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 22-011 - Routine Engineering Services for Drainage 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:

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

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

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

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.

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 the 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 tiedowns 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:

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.

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 ty 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

- ✓ 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, contruction 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 Davezac Howell 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 sanitary and storm water collection systems, drainage impact analysis, HEC-RAS modeling (1D and 2D), sanitary sewer lift station and force main design, water distribution system 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

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 sanitary and storm water collection systems, drainage impact analysis, HEC-RAS modeling (1D and 2D), sanitary sewer lift station and force main design, water distribution system design, off-system bridge replacements, subdivision, and commercial site design.

EDUCATION

B.S., Civil Engineering, Louisiana State University	2012
B.S., Atmospheric Sciences, University of Louisiana at Monroe	2010

RELEVANT EXPERIENCE

- **Louisiana Watershed Initiative Iberville Parish White Castle Drainage Improvements, White Castle, LA, Technical QA/QC.** WSP is a subconsultant to LaTerre Engineering, LLC, providing technical oversight for the LWI (Louisiana Watershed Initiative)- CDBG Grant funded White Castle Drainage Improvements Project. This project consists of the removal of accumulated sediment for approximately 4.5 miles of the channel bottom and immediate adjoining side slope to match historical grade lines. The project includes the removal of siltation above historical channel bottom grade lines and settled eroded materials on the bottom of the channel and the disposal of all excavated soils. Client: Iberville Parish Government. 2021- Ongoing.

- **Louisiana Watershed Initiative Town of Maringouin Drainage Improvements, Maringouin, LA, Technical QA/QC.** WSP is a subconsultant to LaTerre Engineering, LLC, providing technical oversight for the LWI (Louisiana Watershed Initiative)- CDBG Grant funded Town of Maringouin Drainage Improvements Project. The project includes improvements and upsizing of the existing drainage systems, including open channels, drainage structures and culverts. Existing pipes and structures that are inadequate for proper stormwater conveyance will be removed and replaced with those that are adequately sized to handle storm surge. Existing ditches and other open conveyance channels will be resized, sediment accumulation removed, regraded and, in some cases hardened, to convey required storm event runoff within the town limits. Client: Town of Maringouin. 2021 – Ongoing.

- **Livingston Parish Government Early Warning Systems and Rain Gauges Project, Livingston Parish, LA, Engineer.** WSP is a subconsultant to LaTerre Engineering, LLC, providing engineering services for this FEMA & GOHSEP HMGP (DR-4277) funded project. This project includes providing schematic designs for the purpose of the installation of 24 water gauges and 46 weather stations to evaluate suitability, document safety and environmental concerns and determine site preparation and equipment required for installation. Ms. Howell's role includes Technical QA/QC, Design, Cost Estimating and FEMA Phase II Cost-Benefit Analysis. The scope of work includes project administration and management, data collection and site investigations, schematic design and design development, preliminary and final cost estimating, FEMA Phase II BCA, bidding and

contracting administration, construction administration and construction closeout. Jan 2022 – Ongoing.

- **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.
- **Isle de Jean Charles Resettlement Project – Phase III, Louisiana Office of Community Development – Disaster Recovery Unit (OCD-DRU), Isle de Jean Charles, Louisiana, Engineer.** Mrs. Howell led a team of engineers in the design of a 64-lot subdivision which included 2 miles of concrete roadway with a combination of open ditch and subsurface roadside drainage, 7,700 linear feet of gravity sewer, two sanitary sewer lift stations and 2.5 miles of sanitary sewer force main, three recreational ponds and one dry detention pond. The project, funded through United States Department of Housing and Urban Development, awarded the Louisiana's Office of Community Development – Disaster Recovery (OCD-DRU) Unit $48 million, involved the master planning of a new development to accommodate voluntary resettlement of an island community in response to significant environmental degradation from ongoing coastal land loss, subsidence, and sea level rise.
- **FEMA Hazard Mitigation Grant Program Applications, City of Baker, Louisiana, Engineer.** Mrs. Howell assisted in the development of conceptual-level hydrodynamic models of the streams in the City of Baker and utilized them to understand the hydraulics of the streams, identify problem areas and design potential projects. Existing and proposed conditions model results are crucial in estimating benefit and damage costs due to flooding for inclusion in FEMA's HMGP application. These models were the foundation for the development of more detailed hydrodynamic models that will be utilized in the next phases of the HMGP application process.
- **City of Central Drainage Master Plan, Central, Louisiana, Engineer.** Mrs. Howell developed a drainage master plan for the city of Central following a series of local floods in 2016. The implementation of the drainage improvements recommended by the Master Plan will be funded by FEMA Hazard Mitigation Grant Program (HMGP). Rebecca incorporated LiDAR and topographic survey data to understand existing conditions, modeling the current system of natural and man-made drainage features, and recommending a series of capital improvements intended to manage stormwater flooding more effectively. She developed and calibrated six high-resolutions 2-dimensional hydrodynamic models for the existing conditions of Central's internal streams using the latest high-resolution LiDAR data and channel surveys. Rebecca evaluated all structures and the main channels during the 4% Annual Exceedance Probability or 25-year return interval synthetic storm event and designed improvements for structures failing to meet this level of service.
- **Sally Mae and Comeaux Streets Drainage and Overlay Projects, Lake Charles, Louisiana**: engineer intern design responsibilities included converting 1,100 linear feet of open drainage to closed drainage systems and road improvements for two residential streets in Lake Charles. Rebecca performed hydrology and hydraulic modelling, utility coordination, prepared construction documents and cost estimates.

