



# ROUTINE ENGINEERING SERVICES FOR DRAINAGE PROJECTS

*Jefferson Parish*  
Resolution No. 138811

SOQ 22-011

Submitted By:



## TEC Professional Services Questionnaire

**A. Project Name and Advertisement Resolution Number:**

Routine Engineering Services for Drainage Projects in Jefferson Parish  
Resolution No. 138811

**B. Firm Name & Address where Project work will be performed:**



DIGITAL ENGINEERING & IMAGING, INC.  
527 West Esplanade Avenue, Ste. 200  
Kenner, LA 70065

**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:**

Robert Delaune, P.E.  
Sr. Vice President, Principal  
527 West Esplanade Avenue, Ste. 200  
Kenner, LA 70065  
504.468.6129  
rdelaune@deii.net

**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.**

Andrew Woodroof, P.E.  
Vice President, Principal  
527 West Esplanade Avenue, Ste. 200  
Kenner, LA 70065  
504.468.6129  
awoodroof@deii.net

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

<u>5</u> Administrative	___ Estimators	<u>3</u> Specification Writers
___ Architects (Licensed)	___ Geologists	___ Structural Engineers
___ Chemical Engineers	___ Geotechnical Engineers	___ Graduate Engineers
<u>15</u> Civil Engineers	___ Interior Designers	<u>4</u> Project Managers
<u>6</u> Construction Inspectors	___ Landscape Architects	<u>1</u> Clerical
___ Ecologists	___ Land Surveyor	<u>1</u> Grant/Funding Specialist
___ Electrical Engineers	___ Mechanical Engineers	<u>1</u> Sanitary Engineers
<u>5</u> Engineer Intern	<u>1</u> Environmental Engineers	
___ Professional Land Surveyors		<b><u>42</u> TOTAL</b>

**F. Is this submittal by a JOINT-VENTURE? Please check: YES**

**NO**

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

## TEC Professional Services Questionnaire

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

1.  
NA

2.

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

YES  NO

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

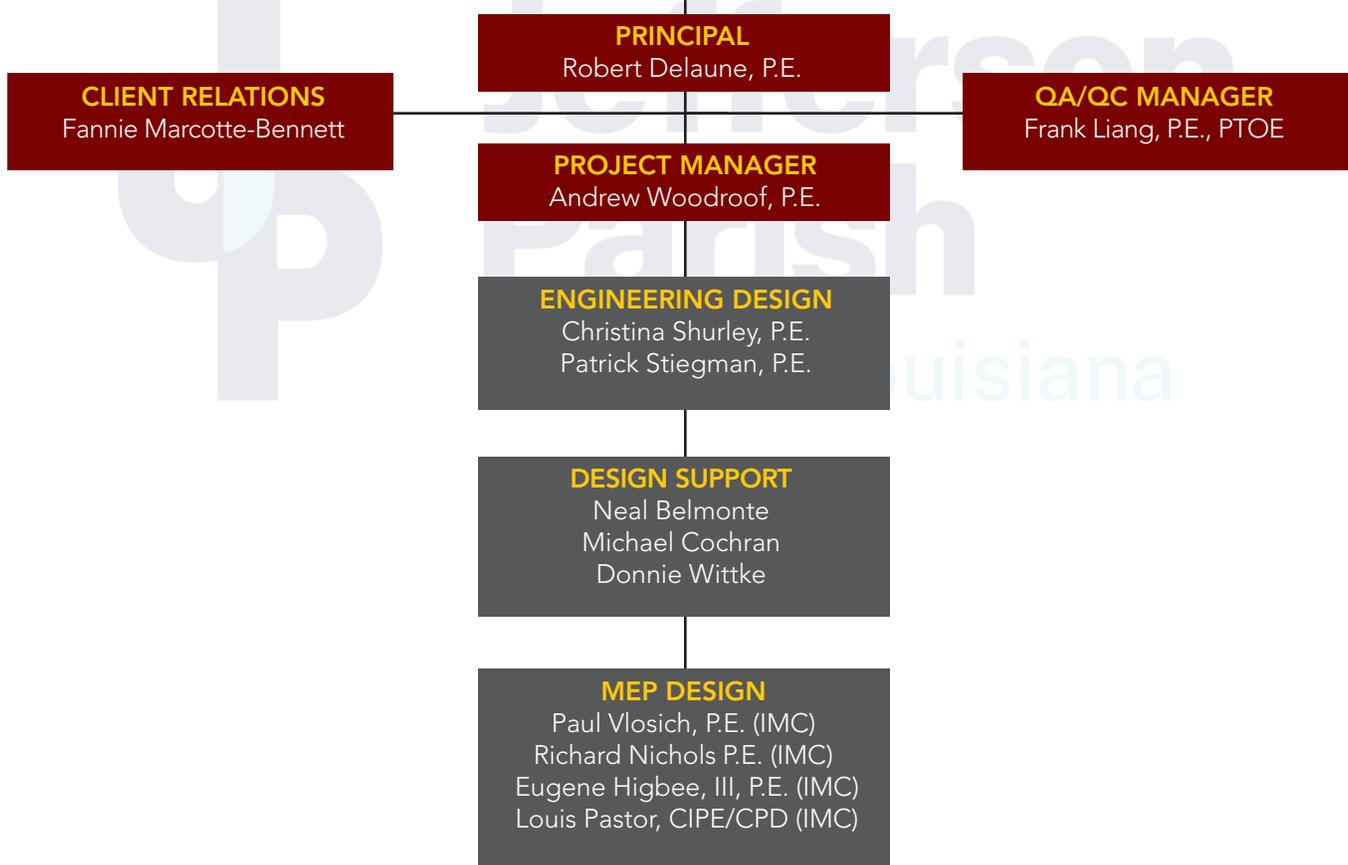
Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
1. IMC Consulting Engineers, Inc. 2714 Independence Street Metairie, LA 70006	MEP	Yes
2.		
3.		
4.		

## TEC Professional Services Questionnaire

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

DE has assigned eight (8) personnel to this project as illustrated in the Organization Chart below. We have also indicated the roles and responsibilities that our teaming partner, IMC Consulting Engineers, Inc. will serve on this contract.

### DE TEAM ORGANIZATION CHART



## 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:**

Andrew Woodroof, P.E., Vice President

**Project Assignment:**

Project Manager

**Name of Firm with which associated:**



**Years' experience with this Firm:**

12

**Education: Degree(s)/Year/Specialization:**

BS/2008/Civil Engineering MS/2012/Coastal Engineering

**Active registration: Year first registered/discipline:**

2012/Civil

**Other experience and qualifications relevant to the proposed Project:**

Andrew has twelve years of professional engineering experience involving coastal engineering design, water and wastewater design, and drainage design.

**River Road Water Line Replacement, Jefferson Parish, LA**

Engineering design, construction administration, and Davis Bacon compliance for 12,000 linear feet of 12" diameter water line which replaced an existing 8" diameter water line and associated fire hydrants and isolation valves. The water line which was replaced extended from the intersection of River Road and Rivet Boulevard to the St. Charles Parish Line in Waggaman, LA. The new water line provides additional capacity for residents and industry in the area, as well as providing a tie-in point for the second phase of the River Road Water Line Extension transmission line. The design includes open-cut and horizontal directional drill installation methods.

**Live Oak Water Line Extension, Jefferson Parish, LA**

Engineering design for 11,000 linear feet of 12" diameter water line extension, required fire hydrants, and isolation valves. The water line was designed from Live Oak Boulevard to River Road in Waggaman. This water line

serves as a transmission line extension which loops the water system in this area to provide additional capacity and redundancy in the system to residents, businesses, and industry. The design included open-cut, directional drill and jack and bore installation methods. Upon completion of the design phase, this project was placed on hold by Jefferson Parish.

**Jefferson Parish LDHH Drinking Water Revolving Loan Administration and Management, Jefferson Parish, LA**

Developed the System Improvement Plan with Environmental Impact Document (EID) for this project, which successfully received approval for funding of \$3,550,000 Drinking Water Revolving Loan through Louisiana Department of Health and Hospitals. This Plan will serve as the Department of Water's Master Plan and will satisfy the requirements of the Parish's DHH Drinking Water Revolving Loan allowing Jefferson Parish to construct much needed infrastructure improvements. Components of the EID include development of expansion project alternatives, evaluation of compliance of alternatives with federal drinking water regulations, economic evaluation, environmental evaluation, and public hearing.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT

**Name & Title:**

Robert Delaune, Jr., P.E., Sr. Vice President

**Project Assignment:**

Principal in charge

**Name of Firm with which associated:**



**Years' experience with this Firm:**

20

**Education: Degree(s)/Year/Specialization:**

BS/2000/Environmental Engineering

**Active registration: Year first registered/discipline:**

2006/Civil

**Other experience and qualifications relevant to the proposed Project:**

Rob serves as Vice President of Water Resources Operations for DE. Throughout his extensive 20 years of experience in water resources, he has worked on numerous projects that have helped to improve infrastructure and sustain the coast. Rob joined the DE team in 2001 and has built a robust portfolio of work, serving as a project and/or program manager on a variety of wastewater, drainage, green infrastructure, water, coastal, and environmental projects.

Certifications: Water Wise NOLA Certified Green Infrastructure Professional 1

Training: Advanced Training on Modeling Hydrodynamics and Morphodynamics using Delft3D FM and Delft3D 4

Recognition: ACEC/L Emerging Leaders Institute; ASCE New Orleans Branch 2020 Outstanding Civil Engineer

Industry Leadership: ASCE New Orleans Chapter Past President, ACEC Past Water Resources Committee Chairman

**Increased Pumping Capacity to the Parish Line Pump Station, Jefferson Parish, LA**

*Project Engineer* for technical assistance during construction of the drainage pump station capacity improvements. Mr. Delaune attended the pre-construction and progress meetings, reviewed RFIs pertaining to DE design issues, and coordinated on all construction administration activities.

**Pilot Canal Maintenance Phase 1, Phase 2, Phase 3, Phase 4 - Jefferson Parish, LA**

*Project Manager* for this program providing GPS services to verify SCADA readings and set informational benchmarks at drainage pump stations in Jefferson Parish, and also provides hydrographic surveys of drainage canals. GPS services and field assessments have also been performed in the towns of Lafitte, Jean Lafitte, and Crown Point to determine existing ground profiles to help prevent future flooding. Full hydrographic surveys of the Duncan Canal, Suburban Canal, and Canal #7 in Metairie, Louisiana have been completed. All of these acquired benchmark points, canal cross sections, canal bottom data, and ground profile data is uploaded into Jefferson Parish's GIS database for use in flood control methods.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT

**Name & Title:**

Frank Liang, P.E., PTOE, Sr. Vice Principal

**Project Assignment:**

QA/QC

**Name of Firm with which associated:**



**Years' experience with this Firm:**

24

**Education: Degree(s)/Year/Specialization:**

BS/1994/Civil Engineering

**Active registration: Year first registered/discipline:**

1999/Civil 2012/PTOE

**Other experience and qualifications relevant to the proposed Project:**

Frank serves as the Senior Vice President and oversees the Transportation Division at DE. Since joining the team in 1995, he has focused on ensuring that the products and services DE provides continue to exceed clients' needs and expectations. As the head of production, he oversees the design, schedule, and progress of all projects within the company. Frank has over 24 years of experience performing project management and engineering design services with LADOTD, Jefferson Parish, and the City of Kenner. The projects below are representative of his experience in serving as Project Manager and Project Engineer for Jefferson Parish drainage projects:

**Terry Parkway Drainage Improvements, Jefferson Parish, LA**

*Project Manager* for design, hydraulic analysis, construction administration, and resident inspection for the installation of over 3,000 lf of a double cell concrete box culvert and concrete flume to enclose an existing drainage canal. The project also included restoration of the existing street and utility relocation due to the box culvert construction.

