



Barowka and Bonura
Engineers and Consultants, L.L.C.

SOQ No. 24-013

**Routine Engineering Services
for Water Projects**

Resolution No.: 144203

**Deadline: Thursday, June 21, 2024
at 3:30 PM**

Barowka and Bonura Engineers and Consultants, L.L.C.
209 Canal Street
Metairie, Louisiana 70005

Jeffrey Bonura, P.E., Member
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PHONE: 504-828-0030
FAX: 504-828-8006



Collaborate. Innovate. Implement.

BBEC Barowka and Bonura
Engineers and Consultants, L.L.C.

June 21, 2024

Jefferson Parish Purchasing Department
c/o Ms. Shanna Folsie, Purchasing Specialist II
General Government Building
200 Derbigny St., Suite 4400
Gretna, Louisiana 70053

**SUBJECT: Routine Engineering Services for Water Projects
Resolution No. 144203**

Dear Ms. Folsie:

Barowka and Bonura Engineers and Consultants, L.L.C. (BBEC) appreciates the opportunity to submit this Statement of Qualifications to provide Routine Engineering Services for Water projects in Jefferson Parish.

The attached qualifications statement demonstrates that BBEC maintains the technical ability to address the needs of Jefferson Parish and assist them in the execution of any Water project. BBEC, an engineering consulting firm specializing in civil engineering design, construction management, grant management and computer consulting services, is fully qualified to provide the engineering services necessary.

BBEC's staff has substantial experience with water and wastewater construction projects including specific experience with Jefferson Parish's water treatment and distribution systems, having designed and/or managed the construction of various improvement projects to both the east and west bank water treatment plants, and specific repairs and improvement to the west bank distribution system.

As noted in this Statement of Qualifications, BBEC has substantial management of projects in neighboring parishes as well. The projects include drainage, water, sewer, and roadway construction, sidewalk and driveway connections, utility relocation and coordination, levee construction and renovation, flood control analysis, and all incidental work.

Once again, we sincerely appreciate the opportunity to submit this Statement of Qualifications to Jefferson Parish, and we look forward to serving you.

Very truly yours,



Jeffrey Bonura, P.E.
Sole Member

A. Project Name and Advertisement Resolution Number:

Routine Engineering Services for Water Projects (Resolution # 144203)

B. Firm Name & Address:

**Barowka and Bonura Engineers and Consultants, L.L.C.
209 Canal Street, Metairie, LA 70005**

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

**Jeffrey A. Bonura, P.E.
Member
Office: (504) 828-0030
Fax: (504) 828-8006
Email: jbonura@bbecllc.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.

**Kevin Forschler, P.E.
Office: (504) 828-0030
Fax: (504) 828-8006
Email: kforschler@bbecllc.com**

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

<u>5</u> Administrative	<u>0</u> Estimators	<u>0</u> Specification Writers
<u>0</u> Architects (Licensed)	<u>0</u> Geologists	<u>2</u> Structural Engineers
<u>0</u> Chemical Engineers	<u>0</u> Geotechnical Engineers	<u>1</u> Graduate Engineers
<u>4</u> Civil Engineers	<u>0</u> Interior Designers	<u>2</u> Project Managers
<u>1</u> Construction Inspectors	<u>0</u> Landscape Architects	<u>2</u> Clerical
<u>0</u> Ecologists	<u>0</u> Land Surveyor	<u>4</u> Grant/Funding Specialist
<u>1</u> Electrical Engineers	<u>0</u> Mechanical Engineers	<u>0</u> Sanitary Engineers
<u>1</u> Engineer Intern	<u>0</u> Environmental Engineers	
<u>0</u> Professional Land Surveyors	<u>3</u> Drafters	<u>26</u> TOTAL

F. Is this submittal by a JOINT-VENTURE? Please check: YES NO
If marked "No" skip to Section I. If marked "yes" complete Sections G-H.

TEC Professional Services Questionnaire

<p>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.</p>		
<p>1. N/A</p>		
<p>2. N/A</p>		
<p>H. Has this JOINT-VENTURE previously worked together? Please check: N/A YES _____ NO _____</p>		
<p>I. List all subcontractors anticipated for this Project. Please note that <u>all subcontractors must submit a fully completed copy of this questionnaire</u>, applicable licenses, and any other information required by the advertisement. See Jefferson Parish Code of Ordinances, Sec. 2-928(a)(3). Please attach additional pages if necessary.</p>		
Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
<p>1. BBEC will obtain prior approval from the Parish before utilizing a subconsultant should one be deemed necessary. Further, we will work with any sub-consultant or support consultant assigned to us for a specific project.</p>		
<p>2.</p>		
<p>3.</p>		
<p>J. Please specify the total number of support personnel that may assist in the completion of this Project:</p> <p>_____ <u>22</u> _____</p>		

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:

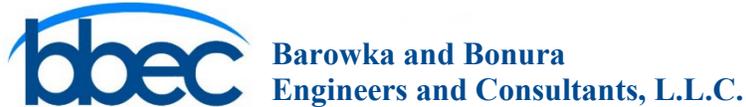
Name & Title:

**Jeffrey Bonura, P.E.
Sole Member**

Project Assignment:

Supervising Professional / Project Manager

Name of Firm with which associated:



Years' experience with this Firm:

27

Education: Degree(s)/Year/Specialization:

B.S. / 1991 / Civil Engineering

Active registration: Year first registered/discipline:

1995 / Civil

Other experience and qualifications relevant to the proposed Project:

Mr. Jeffrey Bonura, P.E. is the sole owner of the firm of Barowka and Bonura Engineers and Consultants, L.L.C. Mr. Bonura began his career in 1988 and since that time has worked as a project engineer, project manager and program manager on municipal, commercial, institutional and industrial projects. For about 10 years, Mr. Bonura worked for an international engineering firm focused on water and wastewater projects only.

His professional engineering experience includes the design, project management, and construction administration of a broad range of projects including water and wastewater treatment plant design and operation and maintenance management, landfill leachate collection and treatment, water transmission, wastewater collection, and stormwater management. He also has substantial experience in roadway and drainage planning, design, and construction management for civil and structural engineering projects.

Mr. Bonura has performed engineering services for over **\$200 million in Public Works projects including several water** treatment plant expansion and improvements projects along the Mississippi River in Southeast

TEC Professional Services Questionnaire

Louisiana, His responsibilities include work plan preparation, budgeting, cost control, and monitoring, team supervision, engineering design, permitting and construction management.

Mr. Bonura's grant management experience includes project formulation, cost estimation, fund accounting, and pursuit of a broad range of federally funded grants.

Projects with detailed descriptions of work are provided below:

East Bank Water Treatment Plant Improvements, Jefferson Parish, LA, 11/2014-Present

Mr. Bonura is currently supervising the design of the 40 mgd remote high service pumping station, site paving, grading, and drainage, and yard piping.

- The remote high service pump station consists of 3 installed and the complete set up for 1 future 20-inch vertical turbine pumps mounted in a "can" installation. The controls will be connected to other plant functions so the station will be operated through the main plant's control system. The structure will be a cast in place concrete substructure with a CMU wall superstructure.
- The paving, grading, and drainage is a two-phased project for an almost 9-acre plant site. The work includes connecting to existing and new buildings, connecting to existing pavement and utilities, and the design of parking facilities and delivery and loading facilities.
- The yard piping consists of about 2,500 feet of 36-inch to 54-inch pipe, and several thousand feet of smaller pipe, navigating the through a site congested with many conflicts. The work is being designed to connect to existing systems with automated remote controlled valves and valve boxes and by minimizing disruption to plant services.

The work also includes coordinating with other engineering disciplines (structural, geotechnical, mechanical, architectural, electrical, and instrumentation) and the project owner.

Laplace Water Intake Pump Station and Pre-Treatment Facility, St. John the Baptist Parish, LA, 08/2022-Present

Mr. Bonura is currently the Supervising Engineer for the design of an 8.64 pretreatment facility for St. John the Baptist Parish to prepare water from the Mississippi River for membrane filtration to be used as potable water for the citizens of St. John the Baptist Parish. The project included the following components:

- **Raw Water Pump Station.** The raw water pump station consists of 3 vertical pumps rated at 3,000 gpm each located on the flood side of the Mississippi River levee. The pumps will be run by variable frequency drives to allow for the flow to be as needed as determined by the demand on the discharge side of the treated water facilities. The work includes a 24-inch raw water line and an 8-inch sludge line crossing the levee and state-owned River Road from the pump station to the land-side pretreatment facility. The project includes an approximate 800-foot bridge providing access from the top of the levee to the pump station. The controls will be connected to other plant functions so the station will be operated through the main plant's control system. The structure will be a pile supported cast in place concrete substructure with a metal building superstructure.
- **Civil / Sitework.** The paving, grading, and drainage is for an 18-acre plant site. The work includes developing an undeveloped wooded site into a plant site containing four clarifiers, an administration/safe room building, a transfer pump station, sludge pump station, chemical feed and storage facilities, and interconnecting yard piping. The paving portion allows for parking and materials and equipment deliveries

TEC Professional Services Questionnaire

for WB-60 and other vehicles. The yard piping consists of about 2,500 feet of various pipe sizes up to 30-inch pipe.

- **Clarifiers.** The clarification system consists of (4) 2.9 mgd upflow clarifiers, including coagulant feed and storage.
- **Transfer Pump Station.** The transfer pump station consists 3 vertical turbine pumps rated at 3,000 gpm each, run by variable frequency drives and 350 hp motors.
- **Clarifier Waste Pump Station.** The waste pump station consists 2 vertical sludge pumps rated at 300 gpm each, designed to keep the solids suspended so that the waste can be returned to the river.
- **Permitting.** Permitting includes wetlands delineation, LaDOTD highway crossing, Levee district levee crossing, Corps of Engineers adjacent to levee and levee crossing, Corps of Engineers wetlands, Louisiana Coastal Use, and Wildlife and Fisheries Endangered Species permits.
- **Administration/Safe House.** An approximate 2,500 building is included to house the controls for all the Parish's water and wastewater facilities and provide safe living quarters for Parish personnel during storm and other disaster events.

The work also includes coordinating with other engineering disciplines (structural, geotechnical, mechanical, architectural, electrical, and instrumentation) and the project owner.

Eden Isles Subdivision Drinking Water Systems Disinfection Improvements, St. Tammany Parish, LA, 07/2020-Present

Mr. Bonura is serving as Supervising Engineer for this project which includes upgrading the system's disinfection system and converting the disinfection process from a free chlorine system to a total chlorine system. The scope of work includes installing a new elevated chemical building, new automated chemical feed pumps and controls, storage tank, a chlorine analyzer, and sufficient SCADA for remote monitoring and limited control. The project included working with the contractor to perform value engineering to reduce the overall contract cost.

The project is expected to cost about \$300,000. The project is currently under construction and is near substantial completion.

The Meadows and Belair Subdivisions Drinking Water Systems Disinfection Improvements, St. Tammany Parish, LA, 07/2020-Present

Mr. Bonura is serving as Supervising Engineer for this project which includes upgrading the system's disinfection system and converting the disinfection process from a free chlorine system to a total chlorine system. The scope of work includes installing a new elevated chemical building, new automated chemical feed pumps and controls, storage tank, a chlorine analyzer, and sufficient SCADA for remote monitoring and limited control.

The project included working with the contractor to perform value engineering to reduce the overall contract cost.

The project is expected to cost about \$500,000. The project is currently under construction and is near substantial completion.

Eden Isles Subdivision GAC Filter Improvements, St. Tammany Parish, LA, 01/2022-Present

Mr. Bonura is the Supervising Engineer for this project which includes potable water treatment upgrades including granular activated carbon (GAC) filtration units and upgrading the system's disinfection system and converting the disinfection process from free chlorine system to monochloramine disinfection. The scope of work includes installing a new elevated GAC filter building, yard piping, new automated ammonia feed pumps and controls, ammonia storage tank, chlorine and ammonia analyzers, electrical system upgrades, and sufficient SCADA for

TEC Professional Services Questionnaire

remote monitoring and limited control.

The project is expected to cost about \$3,000,000 in total. The project has been awarded to the successful low bidder and construction has started.

Meadows Water System Improvements, St. Tammany Parish, LA, 01/2023-Present

Mr. Bonura is the Supervising Engineer for this project which includes assessment of the current water system and disinfection process for the Meadows Water System in Slidell, LA. The scope of work includes preparation of a preliminary engineering report, conducting water quality testing for color, iron, sodium, and TDS; analysis of testing results and development of improvement alternatives for water treatment upgrades. Improvements include water filtration upgrades, disinfection process upgrades, and water well site improvements.

West Bank Water Treatment Plant Raw Water Intake Levee Crossing, Jefferson Parish, LA, 1991

Mr. Bonura designed and managed through construction the Gretna Raw Water Intake and Sludge Discharge Levee Crossing project for the West Bank Water Treatment Plant, prepared all permits, plans, and specifications required for the project and aided the Parish in securing federal funding for a portion of the work. The project consisted of a levee crossing for 36-inch, 24-inch, and 10-inch diameter pipe, a vacuum system for priming raw water intake pumps, and lining an existing raw water line with a cast-in-place pipe liner. The levee crossing consisted of installing steel sheet piles at the core of the levee, installing sleeves through the steel sheet piles for the pipe to penetrate the levee, perform the necessary earthwork on the levee per USACE standards, the installation of concrete pipe supports, and to finish the river side surface with sloped paving. All work was coordinated with an on-going sloped-paving project performed under the USACE that was occurring on both sides of the project.

During the construction phase of the project, the existing 24-inch raw water pipe was found to be severely corroded and required replacement or rehabilitation. Mr. Bonura evaluated the options, including the applicability of CIPP lining of portable water mains, and designed a CIPP system to rehabilitate the existing 24-inch pipe through a series of bends under a state highway and connecting to flanged fittings on both ends.