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

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

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

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 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 projected 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:
Matthew Moore, PE, QSD/P, ENV SP Senior Supervising Engineer
Project Assignment:
Senior Drainage Stormwater Engineer
Name of Firm with which associated:
WSP USA Inc.
Years' experience with this Firm:
16
Education: Degree(s)/Year/Specialization:
M.S. / Civil Engineering, Water Resources, Virginia Polytechnic University / 1994 B.S. / Civil Engineering, Virginia Polytechnic University / 1992
Active registration: Year first registered/discipline:
Professional Engineer: California / 1997; California Qualified SWPPP Developer / Practitioner / 2009; Envision Sustainability Professional / 2015
Other experience and qualifications relevant to the proposed Project:
Matthew Moore has over 20 years of experience in water resources including hydrologic and hydraulic engineering design for drainage, flood control, water quality and erosion control facilities. His work has included preliminary and final engineering design phases, as well as FEMA, Caltrans, NPDES and environmental documentation and permitting. He has extensive experience in hydrologic and hydraulic analyses including: preparation of storm drainage plans and stormwater quality BMP design and documentation. Matthew served on the technical advisory committee for the development of the San Diego County Low Impact Development Manual and the San Diego County Hydrology Manual update.

MATTHEW MOORE, P.E., QSD/P, ENV SP

Senior Supervising Engineer

Years with the firm

16

Years total

23

Professional qualifications

Professional Engineer: California (C56780)

California Qualified SWPPP Developer / Practitioner (QSD/P)

Envision Sustainability Professional (ENV SP)

CAREER SUMMARY

Matthew Moore has over 20 years of experience in water resources including hydrologic and hydraulic engineering design for drainage, flood control, water quality and erosion control facilities. His work has included preliminary and final engineering design phases, as well as FEMA, Caltrans, NPDES and environmental documentation and permitting. He has extensive experience in hydrologic and hydraulic analyses including: preparation of storm drainage plans and stormwater quality BMP design and documentation. Matthew served on the technical advisory committee for the development of the San Diego County Low Impact Development Manual and the San Diego County Hydrology Manual update.

EDUCATION

M.S., Virginia Polytechnic University	1994
B.S., Virginia Polytechnic University	1992

PROFESSIONAL EXPERIENCE

- **Mid-Coast Corridor Transit Project, San Diego Association of Governments, San Diego, California:** Drainage Design Lead for this 11-mile extension of the San Diego Trolley (Trolley) Blue Line from the Santa Fe Depot in Downtown San Diego to the University Towne Centre (UTC) Transit Center in University City. His responsibilities include drainage and water quality design for the civil improvements consisting of new tracks (at grade and elevated), stations, roadways, retaining walls and bridges. Floodplain and scour analyses were conducted for longitudinal and transverse (bridges) encroachments. Water quality design consists of post-construction Low Impact Development and hydromodification management features to comply with the local MS4 permit.
- **Voigt Drive Widening Project, San Diego Association of Governments, San Diego, California:** Water Quality Design Lead responsible for preparation of Storm Water Data Report. The purpose of the Voigt Drive Improvements Project is to accommodate future Direct Access Ramps (DARs), as part of the I-5 North Coast Corridor Project and to make way for the upcoming Mid-Coast Corridor Transit Project through the project limits. The project replaces the existing Voigt Drive Overcrossing over Interstate 5 to accommodate additional vehicular traffic lanes, sidewalks, and bike lanes. Roadway improvements on this project include realignment and widening of Voigt Drive from two lanes to four lanes starting at Lyman Lane and continuing to just north of Genesee Avenue on the east.

