

March 31, 2022

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

RE: SOQ 22-011 Resolution No. 138811 Routine Engineering Services for Drainage Projects

Neel-Schaffer, Inc. (NSI) is pleased to respond to SOQ 22-011 Routine Engineering Services for Drainage Projects. We are a large, multi-disciplined consulting engineering firm of with nearly 500 professional, technical, and support staff operating business throughout the southern and southeastern United States with Louisiana offices in New Orleans, Mandeville, Baton Rouge, Lafayette, and Shreveport. We have 45 staff members located in Louisiana offering the services of 24 registered Professional Engineers.

We have been recognized in the *Engineering News Record* "Top 500 Design Firms" listings since 1994 and ranked in the top 250. In addition, Neel-Schaffer has previously been named in the top 25 road and highway design firms in the nation by Roads & Bridges magazine.

Additionally, NSI employs a highly qualified team of professionals skilled in a variety of engineering disciplines that are fully capable of conducting the most complex engineering and design projects.

We routinely provide service on an "On Call" basis for our clients and have been selected for three consecutive CPRA IDIQ Coastal Contracts from 2013 to present. We currently are providing services to CPRA for a three-year multiple task order award contract. In addition, NSI has been selected repeatedly by LADOTD for on-going retainer contracts over the past eighteen years. This is an excellent indication of our firm's performance ability on public contracts and NSI's reputation as a consultant of choice by public agencies.

Our team includes **Eustis Engineering, LLC** providing Geotechnical Testing & Engineering Services as well as **Linfield, Hunter & Junius, Inc.** providing Surveying.

Work under this contract will be performed in our New Orleans, LA office, located at 1340 Poydras Street, Suite 1950 with support provided by other Neel-Schaffer offices as required.

We look forward to the opportunity to be of service to Jefferson Parish.

Sincerely,



Jerry Trumps
Executive Vice President

enclosure

Technical Evaluation Committee (TEC) Questionnaire

Instructions

- The Technical Evaluation Committee (TEC) Questionnaire shall be used for professional services related to architecture, engineering, or survey projects.
- **The TEC Questionnaire should be completely filled out. Complete and attach ALL sections. Insert “N/A” or “None” if a section does not apply or if there is no information to provide.**
- Questionnaire must be signed by an authorized representative of the Firm. Failure to sign the questionnaire shall result in disqualification of proposer pursuant to J.P. Code of Ordinances Sec. 2-928.
- All subcontractors must be listed in the appropriate section of the Questionnaire. Each subcontractor must provide a complete copy of the TEC Questionnaire, applicable licenses, and any other information required by the advertisement. Failure to provide the subcontractors' complete questionnaire(s), applicable licenses, and any other information required by the advertisement shall result in disqualification of proposer pursuant to J.P. Code of Ordinances Sec. 2-928.
- If additional pages are needed, attach them to the questionnaire and include all applicable information that is required by the questionnaire.

TEC Professional Services Questionnaire

Project Name and Advertisement Resolution Number:		
SOQ 22-011 Routine Engineering Services for Drainage Projects <i>Resolution No. 138811</i>		
A. Firm Name & Address:		
 <p>1340 Poydras Street, Suite 1950 New Orleans, LA 70112</p>		
B. 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:		
<p>W. Hibbett Neel, PE, PLS CEO / President 601-948-3071</p>		
C. 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.		
<p>Glenn Ledet, PE 225-573-2364 glenn.ledet@neel-schaffer.com</p>		
D. Please provide the number of employees whose primary function corresponds with each category:		
<u>6</u> Administrative ___ Architects (Licensed) ___ Chemical Engineers <u>24</u> Civil Engineers <u>2</u> Construction Inspectors ___ Ecologists ___ Electrical Engineers <u>1</u> Engineer Intern ___ Professional Land Surveyors	___ Estimators <u>1</u> Geologists ___ Geotechnical Engineers ___ Interior Designers ___ Landscape Architects ___ Land Surveyor ___ Mechanical Engineers ___ Environmental Engineers <u>8</u> Other (Planners, Tech Support)	___ Specification Writers <u>2</u> Structural Engineers ___ Graduate Engineers <u>1</u> Project Managers ___ Clerical ___ Grant/Funding Specialist ___ Sanitary Engineers <u>45</u> TOTAL
F. Is this submittal by a JOINT-VENTURE? Please check: YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		
<p>If marked "No" skip to Section I. If marked "yes" complete Sections G-H.</p>		

TEC Professional Services Questionnaire

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

1.

N/A

2.

H. Has this JOINT-VENTURE previously worked together? Please check: YES NO

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

Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
1. Eustis Engineering, LLC 3011 28th Street Metairie, LA 70002	Geotechnical	YES
2. Linfield, Hunter & Junius, Inc. 2605 Toulon Drive Baton Rouge, LA 70816	Surveying	YES

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

45

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:

Glenn Ledet, Jr. PE *Water Resources Program Manager*

Project Assignment:

Project Manager

Name of Firm with which associated:



Years' experience with this Firm:

3 years (15 total)

Education: Degree(s)/Year/Specialization:

BS / 2007 / Civil Engineering

Active registration: Year first registered/discipline:

2012 / Professional Engineer – Civil, LA 37177

Other experience and qualifications relevant to the proposed Project:

Glenn joined Neel-Schaffer in 2019 and serves as Program Manager for Water Resources and Drainage. He has 15 years of experience, including three with Louisiana's Coastal Protection and Restoration Authority (CPRA), where he served as an Engineering Supervisor and in CPRA's Operations Division.

Glenn provides technical analysis, engineering design, project and program management support and construction admin support on a variety of civil, environmental, and coastal projects. His professional experience includes water quality analysis, wetland surveying, vegetation surveying, wetland mitigation, flood control, navigation evaluations, coastal port design, dredging, beach nourishment, marsh creation, coastal structure design, and ecosystem restoration projects.

He also has over eight years of experience in hydraulic and hydrologic modeling and analysis on riverine and coastal projects. He also has experience on FEMA projects including cost-benefit analysis for Hazard Mitigation Grant Program applications, site evaluations for flood damages, scope development, and funding for repair and reconstruction of flood-damaged drainage systems.

Glenn is responsible for regional and corporate business development and project implementation of Coastal and Water Resources initiatives. Projects he works on include Coastal Engineering, the design and implementation of habitat restoration, marsh creation, shoreline protection, hydrologic restoration, and flood protection in Coastal Louisiana and other Gulf Coast states, from Texas to Florida to the Carolinas.

TEC Professional Services Questionnaire

RELEVANT EXPERIENCE

Kingwood Drainage Study, Harris County, TX: In charge of QA/QC conceptual Watershed Plan to identify strategies for mitigation of existing flooding problems and to address improved drainage infrastructure required to achieve 100-year channel level-of-service within the Kingwood Area study limits. The limits of study encompass 32.3 miles of stream.

St. Tammany Parish Coastal Protection Master Plan, St. Tammany Parish, LA: Mr. Ledet is NSI's Assistant Project Manager helping to oversee and coordinate all aspects of the engineering project. NSI's tasks include updating the *GEC 2012 Northshore Hurricane and Flood Protection Study* with newly completed and current proposed projects as well as gathering information on multiple projects by different agencies and jurisdictions. NSI also performed a gap analysis to identify new projects, and a benefit/cost analysis of proposed projects will be completed to determine project priority and viability.

City of Mandeville Wetlands Restoration, Mandeville, LA: Senior Technical Advisor. Update of project design to include changes to existing conditions since original design. NSI provided topographic and hydrographic survey and geotechnical engineering; developed base hydrologic model for Galvez and Massena drainage basins utilizing hydrologic (HEC-HMS). Multiple hydraulic (HEC-RAS) models were used to test various flow diversion alternatives. Design provides a reduction of water surface elevations for the 50, 100-, and 500-yr storm events through reduction in wave heights and addresses future erosion by significantly reducing the open water fetch from Lake Pontchartrain at the project site. Design reroutes urban storm waters through the wetlands allowing suspended sediment to settle within the lagoon and marsh areas and will mitigate the effects of saltwater intrusion on the existing wetlands. The newly created wetlands will increase faunal habitats, support fisheries, support bird usage, improve primary productivity at the base of the food chain and improve carbon sequestration and watershed storage.

Slidell East Levee and Floodwall Segments (PO-184) St. Tammany Parish, LA: Project Manager. Feasibility evaluation of alternative alignments for flood protection for the eastern side of Slidell and conceptual planning and engineering for the required alignment features. The project also included hydrologic and hydraulic considerations and conceptual modeling for two drainage pump stations are required along proposed levee segment to manage the rainfall captured within the flood protection systems during gate closure events to address inland or upstream flooding. Conceptual level of analysis was performed for the sizing of these pump stations.

CPRA Calcasieu-Sabine Large-Scale Marsh & Hydrologic Restoration Project, Cameron Parish, LA: Program Manager for Design Integration Services that include a combination of initial project management activities, initial data gap analysis preliminary data collection, design integration planning. Main project tasks involve evaluation of the flow capacity of the existing drainage system, provide design conditions to drive local hydraulic modeling for culverts, and hydrologic structure design optimization. Hydrologic structure design optimization includes development of hydrologic structure alternatives, analysis and determination of preferred structure type, construction logistics and constructability evaluation, conceptual level estimates of quantities, construction, and operations/maintenance costs, and conceptual pump station evaluation.

St. Tammany Parish Sustainable Growth Pilot Study, St. Tammany Parish Government: Senior Technical Advisor. Study to detail the hydrology and hydraulics of three drainage basins within the study area to consider future development as related to types, conditions, densities, and regulatory structure associated with the developments. Additionally, the goal is to review regulation of stormwater management within the study area to avoid additional flood risk and or mitigate flooding within the existing drainage basins associated with the study area as related to existing and future developments.

APTIM, Independent Technical Review of Sienna Plantation Drainage System – Watershed Study & Drainage Design, FBC Sienna Plantation LID, Sugarland, TX: Mr. Ledet served as the Project Engineer Independent Technical Review of Sienna Plantation Drainage System for the FBC Sienna Plantation LID. The project included the independent review and development of both HEC-HMS and a 1D / 2D HEC-RAS model. This project utilizes ARCGIS and HEC-Geo tools. Senior Project Engineer

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

W. Hibbett Neel, PE *CEO / President*

Project Assignment:

Project Principal

Name of Firm with which associated:



Years' experience with this Firm:

39 years (50 total)

Education: Degree(s)/Year/Specialization:

BS / 1963 / Civil Engineering
MS / 1965 / Civil Engineering

Active registration: Year first registered/discipline:

1971 / Professional Engineer – Civil, LA 12999

Other experience and qualifications relevant to the proposed Project:

Mr. Neel is President/CEO and a principal of Neel-Schaffer. A co-founder of the firm in 1983, he has 50 years of experience in the design and management of public works projects. His responsibilities have ranged from management of individual traffic and transportation projects to development and management of a major branch office that offers services for water, wastewater, parks, transportation, and community development projects.

As President of Neel-Schaffer, Mr. Neel is responsible for all the activities of the 500-member, multi-disciplined firm, including planning, surveying, and engineering. This includes overall management, direction and corporate planning.

Mr. Neel has created a company culture that strives to ensure that all projects are completed on schedule, within budget, and to the owner's satisfaction. He is responsible for the application of critical path management (CPM) techniques to complex projects. He is also responsible for implementation of the firm's total quality management program (TQM).

Mr. Neel was International President of the Institute of Transportation Engineers in 2014, and he has lectured at numerous traffic conferences. He has also provided technical expertise relative to accident investigations and reconstructions and has served as expert witness in cases involving both vehicular and railroad accidents. He has contributed leadership and knowledge to numerous urban and rural roadway and bridge design related projects and worked extensively in highway design and transportation planning.

RELEVANT EXPERIENCE

Storm Water Management Implementation Services, Jackson, MS: Principal. Neel-Schaffer was selected by the City of Jackson in 1991 to provide professional engineering services in connection with the preparation of the National Pollutant Discharge Elimination System (NPDES) permit application for storm water. Assistance was provided with redeveloping the MS4 Program and with implementing most of the MS4 Program from 2007 through 2010. Subsequently, Neel-Schaffer has assisted with annual field sampling work from 2012 to present.

TEC Professional Services Questionnaire

Autumn Woods Drainage Improvements, Southaven, MS: Principal. The project included the construction of a 20-acre detention pond and new piping to divert run-off from the Greenbrook subdivision north of Autumn Woods into the detention pond that drains into Rocky Creek, and eventually into the Horn Lake Creek Basin. Additionally, street inlets were added within the Autumn Woods subdivision and repairs were made to a 103-inch by 71-inch storm culvert.

Forrest Avenue Drainage Project, Mississippi Military Department, Camp Shelby, MS: Principal. Neel-Schaffer was contracted to provide design solutions related to the cantonment area of Camp Shelby which experiences frequent localized flooding events, effecting troops' personal property and the military's property. Based on 25-year storm event criteria, the project design called for the removal of existing roadway crossing drainage structures. Those structures were replaced with new larger drainage pipes and box culverts. Existing earthen swales and concrete channels were removed and replaced with larger concrete lined channels.

City Drainage Project, McComb, MS: Principal. Neel-Schaffer was selected by the City of McComb to address the City's current storm water drainage system. Neel-Schaffer was contracted to analyze the city's drainage problems, recommend the most urgent needs, and then design plans and specifications to begin construction of the first project aimed at improving the drainage system.

Utility & Drainage Infrastructure Design, Bay St. Louis, MS: Principal. Following Hurricane Katrina in 2005, Neel-Schaffer assisted the City of Bay St. Louis in damage assessments to utilities and drainage infrastructure from storm surge. Neel-Schaffer used state-of-the-art hydraulic analysis to determine water losses, along with use of closed-circuit television for examination and smoke testing of sewer mains.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Jerry Trumps, Sr. <i>Executive Vice President / SW Region Manager</i>
Project Assignment:
Officer in Charge / Quality Assurance
Name of Firm with which associated:

Years' experience with this Firm:
22 years (41 total)
Education: Degree(s)/Year/Specialization:
BS / 1978 / Business Administration
Active registration: Year first registered/discipline:
N/A
Other experience and qualifications relevant to the proposed Project:
<p>Mr. Trumps is a member of Neel-Schaffer's Board of Directors and serves as Executive Vice President of the firm's Southwest Region, which encompasses Louisiana and South Texas. He has over 40 years of extensive experience in the areas of public works, transportation, roadway and drainage design, utilities, environmental, land-use, and finance.</p> <p>Mr. Trumps formerly served as the Director of Public Works for the City of Lafayette, LA. In this capacity he was responsible for the direction, supervision, and control of over 300 personnel in the divisional areas of Traffic Engineering; Capital Improvements and Development; Streets, Drainage and Facility Maintenance; Public Transit; Environmental Quality; and Administration.</p> <p>In addition to his management skills, he is thoroughly familiar with the development of ordinances, zoning and subdivision regulations. As Director of Public Works, Mr. Trumps was instrumental in the planning and implementation of a \$72 million capital improvement bond issue program for transportation, drainage, recreation and building improvements. Part of this bond issue included funding for the design and implementation of a computerized traffic signal system encompassing over 100 signals and school warning flashers. In addition, Mr. Trumps personally directed the design and implementation of the first major municipal curbside recycling program in Louisiana. Under his direction the program would later include a separate yard waste collection and composting program.</p> <p>Mr. Trumps has provided assistance to many local governments and private sector clients in a variety of areas. He assisted the Baton Rouge Public Works Department with an analysis of the structure and operations of the department to aid in improving efficiencies and effectiveness in the delivery of services. For the City of Breaux Bridge, Mr. Trumps provided technical assistance and facilitated the public hearing process for the reapportionment of council districts because of the 1990 census. He has provided technical and regulatory process assistance to other municipal and private clients in solid waste facility permitting and environmental assessments.</p>

TEC Professional Services Questionnaire

RELEVANT EXPERIENCE

St. Tammany Parish, South Central Area Drainage Master Plan, St. Tammany Parish, LA: Officer-in-Charge for project that includes base hydrology model for Bayou Lacombe and Bayou Cain drainage basins north of I-12 (60 sq. mi. area); conceptual engineering for detention ponds to support near term (5-10 year) development scenario. Project also provides analysis of potential environment constraints using GIS based habitat models for wetlands and species of concern.

Tag Along Creek Drainage Analysis, St. Tammany Parish, LA: Officer-in-Charge for performing a drainage analysis of Tag Along Creek, a tributary to Bayou Lacombe, for the purpose of determining causes of flooding and developing a solution to afford flood relief for residents along Cloverland Road. An unsteady flow hydrologic/hydraulic model was developed (EPA-SWMM 5) and utilized to design a bypass canal that will divert a portion of flow in Tag Along Creek through an existing field to the north of the homes before flowing back into Tag Along Creek downstream of the residential area.

Gurney Road – Joor Road Sewer Upgrades, Baton Rouge, LA: Officer-in-Charge for the development of preliminary, final, survey and right-of-way, bid phase and construction administration services.

St. Martinville By-Pass, St. Martinville, LA: Officer-in-charge for the development of a Traffic Study, Environmental Inventory and Cost/Benefit Analysis Feasibility Study for the design and construction of a by-pass facility, including two alternates and a no-build scenario.

St. Tammany Parish Coastal Protection Master Plan: Officer-in-Charge for the development of the comprehensive master plan, and task orders for (1) gathering and updating information on multiple projects by different agencies and jurisdictions (2) a gap analysis to identify new projects to further protect vulnerable areas, and (3) a benefit/cost analysis of proposed projects to determine project priority and viability.

LADOTD Metro Transportation Plan Updates, Lafayette and Alexandria. LA: Officer-in-Charge and assisted in the preparation of these transportation studies. The projects included development of an updated transportation network and long-range improvement plan for the greater Lafayette and Alexandria areas utilizing TransCAD modeling.

Louisiana Department of Natural Resources (LADNR), Surveying and Engineering Assistance for Coastal Restoration Projects: Officer-in-Charge for this task order contract, which has included two magnetometer surveys (The Jaws and Lake Merchant) and an archeological site investigation at Lake Borgne.

CPRA, IDIQ Engineering Services for Coastal Restoration Projects RSIQ No. 2503-13-61: Officer-in-Charge on task orders for the design for the Teche-Vermillion Pumping Station Debris Barrier and the design for Bayou Mandeville Maintenance Dredging

CPRA, IDIQ Engineering Services for Coastal Restoration Projects RSIQ No. 2503-16-25: Officer-in-Charge on task order for the design for the Calcasieu Ship Channel Salinity Control Measures and Structures.

Salt Aire Shoreline Restoration, Mobile County, AL: Officer-in-Charge for the preparation of the Coastal Engineering Design of the Shoreline Protection and Restoration Project.

Louisiana Department of Natural Resources, Ship-Shoal-Whiskey Island West Flank Restoration: Officer-in-Charge for the development of construction drawings for this coastal island restoration project.

Computerized Traffic Signal System, Phases IV & V, Baton Rouge, LA: Officer-in-Charge for the development of plans and specifications for the expansion of the city's interconnected, computerized traffic signal system, including fiber optic cable and the installation of surveillance cameras.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Connor McColloch, PE <i>Senior Project Manager</i>
Project Assignment:
Hydrology & Hydraulics
Name of Firm with which associated:

Years' experience with this Firm:
4 (9 total)
Education: Degree(s)/Year/Specialization:
BS / 2010 / Civil Engineering MS / 2011 / Civil Engineer/Water Resources Engineering
Active registration: Year first registered/discipline:
2015 / Professional Engineer - Civil, TX 120523
Other experience and qualifications relevant to the proposed Project:
<p>Connor joined Neel-Schaffer in 2018 and has eight years of experience as a water resources engineer performing hydrologic and hydraulic studies for transportation and civil engineering projects. He leads H&H for NSI's Southwest Region, including Louisiana. He has extensive experience in drainage modeling, with technical expertise using advanced water modeling software. His responsibilities include preparing project designs and reports related to municipal and transportation hydrology and hydraulic projects and preparing and monitoring project budgets and schedules, with overall responsibility for profitability and timely completion of projects.</p> <p>Connor has experience working on TxDOT, Harris County and City of Houston roadway projects, watershed studies with Harris County Flood Control District and land development projects. He directed and supervised other engineers' activities, including the preparation, modification and direction of reports, plans and design for projects.</p> <p>Connor is well versed in the use and application of ArcGIS, ArcHydro and GeoRAS extensions, USACE HEC Software (HEC-RAS, HEC-HMS and HEC-SSP), XP-SWMM 1D/2D, WinStorm and HouStorm, FHWA HY-8 Culvert Hydraulic Analysis Program, Bentley FlowMaster, CulvertMaster and PondPack and Win TR-20 and Win TR-55.</p> <p>RELATED EXPERIENCE</p> <p>Slidell Ring Levee: Slidell East Segments (PO-184): Project Engineer. Feasibility evaluation of alternative alignments for flood protection for the eastern side of Slidell and conceptual planning and engineering for the required alignment features.</p> <p>Calcasieu-Sabine Large-Scale Marsh and Hydrologic Restoration Project: Project Engineer. Design Integration Services that include a combination of initial project management activities, initial data gap analysis preliminary data collection, design integration planning, including project E&D work breakdown structure and cost estimates, optimization planning and initial optimization tasks, and other project planning.</p>

TEC Professional Services Questionnaire

Kingwood Drainage Study Bond Program Map ID F-14, Harris County Flood Control District: Senior Project Manager
The project consists of a conceptual Watershed Plan to identify strategies for mitigation of existing flooding problems and to address improved drainage infrastructure required to achieve 100-year channel level-of-service within the Kingwood Area study limits. The limits of study encompass 32.3 miles of stream.

ARDOT On-Call Statewide Design Services, H&H Modeling for Multiple Bridge Replacement Projects, Arkansas DOT: Senior Project Manager. This project consists of the construction of 16 replacement bridge structures throughout Arkansas on 5 separate work authorizations. The project includes hydrologic and hydraulic analysis of the existing and proposed bridge structures as well as the roadway drainage system. Mr. McColloch is performing/overseeing the H&H analysis for the existing and new bridge crossings as well as the roadway drainage system and sealed drainage study documents.

St. Tammany Parish Sustainable Growth Pilot Study: Technical Advisor. Study to detail the hydrology and hydraulics of three drainage basins within the study area to consider future development as related to types, conditions, densities, and regulatory structure associated with the developments. Additionally, the goal is to review regulation of stormwater management within the study area to avoid additional flood risk and or mitigate flooding within the existing drainage basins associated with the study area as related to existing and future developments.

Southcity Parkway Extension, Lafayette, LA: This project will construct a new 1.7 – mile, 4 lane median divided corridor between US 167 (Johnston Street) with Kaliste Saloom Road. The project includes a new bridge crossing of the Vermillion River which was analyzed with the use of unsteady HEC-RAS. Completed a no rise H&H analysis for the new river crossing for the Vermillion River and is providing an ITR for the roadway drainage design and major crossings.

TxDOT Drainage Report for Major Stream Crossings, State Highway 99 Grand Parkway Section H-1A, H-1B, H-1C and H-2, Houston District: Senior Project Engineer. Drainage report for major stream crossings in support of the preparation of Plans, Specifications & Estimates (PS&E) associated with the drainage design for Grand Parkway Section H-1A, H-1B, H-1C & H-2. Major stream crossings are identified as any, and all streams crossed by the roadway alignment wherein the waterway crossed is a waterway with a FEMA studied Special Flood Hazard Area or that requires a bridge class structure. This included 16 roadway crossings. Performed the hydrologic and hydraulic calculations for roadway crossings, prepared hydraulic data sheets for the roadway crossings, coordinated with the prime, Othon, Inc., design build contractor Grand Parkway Infrastructure (GPI), and TxDOT, and sealed drainage study documents.

TxDOT FM 1488 Drainage Study, Houston District: Senior Project Engineer. Drainage study for roadway improvements to FM 1488 from a two-lane roadway to a four-lane roadway from 1,200 feet west of the Waller/Montgomery County line to FM 1774. The project included hydrologic calculations for roadway crossings and roadway drainage areas, hydraulic calculations for 3 bridge-class culverts in FEMA studied streams, impact and mitigation analysis with detention provided inline within roadside ditches, preparing hydraulic data sheets for inclusion in the plan sheets and preparing the drainage study document.

Drainage Impact and Mitigation Analysis for Center Street (South), Harris County Precinct 2: Project Engineer. Drainage impact and mitigation analysis for the planned Center Street from Genoa Red Bluff Road to just south of HCFCU Unit B100-00-00. The project consists of construction of 3,100 feet of a four-lane boulevard road and a bridge crossing over a FEMA studied stream HCFCU Unit B113-00-00. The project included a drainage impact and mitigation analysis, detention pond design, bridge hydraulic and scour analysis, preparation of a FEMA submittal for a Conditional Letter of Map Revision (CLOMR) and preparing the drainage study document.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Mike Phillips, PE, CFM <i>Senior Project Manager</i>
Project Assignment:
Hydrology & Hydraulics
Name of Firm with which associated:

Years' experience with this Firm:
21 years (21 total)
Education: Degree(s)/Year/Specialization:
BS / 2000 / Civil Engineering
Active registration: Year first registered/discipline:
2009 / Professional Engineer - Civil, LA 34600
Other experience and qualifications relevant to the proposed Project:
<p>Mike joined Neel-Schaffer in 2000 and has 21 years of experience as a Project Engineer/Manager for municipal and DOT on-call contracts involving drainage and flooding problems that require responsiveness, technical expertise, and public relations capability. He manages Neel-Schaffer's hydrology & hydraulics discipline, providing services for clients throughout Neel-Schaffer's nine-state footprint.</p> <p>Mike has extensive experience performing drainage/flood damage inspections after flood events. He routinely performs complex and large-scale hydrologic & hydraulic modeling and flood control infrastructure improvement designs for municipal and private clients. He has managed and performed on-call contracts consisting of complex analyses for DOTs in Alabama, Georgia, and Tennessee, and the US Army Corps of Engineers (Memphis, Little Rock, and Vicksburg Districts).</p> <p>Mike has performed numerous high-profile FEMA Flood Insurance Study Updates and Map Revisions for municipalities and private clients. He is very familiar with FEMA National Flood Insurance Program Regulations; and he is an ASFPM Certified Floodplain Manager.</p> <p>Mike is proficient in the latest hydrologic & hydraulic computer models, including GIS-based applications for hydraulics & hydrology (steady and unsteady flow). He has extensive experience collecting drainage inventory and inspection data using hand-held GPS data collectors with mobile ArcGIS applications. He has extensive experience in plans and details preparation using Microstation and AutoCAD and is very proficient in the use of ArcGIS software.</p>
RELATED EXPERIENCE
<p>Mandeville Lakefront Wetlands Restoration: Lead Hydraulic Engineer responsible for hydrologic and hydraulic (H&H) modeling of alternatives for shoreline closure and marsh creation immediately east of Sunset Point Park. Existing canals south of Galvez Street and east of Massena Street were analyzed and alternatives were developed to route canal flows</p>

TEC Professional Services Questionnaire

through the proposed cypress wetlands at various storm levels. Extensive coordination was required with coastal engineering sub consultant in the exchange of data used for both H&H and wave height numerical modeling. Multiple options for horizontal alignment and cross-sectional geometry of proposed channels through the wetlands were analyzed, as well as options to incorporate a public walking trail through the wetland area.

