Trigon

STATEMENT OF QUALIFICATIONS

Rehabilitation to the Neyrey & Veterans (F7-13) and Market & Sauve (D4-7) Lift Stations, SOQ No. 22–028

for Jefferson Parish

June 2022

Trigon Associates, llc
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June 30, 2022

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

Re: Rehabilitation to the Neyrey & Veterans (F7-13) and Market & Sauve (D4-7) Lift Stations, SOQ 22-028, Resolution No. 139102

Dear Council Members:

Trigon Associates, LLC (Trigon) is pleased to submit our Statement of Qualifications (SOQ) to Jefferson Parish (Parish) for the referenced work. Our submittal is in accordance with the advertised Request for Qualifications.

Trigon is a Louisiana Small Business Enterprise (SBE) and a woman-owned business specializing in providing engineering, consulting and management services. Our principals have over 125 years of combined experience with applicable municipal and public works projects, most of it from the sewer, water, drainage/stormwater and transportation areas, including significant experience with federal, state, and local grant programs. Trigon is qualified to perform and successfully complete sewer-related projects for the Parish, with a few of our key qualifications as follows:

- **Trigon's principals include two former Jefferson Parish employees, totaling over 15 years of experience with the Parish; one served in roles as the Sewerage Capital Improvements Program Manager, Assistant Director and Acting Director within the Department of Sewerage.**
- Trigon's principals and staff are experienced program managers, design managers, construction managers, and engineers from multiple capital improvement programs, particularly sewer.
- Professional engineers registered in Louisiana, Alabama, Arkansas, California, Florida, Mississippi, New York, Oklahoma, Texas, Virginia, and Washington, DC.
- Experienced with planning, engineering, design, construction inspection, construction management and certification efforts of sewer projects.

We appreciate the opportunity to submit our SOQ and look forward to further developing Trigon's relationship with the Parish through successful projects. Should you require additional information during your evaluation, please do not hesitate to contact us.

Sincerely,

Michelle Herbert
Chief Executive Officer

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

Rehabilitation to the Neyrey & Veterans (F7-13) and Market & Sauve (D4-7) Lift Stations

SOQ 22-028, Resolution No. 139102

B. Firm Name & Address:

Trigon

Trigon Associates, llc
1515 Poydras Street, Suite 930
New Orleans, LA 70112

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

Gregory A. Kolenovsky, PE, PMP, PgMP – Vice President/Principal-in-Charge (LA Professional Civil Engineer#30266)
Trigon Associates, llc
1515 Poydras Street, Suite 930
New Orleans, LA 70112
P: 504.585.5767 F: 504.585.5747
gkolenovsky@trigonassociates.com

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

SAME AS ITEM C.

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

4 Administrative	___ Estimators	___ Specification Writers
1 Architects (Licensed)	2 Geologists	2 Structural Engineers
___ Chemical Engineers	___ Geotechnical Engineers	___ Graduate Engineers
12 Civil Engineers	___ Interior Designers	3 Project Managers
7 Construction Inspectors	1 Landscape Architects	___ Clerical
___ Ecologists	___ Land Surveyor	1 Grant/Funding Specialist
2 Electrical Engineers	2 Mechanical Engineers	___ Sanitary Engineers
___ Engineer Intern	3 Environmental Engineers	16 Other
___ Professional Land Surveyors		**56 TOTAL**

F. Is this submittal a JOINT-VENTURE? Please check: YES _____ NO ___X___

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

TEC Professional Services Questionnaire

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

1. N/A

2.

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

YES _____ NO _____

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

Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
Should there be a need for services outside of Trigon's offerings, we will seek approval in advance from the Parish before subcontracting any portion of the work.		

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

N/A

TEC Professional Services Questionnaire

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

PROFESSIONAL IN CHARGE OF PROJECT:

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Greg Kolenovsky, PE, PMP, PgMP

Vice President

Project Assignment:

Principal-in-Charge

Name of Firm with which associated:

Trigon

Years' experience with this Firm:

13

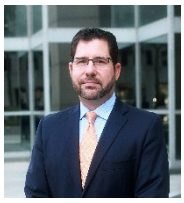
Education: Degree(s)/Year/Specialization:

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

Active registration: Year first registered/discipline:

2002, Civil Engineer, Louisiana (also registered in AL, AR, FL, MS, OK, TX and D.C.)
2005, Project Management Professional (PMP), Project Management Institute
2010, Program Management Professional (PgMP), Project Management Institute

Other experience and qualifications relevant to the proposed Project:



Mr. Kolenovsky has over 25 years of planning; design; and project, program and construction management experience. He has significant experience in the management of sewer, water, drainage, and transportation projects and capital improvement programs, having served in various technical and management roles on multiple programs. Mr. Kolenovsky's experience includes system analysis, troubleshooting and computer modeling of hydrologic and water resource systems, as well as engineering and design of various treatment, storage, and distribution projects. He has managed and executed a number of disaster recovery and hazard mitigation projects, including many related to sewer and water systems. Mr. Kolenovsky excels in project and program management and is certified as both a Project Management Professional (PMP) and Program Management Professional (PgMP) by the Project Management Institute, one of only approximately a few thousand PgMPs worldwide and one of a few in the State of Louisiana.

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

Jefferson Parish
State of Louisiana

Kolenovsky, continued.

Other experience and qualifications relevant to the proposed Project:

East Bank Wastewater Treatment Plant Return Activated Sludge (RAS) Pipeline and Pump Station Modifications, New Orleans, LA. Principal-in-Charge for Trigon's efforts for design of modifications to the discharge header in the North RAS Pump Station and replacement of the associated RAS pipeline to the raw sewage channel at the S&WB's 200 MGD East Bank WWTP. Also included permanent relocation of the infrastructure where sludge from the West Bank WWTP is received and processed.

FY 12 Sewer Pump Station Rehabilitation, Slidell, LA. Review and QA/QC for design of rehabilitation/replacement measures to six (6) sewer stations and associated force mains. Five were converted from suction-lift to submersible stations, and an existing submersible station was rehabilitated. Design included hazard mitigation items such as elevating electrical/controls above flood elevation. This work was funded by an EPA grant through the Lake Pontchartrain Basin Restoration Program.

FY14 Sewer System Rehabilitation; Slidell, LA. Project Manager for this project to reduce contamination in the Bayou Bonfouca and Bayou Vincent drainage basins caused by infiltration and inflow (I/I) and sanitary sewer overflows (SSOs), which end up in Lake Pontchartrain. A range of assessment and evaluation methods were used, including manhole inspections, smoke testing and CCTV inspection of gravity sewer lines. This work was partially funded by an EPA grant through the Lake Pontchartrain Basin Restoration Program.

