

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

A. Project Name and Advertisement Resolution Number:

SOQ 22-013 - Routine Engineering Services for Water Projects Jefferson Parish Government

B. Firm Name & Address:

WSP USA Inc.
1100 Poydras Street
Suite 1175
New Orleans, LA 70163

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:

Ian Chaney, PE
Supervising Engineer
277 Bendix Rd., Suite 300
Virginia Beach, VA 23452
757-466-9615
Ian.Chaney@wsp.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.

Rebecca Howell, PE
Sr. Lead Water Resources Engineer
301 N. Main Street, Suite 2200
Baton Rouge, LA 70801
225-508-3872
Rebecca.Howell@wsp.com

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

<u>1</u> Administrative	<u> </u> Estimators	<u> </u> Specification Writers
<u> </u> Architects (Licensed)	<u> </u> Geologists	<u>2</u> Structural Engineers
<u>3</u> Chemical Engineers	<u> </u> Geotechnical Engineers	<u>1</u> Graduate Engineers
<u> </u> Civil Engineers	<u> </u> Interior Designers	<u>4</u> Project Managers
<u>1</u> Construction Inspectors	<u> </u> Landscape Architects	<u> </u> Clerical
<u> </u> Ecologists	<u> </u> Land Surveyor	<u>1</u> Grant/Funding Specialist
<u>1</u> Electrical Engineers	<u>1</u> Mechanical Engineers	<u>2</u> Sanitary Engineers
<u>1</u> Engineer Intern	<u>2</u> Environmental Engineers	
<u> </u> Professional Land Surveyors		<u>21</u> TOTAL

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

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

TEC Professional Services Questionnaire

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

1. None

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. None		
2.		
3.		

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

None

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:

Ian Chaney, PE
National Director – Geotechnical & Tunneling
Senior Vice President

Project Assignment:

Principal

Name of Firm with which associated:

WSP USA Inc.

Years' experience with this Firm:

19

Education: Degree(s)/Year/Specialization:

MS, Geotechnical Engineer, Virginia Technical Institute / 2002
BS, Mining Engineering, Virginia Technical Institute / 2001

Active registration: Year first registered/discipline:

Professional Engineer: Louisiana (PE. 0042288) / 2018
Professional Engineer (other states): Virginia, Tennessee, Louisiana, Florida, North Carolina, Kentucky

Other experience and qualifications relevant to the proposed Project:

Ian Chaney is the National Director for Geotechnical & Tunneling for WSP. He is experienced in multi-disciplinary project management and leading geotechnical project efforts. His technical experience includes providing detailed and concept designs for marine facilities, tunnels, bridges and buildings that consider site-specific geotechnical and environmental conditions, as well as the spectrum of multi-disciplinary concerns inherent with large infrastructure construction activities.



IAN J. CHANEY, P.E.

*National Director – Geotechnical & Tunneling
Senior Vice President*



PROFILE

Ian Chaney is the National Director for Geotechnical & Tunneling for WSP. He is experienced in multi-disciplinary project management and leading geotechnical project efforts. His technical experience includes providing detailed and concept designs for marine facilities, tunnels, bridges, and buildings that consider site-specific geotechnical and environmental conditions, as well as the spectrum of multi-disciplinary concerns inherent with large infrastructure construction activities.

PROFESSIONAL EXPERIENCE

Years of Experience

20 (19 with WSP)

Education

*M.S. Geotechnical
Engineering, Virginia Tech,
2002*

*B.S. Mining Engineering,
Virginia Tech, 2001*

Professional Registrations

*Professional Engineer:
Virginia, Tennessee,
Louisiana, Florida, North
Carolina, Kentucky*

Professional Affiliations

*American Society of Civil
Engineers*

*Underground Construction
Association of SME*

*Deep Foundations
Institute*

Mid-Barataria Sediment Diversion Project – New Orleans, Louisiana: As part of this CMAR project to design an intake structure and 2-mile long conveyance channel from the Mississippi River, Ian is the lead designer and WSP project manager providing designs for a concrete intake approach. Options considered were floating U-structures, able to be placed 400 feet out into the Mississippi River, cast-in-place concrete structures with sheet pile seepage cutoffs, and a bored tunnel. The U-structure is being advanced and is being constructed on a piled foundation. At completion, the project will accommodate a diverted flow of more than 75,000 cfs of sediment-laden water that will ultimately be deposited and dispersed into the Barataria Bay, enabling marsh creating for future decades.

Gamesa Offshore Wind Turbine, Chesapeake Bay, Virginia: Project Manager responsible for the final design and installation of what would have been the first offshore wind turbine constructed in the United States. Project was cancelled after design completion, and consists of the design and installation of a 5 megawatt wind turbine founded in an offshore environment. Detailed geotechnical and structural analysis were performed by WSP to account for the static loads and dynamic operation of the turbine, coupled with the hydrodynamic loading imparted by waves and currents. An extensive offshore geotechnical engineering investigation utilizing CPTs, soil borings and laboratory testing was implemented to define subsurface conditions, critical for determining lateral soil spring values and for analyzing pile drivability.

Virginia Port Authority – North Wharf Extension, Norfolk, Virginia: geotechnical engineer responsible for the geotechnical design of sheet pile bulkheads consisting of both cantilever sections and anchored sections. In addition, Ian provided recommendations for ground improvement behind the bulkhead consisting of deep vibro-compaction of soils and staged construction and was responsible for the testing and evaluation of the vibro-compaction operations.

Puerto Bolivar Due Diligence Study, Ecuador: Geotechnical Engineer responsible for the due diligence review of all geotechnical design and construction aspects of the project that included a 450m wharf expansion, rock bund and land reclamation, ground improvements, and dredging.

Hampton Roads Bridge-Tunnel Expansion, Norfolk, Virginia: Engineering Manager for this \$4B marine bridge and tunnel expansion project that consists of two new bored tunnels under the Hampton Roads shipping channel, artificial island expansion, access dredging, 4 miles of new bridge trestles and 4 miles of highway widening on land. On behalf of the owner, VDOT, Ian is responsible for all marine design and construction for this project that encompasses tunnels, island expansion, scour protection, Navy coordination and permitting. The project also includes two major excavations at the manmade islands – each over 50' deep and underwater, that are to be dewatered for launching and receiving the Tunnel Boring Machine.



IAN J. CHANEY, P.E.

*National Director – Geotechnical & Tunneling
Senior Vice President*

Dominion Energy VOWTAP Offshore Wind Turbines: Provided engineer-of-record geotechnical services to Orsted for two, 6 MW offshore wind turbines to be constructed 30 miles off the Virginia Beach coast line. Ian was responsible for the foundation design of the offshore monopile foundations, scour design and constructability aspects of the projects.

Midtown Tunnel – Martin Luther King Expressway Project, Norfolk and Portsmouth, Virginia: on this long-term, \$2.1B Mega-Project, Ian's duties started as the geotechnical design manager and finished with being the on-site Project Manager during construction. As the on-site Design Manager During Construction, Ian was responsible for daily management of design services during construction, claim mitigation and negotiation, and financial decisions regarding design work.

As geotechnical design manager for this immersed tunnel project that parallels an existing immersed tunnel, Ian was responsible for the management of all geotechnical, underground and marine aspects of the design and the coordination of these works between the civil, geotechnical and structural disciplines. Work consisted of dredging and foundation preparation for the immersed tubes, immersed tube design, island reclamation, buoyancy and transportation, as well as the design of the support-of-excavation system that included over 4,000 lf of in-water sheet piling, some of which utilized tiebacks and underwater struts, and that included two 50-foot deep dewatered excavations for the tunnel approaches. The scope also required the remediation of the Portsmouth Marine Terminal, which the tunnel passes through. The port facility was returned with a 750-psf live-load allowance, with no reduction in service due to the newly constructed tunnel.

UK Round 3 Offshore Wind Farm Study, Southern North Sea, UK: Ian provided review services for the design basis document and concept-level turbine support foundation details. The study investigated various foundation types (monopile, jacket and gravity base) for numerous turbine sizes.

Kwajalein Wind Project, Marshall Islands: for this pilot project on a remote Pacific Ocean Island, Ian prepared conceptual foundation designs for nearshore, 6-megawatt, 115-meter diameter wind turbines founded on a coral reef. Due to the remote nature of the project, conventional offshore construction methods could not be implemented. Therefore, more conventional, drilled foundation elements and tiebacks to "tune" the dynamic stiffness of the structure was utilized.

Brooklyn Navy Yard, Brooklyn, New York: geotechnical engineer responsible for the development and design for all aspects of a Confined Disposal Facility and the protection of an on-site sewer outfall, including design recommendations, construction specifications, and construction drawings. The sewer outfall, which would be affected and destroyed by the construction of the CDF, was designed to be protected by the placement of an A-frame tieback retaining wall or by a bridged structure in which the loads that would be imposed by the placement of dredge fill were transferred to the A-frame structure, anchored into the underlying bedrock. The CDF was optimized using staged surcharge programs that would ultimately allow for land reclamation for useable land space.

Chesapeake Bay Bridge-Tunnel – Parallel Thimble Shoals Tunnel Pursuit, Virginia Beach, Virginia: As pursuit manager, Ian was responsible for preliminary designs of both an immersed tunnel option and a bored tunnel option, including manmade island extensions, ground improvement, and protection of the existing tunnels and islands, built in the Chesapeake Bay on a subsurface consisting of up to 80 feet of soft compressible clays.

Enighed Pond Backland Improvement, St. John, US Virgin Islands: geotechnical engineer responsible for the design of a ground improvement scheme to make a 5-acre parcel land consisting of dredge spoils usable for port operations. Ground improvement

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Max Nassar Vice President Senior Managing Director, Local Business Leader
Project Assignment:
Officer in Charge
Name of Firm with which associated:
WSP USA Inc.
Years' experience with this Firm:
4
Education: Degree(s)/Year/Specialization:
BA, Psychology Louisiana State University / 1976
Active registration: Year first registered/discipline:
None
Other experience and qualifications relevant to the proposed Project:
<p>Max is a Louisiana native who has spent 30 years in executive level positions in Fortune 500 Companies in both the Manufacturing/ Industrial Sector and AE Consulting Services Sector. Over the past 25 years, he has overseen a multiplicity of infrastructure projects in the Southeast United States and in Central America and with a value in the billions. Many of these projects have been FEMA Federal Aid Funded in Louisiana and have been performed for a variety of public and private clients.</p> <p>Max possesses demonstrated experience in NEPA Project Leadership, Government and Stakeholder Relations, Program Management, Project Management, Program and Project Development, and Construction Management and Inspection services related to major infrastructure and facilities projects which include roadway, highway and bridge infrastructure, drainage and utilities infrastructure, railways and transit ways, airport facilities, and various waterfront infrastructure and facilities.</p>



MAX NASSAR

Vice President

Senior Managing Director, Local Business Leader



Years with the firm

4

Years total

42

Education

BA, Psychology Louisiana State University, 1976

Additional Training

Post-graduate studies in: Business, Finance, Labor Relations, and Industrial Operations, Tulane and Loyola Universities, New Orleans, LA

CAREER SUMMARY

Max is a Louisiana native who has spent 30 years in executive level positions in Fortune 500 Companies in both the Manufacturing/Industrial Sector and AE Consulting Services Sector. Over the past 25 years, he has overseen a multiplicity of infrastructure projects in the Southeast United States and in Central America and with a value in the billions. Many of these projects have been FEMA Federal Aid Funded in Louisiana and have been performed for a variety of public and private clients.