Brownsitch Road Widening Project, Slidell, LA: Project Engineer responsible for development and calibration of hydrologic and hydraulic models of the upper region of the W-14 Canal watershed that drains to the channel outfall alongside Brownsitch Road. Steady flow models were developed and used to analyze multiple scenarios for design of a subsurface box culvert to capture and convey watershed runoff into the W-14 Canal. Also, localized upstream drainage improvements were analyzed in an effort to reduce the size/cost of the proposed box culvert. The proposed roadway was proposed to be widened to 3-lane capacity and its profile raised to provide access for emergency vehicles during the 100-year storm event. Downstream impacts along the W-14 Canal were analyzed to assess downstream effects and several alternatives were presented to mitigate the increases in discharge.

South Central Drainage Master Plan (LA 1088 and LA 434 Corridor Studies): Project Engineer responsible for performing detailed watershed analyses and hydrologic models for Bayou Lacombe and Bayou Castine drainage basins north of I-12 (60 sq. mi. area). Conceptual engineering design was performed for seven proposed regional detention ponds, and utilization of an existing 60-acre borrow pit lake, to provide regional detention to accommodate future short-term (5-10 year) and long-term (10-20 year) development scenarios, while meeting Parish design requirements for future buildout within areas expected to experience significant growth. Detailed reports and cost estimates were prepared and incorporated into the Plan.

Tag Along Creek Drainage Analysis: Project Engineer responsible for performing an unsteady flow (EPA-SWMM 5) model of Tag Along Creek, a tributary to Bayou Lacombe, for the purpose of determining causes of residential and street flooding along Cloverland Drive and developing multiple alternatives to mitigate the flooding. Alternatives included dredging the existing 2.6-acre Sunrise Lake upstream of the Cloverland Acres Subdivision, constructing regional detention ponds north of N. Pontchartrain Drive, and constructing a bypass canal to divert flood flows to the north of the residential area. The diversion canal was determined to be the most viable option since it was the least expensive and offered 1.5-ft of reduction in the 10-year water levels in the existing creek channel and removed eleven homes from flooding in that event. Construction plans were developed in 2015 and the final model was updated according to the plans.

Cypress Creek and Black Creek Drainage Analyses, Jackson County, Biloxi, Mississippi: Project Hydraulics Engineer responsible for performing drainage analyses of Cypress Creek and Black Creek to determine cause(s) of flooding to homes and streets and provide solutions to alleviate flooding to the maximum extent practicable using the most cost-effective approach. An unsteady flow (EPA-SWMM 5) model of the creeks were developed to analyze existing conditions and multiple flood reduction alternatives. Detailed reports and cost estimates were prepared and presented to County Commissioners.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Don Lancaster, PE <i>Engineering Manager</i>
Project Assignment:
Senior Project Engineer
Name of Firm with which associated:

Years' experience with this Firm:
22 years (39 total)
Education: Degree(s)/Year/Specialization:
BS / 1982 / Civil Engineering
Active registration: Year first registered/discipline:
1987 / Professional Engineer - Civil, LA 22821
Other experience and qualifications relevant to the proposed Project:
<p>Don has 39 years of experience in civil engineering and project management. He manages Neel-Schaffer's offices in Mandeville and New Orleans, LA, as well as overseeing some of the company's largest design, bid and construction administration projects.</p> <p>He has extensive experience in program and project management for large and small municipal and port related projects that include programming, design, bidding and construction administration. His civil background includes ports; roads and bridges; streetscapes; structural; and water and wastewater.</p> <p>Don has extensive experience in preparing contract documents for construction projects. He has coordinated and worked with many local, state and federal agencies, including the Sewerage and Water Board of New Orleans, United States Corps of Engineers, Louisiana Department of Transportation and Development, the New Orleans Levee District, the Port of Gulfport, the Coastal Protection and Restoration Authority and numerous cities, parishes and counties.</p> <p>RELEVANT EXPERIENCE</p> <p>Browns witch Road Widening, Hydrology Study Phase, Slidell, LA: The initial phase of the work includes extensive modeling of the watersheds north and south of I-12. These include the 436-acre W-14 Canal watershed, north of I-12 composed of 18 sub-basins currently directing water to Browns witch Road; a 55 acre portion of the W-15 watershed north of I-12 and two sub-basins within the W-14 watershed south of I-12. The hydrology study establishes the capacity requirements of the Browns witch Road drainage structure. The study also evaluates methods for providing storage and redirecting outfall flows north and south of I-12 to mitigate flooding concerns within the W-14 and W-15 drainage basins. Mr. Lancaster served as the Project Manager.</p> <p>Wards 5 and 6 Drainage Study, Bay St. Louis, Mississippi: Project Manager for drainage analysis of Wards 5 and 6, consisting of six sub-watersheds and covering over 12 square miles, in order to develop a drainage master plan that will</p>

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improve local drainage during significant storm events. Project developed an unsteady flow hydrologic and hydraulic model from survey data and Geodatabase (MIKE URBAN - EPA SWMM 5 format).

Tag Along Creek Drainage Analysis, St. Tammany Parish, LA: Project Manager, Responsible for engineering deliverables for a drainage analysis of Tag Along Creek, a tributary to Bayou Lacombe, for the purpose of determining causes of flooding and developing a solution to afford flood relief for residents of Cloverland Acres Subdivision.

Kenner Drainage Master Plan, City of Kenner, LA: Project Manager for involved in the preparation and update to the City of Kenner's drainage master plan. The plan included hydraulic modeling of the existing and proposed system, along with recommendations for phasing the work and estimates for the project costs. This master plan provided the City of Kenner with a tool for requesting State and Federal funds for drainage projects and resource for implementing drainage improvements.

St. Tammany Parish Coastal Protection Master Plan: Project lead for collaborative effort between St. Tammany Parish Government (STPG) and the St. Tammany Levee, Drainage and Conservation District (STLDCD), with funding from CPRA through an Intergovernmental Agreement. Neel-Schaffer's Team is assisting in this effort. The scope of services is divided into three tasks. Task I consist of collecting and organizing existing flood control assets and associated project data into a GIS data base. Task II is a gap analysis and Task III is a project feasibility analyses and engineering design.

Port of Gulfport Restoration, Gulfport MS: Project Manager for the planning, design, bidding, and construction management of the general engineering for this \$570 million restoration program. Supervise and oversee the engineering and support staff responsible for design of this program to elevate the Port of Gulfport site from its existing elevation of 10 feet above mean sea level (MSL) to 25 feet MSL, which will protect the Port from future storm surges. Work includes an 84-acre expansion of the West Pier by filling the water bottom; relocating tenant facilities; new construction and renovation to create an expandable, modern container terminal; and road and rail upgrades required to support the expanded modernized facility.

USACE South Claiborne Avenue Manifold Canal, New Orleans, LA: Design Engineer for large manifold canal that is part of the Southeastern Louisiana flood control. Designed the utility relocations, temporary and permanent traffic control measures, road reconstruction and prepared technical specifications.

Post Katrina Infrastructure Repairs, Bay St. Louis MS: Project Manager for the planning, design, bidding, and construction management of this program. Supervised the engineering and support staff responsible for design and construction administration of over \$65 million in water, sewer, gas distribution, roadway and sidewalk improvements.

Calcasieu Salinity Control - Joe's Cut & West Pass, CPRA, Calcasieu Parish, LA (RSIQ 2016-2019): Mr. Lancaster is NSI's Project manager overseeing and coordinating all aspects of the engineering project. As NSI team leader, develops and coordinates the work plan, civil design, project team meetings, and coordinates with sub-consultants.

Bayou Mandeville Maintenance Dredging, 3-Year Task Order Contract: Engineering. Officer-in-Charge for this task order contract which has included two task orders to date. One task order provides debris screen improvements at the Teche Vermilion Pump Station. The Bayou Mandeville Maintenance Dredging task includes dredging of a 1-mile-long preexisting access channel from Lake Lery into Bayou Mandeville with the disposal to supplement the Western Bank of Lake Lery.

Mandeville Lakefront Wetlands Restoration, Mandeville, LA: Project Manager for Lakefront Wetlands Restoration Project will prevent further degradation of the existing wetlands and restore a functioning wetlands ecosystem within the area. Storm water from the Galvez and Massena outfalls will be directed through created wetlands, improving water quality within Lake Pontchartrain. The project established a best practice for creation of new wetlands, provided engineering concepts in support of multiple storm water routing alternatives and coastal engineering concepts for the design of a storm-resistant shoreline closure with an integral bike path and pedestrian link between Old Mandeville and Sunset Point Park.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Britton Wells, PE, CFM <i>Water Resources Engineer</i>
Project Assignment:
H&H Modeling
Name of Firm with which associated:

Years' experience with this Firm:
6 years (17 total)
Education: Degree(s)/Year/Specialization:
BS / 2004 / Civil and Environmental Engineering
Active registration: Year first registered/discipline:
Year / Professional Engineer – Civil, TN 114614
Other experience and qualifications relevant to the proposed Project:
<p>Mr. Wells joined Neel-Schaffer in 2016 and serves as a Water Resources Engineer based in the firm's Nashville (TN) office.</p> <p>He has 17 years of experience working on water resources projects for clients across the South. In addition to being a licensed Professional Engineer, he is one of eight ASFPM Certified Floodplain Managers on staff for Neel-Schaffer.</p> <p>Britton has extensive experience working on hydrologic and hydraulic modeling of large riverine watersheds, and urban storm water networks. He is also experienced in disaster management and recovery following major flooding events, conducting assessments for residential and commercial infrastructure.</p> <p>Britton also has experience in model calibration and validation, streamflow forecasting, pre- and post-development analysis, technical reviews, damage estimates, FEMA guidelines and specifications, floodplain mapping, levee interior drainage, rainfall and streamflow measurement, topological and as-built surveys, and stream morphological surveys.</p> <p>RELEVANT EXPERIENCE</p> <p>Stormwater Master Plans, Memphis, TN: Project engineer. Responsible for hydrologic/hydraulic modeling and analysis for five drainage basins for the City of Memphis as part of a citywide 10-year program aimed at developing stormwater master plans within key areas of the City. All hydrologic and hydraulic modeling efforts were completed using ArcGIS-based InfoSWMM modeling software. Selected improvements were modeled systematically in the InfoSWMM Scenario Manager. Final reports, including improvement prioritizations, construction cost estimates, and conceptual layouts, were prepared and submitted to City staff.</p> <p>MWS Stormwater Services, Nashville, TN: Project Engineer. Worked as an on-call engineer visiting stormwater infrastructure site locations around Nashville in order to assess damages and perform field reconnaissance. This</p>

TEC Professional Services Questionnaire

information was used to develop hydrologic and hydraulic calculations and complete necessary designs for the development of preliminary storm water capital improvements to solve drainage problems at the sites.

Stormwater Engineering Assistance, Springfield, TN: Project Engineer. Tasked with development of updated Stormwater Ordinance and Storm Water Management Plan to conform to the City's 2016 MS4 Permit. Routinely performs technical reviews for proposed developments to ensure adherence to ordinance requirements.

Spence Creek Watershed Water Quality and Flood Study, Murfreesboro, TN: Project Engineer. Hydrologic and hydraulic modeling for the Spence Creek Watershed Management Plan. Developed infrastructure improvement alternatives in frequently flooded areas for inclusion in the FEMA Conditional Letter of Map Revision application, which is currently being prepared.

Rankin Branch Drainage Basin Master Plan, Gallatin, TN: Project Engineer. Performed hydrologic and hydraulic modeling in support of a detailed watershed study and Drainage Basin Master Plan. The purpose of the study was to identify potential areas to construct regional detention ponds in order to provide flood relief and prepare for future development in the rapidly developing corridor along GreenLea Boulevard. HEC-HMS was used to model the watershed runoff, and HEC-RAS was used to model channel hydraulics, cross drain culverts, bridges, and inline structures through detention ponds to analyze existing flooding and model the effects of the proposed improvements on the current FEMA Special Flood Hazard Areas.

Continuing On-Call Municipal Engineering Services, Gallatin, TN: Project Engineer. Responsible for providing on-call drainage-related engineering services to the City of Gallatin. Routinely inspects drainage/ flooding problems in field and develops calculations, conceptual recommendations, drainage/flood study reports, cost estimates, and construction plans to solve the flooding problems. Performs technical reviews for proposed developments for conformance to Stormwater Ordinance and Floodplain Regulations.

West Riverfront Park Design, Nashville, TN: Project Engineer responsible for key components of design of the West Riverfront Park in downtown Nashville. The West Riverfront Master Plan design included the incorporation of features necessary to prevent flooding of the downtown Nashville area from the Cumberland River during a significant flood event. Features include the design of a removable floodwall, a pump station to control interior flooding, an enhanced stormwater collection system, and subsurface cutoff wall to limit under-seepage. H&H Analyses consisted of HEC-RAS steady and unsteady flow modeling, and PCSWMM for internal drainage and Flood Protection System design.

TDOT I-75/I-24 Interchange improvements, Chattanooga, TN: Project Engineer. Neel-Schaffer was chosen by TDOT to serve as the Owner's Representative for this Design-Build project in Chattanooga. Our services include preliminary plans, document preparation, administrative assistance with the RFP and selection process, and design review.

GDOT GA 400 Design-Build-Finance, Atlanta, GA: Project Engineer. Multidisciplinary effort as part of a Design-Build team to widen State Route 400 in Sandy Springs, GA. Hydrologic and hydraulic study consists of modeling on- and off-site drainage through cross-drain systems and design of detention solutions to ensure impacts are contained within the right-of-way. H&H Analyses consists of PondPack, HEC-RAS steady flow modeling, and CulvertMaster.

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KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
David Juan, PE, CFM Water Resources Engineer
Project Assignment:
H&H Modeling
Name of Firm with which associated:

Years' experience with this Firm:
3 years (16 total)
Education: Degree(s)/Year/Specialization:
BS / 2004 / Civil Engineering MS / 2007 / Civil Engineering & Water Resources
Active registration: Year first registered/discipline:
2014 / Professional Engineer – Civil, TX 117259
Other experience and qualifications relevant to the proposed Project:
<p>Mr. Juan joined Neel-Schaffer in 2019 and serves as a water resources engineer with 16 years of experience in hydrologic and hydraulic studies for transportation and civil engineering projects. Based in the firm's Houston (TX) office, he is an expert drainage modeler with extensive technical expertise using advanced water modeling software.</p> <p>His responsibilities include preparing project designs and reports related to municipal and transportation hydrology and hydraulic projects. He has experience working on TxDOT, Harris County and City of Houston roadway projects, watershed studies with Harris County Flood Control District and land development projects. Mr. Juan is well versed in the use and application of ArcGIS, ArcHydro and GeORAS extensions, USACE HEC Software (HEC-RAS, HEC-HMS and HEC-SSP), XP-SWMM 1D/2D, PCSWMM, WinStorm and HouStorm, FHWA HY-8 Culvert Hydraulic Analysis Program, Bentley FlowMaster, CulvertMaster and PondPack and Win TR-20 and Win TR-55.</p> <p>RELEVANT EXPERIENCE</p> <p>Kingwood Drainage Study, Harris County, TX: Engineer for H&H Analysis. Neel-Schaffer was contracted to perform a watershed study for all streams within the area of Kingwood to identify the existing level-of-service and develop proposed improvement options. Mr. Juan performed hydrologic calculations and helped develop the existing conditions hydraulic model for some of the streams in the area. Mr. Juan also developed proposed conditions hydraulic models that incorporated improvements for some of the streams and calculated preliminary construction cost estimates.</p> <p>Kolbe Road and Related Infrastructure Drainage Improvements, Harris County, TX: Engineer for H&H Analysis. NSI prepared a drainage impact analysis for planned drainage improvements along Kolbe Road and adjacent streets. Mr. Juan performed hydrologic calculations and helped develop the existing conditions 1D/2D SWMM model for project area. Mr. Juan also created the proposed 1D/2D SWMM model that contained the drainage improvements including a preliminary detention pond layout and outfall structure that would mitigate peak flow impacts from the project site.</p>

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Oak Glen Subdivision Drainage Improvements, Harris County, TX: Engineer for H&H Analysis. Neel-Schaffer was contracted to prepare a drainage impact analysis for planned drainage improvements within the Oak Glen Subdivision. Mr. Juan performed hydrologic calculations and helped develop the existing conditions 1D/2D SWMM model for project area. Mr. Juan also created the proposed 1D/2D SWMM model that contained the drainage improvements including a preliminary detention pond layout and outfall structure that would mitigate peak flow impacts from the project site.

ARDOT 030412: Bridge Replacements Along SR 70, Sevier County, AR: Engineer for H&H Design. Neel-Schaffer was selected to develop and provide final roadway plans, final bridge plans and a hydraulic analysis for this project that includes the replacement of hydraulic structures at three sites along SR 70 near the Oklahoma state line. Mr. Juan provided data collection and H&H model review.

ARDOT 061614: Bridge Replacements Along SR 86, Prairie County, AR: Engineer for H&H Design. Neel-Schaffer was selected to develop and provide final roadway plans, final bridge plans and a hydraulic analysis for this project that includes the replacement of hydraulic structures at two sites along SR 86 near SR 38 in Prairie County. Mr. Juan provided data collection and H&H model review.

ARDOT 040788: Bridge Replacements Along SR 64, Crawford County, AR: Engineer for H&H Design. Neel-Schaffer was selected to develop and provide final roadway plans, final bridge plans and a hydraulic analysis for this project that includes the replacement of hydraulic structures at two sites along SR 64 near Mulberry in Crawford County. Mr. Juan provided data collection and H&H model review.

ARDOT 040780: Bridge Replacements Along SR 186, Franklin County, AR: Engineer for H&H Design. Neel-Schaffer was selected to develop and provide final roadway plans, final bridge plans and a hydraulic analysis for this project that includes the replacement of hydraulic structures at two sites along SR 186 near Altus in Franklin County. Mr. Juan performed hydrologic calculations and helped develop the existing condition hydraulic model for the two sites. Also developed the proposed conditions and detour hydraulic model.

ARDOT 101054: Bridge Replacements Along SR 230, Lawrence and Craighead Counties, AR: Engineer for H&H Design. Neel-Schaffer was selected to develop and provide final roadway plans, final bridge plans, hydraulic analysis and a geotechnical report for this project that includes the replacement of hydraulic structures at 10 sites along SR 230 between Alicia and Bono in Lawrence and Craighead counties. Mr. Juan worked on the proposed and detour hydraulic models for some of the sites. Incorporated proposed bridge geometry into the hydraulic model for specific sites.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Leah Selcer, PE <i>Civil Engineer</i>
Project Assignment:
Civil Engineer
Name of Firm with which associated:

Years' experience with this Firm:
2 (8 total)
Education: Degree(s)/Year/Specialization:
BS / 2014 / Civil Engineering
Active registration: Year first registered/discipline:
2019 / Professional Engineer - Civil, LA 43492
Other experience and qualifications relevant to the proposed Project:
<p>Leah joined Neel-Schaffer's Baton Rouge office in 2020. With an extensive and diverse experience working for consulting firms on a variety of Civil Engineering projects, her focus is providing Coastal Engineering services for NSI clients.</p> <p>She has a broad range of project engineering and management experience, providing design, planning, and budgeting services for multiple projects. She is also experienced in preparing permits, plans and specifications, design calculations, reports, and presentations for a variety of civil engineering projects.</p> <p>She has assisted in the engineering and design of several complex civil, coastal and water resources projects for coastal ports, parish governments, LADOTD, CPRA, as well as private developers.</p> <p>RELEVANT EXPERIENCE</p> <p>Mandeville Lakefront Wetlands Restoration: Situated between two "hard" shorelines, a mature cypress forest is rapidly eroding. The Mandeville Lakefront Wetlands Restoration Project will prevent further degradation of the existing wetlands and restore a functioning wetlands ecosystem within the area. Storm water from the Galvez and Massena outfalls will be directed through created wetlands, improving water quality within Lake Pontchartrain.</p> <p>University Lakes Flood Risk Reduction Design: Dredging and Constructability Coordination with Construction Manager at Risk (CMAR). Improvements to water quality and flood risk reduction potential for the Louisiana State University (LSU) Lakes System. Development and constructability review for dredging of the 6 Lakes. Provide internal Independent Technical Review of conceptual design alternatives and development of construction costs for project features. Coordination with CMAR Contractor for Constructability concerns and issues during the development of Dredging Plans and Specifications.</p>

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Upper Terrebonne Basin Watershed Plan/EA, Upper Delta Soil & Water Conservation District: Ms. Selcer was the project engineer responsible for preparing a hydrologic and hydraulic analysis as part of the Watershed Plan and EA for the Upper Terrebonne Basin Watershed using HEC HMS for storm water runoff calculations and HEC RAS for required channel improvements. The total flood protection project area encompasses seven HUC 12 watersheds totaling approximately 225,072 acres.

Petite Caillou Drainage Project, Terrebonne Parish, LA: Project Engineer. This project consisted of the design 450 cfs drainage pump station to reduce flooding due to excessive rainfall. Ms. Selcer performed site design of the pump station and the hydraulic calculations of the conveyance channel. Ms. Selcer prepared preliminary construction plans and estimate of probable cost.

Elliot Jones Drainage Pump Station Project, Terrebonne Parish, LA: This project consisted of the design of a 1,000 CFS drainage pump station to reduce flooding due to excessive rainfall. Ms. Selcer performed site design of the pump station and the hydraulic calculations of the conveyance channel using HEC RAS. Ms. Selcer performed hydrologic calculations to determine storm water runoff volumes.

Chacahoula-Gibson Drainage Project, Terrebonne Parish, LA: This project consisted of the design 1,000 cfs drainage pump station to reduce flooding due to excessive rainfall. Ms. Selcer performed site design of the pump station and the hydraulic calculations of the conveyance channel. Ms. Selcer prepared preliminary construction plans and estimate of probable cost.

Ellendale Flood Protection & Drainage Assessment: Project Manager/Civil Engineer. Prepared a report determining the feasibility of acquiring ownership of an existing levee that (a) protects Ellendale Subdivision and adjacent developments, whether now existing or as may be developed in the future and (b) ties into existing TPCG-maintained levees. Reviewed existing information to determine the existing levee typical sections and protection areas, then prepared recommendations and alternatives to determine the feasibility of drainage and protection improvements based on Parish criteria for the acceptance of this levee system. Recommendations and alternatives will also include opinions of probable cost.

Bayou Stumpy Watershed Phase 1, West Baton Rouge Parish, LA: Ms. Selcer was the project engineer responsible for preparing a hydrologic and hydraulic analysis for the Bayou Stumpy Watershed using HEC HMS for storm water runoff calculations and HEC RAS for required channel improvements for the approximately 13 mile long channel that drains a significant portion of northwestern West Baton Rouge Parish.

Upper Terrebonne Basin Watershed Plan/EA, Upper Delta Soil & Water Conservation District: Ms. Selcer was the project engineer responsible for preparing a hydrologic and hydraulic analysis as part of the Watershed Plan and EA for the Upper Terrebonne Basin Watershed using HEC HMS for storm water runoff calculations and HEC RAS for required channel improvements. The total flood protection project area encompasses

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KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Connie Standige, PE Senior Client Program Manager
Project Assignment:
Senior Project Engineer
Name of Firm with which associated:

Years' experience with this Firm:
6 years (37 total)
Education: Degree(s)/Year/Specialization:
BS / 1982 / Civil Engineering
Active registration: Year first registered/discipline:
1988 / Professional Engineer - Civil, LA 24022
Other experience and qualifications relevant to the proposed Project:
<p>Connie joined Neel-Schaffer in 2016 soon after retiring from Louisiana DOTD, where she gained 30 years of diversified engineering experience. Her experience includes project management, project development, design, construction, and maintenance of roads, bridges, drainage, and flood control structures. She served for 1.5 years as the Assistant Secretary of Operations for DOTD and six months as the Deputy Engineer Administrator in the DOTD HQ over statewide operations, including a \$1 billion annual construction budget and \$500 million annual operating budget. She served for five years as the DOTD District Administrator in District 62. For 11 years she served as the Hydraulics/Hydrology Engineer in the DOTD District 2 Design Office in New Orleans.</p> <p>RELEVANT EXPERIENCE</p> <p>St. Tammany Parish Coastal Plan, St. Tammany, LA: Serves as the Project Manager for the data collection, project identification and design for coastal projects. Primary duties are to work with Parish officials, Levee Board officials and the general public in conveying the progress and status of the coastal plan. Resolves issues concerning data collection, public concern, and proposed solutions.</p> <p>West Jefferson Pen Levee, Jefferson Parish: Project Manager. Design review on the raising of the earthen levees. Work included design calculations, plan preparation, directing survey work, and periodic field visits.</p> <p>West Jefferson V-Levee Sheet Pile Levee Protection, Jefferson Parish: Project Manager. Design of the levee sheet pile for the West Jefferson Levee District, including calculations, plan preparation, surveys, and specification preparation.</p> <p>Harvey Canal Levee Protection, Jefferson Parish: Project Designer. Work included survey and design for raising the Harvey Canal Levee. Worked with the West Jefferson Levee District, local business owners, USACE and local government officials to develop a plan for the levee protection. Project involved alternative alignments and impacts to local businesses and residents.</p>

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Lake Borgne Basin Levee District, St. Bernard Parish: Engineer advisor for the Lake Borgne Basin Levee District and made recommendations for projects and permits. Reviewed and made recommendations on plans prepared by consultants and the USACE. Represented the levee district at public meetings, and meetings with federal, state, and local officials.