Sewage Lift Station No. 24 Improvements; Buras, LA. Project manager/engineer for investigation and assessment of a three-pump, submersible sewage lift station damaged as a result of Hurricane Katrina. Flooding damaged various components, including, among other things, the power supply, electrical and controls systems, piping and valves. Developed physical improvement and capacity upgrade recommendations.

Hurricane Harvey Disaster Recovery for Wastewater Lift Stations; City of Houston, TX. Provided QA/QC review for detailed asset inventories, damage assessments, and documentation for 36 lift stations damaged during the Hurricane Harvey disaster. As the prime consultant, Trigon was responsible for overall project management and ensuring compliance with state and federal reimbursement guidelines. Trigon was also serving as a subconsultant providing similar services for 65 other lift stations throughout the City.

Al Yamoun and Qabatia Wastewater Treatment Plants, Lift Stations and Collection Systems, West Bank. Oversaw Trigon's efforts on the design of two (2) new wastewater treatment plants and associated sewage collection systems. The WWTPs will have capacities of approximately 5 MGD and 7 MGD, respectively. Primary process units designed by Trigon for each plant included influent pump stations, headworks, grit removal and classification, chlorine contact basins and effluent disc filters.

South Shore Basin Sewer Rehabilitation Design, New Orleans, LA. Served as technical advisor and Principal engineer on the design of multiple projects for the rehabilitation of sanitary sewerage facilities, including, manholes, gravity sewers and laterals via various trenchless and traditional excavated methods. This project resulted in approximately $10-$15 million in sewer rehabilitation construction.

Braithwaite WWTP and Lift Station Improvements; Plaquemines Parish, LA. Project Manager for engineering, design and construction services on this project, which generally included replacing an existing WWTP damaged by Hurricane Katrina and repairing associated lift stations.

Jefferson Parish
Start at Louisiana

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Regina Cassanova, PE
Principal Engineer

Project Assignment:

Principal Engineer/Project Manager

Name of Firm with which associated:

Trigon

Years' experience with this Firm:

11.5

Education: Degree(s)/Year/Specialization:

BS in Civil Engineering, University of New Orleans, 2003

Active registration: Year first registered/discipline:

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

Other experience and qualifications relevant to the proposed Project:

Ms. Cassanova is a Professional Engineer with 21 years of experience in the planning, engineering, design and construction of municipal sewer and water systems and treatment facilities. She has significant experience with lift stations, pumping stations, collection/distribution systems, water treatment plants and wastewater treatment plants, including process design, mechanical design and general civil engineering. Her treatment experience also includes the design of processes/facilities for recycled water from wastewater treatment plant effluent. Prior to joining Trigon, she served as a process engineer for two (2) internationally recognized engineering firms within a Membrane National Technology Practice Group for one and a Water/Wastewater Treatment Plants specialty group for the other. Additional skills include project management of planning, assessment, design and construction projects, and program management related to regulatory agencies' requirements for wastewater collection system improvements and capital improvement programs. In addition to her water and wastewater experience, she has worked on numerous projects involving drainage/storm water, roads, buildings and facilities and general program management.

RELEVANT PROJECT EXPERIENCE

Braithwaite WWTP and Lift Station Improvements; Plaquemines Parish, LA. Project Engineer for engineering, design and construction services on this project, which generally included replacing an existing WWTP damaged by Hurricane Katrina and repairing associated lift stations.

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

Jefferson Parish State of Louisiana

Cassanova, continued.

Other experience and qualifications relevant to the proposed Project:

Improvements to Multiple Sewage Pumping/Lift Stations, Shreveport, LA. Design and construction services for the upgrade of two (2) sewage pumping stations. Agurs will be a 3-pump station with firm capacity of 3,000 gpm (4.3 MGD), and the station discharges through 8,000' of 24" force main. Lucas is a 3-pump station with firm capacity of 20,000 gpm (29 MGD), and the station discharges to a 48" force main that manifolds with other stations. Pumps in both stations are driven by VFDs. Permanent bypass structures were also being constructed at both stations to allow flow to be diverted around the stations. Included preparation of comprehensive O&M manuals for both stations.

FY 12 Sewer Pump Station Rehabilitation, Slidell, LA. Project Manager for the design of rehabilitation/replacement measures to six (6) sewer stations and associated force mains. Five were converted from suction-lift to submersible stations, and an existing submersible station was rehabilitated. Design included hazard mitigation items such as elevating electrical/controls above flood elevation. This work was funded by an EPA grant through the Lake Pontchartrain Basin Restoration Program.

Hurricane Harvey Disaster Cost Recovery for Wastewater Lift Stations; City of Houston, TX. Ms. Cassanova served as Senior Project Manager providing professional engineering services related to detailed asset inventories, damage assessments, and documentation for 36 lift stations damaged during the Hurricane Harvey disaster. As the prime consultant, Trigon was responsible for overall project management and ensuring compliance with state and federal reimbursement guidelines. Trigon also served as a subconsultant providing similar services for 65 other lift stations throughout the City.

Katrina-Related Sewer System Repairs, Slidell, LA. Project to develop construction specifications and drawings for repairs to gravity sewers throughout the City. Rehabilitation measures include excavated point repairs and cured-in-place pipe lining.

South Shore Basin Sewer Rehabilitation Design, New Orleans, LA. Design of multiple projects for the rehabilitation of sanitary sewerage facilities, including, manholes, gravity sewers and laterals via various trenchless and traditional excavated methods. The project resulted in approximately $10-$15 million in sewer rehabilitation construction.

Modifications to Return Activated Sludge PS and Pipeline, New Orleans, LA. Project manager and engineer of record for the design of modifications to the discharge header in the North RAS Pump Station and replacement of the associated RAS pipeline to the raw sewage channel at the Sewerage and Water Board of New Orleans' 200 MGD East Bank Sewage Treatment Plant. The RAS pipeline had experienced an unexpected breakage and the work was performed in an expedited manner to address the emergency situation. Also included permanent relocation of the infrastructure where sludge from another WWTP is received for treatment.

Multiple Pump Station (Highland Road – Kenilworth Parkway) Rehabilitation Project, City of Baton Rouge and Parish of East Baton Rouge, LA. Ms. Cassanova was the project manager/engineer for the City of Baton Rouge Multiple Pump Station (Highland Road – Kenilworth Parkway) Rehabilitation Project which was a part of the Baton Rouge SSO Program. The project included the rehabilitation of nine pump stations ranging in size from 375 to 5,150 gallons per minute (gpm) and design of two new pump stations with flows up to 9,725 gpm. Ms. Cassanova coordinated the design between four offices and four subconsultants. Opinion of Probable Construction Cost: $10,000,000

Sewer System Evaluation and Rehabilitation Program, Sewerage and Water Board of New Orleans, LA. Assisted in execution of the $630M EPA-mandated SSERP for the S&WB. Assisted Resident Engineers managing 11 construction contracts totaling $23M in sewer rehab, which also included significant coordination with the City's DPW for restoration.