Max possesses demonstrated experience in NEPA Project Leadership, Government and Stakeholder Relations, Program Management, Project Management, Program and Project Development, and Construction Management and Inspection services related to major infrastructure and facilities projects which include roadway, highway and bridge infrastructure, drainage and utilities infrastructure, railways and transit ways, airport facilities, and various waterfront infrastructure and facilities.

RELEVANT PROJECT EXPERIENCE

- **Bonnabel Boulevard Roadway Improvements (Metairie Rd. to I-10), Jefferson, L, Project Principal.** The project, which is a Federal Aid program with joint FHWA and Jefferson Parish funding, will provide a 3" mill and overlay of the roadway surface, full depth concrete patching and curb replacement. The project required coordination Jefferson Parish and LADOTD engineering staff, the creation of preliminary drawings per LADOTD standards, establishment of a proposed profile to aide surface drainage and the creation proposed cross sections. The Project also included a Phase I Noise Mitigation Investigation at the Interstate 10 Overpass. The design work was performed with Inroads SS2. Design guidelines followed included Jefferson Parish, LADOTD and AASHTO. Client: Jefferson Parish. Dates: September 2020 – Present.
- **Pontchartrain Levee District; Cross Bayou Pump Station Inspection and Assessment.** Project Principal. The Cross Bayou Pump Station is owned by the Pontchartrain Levee District. The District desires to transfer the Station to ownership of St. Charles Parish. Prior to the transfer the station will undergo an in-depth inspection and assessment of the infrastructure. The Project Team will review O & M experience, develop a Rough Order Repair Estimate, and develop a Scope of Services and Plan for refurbishment of the Statement. A partial listing of the systems included are Diesel Pump Drives, Fuel Transfer and Storage Tanks, Power Take Off and Gear Reducer, Main Pumps, Auxiliary Pumps, Standby Generator, Trolley System, Automated Bar Screen and Telemetry and Controls
- **Louisiana Department of Transportation and Development. IDIQ Contract for Electrical and Mechanical Engineering Services** – Project Principal for this Task Order based engineering services contract which supports efforts on mechanical and electrical services related to roadways, pump stations and other mechanical and electrical needs. June 2017 to present
 - ✓ Task Order 1: State Project No. H.010439: Boyd Street & 21ST Street Pump Station Improvements
 - ✓ Task Order 2: State Project No. H.010439.5: Boyd Street & 21St St Pumping Station Improvements I-110
 - ✓ Task Order 3: State Project No. H.010565 Acadian St. Pumping Station Improvements
 - ✓ Task Order 4: State Project No. H.010565.5 Acadian Street Pumping Station



MAX NASSAR

Vice President

Senior Managing Director, Local Business Leader

- ✓ Task Order 5: State Project No. H.972249.1 Generator Site Investigation and Load Study for Airline Drive Pump Station and LADOTD Maintenance Facility and Construction Docs for Airline Drive Pump Station
- ✓ Task Order 6: State Project No. H.010253: Bluebonnet Blvd Pump Station Improvements LA 1248
- ✓ Task Order 7: State Project No. H.010251: Chippewa St Pumping Station Improvements US61/190
- **LADOTD Contract FOR 5 Movable Bridges, Vermillion, St. Martin, Assumption, and Cameron Parishes: Project Principal.** WSP USA was selected by the Louisiana Department of Transportation and Development to both inspect and to develop a rehabilitation or replacement plan for 5 movable bridges located in various Parishes across Louisiana. As part of the project scope, WSP will perform site inspections and an LRFR Load Rating and/or NBIS In-Depth inspection on the 5 bridges. The load rating shall be based on the current condition, capacity, and loading of the bridge structure, and shall be performed on all load carrying members including approach spans and movable spans. The development of preliminary and final plans as well as all construction related engineering services are also included in the assignment. As a part of the Construction Plan Set, WSP will prepare and submit a Transportation Management Plan. Many bridges in Louisiana have been designated “Historic” in the Section 106 document “Programmatic Agreement Regarding Management of Historic Bridges in Louisiana”.
- **St. Bernard Group A, New Orleans, Louisiana: Roadway reconstruction, roadway repairs, sidewalk repairs, and handicap ramp replacement for forty-five blocks within the City of New Orleans, Project Principal.** The project was FEMA Federal Aid funded and provided Engineering Services from initial project meetings with the New Orleans Department of Public works Sewerage and Water Board, design, preparation of construction documents to bidding. Client: City of New Orleans Department of Public Works. Dates: December 2016 – June 2018.
- **St. Bernard Group A, New Orleans, Louisiana Waterline replacement for forty-five blocks within the City of New Orleans, Project Principal.** The project was FEMA Federal Aid funded and provided Engineering Services from initial project meetings with the New Orleans Department of Public works Sewerage and Water Board, design, preparation of construction documents to bidding. Client: City of New Orleans Department of Public Works. Dates: December 2016 – June 2018.
- **Ormond Boulevard Pavement and Rehabilitation, St. Charles Parish, Louisiana, Project Officer.** The project, which was a Federal aid program with joint FHWA and St. Charles Parish funding consisted of concrete roadway patching and a 2-mile asphalt mill and overlay of Ormond Boulevard. Client: St. Charles Parish Department of Public Works and Wastewater. Dates: November 2016 - December 2017.
- **LADOTD Emergency Repairs New Orleans Signals, Project Principal.** In the aftermath of Hurricane Katrina the Louisiana DOTD immediately undertook an emergency effort to restore Traffic Control Systems on the Federally Funded System in multiple parishes within the Greater New Orleans region, for a total project cost of \$6 Million. Funded by FHWA Emergency Relief Grant Funds, the project consisted of condition assessment, preliminary and final design, financial management and budget controls, construction engineering and inspection, and program management.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Rebecca D. Howell, PE Sr. Lead Water Resources Engineer
Project Assignment:
Project Manager / Professional in Charge
Name of Firm with which associated:
WSP USA Inc.
Years' experience with this Firm:
<1
Education: Degree(s)/Year/Specialization:
BS, Civil Engineering, Louisiana State University / 2012 BS, Atmospheric Science, University of Louisiana at Monroe / 2010
Active registration: Year first registered/discipline:
Professional Engineer: Louisiana (PE.0042559)
Other experience and qualifications relevant to the proposed Project:
Rebecca is a civil engineer with consulting experience in engineering, design, project management. She is committed to providing quality service to stakeholders in the private and public sector for the design, management, bidding/contracting and construction administration for a broad range of civil engineering projects. Rebecca's project experience includes water distribution system design, sanitary and storm water collection systems, drainage impact analysis, HEC-RAS modeling (1D and 2D), sanitary sewer lift station and force main design, off-system bridge replacements, subdivision, and commercial site design.



REBECCA DAVEZAC HOWELL, PE

Sr. Lead Water Resources Engineer



Years with the firm

<1

Years total

10

Education

*Louisiana State University,
BS in Civil Engineering, 2012*

*University of Louisiana at
Monroe, BS in Atmospheric
Science, 2010*

Professional Registrations

*Professional Engineer: LA
0042559*

Professional Certifications

*Advanced Benefit Cost
Analysis Training,
National Emergency
Planning and Training
Association, 2019*

*Traffic Control
Technician, LA Specific,
exp. 2023*

*Traffic Control Supervisor,
LA Specific, exp. 2023*

CAREER SUMMARY

Rebecca is a civil engineer with consulting experience in engineering, design, project management. She is committed to providing quality service to stakeholders in the private and public sector for the design, management, bidding/contracting and construction administration for a broad range of civil engineering projects. Rebecca's project experience includes water distribution system design, sanitary and storm water collection systems, drainage impact analysis, HEC-RAS modeling (1D and 2D), sanitary sewer lift station and force main design, off-system bridge replacements, subdivision, and commercial site design.

RELEVANT EXPERIENCE

- **BREC Greenwood Park and Baton Rouge Zoo Master Plan Phase 1, Baker, Louisiana:** project manager/project engineer developed a master plan for infrastructure improvements to the existing Baton Rouge Zoo that were required for re-accreditation. Rebecca led a team of engineers in the design of infrastructure improvements including the following: upgrades to existing water distribution system which includes the addition of 12,000 linear feet of new water main (potable and fire protection), 7,200 linear feet of new gas main, and 700 linear feet of gravity sewer, along with 6,300 linear feet of subsurface drainage system which conveys stormwater from the exhibits to an onsite stormwater pond and treatment system that includes a 1,000-gallons-per-minute pump and ultraviolet disinfection system to treat the exhibit influent prior to discharging into a nearby lateral.
- **Exxon, Baton Rouge, Louisiana:** engineer intern evaluated the existing water distribution system for the chemical plant and developed options for meeting the chlorination requirements. Rebecca's work involved assessing isometric drawings of the process and potable existing water system and calculating water demands to develop feasible alternatives to the existing water system design.
- **Millard Maritime Water Main Extension, Mobile, Alabama:** engineer intern prepared design calculations and construction documents for the extension of an existing water main at the Millard Facility.
- **GIS Utility Map, Engineering Firm, West Baton Rouge, Louisiana:** engineer intern oversaw utility location process and map compilation. The project involved mapping water meters, gas meters, fire hydrants, and water towers located within West Baton Rouge Parish using GPS and GIS.
- **Central Sports Park Phase III, Central, Louisiana:** engineer intern prepared construction documents for the addition of several buildings, additional parking, Americans with Disabilities Act-compliant sidewalk extension, and drainage improvements at the Central Sports Park. The design included grading, drainage, paving, and potable water line extension and utility plans.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Brian C. Hundt, PE Senior Civil Engineer
Project Assignment:
Civil Engineer
Name of Firm with which associated:
WSP USA Inc.
Years' experience with this Firm:
4
Education: Degree(s)/Year/Specialization:
BS, Civil Engineering, Louisiana State University, Baton Rouge / 2009
Active registration: Year first registered/discipline:
Professional Engineer: Louisiana (PE.0039459) / 2015
Other experience and qualifications relevant to the proposed Project:
Brian brings 13 years of experience to this team as a civil engineer on numerous projects such as roadway design, waterline replacement, drainage design, construction administration, and inspection. Throughout his professional career, Brian has worked closely with Jefferson Parish, Louisiana Department of Transportation & Development (LADOTD), New Orleans Sewerage and Water Board, City of New Orleans Department of Public Works, and St. Charles Parish. Brian has a comprehensive knowledge of Autodesk Civil 3D and Excel.



BRIAN HUNDT, PE, PMP

Lead Civil Engineer



CAREER SUMMARY

Brian Hundt has over 10 years of experience as a Civil Engineer on numerous projects such as roadway design, waterline replacement, drainage design, construction administration, and inspection. Throughout his professional career, Mr. Hundt has worked closely with Jefferson Parish, the Louisiana Department of Transportation, New Orleans Sewerage and Water Board, City of New Orleans Department of Public Works, and St. Charles Parish.