**Oakwood Canal and Carol Sue Avenue Drainage Improvements, Jefferson Parish, LA**

*Project Manager* for engineering design and construction phase services for the installation of new subsurface drainage in the vicinity of Oakwood Canal and Carol Sue Avenue for Jefferson Parish. Funding was through LRA recovery funds and all CDBG requirements were met.

**Drainage Improvements at North Sibley Street at West Napoleon Avenue, Jefferson Parish, LA**

*Project Manager* for the design of a new 25 cfs drainage pump station 15" thru 36" subsurface drain lines to improve drainage at North Sibley and West Napoleon Avenue. Design is complete and DE is currently providing construction administration services.

**Drainage Improvements to Hillings Ditch, Jefferson Parish, LA**

*Project Manager* for this LRA/CDBG-funded design project to alleviate street flooding in the chronic problem area of Diane Avenue in River Ridge. Scope of work involved design, bidding, construction administration services for a new drainage pump station and force main on the Hillings Ditch at Dart Street.

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT</b>	
<b>Name &amp; Title:</b>	
Fannie Marcotte-Bennett, Director of Client Services	
<b>Project Assignment:</b>	
Client Relations	
<b>Name of Firm with which associated:</b>	
	
<b>Years' experience with this Firm:</b>	
2	
<b>Education: Degree(s)/Year/Specialization:</b>	
Science (200.BO), Pre-University Program	
<b>Active registration: Year first registered/discipline:</b>	
NA	
<b>Other experience and qualifications relevant to the proposed Project:</b>	
<p>Fannie serves as Director of Client Services for Digital Engineering. As an independent Point of Contact for clients, she monitors projects' progress to ensure deadlines are being met, ensures client satisfaction and works with management to resolve any potential conflicts in a rapid and efficient fashion.</p> <p>Leadership / Awards - New Orleans Regional Leadership Institute Cohort; SMPS Southeast Louisiana President; SMPS Southeast Louisiana 2017 Hall of Fame inductee</p> <p><b>St. Tammany Parish Comprehensive Plan Update St. Tammany Parish, LA</b>  <i>Client Services Director/Coordinator</i> responsible for coordinating the infrastructure planning and interviewing portion of Public Participation Plan for the St. Tammany Parish Comprehensive Plan Update (New Directions 2025), which aims to promote the Parish's resilience and sustainability.</p> <p><b>Goodbee/West St. Tammany LA 1077 Corridor Study, St. Tammany Parish, LA</b>  <i>Client Services Director and Public Outreach Coordinator</i> for this land use and transportation study reviewing existing conditions of the corridor including</p>	<p>land use and transportation data. Responsibilities include preparation or outreach exhibits, presentation and participation in public meetings involving stakeholders ranging from clients to residents</p> <p><b>Ben Thomas Road Detention, St. Tammany Parish, LA</b>  <i>Client Services Director</i> responsible for government relations and satisfaction assurance for this FEMA funded flood study, design and construction of a 21.48-acre detention pond for increased flood storage and improved drainage in the Bayou Vincent Basin (W-13) north of Ben Thomas Road, which will serve to substantially reduce downstream flows and improve drainage in the area.</p> <p><b>Old Mandeville Shoreline Protection Study, Mandeville, LA</b>  <i>Client Coordination and Public Outreach Coordinator</i> for this initiative involving development of three viable alternatives for protection against storm surges that have repeatedly flooded the city's historic district throughout the years. Public meetings were held to present preliminary findings and gather input from resident and stakeholders affected by repetitive flood events.</p>

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT</b>	
<b>Name &amp; Title:</b>	
Christina Shurley, P.E., Project Engineer	
<b>Project Assignment:</b>	
Engineering Design	
<b>Name of Firm with which associated:</b>	
	
<b>Years' experience with this Firm:</b>	
10	
<b>Education: Degree(s)/Year/Specialization:</b>	
BS/2003/Civil Engineering	
<b>Active registration: Year first registered/discipline:</b>	
2011/Civil	
<b>Other experience and qualifications relevant to the proposed Project:</b>	
<p>Christina has practiced civil engineering in the greater New Orleans area and Mississippi Gulf Coast for the past 10 years, primarily on stormwater management and the design of roadways, utilities, and flood protection. She is experienced in ArcGIS, WaterCAD, AutoCAD, and Microstation. Christina completed the Stormwater Management and Flood Control Modeling Workshop. Her experience includes the following:</p> <p><b>Manson Ditch Drainage Improvements, Jefferson Parish, LA</b>  <i>Assisted in the preparation of a hydraulic study of Manson Ditch Drainage Basin. The purpose of the study was to determine the ten year storm design flow and the required increase in drainage culvert capacity from the IC Railroad Ditch and West Metairie Canal needed to provide ten year storm flood protection. It was determined that the most efficient means to provide ten year flood protection to the area is through the usage of new culverts by either supplementing the existing drainage system with new culverts or replacing the existing system. Scope involved compilation of all model results, recommendations, and cost estimates into a final report and review with the Department of Drainage.</i></p>	<p><b>Broadmoor Drainage Upgrades, New Orleans, LA</b>  <i>Prepared preliminary plans to perform a Benefit Cost Analysis for the replacement of drainage lines in New Orleans.</i></p> <p><b>Ormond Oaks Drainage Study, St. Charles Parish, LA</b>  <i>Performed a hydrologic/hydraulic study of the Ormond Oaks area in St. Charles Parish, which repeatedly floods during storm events. Christina developed a skeletal model of the existing drainage system, including piping, ditches, canals and inlets, in ArcGIS and imported the model and associated data parameters into XPSTORM to perform a hydraulic and hydrologic analysis of the area. After calibrating the model with a historical rain event and known flooding extents, a 10-year design storm was modeled on the existing system to determine the anticipated flooding extents. Christina modeled several improvements to the existing system to determine the reduction in anticipated flooding and provide recommendations for improvements that would reduce flooding throughout the neighborhood during a 10-year design storm. She is also preparing the report for the drainage study, which will provide a summary of the model results, a description of the proposed improvements and construction cost estimates for those improvements.</i></p>

## TEC Professional Services Questionnaire

<b>KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT</b>	
<b>Name &amp; Title:</b>	
Patrick Stiegman, P.E., Project Engineer	
<b>Project Assignment:</b>	
Engineering Design	
<b>Name of Firm with which associated:</b>	
	
<b>Years' experience with this Firm:</b>	
6	
<b>Education: Degree(s)/Year/Specialization:</b>	
BS/2015/Civil Engineering	
<b>Active registration: Year first registered/discipline:</b>	
2020/Civil	
<b>Other experience and qualifications relevant to the proposed Project:</b>	
<p>Patrick serves as a Project Engineer in DE's Kenner office for both transportation and water resources projects. Prior to joining DE as a full-time professional, he worked in the Houston market providing project management for construction materials testing and engineering services. Patrick is skilled in transportation design, water/wastewater resources, civil site design, and AutoCAD Civil 3D. His experience includes the following:</p> <p><b>Buccaneer Villa North Statewide Flood Control Hydraulic Model and Application, St. Bernard Parish, LA</b>  <i>Project Engineer</i> in the development of a hydraulic and hydrology model for a proposed project concept that will divert peak rainfall runoff from the existing drainage system in Buccaneer Villa North Subdivision to a proposed retention pond area to the west of the subdivision. Mr. Stiegman assisted in modeling several improvements to the existing system to determine the reduction in anticipated flooding and provide a recommendation for an improvement that would ultimately eliminate flooding of the repetitive loss properties during a 25-year design storm. He also assisted in preparation of the statewide flood control application and model results report.</p>	<p><b>Hydraulic/Hydrologic Investigation of Ormond Oaks Downstream Improvements, St. Charles, Parish, LA</b>  <i>Project Engineer</i> and is assisting the lead modeler in a hydrologic study of the Ormond Oaks area. The study's main purpose is to identify problematic flood prone areas and eliminate these flooding problems with proposed solutions. The scope of the work includes delineating the watershed drainage area, building the drainage infrastructure in GIS, importing the GIS into XP Storm modeling software, modeling existing conditions and calibrating the model to real world results, determining peak flows for a 10-year storm, and implementing improvement scenarios for drainage infrastructure including a conceptual plan. He assisted in modeling several improvements to the existing system to determine the reduction in anticipated flooding and provide recommendations for improvements that would reduce flooding throughout the neighborhood during a 10-year design storm. Mr. Stiegman also assisted in preparing the report for the drainage study, which will provide a summary of the model results, a description of the proposed improvements and construction cost estimates for those improvements.</p>

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT

**Name & Title:**

Neal Belmonte, Project Manager

**Project Assignment:**

Design Support & Construction Services

**Name of Firm with which associated:**



**Years' experience with this Firm:**

14

**Education: Degree(s)/Year/Specialization:**

BS/2007/Health & Kinesiology

**Active registration: Year first registered/discipline:**

NA

**Other experience and qualifications relevant to the proposed Project:**

Neal has over fourteen years of experience as a field technician, design technician, and construction manager. As a design technician he has extensive experience using Civil 3D, ARC GIS, and Microsoft Excel to design multiple roadway and drainage projects and develop cost estimates.

**Manson Ditch Drainage Improvements, Jefferson Parish, LA**

*AutoCAD drafting, GPS services, and field assessments* for this project that involved a hydraulic study of the Manson Ditch Drainage Basin that is defined by a combined drainage contributory areas of the Camelia Gardens Ditch, Manson Ditch, Arnoult Ditch, and Shrewsbury Ditch between the Mississippi River and the IC Railroad Ditch and the Manson Ditch contributory area between the IC Railroad Ditch and West Metairie Canal. The purpose of the study was to determine the ten year storm design flow and the required increase in drainage culvert capacity from the IC Railroad Ditch and West Metairie Canal needed to provide ten year storm flood protection. He will also be assisting with construction administration once construction commences.

**Increased Pumping Capacity to the Parish Line Pump Station, Jefferson Parish, LA**

*Construction Manager* and provided drafting services, coordinated with electrical/mechanical consultants, and was involved in the bidding process for the design

of increased pumping capacity at the existing Parish Line pumping station along with adjacent intake canal improvements. Design of short term improvements included the addition of 350 cfs pumping capacity and related conveyance system improvements.

**Pilot Canal Maintenance Phase 1, Phase 2, Phase 3 - Jefferson Parish, LA**

*GPS services* to verify SCADA readings and set informational benchmarks at drainage pump stations in Jefferson Parish. GPS services and field assessments were also performed in the towns of Lafitte, Jean Lafitte, and Crown Point to determine existing ground profiles to help prevent future flooding. He also completed a full hydrographic survey of the Duncan Canal, Suburban Canal, and Canal #7. All of this acquired information is uploaded into Jefferson Parish's GIS database for use in flood control methods.