Jefferson Parish State of Louisiana

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Lisbeth Nagrath, PE
Senior Engineer

Project Assignment:

Project Manager

Name of Firm with which associated:

Trigon

Years' experience with this Firm:

8.5

Education: Degree(s)/Year/Specialization:

MS in Civil Engineering, University of New Orleans, 2007
BID in Interior Design, Louisiana State University, 2000
BA in Art History, University of Texas at Austin, 1997

Active registration: Year first registered/discipline:

2011, Civil Engineer, Louisiana

Other experience and qualifications relevant to the proposed Project:

Ms. Nagrath is a Professional Engineer with over 17 years experience that includes a range of design and civil/environmental engineering. She has worked on a variety of municipal infrastructure projects and facilities, including water distribution systems, wastewater collection systems, pump/booster stations and water/wastewater treatment plants. Additionally, Ms. Nagrath is experienced with environmental assessments, permitting and regulatory compliance matters.

RELEVANT PROJECT EXPERIENCE

Retrofit Power Plant Hazard Mitigation Grant Program (HMGP) Project, New Orleans, LA. Project Engineer for Trigon's efforts on this project, which included upgrades to allow the S&WB to produce power independently from the local energy provider and maintain reliable operations of the Carrollton Water Treatment Plant and other facilities such as sewer and drainage pump stations located throughout the City, therefore mitigating disruptions to the power system and the potable water supply service to the City. Project involved repairs and upgrades to critical facilities such as generators, fuel storage tanks, boilers, turbines and electrical instrumentation and controls. Trigon's involvement included design, engineering services, construction management and inspection for several of the nine contract packages, including the design-build project for S&WB power distribution feeders, hardening of fuel tank and delivery system, power plant generator retrofit, steam turbine generator load bank testing, and local electrical feeder installation. Ms. Nagrath served as Project Manager for the fuel tank and delivery system hardening project.

Jefferson Parish State of Louisiana

Nagrath, continued.

Other experience and qualifications relevant to the proposed Project:

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

FY12 Sewer Pump Station Rehabilitation; Slidell, LA. Project Engineer for rehabilitation/replacement measures to six (6) sewer stations. Five were converted from suction-lift to submersible stations, and an existing submersible station was rehabilitated. Design included hazard mitigation items such as elevating electrical/controls above flood elevation. Construction was completed recently in Summer of 2015.

Improvements to Multiple Sewage Pumping/Lift Stations; Shreveport, LA. Design support and construction phase services for the upgrade of two (2) sewage pumping stations. Agurs was upgraded to a 3-pump station with firm capacity of 3,000 gpm (4.3 MGD), and the station discharges through 8,000' of 24" force main. Lucas is a 3-pump station with firm capacity of 20,000 gpm (29 MGD), and the station discharges to a 48" force main that manifolds with other stations. Pumps in both stations are driven by VFDs, and Lucas has an on-site bar screen and odor control system. Permanent bypass structures were constructed at both stations to allow flow to be diverted around the stations, if necessary. Ms. Nagrath prepared comprehensive O&M manuals for the stations, including operating procedures for the City's operators.

East Bank Wastewater Treatment Plan Return Activated Sludge Pipeline and Pump Station Modifications; New Orleans, LA. Lead Project Engineer for design of modifications to the discharge header in the North RAS Pump Station and replacement of the associated 30-inch RAS pipeline to the raw sewage channel at the S&WB's 200 MGD EBSTP. Also included permanent relocation of the infrastructure where sludge from the WBSTP is received.

Carrollton Basin Sewer Rehabilitation Design and Permitting, Sewerage & Water Board of New Orleans, LA. As Project Engineer, Ms. Nagrath coordinated the preparation of contract documents for 16 construction packages, which included comprehensive rehabilitation of gravity sewers by point repairs, service repairs, full line replacements, cured-in-place-pipe (CIPP) lining, and manhole rehabilitation. Efforts included GIS coordination, review of CCTV inspection data, defect coding, data analysis, conflict evaluation, quantity calculations, cost estimating, and construction contract document preparation. Additionally, Ms. Nagrath led permitting efforts for the 16 construction packages, which included Department of Public Works Service Cuts Permits and Orleans Levee District Permits. This work also included coordinating with Entergy and Cox Communications for utility reviews.

Sewer System Evaluation and Rehabilitation Program, New Orleans, LA. Project Manager for inspections and hydraulic testing of 75 S&WB sewage pumping stations.

South Shore Basin and Ninth Ward Basin Sewer Rehabilitation Design; New Orleans, LA. Design and construction phase services for the rehabilitation of sewer facilities in two sewerage basins of New Orleans – the South Shore Basin and the Ninth Ward Basin.

East Bank WWTP Effluent Pump Station Improvements; New Orleans, LA. Project Manager for the engineering, design and construction phase services for this project that involves improvements to Effluent Pump Station Modifications at the Sewerage & Water Board's 200 MGD East Bank Wastewater Treatment Plant (EBWWTP).

Jefferson Parish State of Louisiana

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Archana Sharma, PE, ENV SP, LEED AP
Project Manager/Sr. Environmental Engineer

Project Assignment:

Senior Engineer/Project Manager

Name of Firm with which associated:

Trigon

Years' experience with this Firm:

3

Education: Degree(s)/Year/Specialization:

MS, 2007, Environmental Engineer, University of Houston
B. Tech, 2005, Chemical Engineering, Sri Venkateswara College of Engineering, Anna University, India

Active registration: Year first registered/discipline:

2010, Professional Engineer, Texas License No. 107725
Envision Sustainability Professional
Leadership in Energy and Environmental Design (LEED) Accredited Professional

Other experience and qualifications relevant to the proposed Project:

Ms. Sharma has over 14 years of experience as an Environmental Engineer and Project Manager, specializing in water and wastewater infrastructure projects. She holds a Bachelor's degree in Chemical Engineering from Anna University in India, as well as a Masters degree in Environmental Engineering from the University of Houston. Archana is a licensed Professional Engineer and a Leadership in Energy and Environmental Design Accredited Professional (LEED AP). Her project experience includes design and construction phase services for collection/distribution systems, pumping stations, water treatment plants and wastewater treatment plants, including process design, mechanical design and general civil engineering. She also has experience in the design of processes/facilities for reclaimed water from wastewater treatment plant effluent. She is well versed with regulatory requirements and has experience in developing permit applications and related documents and coordinating with the agencies for project permitting needs.