EDUCATION

BS, Civil Engineering, Louisiana State University, Baton Rouge

2009

Years with the firm

4

Years total

12

Professional registrations

*Professional Engineer:
Louisiana, 2015 (PE0039459);
Project Management
Professional (2701475)*

*Traffic Control Supervisor, LA
Specific and Traffic Control
Technician, LA Specific*

PROFESSIONAL EXPERIENCE

Bonnabel Boulevard Roadway Improvements (Metairie Rd. to I-10), Jefferson, LA:

Project Engineer for the project, which is a Federal aid program with joint FHWA and Jefferson Parish funding, will provide a 3" mill and overlay of the roadway surface, full depth concrete patching and curb replacement. As project engineer, Brian coordinated with Jefferson Parish and LADOTD engineering staff, created preliminary drawings per LADOTD standards, established a proposed profile to aide surface drainage and create proposed cross sections. The design work was performed with Inroads SS2. Design guidelines followed included Jefferson Parish, LADOTD and AASHTO.

Jefferson Parish Submerged Roads Program, Council Districts 1, 2, & 5, Jefferson Parish, Louisiana:

As Project Engineer, Brian designed 12 Jefferson Parish projects for PCCP and asphaltic pavement repairs and overlay of Hurricane Katrina roadway damage under a FEMA funded program. The total program design spanned approximately 100 miles of Jefferson Parish roadway. He designed 375,000 square yards of Portland Cement Concrete Pavement for street replacement and 80,000 tons of asphaltic street replacement and repairs. He also managed Jefferson Parish agreements, managed design staff, and coordinated the bidding process with Jefferson Parish including prebid meetings, addenda, and review of bids. During the construction phase, Brian managed project inspection, testing reports, contractor payment request, and project closeout. All design was in accordance with Jefferson Parish and FEMA requirements.

Texas High Speed Rail, Dallas, Texas: The project is a design-build job for the design and construction of a high-speed rail from Houston to Dallas. As Project Engineer, he created plan sheets for proposed realignments of 40 existing rural and collector roadways that were affected by the proposed rail alignment. In addition, he created vertical and horizontal alignments for 10 proposed road over rail crossings. The design work was performed with InRoads SS2 and SS4. Local county, TXDOT and AASHTO design guidelines were followed for the design of realigned roadways.

Columbia City Residences at Bayou District, New Orleans, Louisiana: As Project Engineer, Brian created plan and profile sheets for roadways, drainage and water lines during the design phase. Brian also performed drainage calculations for sizing of the stormwater drainage system and provided routine inspections of civil work during the construction phase. The project consisted of surveying, civil engineering and transportation planning services for the housing portion of the Bayou District Foundation



BRIAN HUNDT, PE, PMP

Lead Civil Engineer

project, which includes 465 mixed income units. Brian was involved with phases 2A, 2B and 3 of the Columbia City project.

St. Bernard Group A, New Orleans, Louisiana: Project Engineer for Roadway reconstruction, roadway repairs, waterline replacement, sidewalk repairs, and handicap ramp replacement for forty-five blocks within the City of New Orleans. Brian attended design meetings with the New Orleans Department of Public Works, Sewerage and Water Board. He conducted field visits to determine the location of utilities (including water and sewer lines) roadway and sidewalk repairs, creating plan sheets, calculating quantities, creating cost estimates and compiling bid documents and specifications.

Ormond Boulevard Pavement and Rehabilitation, St. Charles Parish, Louisiana: Project Engineer for the construction administration phase of the project which consisted of concrete roadway patching and a 2-mile asphalt mill and overlay of Ormond Boulevard. Brian's duties included submittal approvals, site visits, approving daily reports, generating monthly estimates and creating change orders in LADOTD's Site Manager.

Island Road Restoration, Terrebonne Parish, Louisiana: Project Engineer for the construction administration phase of the project which consisted cold mill of existing asphalt pavement, placing 20,000 cubic yards of new crushed stone base course, and placing 6,600 tons of superpave asphalt surface and overlay on the existing and widened roadway. The design also included 17,000 cubic yards of stone riprap to stabilize and line the side slopes adjacent to waterways on both sides of the roadway. Duties included approving submittals, weekly inspections, recommending plan changes, tracking quantities, reviewing pay requests and creating change orders.

First St. Wharf Deck Replacement – Phase 2, New Orleans, Louisiana: Senior Project Manager for the construction administration project that repaired the First Wharf concrete deck. The scope of work for the construction included identifying damaged concrete sections below wharf deck on the Mississippi River side and above the wharf deck. Repair work included full depth and partial depth concrete deck repairs. Project duties also included attending meetings, managing inspectors, reviewing submittals, monitoring schedule and budget and approving contractor request for payment.

WB Veterans: Severn Ave – Clearview, Jefferson, LA: As Project Engineer, this project calls for the design of a 3.5" asphalt mill and overlay, full depth asphalt patching, curb replacement and striping replacement of Veterans Blvd. westbound lanes from Clearview Pkwy. to Severn Ave. This project involves coordination between Jefferson Parish Engineering Department and LADOTD. Brian's duties include creating plan sheets per LADOTD standards, identifying roadway repair locations, and calculating project quantities.

Southeast Louisiana Hospital Replacement of Potable Water Lines, St. Tammany Parish, Louisiana: Brian provided inspection and construction administration for the replacement of the water distribution system for a campus of 67 buildings (approximately 462,000 square feet). Duties included inspection of construction, writing inspection reports, attending monthly progress meetings, reviewing pay requests and creating change orders.

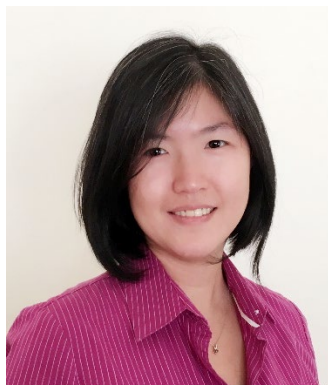
TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Yudu (Sonia) Wu, PE, LEED AP BD+C, PMP Lead Water Resources Engineer
Project Assignment:
Water Resources Engineer
Name of Firm with which associated:
WSP USA Inc.
Years' experience with this Firm:
5
Education: Degree(s)/Year/Specialization:
MS, Geography and Environmental Engineering, Johns Hopkins University / 2007 BS, Environmental Science, Sun Yat-Sen University / 2006
Active registration: Year first registered/discipline:
Professional Engineer: Maryland (46963) / 2015, California (78697) / 2011; Project Management Professional (1826714)
Other experience and qualifications relevant to the proposed Project:
Yudu Wu is a Lead Water Resource Engineer in with various experiences in water and wastewater engineering, stormwater management, drainage, stream restoration, floodplain, site development and asset management. She has comprehensive knowledge of the principles and practices of design and project management in water resource engineering She leads the team and manages design projects such as drainage design, BMP retrofit, stormwater management, water reuse, stream restoration, floodplain studies, water & wastewater utilities replacement and construction, and upgrading of treatment plants & pumping stations; or management projects intending to deliver organizational or program benefits and improvements. She works on both design bid build and design build projects.



YUDU (SONIA) WU, P.E., LEED AP BD+C, PMP

Lead Water Resources Engineer



Years with the firm

5

Years total

15

Professional qualifications

Professional Engineer:
Maryland, 2015 (46963),
California, 2011 (78697)

Areas of practice

Drainage, Storm Water Management, Stream Restoration, Floodplain, Water, Wastewater & Site Development

Languages

English

CAREER SUMMARY

Yudu Wu is a Lead Water Resource Engineer in with various experiences in water and wastewater engineering, stormwater management, drainage, stream restoration, floodplain, site development and asset management. She has comprehensive knowledge of the principles and practices of design and project management in water resource engineering. She leads the team and manages design projects such as drainage design, BMP retrofit, stormwater management, water reuse, stream restoration, floodplain studies, water & wastewater utilities replacement and construction, and upgrading of treatment plants & pumping stations; or management projects intending to deliver organizational or program benefits and improvements. She works on both design bid build and design build projects.

EDUCATION

M.S., Geography and Environmental Engineering, Johns Hopkins University, Baltimore, MD 2007

B.S., Environmental Science, Sun Yat-Sen University 2006

ADDITIONAL TRAINING

Project Management Professional (1826714) 2015

PROFESSIONAL EXPERIENCE

Water & Wastewater

BOA Contract No. PM0010A13(OY) , WSSC, Laurel, Maryland. Project Manager managing multiple design projects of 3 mile water main and 13 meter vault replacement/relocation with tight project schedule, bringing various projects from different design stages to bid ready submittal. Coordinated and held meeting with client's task managers regarding schedule, project progress, permitting and comments, providing monthly status report; Identified and streamlined permit and easement process on critical path of design scheduling, actively coordinating with permit agencies and client land survey section to assure application approvals; Oversaw sub-consultants on surveying, geo-tech and cost estimate tasks; Provided technical support to the design team to ensure deliverable meeting project milestones; Performed QA/QC and communicating with design team and sub-consultants to enforce deliverable quality.

- Task 1 - Kerby Hills Water Main Replacement Project, including 4,500 LF of 8" water main same trench replacement design in Prince George's County.
- Task 2 - Darlene Drive Water Main Replacement Project, including 9,750 LF of 8" - 12" water main same trench replacement and relocation design in Prince George's County.
- Task 3 - Three Large Meter Vault Replacement Project, including 1 meter vault retrofit and 2 meter vault replacements in Montgomery County.
- Task 4 - Five Large Meter Vault Replacement Project, including 2 meter vault retrofit and 3 meter vault relocations in Montgomery County.
- Task 5 - Five Large Meter Vault Replacement Project, including 1 meter vault retrofit and 4 meter vault relocations in Prince George's County.



Water Main Replacement Water Main Design Work, Atlanta, GA. Lead water resource engineer providing technical support for watershed management program with City of Atlanta (COA) for projects involving various water main replacements and relocation design work at sites located across the entire City of Atlanta and beyond the city limits. Multiple projects including roadway design, improvement/widening, bridge replacement, interstate roadway design built from various clients (Georgia Department of Transportation GDOT, City of Sandy Springs, City of South Fulton). Perform investigations, conduct studies, engineering reviews and prepare construction contract documents including all calculations and other supporting documentation. Attending coordination meetings with GDOT, COA and other utility agencies to research existing and planned utilities, identify potential conflicts, and coordinate with design teams to eliminate or resolve potential conflicts.