Chemical Feed System, Jefferson Parish, LA, 1996

Mr. Bonura served as Project Engineer, Project Manager, and Construction Manager of the chemical feed improvements project which replaced the existing dry and liquid chemical feed systems with new state-of-the-art, automated chemical feed systems for each of the six water treatment plants in Jefferson Parish, ranging from 5 MGD to 51 MGD. Mr. Bonura managed the design of the automation system that would eventually allow the chemical feed systems to automatically feed chemicals, measure chemical weights, self-calibrate chemical feed equipment, interface with other automation systems, automatically develop reports submitted to EPA and DHH. While the system was designed to run itself, it could completely be controlled remotely.

The project included chemical feed systems for liquid polymers, bimetallic phosphate, hydroflousilic acid, powdered activated carbon, liquid chlorine, and ammonia. Each of the systems sends feed rate, chemical usage, and operation status data to a supervisory control system from which each component of the feed system can be observed and operated. As Project Engineer, Mr. Bonura designed the aforementioned systems and administered the work through construction.

East Bank Water Treatment Plant Expansion, Jefferson Parish, LA, 1992

Mr. Bonura was Project Engineer and Construction Manager for the 17 MGD expansion to the East Bank Water Treatment Plant. Throughout the construction phase of the project, Mr. Bonura coordinated the construction and implementation of the automation system that could and would monitor and operate the complete function of the water treatment plant remotely. During the start-up phase of the project, Mr. Bonura managed the instrumentation technicians developing the various interface and interface screens to connect the PC-based software to the remote

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terminal units.

The project included a new raw water venturi flow meter, rapid mix basin (designed for 68 MGD), two new precipitator basins (designed for 8.5 MGD each), renovations to the ten existing sand filters to dual media filters (new capacity of 68 MGD), new high service pumping facilities and clearwell (designed for 51 MGD), and modifications to the existing high service pumping facilities to become a transfer station to storage. The entire facility received a new DCS control system, which is completely automated. The overall project increased the plant capacity from 34 MGD to 51 MGD and left the necessary piping and valves to simplify a future 17 MGD expansion by only adding two new precipitator basins and two new high service pumps. The project also left provisions for connection to a new disinfection system in anticipation of new EPA Safe Drinking Water Act regulations.

The project included constructing or renovating various buildings and structures to house the water treatment improvements. The building construction included the removal of existing masonry walls, connecting to the existing walls, roof, and foundation, and expanding the office building portion of the complex. The project also included the construction of new cmu buildings and concrete structures, and associated foundations. A test pile program was implemented for the project to determine the optimum foundation for the project structures.

West Bank Water Treatment Plant Sludge Pumping Facilities, Jefferson Parish, LA

As Project Engineer and Construction Manager for the West Bank Water Treatment Plant Sludge Pumping Facilities project, Mr. Bonura prepared plans and specifications required to completely renovate and upgrade the existing sludge pumping facilities to a capacity of 28 MGD, and to allow for the existing sludge and raw water lines to be interchangeable.

Modeling & Hydraulic Analysis of East St. Tammany Water Consolidations, St. Tammany Parish, LA, 08/2022-Present

St. Tammany Parish Government (Parish) retained Barowka and Bonura Engineers and Consultants (BBEC) to develop and analyze a computer model of existing potable water systems in Slidell, LA, as part of the Parish's East St. Tammany Water Consolidation Project (PPSL-VSF 21-30-5). Mr. Bonura is serving as the Supervising Engineer for this project which has been phased into 3 tasks. The scope of Task 1 included development and calibration of an existing conditions model of the Cross Gates and Meadow Lake water systems using WaterGEMS software. The model includes water pipes, pumps, tanks, junctions, valves, and fittings. The existing conditions model was analyzed to determine water age/water quality, pressure, and velocity. Results of the model analysis and recommendations were compiled in a report of findings. Task 2 of this project includes modeling and hydraulic analysis of the water system improvements and interconnections, including new elevated storage tanks, wells, and pipelines. Task 3 of this project includes updating, re-validating and calibrating the system model to reflect the water system improvements constructed.

Eden Isles Water Main Repair, St. Tammany Parish, 07/2020-Present

Mr. Bonura is serving as Supervising Engineer for this project which consists of crossing a 400' wide waterway with a 10-inch potable water line in Slidell, Louisiana. The projects includes connecting to existing water lines on both sides of the new pipe, including valves and flushing units; and, working alongside and crossing a concrete bulkhead and high voltage power lines. BBEC's role included:

- Design directional drilling the main about 700 feet
- Coordinating with Cleco Power to locate and establish temporary power shut-downs so the work could be performed safely
- Work with a local contractor to locate the existing conflicts, including the high voltage Cleco Power lines
- Communicating with and assist in securing the required servitudes and easements from the property owners on both sides of the waterway
- Apply for and secure the required LDH, Parish, and Coastal Use Permits
- Perform services during bidding

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The project is expected to cost \$350,000. The project is currently under construction.

West Bank Water Distribution Improvements, Jefferson Parish, LA, 1999

Mr. Bonura was Project Engineer for Westbank Water Distribution Improvements Jefferson Parish Project. The project included a water valve and hydrant replacement project, a water line replacement feasibility study, and a new water line construction project along Nicole Blvd. Mr. Bonura prepared plans and specifications for the valve and hydrant project, and managed the project through construction, prepared the feasibility study for the submittal, and performed the preliminary engineering efforts for the Nicole Blvd. waterline but changed employment before the design was completed.

West Bank Water Treatment Plant 5MG Ground Storage Tank, Jefferson Parish, LA, 1996

The project consisted of designing a new 5 million gallon ground storage tank for the West Bank Water Treatment Plant in Jefferson Parish, and the rehabilitation of the existing 5 million gallon ground storage tank. Mr. Bonura developed plans and specifications for the project and provided services during bidding. The project included all necessary piping and valves to connect the storage tank to the finished water system to be used as drinking water or finished water for plant use.

Emergency Water Point Repairs, St. Bernard Parish, LA, 2005

Numerous water lines and hydrants were damaged by Katrina. BBEC developed plans and specifications for a unit price contract to repair the water distribution system, handled the project through bidding, and performed construction administration and resident inspection services through completion of the project. BBEC also assisted the Parish and FEMA in developing the project worksheet and preparing requests for reimbursement for the Parish.

Miscellaneous Water and Sewer Point Repairs, St. Bernard Parish, LA, 2005-2007

The project consisted of the rehabilitation of the existing water distribution system and the existing sanitary sewerage collection and conveyance system; including repair or replacement of existing water and sewer main pipe, replacement of service connections, fire hydrant adjustments, sterilization of water lines, and temporary and final restoration. BBEC developed plans and specifications for a unit price contract to repair the water distribution system, handled the project through bidding, and performed construction administration and resident inspection services through completion of the project. Mr. Bonura also assisted the Parish and FEMA in developing the project worksheet and preparing requests for reimbursement for the Parish.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

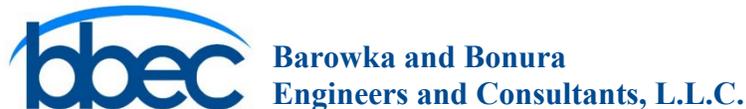
Name & Title:

**John J. Housey, Jr., P.E.
Project Engineer**

Project Assignment:

Project Engineer / Project Development

Name of Firm with which associated:



Years' experience with this Firm:

13

Education: Degree(s)/Year/Specialization:

**M.S. / 1965 / Structural Engineering
B.S. / 1964 / Civil Engineering**

Active registration: Year first registered/discipline:

1966 / Civil

Other experience and qualifications relevant to the proposed Project:

Mr. Housey has been working as an engineer in the public works industry for over 57 years. His experience includes bridges, buildings, roadways, and utility (water, sewer, and drainage) construction. He has substantial experience in project management, steel building detailing, bridges, barges and parts for offshore platforms. As a steel fabricator, Mr. Housey oversaw the fabrication of steel buildings, steel bridges (stationary and movable), barges, various parts of offshore platforms including girders, piling and legs, floor and wall framing, various parts of ships including bulkheads and framing members. Over the past 57 years, he has been responsible for the design of crane runways, spreader bars, lifting frames, and hydraulic jacking of heavy structures and barges.

Mr. Housey managed the construction of over \$100 million in asphaltic concrete (AC) and Portland cement concrete (PCC) roadways funded by FEMA Public Assistance Grants. He has intimate knowledge in how various site conditions affect the construction and performance of the roadways, as well as how to maintain the necessary documentation to comply with the funding federal programs.

Mr. Housey is a past Board Member and President of the Southern Association of Steel Fabrication. He served as a member on AISC committee regarding quality control. As a member and past Chairman of the ASCE/SEI Structures Committee in New Orleans for several years, he is familiar with the design of bridges, buildings and residential structures. He is familiar with fabrication specifications of API, AWS, AREA, AISC and ABS.

Projects with detailed descriptions of work are provided below:

TEC Professional Services Questionnaire

Eden Isles Subdivision GAC Filter Improvements, St. Tammany Parish, LA, 01/2022-Present

The project includes potable water treatment upgrades including granular activated carbon (GAC) filtration units and upgrading the system's disinfection system and converting the disinfection process from free chlorine system to monochloramine disinfection. The scope of work includes installing a new elevated GAC filter building, yard piping, new automated ammonia feed pumps and controls, ammonia storage tank, chlorine and ammonia analyzers, electrical system upgrades, and sufficient SCADA for remote monitoring and limited control. As part of this project, Mr. Housey provided structural design assistance for this project including the design of the permanent overhead steel girder bridge crane used for filter media lifting and installation. Mr. Housey developed the bridge crane design and specifications to meet the requirements of the project. Specific tasks completed by Mr. Housey include the following: Identified bridge crane required loads; Determine size, span, and mounting height of bridge crane; Develop bridge crane layout and configuration to fit the building constraints; Design running beam and crane rail components; Prepare specifications for the bridge crane; Develop construction cost estimate for bridge crane.

Eden Isles Subdivision Drinking Water Systems Disinfection Improvements, St. Tammany Parish, LA, 12/2020-Present

Mr. Housey assisted with the design of the elevated chemical building and secured the necessary permits from St. Tammany Parish, The Louisiana Department of Health, and the Louisiana Fire Marshal.

The Meadows and Belair Subdivisions Drinking Water Systems Disinfection Improvements, St. Tammany Parish, LA, 12/2020-Present

Mr. Housey secured the necessary permits from the Louisiana Department of Health and St. Tammany Parish.

East Bank Water Treatment Plant Improvements, Jefferson Parish, LA, 12/2016-Present

As Project Manager, Mr. Housey supervises and coordinates drainage and process piping for both the Laboratory and the P4 Plant. He attends progress design meetings with other disciplines and field visits as required to locate existing utilities and prepares specifications and required design calculations. Design includes calculations for pressure piping flow, thrusts and supports, also drainage requirements and system design.

Cleary Improvements (Veterans Blvd. to West Esplanade Ave.) (Council District 5), Jefferson Parish, LA, 11/2017-Present

Mr. Housey supervised and reviewed CAD drawings of waterlines as requested by the Parish.

Acadiana Water and Sewer, Lafayette, LA., 01/2021-Present

Mr. Housey designed the required structural repairs due to corrosion including structural steel repairs to the tanks and frame, painting of existing steel, provision of access stairs, walkways, and safety rails.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

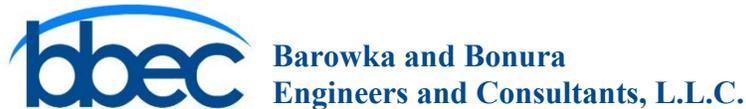
Name & Title:

**Madan Kamboj, P.E.
Project Engineer**

Project Assignment:

Project Engineer / Project Development

Name of Firm with which associated:



Years' experience with this Firm:

3.5

Education: Degree(s)/Year/Specialization:

**M.S. / 1978 / Civil Engineering: Structures/Soil Mechanics
B.S. / 1967 / Civil Engineering**

Active registration: Year first registered/discipline:

1977 / Civil - Environmental

Other experience and qualifications relevant to the proposed Project:

Mr. Kamboj has more than 43 years of experience performing project design, construction administration, and project monitoring for general civil projects including drainage, utilities, streets, highways and bridges, buildings, water and sewer treatment plants, multi-story parking garages; airport taxiways, traffic separation facilities, bike paths, and overhead pedestrian walkways at high traffic intersections.

Mr. Kamboj has successfully attended a course in "Highway Capacity Manual" at New York Polytechnical. He led a team of Engineers and Cost Estimators for conducting line and grade studies for North South Expressway in Northern Louisiana which eventually became Interstate 49. This project included Hydraulic Design of culverts, pavement type analysis, intersection geometry and cost estimates for each projected alignment analysis. Mr. Kamboj designed twelve (12) miles of US-61 four lane highway in Wilkinson County, Mississippi for MDOT. He evaluated geometrical design, profile and grades, intersection layout, culvert analysis and cost estimation for construction. Mr. Kamboj designed city streets for C.J. Peete including geometry, pavement, design, intersection improvements, redesigning utilities (e.g. water, sewer, gas) and drainage improvements. The cost of street improvements was \$24M.

Projects with detailed descriptions of work are provided below:

Laplace Water Intake Pump Station and Pre-Treatment Facility, St. John the Baptist Parish, LA, 08/2022-Present

Mississippi Riverside Pump Station & Transfer Pump Station

TEC Professional Services Questionnaire

Mr. Kamboj is designing the layout of the pump station, plan and typical sections, roof structure, wind analysis and seismic category determination, structural framing. He is performing foundation design, selection of driven piles, wave analysis and barge collision forces to superstructure and substructure.

Waskey Bridge from Pump station at The River to Mississippi River Levee (850 Ft. Length)

Mr. Kamboj is designing plan & typical sections, railing for vehicle impact, precast concrete panels for structure, precast bent design and selection of foundation and driven piles for all load transfer to the underlying soils.

Eden Isles Water System GAC Filter Improvements, Eden Isles, LA, 05/2022-Present

Mr. Kamboj is performing structural and foundation design for 50 Ft. x 35 Ft. x 23 Ft. high steel building with type B steel deck, wide flange beams and columns designed for 150 MPH wind loads. The floor slab was reinforced with concrete and beam and 7 Ft. above the existing ground, and the foundations were cast-in-place concrete auger cast piles.