- **I-5 Improvements in North County, Los Angeles County, California:** Segment Drainage Design Lead for the preparation of drainage plans, specifications, and estimate. The Los Angeles County Metropolitan Authority (Metro) is working in cooperation with California Department of Transportation (Caltrans) to develop the PS&E for I-5 that will reduce congestion and improve traffic within the cities of Santa Clarita, Valencia, and unincorporated areas of Los Angeles County. This project proposes to widen the NB and SB I-5 to accommodate HOV lanes, along with auxiliary lanes, and truck lanes at certain locations from the SR-14 interchange to Parker Road. The project is divided into three design segments. Segment 1, which WSP is responsible for, extends from the 1-5/SR-14 interchange to north of the Calgrove Boulevard Interchange.
- **Honolulu Rail Transit Project, West O'ahu Station Group – Kalo'i Drainage Channel Scour Analysis Review and Scour Countermeasure Design Recommendations, Hawaii:** Task leader for the review of scour analyses and recommendations for scour countermeasures for the East Kapolei Station and UH West O'ahu Station. Evaluated impacts of the encroachment of station support columns into the Kalo'i Drainage Channel by reviewing the hydraulic models and scour analyses provided by HART. **Performed** channel scour analyses and recommended channel scour countermeasures for all station support structures and building foundations that encroach into Kalo'i Drainage Channel right-of-way.
- **Encinitas Coastal Rail Trail Project, San Diego Association of Governments, City of Encinitas, California:** Drainage And Water Quality Lead responsible for storm drain utility conflict review and project stormwater quality regulation review. The Encinitas segment of the Coastal Rail Trail is planned as a Class I bike path, separated from motor vehicle traffic. This two-mile segment would be the first segment of the Coastal Rail Trail in Encinitas. It is planned along the coastal rail line from G Street in Downtown Encinitas to Chesterfield Drive in Cardiff. Specific responsibilities included: a utility conflict review utilizing as-built plans and the latest City base map information to identify potential areas of concern; review of the existing storm drain layout and outfall locations in relation to the proposed trail alignment to evaluate required inlet and outlet pipe extensions/reconfiguration, and locations for new culverts across the alignment; and a high level water quality evaluation regarding the requirements of the 2013 Municipal Separate Storm Sewer System (MS4) NPDES permit including hydromodification.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Andre Mullins, PE Senior Water Resources Engineer
Project Assignment:
Water Resources Engineer
Name of Firm with which associated:
WSP USA Inc.
Years' experience with this Firm:
3
Education: Degree(s)/Year/Specialization:
B.S., Engineering Technology, University of North Carolina / 2005
Active registration: Year first registered/discipline:
Professional Engineer: North Carolina (#41267) / 2014, Pennsylvania (#81185) / 2013; NCDOT Level 3 Erosion Control Designer (#3048)
Other experience and qualifications relevant to the proposed Project:
André Mullins is a senior water resources engineer skilled in designing open-channel and closed-pipe systems and culverts for government agencies, including the City of Charlotte, North Carolina Department of Transportation (NCDOT), South Carolina Department of Transportation (SCDOT), and Federal Highway Administration (FHWA). In addition, André has served as a Project Manager for several site development projects and has led multidisciplinary teams toward the successful completion of public and private construction projects. He has expertise in water resources, drainage system design, stormwater management, hydrology and hydraulics. He has been responsible for numerous civil site projects and drainage design projects as well as system designs on highway projects. He has experience using various hydrologic and hydraulic methodologies and programs including HEC-RAS, HY-8, TR-55, and numerous proprietary programs such as StormCAD, CulvertMaster, FlowMaster and Geopak Drainage.

ANDRÉ MULLINS, P.E.

Senior Water Resources Engineer

Years with the firm

3

Years total

12

Professional qualifications

Professional Engineer: North Carolina, 2014 (#41267)

Professional Engineer: Pennsylvania, 2013 (#81185)

NCDOT Level 3 Erosion Control Designer (#3048)

Areas of practice

Water Resources

Languages

English

CAREER SUMMARY

André Mullins is a senior water resources engineer skilled in designing open-channel and closed-pipe systems and culverts for government agencies, including the City of Charlotte, North Carolina Department of Transportation (NCDOT), South Carolina Department of Transportation (SCDOT), and Federal Highway Administration (FHWA). In addition, André has served as a Project Manager for several site development projects and has led multidisciplinary teams toward the successful completion of public and private construction projects. He has expertise in water resources, drainage system design, stormwater management, hydrology and hydraulics. He has been responsible for numerous civil site projects and drainage design projects as well as system designs on highway projects. He has experience using various hydrologic and hydraulic methodologies and programs including HEC-RAS, HY-8, TR-55, and numerous proprietary programs such as StormCAD, CulvertMaster, FlowMaster and Geopak Drainage.