- **Uniformed Services University of the Health Sciences(USUHS), NAVFAC, Bethesda, Maryland:** Water resource engineer supporting the Civil team in designing existing water main & wastewater pipe (WSSC owned) relocation due to the proposed USUHS facility. Utilizing AutoCAD Civil 3D Pressure Pipe Network & Pipe Network to set up existing and proposed utility system. Providing calculations in support of design.
- **Naval Health Clinic at Naval Air Station, NAVFAC, Patuxent River, Maryland:** Water resource engineer supporting the Civil team in designing existing water main & wastewater pipe (WSSC owned) relocation due to the proposed facility. Providing calculations in support of design.
- **Water Transmission Main Relocations at Hawkins Point Road and Forest Park Avenue Bridges, Baltimore DOT/DPW, Maryland:** Design the replacement of existing 24" & 30" transmission main with 30" DIP within Hawkins Point Road, including 160 ft of 30" water main within 48" steel casing pipe mounted on a separate structure supported by the bridge. Responsible for engineering study, utility and record drawings research, engineering design,
- **Water & Sewer Relocation BOA for Various Locations in Montgomery County, WSSC, Maryland:** Relocation of 130 ft of 10" water main to accommodate the reconstruction of Park Valley Road Bridge over Sligo Creek; Design of 3 mile Water Main Replacement/Relocation at Glen Mill Road Vicinity; Design for the sample pump, sample pipe routing and installation of a new, on-line turbidimeter at Potomac Water Filtration Plant. Responsible for engineering study, utility and record drawings research, engineering design, permit application.
- **Clinton Street Sewage System Improvements (SC930), Baltimore DPW, Maryland:** Design of replacing the existing 3"- 4" PVC force mains and grinder pumps with 360 GPM Pump Station, 900 ft of 6" DI force mains and 1,500 ft of 8" PVC gravity sewer (400ft of 8" PVC using bore-jack method). The construction value is 6M. Responsible for construction plan, specification and cost estimate. Coordinated/corresponded with other agencies to resolve design conflicts and constructability issues.
- **Study for Manhole and Sewer Segments Rehabilitation site at Northwest Branch Environmentally Sensitive Area, WSSC, Maryland:** Coordinated manhole inspections and identified access routes for rehabilitation design. Used system approach to identify manhole defect problems and created decision tree for manhole rehabilitation method.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
David Loduca, Ph.D., PE, LEED AP Professional Associate, Certified Project Manager Supervising Electrical Engineer
Project Assignment:
Electrical Engineer
Name of Firm with which associated:
WSP USA Inc.
Years' experience with this Firm:
12
Education: Degree(s)/Year/Specialization:
Ph.D., Engineering Management, Missouri University for Science and Technology / 2011 M.S., Engineering Management, University of Missouri – Rolla / 2005 B.S., Electrical Engineering, Virginia Military Institute / 1981 A.A.S., summa cum laude, Management, Virginia Western Community College / 1985
Active registration: Year first registered/discipline:
Professional Engineer: Professional Engineer: Virginia, 1990 (20603); California, 1998 (E15878); Florida, 1993 (46453); Georgia, 1994 (21119); Illinois, 1998 (062-52552); Indiana, 2007 (10707946); Iowa, 2007 (18296); Kansas, 2007 (19295); Louisiana, 1998 (28117); Maryland, 2002 (28484); Michigan, 2007 (54375); Missouri, 1998 (29899); Nebraska, 2006 (11700); New Jersey, 2000 (GE 42700); North Carolina, 1993 (18870); Ohio, 1993 (E56698); South Carolina, 1994 (15826); Texas, 2007 (99060), Ontario, 2009 (100152101); U.S. Green Building Council LEED BD+C Accredited Professional Record: National Council of Examiners for Engineering and Surveying, 1990; (9600) Project Management Professional (1826714)
Other experience and qualifications relevant to the proposed Project:
David (Dave) is a supervising electrical engineer with WSP. He is experienced on projects including industrial facilities, light rail and subway lighting and electrical systems, highway lighting, renewable energy, airport land side facilities, telecommunications facilities, government facilities, campus lighting, educational facilities, transportation maintenance facilities, commercial offices, restaurants, retail stores, and gas stations. Dave's duties include power distribution and lighting design, grounding, fire detection and alarm, public address, intrusion detection, CCTV, code compliance, and utility coordination. He prepares specifications, construction cost estimates, and calculations such as lighting level, voltage drop, and short-circuit/coordination. He supports construction management and administration by answering RFIs and conducting site surveys, inspections, submittal reviews. Dave's supervisory duties include plan-checking, design reviews, scheduling and staging personnel, and ordinary supervisory tasks for an electrical design group.



DAVID LODUCA, PH.D., PE, LEED AP

*Professional Associate, Certified Project Manager
Supervising Electrical Engineer*



Years with the firm

12

Years total

40

Professional qualifications

Professional Engineer:
Virginia, 1990 (20603);
California, 1998 (E15878);
Florida, 1993 (46453);
Georgia, 1994 (21119);
Illinois, 1998 (062-52552);
Indiana, 2007 (10707946);
Iowa, 2007 (18296);
Kansas, 2007 (19295);
Louisiana, 1998 (28117);
Maryland, 2002 (28484);
Michigan, 2007 (54375);
Missouri, 1998 (29899);
Nebraska, 2006 (11700);
New Jersey, 2000 (GE
42700); North Carolina,
1993 (18870); Ohio, 1993
(E56698); South Carolina,
1994 (15826); Texas, 2007
(99060), Ontario, 2009
(100152101)

U.S. Green Building Council
LEED BD+C Accredited
Professional

Record: National Council of
Examiners for Engineering
and Surveying, 1990
(9600)

CAREER SUMMARY

David (Dave) is a supervising electrical engineer with WSP. He is experienced on projects including industrial facilities, light rail and subway lighting and electrical systems, highway lighting, renewable energy, airport land side facilities, telecommunications facilities, government facilities, campus lighting, educational facilities, transportation maintenance facilities, commercial offices, restaurants, retail stores, and gas stations.

Dave's duties include power distribution and lighting design, grounding, fire detection and alarm, public address, intrusion detection, CCTV, code compliance, and utility coordination. He prepares specifications, construction cost estimates, and calculations such as lighting level, voltage drop, and short-circuit/coordination. He supports construction management and administration by answering RFIs and conducting site surveys, inspections, submittal reviews. Dave's supervisory duties include plan-checking, design reviews, scheduling and staging personnel, and ordinary supervisory tasks for an electrical design group.

EDUCATION

Ph.D., Engineering Management, Missouri University for Science and Technology, 2011;	1965
M.S., Engineering Management, University of Missouri – Rolla	2005
B.S., Electrical Engineering, Virginia Military Institute	1981
A.A.S., summa cum laude, Management, Virginia Western Community College	1995

PROFESSIONAL MEMBERSHIPS

Institute of Electrical and Electronic Engineers (IEEE)
Excellence in Missouri Foundation
Missouri Quality Award (MQA)
Senior Member Board of Examiners
American Society of Quality (ASQ), Member
American Society of Engineering Management (ASEM), Member

PROFESSIONAL EXPERIENCE

Louisiana Retainer Contract for Electrical & Mechanical Services, Statewide (Contract No. 4400004763) Task Order 1 and 2 (H.010439) Boyd St & 21st St Pump Station Improvement: Work involved upgrade of three LADOTD freeway pumping stations. Dave designed controls, lighting, and new electrical distribution at each pump station for the replacement of 8 main pumps and 2 stripper pumps. Dave was the project manager and the electrical designer of record.



DAVID LODUCA, PH.D., PE, LEED AP

*Professional Associate
Certified Project Manager
Supervising Electrical Engineer*

South Florida Water Management District (SFWMD), Miscellaneous

Engineering Services, Boca Raton, Florida: supporting impoundment design for the Central Florida Everglades Acceler8 Restoration Program, Site 1 Impoundment, Boca Raton, Florida. The site whose water level is being controlled by the pump station is an approximately 1,800-acre triangle of undeveloped land located adjacent to the Hillsboro Canal in southern Palm Beach County. The purpose of the impoundment project is to provide groundwater recharge, reduce seepage from adjacent natural areas, provide water supply for environmental and urban demands and prevention of saltwater intrusion. The Impoundment functions by capturing excess storm runoff from the Hillsboro Canal urban drainage basined for later release, thus reducing loss of direct runoff to tide. Dave prepared basis of design report for the electrical distribution of the wetland pumping station.

Port of New Orleans Due Diligence Study, New Orleans, Louisiana: lead electrical engineer for a study of the Halter Marine Complex, which sustained damage from Hurricane Katrina. The objective of the study was to determine the feasibility and cost of (1) restoring the facility to pre-Katrina conditions and (2) upgrading the facility to current IBC standards. The study included field observations of electrical distribution equipment, major feeders, and key elements of utilization equipment with an eye for flood damage and disrepair that may have pre-dated Katrina.

Housing Authority of New Orleans – Fischer Housing Revitalization Project, New Orleans, Louisiana: project involves planning and design of a 73-acre (29.5-hectare) neighborhood on the West Bank of New Orleans Parish for the Housing Authority of New Orleans. This \$100 million project involves the demolition of an elderly high rise and three 60-unit apartment buildings at the Fischer Housing Development and the design of a new community that will include 640 dwelling units of family housing ranging in size from two to four bedrooms, a 25,000-square-foot (2,320-square-meter) Community Center, a 2,500-square-foot (230-square-meter) Management Office and miscellaneous support buildings. Dave provided QC review of plans and technical specification documents for the single-family dwelling units.

East Valley Water District, New Administration Campus, Highland, California: designer for new lighting for site street improvements for the widening of Greenspot Road. Project involved ground-up development for a 28,500 SF administration building and 5,900 SF operations building on 24.7 acres of land located on Greenspot Road in the City of Highland, including environmental planning, design engineering, and construction support.

North Main Street Reconstruction; City of Columbia, South Carolina: electrical engineer for lighting on one-half mile reconstructed segment of North Main Street. Work included electrical service and distribution, and lighting and electrical calculations for new roadway/pedestrian light poles, and irrigation system.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
William (Sid) Riddick, Jr., PE Senior and Wastewater Engineer
Project Assignment:
Wastewater Engineer
Name of Firm with which associated:
WSP USA Inc.
Years' experience with this Firm:
24
Education: Degree(s)/Year/Specialization:
MS, Civil Engineering, North Carolina State University / 1969 B.S., Civil Engineering, North Carolina State University / 1965
Active registration: Year first registered/discipline:
Professional Engineer: Massachusetts (#37937) / 1994; Vermont (#6369) / 1992
Other experience and qualifications relevant to the proposed Project:
<p>Mr. Riddick has 47 years of experience working on numerous large diameter water and wastewater pipeline projects (up to 78-inch diameter). He has managed the planning, design, and construction of numerous complex multi-disciplined projects including water and wastewater (WW) pumping and treatment facilities where coordination of various design disciplines is critical. Mr. Riddick has performed and supervised planning studies for regional utility systems, and detailed alignment studies for large diameter pipelines in urban environments.</p> <p>He has managed and designed large diameter water line projects, many involving congested urban environments. Many of these large pipeline projects included critical tie-ins and interconnections where careful planning of the construction sequence, definition of measures to control existing flow, and preparation of detailed contract requirements are essential.</p>



WILLIAM (SID) RIDDICK, JR., P.E.
Senior Water and Wastewater Engineer



Years with the firm

24

Years total

31

**Professional
qualifications**

**Professional
Engineer:
Massachusetts,
1994 (#37937);
Vermont, 1992
(#6369)**

CAREER SUMMARY

Sid Riddick has designed several raw water intake, pumping, and transmission line projects. The most relevant is the 45 MGD Kings Bluff project completed for the Lower Cape Fear Water and Sewer Authority, which includes a subaqueous intake system, the pump station and 110,000 feet of 48-inch diameter raw water transmission main.

He has also managed and designed other large diameter water line projects, many involving congested urban environments. Many of these large pipeline projects included critical tie-ins and interconnections where careful planning of the construction sequence, definition of measures to control existing flow, and preparation of detailed contract requirements are essential.

Mr. Riddick has 47 years of experience working on numerous large diameter water and wastewater pipeline projects (up to 78-inch diameter). He has managed the planning, design, and construction of numerous complex multi-disciplined projects including water and wastewater (WW) pumping and treatment facilities where coordination of various design disciplines is critical. Mr. Riddick has performed and supervised planning studies for regional utility systems, and detailed alignment studies for large diameter pipelines in urban environments.