Master Drainage Plan for St. Bernard, Phase I, II, and III: Project Manager. Developed a complex, comprehensive master drainage plan for all of the levee-protected areas in St. Bernard Parish. Topographic data was collected and analyzed then input into SWMM and HEC 2 software packages to create and run hydraulic models. Results were then analyzed and calibrated to known flooding occurrences. A comprehensive drainage system plan, including canals and pump stations, was then developed. The model was then used to set priorities, establish zoning and permit requirements, and to obtain funding for construction of improvements. Worked with FEMA officials and their consultants, the USACE and local officials throughout all phases of the project.

Ostrica Locks Dewatering, Plaquemines Parish, LA: Project Manager for the development of plans and specifications of the dewatering and maintenance/repair of the Ostrica Locks on the Mississippi River. The structure is a large sector gate that connects the Mississippi River to the Ostrica Canal in lower Plaquemines Parish. Work included coordination with the US Coast Guard, USACE, local parish officials and local fishermen.

Ostrica Canal Dredging, Plaquemines Parish: Project Manager for the development of plans and specifications for the dredging of the Ostrica Canal from the Mississippi River to Quarantine Bay. Worked with the US Coast Guard, local parish officials and local fishermen to coordinate the canal work.

Doullut Canal Dredging, Plaquemines Parish: Project Engineer for the design and monitoring of the Doullut Canal from the Mississippi River to the Empire Floodgate.

Permit Reviews for the Greater New Orleans Levee Districts: DOTD District Manager for the levee board permit reviews. Responsibilities included insuring that permits met design standards and all federal, state, and local laws and policies.

Capital Outlay Funds: Project Manager for the preparation of annual Capital Outlay Fund requests for local levee boards to submit to the Louisiana Division of Administration for funding of flood control projects. Work included preliminary survey and design, developing cost estimates, and final preparation of the applications.

LA 18 Drainage and Roadway Repair, Jefferson Parish: Project manager on plan and specification preparation, bid document preparation, contract award, and project close out after construction.

Clearview / Earhart Drainage Project, Jefferson Parish: Managed the preliminary data collection and planning for flooding solutions for the Clearview/Earhart Interchange.

District 62 Roadway Program: Administered the districtwide annual pavement preservation, capacity improvement, access management, bridge preservation and drainage improvement projects and insured that the designs met current engineering standards, maintained schedules, bid on time, and stayed within budget.

Paris Rd. (LA 47) Rehabilitation: Project Manager on the design of the raising and rehabilitation of LA 47 in Orleans and St. Bernard Parishes, including roadway sub-base, base, surface, drainage and landscaping design.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Kyle Grantham, PE <i>Water Resources Engineer</i>
Project Assignment:
Project Engineer
Name of Firm with which associated:

Years' experience with this Firm:
2 years (8 total)
Education: Degree(s)/Year/Specialization:
BS / 2013 / Civil Engineering
Active registration: Year first registered/discipline:
2019 / Professional Engineer – Civil, AL 38580
Other experience and qualifications relevant to the proposed Project:
<p>Mr. Grantham joined Neel-Schaffer in 2020 and has eight years of experience as a Water Resources Engineer, including 2.5 with the Mississippi Department of Transportation.</p> <p>Based in the firm's Southaven (MS) office, Kyle is skilled in all aspects of Hydrology and Hydraulic Engineering design. He is a licensed Professional Engineer and a Certified Floodplain Manager.</p> <p>RELEVANT EXPERIENCE</p> <p>State of Missouri SEMA- Map Modernization, Risk MAP and Support Services: 03/2019-2/2020. Project Engineer. Developed HEC-RAS 2D rain-on-grid models for the Meramec, Gasconade and Bourbuese River Watersheds in Missouri. Involved in the hydraulic 2d model development for Zone A, Zone AE, and Floodway models.</p> <p>Chickasaw County (MS) Bridge Replacement: Project Engineer. Chickasaw County-SR 245-MDOT project 103352. Responsible for the design and analysis used to determine a hydraulic bridge recommendation. A multiple opening design using SRH-2D was used to recommend and replace four bridges along the same floodplain for Tallabinnela Creek.</p> <p>Lee County Bridge Replacement for MDOT: Project Engineer. Lee County-SR 245- MDOT Project 102426. Responsible for the design and analysis used to determine a hydraulic bridge recommendation. A multiple opening design using SRH-2D was used to recommend and replace two bridges along the same floodplain for Old Chiwapa Creek.</p> <p>USACE Louisville District, MMC Performance Center, CWMS, Louisville, KY: 05/2019-01/2020. Project Engineer. Developed and stabilized unsteady HEC-RAS model for the CWMS program for the Miami River Watershed (Louisville District). The model included areas along the Little Miami River and the East Fork Little Miami River.</p>

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Perry County (MS) Bridge Replacement: QA/QC Manager for the submittal of the conceptual and preliminary phase. Perry County-SR 42-MDOT project 107008. Responsible for the review and approval of the SRH-2D modeling. The project was a single bridge replacement project modeled using SRH-2D along the Tallahalla Creek floodplain.

MDOT SR 442 Bridge Replacement Leflore County, MS: Project Engineer. 573441006; 08/2018- 05/2020. Responsible for the QA/QC of the conceptual, preliminary, and final hydraulic design. A multiple opening design using SRH-2D was used to recommend and replace five bridges along the same floodplain.

SR 178 Bridge Replacement, Union County, MS: 573441004, 02/2018-10/2018. Project Engineer. Responsible for the conceptual, preliminary, and final hydraulic design for East Branch Lockes Creek crossing along SR 178. The site consists of a single bridge replacement with a railroad bridge 75 feet upstream. The crossing was modelled in SRH-2D and HEC-RAS to determine the best recommendation moving forward.

CSXT Railroad Bridge. West Point, KY: 01/2020-06/2020 Project Engineer. Developed 2D model utilizing SRH-2D to run a pier deflector and dredging analysis for Salt River to alleviate debris buildup along the railroad bridge piers.

Missouri State Emergency Management Agency, James River Watershed Detailed Study, Christian County, MO: 8/2018-1/2019. Project Engineer. Developed a first order detailed hydraulic model for James River. This included steady state modeling to develop and plot the floodplains due to a 10, 25, 50, 100, 100+, and 500-year rainfall event.

U.S. Fish and Wildlife Service, Dam Inspections for Chautauqua National Wildlife Refuge (Havana, Illinois) and Muscatatuck NWR, (Seymour, IN): 07/2019-06/2020. Project Engineer. Performed five low-hazard dam inspections for Muscatatuck NWR and three low-hazard dam inspections for Chautauqua NWR. The dams were assessed and rated based on several factors. Responsibilities included oversight of EIT and development of dam reports.

State of Alabama ADECA OWR- Base Level Engineering: Hydraulic Lead for the Middle Tombigbee Chickasaw Watershed. Developed first order detailed hydraulic models for Choctaw, Clarke, Hale, Marengo, and Sumter counties in Alabama. Responsible for budget, project engineer and training of junior engineers.

ARDOT 030412: Bridge Replacements Along SR 70, Sevier County, AR: Engineer for H&H Design. Neei-Schaffer was selected to develop and provide *final roadway plans, final bridge plans and a hydraulic analysis* for this project that includes the replacement of hydraulic structures at three sites along SR 70 near the Oklahoma state line. Mr. Grantham designed the *roadway hydrology and two large box culverts* in HEC-RAS. Hydraulic Toolbox 5.0, ArcMap 10.8, and HEC-RAS 5.0.7 were used for this H&H analysis.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Amber Cutcliff, PE, CFM <i>Hydraulics Engineer</i>
Project Assignment:
Hydraulics Engineer
Name of Firm with which associated:

Years' experience with this Firm:
20 years
Education: Degree(s)/Year/Specialization:
BS / 2001 / Civil Engineering
Active registration: Year first registered/discipline:
2020 / Professional Engineer – Civil, LA 44388
Other experience and qualifications relevant to the proposed Project:
<p>Mrs. Cutcliff joined Neel-Schaffer in 2002 and currently serves as a Hydraulics Engineer based in our Jackson office. She has 20 years of civil engineering experience and has previously served as a Project Engineer/Manager for numerous transportation, aviation, and civil design projects.</p> <p>In addition to Professional Engineering licensure, Amber is an ASFPM Certified Floodplain Manager (CFM). She is proficient in the use and application of HEC-RAS, Bentley Culvert Master, Flow Master, StormCAD, HY-8 Culvert Hydraulic Analysis Program, and ArcGIS. Her experience includes hydrology, roadway and bridge hydraulics, and subsurface drainage analysis and restoration.</p>
RELEVANT EXPERIENCE
<p>Roy Cumbest Bridge Replacement, Jackson County, MS: H&H Design Engineer responsible for performing hydraulic and scour analysis of existing and proposed bridges over the Pascagoula River at Wade-Vancleave Road. The new bridge is approximately 1,350 feet long with 12 spans over the main river channel. HEC-RAS software was used to model existing and proposed bridges. HEC-18 procedures were used to perform scour analysis and HEC-23 procedures were followed to determine and design scour countermeasures. The bridge is located in a FEMA Special Flood Hazard Area, Zone AE, therefore the proposed bridge was designed to meet No-Rise criteria.</p>
<p>Ceres Boulevard Extension, Warren County, MS: H&H Design Engineer responsible for performing hydraulic and scour analysis of proposed bridge location over Crouches Creek for CERES Industrial Park development. HEC-RAS software was used to model proposed bridge conditions. HEC-18 procedures were used to perform scour analysis. The bridge was located in a FEMA Special Flood Hazard Area, therefore the proposed bridge was designed to meet one-foot rise criteria.</p>
<p>Stateline Road Bridge Replacement, Olive Branch, MS: Design Engineer responsible for performing hydraulic and scour analysis of existing and proposed bridge over Grants Creek at Stateline Road. HEC-RAS software was used to model existing and proposed bridges and HEC-18 procedures were used to perform scour analysis and HEC-23 procedures were</p>

TEC Professional Services Questionnaire

followed to evaluate the need for scour countermeasures. The bridge was located in a FEMA Special Flood Hazard Area, therefore the proposed bridge was designed to meet No-Rise criteria.

US 49 Forrest County Safety Improvements, Forrest County, MS: H&H Design Engineer responsible for performing hydraulic and hydrologic analysis of drainage structures within the project limits for both existing and proposed project conditions. Proposed project conditions included cross drain extensions and cross drain pipe networks which combined south and north bound lane crossings.

SR 601/30th Avenue, Gulfport, MS: H&H Design Engineer responsible for hydraulic and hydrologic analysis of project area including roadway drainage system. Responsible for performing hydraulic analysis of existing and proposed box culvert under 30th Avenue at Brickyard Bayou. HEC-RAS software was used to model existing and proposed box culvert locations. Culvert was located in a Special Flood Hazard Area, therefore the proposed culvert was designed to meet No-Rise criteria.

ARDOT 030412: Bridge Replacements Along SR 70, Sevier County, AR: Engineer for H&H Design. Neel-Schaffer was selected to develop and provide final roadway plans, final bridge plans and a hydraulic analysis for this project that includes the replacement of hydraulic structures at three sites along SR 70 near the Oklahoma state line. Mrs. Cutcliff analyzed roadway hydraulic culvert design for the project.

ARDOT 061614: Bridge Replacements Along SR 86, Prairie County, AR: Engineer for H&H Design. Neel-Schaffer was selected to develop and provide final roadway plans, final bridge plans and a hydraulic analysis for this project that includes the replacement of hydraulic structures at two sites along SR 86 near SR 38 in Prairie County. Mrs. Cutcliff is currently involved in the roadway hydraulic design.

ARDOT 040788: Bridge Replacements Along SR 64, Crawford County, AR: Engineer for H&H Design. Neel-Schaffer was selected to develop and provide final roadway plans, final bridge plans and a hydraulic analysis for this project that includes the replacement of hydraulic structures at two sites along SR 64 near Mulberry in Crawford County. Mrs. Cutcliff analyzed the roadway hydrology and performed hydraulic culvert design.

ARDOT 101054: Bridge Replacements Along SR 230, Lawrence and Craighead Counties, AR: Engineer for H&H Design. Neel-Schaffer was selected to develop and provide final roadway plans, final bridge plans, hydraulic analysis and a geotechnical report for this project that includes the replacement of hydraulic structures at 10 sites along SR 230 between Alicia and Bono in Lawrence and Craighead counties. Mrs. Cutcliff analyzed roadway hydraulic culvert design for the project.

SR 19 from SR 492 to Philadelphia, MS: Project Engineer. Provided hydraulic analysis and drainage design for discharge rates, pipe sizes and lengths, flow lines based on Chapter 7 of the MDOT design manual.

University of Mississippi Research Park, Oxford, MS: Project Engineer responsible for design of roundabout that incorporated two existing roadways with entrance to Research Park. Project included design of proposed roundabout and transitions to existing roadway, site hydrology, hydraulic analysis and design.

JSU Campus Union Building Site Development, Jackson, MS: Design Engineer. Provided hydraulic analysis for project including pre and post construction discharge for project area and design of subsurface drainage system for the site.

Hawkins Field Airport Drainage Rehabilitation, Jackson, MS: Design Engineer. Performed evaluation of existing subsurface drainage system and designed necessary repairs and improvements to the existing system based on finding of the evaluation.

Jackson Medgar Evers International Airport Subsurface Storm Water Assessment, Jackson, MS: Project Engineer. Performed evaluation of existing subsurface drainage system; and prepared a report including recommendations and cost estimates for necessary repairs and maintenance to the system.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Jeff Decoteau, PE, PMP <i>Water Resources Engineering Manager</i>
Project Assignment:
Water Resources Engineering Manager
Name of Firm with which associated:

Years' experience with this Firm:
1 year (32 total)
Education: Degree(s)/Year/Specialization:
BS / 1989 / Civil Engineering
Active registration: Year first registered/discipline:
1994 / Professional Engineer - Civil, LA 25859
Other experience and qualifications relevant to the proposed Project:
<p>Jeff joined Neel-Schaffer in 2021 and has more than 30 years of experience in Water Resources Engineering. Based in our Baton Rouge office, he serves in a newly created role of Water Resources Engineering Manager. In this role, he helps grow NSI's Water Resources group across our nine-state footprint.</p> <p>Jeff has extensive experience that provides key lessons learned for achieving project excellence and maintaining superior client service. He has experience on FEMA projects including cost-benefit analysis for Hazard Mitigation Grant Program applications, site evaluations for flood damages, scope development, and funding for repair and reconstruction of flood-damaged drainage systems. He also brings value for company mentorship, leadership development, strategic initiatives, and young professional engagement programs.</p> <p>Jeff has spent a significant portion of his career managing the Water Resources division on a national level with a top-rated national firm. In his most recent role prior to joining Neel-Schaffer, he served as a Project Manager for Louisiana's Office of Community Development to the Louisiana Watershed Initiative's Data and Modeling efforts. In addition, he was the Lead Project Manager for reviewing approximately 200 Round 1 LWI project applications.</p> <p>He also has experience in a broad spectrum of global water resource projects. In particular, he was the forward design team leader in Riyadh, Saudi Arabia, for the King Saud Air Base Comprehensive Master Plan.</p>
RELEVANT EXPERIENCE
<p>Calcasieu-Sabine Large-Scale Marsh & Hydrologic Restoration Project - Cameron Parish, LA: Engineer for Design Integration Services that include a combination of initial project management activities, initial data gap analysis preliminary data collection, design integration planning, including project E&D work breakdown structure and cost estimates, optimization planning and initial optimization tasks, and other project planning</p>

TEC Professional Services Questionnaire

Louisiana Watershed Initiative, Statewide: As a Project Manager to Louisiana's Office of Community Development for the Louisiana Watershed Initiative, Mr. Decoteau provided data management control, watershed model timeline schedules, program consultation and coordination with OCD/LWI leadership, monitor and control project model delivery, and collaborated with team members for developing a public-facing web-based portal to manage hydraulic model input and output data. In addition, Mr. Decoteau was tasked by LWI with the review of over 275 Round 1 LWI Project Application reviews for administration completeness, technical effectiveness of the Hydrologic and Hydraulic Reports, and the validity of the applicant's project Benefit and Cost Analysis. The LWI application reviews initiated the process for supporting state agencies to perform their respective reviews.

U.S. Army COE, Vicksburg District - Westbank Periodic Levee Inspection, AR, MS, and LA: Project Manager and Lead Inspector. Responsible for the periodic 5-year inspection of the west bank levee of the Mississippi River levee system from Arkansas City to the Louisiana Old River Diversion Structure for levee integrity. This section of levee is approximately 275 miles long and required a seven-member inspection team to evaluate, record, document, and report all exceptions to levee standards. This project was fast-tracked for accelerated completion dates. The inspection was completed in 43 working days and required close coordination with the Vicksburg Corp of Engineers and associated levee districts. As Project Manager, Internal Technical Reviews (ITR) were completed through Dr. Checks. The QA/QC project included assigning technical expertise for reviews, documenting project changes due to the review process, resolution meetings for understanding project assumptions, processes, and conclusions, and the formal verification of project certification documents.

USACE (Rock Island District) Cedar Rapids Flood Study, Cedar Rapids, IL As Internal Technical Reviewer, Mr. Decoteau provided the review of levee and floodwall cross-sections segments to be used in the flood protection feasibility study following the record-breaking flood of 2008. In addition, he evaluated stormwater watershed basin concerns for utilizing natural floodway options; thus, reducing flood risk and improving sustainability.

CPRA Mid-Barataria Sediment Diversion, Lafitte, LA: Project Principal. Provided project oversight and collaborate with the CPRA Project Advisory Board for improving project efficiency, enhancing value engineering, and improving team communication. In addition, Mr. Decoteau provided project quality assurance and control duties by reviewing technical reports, completing Technical Quality Review Records, attending project Captain's meeting, and representing AECOM Leadership for conflict resolution.

USACE (Jacksonville District) Upper Margarita Channel Improvements, Rio Puerto Nuevo: Quality Control officer. Provided QC reviews of the Design Documentation Report that includes the necessary data and analysis for the civil, structural, geotechnical, water/sewer, and electrical design. This project included the improved conveyance design of a 3,600-foot-long section of drainage canal located in a heavily developed area in San Juan, Puerto Rico. Design included reinforced concrete lined channel and relocation/modified of existing utilities. Design required the incorporation of a siphon in an existing sewer line due to conflicts with the proposed channel foundation.

USACE (Jacksonville District) Cody Sod Wetlands Restoration Plan of Operation: Project Manager. Provided the permitting and engineering administration phases of construction for the Cody Sod Farms project. The project is part of the NRCS Wetlands Reserve Program. This project consists of NRCS leasing existing farm/private property lands for the purpose of returning them to their pre-development wetlands state. Mr. Decoteau collaborated with the project team and other stakeholders to develop an additional design feature to address the landowners concern of local flooding.

CPRA Clovelly Hydrologic Restoration, Lafourche Parish, LA: Project Engineer. Responsible for the engineering and design of rock protection for over 1,700 linear feet of shoreline. Mr. Decoteau assisted in the development of detailed drawings, specifications, construction quantities, and cost estimates. As the project Quality Assurance Officer, Mr. Decoteau established resource procedures for the internal technical review team. Responsibilities included assigning discipline task leads and subject-matter experts, documenting the adequacy and completion of QC procedures, and monitoring QC review comments, discussions, and resolutions.

TEC Professional Services Questionnaire

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

PROJECT NO. 1

PROJECT NO. 1		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p style="text-align: center;">Kingwood Regional Drainage Study <i>Harris County, Texas</i></p> <p>Harris County Flood Control District William Conlan William.Conlan@hcfcd.hctx.net</p>	<p>Neel-Schaffer was contracted by Harris County Flood Control District (HCFCD) with an interlocal agreement with the Lake Houston Redevelopment Authority TIRZ Number 10, City of Houston, for the Kingwood Drainage Study to create a Watershed Plan to identify strategies for mitigation of existing flooding problems and address future improved drainage infrastructure required to achieve 100-year channel level-of-service for over 32 miles of channels within the Kingwood Area study limits which encompasses over 25 square miles.</p> <p>The work includes calculation of hydrologic parameters utilizing GIS software, development of a high level 1D/2D SWMM model to analyze the overland flow paths and drainage trends in the Kingwood Area, development of hydrologic and steady-state and unsteady state hydraulic models utilizing HEC-HMS and HEC-RAS, determination of existing level-of-service and floodplain boundaries, determination of potentially flooded structures utilizing the Harris County Structure Inventory Tool, development of improvement alternatives including detention mitigation to bring all streams to a 100-year level-of service, and preparation of meeting materials for Community Engagement to present the results of the study and receive community input.</p>	
Completion Date <i>(Actual or estimated):</i>	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2020	\$700,000	\$700,000

PROJECT NO. 2

PROJECT NO. 2		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p style="text-align: center;">South Central Drainage Area Master Plan <i>Central St. Tammany Parish</i></p> <p>St. Tammany Parish Department of Engineering Elizabeth deEtte Smythe (985) 8928-2552 edsmythe@stpgov.org</p>	<p>St. Tammany Parish, north of Interstate 12, consists mostly of undeveloped land managed for timber production. The Parish has committed to a master plan process for this area, including the development of a master drainage plan. Neel-Schaffer provided engineering services in support of short-term (5-10 year) and long-range (10-20 year) development scenarios.</p> <p>NSI developed ArcGIS geodatabase using latest available land use, soils data, and LiDAR data for use in determining run-off parameters such as runoff curve numbers and travel times (basin lag times). Neel-Schaffer used this information and developed hydrologic and hydraulic models for Bayou Lacombe and Bayou Cain drainage basins north of I-12 (60 sq. mi. area) utilizing HEC-HMS and HEC-RAS software. Neel-Schaffer also provided conceptual engineering for detention ponds to support short-term (5-10 year)</p>	

TEC Professional Services Questionnaire

PROJECT NO. 2

	development scenario; determined areas that required collection of field topographic and hydrographic survey data and directed surveyor in collection of data. Neel-Schaffer provided a drainage analysis report which presented conceptual layout and design of proposed regional detention ponds, cross drain culverts, and channels. The report included Opinions of Probable Construction Cost and provided an analysis of potential environmental constraints using GIS-based habitat models for wetlands and species of concern.	
Completion Date <i>(Actual or estimated):</i>	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2010	\$139,000	\$139,000

PROJECT NO. 3

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>St. Tammany Sustainable Growth Pilot Study St. Tammany Parish, LA</p> <p>St. Tammany Parish Department of Engineering Elizabeth deEtte Smythe (985) 8928-2552 edsmythe@stpgov.org</p>	<p>The St. Tammany Parish Sustainable Growth Pilot Project is an engineering design contract to study and develop recommendations for St. Tammany Parish as it considers future development within the Parish. St. Tammany Parish has selected an area within the western portion of the Parish as a pilot location to study for sustainable growth. The area selected currently is undeveloped natural forests and wetlands</p> <p>As an initial phase of the study, the project team was tasked with characterizing wetlands and other sensitive environments within the project study area and develop a natural environment report. The project team performed desktop research to identify and refine probable wetlands and other environmentally sensitive habitats. These desktop sources include the NRCS soil maps and the National Wetland Inventory map. In addition, the project team developed a sampling plan within the drainage basins of the study to ground truth the desktop collection of soil and wetland data. The Natural Environment Report summarized the estimated area of wetlands as well as the approximate type and quality of them.</p> <p>The second phase of the project is to model the existing watersheds and proposed project changes associated with the developments. From the H&H modeling effort, recommendations for development to address existing flooding concerns in addition to future conditions will be provided to St. Tammany Parish.</p> <p>The final phase of the project will be to provide recommendations both from a regulatory and modeling perspective as to how to allow for growth while incorporating the natural environments.</p>	
Completion Date <i>(Actual or estimated):</i>	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2022	\$125,000	\$125,000

TEC Professional Services Questionnaire

PROJECT NO. 4

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p style="text-align: center;">Watershed Study and Drainage Design for Brownsitch Road Widening Project <i>Slidell, LA</i></p> <p>St. Tammany Parish Department of Engineering Elizabeth deEtte Smythe (985) 8928-2552 edsmythe@stpgov.org</p>	<p>St. Tammany Parish commissioned Neel-Schaffer, Inc. (NSI) to perform the design for the widening of Brownsitch Road. The widening will involve the design for a major drainage structure integral with the roadway. The initial phase of the work includes extensive modeling of the watersheds north and south of I-12. These include the 436-acre W-14 Canal watershed north of I-12 composed of 18 sub-basins currently directing water to Brownsitch Road; a 55 acre portion of the W-15 watershed north of I-12 and two subbasins within the W-14 watershed south of I-12. The hydrology study will establish the capacity requirements of the Brownsitch Road drainage structure. The study also evaluates methods for providing storage and redirecting outfall flows north and south of I-12 to mitigate flooding concerns within the W-14 and W-15 drainage basins.</p> <p>Services provided by Neel-Schaffer on this project included:</p> <ul style="list-style-type: none"> • Conducted Field investigation; • Determined areas that required collection of field survey data and directed surveyor in collection of data; • Reviewed existing hydrology models for applicability; • Developed GeoDatabase using latest available land use, soils data, and LiDAR data for use in calculating runoff curve numbers and travel times (basin lag times); • Developed hydrologic (HEC-HMS) and hydraulic (HEC-RAS) models from survey data and GeoDatabase. • Developed conceptual layouts and designs of proposed drainage alternatives including analysis of detention storage; • Provided conceptual plans (15% design) for the widening of Brownsitch Road, • Developed Opinions of Probable Construction Cost; • Prepared Statewide Flood Application <p>Our contract also includes the final design for all improvements recommend in the initial study.</p>	
Completion Date <i>(Actual or estimated):</i>	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2014	\$191,000	\$191,000

TEC Professional Services Questionnaire

PROJECT NO. 5

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Concordia Parish Watershed Study & Drainage Improvements <i>Concordia Parish, LA</i> Concordia Parish Police Jury Kevin Friloux kfriloux@conppj.org 318-336-7151	NSI determined needs for topographic and bathymetric surveying in support of the modeling; developed a Digital Elevation Model (DEM) of the portions of the parish to be modeled including both LiDAR and survey data; utilized the DEM to create cross sections for use in the development of a HEC-RAS model of each stream; developed a detailed HEC-RAS model; determined the stormwater discharges at all pertinent points in the system for the 5-year, 10-year, and 25-year storm events; calibrated the existing condition model to a recent storm event; modified the calibrated model to reflect proposed changes including installation of culverts to the Tensas River Levee, reversal of flow direction in Brushy Bayou, and new bridges over Caney and Brushy Bayous.	
Completion Date <i>(Actual or estimated):</i>	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2016	\$107,000	\$107,000

PROJECT NO. 6

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Drainage Analysis, Rock Creek & South Kolbe Dr. Subdivisions <i>Cypress, TX</i> Harris County, TX Brennan Cook, PE, CFM Brennan.Cook@eng.hctx.net 719- 274-3900	<p>After Harvey Harris County engaged Neel Schaffer to perform a drainage analysis of two subdivisions, Rock Creek and South Kolbe Drive, in Cypress, Texas. The Rock Creek Subdivision is developed around the HCFCD Unit (Channel) L122-00-00, and this channel passes through the middle of the neighborhood. Neel-Schaffer, Inc. (NSI) was authorized to perform a Drainage Analysis to identify drainage infrastructure inadequacies and develop a preliminary design for drainage improvements to reduce the risk of ponding and flooding as a result of future heavy storm events. A hydrologic analysis was performed to determine the peak flows using theoretical rainfall (NOAA Atlas 14). Initially, the analysis of the flooding within the subdivision was focused on the area east of the channel which experienced flood damages during Hurricane Harvey. The capacity of the storm sewer system was analyzed utilizing a state-of-the-art 1D/2D hydraulic model (PCSWMM). The simulation results showed that the storm sewers and roadway have adequate capacity. Consequently, a hydraulic analysis of the neighborhood and surrounding areas was performed utilizing a 2D hydraulic model (HEC-RAS). Based on the results of the analysis, several recommendations for drainage improvements were made based on the modeling efforts. Model results showed that the proposed improvements will reduce the overland peak flow and ponding depths, thereby reducing flooding of the roadway and private properties.</p> <p>The neighborhood located in the vicinity of South Kolbe Drive contains buildings and homes within the Cypress Chase subdivision that experienced structural flooding during Hurricane Harvey and the 2016 "Tax Day" storm event. NSI was authorized to perform a Drainage Analysis to identify drainage infrastructure inadequacies and develop a preliminary design for storm sewer improvements to reduce the risk of</p>	

TEC Professional Services Questionnaire

PROJECT NO. 6

ponding and flooding as a result of future heavy storm events. A hydrologic analysis was performed to determine the peak flows using theoretical rainfall (NOAA Atlas 14). Due to flat topography and complex drainage patterns, a state-of-the-art hydraulic modeling package (PCSWMM 2D) was utilized to not only simulate the movement of water in the 1-dimensional elements such as pipes and channels, but also simulate the motion of water on the land surface in two dimensions. The simulation results were utilized to propose drainage improvement solutions that were hydraulically efficient and cost-effective. The proposed improvement yielded ponding reductions from 3 to 9 inches along the roadway and private properties.