EDUCATION

B.S., Engineering Technology, University of North Carolina, Charlotte, North Carolina — 2005

PROFESSIONAL EXPERIENCE

City of Charlotte Storm Water Services

- Cutchin Drive Storm Drainage Improvement Project, Charlotte, North Carolina (2018-Present): Project Manager and Hydraulic Engineer responsible for a multidisciplinary team leading the drainage system design and analysis, and development of the project's plans, specifications, and cost estimates. The project has involved the use of HEC-RAS and StormCAD. This project involves planning and preliminary design for flood mitigation improvements in the Cutchin Drive drainage basin, which is a 160-acre area of residential and commercial developments within the McMullen Creek watershed. Client: City of Charlotte Storm water Services.
- City of Charlotte Storm Water M-Team On-Call Cutchin Drive, Charlotte, North Carolina (2011 – 2014): engineering designer that managed projects as part of an on-call contract with the City of Charlotte. André assessed complaints from residents, determining their needs for resolution and, when needed, developed solutions. The projects involved turn-key services, including utility and hydraulic design, agency coordination, site inspection, construction administration, and quantity takeoffs at various roadway locations around Charlotte. Client: City of Charlotte Name.
- City of Charlotte M-Team Storm Water On-Call Catalina Avenue, Charlotte, North Carolina (2011 – 2014): engineering designer that managed projects as part of an on-call contract with the City of Charlotte. André assessed complaints from residents, determining their needs for resolution and, when needed, developed solutions. The projects involved turn-key services, including utility and hydraulic design, agency coordination, site inspection, construction administration, and quantity takeoffs at various roadway locations around Charlotte. Client: City of Charlotte Name.
- City of Charlotte M-Team Storm Water On-Call Walston Avenue, Charlotte, North Carolina (2011 - 2014): engineering designer that managed projects as part of an

on-call contract with the City of Charlotte. André assessed complaints from residents, determining their needs for resolution and, when needed, developed solutions. The projects involved turn-key services, including utility and hydraulic design, agency coordination, site inspection, construction administration, and quantity takeoffs at various roadway locations around Charlotte. Client: City of Charlotte Name.

- City of Charlotte Storm Water Cedars East Neighborhood Improvement Project, Charlotte, North Carolina (2011 – 2014): Engineering designer that assessed complaints from residents, determining their needs for resolution and, when needed, developed solutions. The projects involved turn-key services, including utility and hydraulic design, agency coordination, site inspection, construction administration, and quantity takeoffs at various roadway locations around Charlotte. Client: City of Charlotte Name.
- City of Charlotte Storm Water County Club Lane: Engineering Designer, Charlotte, North Carolina (2011 – 2014). Designer that assessed complaints from residents, determining their needs for resolution and, when needed, developed solutions. The projects involved turn-key services, including utility and hydraulic design, agency coordination, site inspection, construction administration, and quantity takeoffs at various roadway locations around Charlotte. Client: City of Charlotte Name.
- City of Charlotte Storm Water East Providence City of Charlotte Storm Water Rutledge/Kingscross, Charlotte, North Carolina: engineering technician that provided surveying and plan productions support. Assessed complaints from emerald request forms and prepared exhibits and support for public meetings. Client: City of Charlotte Name.
- City of Charlotte Storm Water Ashley Park NIP City of Charlotte Storm Water engineering technician that provided surveying and plan productions support. Assessed complaints from emerald request forms and prepared exhibits and support for public meetings. Client: City of Charlotte Name.
- City of Charlotte Storm Water Columbus Circle CIP Charlotte, North Carolina: engineering technician: that provided surveying and plan productions support. Assessed complaints from emerald request forms and prepared exhibits and support for public meetings. Client: City of Charlotte Name.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Chin Lien, P.E.D. WRE Director of Water Services Senior Vice President
Project Assignment:
Stormwater Engineer
Name of Firm with which associated:
WSP USA Inc.
Years' experience with this Firm:
16
Education: Degree(s)/Year/Specialization:
M.S. / Civil Engineering, Water Resources, Rensselaer Polytechnic Institute / 1983 M.S. / Computer Science, John Hopkins University / 1989 B.S. / Bio-Environmental Systems Engineering / National Taiwan University / 1979
Active registration: Year first registered/discipline:
Professional Engineer: Maryland (15501) /1987, Connecticut (24310) / 2004, Hawaii (12276) / 2006, North Carolina (035515) / 2009
Other experience and qualifications relevant to the proposed Project:
Chin Y. Lien has over 35 years of management and engineering experience from both public and private sectors. His professional experience includes: environmental resources assessment, watershed management planning, NPDES/TMDL program support, storm water management and water quality BMPs, green infrastructures, LID, fluvial geomorphology, river and stream restoration, bio-engineering, wetlands creation, bridge and highway hydraulics, scour analysis, shoreline protection, coastal engineering, waterway dredging, waterway computer modeling, as well as water and wastewater conveyance system. Chin has managed over 250 major water resource projects, many of them comprehensively from planning to construction completion.