RELEVANT PROJECT EXPERIENCE

Hurricane Harvey Disaster Recovery for Wastewater Lift Stations; City of Houston, TX. Project Manager. Ms. Sharma served as Project Manager and Lead Engineer providing professional engineering services related to detailed asset inventories, damage assessments, and documentation for 36 lift stations damaged during the Hurricane Harvey disaster. As the prime consultant, Trigon was responsible for overall project management and ensuring compliance with state and federal reimbursement guidelines. Trigon also served as a subconsultant providing similar services for 65 other lift stations throughout the City.

Jefferson Parish State of Louisiana

Sharma, continued.

Other experience and qualifications relevant to the proposed Project:

Northeast Turtle Bay Marsh Creation & Critical Area Shoreline Protection Project; Lafitte, LA. Environmental Engineer. Providing design and engineering for this coastal restoration project assigned as a task order under an IDIQ contract with the US Dept. of Agriculture-Natural Resources Conservation Service. The intent of the project is to protect the critical reaches of shoreline on the Northeast side of Turtle Bay and protect current channels from erosion and widening. The project involves marsh creation, shoreline protection utilizing borrow material from Turtle Bay, and channel liners to protect current channels from erosion and widening. numerous driveways and access roads into private property.

Disaster Mitigation for Wastewater Facilities Induced by Hurricane Harvey, Package 1 – Kingwood Area; City of Houston, TX. Ms. Sharma served as Project Manager for Trigon providing professional engineering services as a subconsultant related to consolidation options for wastewater treatment plants and collection systems in the Kingwood service area. The study area was comprised of three (3) wastewater treatment plants (WWTP), forty-four (44) lift stations (LS), two hundred and sixty-nine (269) miles of gravity sewers and twenty-two (22) miles of sanitary sewer force mains. In addition to managing Trigon's effort on the project, Ms. Sharma prepared preliminary engineering plans for new force mains to convey wastewater from existing Kingwood West WWTP (2 MGD), also known as the MUD #48 WWTP, and the Forest Cove WWTP (0.95 MGD) to the Kingwood Central Lift Station that pumps wastewater to the Kingwood Central WWTP (7 MGD). This consolidation option allows for elimination/decommission of Kingwood West and Forest Cove WWTP. Ms. Sharma developed plans, preliminary engineering report and Opinion of Probable Construction Cost Estimates (Class 5) for the project. Ms. Sharma also performed a review of applicable codes and regulations and hydraulic calculations for force main design to meet TCEQ velocity criteria for permitted capacity.

Magnet and Westpark Lift Station Lift Station Renewal and Replacement Design, City of Houston; Houston, TX. Ms. Sharma served as a Lead Engineer and Engineer of Record for design of lift station improvements. She also served as the task manager and point of contact for interdisciplinary coordination among engineering support staff, vendors, sub-consultants and the client.

Lift Station Renewal and Replacement, City of Houston; Houston, TX. Ms. Sharma served as the project engineer for evaluating options for Rehabilitation / Conversion / Replacement for lift stations. She performed overall condition assessment and hydraulic capacity evaluation of the lift station and associated sanitary sewers and force mains to develop recommendations. She prepared Life cycle cost analysis for the alternatives to determine the most cost-effective recommendation.

Lift Station Abandonment and Diversion, City of Houston; Houston, TX. Ms. Sharma served as a Lead Engineer responsible for construction coordination. She reviewed vendor submittals and shop drawings, facilitated Requests for Information (RFIs) and created change order requests during construction.

Banner Lift Station Replacement Design and Sanitary Sewer and Water Line Design; Houston, TX. This project was developed due to TxDOT road widening project that required lift station relocation and improvements and relocation of sanitary sewer and water lines. Ms. Sharma served as Lead Engineer and Engineer of Record for design of water and sanitary sewer lines, and lift station improvements. Served as the task manager and point of contact for interdisciplinary coordination among engineering support staff, vendors, sub-consultants and with the client.

Wastewater Treatment Plant Improvements, Bridgestone Municipal Utility District; Houston, TX. Ms. Sharma served as the Project Manager and Engineer of Record for design of miscellaneous improvements at an existing wastewater treatment plant and onsite lift station. Responsible for designing the lift station bypass system necessary for the improvements, preparing sealed plans and specifications and bidding and construction coordination.

Jefferson Parish State of Louisiana

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Erin Lyons-Villatoro, PE
Project Engineer

Project Assignment:

Project Engineer

Name of Firm with which associated:

Trigon

Years' experience with this Firm:

6

Education: Degree(s)/Year/Specialization:

MS in Civil Engineering, Arizona State University, 2005
BS in Agricultural Engineering, Texas A&M, 2003

Active registration: Year first registered/discipline:

2010, Civil Engineer, Texas

Other experience and qualifications relevant to the proposed Project:

Ms. Lyons-Villatoro is a Civil engineer with 15 years experience. She has been responsible for process design, mechanical design and civil engineering, collaborating with multidisciplinary teams on municipal infrastructure projects, including drainage, water treatment facilities, water transmission systems, and sewer systems. Ms. Lyons-Villatoro is also experienced in water system evaluation, chemical storage and delivery systems, low-pressure membrane systems, groundwater well design, water resources projects, and detailed project cost estimating.

RELEVANT PROJECT EXPERIENCE

East 9th Avenue Lift Station, Covington, LA. Project Engineer for this project that consisted of replacing/converting an existing suction-lift sewage pumping station to a submersible pump station.

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

Jefferson Parish

Lyons-Villatoro, continued.

Other experience and qualifications relevant to the proposed Project:

Hurricane Harvey Disaster Cost Recovery for Wastewater Lift Stations; City of Houston, TX. Serving as Project Engineer providing professional engineering services related to detailed asset inventories, damage assessments, cost estimation and documentation for 36 lift stations damaged during the Hurricane Harvey disaster. As the prime consultant, Trigon is responsible for overall project management and ensuring compliance with state and federal reimbursement guidelines. Trigon is also serving as a subconsultant providing similar services for 65 other lift stations throughout the City.

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

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

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

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

Multi-Chemical Delivery and Storage System Evaluation; Houston, TX. Evaluated existing chemical storage and delivery system at 350 MGD WTP and prepared preliminary engineering report assessing system compliance with regulatory requirements and condition of system components.

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

Water Line Replacement Program, New Orleans, LA. Engineering, design and construction services in a sub-consultant role for water line improvements in six separate design and construction projects. Also includes street repair and restoration efforts, replacement of drainage and sewer systems in accordance with City, Federal DOT and other local agency requirements. $11.5M to $17.5M of water line construction will occur.