EDUCATION

MS, Civil Engineering, North Carolina State University	1969
B.S., Civil Engineering, North Carolina State University,	1965

PROFESSIONAL EXPERIENCE

Lower Cape Fear Water and Sewer Authority: Project Manager on capacity and reliability upgrades to the Raw Water Pump Station. This involved a new wetwell sump and two new 25 MGD raw water vertical turbine pumps with 1,600 Hp variable speed drives. Expansion included connections to the 48" raw water suction line, provisions for a new intake, a new 48-inch discharge header, an expanded surge control system, and new medium voltage motor controls and switchgear. The upgrades will increase capacity to 50 MGD initially, and 90 MGD when a planned parallel raw water main is completed.

City of Morganton, NC: Expanded an existing "run of river" intake on the Catawba River and designed a new 12.0 MGD raw water pump station for the City's water treatment facility. The new raw water pumping station was equipped with two 8,400 GPM vertical turbine pumps. A new parallel 24-inch main extended to the water treatment plant.



WILLIAM (SID) RIDDICK, JR., P.E.
Senior Water and Wastewater Engineer

Lower Cape Fear Water and Sewer Authority: Lead Design Engineer / Project Manager on 110,000 LF of 48-inch diameter raw water piping from the intake / pump station site at King's Bluff on the Cape Fear River, to delivery points for Brunswick County and City of Wilmington. Phase I included 73,500 feet of 48-inch pre-stressed concrete cylinder pipe terminating in 3.0 MG ground storage tank. The cross country alignment paralleled an existing 30-inch pipe and a CSX railroad, and passed beneath a railroad storage yard at a paper mill. Phase III included a subaqueous crossing of the Cape Fear River.

Newton, 64-Inch West Water Main, Charlotte Mecklenburg Utilities: Project Manager: Planning, design, and construction of the 64-inch west water main. The \$20m high service water main extended 22000 feet through neighborhood streets, commercial / business areas, and along major thoroughfares from near the city's airport to uptown Charlotte. Planning studies evaluated a number of alternative alignments to minimize impacts to residents, businesses, and traffic. The selected alignment involved construction in the travel lanes of several major thoroughfares; a 1,000-foot long tunnel under an interstate highway; and "open cut" crossings of nc designated routes. Design challenges included a relatively deep installation (10' – 15' cover) to avoid existing utility infrastructure (water, sewer, natural gas, telephone, and fiber optic cables). The project required the preparation of detailed traffic control and work staging plans, and reconstruction plans for impacted multi-lane roadways. The construction documents allowed three materials, ductile iron, pre-stressed concrete, and welded steel incorporating a passive corrosion monitoring / control system.

54-Inch Transmission Main, Phase II, Charlotte Mecklenburg Utilities: Program Manager: The second phase of this project extended along major thoroughfares, beneath a major interstate expressway, and paralleled a Norfolk Southern Railroad line inside the RR right-of-way. Mr. Riddick served as the project manager for the design and construction of this 17,000-foot long PCCP high service transmission main. Design issues involved an 8-lane interstate crossing, railroad coordination, traffic control, and design of the connections to the existing high service pump station at the potable water treatment facility. Over a mile of the alignment was inside a joint City/Norfolk Southern RR easement.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Glenn Bottomley, PE Senior Supervising Engineer
Project Assignment:
Engineer
Name of Firm with which associated:
WSP USA Inc.
Years' experience with this Firm:
33
Education: Degree(s)/Year/Specialization:
BS, Civil Engineering, Old Dominion University / 1986
Active registration: Year first registered/discipline:
Professional Engineer: Virginia (#23299) / 1992
Other experience and qualifications relevant to the proposed Project:
Glenn has managed hydrology, hydraulics, stormwater management, and infrastructure projects with drainage construction values totaling over \$30 million. His diverse experience and qualifications include project management, task leader and design responsibilities for; hydrologic and hydraulic analysis and design with an emphasis in: computer modeling (SWMM, HEC-2), watershed evaluations and alternative studies, urban roadway and highway drainage systems, stormwater management and BMPs, analysis and design of urban storm sewers; subdivision and site development with specific experience in port facilities and light rail; highway and urban roadway design with an emphasis in leading large multi-disciplinary efforts for projects with time-constrained schedules or requiring extensive coordination between multiple stakeholders. In addition, Glenn has experience utilizing the following hydrologic and hydraulic analysis programs on design projects: EPA Storm Water Management Model (SWMM); HEC-2; HYDRAIN; KYPIPES; ROUT; and TR-55.



GLENN A. BOTTOMLEY, P.E.
Senior Supervising Engineer



Years with the firm

33

Years total

34

**Professional
qualifications**

***Professional Engineer:
Virginia, 1992 (23299)***

CAREER SUMMARY

Glenn Bottomley has managed hydrology, hydraulics, stormwater management, and infrastructure projects with drainage construction values totaling over \$30 million. His diverse experience and qualifications include project management, task leader and design responsibilities for; hydrologic and hydraulic analysis and design with an emphasis in: computer modeling (SWMM, HEC-2), watershed evaluations and alternative studies, urban roadway and highway drainage systems, stormwater management and BMPs, analysis and design of urban storm sewers; subdivision and site development with specific experience in port facilities and light rail; highway and urban roadway design with an emphasis in leading large multi-disciplinary efforts for projects with time-constrained schedules or requiring extensive coordination between multiple stakeholders. In addition, Glenn has experience utilizing the following hydrologic and hydraulic analysis programs on design projects: EPA Storm Water Management Model (SWMM); HEC-2; HYDRAIN; KYPIPES; ROUT; and TR-55.

EDUCATION

B.S., Civil Engineering Technology, Old Dominion University, 1986

PROFESSIONAL MEMBERSHIPS

American Society of Civil Engineers, Virginia Lakes and Watersheds Associations

PROFESSIONAL EXPERIENCE

North Beach Stormwater, Pump Station and Ocean Outfall, Virginia Beach, Virginia: Project Manager for the planning, design, construction documents, and contract administration for this \$20 million construction project consisting of: large diameter collection system, 90,000 gallon-per-minute submersible pump station, 2,000 linear feet of large diameter force main ocean outfall, microtunnel evaluation, EPA SWMM computer simulation model, Watershed Evaluation Study, environmental permitting, public utility relocations, architectural design for pump station generator building and landscaping consistent with the oceanfront resort community environment, phased construction and detailed estimates to meet budgetary constraints, and public participation with civic leagues and residents.

Eastern Shore Drive Stormwater Pump Stations and Watershed Evaluation, Virginia Beach, Virginia: Project manager for the study, planning, final design, contract documents, contract administration and construction inspection. The project watershed is at the mouth of the



GLENN A. BOTTOMLEY, P.E.
Senior Supervising Engineer

Chesapeake Bay and the Atlantic Ocean and experiences frequent flooding due to moderate rainfall and storm surges from hurricanes and northeasters. Sea level rise and increased precipitation impacts are being evaluated and strategies developed. The project involves the planning, phasing and prioritization for three stormwater pump stations ranging from 45,000 to 80,000 gpm. The largest pump station is a “smart pump station” that uses water level sensors and automated tide gates to protect against storm surges and establishes a long-term strategy for sea level rise and increased precipitation. The smart pump station will pump down water surface elevations in the main watershed tidal canal, connected by two pump stations, to provide storage for the design storm. Remote telemetry control and SCADA will allow pre-emptive gate closures and pump drawdown for predictive forecasting of storms.

HRSD System Metering, Phase IV, Hampton Roads, Virginia: as project manager provided planning, design, and bidding documents and construction services to install 53 flow meters and pressure sensors on large diameter interceptor force mains across seven jurisdictions for the Hampton Roads Sanitation District (HRSD) for their Master Meter Program. The project is critical to meeting the EPA-driven consent order requirements. The meter installations quantify and separate flow contribution for the individual jurisdictions and provide data for the Regional Wet Weather Management Plan and provide information to evaluate the integrity of the system and calibration of the hydraulic model. Maintaining service during meter installation often required pipe replacement and involved evaluation of: shutdowns, pump and haul, line stop and bypass and impacts of construction in urban principal arterials.

South Battlefield Boulevard Sewer Project, Chesapeake, Virginia: Project Manager for providing construction documents and construction inspection and administration services for sanitary sewer service for 280 acres with a \$1.8 million construction cost. The project involved 14,500 linear feet of gravity sewer, 29 jack-and-bore crossings, submersible pump station, 1,000 linear feet of 16-inch interceptor force main with a pile supported aerial creek crossing, Health Department approval, property owner coordination, construction administration and Auto CAD plans.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Christopher J. Barnett, PE Senior Supervising Engineer
Project Assignment:
Engineer
Name of Firm with which associated:
WSP USA Inc.
Years' experience with this Firm:
13
Education: Degree(s)/Year/Specialization:
M.S., Technology and Policy, Massachusetts Institute of Technology / 1980 B.S., Mechanical Engineering, Massachusetts Institute of Technology / 1977
Active registration: Year first registered/discipline:
Professional Engineer: Professional Engineer: Massachusetts (34328) / 1989, California (M35691) / 2011, Indiana (11200684) / 2012, Ontario PEng (100207031-01 temp) / 2004; Board-Certified Environmental Engineer (Hazardous Waste)
Other experience and qualifications relevant to the proposed Project:
Christopher Barnett is a senior project manager skilled in design management and construction contract review for major capital programs. He has provided management and advisory services as a key team member for some of WSP's most noteworthy projects.



CHRISTOPHER J. BARNETT, P.E.
Senior Supervising Engineer



Years with the firm

13

Years total

41

**Professional
qualifications**

**Professional
Engineer:
Massachusetts,
1989 (34328)**

**Professional
Engineer: California,
2011 (M35691)**

**Professional
Engineer: Indiana,
2012 (11200684)**

**Ontario PEng, 2014
(100207031-01
temp)**

**Board-Certified
Environmental
Engineer
(Hazardous Waste)**

CAREER SUMMARY

Christopher Barnett is a senior project manager skilled in design management and construction contract review for major capital programs. He has provided management and advisory services as a key team member for some of WSP's most noteworthy projects.

EDUCATION

M.S., Technology and Policy, Massachusetts Institute of Technology 1980

B.S., Mechanical Engineering, Massachusetts Institute of Technology 1977

ADDITIONAL TRAINING

Hazardous Waste Operations (OSHA 40-hour course and annual 8-hour refreshers)

Nuclear Power Reactor Safety

Power Systems Operation

Utility Rate Making

Six Sigma Quality/Process Improvement (Six Sigma Champion)

PROFESSIONAL MEMBERSHIPS

American Society of Civil Engineers

American Academy of Environmental Engineers

PROFESSIONAL EXPERIENCE

Lower Pogues Run Tunnel, Indianapolis, Indiana: Deputy project manager for advanced facilities plan development for a system of near-surface and deep tunnel structures to address combined-sewer overflows in downtown Indianapolis, as part of a system-wide Long-Term Control Plan and consent decree. Led hydraulic design and preliminary and final design of near-surface conduits, diversion structures and drop shafts across a two-mile section of urban watershed.