Eden Isles WWTP Flow Equalization Improvements, Eden Isles, LA, 05/2022-Present

Mr. Kamboj is performing structural and foundation design for 28 Ft. x 28 Ft. x 16 Ft. high concrete storage tank with concrete beams and columns designed for 150 MPH wind loads. The deck slab was reinforced concrete, the foundations were cast in place concrete piles and treated timber piles supporting spread footings were used for supporting 4 bar screen concrete slab system.

Diversified Water Well Pretreatment System, Madisonville, LA, 06/2023-Present

This project includes new potable water treatment improvements at the Diversified Well site in Madisonville, LA for the St. Tammany Parish Department of Utilities. This project includes new greensand filtration units for iron and manganese removal, metal and CMU building to house the filters, chemical storage, and personnel offices, and water piping on site. As part of this project, Mr. Kamboj performed the structural analysis and structural design for the steel building, concrete masonry building, and concrete foundation for this project. Mr. Kamboj developed the technical specifications for the project including all building structural components, materials, and accessories.

Acadiana Water and Sewer, Lafayette, LA, 12/2020-Present

Bellville Wastewater Treatment, Garden Height & Mark Ridge Wastewater Treatment Plants

Mr. Kamboj is completing the design of Bar Screens and support structures, removal and upgrades for existing air valves and diffusers and replacement of rusted pipe hangers & other pipe supports.

Gloria Drive Pump Station, Project No. 20-2022A, Lafitte Area Independent Levee District Drainage, Town of Jean Lafitte, LA., 02/2021 – Present

Mr. Kamboj is providing Structural and Foundation design of Gloria Drive Pumping Station and approximately 70 Ft. long Steel Sheet Pile wall supported by ASTM D25 Timber Piles. The Pump Station design incorporates designing foundations supported by 14"X 14" PPC Piles, Concrete Base Level, Middle Level and Roof Slabs, Concrete Enclosure Walls & Structural Supports for Pump Station Screens. The present Generator Structure will be enlarged and strengthened to accommodate new electrical equipment.

CN Railroad Culverts in Ormond, Project No. P200801, Ordinance No. 20-9-5, St. Charles Parish, LA, 10/2020-Present

Mr. Kamboj is preparing drainage improvements by the Jack & Bore method of multiple culvert sites to improve frequent flooding in Luling, St. Charles Parish. Multiple culverts employing Jacking Method are to be rammed under the road embankment by using 72", 60" and 48" metal pipes. The ditches on inlet and outlet shall be improved by providing Conspan Culvert Bridges and these ditches shall be provided with G.C.C.M. lining to improve flow of rain discharge. The project cost is \$6.2M.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

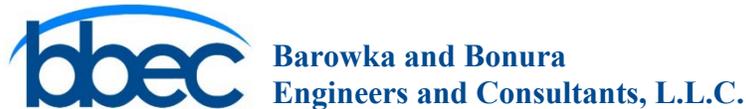
Name & Title:

**Kevin Forschler, P.E.
Project Engineer**

Project Assignment:

Project Engineer / Model Development

Name of Firm with which associated:



Years' experience with this Firm:

9

Education: Degree(s)/Year/Specialization:

B.S. / 2014 / Civil

Active registration: Year first registered/discipline:

2020 / Civil

Other experience and qualifications relevant to the proposed Project:

Mr. Forschler is currently working on projects for Jefferson Parish, the City of New Orleans, St. Bernard Parish, and St. Tammany Parish. The projects he is working on involve water and wastewater treatment, roadway restoration, drainage modeling and design, off-system bridges, walkway design, and lift station design.

Mr. Forschler's experience evaluating the hydraulics of water distribution and wastewater systems and utilizing hydraulic information to design pump stations for both types of systems. Mr. Forschler has also used information from hydraulic evaluations of water distribution systems to determine the optimal location for automatic units that flush water lines and provide relevant chemical readings of the water in the system. Projects completed in multiple Parishes include design, evaluation, and construction management on water treatment and distribution projects as well as permitting for the facilities.

Mr. Forschler has experience working with Jefferson Parish and other municipalities, coordinating with other entities such as the levee districts, LADOTD, and railway companies to resolve conflicts and ensure that proposed designs meet the entities' guidelines.

Projects with detailed descriptions of work are provided below:

H2O Water Projects, St. Tammany Parish, LA, 09/2020-Present

The scope of work for this project is the installation of automatic flushing units to flush the water mains in four subdivisions in St. Tammany Parish in order to ensure good water quality. Mr. Forschler accompanied an operator

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who has experience working with automatic flushers on site visits to all four subdivisions to determine the locations that the flushing units should be installed. He then developed a plan set for the installation of the flushing units and is currently negotiating with bidders throughout the procurement process because this is a private sector project.

Canebrake Utilities, Lamar County, MS, 03/2021-Present

Mr. Forschler developed initial evaluations of the existing sewer facilities and the existing water distribution system for the client. He used information from the current owner of the system and information determined during a site visit in order to provide a report on the condition of the existing systems. He also looked into the current permit status for each of the wastewater treatment facilities in order to determine if the operator had any issues meeting the state and federal requirements for the operation of the existing facilities.

Acadiana Water and Sewer, Lafayette, LA., 02/2021-Present

Mr. Forschler went on site visits to the existing wastewater treatment plants in Garden Heights, Belleville, and Mark Ridge in order to take measurements of the different sections of the treatment facilities. He also located damaged areas of each facility that would need to be replaced during construction.

East Bank Master Drainage Plan, Jefferson Parish, LA, 04/2023-Present

Mr. Forschler is currently managing the project team during the update of the existing conditions SWMM model to include improvements from multiple drainage projects that have been completed recently. He also worked with the Jefferson Parish Drainage Department to define criteria to establish which areas included in the updated SWMM model show signs of significant flooding. During each project task, Mr. Forschler is performing QA/QC on all revisions to the SWMM model to assure that the results simulated in the model are as accurate as possible.

Avondale/Bridge City Drainage Evaluation (Area between the Mississippi River and the Union Pacific Railroad, from Huey P. Long Bridge to Avondale Garden Road), Jefferson Parish, LA, 04/2021-Present

Mr. Forschler developed a surveying scope to gather pertinent topographic information for the project and managed the surveyor for the Parish while they conducted the survey. Mr. Forschler developed a hydraulic and hydrologic model using SWMM v.5 of the Project Area between the Mississippi River and the Union Pacific Railroad, from the Huey P. Long Bridge to Avondale Garden Road. Using the model simulation, he developed various alternatives for drainage improvements in the area. He also created a hydrologic and hydraulic report presenting the findings from the model simulation and cost estimates for each of the drainage improvement alternatives.

Craig Avenue Drainage Improvements, Public Works Project No. 2019-022-DR, Jefferson Parish, LA, 05/2020-Present

Mr. Forschler assisted with the development of plans for the addition of new drain line on this road. The project contains the area of Craig Ave. from Kawanee Ave. to Gillen St. The scope of the project includes the installation of a new trunk line, connecting the lateral drain lines to the new trunk line, and the removal and replacement of existing water mains and isolation valves and concrete roadway. Mr. Forschler helped in the design of the proposed drain line, determining the correct vertical and horizontal alignment to avoid conflicts with existing utilities. He also designed the vertical profile for the proposed roadway repairs.

Bissonet Plaza Master Drainage Plan (A/E Project No. 20-1708), Jefferson Parish, LA, 05/2018-05/2021

Mr. Forschler met with Jefferson Parish personnel to identify and discuss flood prone streets within the study area. He worked with a CAD technician to develop a map highlighting these flood prone areas and utilized Jefferson Parish GIS and Autodesk Storm and Sanitary Analysis software to create an accurate drainage model of the project area. The drainage model provided analysis of the area's interior drainage system for a 10-year storm event. Mr. Forschler ran the Parish's existing East Bank drainage model in SWMM to determine the discharge water surface elevation of the project.

TEC Professional Services Questionnaire

Waggaman Hydraulic Study, Jefferson Parish, LA, 02/2013-01/2016

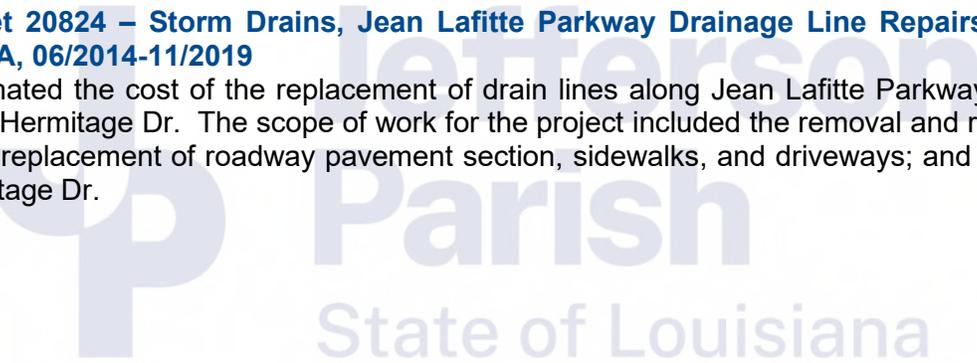
Mr. Forschler performed a hydrologic study for three separate residential subdivisions in Waggaman, Louisiana, Waggaman, South Kenner, and Manor Lane. The Waggaman subdivision is bounded by River Road to the north, Live Oak Boulevard to the south, Saul's Canal to the west, and Dandelion Ditch to the east. South Kenner subdivision is bounded by River Road to the north, North Railroad Canal to the south, Saul's Canal to the east, and another subdivision to the west. The Manor Lane subdivision is bounded by River Road to the north, North Railroad Canal to the south, Latigue Road Ditch to the west, and Modern Farms Road Ditch to the east. Mr. Forschler utilized the Storm Water Management Model (SWMM) to evaluate the existing subsurface drainage capacities for each subdivision and to examine if the existing system can handle a 10-year design storm. He developed a hydrologic and hydraulic model for each area and recommended subsurface improvements based on the SWMM model to handle a 10-year design storm. Mr. Forschler ran the Parish's existing West Bank drainage model in SWMM to determine the discharge water surface elevation of the project.

Widening / Stabilization of Congressman Hebert, Creely, and Bluebirds Canals, St. Bernard Parish, LA, 01/2015-Present

Mr. Forschler used Autodesk Storm and Sanitary Analysis software to create accurate drainage models of the project area for both pre-mitigation and post-mitigation conditions. The drainage model provides analyses of the area's interior canal system for a 10-year, 50-year and 100-year storm event. The results of the model were then compared to the existing house slab elevation data provided by St. Bernard Parish for each of the storms in order to determine the impact that the improvements have on flooding of the properties in the project area.

Project Worksheet 20824 – Storm Drains, Jean Lafitte Parkway Drainage Line Repairs/Replacement, St. Bernard Parish, LA, 06/2014-11/2019

Mr. Forschler estimated the cost of the replacement of drain lines along Jean Lafitte Parkway from Judge Perez Dr. to the outfall at Hermitage Dr. The scope of work for the project included the removal and replacement of drain lines; removal and replacement of roadway pavement section, sidewalks, and driveways; and the improvement of the outfall at Hermitage Dr.



TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

**Matthew Hahn, PE
Professional Engineer**

Project Assignment:

Design / Project Management

Name of Firm with which associated:



Years' experience with this Firm:

2

Education: Degree(s)/Year/Specialization:

B.S. / 2016 / Civil Engineering

Active registration: Year first registered/discipline:

2020 / Civil

Other experience and qualifications relevant to the proposed Project:

Mr. Hahn has over eight (8) years of experience in the field of civil and consulting engineering with a strong background in water resources, civil/site design, project management, and land surveying. His vast knowledge includes but is not limited to design and hydraulic modeling of water distribution systems, hydrologic modeling and drainage design, sewerage and wastewater treatment, site development and planning, structural design, public speaking, topographic land surveying, boundary surveying, floor elevation surveying, earthwork balancing and site grading, recreation facilities/athletic fields, public bid process, permitting, and construction administration and management.

Projects with detailed descriptions of work are provided below:

East St. Tammany Water Consolidation, St. Tammany Parish, LA, 08/2022-Present

This project includes development and analysis of a hydraulic model of the Cross Gates and Meadow Lake water distribution systems in St. Tammany Parish, LA. As project manager, Mr. Hahn oversaw development of the WaterCAD hydraulic computer model, including water usage data processing, hydraulic input parameters, and model calibration. Mr. Hahn performed calibration field testing of the water system by flow testing fire hydrants at selected locations. Mr. Hahn developed an engineering report of findings to supplement the hydraulic model and recommend improvements to the system.

East St. Tammany Water Consolidation – Phase 2, St. Tammany Parish, LA, 05/2023-Present

This project includes development and analysis of a hydraulic model of the Cross Gates, Meadow Lake, and River

TEC Professional Services Questionnaire

Oaks water distribution systems in St. Tammany Parish, LA. As project manager, Mr. Hahn oversaw development of the WaterCAD hydraulic computer model, including water usage data processing, hydraulic input parameters, and model calibration. Mr. Hahn performed calibration field testing of the water system by flow testing fire hydrants at selected locations. Mr. Hahn developed an engineering report of findings to supplement the hydraulic model and recommend improvements to the system.

West St. Tammany Water Consolidation, St. Tammany Parish, LA, 05/2023-Present

This project includes development and analysis of a hydraulic model of the Faubourg Coquille and Bedico Creek water distribution systems in West St. Tammany Parish, LA. As project manager, Mr. Hahn oversaw development of the WaterCAD hydraulic computer model, including water usage data processing, hydraulic input parameters, and model calibration. Mr. Hahn performed calibration field testing of the water system by flow testing fire hydrants at selected locations. Mr. Hahn developed an engineering report of findings to supplement the hydraulic model and recommend improvements to the system.

Woodpark Waterline Relocation, Myrtle Grove, LA, 06/2016-01/2020

Mr. Hahn assisted with development of the plans and specifications for construction of over 2,000 feet of new 12" potable water main, including fire hydrants, valves, and service connections in the Woodpark community in Myrtle Grove, LA, in conjunction with design of new floodwall improvements performed by the U.S. Army Corps of Engineers.