Completion Date <i>(Actual or estimated):</i>	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
On-Going	\$98,000	\$98,000

PROJECT NO. 7

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Tag Along Creek Drainage Study <i>Lacombe, LA</i></p> <p>St. Tammany Parish Department of Engineering Elizabeth deEtte Smythe (985) 8928-2552 edsmythe@stpgov.org</p>	<p>Homes within the lower reaches of the Tag Along Creek Drainage Basin would experience flooding during significant rainfall events. St. Tammany Parish commissioned Neel-Schaffer to perform a watershed analysis, consisting of 23 sub-basins and covering over 1,350 acres in order to develop a drainage master plan that will improve local drainage during significant storm events. Conceptual solutions provided to the Parish included a diversion channel, detention ponds in the upper reaches of the basin, and expansion of an existing lake.</p> <p>Firm's Responsibilities:</p> <ul style="list-style-type: none"> Conducted field investigation and interviews with major property owners. Reviewed existing hydrology models for applicability; Developed GeoDatabase using latest available land use, soils data, and LiDAR data for use in calculating runoff curve numbers and travel times (basin lag times); Developed unsteady flow hydrologic and hydraulic model from survey data and GeoDatabase (MIKE URBAN - EPA SWMM 5 format); Field investigation to determine potential affects to biological resources; Determined areas that required collection of field survey data and directed surveyor in collection of data; Developed drainage analysis report; Developed conceptual layout and design of proposed alternatives; and Developed Opinions of Probable Construction Cost. 	
Completion Date <i>(Actual or estimated):</i>	Estimated Cost:	
2015	Entire Project:	Work for which Firm was Responsible:
	\$ 261,000	\$ 261,000

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PROJECT NO. 8

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p style="text-align: center;">ARDOT On-Call Design Services, Multiple Projects <i>Various</i></p> <p>Arkansas Department of Transportation Mike Fugett mike.fugett@ardot.gov 225-686-2689</p>	<p>Since the first contract was signed, Neel-Schaffer has developed a strong partnership with ARDOT. Neel-Schaffer began working for the Arkansas Department of Transportation in 2019, Neel-Schaffer has completed numerous roadway/bridge replacement design contracts and now has several projects in various stages of completion. Five of the projects are work orders from a 2019-2021 Master Contract and the others are from a work order from the 2022-2024 Master Contract that was recently awarded.</p> <ul style="list-style-type: none"> • ARDOT #101054: SR 230 Bridge Replacements: 10 structures along SR 230 between Alicia and Bono in Lawrence and Craighead Counties. Four of the sites are proposed to be replaced with prestressed concrete girder bridges and six sites will be replaced with concrete box culvert bridges. Contract cost: \$2,005,613. • ARDOT #040780: SR 186 Bridge Replacements: Two structures along SR 186 near Altus in Franklin County. Both sites are proposed to be replaced with concrete box culvert bridges. Contract cost: \$361,000 • ARDOT #040788: SR 64 Bridge Replacements: Two structures along SR 64 near Mulberry in Crawford County. Contract cost: \$850,940. • ARDOT #030412: SR 70 Bridge Replacements: Three structures along SR 70 near Oklahoma State Line in Sevier County on US 70 over Cane Creek, Mud Creek and Rolling Fork Creek. Contract cost: \$934,408 • ARDOT #061614: SR 86 Bridge Replacements: Two structures along SR 86 near SR 38 in Prairie County. Contract cost: \$787,657 <p>NSI is performing all roadway, hydrology and hydraulic, and bridge design in house for all projects.</p> <p>Additionally, Neel-Schaffer has led and performed the complete Hydrology and Hydraulic modeling and design as well as the Scour analysis and design in-house. This effort included the analysis and design of the primary bridge and culvert structure replacements as well as all roadside drainage (i.e. cross drains, side drains, ditches, urban drainage design, etc.). Neel-Schaffer used HEC-HMS and HEC-RAS 1D/2D for all projects.</p> <p>The final product for each project generally consists of a hydrology and hydraulic design and report for the primary bridge/culvert replacement, hydrology and hydraulic design and report for the roadside drainage, and a design and report for the scour analysis for the primary bridge/culvert structures. The hydrology and hydraulic design are completed for two of the five projects, and the design for the remaining three are ongoing.</p>	
Completion Date <i>(Actual or estimated):</i>	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
Various	\$6,575,000	\$6,575,000

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PROJECT NO. 9

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p style="text-align: center;">Stormwater Master Plans <i>Memphis, TN</i></p> <p style="text-align: center;">City of Memphis Evan Boulanger, PE evan.boulanger@memphistn.gov (901) 636-6700</p>	<p>In 2014, 2015, and 2016, the City of Memphis, Tennessee selected Neel-Schaffer on three separate contracts as part of a city-wide ten-year program aimed at developing storm water master plans for high priority watersheds in the City.</p> <p>Services included performing storm water infrastructure field surveys, analyzing rainfall, flow, and stage gage data, developing detailed hydrologic/hydraulic modeling, model calibration and verification, and development of preliminary drainage improvement recommendations for a total of five urbanized drainage basins covering over 15 square miles. Proposed drainage improvements included regional detention ponds, channel improvements, major cross-drain improvements, flow diversions, closed street drainage collection systems, and flood protection berms. All hydrologic and hydraulic modeling was completed using ArcGIS-based InfoSWMM modeling software. The collected survey data and modeling information was integrated into a GIS database that was used to build the comprehensive InfoSWMM model.</p> <p>Capital improvement projects were prioritized, and the selected improvements were modeled systematically in the InfoSWMM Scenario Manager. Based on model results, recommended capital improvements to storm water infrastructure were presented to the City for approval. Final reports included construction cost estimates, conceptual layouts, and pre- and post-improvement floodplain inundation maps.</p>	
Completion Date <i>(Actual or estimated):</i>	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2018	\$650,000	\$650,000

PROJECT NO. 10

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p style="text-align: center;">Drainage Basin Study: Wards 5 & 6 <i>Bay St. Louis, MS</i></p> <p style="text-align: center;">City of Bay St. Louis William B. "Buddy" Zimmerman bzimmerman@baystlouis-ms.gov 228-304-1202</p>	<p>Wards 5 and 6 were recently annexed into the City of Bay St. Louis following Hurricane Katrina. These areas were severely impacted by Hurricane Katrina. The areas are also impacted by local storm events. The City of Bay St. Louis commissioned Neel-Schaffer (NSI) to perform a watershed analysis of Wards 5 and 6, consisting of six sub-watersheds and covering over 12 square miles. The intent of the study was to identify best practices, including remedial maintenance programs and proposed infrastructure that will improve local and regional drainage during significant storm events.</p> <p>NSI performed a drainage infrastructure field inventory utilizing handheld GPS, and interviews with affected residents; determined areas that required collection of detailed field survey data and directed surveyor in collection of data; developed Geo-Database using latest available land use, soils data, and</p>	

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PROJECT NO. 10

LiDAR data for use in calculating runoff curve numbers and travel times (basin lag times).

DHI's MIKE URBAN and EPA-SWMM 5 software within the ArcGIS environment, was used to model the existing complex drainage system of canals in the watershed. An unsteady flow analysis was required as opposed to a conventional one-dimensional HEC-RAS analysis due to the presence of the Bay and the interconnectivity of the canals. Conceptual solutions were modeled and a Master Plan report was provided to the City. Proposed projects included flow diversions using concrete weir structures, channel improvements, multiple culvert/bridge replacements, and one large, regional detention pond.

NSI also developed a storm water management ordinance, presented multiple drainage improvement alternatives to the City, and assisted in selecting the most cost-effective solutions.

Completion Date <i>(Actual or estimated):</i>	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2010	\$250,000 (fee)	\$250,000 (fee)

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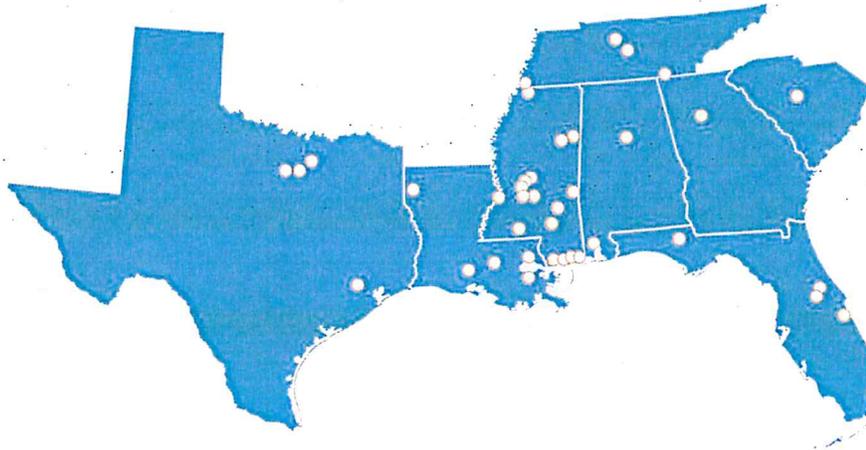
M. List all prior and / or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary.

Parties:		Status / Result of Case:
Plaintiff:	Defendant:	
1.		
2.		
3.		
4.		

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.

Neel-Schaffer is a multi-disciplined engineering and planning firm that was founded in 1983 and today is one of the largest private, employee-owned firms in the South, with nearly 500 employees working out of 38 offices across nine states. A multi-disciplined engineering and planning firm, it encompasses a group of specialized companies with offices in Louisiana, Mississippi, Alabama, Florida, Georgia, Kentucky, Tennessee, and Texas. We provide engineering, emergency management, landscape architecture, environmental, surveying, geotechnical, strategic planning, and community development services to clients throughout the Southeast and Southwest.



Engineering News-Record has listed Neel-Schaffer among the Top 500 Design Firms in the United States annually since 1994, ranking 206 in 2021. Our corporate structure emphasizes local service with a regional touch. It allows our engineers, geologists, biologists, technicians, and project managers to maintain deeply local connections with clients in the many communities we serve, while having the resources of a much larger regional firm at their disposal. This allows us to provide a full-service approach to program development, design, and construction management for your project.

PROFESSIONAL TRAINING AND EXPERIENCE

Neel-Schaffer provides comprehensive flood plain management, hydraulic and hydrologic engineering and modeling, coastal, flood protection, and drainage planning and engineering services throughout Southeastern United States. We are nationally recognized for excellence in water resources engineering, flood control, planning, and environmental analysis. Our combined multi-disciplinary capabilities enable us to analyze and categorize floodplain and coastal problems, suggest and evaluate alternative solutions, engage with the public and all project stakeholders to ensure the desired results, determine environmental and socioeconomic effects, recommend a course of action which best meets the needs of both the natural and human environments, and ultimately design, administer and monitor solutions to the problems.

Our water resources staff includes engineers, planners, environmental specialists, economists, scientists, and GIS specialists who effectively solve floodplain challenges for a variety of federal, state, municipal and private clients.

With a strong local presence, represented by Louisiana offices in Mandeville, Baton Rouge, New Orleans, Lafayette and Shreveport, our firm knows the local market and the expectations of the community for which we live and work.

Neel-Schaffer is proficient and experienced in a variety of water resources projects. Our firm has provided local, state and federal agencies with the expertise and experience in flood plain management, flood control, storm water management/modeling studies, hydrologic and hydraulic (H&H) analyses, and Flood Insurance study updates and map revisions. In the last 30 years, we've built on this experience by investing heavily in talented professionals who are well-

TEC Professional Services Questionnaire

versed in H&H modeling, analyses, engineering and design. All of this allows us to deliver innovative studies and plans that reflect state-of-the-art practices and meet the needs of the communities we serve.

Stormwater management carries complex planning and funding challenges for municipalities. Our experts are very familiar with various storm water funding sources and grant mechanisms. Neel-Schaffer has developed and utilized unique approaches for gaining public and political support for storm water initiatives such as user fee implementation and use of low impact and green infrastructure practices for new and significant redevelopment.

KEY PERSONNEL

W. Hibbett Neel, PE, PLS is President, CEO and a principal of Neel-Schaffer. As co-founder of the firm in 1983, Mr. Neel has over 47 years of experience in the design and management of transportation and traffic projects. His responsibilities have ranged from management of individual traffic and transportation projects to development and management of a major branch office involving water, wastewater, parks, transportation, and community development projects.

Jerry Trumps is Sr. Vice President and Southwest Region Manager for Neel-Schaffer. He has over 40 years of experience in public works, capital improvements, transportation planning and traffic engineering projects. He has been involved as project director for numerous municipal projects, including road/bridge improvements, sewer improvements, hazard mitigation planning, drainage improvements, flood control, landscaping, and construction management. He is very experienced in the governmental planning and the public participatory process, having served as Director of Public Works for the City of Lafayette (1980-1992), a member of the Lafayette City-Parish Council (1996-2004), and member/Chairman of the Lafayette Public Utility Authority (1996-2004).

Glenn Ledet, PE is the Program Manager for Water Resources and Drainage and has 15 years of experience as a program manager, project manager and engineer on a wide variety of civil engineering projects, including comprehensive drainage studies, erosion control, storm-water projects, dam projects, pumping stations, and flood control projects. Most recently, Mr. Ledet served as the project manager for the regional watershed model for 5 Levee Improvement Districts (LIDs) and Municipal Utility District (MUDs) in Fort Bend County, Texas. Prior to that he served as Assistant Administrator of the Operations Division for the State of Louisiana's Coastal Protection and Restoration Authority (CPRA). This entailed the management of CPRA's Regional Offices with more than 40 personnel responsible for constructing, operating, monitoring and maintaining the State of Louisiana's coastal projects. He also has experience working on FEMA projects, such as HMGP and LAMP. Mr. Ledet performed activities such as H&H modeling and cost-benefit analysis for HMGP grant applications, site evaluations for damages due to flooding, scope development, and funding for the repair and reconstruction of flood-damaged drainage systems.

Don Lancaster, PE manages Neel-Schaffer's Mandeville office and has 39 years of experience in civil engineering and project management. He is the Civil Design Manager for Neel-Schaffer's Louisiana offices and serves as the manager for Neel-Schaffer's current work as part of the \$570 million Port of Gulfport (MS) Restoration project. The design is completed and construction on new port facilities will be completed in September 2018. Prior to joining Neel-Schaffer in 2003, Mr. Lancaster was Design Manager for a national firm overseeing the Sewerage and Water Board of New Orleans' Sewer System Evaluation and Rehabilitation Program (SSERP) and the Sewerage and Water Board's (S&WB) Sewer System Rehabilitation for Hurricane Katrina Emergency Recovery Efforts. Soon after joining Neel-Schaffer, he managed the design and construction of over \$55 million of roadway, water, sewer and gas system repairs to Bay St. Louis (MS) infrastructure. This effort was funded by FEMA and is intended to restore the City infrastructure that was severely damaged in Hurricane Katrina.

Michael Phillips, PE, CFM has over 20 years of experience performing all types of complex flood control and large-scale storm water management/modeling studies, as well as reviewing studies of the same nature for municipal clients. He has managed and performed H&H analyses for multiple districts of the US Army Corps of Engineers and numerous large, high profiles FEMA Flood Insurance Study Updates and Map Revisions. He is very familiar with FEMA regulations and proficient in the latest hydrologic and hydraulic steady and unsteady flow modeling programs.

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Connor McColloch, PE, CFM is a water resources engineer with 9 years of experience in hydrologic and hydraulic and watershed studies. He is an expert hydraulic, hydrologic and drainage modeler with extensive technical expertise using advanced water modeling software. He has experience working on watershed studies in Southeast Texas with TxDOT, Harris County, City of Houston, and Harris County Flood Control District. His experience also includes engineering, design and project management of municipal and transportation hydrology and hydraulic projects. Mr. McColloch is well versed in the use and application of ArcGIS, ArcHydro and GeoRAS extensions, USACE HEC Software (HEC-RAS, HEC-HMS and HEC-SSP), XP-SWMM 1D/2D, WinStorm and HouStorm, FHWA HY-8 Culvert Hydraulics, Bentley FlowMaster, CulvertMaster

Britton Wells, PE, CFM serves as a water resources engineer and has 15 years of experience, working on water resources projects for clients across the Southeast US. He has extensive experience working on hydrologic and hydraulic modeling of large riverine watersheds, and urban storm water networks.

David Juan, PE, CFM has David has more than 10 years of experience in hydrologic and hydraulic studies for civil engineering projects. He is an expert drainage modeler, with extensive technical expertise using advanced water modeling software, including ArcGIS, ArcHydro and GeoRAS extensions, USACE HEC Software (HEC-RAS, HEC-HMS and HEC-SSP), XP-SWMM 1D/2D, FHWA HY-8 Culvert Hydraulics, Win TR-20 and Win TR-55.

Leah Selcer, PE has eight years of engineering experience. She has a broad range of project engineering and management experience, providing design, planning and budgeting, permits, plans and specifications, design calculations, reports and presentations for a variety of projects. Ms. Selcer has assisted in the engineering and design of several complex civil, water resources, and coastal projects for coastal ports, parish governments, the LaDOTD and the CPRA. Her experience includes hydrologic and hydraulic calculations and studies using water modeling software, USACE HEC Software (HEC-RAS and HEC-HMS), LADOTD HYDR 2009 (All programs), CulvertMaster, HydroCAD, HYDROWIN, and Civil3D Hydraulic Analysis Programs

Connie Standige, PE joined Neel-Schaffer in 2016 soon after retiring from Louisiana (DOTD) where she gained 30 years of diversified engineering experience. Her experience includes project management, project development, design, construction, and maintenance of roads, bridges, drainage, and flood control structures. She served for 1.5 years as the Assistant Secretary of Operations for DOTD and six months as the Deputy Engineer Administrator in the DOTD HQ over statewide operations, including a \$1 billion annual construction budget and \$500 million annual operating budget. She served for five years as the DOTD District Administrator in District 62. For 11 years she served as the Hydraulics/Hydrology Engineer in the DOTD District 2 Design Office in New Orleans.

Kyle Grantham, PE, CFM joined Neel-Schaffer in 2020 and has eight years of experience as a Water Resources Engineer, including 2.5 with the Mississippi Department of Transportation. Based in the firm's Southaven (MS) office, Kyle is skilled in all aspects of Hydrology and Hydraulic Engineering design. He is a licensed Professional Engineer and a Certified Floodplain Manager.

Amber Cutcliff, PE, CFM has over 20 years of experience as a Professional Engineer and Certified Floodplain Manager. Her experience includes H&H Engineering and Hydraulic modeling on a variety of projects and studies.

Jeff Decoteau, PE, PMP joined Neel-Schaffer in 2021 and has more than 30 years of experience in Water Resources Engineering. He has experience on FEMA projects including cost-benefit analysis for Hazard Mitigation Grant Program applications, site evaluations for flood damages, scope development, and funding for repair and reconstruction of flood-damaged drainage systems. He has spent a significant portion of his career managing the Water Resources division on a national level with a top-rated national firm. In his most recent role prior to joining Neel-Schaffer, he served as a Project

TEC Professional Services Questionnaire

Manager for Louisiana's Office of Community Development to the Louisiana Watershed Initiative's Data and Modeling efforts. In addition, he was the Lead Project Manager for reviewing approximately 200 Round 1 LWI project applications.

SIZE OF FIRM

Neel-Schaffer has nearly 500 professional and technical employees, including planners and engineers with specialization in roadway and bridge design. We have 44 staff members located in Louisiana offering the services of 23 registered Professional Engineers."

CAPACITY FOR TIMELY COMPLETION

Neel-Schaffer has a current monthly billing capacity in excess of \$5 million. As the following chart indicates, we can easily assimilate additional projects into our current workload.

PAST PERFORMANCE

In its performance rating of Neel-Schaffer, the US Army Corps of Engineers, Vicksburg District, concluded that we "consistently produced well organized, well-engineered, professional work." The rating also noted "their engineers and managers were a pleasure to work with. Their spirit of cooperation was a major asset to the contract. They not only met the specifics of their work orders but also were anxious to meet any reasonable desires of the Government representatives. This was especially noteworthy in maintaining milestone dates when government-furnished data was not available when specified and by beating several of their submission dates. Neel-Schaffer, Inc. is highly recommended for future work..."

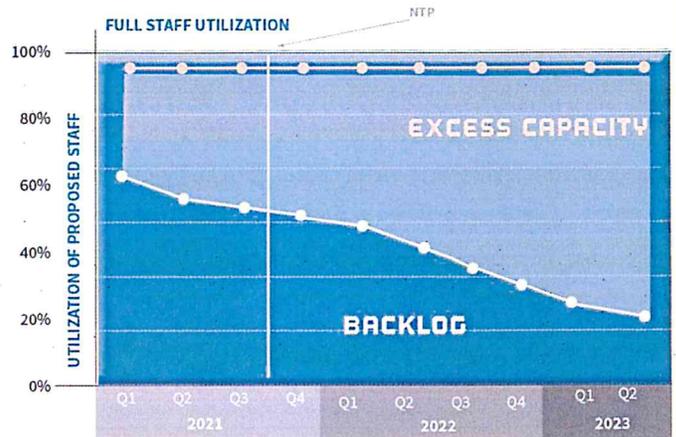
In addition, NSI has been selected repeatedly by LADOTD for ongoing retainer contracts over the past 12 years. We think this is an excellent indication of our performance on public contracts and our reputation as a company to choose by public agencies. We are currently working under three active retainer contracts with LADOTD. We also have a retainer contract with the City of New Orleans Department of Public Works, The Sewerage and Water Board of New Orleans, the CPRA to provide Engineering Services for Coastal Restoration Projects, the Lafayette MPO to provide Roundabout Feasibility Studies, and Ascension Parish in support of their MOVE Ascension transportation program.

To continue improving our services, Neel-Schaffer recently surveyed our clients. We received over 100 responses to our survey involving mostly public clients and were pleased to find that the vast majority are satisfied with our commitment and performance and will more than likely retain our company again. Below is a summary:

- 92% are "likely" or "very likely" to recommend Neel-Schaffer
- 94% rated Neel-Schaffer as "easy" or "very easy" to do business with
- 95% are "satisfied" or "very satisfied" that Neel-Schaffer's deliverables meet your needs
- 96% are "satisfied" or "very satisfied" with Neel-Schaffer's project management capabilities
- 91% rated the overall value you receive from Neel-Schaffer as "good" or "very good"

LOCATION OF PRINCIPLE OFFICE

Our New Orleans LA office, located at 1340 Poydras Street, Suite 1950 will undertake the design for required improvements with support provided by other Neel-Schaffer offices as required.



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ANALYSIS OF WORK RESULTING IN LITIGATION

Neel-Schaffer has not previously worked for Jefferson Parish; and we have never entered litigation with Jefferson Parish or other public sector clients.

PRIOR SUCCESSFUL COMPLETION OF PROJECTS

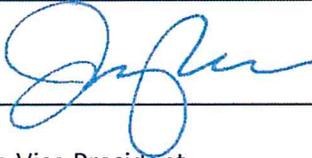
NSI employs a highly qualified team of professionals skilled in a variety of coastal science and coastal engineering disciplines. Our multi-disciplinary approach allows for a more holistic blend of experience and services to meet every client's coastal needs.

Our local presence ensures our work is informed and coordinated with the issues, governance, and opportunities unique to that region. As a result, we have been able to form effective partnerships with government agencies, non-profits, and other private companies, administering coastal initiatives to meet their needs and those of communities.

Neel-Schaffer routinely provides services on an *on-call* basis for our clients. We currently are providing services to CPRA for a three-year multiple task order award contract. We also hold four on-call contracts with LADOTD to provide various services. Our St. Tammany Coastal Master Plan is performed as a Task Order contract and most of our work on Corps of Engineers projects has been performed under task order contracts.

