100%

PROJECT NO. 8		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Hwy 21 WWTP to Mandeville WWTP-Lift Station 21 Relocation City of Mandeville, LA City of Mandeville Dept. of Public Works 1100 Mandeville High Blvd Mandeville, La. 70471 Phone: (985) 624-3169	St. Tammany Parish plans to construct a sanitary pumping station at the site of an existing wastewater treatment plant (WWTP) that will send sanitary wastewater via a new force main to the City of Mandeville's Lift Station 21 (LS21), which required an upgrade. The new station was constructed on Heavens Drive, in close proximity to Lift Station 20 (LS20). The existing stations LS20 and LS21 were demolished and replaced with the new LS21. The new station was designed so that it has enough capacity to account for the discharge at the existing LS20, LS21, and the proposed new Parish LS on Hwy. 22. The new station was designed for a capacity of approximately 1,070 gallons per minute (gpm). The pump station constructed at the site of the Parish WWTP will require a capacity of approximately 520 gpm. Project Cost: \$1.3M. Principal Engineering was responsible for design of the new station, including hydraulic calculations to size pumps and associated piping, contract administration and CA/RI.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
June 2016	\$1.3M	100%

TEC Professional Services Questionnaire

PROJECT NO. 9		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Veterans & Indiana Sewer Lift Station & Force Main Rehabilitation City of Kenner, LA City of Kenner Department of Public Works 1610 Rev. Richard Wilson Dr. Kenner, LA 70062 Tom Schreiner, PE (504) 468-7515	This project consisted of the evaluation, conceptual design and final design of the selected rehab alternative. The evaluation consisted of a study of the service area's sanitary sewer flows and the evaluation of the existing overflow conditions; a draw down test was also performed by Principal. The design memorandum developed the conceptual basis to conduct design of improvements to the lift station and associated force main at Veterans Blvd. and Indiana Ave. The alternatives explored included the replacement of the existing pumps, motors, controls, electrical equipment, and re-alignment of the force main to discharge at the 24 th St. and Delaware lift station or the alternative to design and construct a new lift station. Based on Principal's recommendations, the city has selected the alternative to design and construct a new sewer lift station to replace the existing. It also included the installation of approximately 4,400 linear feet of new 10-inch sewer force main.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
June 2014	\$1.6M	100%

PROJECT NO. 10		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Ground & Elevated Water Storage Tank Inspection and Rehabilitation St. John the Baptist Parish Department of Public Utilities 1801 W. Airline Hwy. Laplace, La. 70068	PRINCIPAL performed a condition assessment and prepared the construction documents for a combination of 16 elevated and ground steel water storage tanks. The tanks range in size from 250K gallons to 1.0M gallons. Coating failures, structural deterioration, and electrical and mechanical deficiencies were analyzed, and engineering design/construction documents prepared for a comprehensive rehabilitation of the water tanks. Principal has managed the permitting, bidding, and contract award for three of four construction contracts. Construction Phase Services for this project include phasing of the work to ensure the three water systems affected maintain sufficient capacity for fire protection and demand satisfaction. This required coordination with the Parish Utility Department, Fire Protection officials, and the two construction contractors. Resident Inspection services include verifying the repairs made by the contractor comply with the contract, verifying that materials delivered to the site comply with specifications and that relevant safety regulation and policies are adhered to, and documentation of progress in both written and photographic formats for progress measurement and award of weather extensions.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
Program 1 - June 2013 Program 2 – On-Going (Assessment Complete 2021)	\$3,085	100%

TEC Professional Services Questionnaire

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

Parties:		Status/Result of Case:
Plaintiff:	Defendant:	
1. N/A - NONE		
2.		
3.		
4.		

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

PRINCIPAL *Engineering, Inc.* (PRINCIPAL) is a full-service consulting Architecture, Engineering, and Construction services (A/E/C) firm specializing in the following disciplines: **Architectural, Civil, Environmental, Structural, Electrical and Mechanical, and Construction Engineering Services**. Founded in 2004, we successfully provide professional services to federal, state, parish, and city governmental agencies since our inception. Over **90 percent** of our work is from governmental agencies.