CHIN LIEN, P.E. D. WRE

Senior Vice President /
Director of Water Services

Years with the firm

16

Years total

38

Professional qualifications

Professional Engineer: Maryland, 1987 (15501)

Professional Engineer: Connecticut, 2004 (24310)

Professional Engineer: Hawaii, 2006 (12276)

Professional Engineer: North Carolina, 2009 (035515)

Areas of practice

Water Resource Management, Water Advisory Services, Stream and River Restoration, Scour Analysis

CAREER SUMMARY

Chin Y. Lien has over 35 years of management and engineering experience from both public and private sectors. His professional experience includes: environmental resources assessment, watershed management planning, NPDES/TMDL program support, storm water management and water quality BMPs, green infrastructures, LID, fluvial geomorphology, river and stream restoration, bio-engineering, wetlands creation, bridge and highway hydraulics, scour analysis, shoreline protection, coastal engineering, waterway dredging, waterway computer modeling, as well as water and wastewater conveyance system. Chin has managed over 250 major water resource projects, many of them comprehensively from planning to construction completion.

Prior to joining WSP, Chin served as Chief of Waterway Capital Improvement Program, a multi-million dollars CIP, for Baltimore County, Maryland. Under Chin's leadership, this innovative CIP program received twice the National County Association award. Chin has published numerous technical papers related to stormwater quality and water resources engineering in national technical journals, magazines and conference proceedings. He was the principal investigator and co-author of the NCHRP 25-25 (35) report titled Water Quality Analyses for NEPA Documents.

Chin is the practice area leader in the technical areas of Watershed Management and River Engineering within WSP. Chin leads and coordinates the firm's technical resources to provide planning; design and management services related to watershed management, storm water management, environmental and stream restoration, bridge hydraulics, and river engineering to clients nationwide.

EDUCATION

M.S. Civil Engineering, Rensselaer Polytechnic Institute, Troy, New York	1983
M.S. Computer Science, Johns Hopkins University, Baltimore, Maryland	1989
B.S. Bioenvironmental Systems Engineering (formerly Agricultural Hydraulic Engineering), National Taiwan University, Taipei, Taiwan	1979

PROFESSIONAL EXPERIENCE

— **Emergency Restoration of Jones Beach, Gilgo Beach, and Fire Island, Long Island, New York:** Project Manager as part of WSP's emergency response team where Chin participated in the post-Hurricane Sandy restoration designs for Jones Beach, Gilgo Beach,

and Fire Island. Chin provided technical input to the development of design geometries for the beach profile and dune systems for each of the beaches.

- **Emergency Restoration of Ocean Drive, Avalon, New Jersey:** Project Manager as part of WSP's emergency response team where Chin participated in the post-Hurricane Sandy restoration designs for Ocean Drive roadway pavement, seawall and sand dunes. Chin provided technical input to the development of design geometries for seawall and stone revetment as well as sand dune restoration.
- **Tidal Back River Green Infrastructures Projects, Baltimore County, Maryland**: Technical Advisor that provides advisory services for the design of stormwater green infrastructure retrofit projects at nine sites in Baltimore County. The sites, including schools, open spaces and other public properties, were analyzed to determine the feasibility of stormwater retrofits such as bioretentions, bioswales, and reforestation to collect and treat runoff from existing impervious areas. The project included planning, engineering analysis, detailed engineering and landscaping design, preparation of specifications and bid packages, and construction phase support.
- **Statewide Storm Water Management Program (SSWMP) for State of Hawaii, Department of Transportation, Hawaii**: Principal Technical Advisor in the State-wide Storm Water Management Program (SSWMP) for State of Hawaii, Department of Transportation. In this four-year program management role, Chin assisted Hawaii DOT in bringing its statewide storm water management program in full compliance with US EPA regulations and satisfying the NPDES/MS4 requirements. Under Chin's technical guidance, the firm developed a GIS web-based storm water asset management system (AMS), developed state-wide design criteria and guidelines for permanent and construction activities BMP's, conducted an Oahu Island-wide assessment of erosion problems, conducted water quality monitoring, developed and implemented an illicit connection and illegal discharge elimination program, developed and implemented a maintenance facility BMP program, conducted several Oahu Island-wide water quality retrofit and erosion areas studies, conducted over 50 trainings related to design and construction activities BMP's, developed an award-winning public education program, and developed TMDL/waste load allocation (WLA) implementation and monitoring plans.