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

Signature: _____



Print Name: Jerry Trumps

Title: Executive Vice President

Date: March 31, 2022

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:																													
SOQ 22-011, Resolution No. 138811 Routine Engineering Services for Drainage Projects																													
B. Firm Name & Address:																													
Eustis Engineering L.L.C. 3011 28 th Street, Metairie, Louisiana 70002																													
C. Ordinances, who is a registered, licensed architect, professional engineer, or surveyor in the State of Louisiana:																													
Gwendolyn P. Sanders, P.E. / President / 504-834-0157 / gsanders@eustiseng.com																													
D. Name and contact information of employee who is a registered and licensed architect, professional engineer, or surveyor in the State of Louisiana in the applicable discipline. A subcontractor may be substituted here only if the advertised Project requires more than one discipline.																													
Gwendolyn P. Sanders, P.E. / President / 504-834-0157 / gsanders@eustiseng.com																													
E. Please provide the number of employees whose primary function corresponds with each category:																													
<table style="width: 100%; border: none;"> <tr><td style="width: 33%;">10 Administrative</td><td style="width: 33%;">_____ Estimators</td><td style="width: 33%;">_____ Specification Writers</td></tr> <tr><td>_____ Architects (Licensed)</td><td>2 Geologists</td><td>_____ Structural Engineers</td></tr> <tr><td>_____ Chemical Engineers</td><td>15 Geotechnical Engineers</td><td>1 Graduate Engineers</td></tr> <tr><td>_____ Civil Engineers</td><td>_____ Interior Designers</td><td>_____ Project Managers</td></tr> <tr><td>_____ Construction Inspectors</td><td>_____ Landscape Architects</td><td>6 Clerical</td></tr> <tr><td>_____ Ecologists</td><td>_____ Land Surveyor</td><td>_____ Grant/Funding Specialist</td></tr> <tr><td>_____ Electrical Engineers</td><td>_____ Mechanical Engineers</td><td>_____ Sanitary Engineers</td></tr> <tr><td>_____ Engineer Intern</td><td>_____ Environmental Engineers</td><td>41 Other</td></tr> <tr><td>_____ Professional Land Surveyors</td><td></td><td>78 TOTAL</td></tr> </table>	10 Administrative	_____ Estimators	_____ Specification Writers	_____ Architects (Licensed)	2 Geologists	_____ Structural Engineers	_____ Chemical Engineers	15 Geotechnical Engineers	1 Graduate Engineers	_____ Civil Engineers	_____ Interior Designers	_____ Project Managers	_____ Construction Inspectors	_____ Landscape Architects	6 Clerical	_____ Ecologists	_____ Land Surveyor	_____ Grant/Funding Specialist	_____ Electrical Engineers	_____ Mechanical Engineers	_____ Sanitary Engineers	_____ Engineer Intern	_____ Environmental Engineers	41 Other	_____ Professional Land Surveyors		78 TOTAL		
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_____ Electrical Engineers	_____ Mechanical Engineers	_____ Sanitary Engineers																											
_____ Engineer Intern	_____ Environmental Engineers	41 Other																											
_____ Professional Land Surveyors		78 TOTAL																											
F. Is this submittal is a JOINT-VENTURE? Please check: YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>																													
If marked "No." skip to Section I. If marked "Yes." complete Sections G-H.																													

TEC Professional Services Questionnaire

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

1. Not applicable.

2.

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

YES NO

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

Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
1. Not Applicable.		
2.		
3.		

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

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

PROJECT NO. 01

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

PROJECT NO. 02

Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p style="text-align: center;"> Jefferson Parish Veterans Boulevard North and South Pump Stations Jefferson Parish, Louisiana Eustis Engineering Project Nos. 23396, 23396.01, and 24426 </p> <p style="text-align: center;"> Contact Information: Jefferson Parish Through ECM Consultants Inc Suite 200 1301 Clearview Parkway Metairie, Louisiana 70001 Sunina Shrestha, P.E @ 504-885-4080 </p>	<p>Two new drainage pump stations are proposed on the northern and southern sides of Veterans Memorial Boulevard at the 17th Street Canal. Each of these pump stations will discharge into the 17th Street Canal. Because of a planned bike path along the hurricane protection floodwall, these discharge pipes will need to penetrate the flood protection. As a result, plans called for the replacement of portions of the existing West 17th Street Canal I-walls (which cannot be penetrated and still comply with the U.S. Army Corps of Engineers' (USACE) guidelines) with T-walls. Both pump stations would require demolition of approximately 20 feet of existing concrete I-wall for installation of the new T-wall to accommodate a discharge pipe through each wall. Access gates will also be provided as part of the floodwall modifications.</p> <p>Because of these modifications to the flood protection, a safety assurance review (SAR) was conducted by an independent reviewer. The SAR included a review of the plans and specifications, and design reports and calculations. Comments from the SAR were incorporated into the permit package submitted to the review agencies. The project plans have civil, structural, mechanical, and electrical components.</p> <p>For additional data at the site, Eustis Engineering used soil boring and laboratory test data contained in our own files from our explorations as well as data obtained through a Freedom of Information of Act request to the USACE.</p> <p>Engineering analyses for the evaluation of the proposed T-wall followed the USACE's <u>Hurricane and Storm Damage Risk Reduction System Design Guidelines</u> dated June 2012. Global and local stability analyses were performed to evaluate the design and construction of the T-wall, including temporary flood protection and temporary retaining structures. Stability analyses were also performed to address construction dewatering requirements for the pump station excavation with respect to the existing and proposed flood protection.</p> <p>Our work included estimates of allowable axial pile load capacities for piles supporting the T-wall foundations as well as the pump station and discharge pipes. We also performed analyses to evaluate the potential for seepage and heave during and after construction for the proposed features. New generator pads were located adjacent to each pump station to house controls outside the new intake excavation.</p>	
<p style="text-align: center;">Completion Date (Actual or Estimated)</p>	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
11/2021 (A)	Unknown	\$53,400

PROJECT NO. 03

Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p style="text-align: center;">Gretna City Park Proposed Water Capacity Improvements 910 Gretna Boulevard Gretna, Louisiana Eustis Engineering Project No. 24290</p> <p style="text-align: center;">Contact Information: Gretna City Park Through Waggoner & Ball Architects, APC 2200 Prytania Street New Orleans, Louisiana 70130 Andy Sternad @ 504-524-5308</p>	<p>Open-air pavilion and pedestrian bridge structures were anticipated as part of the Gretna City Park upgrades. The pavilion structure would consist of an approximate 25' x 30' timber frame structure.</p> <p>In the field, Eustis Engineering's drill crew completed nine undisturbed soil borings, varying in depth from 10 to 75 feet below the existing ground surface. Additionally, our personnel performed two infiltration tests on site using the Compact Constant Head Permeameter (Amoozemeter®) procedure. Following the field investigation, our Metairie laboratory conducted natural water content, unconfined compression shear, and one-point unconsolidated undrained triaxial compression shear tests to inform the engineering design.</p> <p>Engineering analyses and recommendations included the following:</p> <ul style="list-style-type: none"> • slope stability analyses; • site preparation recommendations including drainage (both during construction and permanent) and subgrade preparation. • fill selection as well as its recommended compaction and its estimated settlement; • estimates of load capacity for treated ASTM D25 quality timber piles as well as settlement estimates; • pile installation recommendations; • pavement design; and • material recommendations including components of the pavement itself and the use of geotextiles. <div style="text-align: center;">  </div>	
<p style="text-align: center;">Completion Date (Actual or Estimated)</p>	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
04/2020 (A)	Unknown	\$13,300

PROJECT NO. 04

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

PROJECT NO. 05

Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p align="center"> Southeast Louisiana Flood Protection Authority - East East Jefferson Lévee District Gabrielle Subdivision Runoff Control Piping Near the Duncan Canal Pump Station Kenner, Louisiana Eustis Engineering Project Nos. 22537, 23474, and 24245 </p> <p align="center"> Contact Information: Southeast Louisiana Flood Protection Authority – East Suite 225 5001 Stars and Stripes Boulevard New Orleans, Louisiana 70126 Chris Humphreys @ 504-262-8922 </p>	<p> This project began with proposed pipeline rerouting at Pump Station No. 4, near Duncan Canal Pump Station, in Kenner, Louisiana. Eustis Engineering used existing geotechnical data obtained from previous projects at the site to perform global stability analyses to evaluate the existing hurricane protection levee and floodwall during and after construction of the proposed pipeline. Slope stability analyses for the proposed trench/excavation for the installation of the pipe followed the criteria provided in the U.S. Army Corps of Engineers' (USACE) <u>Hurricane and Storm Damage Risk Reduction System Design Guidelines</u> and were performed using the Spencer's Method of Slices coded within SLOPE/W. The slope stability analyses were performed for the T-wall and proposed protected side excavation for pipeline installation. We also computed Lane's Weighted Creep Ratio to evaluate piping potential into the excavation as the result of seepage during a high-water event. </p> <p> Using data obtained from these calculations, we provided construction recommendations for the contractor's use on the project. </p> <p> Fleming Construction Company, L.L.C., was contracted to install a 40-in. PVC drainage pipe in the proposed excavation. They provided construction drawings delineating the configuration of a Temporary Retaining Structure (TRS). In order to ensure the contractor's TRS design met the requirements of the construction permit including review by the USACE, Eustis Engineering was retained to evaluate these drawings and provide comments. Subsequently, we provided clarification, revised calculations to accommodate plan changes, and responded to further queries and comments as needed. </p> <p> When this review process was completed and construction commenced, Eustis Engineering provided additional geotechnical services on this project, sampling earthwork and subjecting the samples to laboratory testing including compaction, Atterberg liquid and plastic limits testing, and the percent passing the No. 200 sieve. We also evaluated the results of monitoring operations performed by the contractor to confirm the TRS was behaving as predicted and within permit requirements. </p>	
<p align="center">Completion Date (Actual or Estimated)</p>	<p align="center">Estimated Cost:</p>	
<p align="center">05/2020 (A)</p>	<p align="center">Entire Project:</p>	<p align="center">Work for Which Firm Was Responsible:</p>
	<p align="center">Unknown</p>	<p align="center">\$32,200</p>

PROJECT NO. 06

Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p align="center"> Jefferson Parish Proposed Pump Station Blanchard Lane Grand Isle, Louisiana Eustis Engineering Project No. 24160 </p> <p align="center"> Contact Information: Jefferson Parish Through GIS Engineering, LLC 117 Elysian Drive Houma, Louisiana 70363 Kyle Galloway @ 985-219-1000 </p>	<p>Plans called for the pump station to be supported on timber or concrete piles. Three reinforced concrete inlet pipes were planned, and two 24-in. diameter discharge pipes would be connected to the pump station. Each of the discharge pipes would be connected to a vertical pump with an electric motor housed on an elevated platform above the pump station. The pump station would have approximate plan dimensions of 14' x 16.33' and be constructed to bear at a depth of 14 feet below grade. A design alternative, consisting of a grade supported pump station (without pile support), was also evaluated as part of our investigation.</p> <p>In the field, one undisturbed boring was drilled for the project extending to a depth of 150 feet below the existing ground surface. In the laboratory, soil mechanics laboratory tests included visual classification, natural water content, unit weight, unconfined compression shear, and unconsolidated undrained triaxial compression shear tests.</p> <p>Engineering analyses and recommendations included the following:</p> <ul style="list-style-type: none"> • recommendations for groundwater management; • site preparation recommendations including excavation preparation and development of a working platform/bedding mat and a sealant slab • minimum requirements for temporary retaining structures; • dewatering and pressure relief associated with a working platform; • allowable soil bearing values for the pump station, net applied soil pressure, and settlement of the mat/slab supported pump station; • consideration of hydrostatic uplift pressures; • lateral earth pressures; • estimated allowable load capacities for various sizes of treated ASTM D25 quality timber piles and square, precast concrete piles; • estimated pile settlement due to sustained structural loads; and • pile installation recommendations. 	
<p align="center">Completion Date (Actual or Estimated)</p>	<p align="center">Estimated Cost:</p>	
<p align="center">08/2019 (A)</p>	<p align="center">Entire Project:</p> <p align="center">Unknown</p>	<p align="center">Work for Which Firm Was Responsible:</p> <p align="center">\$14,500</p>

PROJECT NO. 07

Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p style="text-align: center;"> Jefferson Parish Proposed Drainage Improvements Geisenheimer Canal Between Loumor Ditch and Hoey's Cut Metairie, Louisiana Eustis Engineering Project No. 24281 </p> <p style="text-align: center;"> Contact Information: Jefferson Parish Through Design Engineering, Inc. 3330 West Esplanade Avenue Metairie, Louisiana 70002 John Holtgreve, P.E. @ 504.836.2155 </p>	<p>Drainage improvements were planned for a portion of Geisenheimer Drainage Canal between Loumor Ditch and Hoey's Cut in Metairie, Louisiana. A new box culvert would be installed north of and paralleling the existing Geisenheimer Drainage Canal over a distance of approximately 2,800 linear feet. The purpose of this project was to increase flow capacity. Tie-ins in the form of junction boxes would be required at three locations including the new and existing Loumor Ditch, Woodvine Ditch, and at Hoey's Cut. The existing covered canal generally consisted of an 8' x 15' box culvert supported by timber piles. A section of the Hoey's Cut covered canal indicated a 9.5' x 25' structure comprising concrete sheetpiles as the sidewalls. The new structure was planned to be an 8' x 12' box culvert supported at grade.</p> <p>Eustis Engineering had previously performed geotechnical explorations for prior project phases. To supplement these historic data, Eustis Engineering performed four cone penetration tests (CPTs) to a depth of 60 feet each below the existing ground surface. The CPTs were made with a track-mounted cone penetrometer rig. This exploration scope was selected to expedite the project schedule and keep field costs contained.</p> <p>Geotechnical engineering recommendations for the project included site preparation, managing drainage during and after construction, identifying demolition of existing structures, retaining walls, and the need for shoring and bracing for excavations.</p> <p>Eustis Engineering analyzed at least one concept of a TRS considering application of factors of safety to the sheetpile penetration or to the soil design parameters. Other considerations for the TRS included recommendations for construction sequence; excavation; dewatering; lateral movement and soil subsidence; preparation of the excavation base; the bridge lift and bedding; sealant slab; and material selection and compaction for structural, non-structural, and embankment fill.</p> <p>Our personnel also analyzed earth and water pressures associated with the box culvert as well as the use of a grade-supported culvert base slab. Analyses associated with the slab included allowable soil bearing values, net applied pressure intensity, and settlement estimates. Differential settlement was considered in association with pavements, the existing pile-supported box culvert, and underground utilities.</p>	
<p style="text-align: center;">Completion Date (Actual or Estimated)</p>	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
03/2020 (A)	Unknown	\$12,100

PROJECT NO. 08

Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:
<p style="text-align: center;">Jefferson Parish Hoey's Canal Drainage Improvements (Phases II and III) Deckbar Avenue to Labarre Road and Labarre Road to Causeway Boulevard Jefferson Parish, Louisiana Eustis Engineering Project Nos. 21458, 22532, and 22532.01</p> <p style="text-align: center;">Contact Information: Jefferson Parish Through Linfield Hunter & Junior, Inc. 3608 18th Street Metairie, Louisiana 70002 Robert Nockton, P.E. @ 504-833-5300</p>	<p>Eustis Engineering has performed multiple geotechnical explorations dating back to 1966 along Hoey's Canal for various modifications and improvements. Phases II and III of the proposed drainage improvements along Hoey's Canal included the deepening and lining of the canal using sheetpile walls and concrete slope paving for the upper slopes of the canal. Phase II extended from Deckbar Avenue (LA Highway 3139) to the railroad crossing near Labarre Road in Jefferson Parish, Louisiana. This portion of the drainage improvements was approximately 1,715 feet long and was a continuation of an earlier phase of the project that extended from Deckbar Avenue to Betz Avenue (approximately 805 feet long) tying into an existing sheetpile lined canal. Phase III consisted of improvements to approximately 1,625 feet of Hoey's Canal from Causeway Boulevard to Labarre Road. Eustis Engineering was retained for Phase III because of our ability to deliver high quality geotechnical recommendations in a timely fashion to our clients and to Jefferson Parish.</p> <p>For Phase II, Eustis Engineering drilled four undisturbed soil test borings using a truck-mounted, rotary-type drill rig. We drilled one soil boring to a depth of 130 feet and three borings to depths of 60 feet below the existing ground surface. For the Phase III exploration, we utilized data from one of the soil borings we obtained in Phase II in addition to drilling three borings to depths of 60 feet with a low ground vibration truck-mounted drilling rig. We coordinated with the New Orleans and Gulfport Belt Railroad (NOGBR) and Jefferson Parish to ensure our field exploration was performed safely and met the NOGBR and parish requirements. The Phase III borings were drilled on the southern side of the canal because borings were not feasible on the northern side due to overhead electrical lines. Eustis Engineering performed soil mechanics laboratory tests on samples obtained from the borings during Phases II and III to evaluate the physical properties of the subssoils.</p> <p>Based on existing data, soil borings, and laboratory test results, Eustis Engineering provided recommendations regarding site preparation, sheetpile analyses, global stability analyses, estimates of allowable pile load capacities for alternative flume support, estimates of allowable pile load capacities for the railroad bridge which would replace an existing culvert, and general construction recommendations. We also evaluated dewatering/pressure relief and heave which were major design challenges due to a shallow subsurface sand deposit located near the bottom of the deepened canal.</p> <p>For Phase II, we provided supplemental engineering analyses which included addressing requests for information posed by the construction contractor and evaluating the pile load capacity results from a static load test program. Our Phase III engineering scope</p>

PROJECT NO. 08

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

PROJECT NO. 09

Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:					
<p style="text-align: center;"> Jefferson Parish Bonnabel Canal Pomona Street to Nero Street Metairie, Louisiana Eustis Engineering Project No. 23387 </p> <p style="text-align: center;"> Contact Information: Jefferson Parish Through BCG Engineering & Consulting, Inc. 3012 26th Street Metairie, Louisiana 70002 Ann Springston, P.E. @ 504-454-3866 </p>	<p>BCG Engineering & Consulting, Inc. (BCG) requested Eustis Engineering's consultation in finalizing the plans and providing support during construction of the proposed Bonnabel Canal east bank stabilization features. The construction planned for an approximate 1,600-ft stretch of the project that would extend from Pomona Street to Nero Street in Metairie, Louisiana. The furnished plans showed a 35-ft AZ26 sheetpile with a top at el 8 and a tip at el -27.</p> <p>Prior to these final design/construction phase services, Eustis Engineering had performed several geotechnical explorations for the project that were used as the basis of our updated design services. The most recent study was published in our report entitled "Geotechnical Investigation, Jefferson Parish, Bonnabel Canal, South of Veterans Boulevard to West Esplanade Avenue, Metairie, Louisiana, Eustis Engineering Project No. 20438," dated 20 November 2009.</p> <p>Using the available data, Eustis Engineering performed local stability analyses of the new sheetpile wall configuration using CWALSHT to confirm that the proposed sheetpile tip embedment was sufficient.</p> <p>Additionally, we evaluated deep-seated global stability for the cantilever sheetpile wall using the Spencer's Method of Slices for non-circular and circular failures (with optimization search routines) with the software SLOPE 2D version 8.16 (GEO-SLOPE International, Inc.). These analyses confirmed the proposed configuration was stable. Thus, the plans being developed could be finalized to provide for improved drainage within the tight construction corridor.</p>					
<p style="text-align: center;"> Completion Date (Actual or Estimated) </p> <p style="text-align: center;">11/2017 (A)</p>	<p style="text-align: center;"> Estimated Cost: </p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th data-bbox="662 1270 1089 1333" style="width: 50%;">Entire Project:</th> <th data-bbox="1089 1270 1523 1333" style="width: 50%;">Work for Which Firm Was Responsible:</th> </tr> </thead> <tbody> <tr> <td data-bbox="662 1333 1089 1367" style="text-align: center;">Unknown</td> <td data-bbox="1089 1333 1523 1367" style="text-align: center;">\$3.700</td> </tr> </tbody> </table>		Entire Project:	Work for Which Firm Was Responsible:	Unknown	\$3.700
Entire Project:	Work for Which Firm Was Responsible:					
Unknown	\$3.700					

PROJECT NO. 10

Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:					
<p align="center"> Jefferson Parish Monticello Canal Improvements Jefferson Parish, Louisiana Eustis Engineering Project Nos. 23050 and 23050.01 </p> <p align="center"> Contact Information: Jefferson Parish Through Hartman Engineering, Inc. 527 West Esplanade Avenue Suite 300 Metairie, Louisiana 70002 Ronald Miller at 504 466 5667 </p>	<p>In September of 2014, Jefferson Parish and Hartman Engineering, Inc. solicited Eustis Engineering for the proposed Monticello Canal improvements in Jefferson Parish, Louisiana. This project called for a flume to be installed on the northern side of Airline Highway and three 84-in. diameter pipes to be jacked-and-bored under Airline Highway and Kansas City Southern Railroad. A 200-ft long section of arched pipe would also extend from the southern end of the 84-in. diameter pipes to the existing canal.</p> <p>After site reconnaissance, Eustis Engineering drilled one undisturbed sample type soil test boring to a depth of 80 feet below the existing ground surface. Engineering analyses, based on the soil boring and subsequent laboratory test results, were used to develop recommendations for excavations, dewatering and pressure relief, temporary retaining structures' (TRS) feasibility, and deep-seated global stability for sheeted construction excavations. We also estimated allowable pile load capacities and settlement, and provided general foundation construction recommendations.</p> <p>In 2016, the sheetpile used as a TRS during construction of the flume unexpectedly required removal after construction. Eustis Engineering initially provided results considering this sheetpile would be permanent, so we provided supplemental analysis for the "after-construction" condition with the sheetpile.</p> <p>Additionally, the arched pipe initially planned for the southern side of Airline Highway, was to be replaced with an open flume. This allowed for a consistent drainage approach with the adjacent Hoey's Canal drainage project. Eustis Engineering evaluated two cross sections to address these geometric changes; to perform global stability and local stability analyses for the "during-construction" and "after-construction" cases; to consider heave and dewatering, and to implement sheetpile wingwalls at the southern limit where the flume will meet Hoey's Canal.</p> <p>Finally, Eustis Engineering was available to assist BCG Engineering & Consulting with review of specifications regarding temporary retaining structures and dewatering.</p>					
<p align="center">Completion Date (Actual or Estimated)</p> <p align="center">10/2016 (A)</p>	<p align="center">Estimated Cost:</p> <table border="1"> <thead> <tr> <th data-bbox="662 1659 1088 1730">Entire Project:</th> <th data-bbox="1088 1659 1523 1730">Work for Which Firm Was Responsible:</th> </tr> </thead> <tbody> <tr> <td align="center" data-bbox="662 1730 1088 1764">Unknown</td> <td align="center" data-bbox="1088 1730 1523 1764">\$18,900</td> </tr> </tbody> </table>		Entire Project:	Work for Which Firm Was Responsible:	Unknown	\$18,900
Entire Project:	Work for Which Firm Was Responsible:					
Unknown	\$18,900					

TEC Professional Services Questionnaire

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

PROFESSIONAL IN CHARGE OF PROJECT:

Name & Title:

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

Project Assignment:

Project Principal / Limited Liability Corporation Member

Name of Firm with which Associated:

Eustis Engineering L.L.C.

Years' Experience with This Firm:

29

Education: Degree(s)/Year/Specialization:

Master of Science / 1992 / Civil Engineering
Bachelor of Science / 1990 / Civil Engineering

Active Registration: Year First Registered/Discipline:

Louisiana: 1997 / Civil Engineering
Mississippi: 2003 / Engineering
Texas: 2020 / Civil Engineering

Other Experience and Qualifications Relevant to the Proposed Project:

Mrs. Sanders began her professional career with Eustis Engineering in 1993. Over the past 29 years, she has worked her way up through the ranks of the engineering department including Associate Engineer, Project Engineer, Project Manager, and Engineering Manager. She has been on Eustis Engineering's Board of Directors since 1997. In 2020, Mrs. Sanders became Eustis Engineering's first woman president after previously serving as a vice president and executive vice president. As President, she is responsible for day-to-day business operations including quality, safety, marketing and long-term strategic growth. She also still actively participates in the engineering design and review processes.