Amite Water System Improvements, Town of Amite, LA, 05/2016-04/2022

As Project Manager, Mr. Hahn developed cost estimates, plans and specifications for construction of over 15,000 feet of new 6" potable water main, including fire hydrants, valves, and 130 service connections. Mr. Hahn also conducted field visits and construction phase services.

Fouls Lane and City Barn Water Tanks, Town of Amite, LA, 05/2018-05/2021

Mr. Hahn designed improvements for elevated steel potable water tanks in the Town of Amite City, LA. Mr. Hahn prepared cost estimates, and developed plans and specifications for this project.

Eden Isles Water System GAC Filter Improvements, Eden Isles, LA, 05/2022-Present

As a project engineer, Mr. Hahn developed the plans, specifications, and cost estimates for this project. The client is Central States Water Resources (CSWR). This project includes new potable water treatment improvements, including new granular activated carbon (GAC) water filter units, steel building to house the filters, chemical feed piping and storage, and water piping on site. As part of this project, Mr. Hahn provided technical engineering assistance during project bidding and construction.

Diversified Water Well Pretreatment System, Madisonville, LA, 06/2023-Present

As a project engineer, Mr. Hahn is developing the plans, specifications, and cost estimates for this project. The client is St. Tammany Parish Department of Utilities. This project includes new potable water treatment improvements at the Diversified Well site in Madisonville, LA. This project includes new greensand filtration units for iron and manganese removal, metal and CMU building to house the filters, chemical storage, and personnel offices, and water piping on site. As part of this project, Mr. Hahn assisted in the development of the filter pilot study to assess water quality and scale-model filtration results for varying filtration media.

Avenue E Drainage Improvements, Jefferson Parish, LA, 02/2023-Present

As project manager, Mr. Hahn developed the drawings, specifications, and quantity estimates for subsurface drainage improvements along four (4) residential streets in Old Metairie. This project includes the installation of a new subsurface drainage trunk line along Avenue E and new drainage laterals along connecting side streets to improve drainage in the area. Mr. Hahn developed the engineering design and plans for new 48" and 36" RCP subsurface drain lines and incidental sewer, water, and roadway improvements.

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Hill Heights Drainage Improvements – Phase 1, Project No. P190802, Ordinance No. 22-3-14, St. Charles Parish, LA, 04/2022 – 06/2023

Mr. Hahn managed the engineering and design of drainage improvements at the Hill Heights Canal in the Ormond Estates Subdivision on the east bank of St. Charles Parish. The project included the removal and replacement of the existing steel sheet pile wall along the east bank of the Canal with a new sheet pile wall with steel waler and cap plate. The new sheet pile wall is approximately 200 linear feet with 30-ft long steel sheet piles. The project included structural backfill behind the protected side of the wall, canal cleaning and grading, and drainage canal slope grading. As part of this project, Mr. Hahn provided technical engineering assistance during the bidding and construction phases of the project.

Drainage Evaluation of Metairie Road, Jefferson Parish, LA, 10/2017-03/2020

As Project Manager, Mr. Hahn used EPA SWMM software to complete a drainage assessment of a 2-mile segment of Metairie Road from Causeway Boulevard to Focis Street. Mr. Hahn modeled the drainage system, developed improvement alternatives, and prepared a report of findings.

U.S. Highway 51 Drainage Improvements, Town of Amite, LA, 02/2021-08/2021

As Project Manager, Mr. Hahn used EPA SWMM software to complete a drainage assessment of a 1-mile segment of U.S. Highway 51 in Amite City, LA. Mr. Hahn developed conceptual design of drainage improvements, sidewalk improvements, and developed cost estimates and a report of findings.

CN Railroad Culverts in Ormond, Project No. P200801, Ordinance No. 20-9-5, St. Charles Parish, LA, 04/2022 – Present

As a project engineer, Mr. Hahn is developing the plans, specifications, and cost estimates for this project which includes the construction of several new drainage culverts crossing and/or adjacent to the CN railroad in Destrehan, St. Charles Parish, LA. Mr. Hahn is also preparing the CN Railroad permitting documents for the new drainage improvements.

Water & Wastewater Utilities, Multiple Parishes, LA, 04/2022-Present

Mr. Hahn provided technical and field assistance for this project, which includes investigation, evaluation, and assessment of existing wastewater and water systems to be procured by the client. Mr. Hahn performed site investigations of individual treatment facilities, collection, and distribution systems to assess structural conditions, equipment operation, evidence of process issues, and overall general operational conditions. Mr. Hahn also assisted with development of evaluation and assessment reports.

Eden Isles WWTP Flow Equalization Improvements, Eden Isles, LA, 05/2022-Present

As a project engineer, Mr. Hahn is developing the plans, specifications, and cost estimates for this project. The client is Central States Water Resources (CSWR). Mr. Hahn is designing improvements to the existing extended aeration wastewater treatment plant in Eden Isles, including a new flow equalization basin for managing sewage flows, improvements to the aeration blower units, and improvements to the tertiary sand filter unit.

TESI Wastewater Treatment Sites, Multiple Parishes, LA, 05/2023-Present

As a project Engineer, Mr. Hahn is developing plans and specifications for improvements at various Central States Water Resources (CSWR) wastewater treatment plants including Eureka Heights and Willowdale sewer plants located in Terrebonne Parish; Cypress Village wastewater plant in Assumption Parish; and The Woodlands wastewater plant in Rapides Parish. Mr. Hahn is designing the rehabilitation and repair work for the extended aeration treatment plant including but not limited to new aeration piping and diffusers, return sludge lines, new blowers, structural tank repairs, chlorine contact tank repairs, access platform repairs, and access road improvements. Mr. Hahn attends regularly scheduled meetings with the client (CSWR) to discuss the projects.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

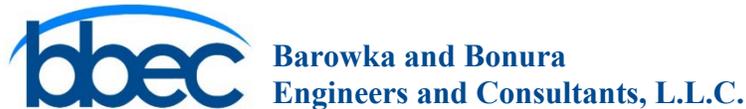
Name & Title:

**John Sparks
Construction Services**

Project Assignment:

Design / Construction Management

Name of Firm with which associated:



Years' experience with this Firm:

2.5

Education: Degree(s)/Year/Specialization:

**M.S. / 1998 / Civil Engineering
B.S. / 1994 / Civil Engineering**

Active registration: Year first registered/discipline:

**2024 / Civil / LA
2002 / Civil / MS**

Other experience and qualifications relevant to the proposed Project:

Mr. Sparks has over twenty-three years of experience in civil and environmental engineering and construction with a strong emphasis on the design and construction of Wastewater Treatment, Collection and Pumping Systems. He has successfully managed the engineering design and/or construction of multi-million-dollar projects in the field of wastewater and heavy construction, for both public and private entities/clients. He has substantial experience in the field of Assessment Management for public utilities, including the use and development of GIS applications for asset inventory, and the development of asset mapping systems. As the Site Manager for an ISO certified manufacturing facility, Mr. Sparks has extensive knowledge and experience with the control of inventory, process upgrades to meet regulatory requirements, quality assurance and quality control, and the development of processes to improve and standardize production outputs and deliverables. Mr. Sparks has also rounded out his knowledge with experience in heavy construction including management of rehabilitation and construction of waterways and water control structures, the management of site work and road building projects. Significant and recent projects are listed below.

Projects with detailed descriptions of work are provided below:

FEMA Public Assistance Grant and Program Management, Jefferson Parish, LA, 03/2022-Present

Mr. Sparks is performing cost analysis and methodology memorandum for the billings by the subcontractors used in the Temporary Waterline Repairs in Grand Isle and Lafitte. This project includes the processing of FEMA

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reimbursements, based on federal and state requirements and development of closeout documentation. He is assisting with providing broad based support services designated to help maximize federal funding, expedite the process, and retain funds during the closeout process.

Acadiana Water and Sewer, Lafayette, LA, Lafayette, LA, 08/2021-Present

The project includes the rehabilitation and upgrades of three existing extended aeration sewer plants in Lafayette Parish, Louisiana. BBEC provided engineering design and construction administration services for the improvements and upgrades for each facility. Mr. Sparks performed construction budget estimating and review of treatment processes and process equipment specifications.

Water & Wastewater Utilities- Design of Improvements/Upgrades, Multiple Parishes, LA, 07/2022-Present

The project is the design and budgeting of initial and secondary improvements and rehabilitation of existing wastewater treatment plants and collection systems for the client. Mr. Sparks performed the technical and engineering design and specifications for the primary and secondary treatment and activated sludge process treatment processes. Mr. Sparks also provided design of flow monitoring and SCADA improvements for the treatment plants. The project consists of 20 wastewater treatment plants operating as extended aeration treatment and facultative pond treatment. Anticipated completion date is October 2022.

TESI, Multiple Parishes, LA, 10/2021-07/2022

Mr. Sparks performed assessments and evaluations of 26 wastewater treatment systems including treatment and collection, and 3 public water systems. The scope of Mr. Sparks' work included the site investigation of individual treatment facilities, collection, and distribution systems to assess structural conditions, equipment operation, evidence of process issues, and overall general operational conditions. The evaluation and assessment report is prepared using site observations and data collected from regulatory agencies; and includes the identifying of facilities deficiencies, recommendations of means to correct deficiencies and costs budgeting for implementation of corrections.

Water & Wastewater Utilities – Condition Assessments/Evaluation, Multiple Parishes, LA, 05/2022-07/2022

Mr. Sparks performed site inspections, assessments, and evaluations of 26 wastewater treatment systems including treatment and collection, and 4 public water systems. The scope of Mr. Sparks' work included the site investigation of individual treatment facilities, collection, and distribution systems to assess structural conditions, equipment operation, evidence of process issues, and overall general operational conditions. The evaluation and assessment report is prepared using site observations and data collected from regulatory agencies; and includes the identifying of facilities deficiencies, recommendations of means to correct deficiencies and costs budgeting for implementation of corrections.

Eden Isles and Meadows WWTP EQ Basin Analysis, St. Tammany Parish, LA, 08/2021-10/2021

Conducted an analysis of the needs and means for providing flow equalization measures to mitigate the impact of extraneous flows to the wastewater treatment plants. Analysis and evaluation of diurnal flows and precipitation events was performed to determine equalization requirements. Project also included preliminary design budgeting for additional buildings affected by damaging storm events occurring during Hurricane Ida.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

**Ethan Jones, EI
Engineer Intern**

Project Assignment:

Modeling

Name of Firm with which associated:



**Barowka and Bonura
Engineers and Consultants, L.L.C.**

Years' experience with this Firm:

2

Education: Degree(s)/Year/Specialization:

B.S. / 2022 / Civil Engineering

Active registration: Year first registered/discipline:

2022 / EI

Other experience and qualifications relevant to the proposed Project:

Mr. Jones is a recent graduate from Louisiana State University where he obtained a Civil Engineering degree in May of 2022 and became an Engineer Intern in June of 2022. He is currently working on projects for Wastewater Treatment where he is gathering measurements and doing calculations to find velocity through pipes for the selection of pumps and creating plan sets for submittals. Mr. Jones has also done Grant Management where he has visited sites to gather measurements for sketches and worked on volumetric cut and fill calculations for clearing residential canals in Lafitte. Mr. Jones has also worked on Roadway and Drainage projects where he has assisted with cost estimates for clients. Mr. Jones has used WaterGEMS to model and analyze water systems for St. Tammany Parish. Additionally, Mr. Jones worked on aeration analysis for Flow Eq Basins. Mr. Jones is currently working on raw water intake for St. John the Baptist Parish.

Projects with detailed descriptions of work are provided below:

East St. Tammany Water Consolidation, 2022 Contract, St. Tammany Parish, LA, 08/2022-Present

This project includes development and analysis of a hydraulic model of water distribution systems in St. Tammany Parish, LA. As an Engineer Intern, Mr. Jones developed a hydraulic model to simulate existing conditions of the system in WaterGEMS. Mr. Jones performed calibration field testing of the water system by flow testing fire hydrants at selected locations in order to better calibrate the model. Mr. Jones assisted in the development of an engineering report of findings to supplement the hydraulic model and recommend improvements to the system.

Laplace Water Intake Pump Station and Pre-Treatment Facility, St. John the Baptist Parish, LA, 02/2023-

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Present

Mr. Jones is working on raw water intake for LaPlace where two alternatives are being considered. One on the river and one on the dry side of the levee. Mr. Jones is assisting in modeling the project, as well as selecting the pumps and pipe sizes to bring clean drinking water to the citizens of the Parish.

Water Hydraulic Modeling in East St. Tammany Parish, 2023 Contract No. 23-048, St. Tammany Parish, LA, 04/2023-Present

This project includes continuing the development of the East St. Tammany Cross Gates water model. The existing model will be combined with other subdivisions to consolidate the water distribution system. Mr. Jones performed calibration field testing of the water system to be added to the Cross Gates water model by flow testing fire hydrants at selected locations in order to better supplement the hydraulic model and recommend improvements to the system. Mr. Jones assisted in the development of an engineering report of findings to supplement the hydraulic model and recommend improvements to the system.

Water Hydraulic Modeling in West St. Tammany Parish, 2023 Contract No. 23-042, St. Tammany Parish, LA, 04/2023-Present

This project includes developing and analyzing a hydraulic model of water distribution systems in West St. Tammany Parish, LA for the Bedico Creek System and the Faubourg Water System. The system includes 14 wells, some of which will be taken out of service upon construction of the improvements. Other wells will be kept to provide water. Mr. Jones performed calibration field testing of the water system by flow testing fire hydrants at selected locations in order to better calibrate the model. Mr. Jones assisted in the development of an engineering report of findings to supplement the hydraulic model and recommend improvements to the system.

Diversified Water Well Pretreatment System, St. Tammany Parish, LA, 06/2023-Present

This project includes new potable water treatment improvements at the Diversified Well site in Madisonville, LA. This project includes new greensand filtration units for iron and manganese removal, metal and CMU building to house the filters, chemical storage, and personnel offices, and water piping in site. As part of this project, Mr. Jones assisted in the filter pilot study to assess water quality and scale-model filtration results for varying filtration media.