Marblehead Force Mains Condition Assessment and Repair, South Essex Sewerage District, Salem, Massachusetts: Principal-in-charge for fast-track evaluation of condition and repair options, design and construction services for two 6,000-foot, 20- to 24-inch diameter submarine pressure mains across an environmentally sensitive harbor and federal navigation channel. Selected option was to replace mains



CHRISTOPHER J. BARNETT, P.E.
Senior Supervising Engineer

with twin fused high-density polyethylene (HDPE) pipelines in a dredged trench.

Ridge Road Pump Station, Wichita, Kansas: Project Engineer that managed design review and final MEP design of 75,000 gpm, 33-foot TDH storm-water/flood-control pump station, and provided review services during construction.

Dry Dock Modifications, Norfolk, Virginia: Consultant on ventilation modifications to a large dry dock, being performed in preparation for a complex multi-year vessel overhaul project.

South Coast Rail, Massachusetts Bay Transportation Authority (**MBTA**): Deputy Project Manager, construction, for owner's representative services, providing statutory independent oversight, peer review and advisory services to MBTA for this \$2.3 billion extension of the commuter-rail system to New Bedford and Fall River, to include 75 miles of electrified track, with 45 new or upgraded grade crossings, 36 bridges, and upgraded signal and communication systems. Work has included a review of environmental permitting schedule risks and production of monthly and annual reports on the state of the project.

Massachusetts Water Resources Authority, Boston, Massachusetts: Technical Manager, responsible for technical oversight, regulatory support and day-to-day coordination between engineering, construction and procurement organizations for metropolitan water and sewer utility engaged in design and construction of a \$6 billion wastewater treatment facilities program. Planned and negotiated contracts for interim and long-term supply of electricity. Coordinated operating divisions and consultant teams for MWRA's Combined-Sewer Overflow (CSO) facilities planning effort, mandated by the U.S. District Court as part of agency's Clean Water Act compliance order. Led successful troubleshooting and start-up of scum fixation system for 300 million-gallon-per-day primary treatment plant, after specialty contractor was unable to meet milestones. Met court-ordered date for stopping discharges of scum to harbor, developed concepts of placing pipelines in lining of raw wastewater conveyance tunnel.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Werner J. Reinfeld, PE, ENV SP Senior Project Manager
Project Assignment:
Lead Water / Wastewater Engineer
Name of Firm with which associated:
WSP USA Inc.
Years' experience with this Firm:
6
Education: Degree(s)/Year/Specialization:
BS, Civil Engineering, Central University of Venezuela, Caracas / 1983
Active registration: Year first registered/discipline:
Professional Engineer: Florida / 2005; Envision Sustainable Professional / 2016; National Association of Sewer Service Companies
Other experience and qualifications relevant to the proposed Project:
Werner Reinefeld has more than 34 years of experience in the fields of civil and infrastructure engineering, project management, design construction, CAD and land development. His experience includes work in the areas of earthworks, road systems, hydrological, hydraulic systems and modeling, water and wastewater facilities, sewer systems, storm water and drainage, utility coordination, oil-contaminated water, energy efficiency audits, permitting feasibility studies, proposal preparation and land development projects.



WERNER J. REINEFELD, PE, ENV SP

Senior Project Manager



Years with the firm

6

Years total

37

Professional qualifications

Professional Engineer,
Florida 2005 (63042)

Envision Sustainable
Professional 2016

NATIONAL ASSOCIATION
OF SEWER SERVICE
COMPANIES (NASSCO)

Areas of practice

Water and Sewer;
Transportation and
Drainage; Staff
Augmentation; Aviation;
Land Development; Mining
and Petroleum

Languages

English

Spanish

CAREER SUMMARY

Werner Reinefeld has more than 35 years of experience in the fields of civil and infrastructure engineering, project management, design construction, CAD and land development. His experience includes work in the areas of earthworks, road systems, hydrological, hydraulic systems and modeling, water and wastewater facilities, sewer systems, storm water and drainage, utility coordination, oil-contaminated water, energy efficiency audits, permitting feasibility studies, proposal preparation and land development projects.

EDUCATION

B.S., Civil Engineering, Central University of Venezuela, Caracas 1983

ADDITIONAL TRAINING

Certified Pipe Assessment User, NAASCO 2013

Envision Sustainability Credential, ISI 2016

PROFESSIONAL MEMBERSHIPS

Florida Engineering Society 2010

PROFESSIONAL EXPERIENCE

Water and Sewer

- Miami-Dade Water and Sewer Department (MDWASD) Replacement of twenty-inch and fifty-four-inch Water Main Force from CDWWTP to Miami Beach Government Cut, Miami, Florida (2010): Senior Project Engineer responsible in developing and coordinating with MDWASD the master specifications volume for the design-build package. Duties included developing of separated design build packages for the twenty-inch water main relocation between Port of Miami and Fisher Island and fifty-four-inch force main relocation between Miami Beach and Virginia Key. Client: Miami Dade Water and Sewer Department.
- MDWASD 42-inch WM to Port of Miami, Miami, Florida (2017): deputy project manager for the design of a proposed thirty-six – inch Transmission Main that will interconnect with a future thirty-six – inch stub-out (WASD's Downtown Loop Project) located at the intersection between Biscayne Boulevard (SR 5 / US-1) and NW 5th Street and the Port of Miami. Approximately seven thousand seven hundred feet of transmission pipe. The proposed transmission main takes into consideration future system expansion and improvements identified in the Port of Miami's Master Plan. Client: Miami Dade Water and Sewer Department.
- MDWASD's Rehabilitation/Replacement of a forty-eight-inch FM along the Biscayne Canal between NW 57th Avenue and 32nd Avenue Basis of Design Report (BODR), City of Opa Locka, Florida (2015): project manager for the BODR. According to USEPA Consent Decree (CD), Miami-Dade Water and Sewer Department (MDWASD) is required to rehabilitate/replace two and a half miles (thirteen thousand three hundred liner foot) of forty-eight-inch Prestressed



WERNER J. REINEFELD, PE, ENV SP

Senior Project Manager

Concrete Cylinder Pipe (PCCP) Force Main (FM) running along the Biscayne Canal between NW 57th Avenue and NW 32nd Avenue. The BODR analyzed four different alternatives by comparing construction cost, public impact, schedule, pipe material, constructability, hydraulic impact, traffic impact, maintenance and accessibility, permitting, and easement acquisition. Hydraulic modeling was prepared to confirm BODR results. Recommendations were provided and approved by MDWASD. Client: Miami Dade Water and Sewer Department.

- MDWASD's \$91M Program and Construction Management Services related to the Wastewater System Priority Projects (PMCM), Miami, Florida (2014): water collection and transmission system design manager on the PMCM Team that was selected by the Miami Dade Water and Sewer Department (MDWASD) to provide program and construction management services related to the Wastewater System Priority Projects. Services provided include, but are not limited to, program management, construction management, development coordination, public outreach, engineering analysis, hydraulic modeling, scheduling, cost estimates, inspections and document control. Werner is working as a Deputy Task Leader for the PMCM Team within the Wastewater Collection and Transmission System (WCTS) Task. The WCTS Task is assisting the Department with the coordination and management of ninety-three Force Main and Pump Station Projects, from conception to closure, including the following phases: Engineering Design, Permitting, Procurement, Construction, and Certification. Client: Miami Dade Water and Sewer Department.
- Miami-Dade Water and Sewer Department (MDWASD) \$17M Pump Station Improvement Program (PSIP), Miami, Florida (2015): design manager lead for the upgrading of the Wastewater Collection and Transmission System (WCTS) that includes pump stations and force mains pursuant to which each pump station has to be certified as capable of meeting a nominal average pump operating time (NAPOT) of less than or equal to ten hours per day. Pump stations exceeding the NAPOT criteria must have a Remedial Action Plan (RAP) and no certificate of occupancies can be issued for connections to the WCTS upstream of that pump station until the RAP recommendations are implemented. The program aims to bring into compliance one hundred nine sewage pump stations that do not comply with the NAPOT criteria and/or are in need to be upgraded. Werner provided QA/QC to the cost estimate structure of the Program. Client: Miami Dade Water and Sewer Department.
- MDWASD's Installation of 60-Inch Force Main from PS 0536 to SW 88th Street Basis of Design Report (BODR), Miami, Florida (2015): project manager for the BODR. According to the USEPA CD Miami Dade is required to install a sixty-inch FM from PS 0536 to SW 88th Street to increase the hydraulic flow in the system and reduce pressure differential between PS 0536 and PS 0559. The BODR analyzed three different alternatives by comparing construction cost, public impact, schedule, pipe material, constructability, hydraulic impact, traffic impact, maintenance and accessibility, permitting, and easement acquisition. Hydraulic modeling was prepared to confirm BODR results. Recommendation were provided and approved by MDWASD. Client: Miami Dade Water and Sewer Department.
- Miami-Dade Water and Sewer Department (MDWASD) Design of seventy two-inch Raw Water Main, Miami, Florida (2010): project manager on the design team for a five-mile seventy two-inch raw water main project. The scope of work included preparation of BODR thirty percent, sixty percent and ninety

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Kenneth Warddrip, PE Electrical Engineer
Project Assignment:
Electrical Engineer
Name of Firm with which associated:
WSP USA Inc.
Years' experience with this Firm:
19
Education: Degree(s)/Year/Specialization:
BS, Engineering, California State University-Sacramento / 1974
Active registration: Year first registered/discipline:
Professional Engineer: California (9368) / 1977; Missouri (2011024033); Montana (PEL-PE-LIC-2040); Oklahoma (23558); Texas (103216); Washington (52027); Wyoming (13151)
Other experience and qualifications relevant to the proposed Project:
Christopher Barnett is a senior project manager skilled in design management and construction contract review for major capital programs. He has provided management and advisory services as a key team member for some of WSP's most noteworthy projects.



KENNETH WARDDRIP, PE

Electrical Engineering



Years with the firm

19

Years total

59

Professional registrations

Professional Engineer:
CA (9368); MO
(2011024033); MT (PEL-
PE-LIC-2040); OK
(23558); TX (103216); WA
(52027); WY (13151)

CAREER SUMMARY

Ken Warddrip has 43 years of professional experience in electrical engineering design, construction and studies relating to electric power and control systems on projects that have included commercial and industrial buildings, substations, distribution and transmission lines, pumping plants, generation plants, transportation-related projects (roadways, tunnels, parking), and military housing.

Ken Warddrip has experience with electrical distribution system analysis programs including Paladin DesignBase 4.0 (previously EDSA), ETAP, Arc Flash program (Arc Flash Analytics) engine generator set sizing programs (Cummins & Cat), lighting system programs such as Advanced Graphical Interface for Lighting; Computer Aided Design (ACAD Revit MEP) and other commercially available non-engineering software such as spreadsheet, word processor, visual basic and database. Additional experience includes performing computer aided system studies for short circuit analysis; load analysis; arc flash analysis; voltage drop analysis; grounding system design; motor starting; protective device coordination; power plant energy production analysis; control algorithm modeling; interior and exterior lighting (parking, tunnel, roadway and security lighting), Title 24 lighting compliance design. National Electrical Code, International Electrotechnical Commission, IRC IECC code compliance.