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

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

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

PROFESSIONAL IN CHARGE OF PROJECT:

Name & Title:

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

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

- Jefferson Parish Department of Public Works - Proposed Pump Station, West Esplanade at the 17th Street Canal, Jefferson Parish, Louisiana
- Jefferson Parish - Veterans Boulevard, North and South Pump Stations, Jefferson Parish, Louisiana
- Southeast Louisiana Flood Protection Authority - East, East Jefferson Levee District, Gabrielle Subdivision Runoff Control Piping, Near the Duncan Canal Pump Station, Kenner, Louisiana
- Jefferson Parish - Proposed Drainage Improvements, Geisenheimer Canal Between Loumor Ditch and Hoey's Cut, Metairie, Louisiana
- Jefferson Parish - Bonnabel Canal, Pomona Street to Nero Street, Metairie, Louisiana

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
James J. Hance, P.E. / Senior Project Manager and Vice President (Finance)
Project Assignment:
Engineering Manager / Limited Liability Corporation Member
Name of Firm with which Associated:
Eustis Engineering L.L.C.
Years' Experience with This Firm:
19
Education: Degree(s)/Year/Specialization:
Master of Business Administration / 2011 / Business Administration Master of Science / 2003 / Civil Engineering (Geotechnical) Bachelor of Science / 1998 / Civil Engineering
Active Registration: Year First Registered/Discipline:
Louisiana: 2004 / Civil Engineering Mississippi: 2012 / Engineering Texas: 2010 / Civil Engineering
Other Experience and Qualifications Relevant to the Proposed Project:
<p>For three years, Mr. Hance was a Staff Engineer and Assistant Project Manager on numerous design and construction phase projects in the Washington D.C. metropolitan area. His duties included management of field technicians who performed concrete, asphalt, and soils testing, and foundation construction observations of spread footings, mats, drilled shafts, augercast piles, driven steel H-piles, tiebacks, and underpinning piers.</p> <p>After relocating to Austin, Texas, to eventually pursue graduate studies in engineering, Mr. Hance acted as an assistant project engineer for several design phase projects. These projects involved retention and stream bank stabilization applications. The types of systems designed included mechanically stabilized earth (MSE); single and multi-tiered walls and slopes utilizing geogrid reinforcement; and the use of geosynthetic materials in engineering applications such as erosion control solutions for open channel flow conditions.</p> <p>Mr. Hance was a graduate research assistant at the University of Texas at Austin where he published his Master's thesis in association with a Master of Science in Civil Engineering degree: <i>Assessment of Seafloor Slope Stability Based on a Database of Published Submarine Slope Failures.</i></p> <p>Mr. Hance has spent the past 19 years with Eustis Engineering and has worked on many projects for Jefferson Parish. During his tenure at Eustis Engineering, he has earned four promotions: Project Engineer (July 2004), Project Manager (November 2007), Vice President (August 2011), and Chief Financial Officer (August 2012). Mr. Hance manages geotechnical services associated with commercial, industrial, environmental, and civil works projects. His responsibilities include managing a wide variety of design and construction phase projects (public and private sectors), management of staff engineers and development of their skill assets, developing scopes of work and appropriate fees</p>

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

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

for new projects with clients, participating in business development and marketing ventures, and negotiating contracts. Some of his experience relative to this submittal includes the following:

- Jefferson Parish - Jung and Falcone Lift Station Upgrades (K-11-3), New Sanitary Sewer Lift Station, Marrero, Louisiana
- Jefferson Parish - Proposed Pump Station, Blanchard Lane, Grand Isle, Louisiana
- Jefferson Parish - Hoey's Canal Drainage Improvements (Phases II and III), Deckbar Avenue to Labarre Road and Labarre Road to Causeway Boulevard, Jefferson Parish, Louisiana
- Jefferson Parish - Monticello Canal Improvements, Jefferson Parish, Louisiana

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Benjamin M. Cody, P.E. / Principal Engineer
Project Assignment:
Project Manager / Limited Liability Corporation Member
Name of Firm with which Associated:
Eustis Engineering L.L.C.
Years' Experience with This Firm:
21
Education: Degree(s)/Year/Specialization:
Master of Science / 1999 / Civil Engineering Bachelor of Science / 1996 / Civil Engineering
Active Registration: Year First Registered/Discipline:
Louisiana: 2002 / Civil Engineering Mississippi: 2007 / Engineering Texas: 2014 / Civil Engineering Florida: 2001 / Engineering Alabama: 2003 / Engineering Arkansas: 2014 / Engineering
Other Experience and Qualifications Relevant to the Proposed Project:
<p>From 1993 to 1994, Mr. Cody first worked with Eustis Engineering as a part-time laboratory soil technician while obtaining his undergraduate degree. After leaving Eustis Engineering in 1994, Mr. Cody worked as an engineering technician with the Sewerage & Water Board of New Orleans and as a student laboratory coordinator at Tulane University's Department of Civil Engineering. Mr. Cody also assisted in teaching the introductory soil mechanics laboratory sessions. For more than a year, he then worked as a graduate research assistant at Tulane University while pursuing his Master's degree. At that time, he was responsible for the design, construction, and implementation of bench scale testing system in contaminated soil remediation.</p> <p>From 1998 until 2001, Mr. Cody worked for engineering firms in Florida. He performed such duties as soil evaluation and engineering recommendations for projects of varying sizes including multi-story structures, bridges, and roadways. He performed Phase I environmental site assessments as well as geotechnical sensor installation.</p> <p>In 2001, he returned to the New Orleans area and to Eustis Engineering as a Project Engineer. He now serves as a Principal Engineer with the firm. Since his return, Mr. Cody has performed a wide variety of engineering services including geotechnical project management, engineering design, engineering during construction, and dynamic pile testing. Private sector projects have varied from small private and commercial structures to multi-story high-rise structures, storage tanks, and other industrial facilities. Public projects have included roads and bridges, port facilities, government buildings and facilities, schools, and hurricane protection system improvements.</p> <p>Some of Mr. Cody's project experience, shown in this submittal, includes the following:</p> <ul style="list-style-type: none">• Jefferson Parish Department of Public Works - Proposed Pump Station, West Esplanade at the 17th Street Canal, Jefferson Parish, Louisiana• Jefferson Parish - Veterans Boulevard, North and South Pump Stations, Jefferson Parish, Louisiana

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

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

- Jefferson Parish - Jung and Falcone Lift Station Upgrades (K-11-3), New Sanitary Sewer Lift Station, Marrero, Louisiana
- Southeast Louisiana Flood Protection Authority - East, East Jefferson Levee District, Gabrielle Subdivision Runoff Control Piping, Near the Duncan Canal Pump Station, Kenner, Louisiana
- Jefferson Parish - Proposed Drainage Improvements, Geisenheimer Canal Between Loumor Ditch and Hoey's Cut, Metairie, Louisiana
- Jefferson Parish - Hoey's Canal Drainage Improvements (Phases II and III), Deckbar Avenue to Labarre Road and Labarre Road to Causeway Boulevard, Jefferson Parish, Louisiana
- Jefferson Parish - Monticello Canal Improvements, Jefferson Parish, Louisiana

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Sean G. Walsh, P.E. / Engineering Manager and Vice President (Engineering)
Project Assignment:
Principal Engineer / Limited Liability Corporation Member
Name of Firm with which Associated:
Eustis Engineering L.L.C.
Years' Experience with This Firm:
10
Education: Degree(s)/Year/Specialization:
Master of Science / 2010 / Civil Engineering Bachelor of Science / 2007 / Civil Engineering
Active Registration: Year First Registered/Discipline:
Louisiana: 2013 / Civil Engineering
Other Experience and Qualifications Relevant to the Proposed Project:
<p>For his first five years after graduation, Sean G. Walsh, P.E., was a Project Engineer on numerous projects in the New York and New Orleans metropolitan areas where he gained experience in civil, geotechnical, and geo-environmental engineering projects for a variety of public and private clients.</p> <p>Since joining Eustis Engineering in 2012 as a Project engineer, Mr. Walsh has been responsible for developing and managing engineering package preparations (e.g., engineering design and analysis, reporting, development of construction and permit drawings, contract specifications, cost estimates, and design reporting) for a diverse range of design and analysis projects including deep foundations, excavation support systems, utility foundations, slope stabilization, solid waste closure systems, levee inspection, safety, and seepage modeling.</p> <p>Mr. Walsh was promoted to Project Manager in 2017. Mr. Walsh is also a graduate of the 2017 New Orleans Regional Leadership Institute (NORLI), a one-year training program designed to help shape community leaders.</p> <p>During his employment with Eustis Engineering, Mr. Walsh has provided engineering services on more than 400 projects. Mr. Walsh has risen to the level of Vice President and Engineering Manager, in which he is responsible for personnel resource allocation, the overall engineering schedule, and execution of engineering services. Mr. Walsh also functions as a mentor to the engineering staff.</p> <p>A large portion of Mr. Walsh's experience, before and after joining Eustis Engineering, involved development of design and construction recommendations associated with flood protection systems in southeastern Louisiana. Mr. Walsh has served as the project engineer and project manager responsible for the development and implementation of geotechnical exploration programs; development of soil testing laboratory programs; and interpretation of the results to evaluate strength, compressibility, and general soil characterization. Mr. Walsh used these data for geotechnical designs comprising pile capacity curves; bearing capacity analyses; cantilever retaining analyses; anchored retaining wall analyses; temporary retaining structure design; time-settlement projections for earthen levees with lift schedules; soil pressure profiles; structural and earthen levee under seepage analyses; levee and bank stability by the Spencer's Method and the Method of Planes; reinforced embankment design; stability analyses of flood protection walls (e.g., T-wall, I-wall, L-wall, and braced 'A-Frame' walls); downdrag and settlement analyses; settlement induced bending</p>

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

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

moments (SIBM) in foundation piles; piping analyses; uplift analyses; heave analyses; three-dimensional modeling of fill and structural load placements for predictions of time-rate settlements of foundation systems; and numerical modeling of soil-structure-interaction (SSI) of flood protection structures by the finite element method (FEM).

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

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

Mr. Walsh's skills over the past nine years have developed exponentially with the variety of projects that have crossed his desk. With regard to this submittal, Mr. Walsh has been directly involved with the following projects:

- Gretna City Park - Proposed Water Capacity Improvements, 910 Gretna Boulevard, Gretna, Louisiana
- Jefferson Parish - Jung and Falcone Lift Station Upgrades (K-11-3). New Sanitary Sewer Lift Station, Marrero, Louisiana
- Jefferson Parish - Proposed Pump Station, Blanchard Lake, Grand Isle, Louisiana
- Jefferson Parish - Proposed Pump Station, Blanchard Lake, Grand Isle, Louisiana
- Jefferson Parish - Bonnabel Canal, Pomona Street to Nero Street, Metairie, Louisiana

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Lawrence W. Rome, C.E.T. / Operations Manager and Vice President (Operations)
Project Assignment:
Operations Manager / Limited Liability Corporation Member
Name of Firm with which Associated:
Eustis Engineering L.L.C.
Years' Experience with This Firm:
28
Education: Degree(s)/Year/Specialization:
Associate of Applied Sciences / 1998 / Safety
Active Registration: Year First Registered/Discipline:
N/A
Other Experience and Qualifications Relevant to the Proposed Project:
<p>Accreditations / Affiliations / Certifications</p> <p>American Society of Certified Engineering Technicians Confined Space Entry Certification Greater New Orleans Industrial Education Council Safety Training Medical First Aid and CPR Course NAZMAT Certification for use of 2.5" Subpart M Nuclear Gauges International Code Council Soils Special Inspector National Institute for Certification in Engineering Technologies Level I: Construction Materials Testing, Asphalt Level II: Construction Materials Testing, Concrete Level IV: Construction Materials Testing, Soils Level III: Geotechnical Engineering Technology, Construction Level III: Geotechnical Engineering Technology, Generalist Level IV: Geotechnical Engineering Technology, Exploration Level IV: Geotechnical Engineering Technology, Laboratory Level III: Transportation Engineering Technology, Highway Materials</p> <p>10-Hour OSHA Training Transportation Workers Identification Card (TWIC) Registered Well Driller for the States of Louisiana and Mississippi</p> <p>Professional Experience</p> <p>After joining Eustis Engineering in 1994, Mr. Rome has worked in several departments throughout our firm. He began as a laboratory technician, performing simple testing such as grain size analyses, Atterberg liquid and plastic limits, and unconfined compression shear. Mr. Rome has become involved in more complex testing procedures such as permeability and consolidation tests. His capabilities have expanded to include lime stabilization studies, California Bearing Ratio tests, hysteresis, direct shear tests, swelling pressure and percent swell tests, consolidated undrained triaxial shear tests, relative density tests, and compaction tests.</p>

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

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

Project Assignment:

Operations Manager / Limited Liability Corporation Member

Name of Firm with which Associated:

Eustis Engineering L.L.C.

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

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

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

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

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

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

Project Assignment:

Operations Manager / Limited Liability Corporation Member

Name of Firm with which Associated:

Eustis Engineering L.L.C.

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

Mr. Rome has worked on the following projects within this submittal:

- Gretna City Park - Proposed Water Capacity Improvements, 910 Gretna Boulevard, Gretna, Louisiana
- Jefferson Parish - Jung and Falcone Lift Station Upgrades (K-11-3), New Sanitary Sewer Lift Station, Marrero, Louisiana
- Jefferson Parish - Proposed Pump Station, Blanchard Lane, Grand Isle, Louisiana
- Jefferson Parish - Proposed Drainage Improvements, Geisenheimer Canal Between Loumor Ditch and Hoey's Cut, Metairie, Louisiana
- Jefferson Parish - Hoey's Canal Drainage Improvements (Phases II and III), Deckbar Avenue to Labarre Road and Labarre Road to Causeway Boulevard, Jefferson Parish, Louisiana
- Jefferson Parish - Monticelio Canal Improvements, Jefferson Parish, Louisiana

TEC Professional Services Questionnaire

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

Parties:		Status/Result of Case:
Plaintiff:	Defendant:	
1. None at this time.		
2.		
3.		
4.		

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

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

Eustis Engineering is the third oldest, continually operating geotechnical firm in the United States. From a two-man office to approximately 100 individuals, the firm has grown to house accounting, administrative, quality control, safety, drilling, engineering, laboratory, and construction materials testing departments. These departments work together to provide our clients with the quality work desired in a cost efficient and timely manner.

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

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

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

Eustis Engineering L.L.C. Important Numbers	
Item	Number
DUNS	78-481 0959
CAGE Code	4MOP2
Firm License - Louisiana	EF.0003558
Firm License - Mississippi	2078
Firm Registration – Texas	13895

Eustis Engineering has worked on over 800 geotechnical and construction materials testing projects for Jefferson Parish Government entities, many of which focused on drainage. We have also worked on over 4,000 projects of all types throughout the east and west banks of Jefferson Parish alone, not considering similar projects in the surrounding parishes. This work history gives our engineering staff unparalleled familiarity with the foundation conditions in the Gulf Coast and the challenges that may arise for projects associated with this contract.

ENGINEERING SERVICES

Eustis Engineering has engineering capabilities to fulfill the requirements of nearly any project. Our clients include local, state and federal entities as well as industrial and commercial facility owners. Thus, we understand multiple stakeholder demands and design approaches. We can also assist with coordination with partner agencies.

We have developed pile capacity and bearing capacity analyses for projects throughout the coastal areas of the United States. Eustis Engineering's evaluation of piles and shafts includes estimates of vertical capacity for groups. We also perform lateral analyses of individual piles and pile groups using LPILE and GROUP. We provide guidance for the assessment of uplift on shallow and deep foundations as a result of hydrostatic pressures.

We perform settlement studies including estimates of total and differential settlement and time-rate of settlement (with and without wick drains to enhance consolidation) for shallow and deep foundations for all types of structures and features. These settlement studies include estimates and recommendations for lift construction affecting a gain-in-strength of foundation soils associated with subsoil consolidation. Preload/surcharge operations are also a component of our settlement evaluations.

Our capabilities extend to performance of deep-seated global stability analyses for structures (T-walls and I-walls) according to the standards of the Hurricane and Storm Damage Risk Reduction System Design Guidelines, Louisiana Flood Protection Design Guidelines, and the CPRA's Marsh Creation Design Guidelines, using Spencer's Method as coded in SLOPE/W and the LMVD Method of Planes as coded in UPLIFT. These programs are also used for the design and verification of levees, reinforced embankments, revetments, channel slopes, and open excavations. We also evaluate local and global stability of temporary or permanent retaining systems using these same programs. We assess the potential for basal heave and the need for dewatering and pressure relief measures.

We routinely provide geotechnical recommendations for development of plans and specifications, including material properties for bedding and fill, consolidation and compaction efforts applied during construction, and other construction considerations. Our engineering staff's involvement with construction projects of all types helps to inform design decisions and recommendations.

In our practice, Eustis Engineering has developed methodologies associated with the estimates of negative skin friction on pile foundations. The methods are the current state of practice. The extension of these methods is an evaluation of settlement induced bending moment (SIBM). Eustis Engineering is also utilizing a numerical model program SIGMA/W in association with the rigorous settlement program Settle3. Finally, Eustis Engineering has performed seepage analyses for evaluation of heave, uplift, and piping. We use EM 1110-2-1913, EM 1110-2-1901, and DNR 1110-1-400 for manual calculations that consider blanket theory. We also use SEEP/W for a computer model and typically compare the results of manual calculations to the SEEP/W model as a quality assurance procedure.

Engineering Staffing

Our engineering staff has 15 Master's degrees in Civil Engineering, Engineering, Engineering Management, and Business Administration. Participation in post Bachelor of Science curricula, as well as continuing education and professional registration that emphasizes engineering management and technical issues, are very important to Eustis Engineering. Our engineers also regularly present at technical conferences. We encourage and fund our staff for these activities and programs.

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

Employee	Education	Experience	
		Years with Eustis Engineering	Total Years
Professional Engineers (P.E.)			
Benjamin M. Cody	M.S. / Civil Engineering	21	25
Brian A. Deschamp	B.S. / Civil & Environmental Engineering	10	10
	B.A. / Business Administration		
Lars A. Erickson	B.S. / Civil & Environmental Engineering	6	6
	Coastal Engineering Certificate		
James J. Hance	M.S. / Civil Engineering	19	23
	M.B.A. / Business Administration		
Chad L. Held	M.S. / Civil Engineering	31	31
David J. Indest	M.S. / Civil Engineering	21	21
Matthew K. Morales	B.S. / Civil Engineering	13	13
Travis R. Richards	M.S. / Engineering	17	24
	M.S. / Engineering Management		
	Coastal Engineering Certificate		
Gwendolyn P. Sanders	M.S. / Engineering	29	29
Shaun R. Simon	M.S. / Civil Engineering	22	22
	M.S. Engineering Management	-	-
	M.S. / Engineering		
	Coastal Engineering Certificate		
Sean G. Walsh	M.S. / Civil Engineering	10	15
James M. Williams	M.S. / Civil Engineering	4	4
Henry C. Worley	B.S. / Civil Engineering	5	6.5
	Coastal Engineering Certificate		
Engineering Interns (E.I.)			
Scot J. Breaux, Jr.	B.S. / Civil and Environmental Engineering	1	2
Patrick T. Duckworth	M.S. / Civil Engineering	2	2
Grant Collongues	B.S. / Civil Engineering	0	0
Tomas K. Morales ⁽¹⁾	B.S. / Civil Engineering	9	9
Engineering Graduates			
Lesley L. Reitmeyer	B.S. / Civil Engineering	13	13
Sean T. Smith	B.S. / Civil Engineering	6	6
Geologists			
Matthew J. Blasini, G.I.T.	B.S. / Geology	3	4
Nathan A. Quick, P.G.	M.S. / Geology	1	6
Total Years of Experience		250	278.5

⁽¹⁾ Long-term Subcontractor

Cone Penetration Testing Capabilities

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

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

Dynamic Pile Testing Capabilities

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

We often upgrade our data collectors and operate four Pile Driving Analyzers® (PDAs), one PAX unit and three PDA-8G units. These units can be battery operated and use wireless gauge transmitters to eliminate the need for a main cable to connect directly to the units. We also stock and have used underwater gauges to monitor pile driving in marine environments when the pile head descends below the water surface.

We also use the PDA equipment to maintain the calibrations of our automatic CPT hammers on our drilling rigs.

We also use the PDA equipment to maintain the calibrations of our automatic CPT hammers on our drilling rigs.

Other Non-Destructive Testing Capabilities

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

INSTRUMENTATION

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

Eustis Engineering provides the following instrumentation services.

- Vibrating wire devices including piezometers, extensometers, settlement gauges, and strain gauges.
- Data loggers to enable periodic collection of data for vibrating wire devices.

- Data links for remote web access to loggers in near real time
- Settlement plates
- Conventional slope inclinometers or MEM sensor array inclinometers
- Monitoring services of all instrumentation devices with geotechnical interpretation

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

DRILLING/FIELD EXPLORATION

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

Field Exploration Personnel

We can provide up to ten (10) drillers and drill rigs capable of obtaining standard 3-in. diameter Shelby tube samples and 5-in. diameter fixed piston samples, sounding CPT, advancing Geoprobe® samplers, and installing geotechnical instrumentation on land, in water, and in marsh environments as indicated in the following table.

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

Field Exploration Equipment

Eustis Engineering owns and operates six wet rotary drill rigs, both truck-mounted and skid-mounted. This equipment includes one Diedrich truck-mounted D-50 turbo drill rig (with an automatic SPT hammer); one Failing skid only rig (with an automatic SPT hammer); one truck-mounted CME-55 rig; one track-mounted CME-850X rig with an automatic hammer; one track-mounted CME-850XR rig with an automatic hammer; and one truck-mounted CME-55 rig with a detachable CME-55 skid unit and automatic hammer. We also own two track-mounted cone penetrometer systems capable of providing up to 15 tons of reaction. Our CME track rigs provide low ground pressure and are designed to traverse soft ground surfaces, steep slopes, and lightly wooded areas.

Eustis Engineering also owns four direct push Geoprobe® units, two 3230DTs, the 6620DT and the 540M. Eustis Engineering's 6620DT/3230DT Geoprobe with their 12-in. tracks allow this equipment to be used on pavement as well as off road and in rugged terrain. The 6620DT and 3230DT rigs also can be placed on specialized equipment. This includes a jack-up barge and a cargo buggy for operations over marsh/water. These units can install shallow monitoring wells and other instrumentation. We also have the capability to perform CPTs using the 3230DT rigs.

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

Other Specialized Soil Sampling Equipment

We have hand augers to obtain samples at various depths for use in classification and stratification of soil deposits. This equipment can be used in association with handheld piston samplers to obtain small diameter samples. Finally, we operate a dynamic cone penetrometer (DCPT) to assess the in situ strength of undisturbed soils and compacted materials in accordance with ASTM D6951.

Drone Capabilities

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

LABORATORY SERVICES

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

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

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

Technical testing common to our laboratories includes ASTM, ACI, LaDOTD, AASHTO, FAA, and USACE. Our laboratories hold accreditations from AASHTO, LaDOTD, and the USACE.

Laboratory Staffing

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

Laboratory Quality Control

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

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

Metairie	Baton Rouge	Gulfport
Aggregate		Aggregate
Concrete		Concrete
Masonry	Spray Fire Resistant Material	Soil
Soil		Spray Fire Resistant Material

Our laboratory in Houston, Texas has capabilities in the areas of Aggregate, Concrete, Masonry, and Soil. Applications for CCRL and AMRL accreditation are in process with the intent of achieving these accreditations later this year.

To show further that quality is paramount to Eustis Engineering, we have two individuals in charge of maintaining quality in our testing. Travis R. Richards, P.E., is the engineer-in-charge, and we also have a Quality Control Manager who oversees the calibration of our equipment. The biggest reward of our quality measures is knowing that our clients are confident that our testing laboratory produces the highest quality results and conforms to national and international standards.

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

Signature:  Print Name: Gwendolyn P. Sanders, P.E.
 Title: President Date: 18 March 2022

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

Professional Engineering Services for Drainage Projects (Surveying Services)
 in Jefferson Parish for a Two-Year Period
 Resolution No. 138811
 SOQ 22-011

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

LINFIELD, HUNTER & JUNIUS, INC.
 3608 18th Street, Suite 200
 Metairie, LA 70002



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

Nathan J. Junius, P.E., P.L.S., President
 Linfield, Hunter & Junius, Inc.
 3608 18th Street, Suite 200
 Metairie, LA 70002
 504-833-5300 504-833-5350 fax
 njunius@LHJunius.com

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

Nathan J. Junius, P.E., P.L.S., President
 Linfield, Hunter & Junius, Inc.
 3608 18th Street, Suite 200
 Metairie, LA 70002
 504-833-5300 504-833-5350 fax
 njunius@LHJunius.com

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

<u>5</u> Administrative	<u> </u> Estimators	<u> </u> Specification Writers
<u>1</u> Architects (Licensed)	<u> </u> Geologists	<u>4</u> Structural Engineers
<u> </u> Chemical Engineers	<u> </u> Geotechnical Engineers	<u> </u> Graduate Engineers
<u>6</u> Civil Engineers (Licensed)	<u> </u> Interior Designers	<u> </u> Project Managers
<u>5</u> Construction Inspectors	<u> </u> Landscape Architects	<u>1</u> Clerical
<u> </u> Ecologists	<u>5</u> Land Surveyor	<u> </u> Grant/Funding Specialist
<u> </u> Electrical Engineers	<u> </u> Mechanical Engineers	<u> </u> Sanitary Engineers
<u>4</u> Engineer Intern	<u> </u> Environmental Engineers	<u>3</u> CADD Drafters
<u>2</u> Professional Land Surveyors	<u>1</u> Architect Intern	<u>37</u> TOTAL

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

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

TEC Professional Services Questionnaire

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

1. N/A

2.

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

YES NO N/A

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

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

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

10

Staffing Plan – A Diagram showing all key personnel that would be available for assignment. The Staffing Plan should also include the same information for sub-consultants (if applicable).

**LINFIELD, HUNTER & JUNIUS, INC.
STAFFING PLAN**



Professional Engineering and
Supplemental Services for a
Drainage Master Plan for the East
Bank of Jefferson Parish
SOQ No. 22-011
Resolution No. 138811

Prime



Subconsultant



LINFIELD, HUNTER & JUNIUS, INC.
PROFESSIONAL ENGINEERS, ARCHITECTS AND SURVEYORS

Nathan J. Junius P.E., P.L.S.
Project Manager Surveying

Land Surveying

William J. Muller, P.L.S.
Senior Land Surveyor / Land Surveying
Team Leader

Daniel D. Bindewald
Survey Party Chief

Paul H. Morales, IV
Survey Party Chief

Christopher G. Klimm, E.I.
Survey Crew

Cooper G. Ashworth, E.I.
Survey Crew

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:

Nathan J. Junius, P.E., P.L.S., PTOE, President, Senior Civil Engineer

Project Assignment:

Civil Engineer/ Professional Land Surveyor

Name of Firm with which associated:



LINFIELD, HUNTER & JUNIUS, INC.

Years' experience with this Firm:

20 Years

Education: Degree(s)/Year Specialization:

Tulane University / 2001 / B.S. / Civil Engineering
University of Texas / 2002 / M.S. / Civil Engineering

Active registration: Year first registered/discipline:

2002 / Civil / LA License No. PE 0031643
2005 / Land Surveying / LA License No. PLS.0004958

Other experience and qualifications relevant to the proposed Project:

Junius attended Tulane University from 1997-2001. After Graduating in May of 2001 Junius attended the University of Texas at Austin where he graduated with a MS degree in Civil Engineering in August of 2002 with an emphasis in Water Resource.

Junius has over 18 years of project management, engineering design and construction management experience, with specialized expertise in the planning, permitting, design and construction management for a diverse range of public and private sector projects. Civil projects include major drainage canals, site developments, of streets, wastewater treatment plants, sewage collections systems, sewer force mains and waterline distribution miles projects. He has also served as an expert in disputes involving drainage and land surveying.