Egret Landing Subdivision – Phase 2 Improvements, Monroe, LA (Town of Sterlington Task Order), 03/2024-05/2024

This project includes improvements to the water distribution at the Egret Landing Subdivision – Phase 2 in Monroe, LA. The improvements include new automatic flushers and the addition of a chlorine analyzer. As part of this project, Mr. Jones completed made a site visit to examine the current condition of the distribution system and wrote the report on the current conditions of the distribution system.

Brier Lake Utilities, Inc. (WTP), Lacombe, LA, 01/2024-Present

The project includes making the needed improvements to an oxidation pond wastewater treatment facility due to age and regulatory compliance issues. Mr. Jones completed the report, which detailed the descriptions of the existing conditions, recommendations for improvements to be made, and the cost of the improvements. Mr. Jones also compiled the Appendices for the submittal.

FEMA Public Assistance Grant and Program Management, Jefferson Parish, LA, 06/2022-Present

Mr. Jones calculated dredge volume estimates for residential canals in Barataria near Jean Lafitte, LA by using Civil 3D and Excel. This project includes the processing of FEMA reimbursements, based on federal and state requirements and development of closeout documentation for the Parish of Jefferson. In addition to this Mr. Jones completed FEMA's Category G files and photo forms for Jefferson Parish Bus Stops.

CN Railroad Culverts in Ormond, Project No. P200801, Ordinance No. 20-9-5, St. Charles Parish, LA, 06/2022 – Present

TEC Professional Services Questionnaire

Mr. Jones worked on completing the cost estimate and making additions to the specifications for this project which includes the construction of several new drainage culverts crossing and/or adjacent to the CN railroad in Destrehan, St. Charles Parish, LA. Mr. Jones also assisted in preparing the CN Railroad permitting documents for the new drainage improvements.

Water & Wastewater Utilities, Multiple Parishes, LA, 06/2022-Present

Mr. Jones provided technical and field assistance for this project, which includes investigation, evaluation, and assessment of existing wastewater systems to be procured by the client. Mr. Jones assisted in the design for improvements to be made to the sites. Mr. Jones performed site investigations of individual treatment facilities, collection, and distribution systems to assess structural conditions, equipment operation, evidence of process issues, and overall general operational conditions.

Half Oak WWTP, (TESI Task Order), Lafourche, LA, 05/2024-Present

This job includes rehabilitation of the WWTP for the Half Oak Subdivision. Mr. Jones assisted in the drawings of the existing wastewater treatment plant and the improvements. The improvements identified are replacing surface aerator and anchors for the aerator; site repairs including aggregate drive improvements and fencing; installation of flow measurement facilities; excess sludge removal and disposal; replacement of lift station pumps; and the needed electrical facilities to power the equipment and SCADA to allow for the monitoring of the facility's operation remotely. Working with the engineer to design improvements to address the damaged items and improve effluent quality to comply with current LDEQ regulations.

Town of Sterlington WWTP, Ouachita, LA, 02/2024-Present

The project includes making the needed improvements to an oxidation pond wastewater treatment facility due to age and regulatory compliance issues. Performed site visits and currently working with drafters to develop existing condition drawings for rehabilitation project. The improvements identified are replacing surface aerators and air piping; site repairs including aggregate drive improvements and fencing; installation of flow measurement facilities; excess sludge removal and disposal; replacement of lift station pumps; and the needed electrical facilities to power the equipment and SCADA to allow for the monitoring of the facility's operation remotely. Working with the engineer to design improvements to address the damaged items and improve effluent quality to comply with current LDEQ regulations.

Brier Lake Utilities, Inc. (WWTP), Lacombe, LA, 01/2024-Present

The project includes making the needed improvements to an oxidation pond wastewater treatment facility due to age and regulatory compliance issues. Mr. Jones completed the report, which detailed the descriptions of the existing conditions, the list of compliance violations, recommendations for improvements to be made, and cost of the improvements. Mr. Jones also compiled the Appendices for the submittal.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

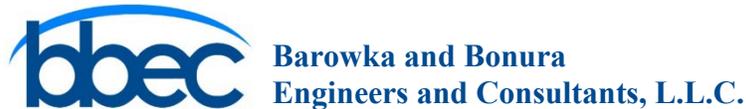
Name & Title:

**Ashton Bonura
Graduate Engineer**

Project Assignment:

Construction Services

Name of Firm with which associated:



Years' experience with this Firm:

10

Education: Degree(s)/Year/Specialization:

**B.S. / 2022 / Civil and Environmental Engineering
B.S. / 2020 / General Business with an Entrepreneurship Minor**

Active registration: Year first registered/discipline:

Other experience and qualifications relevant to the proposed Project:

Mr. Bonura is a recent graduate from the University of New Orleans where he obtained a Civil and Environmental Engineering degree in December 2022. He has assisted the licensed engineers within the company for several years prior to earning his degree. Mr. Bonura has worked on projects that involve water and wastewater treatment, lift station design, roadway rehabilitation and drainage improvements, and sanitary landfill permit renewals.

Projects with detailed descriptions of work are provided below:

Water Hydraulic Modeling in East St. Tammany Parish, 2023 Contract No. 23-048, St. Tammany Parish, LA, 04/2023-Present

St. Tammany Parish Government (Parish) retained Barowka and Bonura Engineers and Consultants (BBEC) to develop and analyze a computer model of existing potable water systems in Slidell, LA, as part of the Parish's East St. Tammany Water Consolidation Project Phase 2 (PPSL-VSF 23-19-5). This project has been phased into 3 tasks. The scope of Task 1 included development and calibration of an existing conditions model of the Cross Gates, Meadow Lake, and River Oaks water systems using WaterGEMS software. The model includes a detailed water distribution network including pipes, well pumps, storage tanks, valves, fittings, and fire hydrants, all based on site visits and information provided by St. Tammany Parish. Field testing was performed including fire hydrant flow and pressure tests to document system performance and calibrate and validate the water model to match field conditions. The existing conditions model was analyzed to determine water age/water quality, water pressure, and velocity parameters. Results of the model analysis and improvement recommendations were compiled in a report

TEC Professional Services Questionnaire

of findings. Task 2 of this project includes modeling and hydraulic analysis of the water system improvements, including two (2) new elevated storage tanks and several water main interconnections. Task 3 of this project includes updating, re-validating and calibrating the system model to reflect the water system improvements constructed.

Mr. Bonura assisted the key personnel in the development of an engineering report of findings to supplement the hydraulic model and recommend improvements to the system. Mr. Bonura also assisted in the field testing of fire hydrants to better calibrate the model.

Water Hydraulic Modeling in West St. Tammany Parish, 2023 Contract No. 23-042, St. Tammany Parish, LA, 04/2023-Present

St. Tammany Parish Government (Parish) retained Barowka and Bonura Engineers and Consultants (BBEC) to develop and analyze a computer model of existing potable water systems in West St. Tammany Parish, as part of the Parish's West St. Tammany Water Consolidation Project (PPSL-VSF 23-20-5). This project has been phased into 3 tasks. The scope of Task 1 included development and calibration of an existing conditions model of the Faubourg Coquille and Bedico Creek water systems using WaterGEMS software. The model includes a detailed water distribution network including pipes, well pumps, storage tanks, valves, fittings, and fire hydrants, all based on site visits and information provided by St. Tammany Parish. Field testing was performed including fire hydrant flow and pressure tests to document system performance and calibrate and validate the water model to match field conditions. The existing conditions model was analyzed to determine water age/water quality, water pressure, and velocity parameters. Results of the model analysis and improvement recommendations were compiled in a report of findings. Task 2 of this project includes modeling and hydraulic analysis of the water system improvements, including water main improvements to interconnect the Faubourg Coquille and Bedico Creek systems, and interconnect the Bedico Creek system to the Fox Branch Subdivision. New elevated storage tanks at the Bedico Creek water system and other areas were also assessed. Task 3 of this project includes updating, re-validating and calibrating the system model to reflect the water system improvements constructed. Mr. Bonura assisted the key personnel in the development of an engineering report of findings to supplement the hydraulic model and recommend improvements to the system. Mr. Bonura also assisted in the field testing of fire hydrants to better calibrate the model.

Eden Isles Water Main Repair, St. Tammany Parish, LA, 05/2020-Present

The project included developing a hydraulic model of the distribution system to determine the impact of additional development on the overall distribution system. Mr. Bonura performed house counts and water demand calculations to develop a hydraulic model of the water distribution system using WaterCAD.

FEMA Public Assistance Grant and Program Management, Jefferson Parish, LA, 10/2021-Present

This project includes the processing of FEMA reimbursements, based on federal and state requirements and development of closeout documentation. Mr. Bonura assisted the licensed engineers in Conducting comprehensive facility damage assessments for disaster damaged structures, contents, vehicles, pump stations, sewer lift stations, and other parish-owned facilities. Mr. Bonura generated maps in ArcGIS pro and other documentation to help maximize federal funding for this project which includes program management services to assist the Parish with the review and implementation of procurement policies, ensuring that all potential emergency contracts comply with federal requirements and guidelines set forth in the Public Assistance Program.

Sanitary Landfill 2019 Solid Waste Permit Application, Jefferson Parish, LA, 12/2018-08/2019

Mr. Bonura assisted with preparing the Landfill Permit Renewal Application by gathering needed documentation to be included in the new application.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

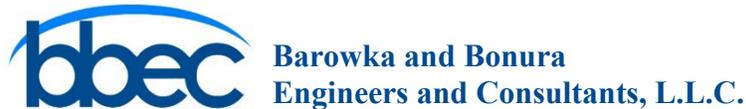
Name & Title:

**Pete Foret
Computer Aided Drafting**

Project Assignment:

Drafting / CAD

Name of Firm with which associated:



Years' experience with this Firm:

4

Education: Degree(s)/Year/Specialization:

**B.S. / 1995 / Business Administration with a Computer Science Option
and Management Minor**

Active registration: Year first registered/discipline:

Other experience and qualifications relevant to the proposed Project:

Mr. Foret is a multi-discipline AutoCAD drafter and designer with experience in the Civil, Structural, Architectural, Electrical and GIS/Mapping fields. He has a combined 33 years of experience generating alignments, plan and profile sheets, cross sections, contour maps, structural and architectural plans, and details and electrical one-line diagrams. Mr. Foret has prepared site plans for over 500 residential properties which are used to perform environmental assessments and archaeological investigations by FEMA EHP and the State Historic Preservation Office. He has been the drafting coordinator for multiple firms and has been responsible for developing drafting standards for a consistent and quality drawing set.

Projects with detailed descriptions of work are provided below:

H2O Water Projects, St. Tammany Parish, LA, 09/2020-Present

Mr. Foret did some minor markups and checked for drafting standards/consistency.

Acadiana Water and Sewer, Lafayette, LA, 08/2020-Present

Mr. Foret created figures for the Engineer reports for the water and wastewater systems for Belleville, Garden Heights, Mark Ridge and Village Quest subdivisions. He drafted the site plan and profile for the Belleville water system. He also generated the site plans, mechanical plans and structural plans for the repairs and improvements to the Belleville, Garden Heights and Mark Ridge wastewater treatment plants.

East Bank Water Treatment Plant Improvements, Jefferson Parish, LA., 07/2020-Present

Mr. Foret was responsible for plan preparation following established project standards. Plans included a site layout

TEC Professional Services Questionnaire

for the routing of new chemical feed lines over an existing survey and avoiding existing utilities. Drawings also included details necessary for the proper routing and installation of the new feed lines.

Southwood Ridge, Tangipahoa Parish, LA, 08/2020-Present

Mr. Foret created figures for Engineer's report.

Artesian, St. Tammany Parish, LA, 08/2020-Present

Mr. Foret created figures for Engineer's report.

Coast Water Projects, St. Tammany Parish, LA, 07/2020-Present

Mr. Foret created the site plans and demolition plans as well as the plans, sections, structural foundation details and typical details for the proposed chemical feed buildings and the details for the chemical feed system itself at the Eden Isles, Meadows and Belair disinfection sites. He coordinated with our electrical sub for the drafting of the electrical one line and riser diagrams as well as his equipment layouts on the site plans for the three sites. Mr. Foret drafted the plan/profile sheet and cross sections for the proposed new waterline crossing the marina bay as well as the standard details for the Eden Isles Water Main Repair.

Gloria Drive Pump Station, Project No. 20-2022A, Lafitte Area Independent Levee District Drainage, Town of Jean Lafitte, LA, 02/2021-Present

Mr. Foret set up the survey and generated a preliminary site plan for a drainage pump station.

CN Railroad Culverts in Ormond, Project No. P200801, Ordinance No. 20-9-5, St. Charles Parish, LA, 10/2020-Present

Mr. Foret set up the survey reference file with a baseline supplied by the railroad and created site plans for 6 proposed construction sites including a plan/profile sheet for a new 425' long 60" drainpipe connecting two sites. He also generated multiple cross sections through the 6 construction sites as well as other details.

Craig Avenue Drainage Improvements, Public Works Project No. 2019-022-DR, Jefferson Parish, LA, 10/2020-Present

Mr. Foret updated the plan/profile sheets with a new proposed roadway grade line.

Ames Boulevard Rehabilitation, West Bank Expressway to Happy Street, (Public Works Project No. 2013-033-RB) (DOTD No. H.011797), Jefferson Parish, LA., 07/2020-Present

Mr. Foret was involved with the 98% and 100% Final submittal of roadway design plans to the LADOTD. This involved updating the project border on all sheets to the current LADOTD border while maintaining LADOTD standards. The drawing set included a standard LADOTD title sheet as well as plan sheets, typical sections, cross sections, core boring sheets, LADOTD and Jefferson parish special detail sheets and associated summary and quantities table sheets.

FEMA Public Assistance Grant and Program Management, Jefferson Parish, LA, 12/2021 - Present

Mr. Foret plotted the platform locations for the water line to Grand Isles in CAD using GIS coordinates. He also created exhibits of before, during and after Hurricane Ida aerial photographs to assist with determining debris to be removed.

Grant Management Services for Federal and State Grants, Lafitte Area Independent Levee District, LA, 04/2022 - Present

Mr. Foret traced the Lafitte existing and proposed levee layouts in CAD onto an aerial from Google Earth. He also created photo sheets from photos taken in the field with GIS coordinates embedded in them to be used for levee inspections.