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 Progwram, 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 Parrish 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:

David P. Preusch, PE, PH, CFM, D.WRE
Senior Supervising 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:

M.S., Civil Engineering specializing in Water Resources and Environmental Engineering / 1995
B.S., Civil Engineering, Lehigh University / 1979

Active registration: Year first registered/discipline:

Professional Engineer: Louisiana (PE.0033148) / 2007 (currently undergoing renewal process), Maryland (15215) / 1987, Virginia (04020 14140) / 1983, District of Columbia (PE 907982) / 2015, Pennsylvania (PE081300) / 2013; Professional Hydrologist: American Institute of Hydrology, US (08-H-1836) / 2009; Certified Floodplain Manager: Association of State Floodplain Managers, US (US-00-00047), Diplomate, Water Resources Engineering: American Academy of Water Resources Engineers (00130) / 2005

Other experience and qualifications relevant to the proposed Project:

David Preusch is an environmental and water resources engineer with extensive experience in water resources planning and engineering management. His experience includes hydrologic and hydraulic watershed studies, flooding analysis and flood control, flood warning systems, waterway opening design for bridges and culverts, bridge scour analysis, stream stabilization, waterway and wetland permitting, sedimentation engineering, channel and storm drain design, quantity and quality stormwater management, dam and lake designs, dam break studies, dam safety studies and Emergency Action Plans (EAPs), reservoir operations, coastal engineering, and wetland mitigation designs. His background also includes construction drawings, and specifications and cost estimates.

DAVID P. PREUSCH, PE, PH, CFM, D.WRE

Senior Supervising Water Resources Engineer

Years with the firm

5

Years total

40

Professional qualifications

Professional Engineer: Louisiana, 2007 (PE.0033148) (currently undergoing renewal process)

Professional Engineer: Maryland, 1987 (15215)

Professional Engineer: Virginia, 1983 (04020 14140)

Professional Engineer: District of Columbia, 2015 (PE 907982)

Professional Engineer: Pennsylvania, 2013 (PE081300)

Professional Hydrologist: American Institute of Hydrology, 2009 US (08-H-1836)

Certified Floodplain Manager: Association of State Floodplain Managers, US (US-00-00047)

Diplomate, Water Resources Engineering: American Academy of Water Resources Engineers, 2005 (00130)

Areas of practice

Drainage; stormwater systems; environmental systems

Languages

English

CAREER SUMMARY

David Preusch is an environmental and water resources engineer with extensive experience in water resources planning and engineering management. His experience includes hydrologic and hydraulic watershed studies, flooding analysis and flood control, flood warning systems, waterway opening design for bridges and culverts, bridge scour analysis, stream stabilization, waterway and wetland permitting, sedimentation engineering, channel and storm drain design, quantity and quality stormwater management, dam and lake designs, dam break studies, dam safety studies and Emergency Action Plans (EAPs), reservoir operations, coastal engineering, and wetland mitigation designs. His background also includes construction drawings, and specifications and cost estimates.

David's technical skills include extensive surface water modeling using HEC-HMS, HEC-IFH, ICPR, TR-20, TR-55, USGS Regression Equations (NFF and StreamStats), Statistical Analysis of stream gage records using Bulletin No. 17B (HEC-WRC and PEAKFQ), HEC RAS (steady, unsteady, and dam break), WSPRO (HY-7), Culvert Hydraulics (HY-8), Bridge Scour (HY-9), DWOPER, DAMBRK, SWMM, and Sediment Transport (HEC-6). David's background in sediment transport includes projects throughout the country evaluating the sediment load and transport capacity (wash and bed loads) of flood control structures including culverts, channels, and bridges for the Federal Emergency Management Agency. David has implemented innovative technology and providing technical input on complex projects for a 200-person water resources group. He has managed numerous IDIQs and flood studies for the Corps of Engineers, evaluated reservoir operations for TVA, performed dam break analysis and Probable Maximum Precipitation (PMP) for dam owners, designed bridge water openings and scour countermeasures for State DOTs, and prepared flood studies and mapping for FEMA.