**Replacement of Diesel Engines and Rehabilitation of Pump Gears at Suburban Pump Station, Jefferson Parish, LA**

*Project Manager* overseeing the design, bidding, and construction of the new engines and gear rehabilitation while coordinating with Jefferson Parish, contractors, electrical engineers, and mechanical engineers. This project work consists of engine replacement along with new piping, radiators, mufflers, and gear refurbishment to Pump Nos. 4 and 5 at Suburban Pump Station.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT

**Name & Title:**

Michael Cochran, Design Technician

**Project Assignment:**

Design Support

**Name of Firm with which associated:**



**Years' experience with this Firm:**

3

**Education: Degree(s)/Year/Specialization:**

AA/2003/Drafting and Design Technology

**Active registration: Year first registered/discipline:**

NA

**Other experience and qualifications relevant to the proposed Project:**

Mr. Cochran has over 15 years of experience in preparing plans and specifications for flood protection, utilities, and structural projects throughout coastal Louisiana. He is skilled in AutoCAD, AutoCAD Civil 3D, Architectural Desktop (AutoCAD), and Revit Structural (3D Modeling). His experience includes:

**Increased Pumping Capacity to the Parish Line Pump Station, Jefferson Parish, LA**

*Design Support* for coordination and creation of the as-built for increased pumping capacity at the existing Parish Line Pumping Station along with adjacent intake canal improvements. Design of these improvements included the addition of 350cfs pumping capacity and related conveyance system improvements.

**Manson Ditch Drainage Improvements, Jefferson Parish DPW, Jefferson, LA**

*Design Support* services for preparation of a hydraulic study to determine the ten year storm design flow and the required increase in drainage culvert capacity from the IC Railroad Ditch and

West Metairie Canal needed to provide ten year storm flood protection.

**Terry Parkway Drainage Improvements (Carol Sue to Industry Canal), Jefferson Parish, LA**

*Design Support* for installation of 3,000 lf of a double cell concrete box culvert and concrete flume to enclose an existing drainage canal. Scope also included restoration of the existing street and utility relocation due to box culvert installation.

**North Sibley at West Napoleon Drainage Improvements, Jefferson Parish, LA**

*Design Support* for the design of a new 20 cfs drainage pump station 15" thru 36" subsurface drain lines to improve drainage at North Sibley and West Napoleon Avenue.

## TEC Professional Services Questionnaire

### KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT

**Name & Title:**

Donnie Wittke, Design Technician

**Project Assignment:**

Design Support

**Name of Firm with which associated:**



**Years' experience with this Firm:**

12

**Education: Degree(s)/Year/Specialization:**

AA/2002/Drafting and Design Technology FAA Remote Pilot Certification/Small Unmanned Aircraft System

**Active registration: Year first registered/discipline:**

NA

**Other experience and qualifications relevant to the proposed Project:**

Donnie has 15 years of experience in CADD design and drafting for coastal, drainage, and flood control projects. He is also FAA certified to fly drones and will take video footage of remote coastal locations to see preliminary and construction progress of projects assigned under this contract. His experience includes the following:

**Parish Line Pump Station, Jefferson Parish, LA**

*Design Support* for the design of increased pumping capacity of the existing Parish Line Drainage Pump Station along with adjacent intake canal improvements.

**Manson Ditch Drainage Improvements, Jefferson Parish DPW, Jefferson, LA**

*Design Support* for preparation of a hydraulic study to determine the ten year storm design flow and the required increase in drainage culvert capacity from the IC Railroad Ditch and West Metairie Canal needed to provide ten year storm flood protection.

**Terry Parkway Drainage Improvements (Carol Sue to Industry Canal), Jefferson Parish, LA**

*Design Support* for installation of 3,000 lf of a double cell concrete box culvert and concrete flume to enclose an existing drainage canal. Scope also included

restoration of the existing street and utility relocation due to box culvert installation.

**Drainage Improvements to Hillings Ditch, Jefferson Parish, LA**

*Design Support* for design of a new pump station and force main to alleviate chronic flooding in the Diane Avenue of River Ridge.

**Drainage Improvements to Gulizo Canal, Jefferson Parish, LA**

*Design Support Technician* during design of a 20' wide u-channel with steel sheetpile walls, concrete bottom, and concrete slop paving on the Gulizo Canal. The project is approximately 1500' and includes a transition to an existing concrete channel on the Eighty Arpent Canal.

**Drainage Improvements to Canal No. 2 Culvert Crossing at California Avenue, Jefferson Parish, LA**

*Design Support* during design of a new triple cell 9'x9' box culvert with headwalls to replace an existing culvert crossing at California Avenue and West Esplanade Avenue. Design included replacement and alteration of existing roadway crossing and utility lanes.

**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**

<b>Project Name, Location and Owner's Contact Information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p>Manson Ditch Drainage Improvements Jefferson Parish, LA</p> <p><u>Owner</u> Jefferson Parish Dept. of Public Works 1221 Elmwood Park Blvd., Ste. 904 Jefferson, LA 70123 Mark Drewes, Director 504-736-6783</p>	<p>Digital Engineering (DE) was selected by Jefferson Parish to prepare a Hydraulic Study of the Manson Ditch Drainage Basin, defined as the combined drainage contributory areas of the Camelia Gardens Ditch, Manson Ditch, Arnoult Ditch, Lower Kraak Ditch, and Shrewsbury Ditch between the Mississippi River and the Illinois Central (IC) Railroad Ditch and the Manson Ditch contributory area between the IC Railroad Ditch and West Metairie Canal which is a total of 306 acres. The purpose of the study was to determine the ten year storm design flow and the required increase in drainage culvert capacity from the IC Railroad Ditch and West Metairie Canal needed to provide ten year storm flood protection.</p>	
<p>As requested by the client, DE modeled the 2, 5, 10, 25, 50 and 100 year design storms and evaluated the benefits of new culverts by either supplementing the existing drainage system with new culverts, replacing the existing system or removing flow into the system. Two separate hydraulic modeling programs were utilized in investigating the Manson Ditch drainage system: HYDRWIN and SWMM. The SWMM Model allowed for the use of modeling a pump station to remove water from the System.</p> <p>GPS equipment was used to obtain horizontal and vertical coordinates of drain inlets, catch basins and manholes along the Manson Ditch alignment and ground elevations throughout the drainage basin. Pipe sizes were obtained from the Jefferson Parish Drainage Unit Sheets. This data was used to build as the model framework for the model network that was built of the existing conditions.</p> <p>The HYDRWIN Model simulation of the existing conditions along both the Manson and Lower Kraak ditches was initially constructed. An additional simulation was then run that allowed the HYDRWIN program to determine the proper pipe sizes required along both systems. The results of these simulations showed that the hydraulic gradient exceeded the natural ground profile from the Canadian National/New Orleans Public Belt Railroad embankment to the south (River Road). Unfortunately, the HYDRWIN programs do not take into account flooding outside the limits of the pipe. Because the elevation of the hydraulic gradient exceeded the ground/roadway elevation along virtually the entire length of both the Manson Ditch and Lower Kraak Ditch the SWMM Model was developed and run with both existing and improved conditions.</p> <p><b>KEY PERSONNEL INVOLVED:</b> Frank Liang, P.E., PTOE; Christina Shurley, P.E. Neal Belmonte; Mickey Cochran; Donnie Wittke</p>	<p>As requested by the client, DE modeled the 2, 5, 10, 25, 50 and 100 year design storms and evaluated the benefits of new culverts by either supplementing the existing drainage system with new culverts, replacing the existing system or removing flow into the system. Two separate hydraulic modeling programs were utilized in investigating the Manson Ditch drainage system: HYDRWIN and SWMM. The SWMM Model allowed for the use of modeling a pump station to remove water from the System.</p> <p>GPS equipment was used to obtain horizontal and vertical coordinates of drain inlets, catch basins and manholes along the Manson Ditch alignment and ground elevations throughout the drainage basin. Pipe sizes were obtained from the Jefferson Parish Drainage Unit Sheets. This data was used to build as the model framework for the model network that was built of the existing conditions.</p> <p>The HYDRWIN Model simulation of the existing conditions along both the Manson and Lower Kraak ditches was initially constructed. An additional simulation was then run that allowed the HYDRWIN program to determine the proper pipe sizes required along both systems. The results of these simulations showed that the hydraulic gradient exceeded the natural ground profile from the Canadian National/New Orleans Public Belt Railroad embankment to the south (River Road). Unfortunately, the HYDRWIN programs do not take into account flooding outside the limits of the pipe. Because the elevation of the hydraulic gradient exceeded the ground/roadway elevation along virtually the entire length of both the Manson Ditch and Lower Kraak Ditch the SWMM Model was developed and run with both existing and improved conditions.</p>	
<p><b>Completion Date (Actual or Estimated):</b></p>	<p><b>Estimated Cost:</b></p>	
<p>2020</p>	<p><b>Entire Project:</b></p> <p>\$6,900,000 (construction)</p>	<p><b>Work for which Firm was Responsible:</b></p> <p>\$870,000 (study and design)</p>



EXISTING CONDITION

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

**PROJECT NO. 2**

<b>Project Name, Location and Owner's Contact Information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p>Jefferson Parish Pilot Canal Maintenance &amp; Prioritized Improvement Program (Phases I, II, and III) Jefferson Parish, LA</p> <p><u>Owner</u> Jefferson Parish Dept of Drainage 1221 Elmwood Park Blvd Jefferson, LA 70123 Mitch Theriot, P.E., Director 504-736-6751</p>	<p>Jefferson Parish selected DE to perform a Pilot Canal Maintenance Program to assist the Drainage Department in obtaining GPS information to enable the development of a systematic maintenance program Funding for the program was provided under a Louisiana Government Assistance Program (LGAP) grant.</p> <p>DE performed visual inspections and obtained GPS coordinates/ elevations of box culverts, pump stations, drainage canal bottoms and outfall infrastructures, and verified accuracy of SCADA gauges. Canal bottom cross sections were also developed to determine current silt levels and identify areas that impeded canal flow.</p>	
<p><b>KEY PERSONNEL INVOLVED:</b> Frank Liang, P.E., PTOE Robert Delaune, P.E. Neal Belmonte Mickey Cochran Donnie Wittke</p>	<p>All information is input into Jefferson Parish's GIS database which can be utilized to better maintain and monitor canal levels during rain events. Once all data is obtained, the Jefferson Parish Drainage Department will be able to develop a prioritized canal maintenance schedule. This data can also be utilized to provide a HEC-RAS model of the canal system.</p> <p>Phases I and II have been completed and the third phase of funding for the program has been allocated to Jefferson Parish. DE is continuing the GPS work in the third phase by collecting cross-sections along additional canals and GPS data at pump stations.</p> <div data-bbox="922 1209 1528 1734">  <p>The image shows an aerial view of a canal system with various 'Dirt Level' annotations in yellow and red. The annotations include values such as 5.001, 4.419, 5.209, 5.210, 4.863, 5.575, 4.504, 4.205, 3.774, 3.779, 3.837, 4.508, 4.507, 5.418, and 2.045. A 'Wachtl Egn' annotation with a value of 10.277 is also present. A 'Jean Lafitte Blvd' annotation with a value of 2.045 is at the bottom. A 'Top 5' annotation with a value of 6.430 is at the top right. A ground-level photo on the right shows a concrete canal with a road and utility poles.</p> </div>	
<p><b>Completion Date (Actual or Estimated):</b></p>	<p><b>Estimated Cost:</b></p>	
<p>2019 (A)</p>	<p>Entire Project: NA</p>	<p>Work for which Firm was Responsible: \$62,200 (phase I fee) \$33,000 (phase II fee) \$41,500 (phase III fee)</p>