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:

**East Bank Water
Treatment Plant
Improvements,
Jefferson Parish, LA**

**Jefferson Parish
Government
Mark Drewes, P.E.,
Director
Department of
Public Works
1221 Elmwood Pk.
Blvd., Suite 904
Jefferson, LA 70123
MDrewes@jeffparish.net
(504) 736-6783**

Applicable Experience

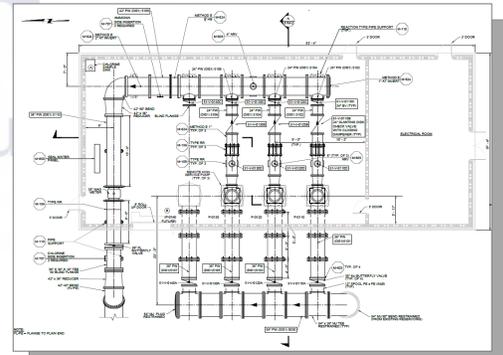
- Project Evaluation
- Project Design
- Drafting of Technical Plans
- Development of Technical Specifications

BBEC is currently designing the 40 mgd remote high service pumping station, site paving, grading, and drainage, and yard piping.

- The remote high service pump station consists of 3 installed and the complete set up for 1 future 20-inch vertical turbine pumps mounted in a "can" installation. The controls will be connected to other plant functions so the station

will be operated through the main plant's control system. The structure will be a cast in place concrete substructure with a CMU wall superstructure.

- The paving, grading, and drainage is a two-phased project for an almost 9-acre plant site. The work includes connecting to existing and new buildings, connecting to existing pavement and utilities, and the design of parking facilities and delivery and loading facilities.
- The yard piping consists of about 2,500 feet of 36-inch to 54-inch pipe, and several thousand feet of smaller pipe, navigating through a site congested with many conflicts. The work is being designed to connect to existing systems with automated remote-controlled valves and valve boxes and by minimizing disruption to plant services.



The work also includes coordinating with other engineering disciplines (structural, geotechnical, mechanical, architectural, electrical, and instrumentation) and the project owner.

**Completion Date
(Actual or estimated):**

Estimated Cost:

Entire Project:

Work for which Firm was Responsible:

2024 (estimated)

\$7,000,000 (BBEC Portion)

\$7,000,000 (BBEC Portion)

TEC Professional Services Questionnaire

PROJECT NO. 2

<p style="text-align: center;">Project Name, Location and Owner's contact information:</p>	<p style="text-align: center;">Nature of Firm's Responsibility:</p>	
<p>Eden Isles Subdivision Drinking Water Systems Disinfection Improvements, St. Tammany Parish, LA</p> <p>Central States Water Resources, Inc. Jacob O. Freeman, P.E., Director, Engineering 500 Northwest Plaza Drive, Suite 500 St. Ann, MO 63074 jfreeman@cswrgroup.com (314) 380-8598</p>	<div style="background-color: #0056b3; color: white; padding: 5px; border: 1px solid #0056b3; margin-bottom: 10px;"> <p style="margin: 0;"><u>Applicable Experience</u></p> <ul style="list-style-type: none"> Project Evaluation Project Design Drafting of Technical Plans Development of Technical Specifications Construction Administration </div> <p>The project included working with the contractor to perform value engineering to reduce the overall contract cost.</p>	<p>The project includes upgrading the system's disinfection system and converting the disinfection process from a free chlorine system to a total chlorine system. The scope of work includes installing a new elevated chemical building, new automated chemical feed pumps and controls, storage tank, a chlorine analyzer, and sufficient SCADA for remote monitoring and limited control.</p>
<p style="text-align: center;">Completion Date (Actual or estimated):</p>	<p style="text-align: center;">Estimated Cost:</p>	
<p style="text-align: center;">2022 (actual)</p>	<p>Entire Project:</p> <p style="text-align: center;">\$346,585</p>	<p>Work for which Firm was Responsible:</p> <p style="text-align: center;">\$346,585</p>



TEC Professional Services Questionnaire

PROJECT NO. 3

<p align="center">Project Name, Location and Owner's contact information:</p>	<p align="center">Nature of Firm's Responsibility:</p>	
<p>Eden Isles Water Main Repair, St. Tammany Parish, LA</p> <p>Central States Water Resources, Inc. Jacob O. Freeman, P.E., Director, Engineering 500 Northwest Plaza Drive, Suite 500 St. Ann, MO 63074 jfreeman@cswrgroup.com (314) 380-8598</p>	<p><u>Applicable Experience</u></p> <ul style="list-style-type: none"> • Project Evaluation • Project Design • Drafting of Technical Plans • Development of Technical Specifications • Construction Administration 	<p>The project consists of crossing a 400' wide waterway with a 10-inch potable water line in Slidell, Louisiana. The projects includes connecting to existing water lines on both sides of the new pipe, including valves and flushing units; and, working alongside and crossing a concrete bulkhead and high voltage power lines. BBEC's role included:</p> <ul style="list-style-type: none"> • Design directional drilling the main about 700 feet • Coordinating with Cleco Power to locate and establish temporary power shut-downs so the work could be performed safely • Work with a local contractor to locate the existing conflicts, including the high voltage Cleco Power lines • Communicating with and assist in securing the required servitudes and easements from the property owners on both sides of the waterway • Apply for and secure the required LDH, Parish, and Coastal Use Permits • Perform services during bidding • The project is expected to cost \$350,000. The project is currently under construction. 
<p>Completion Date (Actual or estimated):</p>	<p align="center">Estimated Cost:</p>	
	<p align="center">Entire Project:</p>	<p align="center">Work for which Firm was Responsible:</p>
<p align="center">2024 (estimated)</p>	<p align="center">\$396,585</p>	<p align="center">\$396,585</p>

TEC Professional Services Questionnaire

PROJECT NO. 4

<p align="center">Project Name, Location and Owner's contact information:</p>	<p align="center">Nature of Firm's Responsibility:</p>	
<p>The Meadows and Belair Subdivisions Drinking Water Systems Disinfection Improvements, St. Tammany Parish, LA</p> <p>Central States Water Resources, Inc. Jacob O. Freeman, P.E., Director, Engineering 500 Northwest Plaza Drive, Suite 500 St. Ann, MO 63074 jfreeman@cswrgroup.com (314) 380-8598</p>	<p><u>Applicable Experience</u></p> <ul style="list-style-type: none"> • Project Evaluation • Project Design • Drafting of Technical Plans • Development of Technical Specifications • Construction Administration <p>The project included working with the contractor to perform value engineering to reduce the overall contract cost.</p>	<p>The project includes upgrading the system's disinfection system and converting the disinfection process from a free chlorine system to a total chlorine system. The scope of work includes installing a new elevated chemical building, new automated chemical feed pumps and controls, storage tank, a chlorine analyzer, and sufficient SCADA for remote monitoring and limited control.</p>
<p>Completion Date (Actual or estimated):</p>	<p align="center">Estimated Cost:</p>	
	<p align="center">Entire Project:</p>	<p align="center">Work for which Firm was Responsible:</p>
<p align="center">2022 (actual)</p>	<p align="center">\$546,585</p>	<p align="center">\$546,585</p>



TEC Professional Services Questionnaire

PROJECT NO. 5

<p align="center">Project Name, Location and Owner's contact information:</p>	<p align="center">Nature of Firm's Responsibility:</p>	
<p>East Bank Water Treatment Plant Expansion, Jefferson Parish, LA</p> <p>Jefferson Parish Government Sal Maffei, Jr Department of Water 1221 Elmwood Park Blvd., Suite 909 Jefferson, LA 70123 SMaffei@jeffparish.net (504) 736-6060</p>	<p><u>Applicable Experience</u></p> <ul style="list-style-type: none"> • Project Evaluation • Project Design • Drafting of Technical Plans • Development of Technical Specifications • Construction Administration 	<p>Mr. Bonura was Project Engineer and Construction Manager for the 17 MGD expansion to the East Bank Water Treatment Plant. The project included a new raw water venturi flow meter, rapid mix basin (designed for 68 MGD), two new precipitator basins (designed for 8.5 MGD each), renovations to the ten existing sand filters to dual media filters (new capacity of 68 MGD), new high service pumping facilities and clearwell (designed for 51 MGD), and modifications to the existing high service pumping facilities to become a transfer station to storage. The entire facility received a new DCS control system, which is completely automated. The overall project increased the plant capacity from 34 MGD to 51 MGD and left the necessary piping and valves to simplify a future 17 MGD expansion by only adding two new precipitator basins and two new high service pumps. The project also left provisions for connection to a new disinfection system in anticipation of new EPA Safe Drinking Water Act regulations.</p> <p>At project startup, the DCS control system operated independently as designed. The project owner had some PC interface developed, but not specifically to operate the new water plant system. Mr. Bonura managed the development of the necessary interface screens to adequately run every function of the water plant, and BBEC's SCADA technicians made sure the screens interfaced with the DCS control system, and operated the plant, remotely.</p>
<p>Completion Date (Actual or estimated):</p>	<p align="center">Estimated Cost:</p>	
	<p align="center">Entire Project:</p>	<p align="center">Work for which Firm was Responsible:</p>
<p align="center">1992 (actual)</p>	<p align="center">\$10,300,000</p>	<p align="center">\$10,300,000</p>

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PROJECT NO. 6

<p align="center">Project Name, Location and Owner's contact information:</p>	<p align="center">Nature of Firm's Responsibility:</p>	
<p>Modeling & Hydraulic Analysis of East St. Tammany Water Consolidation, St. Tammany Parish, LA</p> <p>St. Tammany Parish Government Bob Moeinian, P.E., Project Manager Department of Utilities 620 N. Tyler Street Covington, LA 70433 bmoeinian@stpgov.org 985-893-1717</p>	<p><u>Applicable Experience</u></p> <ul style="list-style-type: none"> • Project Evaluation • Hydraulic Modeling • Develop Improvements Recommendations • Prepare Report of Findings 	<p>St. Tammany Parish Government (Parish) retained Barowka and Bonura Engineers and Consultants (BBEC) to develop and analyze a computer model of existing potable water systems in Slidell, LA, as part of the Parish's East St. Tammany Water Consolidation Project (PPSL-VSF 21-30-5). This project has been phased into 3 tasks. The scope of Task 1 included development and calibration of an existing conditions model of the Cross Gates and Meadow Lake water systems using WaterGEMS software. The model includes a detailed water distribution network including pipes, well pumps, storage tanks, valves, fittings, and fire hydrants, all based on site visits and information provided by St. Tammany Parish. Field testing was performed including fire hydrant flow and pressure tests to document system performance and calibrate and validate the water model to match field conditions. The existing conditions model was analyzed to determine water age/water quality, water pressure, and velocity parameters. Results of the model analysis and improvement recommendations were compiled in a report of findings. Task 2 of this project includes modeling and hydraulic analysis of the water system improvements, including two (2) new elevated storage tanks, new well improvements, and several water main interconnections. Task 3 of this project includes updating, re-validating and calibrating the system model to reflect the water system improvements constructed.</p>
<p>Completion Date (Actual or estimated):</p>	<p align="center">Estimated Cost:</p>	
	<p align="center">Entire Project:</p>	<p align="center">Work for which Firm was Responsible:</p>
<p align="center">2024 (estimated)</p>	<p align="center">\$303,728</p>	<p align="center">\$303,728</p>

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PROJECT NO. 7

**Project Name,
Location and Owner's
contact information:**

Nature of Firm's Responsibility:

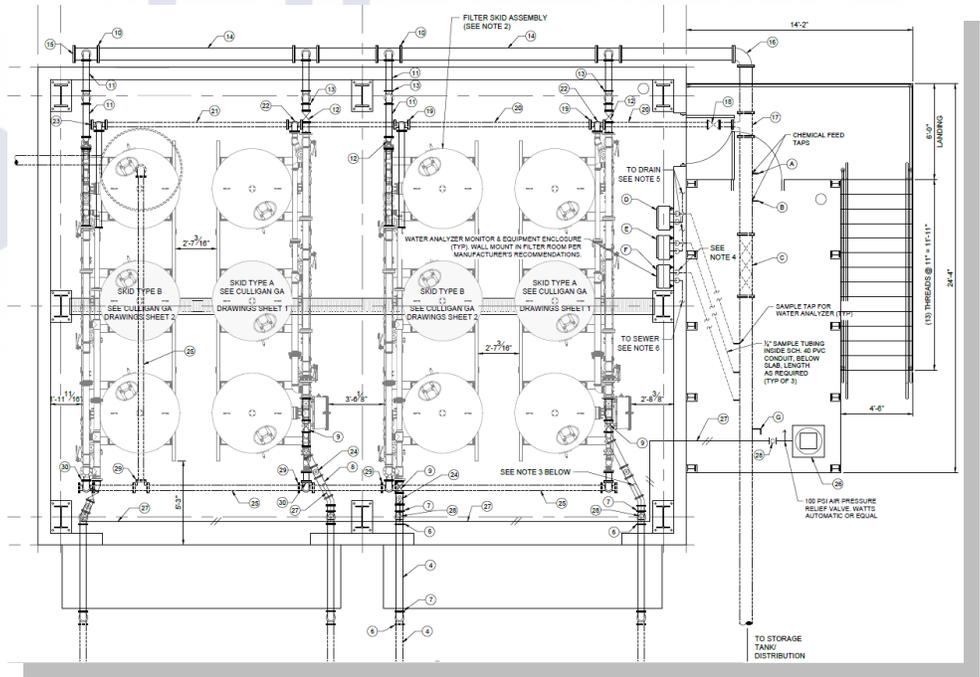
**Eden Isles Subdivision
GAC Filter
Improvements
St. Tammany Parish**

**Central States Water
Resources, Inc.
Jacob O. Freeman, P.E.,
Director, Engineering
1630 Des Peres Road,
Suite 140
Des Peres, MO 63131
jfreeman@cswrgroup.co
m
(314) 380-8598**

Applicable Experience

- Project Evaluation
- Project Design
- Drafting of Technical Plans
- Development of Technical Specifications
- Construction Administration
- Permitting

Mr. The project includes potable water treatment upgrades including granular activated carbon (GAC) filtration units and upgrading the system's disinfection system and converting the disinfection process from free chlorine system to monochloramine disinfection. The scope of work includes installing a new elevated GAC filter building, yard piping, new automated ammonia feed pumps and controls, ammonia storage tank, chlorine and ammonia analyzers, electrical system upgrades, and sufficient SCADA for remote monitoring and limited control.