Jefferson Parish State of Louisiana

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Barry Breaux, PE
Environmental/Civil Engineer

Project Assignment:

Project Engineer

Name of Firm with which associated:

Trigon

Years' experience with this Firm:

5

Education: Degree(s)/Year/Specialization:

BS in Environmental Engineering, Louisiana State University, 2017

Active registration: Year first registered/discipline:

2022, Professional Engineer, Louisiana

Other experience and qualifications relevant to the proposed Project:

Mr. Breaux is an environmental engineer with over 7 years of experience, including research, internships and design competitions prior to his joining Trigon in 2017. He has worked on a variety of environmental laboratory, testing, sustainability, and design projects; a sampling of which include: BP Deep Water Horizon Oil Spill sampling, a Bioretention Bed at the New Orleans City Park for the Louisiana Department of Environmental Quality, Sustainability Projects in the Amazon Rainforest, and serving as Project Manager/Lead for a 2017 IEE/WERC International Design Competition team from LSU that designed, built and operated a Passive Solar Distillation system. He is a licensed PE in Louisiana, a member of the Louisiana Water Environmental Association, the National Society of Collegiate Scholars, and Engineers Without Borders.

RELEVANT PROJECT EXPERIENCE

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

Buras Wastewater Treatment Plant Improvements; Buras, LA. Mr. Breaux provided support to the engineering team for an assessment of the Buras Wastewater Treatment Plant (WWTP) in Plaquemines Parish, LA. This assessment was intended to determine the necessary repairs, rehabilitation measures and/or process modifications required to improve operational conditions of the WWTP.

Breaux, continued.

Other experience and qualifications relevant to the proposed Project:

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

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

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

LSU Department of Environmental Quality; Baton Rouge, LA. While serving as an intern in the LSU Department of Environmental Quality under the direction of Dr. John Pardue, Mr. Breaux performed various laboratory tasks including: sample collection, sample analysis, DNA extraction and analysis of BP Deep Water Horizon oil spill samples, and database management. He also assisted in the design and construction of a bioretention bed for the New Orleans City Park and served as project lead for an international design competition team focusing on passive solar distillation.

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

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

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

Jefferson Parish State of Louisiana

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Wagner Enrique
Designer

Project Assignment:

CADD

Name of Firm with which associated:

Trigon

Years' experience with this Firm:

9.5

Education: Degree(s)/Year/Specialization:

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

Active registration: Year first registered/discipline:

N/A

Other experience and qualifications relevant to the proposed Project:

Mr. Enrique has over 25 years of experience using AutoCAD and Microstation to develop detailed construction drawings, topographical profiles, related maps and specifications used in planning and construction of civil and structural engineering projects, including features related to water & wastewater infrastructure, flood control/protection, drainage, navigation, bridges and roadways. Besides acting in a designer role to support engineers in the preparation and/or review of drawings, sketches, maps, specifications, and other engineering data, he has also provided construction inspection services, ensuring that contract documents were adhered to during construction. Other construction-related support that he has provided includes general QA, compliance monitoring, quantity verification, documentation, CAD and working plans/drawings during construction.

RELEVANT PROJECT EXPERIENCE

East 9th Avenue Lift Station; Covington, LA. Designs for the removal of the existing lift station pumps, rehabilitation of the wet well, installation of two (2) new submersible pumps, upgrades to the control panel and various site improvements such as new perimeter fencing and site lighting.

Jefferson Parish State of Louisiana

Enrique, continued.

Other experience and qualifications relevant to the proposed Project:

FY 12 Sewer Pump Station Rehabilitation; Slidell, LA. Design of rehabilitation/replacement measures to six (6) sewage pumping stations. Five were converted from suction-lift to submersible stations, and an existing submersible station was rehabilitated. Design includes hazard mitigation items such as elevating electrical/controls above flood elevation. This work was federal grant funded.

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

South Shore Basin Sewer Rehabilitation Design; New Orleans, LA. Project included design of multiple projects for the rehabilitation of sewer facilities in the South Shore Basin of the City, including manholes, small and large-diameter gravity sewers and service laterals via various trenchless and traditional excavated methods.

Water Line Replacement Program – Lakeview Neighborhood, Groups 1 and 2; New Orleans, LA. Engineering, design and construction services for water line improvements in two separate design and construction projects. Also includes street repair and restoration efforts, replacement of drainage and sewer systems in accordance with City, Federal DOT and other local agency standards/requirements.

FEMA-Funded Water Line Replacement Program; New Orleans, LA. Design services for FEMA-funded Water Line Replacement Program within five (5) different areas of the city. Construction is underway in one area, design is ongoing in three, and design is anticipated to start in the remaining area later this year. Approximately $12M to $15M of construction is anticipated in these areas. Trigon represented the owner for all work within these areas.

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

Highway 11 Water Line Improvements; Buras, LA. Included design, bid support and construction phase services for installation of 2,000' of new 8" PVC water main to replace an old cast iron water main. Pedestrian improvements funded by a federal grant were implemented following the utility work. Various public facilities (e.g., library, auditorium, school and fire station), commercial developments and residential properties are being served by these improvements.

East 70th Street (Creswell Road to E. Ridge Drive) Water Main Relocation; Shreveport, LA. Design of improvements to transfer all existing water connection and private metered service lines from an existing 3,500 LF 8-inch water main on East 70th Street to an existing parallel 20-inch water main. The existing 8-inch main is being abandoned in place. Also included replacement of approximately 2,000 LF of 20-inch water main by excavation and trenchless installation. The utility relocation design was performed in coordination with a LA DOTD roadway project to widen E. 70th Street (SP102-02-0031).

Jefferson Parish
State of Louisiana

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Paul Fleming

Construction Inspector

Project Assignment:

Construction Management and Inspection

Name of Firm with which associated:

Trigon

Years' experience with this Firm:

8

Education: Degree(s)/Year/Specialization:

Delgado Community College, General Studies
University of New Orleans, Environmental Engineering

Active registration: Year first registered/discipline:

Other experience and qualifications relevant to the proposed Project:

Mr. Fleming has 25 years of experience in the construction industry in the New Orleans metropolitan area for multiple water and wastewater projects, including construction/contracting, contractor oversight and resident inspection/quality assurance. He has significant experience with development and public infrastructure projects, including many involving water, sewerage and drainage infrastructure and facilities. Mr. Fleming was also previously in the US Army for five years, during which he was selected for the Air Borne Ranger Battalion.

RELEVANT PROJECT EXPERIENCE

Sewer Pump Stations Testing, New Orleans, LA. Mr. Fleming was part of a team that performed field testing for a total of 75 sewage pumping stations throughout New Orleans, the results of which were used to develop pump curves for each station for use in updating and re-calibrating an existing hydraulic model. He coordinated with Sewerage and Water Board Operations staff, followed field safety procedures, operated testing equipment and recorded testing results for use in generating the pump curves.