PRINCIPAL *Engineering, Inc.* is fully licensed and insured to perform architectural and engineering services in the State of Louisiana. The firm is registered as a corporation with the State of Louisiana, Office of the Secretary of State and is licensed as an Engineering Firm with the **Louisiana Professional Engineering and Land Surveying Board; License no. 3168** and the **Louisiana Board of Architectural Examiners; License No. AE 0232**. In addition, we are currently licensed to practice professional engineering in the states of **Florida, Texas, Arkansas, Mississippi, Alabama, North Carolina, South Carolina, Georgia, Oklahoma, Ohio, Tennessee, Virginia, New York, and New Mexico**.

PRINCIPAL is pleased to report that we are solvent and in a solid financial condition. We have a healthy cash flow, no outstanding debts, and a favorable cash reserve. In addition to our capital reserves, PRINCIPAL has a significant cash line of credit which gives us the capacity to deploy resources when and where needed to meet the needs of our clients. We have the capacity, capability, and experience to deliver successful A/E services to the federal government. PRINCIPAL's President and Vice President are former active-duty military engineering officers and current reserve forces military engineering officers that have past successful experience working on CONUS and OCONUS US Army and US Air Force DOD Facility and Civil Works Projects.

PRINCIPAL is a verified Service-Disabled Veteran Owned Small Business (SDVOSB) with the Center for Veterans Enterprise (CVE) and PRINCIPAL is also a certified Disabled Veteran and Hudson Initiative Small Business and a Small and Emerging Business Enterprise with the Louisiana Department of Economic Development.

PRINCIPAL *Engineering*® is a federally registered service mark.

TEC Professional Services Questionnaire

1. Professional Training and Experience

The staff at PRINCIPAL is committed to a “total approach” philosophy in providing consulting services to our clients. PRINCIPAL uses Autodesk **Civil 3D**, a powerful site, drainage, terrain modeling, and roadway design software package. Principal’s CADD Designers have completed Autodesk training and we are currently utilizing **Civil 3D** to develop infrastructure designs for many clients thus reducing the design schedule and increasing efficiency of plan development.

As noted herein, PRINCIPAL Engineering has a staff of experienced and trained professionals who have successfully completed the planning, design, and construction phase services for numerous local municipal routine Engineering projects. PRINCIPAL’s staff is experienced in conducting **studies, engineering reports, H&H modeling and preparing construction documents for the design of many types of roadways, drainage, water, sewer, building/facility and coastal restoration and flood control projects.** The engineers at PRINCIPAL stay abreast of new developments and technologies in the industry by attending annual events held by the American Society of Civil Engineers (ASCE), the Society of American Military Engineers (SAME) and the American Public Works Association (APWA). Our Vice President, Mr. Monnot is an officer in the local American Public Works Association (APWA) chapter.

In addition, PRINCIPAL Engineering’s President, Mr. DiFranco, and Vice President, Mr. Monnot, bring our team (and St. Tammany Parish) over 50 years of combined valuable Civil Engineering experience from their success within local municipalities, State & Federal clients, as well as unique military engineering and consulting experience. Our President, Mr. DiFranco, provides unique Public Works experience to our clients; having served as a municipal engineer and Director of Public Works and Utilities for two (2) local municipalities. Mr. DiFranco is a former US Army Engineer Officer and is currently a Lt Colonel in the US Air Force Reserve where he is responsible for the evaluation of airfield pavements and DoD facilities. Mr. DiFranco received the *Louisiana War Cross* and numerous combat decorations including the outstanding unit award with “VALOR”. Furthermore, Mr. DiFranco was also the Chairman/Commissioner of the St. Tammany, Levee, Drainage and Conservation District; Governor Appointed from 2014 to 2021. This experience as an Owner’s representative and consulting engineer brings unique valuable insight to our municipal clients.

Our vice-president, Mr. Monnot is also a former Air Force Civil Engineering Officer, where he completed numerous infrastructure improvement projects for Coalition Forces. In addition, Mr. Monnot was appointed to the Historic Commission for the Town of Abita Springs. In conclusion, the local, state, and federal past and current involvement Principal Engineering, Inc., encompasses will allow the as-needed A/E services of St. Tammany Parish to be worked with the utmost professionalism and expertise; with communication being our top value to reach success for our Parish projects.