**Completion Date
(Actual or estimated):**

Estimated Cost:

Entire Project:

Work for which Firm was Responsible:

2024 (estimated)

\$3,000,000

\$3,000,000

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PROJECT NO. 8

<p align="center">Project Name, Location and Owner's contact information:</p>	<p align="center">Nature of Firm's Responsibility:</p>	
<p>Diversified Water Well Pretreatment System, St. Tammany Parish, LA</p> <p>St. Tammany Parish Government Bob Moeinian, P.E., Project Manager Department of Utilities 620 N. Tyler Street Covington, LA 70433 bmoeinian@stpgov.org 985-893-1717</p>	<p><u>Applicable Experience</u></p> <ul style="list-style-type: none"> • Project Evaluation • Project Design • Drafting of Technical Plans • Development of Technical Specifications • Construction Administration • Permitting 	<p>This project includes the design of new potable water treatment improvements at the Diversified Well site in Madisonville, LA for the St. Tammany Parish Department of Utilities. This project includes new greensand filtration units for iron and manganese removal, metal and CMU building to house the filters, chemical storage, and personnel offices, and water piping on site. Water sampling and bench-scale testing was performed at the well site to identify recommended water treatment improvements. Pilot scale filter studies were performed to verify and test selected filtration media and filter loading rates. Permits were obtained from LDEQ, LDH and LA State Fire Marshal for this project.</p>
<p>Completion Date (Actual or estimated):</p>	<p align="center">Estimated Cost:</p>	
	<p align="center">Entire Project:</p>	<p align="center">Work for which Firm was Responsible:</p>
<p align="center">2026 (estimated)</p>	<p align="center">\$955,000</p>	<p align="center">\$955,000</p>



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PROJECT NO. 9

<p align="center">Project Name, Location and Owner's contact information:</p>	<p align="center">Nature of Firm's Responsibility:</p>
<p>Laplace Water Intake Pump Station and Pre-Treatment Facility, St. John the Baptist Parish, LA</p> <p>St. John the Baptist Parish Government Reed Alexander, Director Department of Utilities 1801 W. Airline Hwy Laplace, LA 70068 r.alexander@stjohn-la.gov (985) 652-9569</p>	<div data-bbox="440 443 854 743" style="background-color: #0056b3; color: white; padding: 10px;"> <p><u>Applicable Experience</u></p> <ul style="list-style-type: none"> • Project Evaluation • Project Design • Drafting of Technical Plans • Development of Technical Specifications • Construction Administration </div> <p>The BBEC is currently designing an 8.64 pretreatment facility for St. John the Baptist Parish to prepare water from the Mississippi River for membrane filtration to be used as potable water for the citizens of St. John the Baptist Parish. The project includes the following components:</p> <ul style="list-style-type: none"> • Raw Water Pump Station. The raw water pump station consists of 3 vertical pumps rated at 3,000 gpm each located on the flood side of the Mississippi River levee. The pumps will be run by variable frequency drives to allow for the flow to be as needed as determined by the demand on the discharge side of the treated water facilities. The work includes a 24-inch raw water line and an 8-inch sludge line crossing the levee and state-owned River Road from the pump station to the land-side pretreatment facility. The project includes an approximate 800-foot bridge providing access from the top of the levee to the pump station. The controls will be connected to other plant functions so the station will be operated through the main plant's control system. The structure will be a pile supported cast in place concrete substructure with a metal building superstructure. • Civil / Sitework. The paving, grading, and drainage is for an 18-acre plant site. The work includes developing an undeveloped wooded site into a plant site containing four clarifiers, an administration/safe room building, a transfer pump station, sludge pump station, chemical feed and storage facilities, and interconnecting yard piping. The paving portion allows for parking and materials and equipment deliveries for WB-60 and other vehicles. The yard piping consists of about 2,500 feet of various pipe sizes up to 30-inch pipe. • Clarifiers. The clarification system consists of (4) 2.9 mgd upflow clarifiers, including coagulant feed and storage. • Transfer Pump Station. The transfer pump station consists of 3 vertical turbine pumps rated at 3,000 gpm each, run by variable frequency drives and 350 hp motors. • Clarifier Waste Pump Station. The waste pump station consists of 2 vertical sludge pumps rated at 300 gpm each, designed to keep the solids suspended so that the waste can be returned to the river. • Permitting. Permitting includes wetlands delineation, LaDOTD highway crossing, Levee district levee crossing, Corps of Engineers adjacent to levee and levee crossing, Corps of Engineers wetlands, Louisiana Coastal Use, and Wildlife and Fisheries Endangered Species permits. • Administration/Safe House. An approximately 2,500 building is included to house the controls for all the Parish's water and wastewater facilities and provide safe living quarters for Parish personnel during storm and other disaster events. <p>The work also includes coordinating with other engineering disciplines (structural,</p>

TEC Professional Services Questionnaire

geotechnical, mechanical, architectural, electrical, and instrumentation) and the project owner.

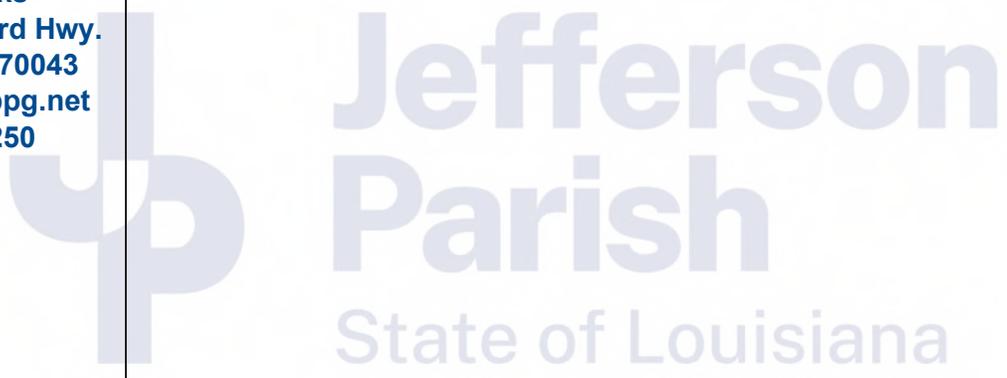


Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2024 (estimate)	\$21,600,000	\$21,600,000

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PROJECT NO. 10

<p align="center">Project Name, Location and Owner's contact information:</p>	<p align="center">Nature of Firm's Responsibility:</p>			
<p>Emergency Water Line and Valve Repair/Replacement Project, St. Bernard Parish, LA</p> <p>St. Bernard Parish Donald R. Bourgeois, Capital Projects Manager Department of Public Works 1125 E. St Bernard Hwy. Chalmette, LA 70043 dbourgeois@sbsp.net (504) 278-4250</p>	<div style="background-color: #0056b3; color: white; padding: 5px; border: 1px solid #ccc;"> <p><u>Applicable Experience</u></p> <ul style="list-style-type: none"> Project Evaluation Project Design Drafting of Technical Plans Development of Technical Specifications Construction Administration </div> <p>reimbursement for the Parish.</p>	<p>Numerous water lines and hydrants were damaged by Katrina. BBEC developed plans and specifications for a unit price contract to repair the water distribution system, handled the project through bidding, and performed construction administration and resident inspection services through completion of the project. BBEC also assisted the Parish and FEMA in developing the project worksheet and preparing requests for</p>		
<p>Completion Date (Actual or estimated):</p>	<p align="center">Estimated Cost:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Entire Project:</td> <td style="width: 50%; text-align: center;">Work for which Firm was Responsible:</td> </tr> </table>		Entire Project:	Work for which Firm was Responsible:
Entire Project:	Work for which Firm was Responsible:			
<p align="center">2006 (actual)</p>	<p align="center">\$1,800,000</p>	<p align="center">\$1,800,000</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. N/A	N/A	BBEC's firm nor its staff has had any litigation with Jefferson Parish.
2.		
3.		
4.		

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



State of Louisiana
Barowka and Bonura
Engineers and Consultants, L.L.C.

Barowka and Bonura Engineers and Consultants, L.L.C. is an engineering consulting firm specializing in civil engineering design, construction management, and computer consulting services. BBEC has substantial experience in all aspects of public works projects. Our staff has specific experience working with water treatment and distribution systems, with emphasis added regarding Jefferson Parish's water treatment and distribution systems. We performed engineering services related to:

- The raw water and sludge transfer systems at the West Bank Water Treatment Plant
- Rehabilitation of existing and construction of a new ground storage tank at the West Bank Water Treatment Plant
- Chemical storage, transfer, and feed of the chemical feed systems for both the East and West Bank Water Treatment Plants
- Rehabilitation of the filters and precipitators, construction of new rapid mix basin, precipitators, and

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high service pump station, and the installation of the yard piping connecting new to old facilities for the 17 mgd expansion to the East Bank Water Treatment Plant

- The construction of over 4,000 linear feet of water main along Nicole Boulevard on the West Bank
- The replacement of water transmission valves and fire hydrants parish-wide
- Addressing conflicts with water mains and service lines when working on other roadway and utility projects.

Our project experience also includes the necessary environmental permitting and property acquisition necessary to get any project done.

MINIMUM QUALIFICATIONS:

- One Principal who is a professional engineer who shall be registered as such in Louisiana. This requirement is met by: Jeffrey Bonura, P.E.
- A professional in charge of the project who is a professional engineer who shall be registered as such in Louisiana with a minimum of five (5) years-experience in the disciplines involved. This requirement is met by: Jeffrey Bonura, P.E.
- One employee who is a professional engineer registered as such in Louisiana in the field or fields of expertise required for the project:
This requirement is met by: John J. Housey, Jr., P.E., Madan Kamboj, P.E., Matthew Hahn, P.E., and Kevin Forschler, P.E.

1. PROFESSIONAL TRAINING AND EXPERIENCE IN RELATION TO THE TYPE OF WORK REQUIRED FOR THE ROUTINE ENGINEERING SERVICES:

BBEC's proposed project engineer/project manager, Mr. Jeffrey Bonura, P.E. has experience in performing and managing design, bidding, construction (including inspector training and oversight), and as-built drawing phases of over \$200 million in Public Works (water and wastewater) construction projects that included all aspects of construction. Mr. Bonura has specific experience with Jefferson Parish's water treatment and distribution systems, having designed and/or managed the construction of various improvement projects to both the east and west bank water treatment plants, and specific repairs and improvement to the west bank distribution system.

In addition to our specific engineering and disaster related expertise, BBEC has extensive knowledge of the Geographic Information Systems (GIS). Drawings and data developed from the GIS showing site topography could be used to develop site plans for construction, traffic detour plans, preliminary cost estimates, project presentations, tracking operations, and many other uses. We have used these services to prepare detailed zone maps for streets, drain lines, sewer systems, and canals. We have also prepared progress reports of construction services by showing street-by-street progress of crews through a zone, and we published the information on the web daily for some of our clients.

Our training and experience are directly embedded in our staff. What follows are a list of key individuals, in addition to Mr. Bonura, anticipated for the project, with brief summaries. Complete resumes are provided elsewhere in this SOQ.

- **Mr. John J. Housey, Jr, P.E.**, (57 years of experience), has been working as an engineer in the public works industry for over 57 years. His experience includes bridges, buildings, roadways, and utility

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(water, sewer, and drainage) construction. Mr. Housey is currently the Project Manager for the BBEC portion of the East Bank Water Treatment Plant Improvements Project in Jefferson Parish.

- **Mr. Madan Kamboj, P.E.** (43.5 years of experience) has been performing project design, construction administration, and project monitoring for general civil projects including drainage, utilities, streets, highways and bridges, buildings, water and sewer treatment plants, multi-story parking garages; airport taxiways, traffic separation facilities, bike paths, and overhead pedestrian walkways at high traffic intersections.
- **Mr. Matthew Hahn, PE** (8 years of experience) is experienced in the field of civil and consulting engineering with a strong background in water resources, civil/site design, project management, and land surveying. His vast knowledge includes but is not limited to water distribution systems, hydrologic modeling and drainage design, sewerage and wastewater treatment, site development and planning, structural design, public speaking, topographic land surveying, boundary surveying, floor elevation surveying, earthwork balancing and site grading, recreation facilities/athletic fields, public bid process, permitting, and construction administration and management. Mr. Hahn is currently the Project Manager for East St. Tammany Water Consolidation, West St. Tammany Water Consolidation, and Diversified Water Well Pretreatment projects in St. Tammany Parish.
- **Mr. Kevin Forschler, P.E.**, (9.5 years of experience) has experience evaluating the hydraulics of water distribution and wastewater systems and utilizing hydraulic information to design pump stations for both types of system. Mr. Forschler has also used information from hydraulic evaluations of water distribution systems to determine the optimal location for automatic units that flush water lines and provide relevant chemical readings of the water in the system. Projects completed in multiple Parishes include design, evaluation, and construction management on water treatment and distribution projects as well as permitting for the facilities.
- **Mr. John Sparks**, (23 years of experience), has a Master of Science degree in Civil Engineering with emphasis on Wastewater Processes and Water and Sewer Systems Design. He has over 23 years of experience designing and rehabilitating sewer systems in the Southeastern states.
- **Mr. Pete Foret** (33 years of experience), is a multi-discipline AutoCAD drafter and designer with experience in the Civil, Structural, Architectural, Electrical and GIS/Mapping fields. His extensive experience includes generating alignments, plan and profile sheets, cross sections, contour maps, structural and architectural plans and details and electrical one-line diagrams. He has been the drafting coordinator for multiple firms and has been responsible for developing drafting standards for a consistent and quality drawing set.