**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**

<b>Project Name, Location and Owner's Contact Information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p>Suburban Pump Station Engine Replacement Jefferson Parish, LA</p> <p><u>Owner</u> Jefferson Parish Dept. of Drainage 1221 Elmwood Park Blvd., Ste. 907 Jefferson, LA 70123 Mitch Theriot, P.E., Director 504-736-6751 mtheriot@jeffparish.net</p>	<p>The majority of Jefferson Parish's Drainage Pump Stations were constructed in the 1970's and even though they have been well maintained, the eventual replacement of equipment is inevitable. Jefferson Parish has therefore undertaken a program to replace the engines and refurbish gears at most of the pump stations to ensure maximum pumping capacity for years to come. Due to Digital Engineering's (DE) successful replacement of eight engines and refurbishment of eight gears at Elmwood Pump Station, the Jefferson Parish Council again selected DE for the replacement/refurbishment of the Suburban Pump Station equipment.</p> <p>DE, along with our electrical sub-consultant, Infinity Engineering Consultants, LLC, is providing preliminary and final design, bidding, construction administration, record drawings, and limited resident inspection services for the replacement of engines and refurbishment of gears for Pumps 4 and 5 at Suburban Pump Station. The scope includes full replacement of two diesel drive engines, radiators, and exhaust systems along with all associated piping and electrical controls. The existing Murphey panel will also be updated for each new engine.</p>	
	<p>The condition of the existing gears will be determined by an inspection performed by Jefferson Parish, therefore alternate bid items will be established to account for possible gear refurbishment scenarios, including the installation of new auxiliary gear pump systems for each gear. Construction will be scheduled so that no pumps are removed from service during hurricane season.</p> <p>The project was bid in February 2021 and construction is commencing.</p>	
<p><b>KEY PERSONNEL INVOLVED:</b> Frank Liang, P.E., PTOE Neal Belmonte Donnie Wittke</p>		
<p><b>Completion Date (Actual or Estimated):</b></p>	<p><b>Estimated Cost:</b></p>	
<p>January 2022</p>	<p><b>Entire Project:</b></p> <p>\$1,544,900</p>	<p><b>Work for which Firm was Responsible:</b></p> <p>\$238,350</p>

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

**PROJECT NO. 4**

<b>Project Name, Location and Owner's Contact Information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p>Increased Pumping Capacity to the Parish Line Pump Station Jefferson Parish, LA</p> <p><u>Owner</u> Jefferson Parish Dept of Drainage 1221 Elmwood Park Blvd., Ste. 907 Jefferson, LA 70123 Mitch Theriot, P.E., Director 504-736-6751 mtheriot@jeffparish.net</p>	<p>The project included the design and construction of an additional 350 cfs pump to increase pumping capacity at the existing Parish Line Drainage Pump Station along with adjacent intake canal improvements. The project included a feasibility phase to quantify the existing flows and determine the necessary pumping capacity, along with related conveyance systems needed to address the stormwater flows to the station.</p> <p>It was originally proposed to phase the overall improvements, with a short term improvement phase which would provide a minimum of an additional 300 cfs and provide related conveyance systems improvements, and a long term project to add a minimum of an additional 1,200 cfs of capacity. Design was complicated by the Parish's request to construct the addition directly adjacent to the existing station. Subsequent improvements to the Parish's drainage system eliminated the need for long term improvements. The short term improvement phase was bid in July 2017 and Notice to Proceed for construction was issued in February 2018. Construction of the additional 350 cfs pump station was completed in June 2019.</p> <p>The project involved coordination between numerous local, state and federal agencies including the City of Kenner, the East Jefferson Levee Board, LDOTD, USACE, FAA, CPRA, and other stakeholders. DE assisted in the right-of-way acquisition, obtaining necessary permits, conducting public meetings, and preparing grant requests.</p>	
 <p>COMPLETED CONSTRUCTION</p>	<p><b>KEY PERSONNEL INVOLVED:</b> Frank Liang, P.E., PTOE Robert Delaune, P.E. Andrew Woodroof, P.E. Neal Bemonte Donnie Wittke Mickey Cochran</p>	
<b>Completion Date (Actual or Estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
2019 (A)	\$8,295,745 (construction)	\$1,127,500 (fee)

**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**

<b>Project Name, Location and Owner's Contact Information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p>Terry Parkway Drainage Improvements Jefferson Parish, LA</p> <p><u>Owner</u> Jefferson Parish Dept. of Public Works 1221 Elmwood Park Blvd., Ste. 904 Jefferson, LA 70123 Mark Drewes, Director 504-736-6783 mdrewes@jeffparish.net</p>	<p>DE provided hydraulic analysis, design, plan preparation, bidding, \$17 million construction administration, and resident inspection services for the installation of over 3,000 linear feet of a double cell concrete box culvert and concrete flume to enclose an existing drainage canal along Terry Parkway from Carol Sue Avenue to Industry Canal.</p> <p>Other improvements included the restoration of existing concrete streets and installation of landscaping, landscape lighting, street lighting and other utility relocations (water and sewer) to facilitate the box culvert construction.</p>	
 <p>CONSTRUCTION IN PROGRESS</p>	<p>The project included coordination and management of the efforts of three sub consultants. Due to budgetary constraints, this \$17 million project was constructed in four phases with the final phase recently completed. During construction, DE ensured all work was performed in accordance with the project plans and specifications. For this project DE also held pre-construction and construction progress meetings, addressed RFIs, reviewed shop drawings, coordinated utility relocations, reviewed project change orders, reviewed temporary traffic control/signage, and reviewed construction quantities and invoices.</p>	
 <p>CONSTRUCTION COMPLETION</p>	<p>Since the major work item of this project was installing a cast-in-place box culvert within a drainage canal, DE coordinated closely with the Jefferson Parish Drainage Department on coordinating the removal of the temporary dams prior to or immediately after heavy rain events.</p> <p><b>KEY PERSONNEL INVOLVED:</b> Frank Liang, P.E., PTOE Neal Belmonte Donnie Wittke Mickey Cochran</p>	

<b>Completion Date (Actual or Estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
2017 (A)	\$17,000,000 (construction)	\$1,422,564 (fee)

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

**PROJECT NO. 6**

<b>Project Name, Location and Owner's Contact Information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p>Subsurface Drainage Improvements in the Vicinity of Oakwood Canal and Carol Sue Avenue Jefferson Parish, LA</p> <p><u>Owner</u> Jefferson Parish Dept of Capital Projects 1221 Elmwood Park Blvd., Ste. 906 Jefferson, LA 70123 Neil Schneider, P.E., CCM, Director 504-736-6833 nschneider@jeffparish.net</p>	<p>DE provided design, bidding, construction administration, and resident inspection services for the installation of new subsurface drainage in the vicinity of Oakwood Canal and Carol Sue Avenue for Jefferson Parish. The project included the installation of large-diameter subsurface drain lines and the removal/replacement of the existing PCC roadway paving on the following streets: Bluebonnet, Stumpf, Diplomat, Deerfield, and Daniels.</p> <p>The project included roadway, ADA compliant sidewalk, and driveway reconstruction along with required utility adjustments. Funding was through LRA recovery funds and all CDBG requirements were met. Although it was not LDOTD administered, this project was designed and constructed utilizing the requirements of the Louisiana Standard Specification for Roads and Bridges, 2006 edition.</p> <p>During construction, DE worked closely with Jefferson Parish District Council's office along with the Department of Engineering. DE addressed any concerns during construction and responded to any complaints that were provided by the public.</p>	
 <p>CONSTRUCTION IN PROGRESS</p>  <p>CONSTRUCTION COMPLETION</p>	<p><b>KEY PERSONNEL INVOLVED:</b> Frank Liang, P.E., PTOE Neal Belmonte Donnie Wittke</p>	

<b>Completion Date (Actual or Estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
2014 (A)	\$2,900,000 (construction)	\$505,000 (fee)

**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**

<b>Project Name, Location and Owner's Contact Information:</b>	<b>Nature of Firm's Responsibility:</b>
<p>Drainage Improvements: North Sibley Street at West Napoleon Avenue Jefferson Parish, LA</p> <p><u>Owner</u> Jefferson Parish, Dept. of Capital Projects 1221 Elmwood Park Blvd., Ste. 906 Jefferson, LA 70123 Neil Schneider, P.E., Director 504.736.6833</p>	 <p style="text-align: center;"><i>Proposed Pump Station Location</i></p>

Digital Engineering (DE) provided engineering services for the design of drainage improvements at North Sibley Street and West Napoleon Avenue in Metairie.

The scope of the project was broken into two projects: the first project was the design of a new 25 cfs drainage pump station due to the minimal elevation relief between the outfall canal and the surrounding neighborhood. To prevent backwater from flowing into the local drainage system a 36" in-line check valve will be installed. This first project was bid in October 2019 and was awarded to Hard Rock Construction in the amount of \$683,450.00. Construction commenced in January 8, 2020 and is anticipated to be completed on September 4, 2020.

The second project was the design of the drainage improvements, in addition to the associated roadway improvements, along North Sibley from West Napoleon Avenue to Crawford Street (approximately 950 Linear Feet). All drainage design was performed in accordance with Jefferson Parish and LDOTD Standards. Drainage improvements included the removal of the undersized system and installing new 15" thru 36" RCP subsurface drain lines to improve drainage along North Sibley between West Napoleon Avenue and Crawford Street. The project also called for the removal and replacement of all water and sewer lines, PCCP roadway, sidewalks, driveways, and handicapped ramps. This project was advertised to bid in June 2020 with construction commencing afterwards.