Mr. Junius also completed additional classes in the Nicholls State University Geomatics curriculum to further his land surveying knowledge. One of his largest surveying projects includes the hydrographic and topographic surveying for the Inner Harbor Navigation Canal (IHNC) Lake Borgne Surge Barrier which included over a mile and half of hydrographic surveying through the marsh including topographic surveying for two gates. Mr. Junius has been responsible for survey operations and daily direction of the survey crew. He was also responsible for the QA/QC of multibeam deliverables. Mr. Junius has provided virtual reference

TEC Professional Services Questionnaire

Nathan J. Junius, P.E., P.L.S., PTOE, President, Senior Civil Engineer Resume
Project Assignment – Civil Engineer/ Professional Land Surveyor

station (VRS)/ real time kinematic (RTK) surveys and 3rd Order Levels for Control as well as hydrographic multibeam surveys. Mr. Junius is proficient with Leica Dual Frequency RTK Rovers, Leica DNA03 Digital Auto Level, Leica GPS Base Station, G-882 Magnetometer Leica Total Robotic Total Station, Leica Geo Office, Carlson Survey/Civil Software, Autocad 2016 and Civil 3D.

Junius has conducted numerous boundary, topographic, resubdivision surveys, route surveys, ALTA surveys, hydrographic surveys, utility surveys throughout Louisiana, Mississippi and Texas.

RELEVANT EXPERIENCE:

QA/QC of multibeam deliverables. Mr. Junius has provided virtual reference station (VRS)/ real time kinematic (RTK) surveys and 3rd Order Levels for Control as well as hydrographic multibeam surveys. Mr. Junius is proficient with Leica Dual Frequency RTK Rovers, Leica DNA03 Digital Auto Level, Leica GPS Base Station, G-882 Magnetometer Leica Total Robotic Total Station, Leica Geo Office, Carlson Survey/Civil Software, Autocad 2016 and Civil 3D.

Junius has conducted numerous boundary, topographic, resubdivision surveys, route surveys, ALTA surveys, hydrographic surveys, utility surveys throughout Louisiana, Mississippi and Texas.

Recent engineering and surveying projects include:

- Reserve Grain Elevator – St. John the Baptist Parish, LA
- Avondale Marine Facility – Jefferson Parish, LA
- Building 76 Reroof
- Pepsi CRC Roof Replacement
- MSY Airport Expansion – Kenner, LA
- P.O. Administrative Complex – St. Charles Parish, LA
- Concrete Building – St. Charles Parish, LA
- Kenner 2030 Program – Kenner, LA
- MS River to Lake Pontchartrain Bike Path and Bridge – JP, LA
- SLFPA-East Levee Lifts – Jefferson Parish, LA
- St. John Airport Hangar and Terminal Design – St. John Parish, LA
- Jesuit Bend Mitigation Bank – Plaquemines Parish, LA
- GIWW to Clovelly Hydrologic Restoration – Lafourche Parish, LA
- LPC 20.2 Foreshore Protection – Jefferson Parish, LA
- Grand About Vegetative Ridge Restoration – Plaquemines Parish, LA
- Saltwater Sill LaBranche Wetlands – St. Charles Parish, LA
- Pipeline Survey – Mississippi River Entergy Site – St. Francisville, LA
- Elevation Assistance Program – St. John the Baptist Parish, LA
- Algiers Lock Forebay Water Line Crossing – Orleans Parish, LA
- Levee Centerline and Cross Section Survey – LPV 109.02a from south of I-10 to CSX Tracks – Orleans Parish, LA
- Mississippi River Ventures Aggregate Yard – St. Charles Parish, LA

President, ACEC New Orleans Branch

Member of American Congress of Surveying and Mapping

Member of Louisiana Society of Professional Land Surveyors

Member of the New Orleans Chapter ASCE, Past President

Past President APWA

Member SAME

Member LES

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

William J. Muller, P.L.S., Registered Land Surveyor

Project Assignment:

Senior Land Surveyor / Land Surveying Team Leader

Name of Firm with which associated:

LINFIELD, HUNTER & JUNIUS, INC.

Years' experience with this Firm:

16 Years

Education: Degree(s)/Year Specialization:

Southeastern Louisiana University / 1954

Active registration: Year first registered/discipline:

1995 / Land Surveying / LA License No PLS 0004756

Other experience and qualifications relevant to the proposed Project:

Muller has extensive experience in all aspects of land surveying throughout Louisiana. He was technical manager for the largest land survey firm in Southeast Louisiana for many years. Prior to that he worked in the offshore industry spotting well locations, run field crews for numerous Louisiana Power and Light topographic and boundary surveys, analyzed thousands of boundary surveys, and supervised multiple field crews, draftsmen and land surveys.

Following is a small sampling of Muller's experience:

- I-10 Metairie - Causeway to Orleans Parish Line - Topo & Right-of-Way
- I-10 Metairie - Clearview to Causeway - Topo
- I-10 Metairie - Veterans Memorial Blvd. to Clearview - Topo
- I-10 Kenner - Williams Blvd. Interchange - Topo & Right-of-Way
- US 190 - Mandeville - Causeway to State Park - Topo & Right-of-Way
- US 190 - Slidell - Fremaux Interchange - Topo & Right-of-Way
- US 190 - Slidell - Fremaux- 9th to I-10 - Topo & Right-of-Way
- I-10 Slidell - LA 433 to US 190 - Topo
- US 190 Slidell - US 11 to Thompson Rd. - Topo & Right-of-Way
- St. Tammany Parish East of Abita Springs - New Highway from LA 36 to LA 435 - Topo & Right-of-Way

TEC Professional Services Questionnaire

William J. Muller, P.L.S., Registered Land Surveyor

Resume

Project Assignment – Senior Land Surveyor / Land Surveying Team Leader

- LA 611 - Metairie Road - Topo & Right-of-Way
- I-10 New Orleans - S. Broad to St. Charles - Topo
- LA 3139 Earhart Blvd. - Jefferson/Orleans Parish Line to Clara St. - Topo & Right-of-Way
- Lakes Charles - McNeese/Airport - Right-of-Way



TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Daniel D. Bindewald, Survey Party Chief

Project Assignment:

Survey Party Chief

Name of Firm with which associated:



LINFIELD, HUNTER & JUNIUS, INC.

Years' experience with this Firm:

13 Years

Education: Degree(s)/Year Specialization:

Southeastern Louisiana University / B.A. / Criminal Justice

Active registration: Year first registered/discipline:

N/A

Other experience and qualifications relevant to the proposed Project:

Bindewald has served as a survey crew member and more recently as a survey party chief on numerous projects

Bindewald initially joined LH&J as a survey party crew member and began performing as the **crew chief** of LH&J's Survey Party Team 2 in 2009. Bindewald is proficient in the use of modern GPS/RTK survey instruments, as well as conventional total stations and levels. He is experienced in performing land surveys in all types of environments including urban, forests and marshes. Bindewald has led survey crews conducting boundary, topographic and hydrographic surveys in Louisiana, Texas and Mississippi. He is knowledgeable of the USACE New Orleans District Minimum Survey Standards Edition 4.1, February 2015, (as well as prior editions) and has a high level of experience and expertise ensuring that all survey work performed by LH&J for the USACE New Orleans district is performed in strict compliance with these standards.

DESIRE NEIGHBORHOOD TOPOGRAPHIC AND SUBSURFACE SURVEY, NEW ORLEANS, LA

LH&J provided topographic surveying services for the project that consisted of the patching and reconstruction of 20,285 linear feet of roadway across 39 blocks, construction of new concrete roadway, replacement of the storm drainage system, sewer lines and water mains. Role: Survey Party

TEC Professional Services Questionnaire

Daniel D. Bindewald, Survey Party Chief
Project Assignment – Survey Party Chief

Resume

INNER HARBOR NAVIGATION CANAL SURGE PROTECTION BARRIER, ORLEANS PARISH, LOUISIANA

Provided surveying services including locating borings in the field and providing elevations with latitude and longitude coordinates. Located the USACE baselines and tied into the project control to provide station and offset data. Benchmarks were occupied and set for project control. Existing and final cross sections were taken providing cut/fill quantities, station and offset data for 36" diameter pipe piles were provided for QA/QC measures. Bindewald was the GPS survey party crew chief responsible for the accurate collection of all field survey data and reviewed the developed survey files and drawings for consistency with USACE New Orleans District Minimum Survey Standards. Construction cost was in excess of \$1.5 billion.

STORM PROOFING ORLEANS PARISH DRAINAGE PUMP STATIONS, NEW ORLEANS, LA

Provided topographic surveys of 18 existing pump station sites for the project. Baselines and benchmarks were established to obtain elevations and latitude/longitude data. Utilities were located and related to the baselines using station/offset data, right-of-way maps were provided to the USACE for project design. Bindewald was the GPS Survey party crew chief responsible for the accurate collection of all field survey data and reviewed the developed survey files and drawings for consistency with USACE New Orleans District Minimum Survey Standards. Program Cost was approximately \$200 million.

PREPARATION OF PLANS AND SPECIFICATIONS FOR THE HURRICANE PROTECTION SYSTEM AT WEST BANK NON-FEDERAL LEVEE NOV-NF-W-04 OAKVILLE TO LAREUSSITE IN PLAQUEMINES PARISH, LA

During the design of this 8.3 mile levee and storm protection project, Bindewald was the GPS survey party crew chief responsible for performing the supplemental surveys that were needed to complement the Government furnished survey information. Detailed topographic surveys were performed using GPS/RTK equipment at the One Pump Station and at the interface with the adjacent WBV-09a floodwall. Hydrographic surveys were performed to collect bathymetric data for a number of canals and bodies of water that are immediately adjacent to the levee alignment. All elevation data was collected using the North American Vertical Datum (N.A.V.D. 88) (2004.65) and all X-Y coordinates were based upon the Louisiana State Plane Coordinate System, South Zone NAD 83, in U.S. survey feet. During the construction of the project, Bindewald was the GPS survey party chief responsible for field locating the locations for installing 30 temporary bench marks (TBMs) that were supported by 60-foot deep concrete filled boreholes. After construction of the TBMs he performed high precision ± 1.5 mm leveling surveys to tie the TBMs into the required vertical and horizontal datums. He also field located the installation locations for 34 geotechnical instrumentation clusters and monitoring panels that are used to measure settlement during the first stage of the levee construction and then surveyed the precise elevation and location for each instrument after they were installed. As part of the settlement monitoring program, every two weeks Bindewald leads a survey crew that performs high precision elevation surveys of each of the 34 settlement plates and monitoring panels so that surveyed data can be correlated to the remotely monitored settlement gauges. Construction cost of the project is approximately \$45 million.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Paul H. Morales, IV, Survey Party Chief

Project Assignment:

Survey Party Chief

Name of Firm with which associated:

LINFIELD, HUNTER & JUNIUS, INC.

Years' experience with this Firm:

9 Years

Education: Degree(s)/Year Specialization:

University of New Orleans / B.S. / 2005 / Civil Engineering

Active registration: Year first registered/discipline:

N/A

Other experience and qualifications relevant to the proposed Project:

Morales has worked in the design, construction and testing of structures for the past 10 years. He has worked for two summers while still in college. He often served as an L&J survey crew member. He was a design engineer for civil site work on numerous CVS, Pharmacy and Dollar General store sites. Large Scale Topographical and ALTA Surveys for U.S. Army, Corps of Engineers, Plaquemines Parish Government and a major pharmacy chain. Elevation, Construction Layout and Pile Layout, GPS, Robotics, Total Station experience including data transfer, plotting and printing. Manual and Mechanical Traffic Counts. TWIC

RELEVANT EXPERIENCE:**DESIRE NEIGHBORHOOD TOPOGRAPHIC AND SUBSURFACE SURVEY, NEW ORLEANS, LA**

LH&J provided topographic surveying services for the project that consisted of the patching and reconstruction of 20,285 linear feet of roadway across 39 blocks, construction of new concrete roadway, replacement of the storm drainage system, sewer lines and water mains. Role: Survey Party

INNER HARBOR NAVIGATION CANAL SURGE PROTECTION BARRIER, ORLEANS PARISH, LA

Provided surveying services including locating borings in the field and providing elevations with latitude and longitude coordinates. The USACE baselines were located and tied into the project control to provide station and offset data. Benchmarks were occupied and set for project control. Existing and final cross sections were taken providing cut/fill quantities, station and offset data for 36-inch diameter pipe piles were provided for QA/QC measures. Morales performed as a survey party technician for the accurate collection of all field survey data and reviewed the developed survey files and drawings for consistency with New Orleans District Minimum Survey Standards. Construction cost >\$1.5B

TEC Professional Services Questionnaire

Paul H. Morales, IV
Project Assignment – Survey Party Chief

HSDRRS LEVEE PROFILES FOR SOUTHEAST LOUISIANA FLOOD PROTECTION AUTHORITY – EAST – LAKE PONTCHARTRAIN LEVEE SYSTEM

Approximately 63 miles of earthen levee centerline profile surveys in Jefferson, Orleans and St. Bernard Parish using tilt rover and base stations. Project compared the existing profile elevations to the design profile elevations.

SOUTHSHORE HARBOR, NEW ORLEANS, LA

Hydrographic survey of approximately 150 acres in Southshore Harbor including portions of the navigation channel and Lake Pontchartrain. Included cross sections and profiles of approximately 10 acres of the north peninsula floodwall for a potential dredge spoil area.

AVONDALE SHIPYARD REDEVELOPMENT, AVONDALE, LA

Hydrographic surveys for 2 miles of the Mississippi River in front of the existing docks. USACE Baseline profile surveys and cross sections. Included batture surveys and topographic surveys of existing lay down areas.

MAGAZINE STREET TOPOGRAPHIC SURVEY, NEW ORLEANS, LA

LH&J provided topographic surveying services for the project that consisted of the reconstruction of 12,500 linear feet of 35' wide roadway, including removal of over 18,720 linear feet of streetcar tracks that are buried under Magazine Street, construction of new concrete roadway, replacement of the storm drainage system, sewer lines and water mains. Role: Survey Party

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Christopher G. Klimm, E.I., Survey Party Chief

Project Assignment:

Survey Party Chief

Name of Firm with which associated:



LINFIELD, HUNTER & JUNIUS, INC.

Years' experience with this Firm:

2 Years

Education: Degree(s)/Year Specialization:

University of New Orleans / B.S. / 2019 / Civil Engineering

Active registration: Year first registered/discipline:

2020 / E.I. / 0004560

Other experience and qualifications relevant to the proposed Project:

Klimm is a civil engineer intern who has been with LH&J for two years. He has worked on various civil and structural engineering projects and has experience as a dock inspection team member and structural designer.

DRAINAGE IMPROVEMENTS N. SIBLEY AT WEST NAPOLEON INSPECTION, METAIRIE, LA

Resident Inspector for portions of the construction of drainage improvements at N. Sibley St. Klimm was responsible for monitoring the work, verifying contractor quantities and preparation of daily reports summarizing daily construction activities.

PIPELINE LOCATION FOR SOIL BORINGS, HACKBERRY, LA

Survey Team Member for the location of existing utility lines in Calcasieu Lake in advance of the drilling of soil borings. Klimm was responsible for obtaining water surface level elevations in the locations of the proposed borings and operating a hydraulic piezometer to confirm the accuracy of the signs showing utility lines locations.

AVONDALE SHIPYARD REDEVELOPMENT, WESTWEGO, LA

Klimm was part of a Team that inspected a damaged dock in the Avondale Shipyard. Klimm developed schematics of the structural supports of the dock and documented signs of damage in the piles or beams. Klimm subsequently drafted plans of the dock specifying which piles or beams needed replacing.

TEC Professional Services Questionnaire

Christopher G. Klimm, E.I., Survey Party Chief
Project Assignment – Survey Party Chief

Resume

GEISENHEIMER CANAL IMPROVEMENTS, METAIRIE, LA

Klimm assisted with the plans and specifications for the construction of Geisenheimer Canal Improvements. This project takes place inside Metairie County Club and includes the installation of a new 12' x 8' reinforced concrete box culvert. Klimm was responsible for the design and drafting of structural details of drainage junction boxes where lateral pipes connected to the new box culvert.

UNITED BULK TERMINAL DOCK INSPECTIONS, DAVANT, LA

Klimm was part of a Team that inspected damaged docks and assisted in assembling the damage report. This project consisted of a substructure inspection by boat of a steel pile dock structure located on the Mississippi River. Included inspection report prepared in accordance with the ASCE MOP No. 130 – "Waterfront Facilities Inspection and Assessment".

HURRICANE IDA DAMAGE ASSESSMENTS, PORT OF NEW ORLEANS, LA

Klimm was part of LH&J damage assessment team working traveling to various PONO facilities, providing information for the damage assessment reports. Worked on quantity take-offs and cost estimates. Assisted in preparation of the forms required for the assessments.

NASA MICHLOUD ASSEMBLY FACILITY, WEST BARGE DOCK INSPECTION, NEW ORLEANS, LA

Klimm was part of a Team that performed a substructure inspection of the West Barge Dock. He also assisted with load capacity calculations repair sketches and material take-offs.

LOUMOR DITCH DRAINAGE IMPROVEMENTS, METAIRIE, LA

Klimm assisted with the plans and specifications for the construction of Loumor Ditch Drainage Improvements. This project takes place inside Metairie County Club and includes the installation of a new 78 x 122 reinforced concrete drainage line which will start at Geisenheimer canal and end at Loumor ditch. Specifically, Klimm drafted the structural details for the new drainage junction boxes.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Cooper G. Ashworth, E.I., Survey Party

Project Assignment:

Survey Party

Name of Firm with which associated:

LINFIELD, HUNTER & JUNIUS, INC.

Years' experience with this Firm:

1 Year

Education: Degree(s)/Year Specialization:

Louisiana State University/B.S./2021/Civil Engineering
FAA Certified Remote Pilot License/2021

Active registration: Year first registered/discipline:

2021 / Civil / LA License / Ei.0034948

Other experience and qualifications relevant to the proposed Project:**RELEVANT EXPERIENCE****ST. JAMES SOLAR, VACHERIE LA, ST. JACQUES SOLAR, VACHERIE LA, AND SUNLIGHT ROAD SOLAR, FRANKLINTON LA**

LH&J was responsible for conducting topographic and boundary surveys for 4,500 acre solar farm facility in Vacherie and Franklinton, LA. The projects consisted of surveying both through traditional surveying and by utilizing Lidar scanning technology. The project fee was over \$250,000.00.

Determined site boundaries. provided contours and. collected georeferenced aerial imagery to provide a construction progress exhibit to the client, collected georeferenced aerial imagery to assist in the development of servitudes and parcels of land.

RENE INDUSTRIES SAND PIT, DARROW, LA

LH&J provided land surveying in conjunction with the permitting of levee crossings and a sand pit on the batture. The project was permitted through CPRA, PLD and LADNR through the use of a Joint Permit Application.

FRANCE ROAD YARD SURVEY, NEW ORLEANS, LA

Approximately 20 acre survey for the NOPBRR for the expansion of a railyard. Included topographic survey, hydrographic surveying of the industrial canal, aerial imagery and survey baseline control.

ORPHEUM AVENUE, NEW ORLEANS, LA

Topographic Survey Drafting, Drone Surveying, Photogrammetry

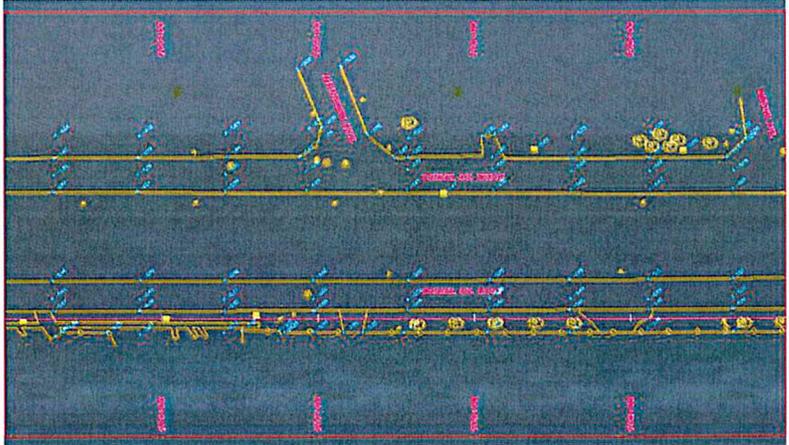
XPLORE CREDIT UNION, METAIRIE, LA

Boundary Survey Drafting

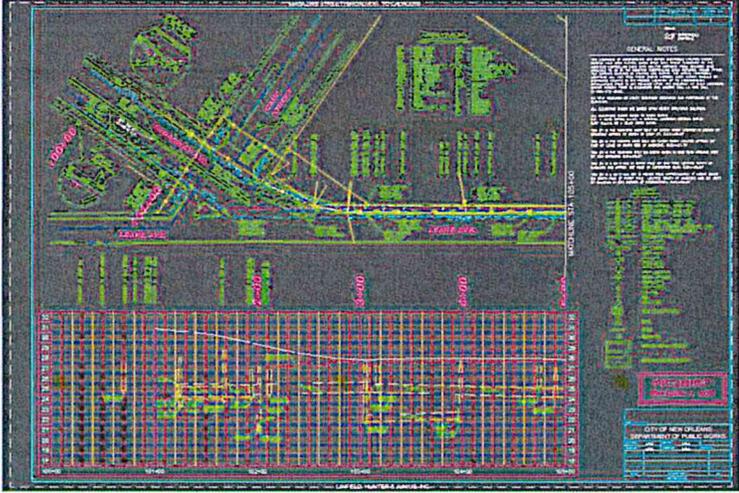
TEC Professional Services Questionnaire

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

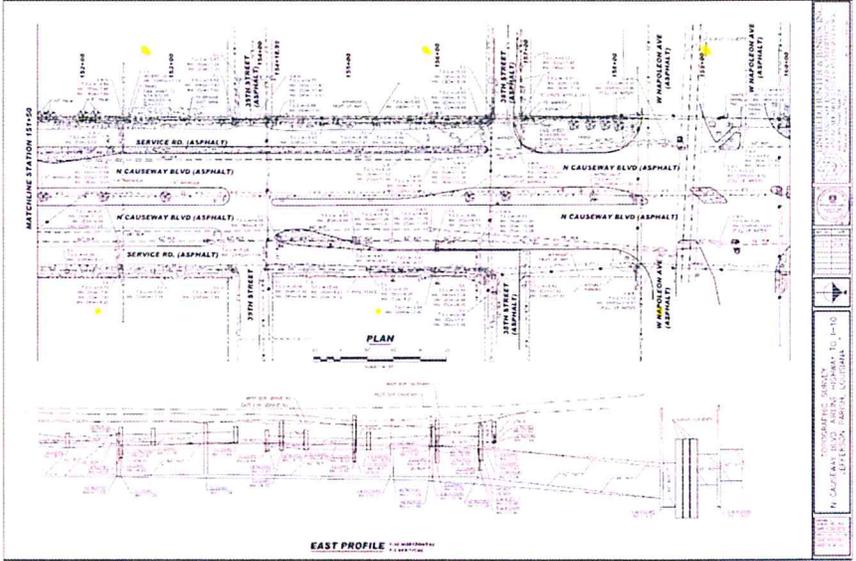
PROJECT NO. 1

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Canal Street Roadway Improvements Topographic Survey</p> <p>Jefferson Parish Department of Capital Projects 1221 Elmwood Park Blvd., Suite 906 Jefferson, LA 70123 Neil D. Schneider, CCM, P.E. (504) 736-6833</p> <div style="text-align: center; margin-top: 20px;">  </div> <div style="text-align: center; margin-top: 20px;">  </div>	<p>Linfield, Hunter & Junius, Inc. provided topographic surveying for Canal St. Roadway Improvements between the I-10 Service Rd. and the 17th Street Canal. The survey was used as the basis for the roadway improvements design.</p> <div style="float: right; border: 1px solid gray; padding: 5px; margin-top: 10px; width: 250px;"> <p style="text-align: center; margin: 0;">Key Relevant Features</p> <ul style="list-style-type: none"> ✓ Jefferson Parish Project ✓ Topographic Survey ✓ Differential Level for Project Benchmarks ✓ Baseline Establishment </div> <div style="text-align: center; margin-top: 20px;">  </div> <div style="text-align: center; margin-top: 20px;">  </div>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2019	\$54,500 (Topo Survey)	\$54,500 (Topo Survey)

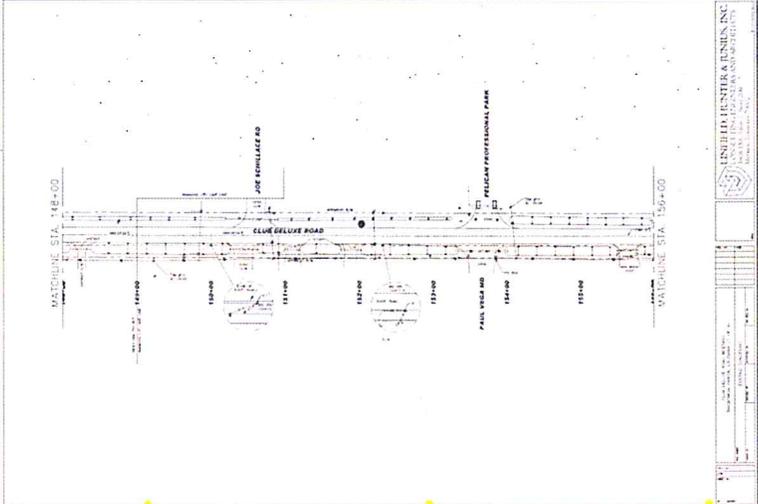
TEC Professional Services Questionnaire

PROJECT NO. 2		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Magazine Street Topographic Survey New Orleans, LA</p> <p>City of New Orleans Department of Public Works 1300 Perdido Street, Room 6W03 New Orleans, LA 70112 Alan Weber (504) 658-8209</p> <div style="text-align: center; margin-top: 20px;">  </div>	<p>Linfield, Hunter & Junius, Inc. provided topographic surveying for Magazine Street Improvements between Broadway and Nashville. The survey was used as the basis for the roadway improvements design.</p> <div style="text-align: center; margin-top: 20px;"> <div style="border: 1px solid black; padding: 5px; background-color: #f0f0f0;"> <p style="text-align: center; margin: 0;">Key Relevant Features</p> <ul style="list-style-type: none"> ✓ Topographic Survey ✓ Differential Level for Project Benchmarks ✓ Baseline Establishment </div> </div> <div style="text-align: center; margin-top: 20px;">  </div> <div style="text-align: center; margin-top: 20px;">  </div>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2021	\$175,000 (Topo Survey)	\$175,000 (Topo Survey)