2. SIZE OF FIRM, CONSIDERING NUMBER OF PROFESSIONAL AND SUPPORT PERSONNEL REQUIRED TO PERFORM THE TYPE OF ENGINEERING TASKS:

BBEC staff consists of 26 (including 6 licensed civil/structural engineers) professional, technical, and clerical personnel capable of handling all project and administrative tasks; all of which are available to work on the project. Mr. Bonura will manage projects through completion, making sure that all requirements of the projects are met. We have sufficient licensed and experienced engineers, junior engineers, technicians, and GIS and drafting support to effectively perform work with its existing staff.

3. CAPACITY FOR TIMELY COMPLETION OF NEWLY ASSIGNED WORK, CONSIDERING THE FACTORS OR TYPE OF ROUTINE ENGINEERING TASK, CURRENT UNFINISHED WORKLOAD, AND PERSON OR FIRM'S AVAILABLE PROFESSIONAL AND SUPPORT PERSONNEL:

BBEC has substantial experience in working on many public works projects, water and otherwise, in Jefferson Parish and surrounding areas. We have worked as a company for the Parish for 25 years, and Mr. Bonura worked an additional 10 years on Parish projects before that. Our experience includes performing engineering consulting and funding assistance to Jefferson Parish and the surrounding parishes.

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Our wealth of experience with public works type projects in Jefferson Parish allows us to provide the Parish with the necessary knowledge of keeping the Project on schedule and within budget, adhering to the standards set forth by the Parish. BBEC can begin work immediately and devote the necessary manpower to continue with the work through completion within any reasonable schedule required by the Parish. BBEC has never failed to meet or exceed our clients' expectations on any of our projects.

Our current staff is more than sufficient to handle our current workload. We have contracts in the signing, design, and bidding phases of work. We continue to move our projects through the implementation process. As projects are implemented, the availability of staff increases.

Mr. Bonura will manage the project through completion, making sure that all the requirements of the project are met. BBEC has sufficient licensed and experienced engineers, junior engineers, technicians, and GIS and drafting support to effectively perform work with its existing staff and meet any schedules reasonably set by the Parish.

4. PAST PERFORMANCE BY PERSON OR FIRM ON PARISH CONTRACTS:

Our proposed Supervising Engineer, Mr. Jeffrey Bonura, P.E, has vast experience related to water projects including design and construction administration of raw water intake pumping and piping systems, chemical feed systems, flow metering, sedimentation basins, filtration systems, disinfection, taste and odor control systems, finished water pumping and distribution, waste sludge pumping and discharge systems, and work on or crossing the Mississippi River Levee associated with the aforementioned utilities. Mr. Bonura's experience includes managing the multimillion-dollar multidisciplinary water treatment facility improvement project from inception to completion, including start-up and debugging of SCADA operations. He performed several water projects for Jefferson Parish, inclusive of but not limited to East Bank Water Treatment Plant Improvements, West Bank Water Treatment Plant Raw Water Intake Levee Crossing, Chemical Feed System, and the East Bank Water Treatment Plant Expansion. Mr. Bonura worked for 10 years for an international engineering firm specializing in water and wastewater treatment systems.

BBEC's staff has performed and managed design, bidding, construction (including inspector training and oversight), and as-built drawing phases of about \$50 million in Jefferson Parish Department of Public Works construction projects that included all aspects of construction similar to those in the project sought. BBEC's reputation for performance in Jefferson Parish is second to none.

Previous relevant projects completed by BBEC staff specifically for Jefferson Parish include:

- East Bank Water Treatment Plant Improvements, Jefferson Parish, LA
- East Bank Water Treatment Plant Expansion, Jefferson Parish, LA
- West Bank Water Distribution System Improvements, Jefferson Parish, LA
- Chemical Feed System, Jefferson Parish, LA
- Water Master Plan
- West Bank Water Treatment Plant Raw Water Intake Levee Crossing, Jefferson Parish, LA
- West Bank Water Treatment Plant 5MG Ground Storage Tank, Jefferson Parish, LA
- West Bank Water Treatment Plant Sludge Pumping Facilities, Jefferson Parish, LA

BBEC performed many other engineering projects for Jefferson Parish unrelated to water; therefore, they are not listed.

5. LOCATION OF PRINCIPAL OFFICE WHERE WORK WILL BE PERFORMED:

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BBEC's main office is located at 209 Canal Street in Metairie which is where the work will be performed.

6. ADVERSARIAL LEGAL PROCEEDINGS BETWEEN THE PARISH AND THE PERSON OR FIRM PERFORMING PROFESSIONAL SERVICES, IN WHICH THE PARISH PREVAILED, OR ANY ONGOING PROCEEDINGS BETWEEN PARISH AND THE PERSON OR FIRM:

BBEC's firm nor staff has had any litigation with Jefferson Parish.

7. PRIOR SUCCESSFUL COMPLETION OF THE PROJECTS OF THE TYPE AND NATURE OF THE ENGINEERING SERVICES, AS DEFINED, FOR WHICH FORM HAS PROVIDED VERIFIABLE REFERENCES:

As noted throughout this Professional Services Questionnaire, BBEC and its staff members have an excellent history of service to Jefferson Parish, its departments, and its citizens. Our projects range from the smallest \$5,000 fee project to our largest \$60,000,000 fee project. Project descriptions are included in this qualifications submittal to substantiate our experience in previous contracts. We invite further scrutiny of our track record with the Parish through discussion with any of the Departments noted elsewhere in this document. BBEC has not been faulted with any time delays, cost overruns, and / or design inadequacies.

For Jefferson Parish water projects completed or being completed by BBEC inclusive of East Bank Water Treatment Plant Improvements, East Bank Water Treatment Plant Expansion, West Bank Water Distribution System Improvements, and Chemical Feed System, we offer the following:

- **Mark Drewes, Director of Public Works • Jefferson Parish • 1221 Elmwood Park Blvd., Suite 904, Jefferson, LA. 70123 • 504-736-6783**
- **Michelle Gonzales, CFM Director of Ecosystem and Coastal Management • Jefferson Parish • 1221 Elmwood Park Blvd., Suite 310, Jefferson, LA. 70123 • 504-736-6653**
- **Jeb Tate, Director of Electronic Information Systems • Jefferson Parish • 1221 Elmwood Park Blvd., Suite 700, Jefferson, LA. 70123 • 504-736-6720**

For recent projects we have performed that have similar water project development aspects for other clients, we offer the following references:

- **Jacob O. Freeman, Director, Engineering • Central States Water Resources • 500 Northwest Plaza Drive, Suite 500, St. Ann, MO 63074 • 314-380-8598**
- **Chris Tissue, P.E., Director, Department of Utilities • St. Tammany Parish • 620 N. Tyler Street, Covington, LA 70433 • 985-893-1717**
- **Darrin Duhe, Chief Operating Officer • St. Charles Parish • 15045 River Road, Hahnville, LA 70057 • 985-783-5102**

To simplify the submittal, the following projects for BBEC are listed in section L:

- East Bank Water Treatment Plant Improvements, Jefferson Parish, LA
- Eden Isles Subdivision Drinking Water Systems Disinfection Improvements, St. Tammany Parish, LA
- Eden Isles Water Main Repair, St. Tammany Parish, LA
- The Meadows and Belair Subdivisions Drinking Water Systems Disinfection Improvements, St. Tammany Parish, LA
- East Bank Water Treatment Plant Expansion, Jefferson Parish, LA
- Modeling & Hydraulic Analysis of East St. Tammany Water Consolidation, St. Tammany Parish, LA
- Eden Isles Subdivision GAC Filter Improvements, St. Tammany Parish, LA

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- Diversified Water Well Pretreatment System, St. Tammany Parish, LA
- Laplace Water Intake Pump Station and Pre-Treatment Facility, St. John the Baptist Parish, LA
- Emergency Water Line and Valve Repair/Replacement Project, St. Bernard Parish, LA

Additional Relevant Project Listing (not in section L):

Water Treatment Plants Instrumentation and Controls Maintenance and Upgrades, Jefferson Parish, LA, 2009

For over 3 years, BBEC assisted the Department of Water set up and maintain its instrumentation system in both the East and West Bank Water Treatment Plants, including helping the Parish transfer controls from its older Bristol Babcock distributed control system (DCS) controllers to newer Siemens controllers. BBEC's duties included modifying panel ladder logic to adjust control schemes as desired by the Water Department, maintaining communications between the DCS controllers and the relays and sensors at the equipment, and communications between the DCS controllers and the LookOut software run computers in the control room and Parish-wide network.

During that period, BBEC also assisted the Parish by converting all of its SCADA software to Lookout v6.0 and v6.1. The following was included in the process:

- Installed new versions onto various department computers.
- Implemented the necessary computer network connections between the water treatment plants and other Parish buildings such as the main administration (Yenni) building.
- Converted all existing operation screens to work in the new software environment.
- Troubleshot I/O and memory problems with the RTUs during the conversion.
- Created new control schema and screens to update the SCADA system to then current operations.
- Identified, troubleshot, and repaired all non-working control schemes, including wiring and sensors and transmitters so that the instrumentation and control system work as desired by the department.
- Calibrated the control system to match actual measured values plant flow, chemical feed rates, etc.
- Adjusted automatic level control set points.
- Worked side by side with plant operators and managers during control system startup to ensure all systems worked properly.

BBEC also assisted in installing and setting up Lookout software for many of the Parish's end users in the Water and other Departments.

Clery Improvements (Veterans Blvd. to West Esplanade Ave.) (Council District 5), Public -Works No. 2017-014-RBP, Jefferson Parish, LA, 11/2017-11/2021

The project consists of the reconstruction of Clery Avenue between Veterans Boulevard and West Esplanade Avenue and includes drainage improvements.

As part of the roadway and drainage improvement project, BBEC performed the engineering services to design and construct 7 water line roadway crossings varying in size from 8-inch to 12-inch water mains. The roadway crossings included connecting to existing water mains with valves, tees, and other fittings as required.

West Bank Water Distribution System Improvements, Jefferson Parish, LA, 1999

BBEC served as Project Engineer for West Bank Distribution Improvements Jefferson Parish Project. The project included a water valve and hydrant replacement project, a water line replacement feasibility study, and a new water line construction project along Nicole Blvd. Mr. Bonura prepared plans and specifications for the valve and hydrant project and managed the project through construction. Mr. Bonura prepared the feasibility study and prepared the preliminary engineering design for the Nicole Blvd. waterline but changed employment

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before the design was completed.

Meadows Water System Improvements, St. Tammany Parish, LA, 01/2023-Present

The project includes assessment of the current water system and disinfection process for the Meadows Water System in Slidell, LA. The scope of work includes preparation of a preliminary engineering report, conducting water quality testing for color, iron, sodium, and TDS; analysis of testing results and development of improvement alternatives for water treatment upgrades. Improvements include water filtration upgrades, disinfection process upgrades, and water well site improvements.

Water Hydraulic Modeling in East St. Tammany Parish, 2023 Contract No. 23-048, St. Tammany Parish, LA, 04/2023-Present

St. Tammany Parish Government (Parish) retained Barowka and Bonura Engineers and Consultants (BBEC) to develop and analyze a computer model of existing potable water systems in Slidell, LA, as part of the Parish's East St. Tammany Water Consolidation Project Phase 2 (PPSL-VSF 23-19-5). This project has been phased into 3 tasks. The scope of Task 1 included development and calibration of an existing conditions model of the Cross Gates, Meadow Lake, and River Oaks water systems using WaterGEMS software. The model includes a detailed water distribution network including pipes, well pumps, storage tanks, valves, fittings, and fire hydrants, all based on site visits and information provided by St. Tammany Parish. Field testing was performed including fire hydrant flow and pressure tests to document system performance and calibrate and validate the water model to match field conditions. The existing conditions model was analyzed to determine water age/water quality, water pressure, and velocity parameters. Results of the model analysis and improvement recommendations were compiled in a report of findings. Task 2 of this project includes modeling and hydraulic analysis of the water system improvements, including two (2) new elevated storage tanks and several water main interconnections. Task 3 of this project includes updating, re-validating and calibrating the system model to reflect the water system improvements constructed.

Water Hydraulic Modeling in West St. Tammany Parish, 2023 Contract No. 23-042, St. Tammany Parish, LA, 04/2023-Present

St. Tammany Parish Government (Parish) retained Barowka and Bonura Engineers and Consultants (BBEC) to develop and analyze a computer model of existing potable water systems in West St. Tammany Parish, as part of the Parish's West St. Tammany Water Consolidation Project (PPSL-VSF 23-20-5). This project has been phased into 3 tasks. The scope of Task 1 included development and calibration of an existing conditions model of the Faubourg Coquille and Bedico Creek water systems using WaterGEMS software. The model includes a detailed water distribution network including pipes, well pumps, storage tanks, valves, fittings, and fire hydrants, all based on site visits and information provided by St. Tammany Parish. Field testing was performed including fire hydrant flow and pressure tests to document system performance and calibrate and validate the water model to match field conditions. The existing conditions model was analyzed to determine water age/water quality, water pressure, and velocity parameters. Results of the model analysis and improvement recommendations were compiled in a report of findings. Task 2 of this project includes modeling and hydraulic analysis of the water system improvements, including water main improvements to interconnect the Faubourg Coquille and Bedico Creek systems, and interconnect the Bedico Creek system to the Fox Branch Subdivision. New elevated storage tanks at the Bedico Creek water system and other areas were also assessed. Task 3 of this project includes updating, re-validating and calibrating the system model to reflect the water system improvements constructed.

Miscellaneous Water and Sewer Point Repairs, St. Bernard Parish, LA, 2005-2007

The project consisted of the rehabilitation of the existing water distribution system and the existing sanitary sewerage collection and conveyance system; including repair or replacement of existing water and sewer main pipe, replacement of service connections, fire hydrant adjustments, sterilization of water lines, and temporary and final restoration. BBEC developed plans and specifications for a unit price contract to repair the water distribution system, handled the project through bidding, and performed construction administration and

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resident inspection services through completion of the project. BBEC also assisted the Parish and FEMA in developing the project worksheet and preparing requests for reimbursement for the Parish.

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

Signature: Jeffrey Bonura Print Name: Jeffrey Bonura, P.E.

Title: Sole Member Date: June 21, 2024