**KEY PERSONNEL INVOLVED:**

Frank Liang, P.E., PTOE  
Neal Belmonte  
Mickey Cochran  
Donnie Wittke

<b>Completion Date (Actual or Estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
November 2020	\$1,926,000	\$168,004

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

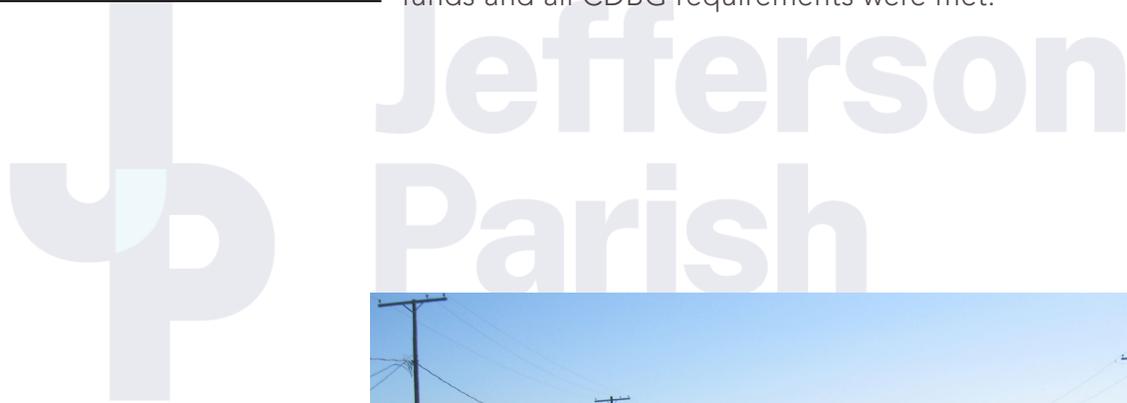
**PROJECT NO. 8**

<b>Project Name, Location and Owner's Contact Information:</b>	<b>Nature of Firm's Responsibility:</b>	
<p>Drainage Improvements to Hillings Ditch Jefferson Parish, LA</p> <p><u>Owner</u> Jefferson Parish Dept of Drainage 1221 Elmwood Park Blvd., Ste. 907 Jefferson, LA 70123 Mitch Theriot, P.E., Director 504-736-6751 mtheriot@jeffparish.net</p>	<p>To alleviate street flooding in the chronic drainage problem area of Diane Avenue in River Ridge, DE provided design, bidding, construction administration, and resident inspection services for a new drainage pump station and force main on the Hillings Ditch at Dart Street.</p> <p>DE first proposed an innovative approach to solving problems in this low-lying area by diverting the natural flow pattern of this ditch by the installation of a pump station which will discharge the stormwater to the Mississippi River as referenced in the East Bank Master Drainage Study, which was also developed by DE. Since Jefferson Parish concurred with the concept, they awarded DE the design of this politically-sensitive project. The project also included the directional drilling of the 30 inch force main beneath Jefferson Highway. Funding was through LRA recovery funds and all CDBG requirements were met.</p>	
<p><b>KEY PERSONNEL INVOLVED:</b> Frank Liang, P.E., PTOE Neal Belmonte Donnie Wittke</p>	<div style="text-align: center;">  </div> <div style="display: flex; justify-content: space-around; align-items: center;"> <div data-bbox="634 1127 1175 1514">  <p><b>CONSTRUCTION IN PROGRESS</b></p> </div> <div data-bbox="1003 1283 1495 1633">  <p><b>CONSTRUCTION COMPLETION</b></p> </div> </div>	
<p><b>Completion Date (Actual or Estimated):</b></p>	<p><b>Estimated Cost:</b></p>	
<p>2013 (A)</p>	<p><b>Entire Project:</b> \$2,600,000 (construction)</p>	<p><b>Work for which Firm was Responsible:</b> \$455,000 (fee)</p>

**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**

<b>Project Name, Location and Owner's Contact Information:</b>	<b>Nature of Firm's Responsibility:</b>
<p>Drainage Improvements to the Gulizo Canal between Ames Blvd and Eighty Arpent Canal Jefferson Parish, LA</p> <p><u>Owner</u> Jefferson Parish Dept. of Public Works 1221 Elmwood Park Blvd., Ste. 904 Jefferson, LA 70123 Mark Drewes, Director 504-736-6783</p>	<p>Digital Engineering provided design, bidding, and construction administration services for the construction of a 20 foot wide u-channel with steel sheet pile walls, walers, concrete bottom, and concrete slope paving on the Gulizo Canal for Jefferson Parish. The project was approximately 1,500 feet and included the installation of a concrete flume to transition to an existing concrete channel on the Eighty Arpent Canal.</p> <p>The project consisted of 25 temporary dam removal and replacements due to inclement weather and still finished within construction contract time. Funding was through LRA recovery funds and all CDBG requirements were met.</p>



COMPLETED CONSTRUCTION

**KEY PERSONNEL INVOLVED:**

Frank Liang, P.E., PTOE  
Neal Belmonte  
Donnie Wittke

<b>Completion Date (Actual or Estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>
2012 (A)	\$3,000,000 (construction)	\$363,000 (fee)

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

**PROJECT NO. 10**

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

*Drainage Improvements to the Canal No. 2 Culvert Crossing at California Avenue*  
Jefferson Parish, LA

Owner

Jefferson Parish Dept of Public Works  
1221 Elmwood Park Blvd., Ste. 904  
Jefferson, LA 70123  
Mark Drewes, Director  
504-736-6783  
mdrewes@jeffparish.net

**Nature of Firm's Responsibility:**

DE provided design, bidding, construction administration and resident inspection services for a new triple cell 9 foot by 9 foot box culvert with headwalls to replace the existing culvert crossing at California Avenue and West Esplanade Avenue (Canal No. 2) for Jefferson Parish.

The design included the replacement and alteration of the existing roadway crossing, relocation/replacement of an existing water line, and the addition of ADA handicap-accessible sidewalk and ramps. Funding was through LRA recovery funds and all CDBG requirements were met.

Although it was not LDOTD administered, this project was designed and constructed utilizing the requirements of the Louisiana Standard Specification for Roads and Bridges, 2006 edition. During construction DE worked with both the City of Kenner and Jefferson Parish Public Works Department on lane closures and temporary traffic detours which would minimize impacts to the public.

Throughout the construction project, DE worked closely with Jefferson Parish Engineering and Drainage staff for the installation of by-pass pumping and temporary dams. DE also coordinated with Jefferson Parish prior to and during heavy rain events for the removal of these temporary dams to allow water to flow freely within the canal to the pump stations.

**KEY PERSONNEL INVOLVED:**

Frank Liang, P.E., PTOE  
Neal Belmonte  
Donnie Wittke



CONSTRUCTION IN PROGRESS



COMPLETED CONSTRUCTION

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

2012 (A)

**Estimated Cost:**

**Entire Project:**

\$1,800,000 (construction)

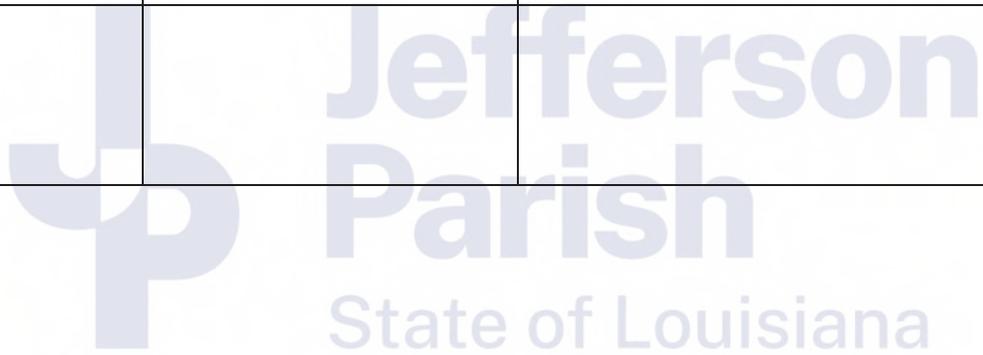
**Work for which Firm was Responsible:**

\$231,400 (fee)

**TEC Professional Services Questionnaire**

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

<b>Parties:</b>		<b>Status/Result of Case:</b>
<b>Plaintiff:</b>	<b>Defendant:</b>	
<b>1.</b> None		
<b>2.</b>		
<b>3.</b>		
<b>4.</b>		



## TEC Professional Services Questionnaire

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



### **WHO WE ARE**

Digital Engineering (DE), a full-service engineering firm, has been providing transportation and water resources engineering and planning services throughout southeast Louisiana for over 30 years. Established in 1990, DE is headquartered in Kenner at 527 West Esplanade Boulevard.

With a full-time staff of 42, the DE firm is comprised of:

- Professional Engineers
- Coastal Professionals
- Professional Traffic Operations Engineers
- Roadway Safety Professionals
- Professional Transportation Planner
- Design Technicians/Drafting Specialists
- Construction Managers
- Construction Inspectors
- LADOTD Certified Inspector
- Administrative Support Staff

Bettering our communities along the Gulf Coast is our sole purpose in prioritizing our clients' needs and offering them cradle-to-grave services to successfully implement projects at any stage.

### **WHAT WE DO**

DE's definition of "full-service engineering" is delivering quality products and projects to surpass the clients' goals, ensure their objectives are delivered, and ultimately our communities are improved. As a Small Business, we make it a priority to fully engage our clients in their projects and provide them a personal touch by offering full access to principals and project managers on every project.

### **HOW ARE WE DIFFERENT**

What sets DE apart in the engineering community is our commitment to our clients that goes above and beyond just designing or constructing projects to their satisfaction. Developing close working relationships with our clients allows us to become a virtual extension of their staff. By becoming a virtual extension of their staff, we are able to offer and achieve efficiency and continuity thus accomplishing our shared mission of improving the communities we live and work in.



## TEC Professional Services Questionnaire

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

### MINIMUM PERSONNEL REQUIREMENTS

JEFFERSON PARISH REQUIREMENTS	DE TEAM MEMBERS
1. The persons or firm under consideration shall have at least one (1) principal who is a professional engineer in the State of Louisiana.	Robert Delaune, P.E. Andrew Woodroof, P.E. Frank Liang, P.E., PTOE
2. The persons or firm under consideration shall have a professional engineer in charge of the project who is a registered as such in Louisiana with a minimum of five (5) years' experience in the disciplines involved.	Robert Delaune, P.E.
3. The persons or firm under consideration shall have one (1) employee who is a professional engineer registered as such in Louisiana in the field or fields of expertise required for the project. (A sub-consultant may meet this requirement only if the advertised Project involves more than one discipline.)	Robert Delaune, P.E. Andrew Woodroof, P.E. Christina Shurley, P.E.

### EVALUATION CRITERIA

#### Professional Training & Experience

DE and our staff have served as professional engineering consultants for Jefferson Parish drainage projects for over 30 years that have involved Subsurface Drainage, Box Culverts, Hydraulic and Hydrologic Modeling, Drainage Canals and Channels, Master Drainage Plans, and Drainage Pump Stations.

DE has provided engineering design services for \$96 million (construction value) for drainage projects throughout Jefferson Parish.

We have listed below all of our Jefferson Parish drainage projects that we have provided engineering design and construction administration for.

- Airline Highway Improvements (Canal Enclosure at Zephyr Field)
- Canal Street Drainage Improvements
- Transcontinental Drive Improvements from York Drive to West Esplanade Avenue
- Citrus Avenue Improvements (Jefferson Hwy to Soniat Canal)
- Brown Avenue Corridor Roadway and Drainage Improvements
- Kawanee Street Roadway and Drainage Improvements
- Massachusetts Avenue Roadway and Drainage Improvements
- Transcontinental Corridor Intersection Improvements (Transcontinental Boulevard at West Esplanade Avenue)
- Terry Parkway Drainage Improvements (Carol Sue to Industrial Canal)
- Council 4 Drainage Mitigation
- Elmwood Pump Station Engine and Gear Replacement
- Jefferson Parish East Bank Master Drainage Plan
- Parish Line Pump Station
- Oakwood/Carol Sue Drainage Improvements
- Hillings Ditch Pump Station
- Gulizo Canal Drainage Improvements (Ames Blvd to Eighty Arpent Road)
- Canal No. 11 Drainage Improvements
- St. George Street Improvements
- Drainage Improvements to N. Sibley Street at West Napoleon Avenue
- Manson Ditch Drainage Improvements
- Soniat Canal Improvements

”

The [DE] staff is very knowledgeable and also very attentive of the City's concerns and requirements throughout the development of Roadway Safety projects. DE has my recommendation as a firm that can successfully provide design services on safety, enhancement, and traffic engineering projects for the City of New Orleans DPW or any other agency.