EDUCATION

BS, Engineering, California State University-Sacramento

1974

PROFESSIONAL MEMBERSHIPS

Institute of Electrical & Electronic Engineers: Life Member

OTHER WSP EXPERIENCE

- **AMC West Military Family Housing Privatization:** family housing, including single- and multi-family units. The project involved both new and renovation units as well as community buildings.
- **Antelope Village Subdivision, Sacramento, California:** prepared electrical design for a new sewage pumping station.
- **Aviation Parkway Project, Tucson, Arizona:** prepared final designs for the roadway lighting system for a new freeway through Tucson. Design included lighting of entire length of freeway, five interchanges, three major surface streets, two underpasses and a bike path.
- **Banta Carbona Irrigation District, Tracy, California:** prepared final designs for 5kV distribution line from the main pumping plant to a new fish facility.
- **Banta Carbona Irrigation District, Tracy, California:** prepared final designs for addition of a 5kV underhung distribution line to the existing 60kV line.



KENNETH WARDDRIP, PE

Electrical Engineering

- **Border Protection Housing, Ajo, Arizona:** new development of 46 units plus site power, telephone and street lighting. The project included site power backup by engine generators. All units have photovoltaic power panels.
- **Byron Bethony Irrigation District, Byron, California:** prepared final designs for a 69kV transmission line between existing Western Area Power Authority line and Byron Bethony Irrigation District substation. Includes design of “flying tap” to WAPA line.
- **California Department of Transportation (Caltrans), San Bernardino, California:** prepared final designs for new lighting associated with the widening of a portion of Interstate 215.
- **California Men’s Colony, San Luis Obispo, California:** prepared design for electrical system upgrade including a new 5MVA, 115kV - 12.47kV substation, 12.47kV - 4.16kV substation, replacement of oil switches, new underground cables and new overhead lines for facility.
- **California Mens Colony, San Luis Obispo, California:** prepared final designs for a 12.47kV distribution line between the new 115kV substation and prison and to remote pumping plant.
- **Camp Far West Hydroelectric Project, Wheatland, California:** prepared final designs for switchgear, control systems and station service system for a 7MW facility. Ken provided start-up support.
- **Chaboya Station, San Jose, California:** provided electrical and lighting design for a new bus maintenance facility, six buildings, one bus parking area and two auto parking areas.
- **Child Care and Play Centers, UC Davis Medical Center, Sacramento, California:** prepared electrical and lighting design for a project involving new buildings, parking areas and off-site facilities.
- **Combined Wastewater Treatment Plant Power System Update, Sacramento, California:** prepared design for replacement of 5kV switchgear and underground distribution system for City of Sacramento Department of Utilities main treatment plant.
- **Contra Costa County Bus Maintenance Facility, Concord, California:** provided electrical design, including high mast lighting system, for this project involving a bus maintenance facility, three buildings and bus parking area.
- **Cooling Tower Addition, Davis, California:** provided electrical design for the addition of a cooling tower on the existing University of California, Davis Memorial Union Building.
- **Cooling Tower Replacement, Davis, California:** provided electrical design for the replacement of cooling towers on five existing University of California, Davis buildings.
- **Don Julio Sewage Pumping Station, Sacramento, California:** prepared electrical design for a new sewage pumping station.
- **Downtown Plaza, Sacramento, California:** protective device coordination study.
- **Downtown Seattle Transit Project, Seattle, Washington:** prepared conceptual design, design criteria and preliminary design, and supervised final design. The project consists of two at-grade stations with staging areas, three subgrade stations and 2 miles of tunnel for Seattle Metro Trolley buses.

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:
Midtown Tunnel 36-inch Water Main Relocation (HDD), Norfolk/Portsmouth, VA Virginia Department of Transportation David Martin 757-932-4479	WSP provided final design and construction administration services for the recently completed horizontal directional drill (HDD) for relocating the City of Norfolk's 30-inch raw water main located directly in the path of the proposed new Midtown Tunnel. WSP coordinated and worked closely with the City of Norfolk to meet their needs, including upsizing to a 36-inch betterment. The HDD section was completed first to facilitate the ordering of pipe materials which had long lead times and included coordination with specialty design services. Final design for the remaining section followed a few months later. Project specifics included: design of 4,400 feet of 36-inch welded steel pipe installed by HDD under the Elizabeth River with Fusion Bonded; epoxy coating inside and out, and an additional abrasion resistant overlay on the outside; design of 1,500 feet of 36-inch ductile iron pipe connecting the HDD on the Portsmouth side to the existing WM; design of 1,150 feet of 36-inch ductile iron pipe connecting the HDD on the Norfolk side to the existing WM; two 300 foot sections of 54-inch steel casing installed by jack & bore; 80 feet of 54-inch steel casing installed by jack & bore; corrosion systems consisting of Impressed Current Cathodic Protection System for the welded steel pipe and an anode based cathodic protection system for the DIP; traffic control.
Completion Date (Actual or estimated):	Estimated Cost:
	Entire Project: Work for which Firm was Responsible:
03/2013	\$ 10,000,000 \$990,000

PROJECT NO. 2

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:
Utility Engineering Services for FDC Grove Road-Ernie Caldwell Boulevard Polk County Utilities Mark Addison, PE 863-298-4214	The project consisted of design and construction services for the installation of approximately 6,700 LF of eight-inch water main; 5,200 LF of eight-inch wastewater force main; 1,000 LF of 6-inch wastewater force main; and 6,700 LF of eight-inch reclaimed water main. This project also included preparing design drawings, technical specifications, and Engineer's opinions of probable construction cost for the proposed utilities (water main, wastewater force mains and reclaimed water main). The design drawings also were used for permitting purposes which consisted of the preparation and submittal of the forms and documents required for obtaining construction permits/approvals from the Florida Department of Transportation, Polk County Health Department, and Florida Department of Environmental Protection. The project also consisted of providing bidding and construction assistance for the designed utilities and post-construction phase services and construction- related change orders were avoided altogether on the project.
Completion Date (Actual or estimated):	Estimated Cost:
	Entire Project: Work for which Firm was Responsible:
2/2012	\$ 1,334,000 \$ 150,000

TEC Professional Services Questionnaire

PROJECT NO. 3		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility	
<p>Bodie Island Water Utility Improvements - Phase 2, Cape Hatteras, NC</p> <p>National Park Services Tim Gabriel (919) 436-2148</p>	<p>WSP served as the lead designer on this design-build project which consisted of the complete design of a water main system to replace of approximately 26,300 linear feet of deteriorating asbestos cement pipe and the installation of approximately 5,300 linear feet of six-inch water main and appurtenances in Nags Head and Bodie Island. The selected method of replacement was to directional drill the water line because of the high water table and environmentally sensitive corridor. The pipe material selected was USSI Fusible C-900 PVC. The project included meters, valves, road crossing, jacked steel casing, roadway widening and turning lanes.</p>	
Completion Date (Actual or estimated)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
3/2012	\$1,400,000	\$ 147,000

PROJECT NO. 4		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Dominion Boulevard Utilities Relocation</p> <p>City of Chesapeake Ed West, Project Manager (757) 382-6362</p>	<p>WSP designed the construction documents for 4,000 linear feet of 16-inch ductile iron water transmission main and 5,300 linear feet of 24-inch ductile iron water transmission main as a part of the Dominion Boulevard project. Most critical to note is the design and sequencing of construction of the relocation of the 24-inch water transmission main in Dominion Boulevard serving the area south of Cedar Road. Extended shutdown of this line was not possible, thus required a relocation concept to allow for final tie-ins to occur in a single, night-time shutdown procedure. Although this is a transmission main, there are numerous individual service connections and distribution line connections. Water service to all connections was required to be maintained at all times which necessitated activation of the new main, then transferring all connection to the new main prior to the removal of the existing main.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
1/2015	\$1,000,000	\$ 127,000

TEC Professional Services Questionnaire

PROJECT NO. 5		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Prosperity Road Water and Sewer Extensions Virginia Beach, VA</p> <p>City of Virginia Beach Josh Holt (757) 385-4140</p>	<p>WSP was tasked with determining the water and sewer demands of the community, developing multiple design alternatives (including costs) and making a recommendation of the preferred alternative to the City in a preliminary engineering report (PER). The preferred alternative was advanced to the 30% design level. Immediately following the City's review, we were directed to expedite the final design so that the City might procure, contract and construct the project in advance of the grand opening of a highly visible recreational complex. WSP completed the final design within 30 days.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
5/2015	\$ 3,200,000	\$ 367,000

PROJECT NO. 6		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Norfolk Department of Utilities Annual Services Contract Norfolk, VA</p> <p>City of Norfolk Selo Qejvani (757) 664-6773</p>	<p>Under an Annual Service Contract for City of Norfolk Department of Utilities, WSP was tasked with the investigation, design, and development of the Miller Store Road 20-Inch Water Main construction documents. This project includes a new 3,000 foot section of 20-inch water main along Miller Store Road. Early collaboration with the Cities of Norfolk and our Virginia Beach staff was able to preemptively address potential municipal permitting issues on this multi-jurisdictional project. To avoid delays to the construction schedule we submitted the Norfolk Southern Pipeline Occupancy Permit application in advance of the final design.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
12/2016	\$ 1,300,000	\$129,000

TEC Professional Services Questionnaire

PROJECT NO. 7		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Holly Hill Water Production, Reclaimed Storage, and Repump Facility</p> <p>Polk County Utilities Mark Addison, PE 863-298-4214</p>	<p>WSP provided design, permitting, and construction support services for a reclaimed water storage and re-pump facility and a potable water production facility (WPF) co-located on one site. The potable WPF includes a 1.5 million gallon ground storage tank (GST) with cascading tray aerators, two 5000 gpm variable speed high service pumps and two 1,200 gpm pumps, chemical feed facilities, motor control center building, security fencing, lighting and access control with power gates, yard piping, electrical/controls, instrumentation/SCADA integration into Polk County's SCADA system, emergency power, and stormwater management. A key element of the design and construction included segregating the potable and non-potable aspects of this joint facility for sanitary purposes.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
12/2013	\$ 10,400,000	\$ 937,262

PROJECT NO. 8		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Plant 134 Booster Station Upgrades and Getaway Capacity Upgrades Highland, CA</p> <p>East Valley Water District (EVWD) Thomas Holliman, PE 909-806-4096</p>	<p>WSP developed the design and prepared bid documents for EVWD's Plant 134 Booster Station Upgrades. The surface water treatment plant was constructed in 1996 and was recently upgraded from 4 mgd to 8 mgd. The recent upgrades have left EVWD incapable of moving the full amount of treated water to higher pressure zones due to the limited capacity of the booster station and undersized pipeline in the distribution system. The project included three parts: 1) determine the optimal pumping requirements to be able to move 8 MGD into the distribution system; 2) design the necessary pump station modifications to implement the recommended solution in part 1; 3) design approximately 2,700 linear feet of 16-inch water main.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
12/2016	\$5,000,000	\$ 451,364