Sewer System Evaluation Rehabilitation Program (SSERP); New Orleans, LA. As Resident Field Inspector for multiple wastewater projects, supervised daily construction activities, ensuring compliance with approved traffic plans. Reviewed, pre-construction videotapes prior to the start of construction, reviewed pre/post CCTV construction videos, verified accuracy of repair locations and approved material for use in construction, verified delivery of public notices to resident in a timely manner prior to the start of construction, communicated with customers to answer questions and resolve complaints, enforced traffic plans and approved contractor payments, ensured that contractor's work did not adversely affect resident and/or residents property.

Jefferson Parish
State of Louisiana

Fleming, continued.

Other experience and qualifications relevant to the proposed Project:

Hazard Mitigation Grant Program (HMGP) Emergency Fuel Storage System at the Main Water Purification Plant Power Complex, Sewerage and Water Board of New Orleans, LA. Served as Onsite Construction Inspector for the installation of two (2) 522,000 gallon above-ground diesel storage tanks and containment area; delivery system comprised of one (1) 15,000 gallon day tank, piping, and valves; ancillary equipment for fuel polishing, fire suppression, and oil-water separation; associated electrical, mechanical, and controls systems; and selective demolition of existing system.

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

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

Hazard Mitigation Wind Retrofit of Parish-Owned Facilities, Plaquemines Parish, LA. Mr. Fleming provided field inspection efforts on this project to document the status of repairs/improvements to 30 Parish-owned buildings/facilities being hardened to withstand hurricane force winds.

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

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

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

Jefferson Parish State of Louisiana

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:	
1. FY12 SPS Rehabilitation; Slidell, LA City of Slidell Blaine Clancy, PE – City Engineer 985.646.4270 	Trigon was selected by the City of Slidell as the Prime Engineer for the assessment, design and construction of improvements of six (6) sewer pump stations. Five (5) were converted from suction-lift to submersible, while one (1) was an existing submersible that was fully rehabilitated. The wet wells of each station were renovated and coated in accordance with the City's standards and preferences. Replacement of the mechanical systems, electrical and control systems, and various site improvements was included. Electrical and control systems for the new stations were set above flood stage to mitigate the potential for damage and discharges due to future flood events. Trigon provided the following general services: design of improvements, site visits to verify field conditions and preparation of contract documents; bid phase services for the construction contract; construction phase services, including the pre-construction conference, technical review of submittals, responding to RFIs, and closeout procedures. The project is funded via a federal grant from the US EPA through the University of New Orleans and Lake Pontchartrain Basin Foundation.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2015 (actual)	$850k	$850k

PROJECT NO. 2

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
2. E. 9th Avenue Lift Station Improvements; Covington, LA City of Covington Daniel P. Hill, PE – [Fmr]City Engineer 985.464.4270 	Trigon was selected by the City of Covington as the prime engineer for improvements to the E. 9th Avenue Lift Station (LS#4). This particular station was one of the City's oldest lift stations, and though it appeared to have sufficient hydraulic capacity, it is in need of various improvements. The project generally consisted of replacing the current station, converting it from a suction-lift arrangement to a submersible station, and improving the site for better operability, ease of maintenance and up-time in the event of an emergency. Efforts included site surveying, preliminary and final design, bidding and construction phase services associated with the removal of the existing lift station pumps, rehabilitation of the wet well, installation of two (2) new submersible pumps, upgrades to the control panel and various site improvements such as new perimeter fencing and site lighting. The new pumps were selected to provide consistency and standardization with other City lift stations, thereby improving maintenance requirements.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2018 (Actual)	$381k	$381k

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

PROJECT NO. 3

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
3. Effluent Force Main Evaluation/Study for WWTP No. 3; Kenner, LA City of Kenner – Lainey Rivera, PE Sewer Program Manager (Consultant) 504.468.6129 	Trigon was selected by the City of Kenner to perform concept phase services to identify and evaluate alternatives to enhance the reliability of the existing effluent force main through which treated wastewater is discharged from the Kenner Wastewater Treatment Plant No. 3 (WWTP) to the Mississippi River (River). The existing effluent force main was 48-inches in diameter and approximately 30 years old. The Effluent Pump Station within the WWTP was in the process of being upgraded and was intended to modify the pumping strategy to the effluent force main. The area of greatest concern along the force main route was where it travels under the Louis Armstrong New Orleans International Airport property, particularly an active runway. Through this force main study project, Trigon evaluated alternatives that would minimize the likelihood of and need for an emergency shut-down of the Airport operations.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2017 (Actual)	$75k	$75k

PROJECT NO. 4

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
4. East Bank Wastewater Treatment Plant RAS Line and Pump Station Modifications; New Orleans, LA Sewerage and Water Board of New Orleans Felicia Bergeron, PE Environmental Engineer 504.865.0438 	Trigon was selected to perform emergency design services for this project that involved improvements to Return Activated Sludge (RAS) facilities at the Sewerage & Water Board's 200 MGD East Bank Wastewater Treatment Plant (EBWWTP). One of two old 30-inch RAS lines ruptured in close proximity to two large clarifiers, causing the S&WB to install an above-grade temporary line on an emergency basis to maintain RAS operations. This project consisted of installing a new below-grade 30-inch PVC RAS line along a different alignment, which was supported by pile structures due to poor ground conditions at the WWTP. An approximately 200' section of 30-inch above-grade stainless steel piping was also designed for replacement, along with replacement/modification of the discharge header inside the associated RAS pump station.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2016 (Actual)	$1,800k	$1,800k

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

PROJECT NO. 5		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
5. FY14 Sewer System Rehabilitation; Slidell, LA City of Slidell Blaine Clancy, PE – City Engineer 985.646.4270 	Trigon was a subconsultant on this project for the City of Slidell. The primary objective of this project was to reduce contamination in the Bayou Bonfouca and Bayou Vincent drainage basins caused by infiltration and inflow (I/I) and sanitary sewer overflows (SSOs), which end up in Lake Pontchartrain. This was accomplished by inspecting and evaluating the sewerage system, identifying damaged sewerage infrastructure, and developing rehabilitation recommendations that will be translated into construction documents to implement the repairs. The portion of the sewer system being evaluated included approximately 16 miles of sewer lines. A range of assessment and evaluation methods were used, including manhole inspections, smoke testing and CCTV inspection of gravity sewer lines.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2014 (actual)	$100k (engineering fees)	$14k (engineering fees)