*Louis Haywood, Project Manager  
City of New Orleans DPW*

## TEC Professional Services Questionnaire

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

- Southbound Westwood Drive Rehabilitation
- Westbound Veterans Boulevard Reconstruction (Bonnabel Canal to Severn)
- Cousins Boulevard Extension (Woodmere Drive to Lapalco Boulevard)

*We have included a matrix below that illustrates the training and experience of our personnel that appear on the organization chart and whose detailed resumes are included in this questionnaire.*

### DE TRAINING & EXPERIENCE MATRIX

Professional	Degree	Louisiana Professional Civil Engineer	Years of Relevant Drainage Project Experience	Experience with Jefferson Parish Drainage Projects
Robert Delaune, P.E.	BS/Civil	•	21	•
Andrew Woodroof, P.E.	BS/Civil	•	11	•
Frank Liang, P.E., PTOE	BS/Civil	•	26	•
Christina Shurley, P.E.	BS/Civil	•	18	•
Patrick Stiegman, P.E.	BS/Civil	•	6	•
Neal Belmonte	BS/Health & Kinesiology		13	•
Mickey Cochran	AA/Design & Drafting		18	•
Donnie Wittke	AA/Design & Drafting		15	•

### Capacity for Timely Completion of the Project

We have assigned eight (8) key personnel to this contract who all are experienced in supporting our clients with a range of drainage engineering related services.

DE's staffing/resource capacity combined with our office location in Jefferson Parish will allow for timely response and completion for any and all engineering services that Jefferson Parish may require as a part of this contract.

### Location of Principal Office

Digital Engineering's main office is located in Jefferson Parish at 527 West Esplanade Avenue, Suite 200, in Kenner, Louisiana 70065. All project management and engineering services will be performed at this location.

### Adversarial Legal Proceedings

Digital Engineering has not been involved in any litigation with Jefferson Parish, nor with any of our Louisiana clients.

### Prior Successful Completion of Projects

DE's record on public contracts is exemplary as shown by the project experience demonstrated herein. We have an excellent history of working with Jefferson Parish.

For further discussion of our services to Jefferson Parish and other public entities, we invite you to contact the following references:

Neil Schneider, P.E. (504) 349-5800  
Director of Capital Projects, Jefferson Parish

Mark Drewes, P.E., (504) 736-6784  
Director, Department of Public Works, Jefferson Parish

Tom Schreiner, (504) 468-7515  
Deputy CAO-Public Works, City of Kenner

### Size of Firm

DE is comprised of 42 employees. We have the in-house resources within our Kenner office to support Jefferson Parish with all project management and engineering services for this project.

## TEC Professional Services Questionnaire

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

### Past Performance by Person or Firm on Parish Contracts

DE has provided professional engineering services for a variety of projects for Jefferson Parish including environmental, coastal, roadway, sewer, water, drainage, and building projects.

Listed within are a few quotes that attest to our ability to complete projects on time and within budget.

”

City Park New Orleans and LADOTD worked with DE for Construction Engineering/Management and Inspection phase of the Tri-Centennial Place Improvements. DE was very attentive to this and the project was completed ontime and under budget. Services that DE provided have been excellent and their staff is very knowledgeable and experienced in providing the necessary services associated with this project and all the requirements with administering a project through LADOTD. Their staff was attentive to our needs and addressed issues that arose during construction in a very timely manner.

Meg Adams, P.E., Construction Manager  
New Orleans City Park

erson  
rsh  
of Louisiana

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

Signature: 

Print Name: Robert Delaune, P.E.

Title: Sr. Vice President, Principal

Date: 03/31/2022

## TEC Professional Services Questionnaire

**A. Project Name and Advertisement Resolution Number:**

**B. Firm Name & Address:**

**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:**

**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.**

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

<input type="checkbox"/> Administrative	<input type="checkbox"/> Estimators	<input type="checkbox"/> Specification Writers
<input type="checkbox"/> Architects (Licensed)	<input type="checkbox"/> Geologists	<input type="checkbox"/> Structural Engineers
<input type="checkbox"/> Chemical Engineers	<input type="checkbox"/> Geotechnical Engineers	<input type="checkbox"/> Graduate Engineers
<input type="checkbox"/> Civil Engineers	<input type="checkbox"/> Interior Designers	<input type="checkbox"/> Project Managers
<input type="checkbox"/> Construction Inspectors	<input type="checkbox"/> Landscape Architects	<input type="checkbox"/> Clerical
<input type="checkbox"/> Ecologists	<input type="checkbox"/> Land Surveyor	<input type="checkbox"/> Grant/Funding Specialist
<input type="checkbox"/> Electrical Engineers	<input type="checkbox"/> Mechanical Engineers	<input type="checkbox"/> Sanitary Engineers
<input type="checkbox"/> Engineer Intern	<input type="checkbox"/> Environmental Engineers	
<input type="checkbox"/> Professional Land Surveyors	<input checked="" type="checkbox"/> CAD Operators	<input type="checkbox"/> <b>TOTAL</b>

*\*All of our Engineers are Specification Writers.*

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

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

## TEC Professional Services Questionnaire

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

1.

2.

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

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

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

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

\_\_\_\_\_

**TEC Professional Services Questionnaire**

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

**PROFESSIONAL IN CHARGE OF PROJECT:**

**Name & Title:**

**Project Assignment:**

**Name of Firm with which associated:**

**Years' experience with this Firm:**

**Education: Degree(s)/Year/Specialization:**

**Active registration: Year first registered/discipline:**

**Other experience and qualifications relevant to the proposed Project:**

**Other Experience and Qualifications Relevant to the Proposed Project (*continued*)**

**Estelle 1 Pump Station Modifications**

Designed and specified electrical and SCADA systems for the replacement of three 200 HP drainage pump motors. Design included power, lighting, controls, instrumentation, and SCADA communications design.

**Elmwood Pumping Station Engine Replacement**

Designed the electrical systems associated with the replacement of 8 diesel drive units, replacement of 8 remote radiators, and refurbishing 8 right angle gear boxes. Design included modifications to existing MCC equipment to accommodate larger radiators and additional pre-lube pumps for right-angle gears. Existing feeders were utilized to feed new distribution load centers for each engine, which in turn supply power to ancillary loads such as battery chargers and engine heaters. Modifications to existing Murphy Controls were implemented so that existing engine and PLC controls could interface factory-installed, skid-mounted engine controls, sensors, and safeties. Existing shaft speed sensors were maintained for existing SCADA systems to be able to continue to monitor engine speed remotely.

**Veterans Boulevard Pumps**

Designed and specified electrical power, control, and SCADA systems for drainage booster pumping stations (3 total stations – 2 at Veterans and 1 at West Esplanade) to be located near the 17th St. Canal at Veterans Blvd. and West Esplanade Ave. Each station consists of (2) electric motor-driven pumps ranging from 125 HP to 250 HP each. Design included primary and full standby power systems for each station, PLC pump controls, instrumentation, and SCADA system.

**Jefferson Parish Dept of Drainage-Hero Pump Station-Standby Power Automation**

Designed modifications to existing medium voltage switchgear and medium voltage generator controls to allow for automatic transfer and paralleling of generators to the station when utility power is unavailable. Design included replacement of existing generator controls with PLC-based controls, the addition of synchronization logic and controls to the existing switchgear, and replacement of existing electromechanical protection relays with digital, programmable GE Multilin relays. IMC is the Prime Consultant for this project, and Paul will be serving as the Project Manager during construction.

**Fronting Protection - Bonnabel and Suburban Pump Stations**

Designed and specified power, lighting, and PLC-based controls associated with the addition of electrically-actuated sluice gates at the end of the discharge tubes for the horizontal pumps at PLC system for remote control of closure gates from the Pump Station or the Bonnabel and Suburban Pumping Stations. Design included interface with existing Allen-Bradley Safe House.

### **Parish Line Pumping Station**

Designed and specified power, lighting, instrumentation, control, and SCADA systems for an addition to the existing station. The addition consisted of a diesel-driven vertical pump and associated support systems, such as compressed air for engine starting, gear lubrication and cooling, and diesel fuel storage and transfer. The design included provisions for three additional diesel-driven vertical pumps in the future. Location of the station required designs associated with the relocation of the medium voltage electrical service to the station. Project design features of special note included medium voltage pad-mounted switchgear, PLC equipment for complete monitoring and control of the station locally or remotely from Duncan Pumping Station, an expansion of the video surveillance system, motorized trash screen cleaner controls, fuel controls, engine controls, and gear vibration monitoring.

### **Ascension Parish – Marvin Braud Pump Station - Enhanced Flood Protection**

Designed and specified electrical modifications to the station to incorporate the addition of sluice gates at pump discharge tubes for prevention of water backflow into the suction basin from the discharge basin. Project also included electrical relocations North of the station to accommodate a new flood wall.

### **OSP-05 - Addition of a New Pumping Station and Stormproofing of Existing Pumping Station 5, Orleans Parish**

Designed and specified electrical, communication, instrumentation and control systems associated with the construction of a new 600 CFS drainage pumping station and the storm proofing of existing Drainage Pumping Station 5. New pumping station consisted of two, 1500 HP electric motor-driven drainage pumps and associated equipment. Electrical design for the new pumping station included a new electrical service, normal power systems, a 4 MW standby generator for full station backup, a 400 kW standby generator for house power, medium voltage switchgear and distribution, power factor correction capacitors for drainage pump motors, reactive starting of pump motors with 80% tap, grounding systems (including a building counterpoise), DC power system with battery charging equipment configured to allow DC system power to be available from station batteries or either of two battery chargers, site lighting, and building lighting. Communication design for the new pumping station included connections to the phone system serving the existing pumping station 5, audible / visible "phone ringing" notification devices, and intercom equipment for communications between the existing and new pumping stations. Instrumentation design included power monitoring and protection via digital relays. Control system design for the new station included switchgear-based start / stop control of pump motors, control of fans and dampers with associated interlocks for building ventilation and with provisions for key-switch overrides, remote control consoles for motor, generator and switchgear power monitoring and control, and a "bubbler" type level monitoring and pump automation system. All electrical equipment for the new station was located above the design flood elevation and all exterior equipment was specified to withstand hurricane force winds. Design for the existing Pumping Station 5 included storm proofing measures such as conduit seals, relocation of electrical to facilitate



LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 3/11/2022 the Louisiana Professional Engineering and Land Surveying Board (LPELS) has the following information on file:

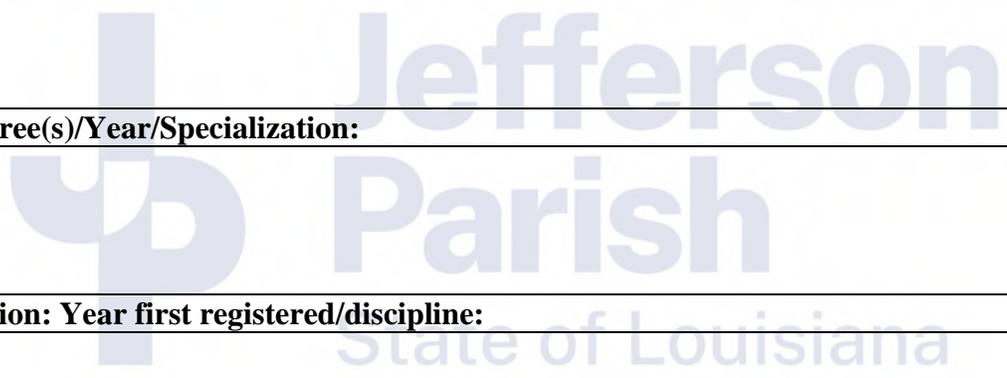
Mr. Paul Schurb Vlosich  
2120 Colombo Drive  
Harvey, Louisiana 700583045

	<b>LOUISIANA PROFESSIONAL ENGINEERING &amp; LAND SURVEYING BOARD (LPELS)</b> 9643 Brookline Avenue, Suite 121 Baton Rouge, LA 70809 Phone (225) 925-6291 www.lapels.com
	<b>Mr. Paul Schurb Vlosich</b> License/Certificate Type - Number      Expiration Date <b>PE.0031006</b> <b>03/31/2024</b> Status: <b>Active</b>
<b>Fold Here</b> →	<p>Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).</p> <p>LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.</p>

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**TEC Professional Services Questionnaire**

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



***Other Experience and Qualifications Relevant to the Proposed Project (continued)***

**Cousins Booster Pumping Station – Jefferson Parish**

Electrical design of sewerage forced main triplex station (3-125 h.p.) and support systems including secondary selective service switching scheme. Required dual utility service with transfer facilities, motor controls, lighting, and miscellaneous power.

**Freshwater Bayou Lock Electrical Renovation, Vermillion Parish**

Designed total renovation of this COE Lock in south Louisiana. Included electrical service, distribution system, lighting, controls, navigation lighting, generation, etc.

**Catfish Point Sector Gate Renovation, Cameron Parish**

Designed total renovation of this COE freshwater/storm water control structure. Included electrical service, distribution system, lighting, controls, navigation lighting, generation, etc.

**Drainage Pumping Station No. 6, Orleans Parish**

Design of electrical modifications at Drainage Pumping Station No. 6, which included 14 sluice gates (motors & controls), lighting, and miscellaneous power.

**Drainage Pumping Station No. 6 - Add Two 3750 KW Generators, Orleans Parish**

Electrical design of the installation of two new 3750 KW generators for this major S&WB Drainage Pumping Station. The design included tying the new generators into the existing electrical system at Pumping Station #6. It also included providing a new control and monitor in the existing control station to monitor the status of the new generators. These generators provide emergency power to large vertical pumps that pump water from the 17th Street canal.

**LADOTD Renovation of the Mechanical & Electrical System Associated with the Houma Tunnel, Terrebonne Parish**

Under this work statement IMC prepared construction documents to replace all pumping (10 drainage pumps/motors) and electrical gear including all controls, wiring, etc. within the facility. Responsible for all electrical design for total renovation of these pumping facilities (three stations) associated with the existing Tunnel. System including service entrance switchgear, motors, controls, lighting and power distribution.

**LADOTD - Renovation of Highway 190 Pumping Station, West Baton Rouge Parish**

Electrical design for total renovation of this pumping facility including motors, controls, electrical service, lighting and power distribution.

**Mini-System Improvements Sewerage System, Jefferson Parish**

Electrical design of numerous sewerage lift and booster stations for Jefferson Parish. Approximately 30 - 40 stations, duplex and triplex, submersible, wet/dry well and above ground facilities.

Richard Nichols, P.E.  
Principal and Electrical Department Head

**Port Allen Lock- Relocate Generator, West Baton Rouge Parish**

Electrical Design of the relocation of existing generator for the lock in order to storm proof the generator operation and provide for additional fuel capacity.



LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 3/11/2022 the Louisiana Professional Engineering and Land Surveying Board (LPELS) has the following information on file:

Mr. Richard Earl Nichols  
1054 Whitetail Drive  
Mandeville, Louisiana 70448

	<b>LOUISIANA PROFESSIONAL ENGINEERING &amp; LAND SURVEYING BOARD (LPELS)</b> 9643 Brookline Avenue, Suite 121 Baton Rouge, LA 70809 Phone (225) 925-6291 www.lapels.com
	<b>Mr. Richard Earl Nichols</b> License/Certificate Type - Number      Expiration Date <b>PE.0025896</b> <b>09/30/2022</b> Status: <b>Active</b>
<p>Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).</p> <p>LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.</p>	

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**TEC Professional Services Questionnaire**

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<b>Name &amp; Title:</b>
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<b>Name of Firm with which associated:</b>
<b>Years' experience with this Firm:</b>
<b>Education: Degree(s)/Year/Specialization:</b>
<b>Active registration: Year first registered/discipline:</b>
<b>Other experience and qualifications relevant to the proposed Project:</b>

## **Other Experience and Qualifications Relevant to the Proposed Project (*continued*)**

### **Elmwood Drainage Pump Station**

Supervised and acted as the Professional of Record for the mechanical system design. This multi-year project consisted of replacing eight (8) existing diesel engines, remote radiators and mufflers that drive the eight (8) vertical turbine drainage pumps at the Elmwood Pump Station. As part of the mechanical design, the existing diesel driven engines, their remotely mounted radiators and mufflers are being replaced. The design included replacement, or modifications, to the fuel, compressed air and cooling water piping systems associated with the new engines, refurbishment of the existing right angle gear reducers and new drive shafts to connect the engines to the gear reducers. The project was designed in phases to replace two units at a time so as not to drastically reduce the pumping capacity of the station.

### **USACE Levee Inspections**

Chip provided Inspections of (56) storm water pumping stations in the metro New Orleans area. IMC was responsible for inspecting the mechanical systems including all pumps, engines, motors, fuel systems, ventilation, compressed air systems, vacuum pumps, backflow prevention and any other mechanical systems within the pump stations. IMC was charged with observing all mechanical systems in operation and generating a report on their condition and required repairs or improvements. The project deliverables included a report on the system conditions and recommendations on addressing any noted deficiencies. The project spanned approximately one year and provided valuable insight into the advantages and disadvantages of the various pump station types.

### **Orleans Parish Storm Proofing**

Supervised and acted as the Professional of Record for the mechanical system design. After Hurricane Katrina, the United States Army Corps of Engineers (USACE) undertook a project to make as many of the New Orleans Drainage Pump Station as flood resistant as possible. As part of the mechanical design, IMC designed and specified the fuel storage and distribution systems, compressed air system cooling water systems associated with the large diesel driven standby generators that were installed at many of the pump stations. The design included installation of 30,000-gallon aboveground fuel tanks, 3,000-gallon day tanks and associated piping, pumps and controls for the diesel fuel oil supply to the generators, and diesel driven and electric driven compressed air systems associated with the diesel engine "air-start" systems. This included compressors, controls, air receivers and associated piping.

### **17th Street Canal, London Avenue Canal and Orleans Avenue Canal Closure Structures, Orleans Parish**

Supervised and acted as the Professional of Record for the mechanical system design. The design consisted of mechanical systems to support the diesel driven pumps, including 40,000 gallons of above ground diesel fuel storage and transfer systems, and the design of domestic water and sanitary systems associated with the personnel offices to serve the remainder of the building loads.

### **Parish Line Pumping Station, Jefferson Parish**

Supervised and acted as the Professional of Record for the design of the mechanical systems associated with an addition to the existing drainage station. The project consisted of a new structure adjacent to the existing station for the purpose of housing a single, diesel-engine driven vertical pump. Design included provisions for expanding the new structure to include three future pumps, for a total of four pumps in the station addition. Mechanical design included additions and modifications to the existing

**Chip Higbee, P.E.**  
**Principal**

fuel storage and transfer system, a new fuel polishing system, a compressed air system for diesel engine starting and discharge tube valve actuation, domestic water service modifications, an emergency raw-water system, gear oil cooler piping, and bearing water piping. Design also included piping to and from keel coolers submersed in the suction basin for engine cooling and exhaust piping from the diesel engine to the silencer mounted on the exterior of the station.

**Fronting Protection for Ollie Pumping Station, Plaquemines Parish**

Supervised and acted as the Professional of Record for all mechanical system designs. The design included specified modifications to the existing compressed air piping and design of new compressed air piping system. It also included modifications to the cooling water piping that served keel coolers for existing engines.



LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 3/11/2022 the Louisiana Professional Engineering and Land Surveying Board (LPELS) has the following information on file:

Mr. Eugene Fallis Higbee III  
2714 Independence Street  
Metairie, Louisiana 70006

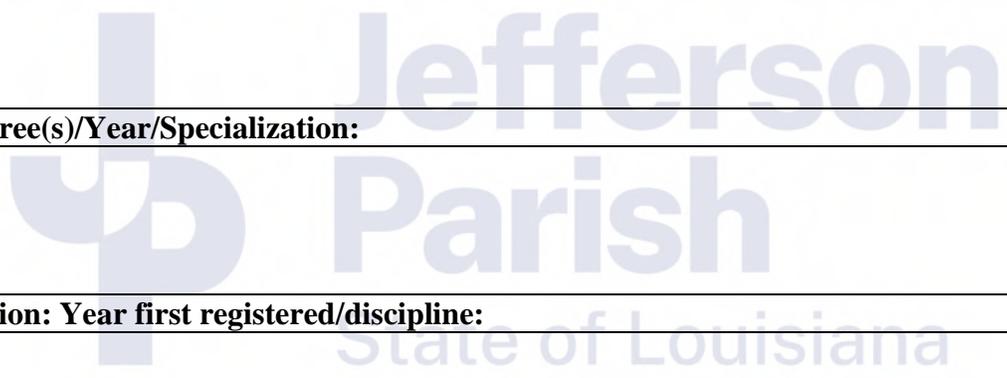
	<b>LOUISIANA PROFESSIONAL ENGINEERING &amp; LAND SURVEYING BOARD (LPELS)</b> 9643 Brookline Avenue, Suite 121 Baton Rouge, LA 70809 Phone (225) 925-6291 www.lapels.com
	<b>Mr. Eugene Fallis Higbee III</b> License/Certificate Type - Number      Expiration Date <b>PE.0026162</b> <b>09/30/2022</b> Status: <b>Active</b>
<p>Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).</p> <p>LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.</p>	

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**TEC Professional Services Questionnaire**

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



**Other Experience and Qualifications Relevant to the Proposed Project (*continued*) Jefferson Parish**

**“Parish-Line” Pump Station**

This project was an expansion to the existing pump station located at the Parish Line Canal. A single drainage pump was being added in a new building. The project was designed to allow for expansion to a total of four new pumps. The design included a new 12,000 gallon diesel fuel yard to augment the existing fuel storage on site, new domestic water service modifications, new domestic water booster pumps, new raw water pumps to serve the existing, new and future drainage pumps bearing systems (This system will act as back up to the domestic water system.), new compressed air system to start the diesel driven drainage pump, new fuel distribution to serve the new and future diesel engines, and new diesel engine exhaust system.