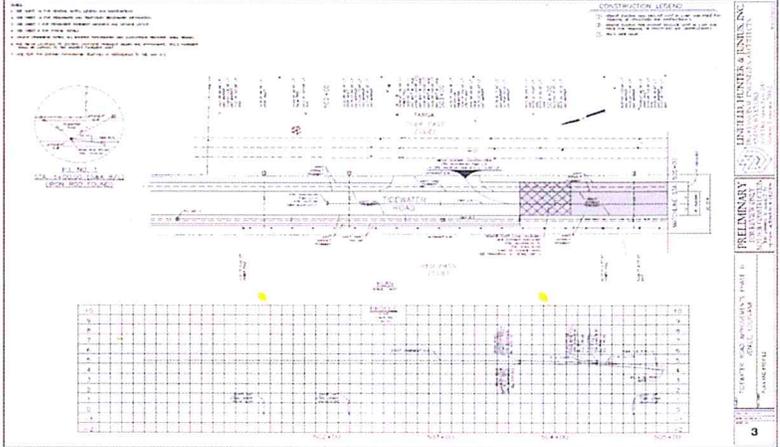
TEC Professional Services Questionnaire

PROJECT NO. 3		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Causeway Boulevard Survey Metairie Road to W. Napoleon Avenue Metairie, LA</p> <p>Jefferson Parish Department of Capital Projects 1221 Elmwood Park Blvd, Suite 906 Jefferson, LA 70123 Neil D. Schneider, CCM, P.E. (504) 736-6833</p> <div style="text-align: center;">  </div> <div style="text-align: center; margin-top: 20px;">  </div>	<p>LHJ performed a full topographic survey of Causeway Boulevard between Metairie Road and West Napoleon Avenue (5700 L.F. approximately). Existing improvements, utilities, limits of paving, fencing, sidewalks, and signage were located. Cross Sections were performed every 50 ft. and a plan and profile drawing of Causeway Boulevard and the adjacent service roads was delivered.</p> <div style="border: 1px solid #ccc; background-color: #f0f0f0; padding: 10px; margin-top: 10px;"> <p style="text-align: center; margin: 0;">Key Relevant Features</p> <ul style="list-style-type: none"> ✓ Jefferson Parish Project ✓ Topographic Survey ✓ Differential Level for Project Benchmarks ✓ Baseline Establishment <p style="text-align: center; margin: 10px 0 0 0;">Key Relevant Personnel</p> <ul style="list-style-type: none"> ✓ Nathan J. Junius, P.E., P.L.S. ✓ Daniel D. Bindewald ✓ Paul H. Morales, IV </div> <div style="text-align: center; margin-top: 20px;">  </div>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2019	\$200,000 (Topo Survey)	\$200,000 (Topo Survey)

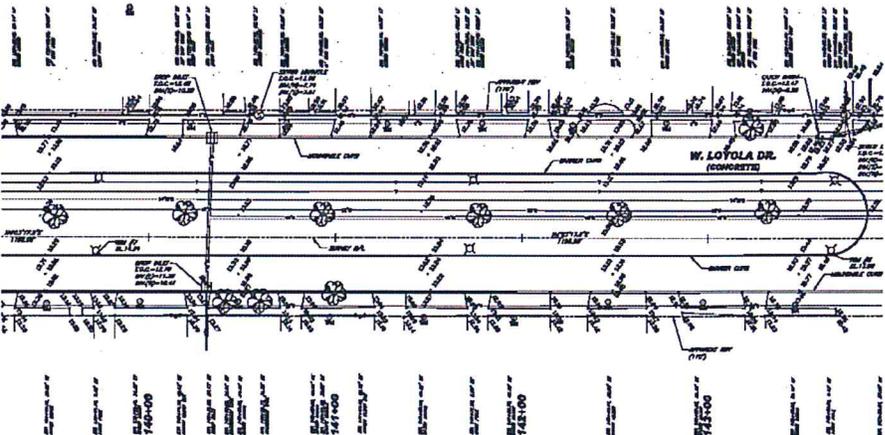
TEC Professional Services Questionnaire

PROJECT NO. 4		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Club Deluxe Road Right-of-Way and Topographic Survey Hammond, LA</p> <p>Tangipahoa Parish P.O. Box 215 Amite, LA 70422 Wesley Danna (985) 340-9028</p> <div style="text-align: center; margin-top: 20px;">  </div>	<p>Linfield, Hunter & Junius, Inc. prepared right-of-way maps and topographic surveying to Tangipahoa Parish for the widening of Club Deluxe Rd.</p> <div style="border: 1px solid gray; padding: 5px; margin-top: 10px; background-color: #f0f0f0;"> <p style="text-align: center; margin: 0;">Key Relevant Features</p> <ul style="list-style-type: none"> ✓ Topographic Survey of Roadway ✓ Right of Way Survey ✓ Benchmark Loop </div> <div style="text-align: center; margin-top: 20px;">  </div> <div style="text-align: center; margin-top: 20px;">  </div>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
06/2014	\$30,500 (Topo Survey)	\$30,500 (Topo Survey)

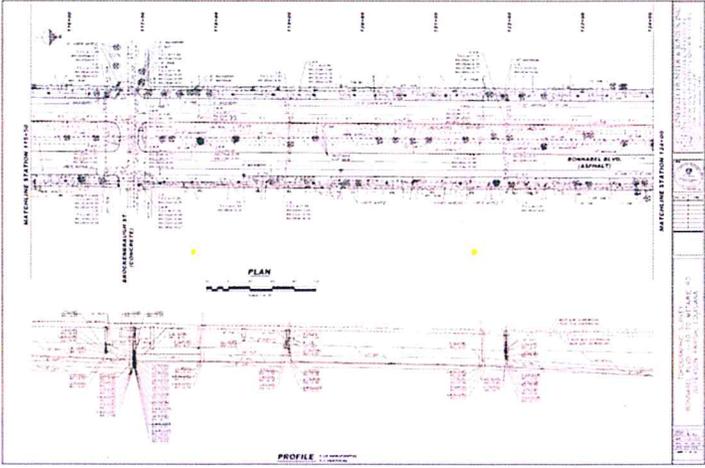
TEC Professional Services Questionnaire

PROJECT NO. 5		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Tidewater Road Topographic Survey Venice, LA</p> <p>Plaquemines Parish Government 333 F. Edward Hebert Blvd, Bldg 500 Belle Chasse, LA 70037 Ken Dugas (504) 934-6116</p> <div style="text-align: center;">  </div>	<p>Linfield, Hunter & Junius, Inc. provided topographic surveying for Tidewater Road Improvements in Plaquemines Parish. The survey was used as the basis for the roadway improvements design. Approximately 3 miles in total length.</p> <div style="text-align: center; border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>Key Relevant Features</p> <ul style="list-style-type: none"> ✓ Topographic Survey ✓ Baseline Establishment ✓ Hydrographic Surveying </div> <div style="text-align: center; margin-top: 20px;">  </div>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2014	\$99,500 (Topo Survey)	\$99,500 (Topo Survey)

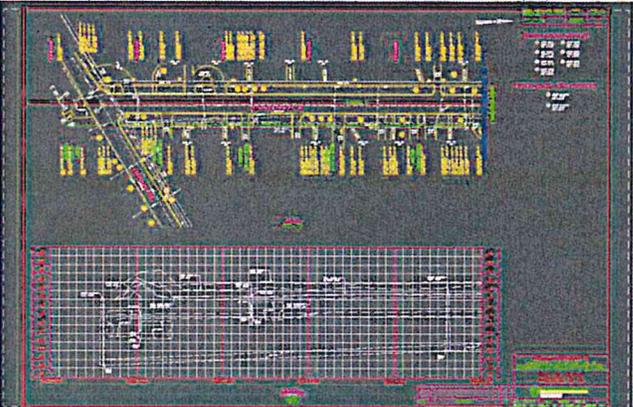
TEC Professional Services Questionnaire

PROJECT NO. 6		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>West Stanford and West Loyola Force Main Topographic and Right of Way Survey Kenner, LA</p> <p>City of Kenner Department of Public Works 1610 Rev. Richard Wilson Dr-Bldg D Kenner, LA 70062 Christine Calamari (504) 468-7515</p> <div style="text-align: center; margin-top: 20px;">  </div>	<p>Linfield, Hunter & Junius, Inc. provided topographic and right of way surveying to City of Kenner for the West Stanford and West Loyola Force Main rehabilitation.</p> <div style="text-align: center; margin-top: 20px;">  </div> <div style="margin-top: 20px;"> <p style="text-align: center;"><u>Key Relevant Features</u></p> <ul style="list-style-type: none"> ✓ Topographic and Right-of-way Surveys ✓ Baseline Establishment ✓ Differential Level for Project Benchmarks ✓ Apparent ROW </div>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2012	\$48,000 (Topo Survey)	\$48,000 (Topo Survey)

TEC Professional Services Questionnaire

PROJECT NO. 7		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Bonnabel Boulevard Survey Metairie Road to I-10 Service Road Metairie, LA</p> <p>Jefferson Parish Department of Capital Projects 1221 Elmwood Park Blvd, Suite 906 Jefferson, LA 70123 Neil D. Schneider, CCM, P.E. (504) 736-6833</p> <div style="text-align: center; margin-top: 20px;">  </div>	<p>LH&J performed a full topographic survey of Bonnabel Boulevard between Metairie Road and I-10 (3900 L.F. Approximately). Existing improvements, utilities, limits of paving, fencing, sidewalks, and signage were located. Cross Sections were performed every 50 ft. and a plan and profile drawing of Bonnabel Boulevard was delivered.</p> <div style="border: 1px solid #ccc; background-color: #f0f0f0; padding: 10px; margin-top: 20px;"> <p style="text-align: center; margin: 0;">Key Relevant Features</p> <ul style="list-style-type: none"> ✓ Jefferson Parish Project ✓ Topographic Survey ✓ Differential Level for Project Benchmarks ✓ Baseline Establishment <p style="text-align: center; margin: 10px 0 0 0;">Key Relevant Personnel</p> <ul style="list-style-type: none"> ✓ Nathan J. Junius, P.E., P.L.S. ✓ Daniel D. Bindewald ✓ Paul H. Morales, IV </div> <div style="text-align: center; margin-top: 20px;">  </div> <div style="text-align: center; margin-top: 20px;">  </div>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2020	\$88,254 (Topo Survey)	\$88,254 (Topo Survey)

TEC Professional Services Questionnaire

PROJECT NO. 8		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Livingston Place Roadway Improvements Topographic Survey Metairie, LA</p> <p>Jefferson Parish Department of Capital Projects 1221 Elmwood Park Blvd, Suite 906 Jefferson, LA 70123 Neil D. Schneider, CCM, P.E. (504) 736-6833</p> <div style="display: flex; align-items: center; margin-top: 20px;">  </div>	<p>Linfield, Hunter & Junius, Inc. provided topographic surveying for East & West Livingston Street Improvements. The survey was used as the basis for the roadway improvements design.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px; background-color: #f0f0f0;"> <p align="center"><u>Key Relevant Features</u></p> <ul style="list-style-type: none"> ✓ Jefferson Parish Project ✓ Topographic Survey ✓ Differential Level for Project Benchmarks ✓ Baseline Establishment </div> <div style="text-align: center; margin-top: 20px;">  </div> <div style="text-align: center; margin-top: 20px;">  </div>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2008	\$38,000 (Topo Survey)	\$38,000 (Topo Survey)

TEC Professional Services Questionnaire

PROJECT NO. 9		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>B.W. Cooper, Gert Town, Dixon Group E New Orleans, Louisiana</p> <p>City of New Orleans Department of Public Works 1300 Perdido Street, Room 6W03 New Orleans, LA 70112 Nguyen Phan (504) 658-8000</p> <div style="text-align: center; margin-top: 20px;">  </div> <div style="text-align: center; margin-top: 20px;">  </div>	<p>General Project Description The City of New Orleans Department of Public Works is undertaking FEMA-funded street and sidewalk rehabilitation in the BW Cooper, Gert Town, and Dixon neighborhoods. Linfield, Hunter & Junius performed the surveying as a sub to Pivotal Engineering for the redevelopment of the streets and sidewalks for the project. Design improvements within the area include a range of point repairs for failing and damaged surfaces, full reconstruction, and patch mill and overlay of existing streets.</p> <p>Scope and Methodology Linfield, Hunter & Junius performed to date approximately 17 blocks (5, 245 feet) of topographic survey within the neighborhood LH&J survey duties included locating improvements, establishing a baseline parallel with the right of way, locating visible and non-visible utilities by way of one call methods and other means, and taking block and cross sections.</p> <p>After Field Work was completed, LH&J delivered plan and profile drawings of each block. Along with location of improvements in plan view, these topographic surveys included profiles of existing street centerline, gutter, and sewer and drainage structures.</p> <p>Results The completed surveys were submitted to Pivotal Engineering for use in their street improvement designs. Currently those designs are under review by the Department of Public Works with construction slated to begin in December 2020</p>	
<p>Completion Date (Actual or estimated):</p> <p style="text-align: center; margin-top: 20px;">2020</p>	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2020	\$62,000 (Topo Survey)	\$62,000 (Topo Survey)

TEC Professional Services Questionnaire

PROJECT NO. 10

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:
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Jefferson Highway Survey
 Deckbar Ave. to Coolidge Street
 Harahan, LA

Ochsner Health Systems
 1514 Jefferson Highway
 New Orleans, LA 70121
 Mr. Jay Britsch



LH&J performed a full topographic survey and boundary survey of the existing right of way of Jefferson Highway between Deckbar Avenue and Coolidge Street. Existing improvements, utilities, limits of paving, fencing, sidewalks, and signage were located. The project was performed in anticipation of a beautification project Ochsner has planned for the corridor.

- Key Relevant Features**

 - ✓ **Topographic Survey**
 - ✓ **Differential Level for Project Benchmarks**
 - ✓ **Baseline Establishment**
 - ✓ **Boundary Survey of existing right of way**

Key Relevant Personnel

 - ✓ **Nathan J. Junius, P.E., P.L.S.**
 - ✓ **Daniel D. Bindewald**
 - ✓ **Paul H. Morales, IV**



Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:

2/2021	\$70,000	\$70,000
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TEC Professional Services Questionnaire

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

Parties		Status/Result of Case:
Plaintiff:	Defendant:	
1. None		
2.		
3.		

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

INTRODUCTION

Linfield, Hunter & Junius Inc. has more than (60) years experience providing quality design professional services to public and private clients in New Orleans and the surrounding area. The firm has been performing engineering, design services, and civil, mechanical, electrical, and plumbing services for some of our major Clients which we have provided land surveying services

Public

- Jefferson Parish Department of Public Works
- LA Department of Transportation and Development
- U.S. Army Corps of Engineers
- City of New Orleans Department of Public Works
- Sewerage and Water Board of New Orleans
- Plaquemines Parish Government
- Pontchartrain Levee District
- St. Tammany School Board
- City of Hammond
- Tangipahoa Parish
- City of Baton Rouse
- University of New Orleans

Private

- CVS/Pharmacies – hundreds
- Dillard University
- Tulane University
- Children's Hospital
- Woodward Design+Build
- Friends of City Park, New Orleans, LA
- Dollar General Stores – over 50
- Exxon/Mobile Corporation
- New Orleans Park-N-Fly
- Multiple design consultants statewide

TEC Professional Services Questionnaire

SCOPE OF CONTRACT SERVICES

LH&J has been providing surveying services as a prime consultant for many years, successfully completing hundreds of projects for public agency clients such as the Jefferson Parish, Sewerage & Water Board of New Orleans, the U. S. Army Corps of Engineers, the Port of New Orleans, the City of New Orleans, Plaquemines Parish Government, LA DOTD and many others. The key management staff of Linfield, Hunter & Junius, Inc. have been recognized by their peers for their professionalism, expertise and leadership. Our land surveying department has the full capacity to perform **topographic**, boundary, ALTA and hydraulic surveys of any size.

LH&J employs **two full time Registered Professional Land Surveyors** and maintains **four fully staffed survey field crews** who are equipped with modern vehicles and state of the art survey equipment for both conventional and GPS surveying. Our crews have worked in difficult terrain conditions, including coastal marshes, and are equipped for and experienced at performing boundary, **topographic**, bathymetric, right-of-way, control, and hydrographic surveys. Our CADD Drafters are highly experienced in working with both Bentley MicroStation and Autodesk AutoCAD as required. LH&J also utilizes add in modules such as ArcView, Civilsoft and InRoads to enhance the efficiency of data processing and project deliverables.

MINIMUM PERSONNEL REQUIREMENTS

1. **The persons or firms under consideration shall have at least one (1) principal who is a licensed, registered professional engineer in the State of Louisiana.**

This requirement will be fulfilled by the prime consultant

Linfield, Hunter & Junius, Inc. firm principal Nathan J. Junius, P.E., P.L.S., P.T.O.P.E. is

Registered Professional Engineer in the State of Louisiana and Registered Land Surveyor

with twenty (20) years experience in land surveying

2. **The persons or firms under consideration shall have a professional in charge of the Project who is a licensed, registered professional engineer in the State of Louisiana with a minimum of five (5) years' experience.**

This requirement will be fulfilled by the prime consultant.

3. **The persons or firms under consideration shall have one (1) employee who is a licensed, registered professional engineer in the State of Louisiana. A subcontractor may meet this requirement only if the advertised Project involves more than one discipline**

This requirement will be fulfilled by the prime consultant.

Supplemental Services – Surveying

Linfield, Hunter & Junius, Inc. (LH&J) employs **two full time Registered Professional Land Surveyors** and maintains **four fully staffed survey field crews** who are equipped with modern vehicles and state of the art survey equipment for both conventional and GPS surveying. Our crews have worked in difficult terrain conditions, including coastal marshes, and are equipped for and experienced at performing topographic, boundary, topographic bathymetric, right-of-way, control, and hydrographic surveys as well as performing bench leveling, construction layout surveys and settlement monitoring surveys. Our CADD Drafters are highly experienced in working with both Bentley MicroStation and Autodesk AutoCAD as required. LH&J also utilizes add in modules such as ArcView, Civilsoft and InRoads to

TEC Professional Services Questionnaire

enhance the efficiency of data processing and project deliverables. We are competent at working with any vertical and horizontal datum as specified by the Client's requirements. We utilize computer based survey data processing software to achieve maximum efficiency and ensure rapid and reliable deliverables for our Clients. Since placing an increased emphasis on land surveying services, the firm has completed over \$1,000,000 in land surveys for in-house designs and others.

The following list highlights this experience:

- Nathan J. Junius, P.E., P.L.S., PTOE/Professional Land Surveyor – 20 years of land surveying experience
- William J. Muller, P.L.S./Professional Land Surveyor – 40+ years of land surveying experience

Resumes for the above personnel are included in Section L of this TEC Questionnaire.

Capabilities include the following and more:

- **Topographic Surveying** (determine relative positions & elevations of natural & man-made features)
- **Drone Surveying** (detailed & expedient multi-acre data-capturing surveying)
- **Property, Boundary, and Right-of-Way Surveys** (preparation of Legal Descriptions, property, **Maps, Cross-Sections, and Data Sets** (plan drawings, maps, diagrams, and data sets)
- **3D Laser Scanning** (unify raw data & model)
- **Benchmarks** (establishment of permanent, temporary, and construction benchmarks)
- **Construction-Related Surveying** services
- **Bathymetric / Hydrographic Surveys** (determine shoreline and depths of bodies of water)
- **Builder's Package** (includes Boundary Survey, & Construction Benchmark, Form Signs Certificate, Top of Slab Certificate, & Final FEMA Elevation Certificate)
- **ALTA Surveys** (American Land Title Association-compliant surveys) and ROW maps to define project boundaries and for acquisition of property)

EVALUATION CRITERIA

1. Professional Training and Experience

Linfield, Hunter & Junius, Inc. (LH&J) has been a provider of quality professional engineering and architectural services for over 60 years and **full land surveying services** for over 20 years. LH&J has been providing services as a prime consultant for many years, successfully completing thousands of projects for clients such as Jefferson Parish, LA DOTD, the Corps of Engineers, the Port of New Orleans, the City of New Orleans, Sewerage and Water Board of New Orleans, Plaquemines Parish Government, and many others. LH&J provides CADD Drafting (**AutoCADD** and **MicroStation**) and Quality Assurance Services for all its land surveying services.

We have been providing very complicated survey services to the U.S. Army Corps of Engineers that conform to all Government requirements for over ten years for many flood protection projects. We are competent at working with any vertical and horizontal datum as specified by the Client's requirements. We utilize computer based survey data processing software to achieve maximum efficiency and ensure rapid and reliable deliverables for our Clients.

TEC Professional Services Questionnaire

2. Capacity for Timely Completion of the Project

Linfield, Hunter & Junius, Inc. (LH&J) currently employs thirty-seven (37) highly qualified design professionals, and has been providing quality engineering services in Southeast Louisiana for over thirty (30) years.

3. Location of Principal Office Where Work Will Be Performed

Linfield, Hunter & Junius, Inc. is located in Jefferson Parish at **3608 18th Street, Metairie, LA 70002**. We are centrally located in the parish, and all work will be performed from this office.



4. Adversarial Legal Proceedings

Linfield, Hunter & Junius, Inc. has no previous or on-going litigation with Jefferson Parish.

5. Prior Successful Completion of Projects Requiring Surveying Services for which Firm Has Provided Verifiable References

Linfield, Hunter & Junius, Inc. has a staff of engineers with significant experience providing the professional services required for this project. **Examination of the Resumes in Item K and the Project Descriptions in Item L demonstrates the extensive experience of our staff in providing the services required for this project.** Our team has a proven track record of completed major projects from feasibility studies following through to completed construction, and has recently completed a number of successful drainage projects which are similar to the scope of work of this project and in the same geographical area.

- Full Topographic Survey, Canal Street – Client: Jefferson Parish Government
- Full Topographic Survey, East and West Livingston Drive – Client: Jefferson Parish Government
- Full Topographic Survey, Russell Street – Client: Jefferson Parish Government
- Full Topographic Survey, Woodvine and Cuddihy Streets – Client: Jefferson Parish Government
- Full Topographic Survey, Magazine Street, New Orleans – Client: City of New Orleans, Dept. of Public Works
- Full Topographic Survey, Woodland Highway Survey (LA407) – Client: LA Dept. of Transportation and Development
- Full Topographic Survey, 17th Street Canal Survey (LA 611), Jefferson/Orleans Parish, LA – Client: U.S. Army Corps of Engineers
- Full Topographic Survey, Club Deluxe Road Widening Survey (LA Hwy 51), Tangipahoa

TEC Professional Services Questionnaire

Parish, LA – Client: Tangipahoa Parish

- Full Topographic Survey, W. Stanford, W. Loyola Force Main Survey, Kenner, LA – Client: City of Kenner, Dept. of Public Works
- Full Topographic Survey, St. Charles Avenue Overlay (State Project 700-36-0162) – Client: City of New Orleans, Dept. of Public Works
- Full Topographic Survey, Magazine Street Reconstruction (State Project 742-36-137 and 742-36-0139) – Client: City of New Orleans, Dept. of Public Works

6. Size of Firm

The size of our firm is ideal for projects such as the proposed project because:

- The firm has a vast amount of experience in land surveying
- The firm is large enough that it can absorb projects of the size of the proposed project and not become overburdened by them.
- The firm is small enough to be nimble and responsive to the client.
- The management structure is not multi-layered, which facilitates resolution of issues that could otherwise slow down a project
- The firm has a total annual land surveying **capacity of \$2,000,000.**

Within the past five (5) years the firm has designed, administered, and managed over \$5 Million in land surveying. Depending on the scope of work required by Jefferson Parish, LH&J will assemble a team that will be able to commit to the project

7 Past and Current Professional Accomplishments

Since placing an increased emphasis on land surveying services, Nathan Junius has completed over \$17,000,000 in land surveys for in-house designs and others. Services to date have included **property surveys, right of way maps, property taking**, bench leveling, topographic surveys, construction layout surveys and settlement monitoring surveys. A sampling of work to date includes bench leveling for calibration of pumping station gages for Jefferson Parish, topographic surveys for Canal Street Reconstruction in Jefferson Parish, East and West Livingston Drive Reconstruction, Russell Street Reconstruction, Woodvine and Cuddihy Streets Reconstruction, Magazine Street Reconstruction, Geisenheimer Canal Improvements, Labarre Business Park Drainage Improvements, Sewerage Extensions - West Pointe a la Hache to Bohemia, Lake Hermitage Waterline, Metairie Small Animal Hospital, Waterline Extension - Russell Drive to Cedar Grove, Sewage Force Main Replacement Lift Station No. 8 to Belle Chasse Sewage Treatment Plant, and Sewage Force Main Extension - Lift Station No. 7 to Lift Station No. 8 Belle Chasse, Slidell Vo-Tech Site Plan, Metairie Road Bridge Control Survey, Hoey's Bypass Canal Alignment Study, Right of Way Study Metairie Road Bridge, Right of Way Study Hoey's Cut, Vertical Response of Nashville Dock Repair to Crane Loading, Right of Way Survey Maple Ridge Drive Detour, Topographic Right of Way and Boundary Survey Metairie Road Drain Line Relocation, Lexus of New Orleans Topographic Survey, Children's Hospital Parking Lot Survey, Louisville and Catina Streets Topographic Survey, and Woodlawn Avenue Topographic Survey.

LH&J has been providing quality surveying services to Jefferson Parish, LA DOTD, the City of New Orleans, U.S. Army Corps of Engineers and many more for over 10 years and we have performed engineering projects for LA DOTD for over the last 30 years. We have an excellent track record of providing Government with high quality surveying services which are cost effective and completed in a timely manner. We have also prepared surveys throughout the Southeast

TEC Professional Services Questionnaire

U.S. for CVS/Pharmacies with over 500 potential building sites investigated since 2004. These and other long-term client relationships are a testament to LH&J's dedication to providing high quality services for reasonable prices in a timely manner that meets or exceeds all customer expectations.

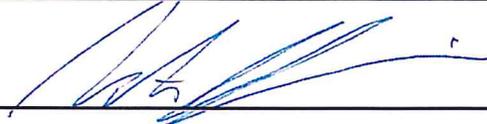
Closing Statement

We are extremely interested in this solicitation.

- Linfield, Hunter & Junius, Inc. has extensive experience in providing land surveying services including property surveys, ROW Maps and Title Take-Off on projects in the State of Louisiana and particularly the Southeastern portion of the state.
- Linfield, Hunter & Junius, Inc. has the capacity to easily absorb the survey services included in this project assignment.



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

Signature: 

Printed Name: Nathan J. Junius, P.E., P.L.S., PTOE

Title: President

Date: March 24, 2022