EDUCATION

M.S., Civil Engineering specializing in Water Resources and Environmental Engineering, University of Maryland, College Park, Maryland — 1995

B.S., Civil Engineering, Lehigh University, Bethlehem, Pennsylvania — 1979

PROFESSIONAL EXPERIENCE

- Horizon Estates Drainage Improvements, Accokeek, Maryland: Prince George's County Department of the Environment. Project involves storm drain design, ditch design, and community involvement for a project to mitigate flooding in a residential subdivision.
- Stream Stabilization for Tributary to Big Elk Creek, Cecil County, Maryland: Maryland State Highway Administration (SHA) Project involves stream stabilization at an outfall of a culvert under MD State Highway 317. Stream stabilization features include a riprap plunge pool, a step pool, cascade-pool, and inlet protection. Involved TR-20 and HEC-RAS modeling.
- Study of Calcasieu Lock for Drainage and Flood Control, Lake Charles, Louisiana. US Army Corps of Engineers, New Orleans District; $222,000; 2007. Project Manager. Study of the use of Calcasieu Lock for drainage and flood reduction for both peak elevation and duration of flooding. Involved developing a HEC-HMS model for 7700 square mile drainage basin of the Mermantau River, and unsteady HEC-Geo-RAS modeling of over 120 miles of the Mermantau River and Gulf Intercoastal

Waterway (GIWW). HEC-HMS model was calibrated to Tropical Storm Allison, and HEC-RAS was calibrated to a stage frequency analysis at the Lacassine gage.

- Calcasieu River Basin Flood Control Study. ECM/GEC JV and US. Army Corps of Engineers, New Orleans District. 2008-2009, $750,000. Project Manager. Responsibilities include project management, client coordination, and QC. Baker is performing a Flood Mitigation Study for 9 tributaries to the Calcasieu River in Calcasieu Parish and Lake Charles, Louisiana. The study involves surveying, HEC-HMS hydrologic modeling and HEC-RAS unsteady flow modeling. The HEC-RAS model incorporates off-line storage areas. Models were calibrated to high water mark information. Alternatives studied included pumping, dredging, stormwater management ponds, culvert replacement, and channelization. Cost estimates were developed for each alternative.
- Upper Passaic River Flood Control Project, US Army Corps of Engineers, New York District. $826,000; 2000- 2007). Project Manager. A Feasibility Study involving hydrologic (HEC-HMS), interior drainage (HEC-IFH), and hydraulic (HEC-RAS) analysis of the flooding conditions along 5 miles of the Passaic River in Long Hill Township, New Jersey. Uncertainty in the flood elevations was also provided. Alternative flood control projects include levees, floodwalls, interior pumping, floodwarning, floodproofing, and acquisition. For the selected alternative, floodwall gate operations were designed to minimize the hydrologic impacts on an existing wetland located on the interior side of a new floodwall by evaluating the pre- and post-project flow duration curves.
- Lochraven Culvert; COB 1162, Task # 13, City of Baltimore, Maryland (2015): engineering services for the referenced project, which consisted of survey, H&H studies, and scour analysis of the above referenced culvert crossings at Lochraven Watershed. AB performed two thousand and four hundred (2,400) lineal feet of traverse to establish the coordinates of twenty (20) proposed cross sections. AB performed a scour analysis using the current version of MDSHA's ABSCOUR program, and prepared an H&H report in accordance with City of Baltimore City and MDSHA Office of Structures guidelines and requirements and submitted to City of Baltimore for review and approval. AB also performed geotechnical investigations. At each site, two (2) 40-ft deep soil test borings were drilled in the study area as a subsurface investigation. Samples were collected and laboratory tests were performed by our AASHTO accredited laboratory. AB evaluated the results and prepared a geotechnical analysis. As Water Resources Engineer, Mr. Preusch was responsible for all H&H computations and coordination.
- Biemans Terrace- Springdale, S10-029, Task #23, Prince George's County, Maryland (2015): provided geotechnical investigations and engineering services for the referenced project, which consisted of review of a previous CCTV inspection of the storm drain system, a geotechnical investigation of soil conditions within the storm drain trench and other areas of settlement, and a report of the findings and remedial recommendations. The geotechnical drilling was assisted by subsurface utility location with air-vacuum excavation to avoid drilling through the pipe or other utility. Mr. Preusch was responsible for preliminary investigations, field meetings, and data collection and research.
- Hydrology, Hydraulics, and Bridge Scour Evaluations in Maryland. Maryland State Highway Administration, Bridge Design Division. $500,000; 1998-2003. Project Manager. Open ended contract involving H&H and Bridge Scour. Task orders include a hydrology panel to evaluate the accuracy of regression equations versus TR-20 modeling, developing regression equations for time of concentration, and