PROJECT NO. 6		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
6. Improvements to Multiple Sewage Pumping/Lift Stations; Shreveport, LA City of Shreveport Barbara Featherston, PE – Director  318.673.7660	Trigon was a subconsultant providing design support and construction phase services for improvements at the Lucas Sewage Pumping Station and Agurs Sewage Pumping Station, as well as multiple other sewer lift stations. The Lucas station was a 3-pump station with firm capacity of 20,000 gpm (29 MGD), and discharged into a 48-inch force main that manifolds with other stations. The Agurs Sewage Pumping Station was a 3-pump station with firm capacity of 3,000 gpm (4.3 MGD), and the station discharged through an 8,000 LF 24" force main. Both pumps were driven by variable frequency drives (VFDs) and a permanent bypass structure was constructed for each, allowing flow to be diverted around the station, if necessary. Trigon also performed construction phase services for various lift station improvement projects, including: Tou Don, Risinger & Sunset Lift Stations, Round Grove Lift Station, Broadmoor Lift Station, Sludge Field Effluent Lift Station, Pinecrest Lift Station, and Country Club Hills Lift Station.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2017 (Actual)	$6M	$1M

Jefferson Parish
State of Louisiana

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

PROJECT NO. 7

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
7. Hurricane Harvey Disaster Recovery Lift Stations; Houston, TX Houston Public Works Farid Sadeghian - Supervising Engineer 832.395.4985 	Trigon was the prime consultant for the Hurricane Harvey Disaster Recovery for thirty-six (36) lift stations in the City of Houston. The project involved performing detailed asset inventories and damage assessments of facilities; reviewing existing documentation of damages; coordinating with relevant government entities; mobilizing technical staff to document and capture damages caused by the flood; preparing detailed cost estimates for repairs/replacement of damaged assets; conducting testing, analysis, and surveys as required; and providing periodic progress reports for tasks applicable to insurance and FEMA claims. After the damage assessments and documentation were complete, Trigon prepared a technical memorandum which details pre- and post-storm conditions, repair and replacement alternatives and costs; and mitigation alternatives for future disasters. The information contained within the technical memorandum was used to prepare insurance and FEMA claim documentation. Trigon also served as a subconsultant providing similar services for 65 other lift stations throughout the City. Trigon is working on over 100 City of Houston Lift Stations as a part of these efforts, and is extremely familiar with City requirements.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2021 (Actual)	$800k	$800k

PROJECT NO. 8

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
8. Sewer System Evaluation and Rehabilitation Program; New Orleans, LA Sewerage and Water Board of New Orleans Susan Diehl, Project Manager 504.930.7209 	Trigon has served as a subconsultant to the program manager for this comprehensive Sewer System Evaluation and Rehabilitation Program (SSERP). Trigon's principals also previously served in key technical and management roles on this $650M program since its inception in 1996, including roles such as Program Manager, Deputy Program Manager, Planning Manager, Design Manager, Construction Manager, Project Manager and Project Engineer, with a previous employer. The evaluation and planning phase of the SSERP included the development of a system-wide computerized hydraulic model, completion of short and long-term sewage flow monitoring programs, inspection and hydraulic evaluation of over 80 sewage pumping stations of various types and sizes, development of sewer rehabilitation guidelines and standards, the completion of numerous sanitary sewer evaluation studies throughout the city, development of capacity improvement measures and creation of a master plan and capital improvement program. The program also included construction management and resident inspection services for 20 sewage pumping stations and over 20 miles of new force mains. Trigon recently completed inspections and hydraulic testing of 75 sewage pumping stations.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2018 (Actual)	$200M	$10M

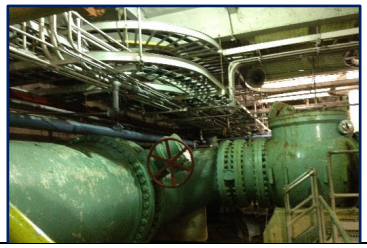
Jefferson Parish
State of Louisiana

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

PROJECT NO. 9

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
9. Buras Wastewater Treatment Plant Assessment & Improvements; Buras, LA Plaquemines Parish Government Ken Dugas, PE – Chief Engineer 504.297.5343 	Trigon was selected to serve as the Prime Consultant responsible for performing an assessment of the Buras Wastewater Treatment Plant (WWTP) in Plaquemines Parish, LA. This assessment was intended to determine the necessary repairs, rehabilitation measures and/or process modifications required to improve operational conditions of the WWTP, which typically sees an average daily flow of just under 1 MGD. The assessment included: assessment of process/mechanical equipment, structural features, and electrical systems at the plant and to gauge current and ideal operations to set equipment and process standards; analysis of the current treatment process; investigating current NPDES permit status and any past or current violations; identification of critical improvements and categorizing others according to which required further design efforts and those which did not. These findings and recommendations were submitted to Plaquemines Parish in August 2019. Due to funding issues, subsequent phases of work have not yet been authorized. However, the intent is to eventually initiate design efforts for a new headworks facility, at a minimum, once funding is allocated.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2019 (Actual)	$8M	$8M

PROJECT NO. 10

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
10. Effluent Pump Station at the Sewerage & Water Board's 200 MGD East Bank Wastewater Treatment Plant (EBWWTP); New Orleans, LA Sewerage & Water Board of New Orleans Felicia Bergeron, PE 504.865.0438 	Trigon was a major subconsultant for the engineering, design and construction phase services for this project that involved improvements to the Effluent Pump Station at the Sewerage & Water Board's 200 MGD East Bank Wastewater Treatment Plant (EBWWTP). The purpose of the project was to evaluate and design improvements primarily to the electrical and mechanical systems at the effluent pump station and involved the preparation of detailed plans for modifying or replacing existing switchgear, a T5 transformer, resistor bank speed controllers, and variable frequency drives (VFDs), as well as the construction of a new, air-conditioned equipment room on the pump motor room floor. The new switch gear and VFDs were relocated to this newly constructed room, and existing motors were rehabilitated or replaced to accommodate the new VFDs. In addition, all new equipment was connected to the plant's SCADA system to provide control of the effluent pumps using the VFDs. The project also included hydraulic evaluation of the capacity of the effluent pump station and the demolition of old equipment.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2019 (Actual)	$2.9M	$49k

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

Parties:		Status/Result of Case:
Plaintiff:	**Defendant:**	
1. *Trigon has no active or pending litigation at the present time, and our principals and staff have never been involved in litigation regarding our professional services.*		
2.		
3.		
4.		

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

Trigon Associates, LLC (Trigon) is pleased to submit this Statement of Qualifications (SOQ) to Jefferson Parish (Parish) in response to your Request for Qualifications to Provide *Rehabilitation to the Neyrey & Veterans (F7-13) and Market & Sauve (D4-7) Lift Stations, SOQ 22-028 (Resolution No. 139102).*

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

1. BACKGROUND AND EXPERIENCE OF THE FIRM

Trigon is a local woman-owned small business that is a State-certified Disadvantaged Business Enterprise (DBE), which offers engineering, consulting and management services. **Trigon's** principals have over 125 years of combined experience covering a wide range of public infrastructure, utilities and facility work, including **wastewater, water, water resources, drainage/storm water, transportation systems, buildings and facilities, general civil and structural engineering, and site development.** This experience spans the full lifecycle of projects, from planning through design and construction, with significant experience in the management of diverse teams of consultants and contractors to successfully complete projects and programs of all sizes under budget and on time.