**Jefferson Parish Elmwood Drainage Pump Station**

This on-going project consisted of replacing eight existing diesel engines, remote radiators and mufflers that drive the eight vertical turbine drainage pumps at the Elmwood Pump Station. As part of the mechanical design; the existing diesel driven engines and their remotely mounted radiators and mufflers are being replaced. The design included replacement or modifications to the fuel-compressed air and cooling water piping systems associated with the new engines, refurbishment of the existing right angle gear reducers and new drive shafts to connect the engines to the gear reducers. The project has been designed in phases to replace two units at a time so as not to drastically reduce the pumping capacity of the station.

**New Orleans Sewerage & Water Board Drainage Pump Station No. 5**

After Hurricane Katrina, the United State Army Corps of Engineers (USACE) undertook a project to build a new drainage pump station to augment the existing pump station that was on the site. As part of the mechanical design, we designed and specified the fuel storage and distribution system, compressed air system, cooling water system that served the large diesel driven standby generators that were part of the new pump station. The design included installation of a 15,000-gallon aboveground fuel tank, a 3,000 gallon day tank and associated piping, pumps and controls for the diesel fuel oil supply to the generator. The design also included diesel driven and electric driven compressed air systems associated with the diesel engine “air-start” systems. This included compressors, controls, air receivers and associated piping. Remote air-cooled radiators were provided to cool the generator’s diesel engine along with aftercooler and jacket water piping. New potable water system was designed using a variable frequency driven booster pump to maintain required water pressure at the station. Exhaust piping was designed to serve the generator’s diesel engine. Upgrades were designed for the existing drainage pump station providing sump pumps to help “stormproof” the building and a new domestic water booster pump to serve the existing station’s water needs.

**Bayou Segnette Pumping Station**

This was an addition to the existing drainage pumping station. The plumbing design included all mechanical systems for the support of the diesel engine driven drainage pumps. Systems included a compressed air system for starting the main diesel engines that operate the drainage pumps, engine and gear cooling water systems, domestic water and sanitary systems, instrument air systems, vacuum pump priming system, pump bearing lubrication water system, a 30,000 gallon above ground diesel fuel storage and transfer system, waste oil system, and sump pumps to serve the station’s basement. The design also included the air distribution system required for the suction basin and discharge basin water level manometers and discharge tube vacuum breaker system.

**Westminster Pumping Station Generator Building**

The design included compressed air, fuel storage and distribution systems to support the 2.5 mega watt

**Louis Pastor, CIPE/CPD**  
**Plumbing Designer**

generator. The design consisted of compressed air for engine starting, a 40,000-gallon fuel oil storage system with transfer pumps and distribution piping, engine exhaust piping, engine cooling system, instrument air, domestic water and well water (750 ft. well), and sewerage piping.

**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**

<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>

**PROJECT NO. 2**

<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>

**TEC Professional Services Questionnaire**

<b>PROJECT NO. 3</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility</b>	
<b>Completion Date (Actual or estimated)</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>

<b>PROJECT NO. 4</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility</b>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>

**TEC Professional Services Questionnaire**

<b>PROJECT NO. 5</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>

<b>PROJECT NO. 6</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>

**TEC Professional Services Questionnaire**

<b>PROJECT NO. 7</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>

<b>PROJECT NO. 8</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>

**TEC Professional Services Questionnaire**

<b>PROJECT NO. 9</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>

<b>PROJECT NO. 10</b>		
<b>Project Name, Location and Owner's contact information:</b>	<b>Nature of Firm's Responsibility:</b>	
<b>Completion Date (Actual or estimated):</b>	<b>Estimated Cost:</b>	
	<b>Entire Project:</b>	<b>Work for which Firm was Responsible:</b>

**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. IMC has no prior or on-going 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.**

IMC Consulting Engineers, Inc. has enjoyed the opportunity to provide professional services for projects within Jefferson Parish since being established in 1988. IMC has provided extensive electrical and mechanical work for Jefferson Parish working both as a prime and sub-consultant, including mechanical and electrical designs for Drainage Pumping Stations within the Parish.

We hope the responses in the SOQ demonstrate IMC's recent and expansive experience providing mechanical and electrical engineering services for Drainage Pumping Stations. Many of the highlighted projects have been with, or directly for, Jefferson Parish. Some examples of recent Drainage projects within Jefferson Parish include electrical improvements and Hero Pump Station, the addition to Parish Line Pumping Station, engine replacements at Elmwood Pumping Station, and new booster pumping stations along Veterans Blvd. near the 17th St. Canal (not yet constructed).

Outside of Jefferson Parish, IMC has designed mechanical and/or electrical systems for drainage projects at Marvin Braud Pumping Station in Ascension Parish, Ollie Pumping Station in Plaquemines Parish, and DPS-5 in Orleans Parish, to name a few.

We look forward to continuing to serve Jefferson Parish in this capacity!

Please see additional pages.

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

Signature: Paul S. Vlosich Print Name: Paul S. Vlosich  
 Title: Principal and Director of Municipal Projects Date: 3/17/2022

**N. (continued) Use this space to provide any additional information or description of resources supporting firm's qualifications for the proposed project:**

1. PROFESSIONAL TRAINING AND EXPERIENCE – DRAINAGE

IMC has performed mechanical and electrical designs and construction administration at Jefferson Parish Drainage Pump Stations for over 30 years.

IMC Consulting Engineer's Electrical staff includes Principals, Richard Nichols, P.E. (30+ years of experience) and Paul Vlosich, P.E. (25+ years of experience). IMC also employs four Electrical Designers:

- Daniel Walker (30+ years of experience)
- Garret Fried (5+ years of experience)
- Brant Hoover, EIT
- Zach Ferger

IMC's Mechanical staff includes Principals Eugene "Chip" Higbee, P.E. (30+ years of experience) and Matthew Wender, P.E. (15 years of experience). IMC also employs two additional registered Professional Mechanical Engineers, and two Mechanical Designers:

- Joseph Garon, P.E. (5+ years of experience)
- Matthew Garon, P.E. (5+ years of experience)
- Russell Troncoso (3+ years of experience)
- Quynh Nguyen

Louis Pastor, CIPE/CPD (40+ years of experience) continues to provide IMC with design assistance on selected projects on a part-time basis. Louis specializes in plumbing engineering and is certified in that area. Louis has specialized experience in the design of compressed air systems and fuel storage and distribution systems.

All of IMC Engineers and Designers provide field observation and inspection of projects under construction on a regular basis.

All of our Engineers and Designers are required to obtain a minimum of 15 hours of professional development training each year, eight of which must be associated with life safety training (NFPA 101, IBC, NFPA 72, NFPA 13, etc.), and at least one hour in professional ethics.

While we hope that our responses demonstrate IMC's experience in the design of electrical and mechanical systems for drainage pump stations, as well as our experience providing professional services to Jefferson Parish, we also want to highlight our experience communicating with the Parish's preferred PLC-based Pump Control and SCADA System provider, Prime Controls, whose PLC equipment we are familiar with, and whom we have a great working relationship with.

**N. (continued) Use this space to provide any additional information or description of resources supporting firm's qualifications for the proposed project:**

**2. CAPACITY FOR TIMELY COMPLETION OF NEWLY ASSIGNED WORK**

IMC is presently utilizing AutoCAD & Revit drafting software and custom- designed templates specifically tailored to electrical and mechanical system drafting. The original template was designed in 1988 and continues to be upgraded by IMC. IMC utilizes MS Word processing software for specifications and general correspondence and utilizes Microsoft Excel electronic spreadsheet for efficient calculations and tabulation of data.

Based upon our experience with past, similar contracts with Jefferson Parish, we project that this contract would constitute less than 5% of our revenue in a given fiscal year. As such, we believe that IMC's staff of 19 can support the design effort required for the awarded work. IMC has performed in a timely fashion on work such as this in the past, and we believe that our familiarity with the people, vendors, and type of work advertised in this SOQ will contribute to our efficiency in completing the work in a timely fashion. We hope that our past experience with Jefferson Parish has demonstrated that IMC has the capacity for timely completion of projects; we know of no instance where IMC was not able to deliver a project on time to Jefferson Parish.

**3. LOCATION OF PRINCIPAL OFFICE**

IMC's only office is located in Jefferson Parish at 2714 Independence St., Metairie, LA, and many of our employees reside in Jefferson Parish. IMC has been located in Metairie since 1993. All mechanical and electrical design work will be handled from this office by staff presently with IMC.

**4. ADVERSARIAL LEGAL PROCEEDINGS WITH JEFFERSON PARISH**

IMC is not involved nor ever has been involved in litigation with Jefferson Parish.

**5. PRIOR SUCCESSFUL COMPLETION OF PROJECTS OF THE TYPE & NATURE OF SERVICES**

IMC has successfully completed numerous projects of this type and nature for Jefferson Parish in the 30+ years that we have been in business. Specific to Jefferson Parish, IMC has completed projects as a Prime and as a Sub-consultant at several Jefferson Parish Sewer Lift Stations, Drainage Stations, and other Facilities, including the Yenni Building, First Parish Court, the East Bank Maintenance Building, the East Bank Library, the River Ridge Library, and the Westbank Government Complex. Specific to the projects of the type anticipated for this contract, IMC has recently and successfully designed, and/or administered the construction for, the mechanical and/or electrical systems for following recent Drainage Projects:

- Electrical Improvement at Hero Pump Station
- Addition to Parish Line Pump Station.
- New Booster Drainage Pump Stations along Veterans, near 17<sup>th</sup> St. Canal
- Engine Replacements at Elmwood Pumping Station.

**6. SIZE OF FIRM**

IMC is a 19-person firm specializing in Mechanical and Electrical design services. Our firm has relatively low overhead and prides itself on productivity. Our engineers and designers are involved in all aspects of the project from design to final observation, decreasing the total impact that a single project has to company resources, and allowing our engineers to take ownership of the projects they have designed.

**N. (continued) Use this space to provide any additional information or description of resources supporting firm's qualifications for the proposed project:**

**7. PAST PERFORMANCE BY FIRM ON PARISH CONTRACTS**

IMC has worked on numerous projects for Jefferson Parish in the past. In addition to those already mentioned, some examples of these projects include mechanical, electrical, plumbing design and construction administration services for the Kenner WWTP Generator Banking Project, Yenni Building Standby Generator Project, the Veterans Blvd. Decorative Lighting project, and the Causeway and West Esplanade Sewer Lift Station project, just to name a few. Our mechanical, electrical, and plumbing design experience for Jefferson Parish includes not only Drainage Pumping Stations, but also Sewer Lift Stations, Office Buildings, Courthouses, equipment replacements (mechanical and electrical), and other facilities/projects.

IMC has provided engineering services for many Jefferson Parish projects. All projects have been successfully completed, and we encourage review of our performance with other Jefferson Parish personnel, including Mr. Ben Lepine (Drainage Dept.), Mr. Ryan Babcock (Director of General Services), and Mr. Mark Drewes (Director of Public Works).

We have enjoyed our relationship with Jefferson Parish over the past 30+ years and sincerely believe that we have earned a good reputation with the Parish for delivering quality designs. We hope to continue to have the opportunity to work with Jefferson Parish in the upcoming years.

**IMC is a small business as identified by U.S. Federal Standards.**