Key Personnel Training & Experience

- **Henry DiFranco, PE**, is **President** of Principal Engineering, Inc. and has over 31 years of experience in local, state and federal public works engineering and management. Mr. DiFranco served as the **Director of Public Works & Utilities** for a local Parish and held numerous positions as a Parish Public Works Engineer (Jeff Parish) and Consulting Engineer over the past **30 years**. He is also a **Lt Colonel in the USAF Reserve** serving as a **Civil Engineer officer** with the Air Force Civil Engineer Center and is a **veteran of Operation Iraqi Freedom and Noble Eagle**. Furthermore, Mr. DiFranco is the **former Chairman of the St. Tammany, Levee, Drainage and Conservation District (Governor Appointed - 2014 to 2021)**, where he has been instrumental in the planning, scope writing and implementation for the development of a *Coastal Master Plan for St. Tammany Parish*.
- **Andre Monnot, PE**, is **Vice President** of Principal Engineering, Inc. and has a diverse range of planning, engineering design and management experience in both the public sector, as a military engineer, and as a private consultant. He has demonstrated experience in large-scale H&H drainage modeling and planning, shoreline processes and shoreline protection. He has been the lead engineer for the CPRA’s Mid Barataria Sediment Diversion project and the *Lake Pontchartrain Shoreline Protection and Restoration* for the City of Mandeville. Mr. Monnot was the **ENGINEER IN CHARGE** of the Jefferson Parish Avondale/Waggaman Area Master Drainage Plan, Waggaman Railroad Jack & Bore, Orleans Village (SDIP) project and he is currently the lead on the *St. Charles East Bank Master Drainage Plan*.

TEC Professional Services Questionnaire

- **Dwayne Marlborough, PE;** over twenty-five years of experience in public works engineering infrastructure improvement projects. He most recently performed hydraulic and structural engineering analysis for the Mid-Barataria Sediment Diversion (MBSD) project that included the design of large diameter culvert crossings, T-Wall flood control and intake structures and wing walls. He is experienced in numerous software applications and has worked on major flood control projects in south Louisiana. In addition, he provided cost estimating analysis for recommended flood control and drainage improvement projects for Principal Engineering's **Master Drainage Plan** alternative improvements presented to St. Charles Parish
- **Brien Croff, PE;** Mr. Croff has experience in project management, design drafting, hydraulic modeling and analysis, and technical report writing specifically in the areas of water supply and wastewater infrastructure. He will support the project planning and conceptual design of coastal and water resource projects as well as site visits as needed.
- **Natalya Munger, PH, EI;** received her degree in civil engineering with minors in surface water hydrology and surveying (Accreditation Board for Engineering and Technology [ABET] accredited). Furthermore, Ms. Munger has professional qualifications as a professional hydrologist (surface water) from the American Institute of Hydrology and has received professional qualifications as a Certified Engineer Intern. Ms. Munger holds computer skills that enhance her credentials even further. Her computer skills include but are not limited to AutoCAD, LA DOTD HYDROWINT, PCSWMM, FHWA WSPRO, HEC-18, and HEC-RA. PRINCIPAL Engineering, Inc. is honored to have Mr. Munger's background/experience as a vital contribution to our team.

2. Capacity for Timely Completion

Based on a review of our current and projected workload, our current staff has the capacity to add new projects to our current design workload. Principal strives to carefully schedule our workload and we would not bring on any assignment if we did not have the capacity, experience, or resources to complete the project within the client's anticipated schedule. We work closely with the client to develop a schedule that meets their needs for completion. A snapshot of some of our current Jefferson Parish workload, current phase and recent project additions include the following:

Current JPG Design/CPS Workload:

- ◆ JPG – N. Pierce & Versailles Sewer LS – Construction – 97% Complete
- ◆ JPG – Marrero WWTP Imp – Construction – 95% Complete
- ◆ JPG – Lafitte & Pritchard Sewer LS – Bidding/Contract Phase – 100% – Pre-Construction meeting 3.24.22
- ◆ JPG – Jung Blvd & Falcone St. – Design – 95% Complete
- ◆ JPG – Smart Growth – Whitney Ave Bike Lane – Design – 95% Design Submitted
- ◆ JPG – Cleary & Bright Playground Gym Reno – Record Drawing – 100% Complete – Close Out 50%
- ◆ JPG – Destrehan Sewer Lift Station – Design – 30% Review Submitted
- ◆ JPG – Grand Isle Pump Station – Design – 90% Complete
- ◆ JPG – CA for David Drive Imp – Construction – 50% Complete
- ◆ JPG – Laketown Boat Launch – Design – 90% Complete
- ◆ JPG – Laketown Rock Jetty – Design – 50% Complete
- ◆ JPG – Woodmere Playground – Design 90% Complete (Sub to Meyer)
- ◆ JPG – Third Street Drainage – Design – 75% Complete
- ◆ JPG – Stall Ditch Drainage – Design – 50% Complete
- ◆ JPG – Bucktown Marsh Overlook Structure – Design – 90% Complete
- ◆ JPG – Woodmere Youth Center Renovations – Bidding Phase