Trigon's principals and staff include:

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

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

Trigon's staff have been involved in numerous projects that required the knowledge and skills necessary for execution of drainage projects similar to those undertaken by the Parish, resulting in a strong team that has experience executing work of a very similar nature to what may be required. A few of our key qualifications are as follows:

2. RELATED EXPERIENCE OF TEAM

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

Areas of focus include:

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

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

- Sewerage Capital Improvement Program, Jefferson Parish, LA
- Sewer Pump Station Inspections, St. Bernard Parish, LA
- Sewerage System Hydraulic Model, St. Bernard Parish, LA
- Sewer System Evaluation and Rehabilitation Program, New Orleans, LA
- Post-Katrina Rehabilitation of Sewage Collection System, Slidell, LA
- East Bank Sewage Treatment Plant Evaluation, New Orleans, LA
- FY 08/09 Sewer Pump Station Rehabilitation, Slidell, LA
- Corrective Action Plan for East Bank Sewerage System (Master Plan), New Orleans, LA
- Emergency Sewer Pump Station Design, New Orleans, LA
- Emergency Sewer System Assessment Phase I and II, New Orleans, LA
- Sanitary Sewer Overflow Control Program, St. Bernard Parish, LA
- NPDES Storm Water Permitting, Jefferson Parish, LA
- Water Asset Management Plan (Master Plan), Jefferson Parish, LA
- Water Line Replacement Program – Lakeview Neighborhoods, Groups 1 & 2, New Orleans, LA
- Waterline Replacement Program –Lakewood, Navarre, and West End Neighborhoods, New Orleans, LA
- Cleary Avenue at Cypress Street, Jefferson Parish, LA
- Design of Water Plant Safe Houses, Jefferson Parish, LA
- Water Quality Master Plan, New Orleans, LA

Jefferson Parish
State of Louisiana

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

- Storm Water Pollution Prevention Plans and Spill Prevention, Control and Countermeasures, Jefferson Parish, LA
- Water Hammer Hazard Mitigation Grant Program Project, New Orleans, LA
- Water Distribution Modeling, Jefferson Parish, LA
- Water Line Replacement Program – Lakeview Neighborhoods, Groups 1 and 2, New Orleans, LA
- Water Line Replacement Program – 6 Areas
- Highway 11 Water Line Improvements, Buras, LA
- Water Distribution System Assessment and Capital Improvement Plan (Master Plan), New Orleans, LA
- Post-Katrina Water Distribution System Assessment/Rehabilitation, New Orleans, LA
- Clean Water Atlanta (SSO/CSO) Program, Atlanta, GA
- Dura Water System Improvements, West Bank, Palestine
- Louis Morel Lane Infrastructure Improvements, Plaquemines Parish, LA
- Delta Aire Drive Infrastructure Improvements, Plaquemines Parish, LA
- Drainage and Roadway Improvements on East 70th Street Water Main Relocation Design, Shreveport, LA
- Barriere Road Retention Pond and Drainage Pump Station Improvements, Plaquemines Parish, LA
- Levee, Floodwall and Drainage Project/Construction Management, New Orleans, LA
- Drainage Master Plan, New Orleans, LA
- Land Acquisition, Regulatory Compliance, Permitting, Grant Administration, Jefferson Parish, LA
- Pump Station Control Panel Replacement, Slidell, LA
- Northshore Mall Area Pump Station and Force Main Improvements, Slidell, LA
- Post-Katrina Rehabilitation of Storm Drainage System, Slidell, LA
- Post-Katrina Emergency Debris Cleanup, New Orleans, LA
- Post-Katrina Emergency Storm Drain Cleaning, New Orleans, LA
- Environmental Investigations/Soil Sampling for USACE, New Orleans, LA
- Comprehensive Utilities Hardening, Naval Air Station, Belle Chasse, LA

Jefferson Parish
State of Louisiana

3. LOCAL PRESENCE AND KNOWLEDGE

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

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

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

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

4. LITIGATION STATEMENT

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

5. DBE PARTICIPATION

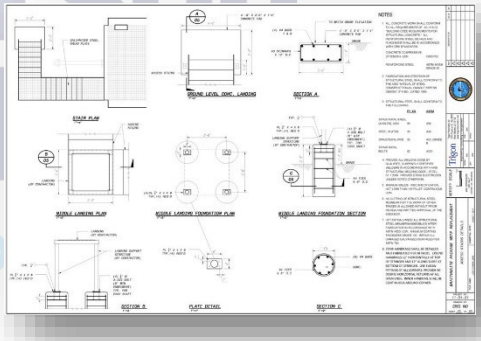
Trigon is certified as a Disadvantaged Business Enterprise (DBE) under the State of Louisiana's Unified Certification Program (UCP).

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

6. PRODUCTION CAPABILITIES

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

Our staff is skilled in the use of these various packages, which allows us to develop plans and documents that meet the needs and preferences of our clients. This also results in better and more effective collaboration with other companies and team members we work with, including incorporation of survey data directly into our design drawings.



In addition to our CAD, GIS and presentation capabilities, **Trigon** also utilizes the standard Microsoft Office suite of production software for standard word processing, spreadsheets and calculations, database creation and manipulation, and development of slide presentations.

7. CAPACITY FOR TIMELY COMPLETION

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

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

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

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

8. REFERENCES

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

Name	Position/Title	Organization	Phone
Billy Nungesser	Lt. Governor / [fmr] Plaquemines Parish President	State of Louisiana	225-342-7009
Ken Dugas, PE	Parish Engineer	Plaquemines Parish Government	504-297-5343
Jonah Arceneaux	Project Manager	Plaquemines Parish Government	504-934-6115
Bob Moeinian, PE	[fmr] Sewer/Water Director	St. Tammany Parish Government	504-812-7748
Robert J. Morgan, Jr.	Contracting Officer	Inframark	504-392-4177
Nguyen Phan, PE	Chief Engineer	City of New Orleans, Department of Public Works	504-658-8000
Barbara Featherston, PE	Director	City of Shreveport, LA, Dept. of Water & Sewerage	318-673-7660
Ali Mustapha, PE	Administrator	Caddo Levee District	318-221-2654
Farid Sadeghian, PE	Supervising Engineer	City of Houston, Wastewater Ops.	832-395-4985

9. OUR COMMITMENT

Trigon is fully committed to supporting Jefferson Parish and successfully executing any projects under this solicitation, should we be selected. We are excited about this opportunity and look forward to providing the Parish with exceptional service.

Trigon
Quality ▲ Commitment ▲ Client Service

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

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

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

Title: Chief Executive Officer **Date:** June 30, 2022

Trigon

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