TEC Professional Services Questionnaire

PROJECT NO. 9		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
48-inch Water Main at Downtown Miami "The Loop" Miami, FL	Miami's Downtown Loop Central Business Area is predominantly serviced by undersized water mains which have long exceeded their design life. For the two-phase, 48-inch water main project, WSP as part of a design-build team, is providing design services for the interconnection of the north and south service water systems. Phase One consists of a proposed 4,000-linear foot (lf), 48-inch water transmission main located along NW 1st Place from NW 17th Street to NW 12th Street and a 30-inch water transmission main located west of All Aboard Florida passenger station to NW 1st Court. Phase Two consists of a proposed 1,200 lf, 36-inch water transmission main. The design approach focused on providing the required facilities in the most cost effective means possible, while safely minimizing the impacts to the area and its stakeholders. The design included a microtunnel approximately 180 feet under the FEC railroad. Launch and retrieval shafts have been positioned so that each is accessible for ease of operation and safety of the workers, motorists and pedestrians and to route traffic safely around the work area. The locations of the shafts were defined to allow hauling operations to be conducted with minimum impact. This project for the downtown loop closure entailed designing around a large mix of existing utilities within a small corridor.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
3/2019	\$7,650,000	\$ 650,000

PROJECT NO. 10		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Water Conserv II Transmission Main Realignment at Florida Turnpike and I-4 Interchange Orange County Utilities Mark Ikeler, PE 407-254-9705	Water Conserv II's reclaimed water meets the Florida Department of Environmental Protection's public access reuse standards and is permitted for use on all public access sites. To facilitate the widening of the I-4 interchange, a 42-inch diameter reclaimed water pipeline needed to be realigned. The pipeline is part of the Water Conserv II Reuse Facilities that provide reclaimed water for irrigation in Orange and Lake Counties, for which Parsons Brinckerhoff has been the engineering consultant for over 23 years. For this project, the firm provided engineering services including hydraulic evaluation, geotechnical investigations, conceptual and final design, cost estimates, bidding assistance, construction inspection, as well as engineer-procured-contractor construction to complete the realignment of the 42-inch transmission main. The project is a 1,400 linear-foot long realignment of 42-inch diameter pressurized transmission main located within Turnpike right-of-way including 700 linear feet inside casing extending under three separate roadway ramps of the Florida Turnpike interchange with I-4. A 60-inch diameter steel casing was installed by microtunneling to meet the agency's requirement of casing beneath roadways, and to avoid disturbing critical utilities that would be impacted by a typical open cut-and-cover technique.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
11/2013	\$ 1,800,000	\$ 367,668

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.		
4.		

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

Please see additional information.

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

Signature:  Print Name: Max Nassar

Title: Vice President Senior Managing Director Date: 3/31/22

Introduction

WSP USA offers over a century of experience in the planning, design, and construction management of municipal infrastructure projects, including water, wastewater, drainage, and roadways nationwide. WSP is an industry leader in developing infrastructure solutions for the way we will live in the 21st century.

WSP USA Inc., formerly Parsons Brinckerhoff, Inc., is a leading engineering professional services consulting firm. Nationally, our staff of 7,000+ provide engineering and multidisciplinary services in a vast array of industry sectors, with a focus on technical excellence and client service. The firm has a 132-year history, with roots in companies founded in the United States, the United Kingdom and Canada. WSP is committed to performing our services in a socially, ethically, and environmentally responsible manner. In the United States, the firm's roots date back to 1885.

We offer expertise in every phase of project delivery, from concept to completion. Our services include strategic consulting, program management, planning, engineering design, construction management, and operations & maintenance.

Municipalities rely on us to execute projects under every form of project delivery, including design-build and public-private partnership. We employ the latest technologies and methodologies to develop infrastructure that addresses anticipated demographic, social, and economic changes, and we plan and design infrastructure systems to be resilient to the threats posed by climate change.

Our engineers and planners view municipal infrastructure planning and design to improve the communities in which we live and work, and wherever possible we apply the latest concepts in sustainable development to improve social, economic and environmental conditions.

We help our clients find the right solutions to their challenges through innovative planning and design, deep knowledge of the federal and local regulatory environments, and strong management of project delivery.

In addition to a full range of specialized services, we provide broad oversight and direction for complex

mega projects, working on integrated teams with our clients to deliver some of the world's largest and most well-known transportation projects.

To every project we bring a total commitment to achieving client goals, with strict attention to schedule and budget, drawing on the multidisciplinary skills of 7,800 professionals in more than 100 offices across the U.S. and Latin America.

Minimum Qualifications

- 1. One principal who is a professional engineer who shall be registered as such in Louisiana.*

Senior Vice President, Ian Chaney, PE is WSP's National Director for Geotechnical and Tunneling. He maintains his Louisiana PE (0042288) and will serve as the Principal for any work WSP is awarded by Jefferson Parish. He brings 20 years of experience to this team.

- 2. Professional in charge of the project who is a professional engineer who shall be registered as such in Louisiana with a minimum of five (5) years experience in the disciplines involved.*

Rebecca Howell, PE will serve in the role of Project Manager. She has over 10 years of experience in civil engineering, including consulting experience in engineering, design, project management. Rebecca's project experience includes water distribution system design, sanitary and storm water collection systems, sanitary sewer lift station and force main design, drainage impact analysis, HEC-RAS modeling (1D and 2D), off-system bridge replacements, subdivision, and commercial site design. Her resume is included in this submission.

- 3. One employee who is a professional engineer registered as such in Louisiana in the field or fields of expertise required for the project.*

Rebecca Howell, PE meets the requirements of MPR #3.

Evaluation Criteria

1. *Professional training and experience in relation to the type of work required for the routine engineering services.*

WSP has extensive experience in the design and rehabilitation of water and wastewater distribution and collection systems. This includes expertise in civil, structural, and mechanical/electrical engineering. In this submission, we show projects completed by WSP where both routine and complex engineering solutions are provided to our clients.

WSP USA provides innovative solutions and technologies for planning, engineering, and management to improve the effectiveness of operations, maintenance and replacement of aging and failing drinking water and wastewater treatment and conveyance systems. We deliver a full range of planning, design and construction management services for outfalls, pipelines, pump stations, flow control facilities and other special structures related to water and wastewater— all intended to improve water quality while meeting strict environmental regulations.

We have completed planning, design and permitting of numerous municipally owned wastewater systems for new, rehabilitated or expanded wastewater treatment plants. Wastewater treatment design has involved current technologies in biological nutrient removal and advanced wastewater treatment from relatively small systems to regional wastewater treatment systems.

For water and wastewater conveyance systems, our experience includes planning, condition assessment, new and rehabilitation design, and construction management of water transmission and sanitary sewer pipeline systems, as well as outfalls, pump station and other major flow control related to the transmission and conveyance of water, wastewater, and reclaimed wastewater.

We have extensive experience in solving combined sewer overflow and sanitary sewer overflow problems includes separation of sewer and storm water collection systems, area-wide storage and

transport remedies, and state-of-the-art gray and green infrastructure technologies.

2. *Capacity for timely completion of newly assigned work, considering the factors of type of routine engineering task, current unfinished workload, and person or firm's available professional and support personnel.*

WSP has the capacity to complete all tasks that might be assigned under this contract. The individuals identified, resumes provided, have the availability to start work immediately.

WSP prides itself in providing high quality services on time and within our clients' budgets. Even if there is an aggressive schedule, we can provide resources quickly to meet demands. With more than 500 professionals located in the firm's Southeast region, we can staff projects and contracts large and small, simple, and complex, at a moment's notice.

3. *Location of the principal office where work will be performed.*

WSP's office is located at 1100 Poydras Street in New Orleans. Most of the work will be performed from this office. There could be instances when a subject matter expert is needed, and their work could be performed remotely, but all work will undergo the strict quality control and assurance reviews in our New Orleans office. This ensures that all state and local regulations and requirements are met.

4. *Adversarial legal proceedings between the Parish and the person or firm performing professional services.*

WSP USA Inc. has had NO legal proceedings with Jefferson Parish.

5. *Prior successful completion of projects of the type and nature of routine engineering services, as defined, for which firm has provided verifiable references.*

WSP has a portfolio of experience that spans from planning, design, and construction management of large diameter pipelines, sewers, outfalls, water and force mains, separate and combined collection

systems, pump stations, flow control facilities, as well as special structures related to the storage, transmission and conveyance of water, wastewater, and reclaimed water. Jefferson Parish will benefit from the lessons learned and innovative solutions we bring from similar projects. The projects included in the questionnaire all have verifiable references.

6. *Size of firm, considering the number of professional and support personnel required to perform the type of routine engineering tasks, including project evaluation, project design, drafting of technical plans, development of technical specifications and construction administration.*

Nationally, our staff of 9,500 provide engineering and multidisciplinary services in a vast array of industry sectors, with a focus on technical excellence and client service. In New Orleans, we have a staff of 21. We will assemble our team as we see the scope of the work for any engineering tasks.

7. *Past Performance by person or firm on Parish contracts.*

WSP is currently completing work on the Jefferson Parish Bonnabel Blvd. Improvements project. Your proposed project manager, Brian Hundt is serving as the project engineer on the Bonnabel Blvd. project. Additionally, all proposed team members have experience working on projects within the Jefferson Parish or in neighboring Parishes. In addition, our Louisiana Area Manager, Max Nassar, will serve as Officer in Charge. Max will ensure that Jefferson Parish receives the highest quality of service and deliverables.

Max is a life-long resident of Louisiana and will devote his considerable efforts to understanding the challenges faced by the Parish and will make sure that the very best individuals are assigned to exceed your expectations of our firm.

Campaign Contributions Disclosure by Affiant, Max Nassar

JEFFERSON PARISH

Michael Yenni, Parish President	December 15, 2018	\$1,000.00
Michael Yenni, Parish President	February 21, 2019	\$500.00
Dominic Impastato, Councilmember	July 20, 2017	\$300.00
	November 2, 2017	\$250.00
	November 16, 2017	\$250.00
	November 30, 2017	\$250.00
	February 1, 2018	\$100.00
	October 25, 2018	\$250.00
	April 13, 2019	\$500.00
	June 21, 2021	\$100.00
	July 22, 2021	\$100.00
	August 21, 2021	\$100.00
	September 21, 2021	\$100.00
	October 21, 2021	\$100.00
	November 21, 2021	\$100.00
	December 21, 2021	\$100.00
	January 21, 2022	\$100.00
	February 21, 2022	\$100.00
	March 21, 2022	\$100.00
Jennifer Van Vranken, Councilmember	March 25, 2017	\$500.00
	April 12, 2017	\$500.00
	August 7, 2019	\$500.00
Ricky Templet, Councilmember	February 26, 2019	\$500.00
	March 7, 2019	\$2,000.00
Paul Johnston, Councilmember		\$1,000.00
Chris Roberts, Councilmember	April 3, 2019	\$500.00
Deano Bonano	June 11, 2019	\$500.00
	September 2019	\$500.00
	April 29, 2021	\$100.00
	May 29, 2021	\$100.00
	June 29, 2021	\$100.00
	July 29, 2021	\$100.00
	August 29, 2021	\$100.00
	September 29, 2021	\$100.00
	October 29, 2021	\$100.00
	November 29, 2021	\$100.00
	December 29, 2021	\$100.00
	January 29, 2022	\$100.00

	February 28, 2022	\$100.00
Cynthia Lee Sheng	September 12, 2019	\$1,000.00
Paul Johnston	September 1, 2019	\$2.50
Jedidiah Jackson	September 16, 2019	\$250.00
Paul Johnston	September 1, 2019	\$2.50
ORGANIZATION	Date	Amount
Son of a Saint	November 1, 2019	\$700.00
Son of a Saint	November 1, 2019	\$5,000.00