3. Location of the Principal Office Performing Work

Our St. Tammany Parish, LA office, located at **1011 N. Causeway Blvd., Suite 19, Mandeville, LA** is the office where the work will be performed.

TEC Professional Services Questionnaire

4. Adversarial Legal Proceedings

Principal Engineering, Inc. has no past or current litigation with Jefferson Parish Government, and we have no history of litigation with any governmental/municipal client.

5. Prior Successful Completion of Projects of this Type and Nature

Principal is very familiar with Jefferson Parish. Our president is a former Public Works and Utilities Director (2000 to 2004). As the director of two departments, Mr. DiFranco is intimately familiar with Water and Sewer Collection and Treatment Facilities and disinfection methods and is very knowledgeable of the Parish's needs. Principal Engineering has completed numerous projects; Water Storage Tank Inspection and Rehab, Woodland Bridge & Roadway Rehab (East & West), Country Club Drive Bridge & Roadway Rehab and the Greenwood Drive Bridge & Roadway Rehab. In addition, Principal is currently working on the Water Storage Tank Inspection and Rehabilitation project.

6. Size of the Firm

Principal Engineering has a staff of thirty-two professional and technical employees, including engineers and engineering technicians with specialization in the evaluation, design and construction document preparation for drainage infrastructure projects. Our team includes a staff of 5 licensed professional engineers, 2 engineer interns and 3 BS graduates in engineering technology as well as H&H Specialized Professional. Furthermore, our Construction Administration has over 25 years of experience in his field.

7. Past Performance

Principal Engineering has an excellent professional reputation with all our governmental agency clients. Principal has provided services to nearly every public agency in the New Orleans metropolitan area as well as various State and Federal agencies. Every Governmental client is and has been a repeat customer. A partial list of our New Orleans regional area clients includes the following:

- ◆ City of New Orleans, Department of Public Works
- ◆ City of Kenner, Department of Public Works
- ◆ City of Covington, Department of Engineering
- ◆ City of Mandeville, Department of Public Works
- ◆ City of Hammond, Department of Engineering
- ◆ Jefferson Parish, Department of Public Works
- ◆ Jefferson Parish, Department of Ecosystem & Coastal Management
- ◆ Tangipahoa Parish, Department of Engineering
- ◆ Jefferson Parish School Board
- ◆ St. Tammany Parish, Department of Engineering
- ◆ St. Tammany Parish, Department of Environmental Services
- ◆ Town of Abita Springs
- ◆ City of Slidell, Department of Engineering
- ◆ Plaquemines Parish Government, Department of Public Works
- ◆ St. Bernard Parish Government, Department of Public Works
- ◆ Sewerage and Water Board of New Orleans
- ◆ Housing Authority of Jefferson Parish
- ◆ St. Charles Parish, Department of Public Works
- ◆ St. John the Baptist Parish Department of Public Works & Public Utilities

TEC Professional Services Questionnaire

Furthermore, Principal Engineering has past and current engineering experience working with the following state and federal agencies, U.S. Army Corps of Engineers, Department of Veterans Affairs, Coastal Protection and Restoration Authority and the Department of Transportation and Development.

In Closing:

We will provide the highest quality of personalized, professional, and state of the art technology to our clients. PRINCIPAL is committed to assisting our clients by offering inventive solutions to evaluate, plan, design, construct and/or restore the infrastructure under their jurisdiction and to provide professional engineering services to safeguard life, health, and property of the residents that they serve.



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

Signature:  Print Name: Henry I. DiFranco, Jr.

Title: President Date: March 22, 2022