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Kristen Navaroli, PE Water Resources Engineer
Project Assignment:
Water Resources Engineer
Name of Firm with which associated:
WSP USA Inc.
Years' experience with this Firm:
2
Education: Degree(s)/Year/Specialization:
B.S., Biological Engineering, NC State University / 2017
Active registration: Year first registered/discipline:
Professional Engineer: North Carolina (052441) / 2022
Other experience and qualifications relevant to the proposed Project:
Kristen is a water resources engineer with over four years of experience. Kristen's experience includes hydraulic structures, watershed planning, scour analysis, drainage design, climate resiliency assessments, and GIS data analysis.

KRISTEN NAVAROLI, PE

Water Resource Engineer

Years with the firm

2

Years total

4

Professional qualifications

Professional Engineer

Areas of practice

Water Resources

Hydraulic Structures

Scour

Climate Resiliency

Languages

English

CAREER SUMMARY

Kristen is a water resources engineer with over four years of experience. Kristen's experience includes hydraulic structures, watershed planning, scour analysis, drainage design, climate resiliency assessments, and GIS data analysis.

EDUCATION

B.S., Biological Engineering, North Carolina State University 2017

PROFESSIONAL EXPERIENCE

- Pinellas County Infrastructure Resiliency Pilots, Florida: water resources engineer supporting a series of climate resiliency pilots studying the impacts of climate change on County owned assets and evaluating alternatives to increase future resiliency. Pinellas County is largely the peninsula and barrier islands located between Tampa Bay and the Gulf of Mexico. The County is heavily populated but low-lying and at risk due to changing sea levels and storm surge conditions. The study included evaluations of storm surge impacts as a wastewater treatment / water reclamation facility, storm surge impacts to a wastewater lift station, sea level rise impacts to a storm drain system serving a principal arterial roadway, sea level rise impacts on a storm drain system serving a residential neighborhood, and storm surge impacts on a hurricane evacuation route.
- Pensacola Bay Bridge, Pensacola, Florida: engineer that conducted the hydraulic reevaluation and scour computations for the design/build replacement of the Pensacola Bay Bridge. The project included dynamic ADCIRC+SWAN modeling of coastal design storm conditions. Bridge foundation scour calculations were performed following FDOT scour methods for complex and multiple piers. Wave impact calculations were performed following AASHTO guidance for loadings on piers. Additionally, the design included the development of riprap and ACBM revetment designs for the protection of approach roadway embankments. The embankments required protection from both storm surge and wave impact erosive forces.
- Wake Transit Plan Bus Rapid Transit (BRT), 30 Percent Drainage Design, Raleigh, North Carolina: engineer that conducted the hydraulic analysis utilizing EPA SWMM to evaluate the current capacity of the drainage infrastructure. The existing hydraulic capacity of the pipe was evaluated in conjunction with its potential to convey additional flow as part of the BRT proposed roadway improvements. Assisted in the 30% drainage design in Microstation incorporating green infrastructure stormwater design and water quality measures.
- Matthew Mitigation Site CLOMR, Four Oaks, North Carolina: project engineer assisting in the hydraulic analysis and CLOMR application. The project included a natural channel design through a previously drained pond. Since the proposed improvements result in an increased one percent Annual Chance water surface elevation, the project required CLOMR approval.
- Cutchin Drive Storm Drainage Improvements Project, Charlotte, North Carolina: engineer that assisted with the 98 percent design submittal which involved design plan edits, quantities, and special provisions. This project

includes an existing conditions analysis, alternative analysis, and design of the selected alternative for storm drainage improvements along the system.

—

— FDOT Scour Critical Bridge Analysis, Florida: hydraulic engineer conducting hydraulic analysis on existing structures in riverine and tidal environments for the Florida Department of Transportation. Tasks included hydraulic modeling of existing structures utilizing HEC RAS and scour analysis of simple and complex piers using the latest FDOT local scour guidance. This analysis was used in support of Phase 2, Phase 3, and Phase 4 Scour Reports for scour criticality.

— Walnut Creek Basin Restudy, Cary, NC: Conducted the hydrologic and hydraulic analysis of the Walnut Creek watershed in EPA SWMM. The evaluation included determining the current capacity of the existing infrastructure and identifying areas of private property structural flooding. Floodplain maps were derived using the integration of EPA SWMM and GIS software. A risk assessment report was generated using floodplain boundaries and key structure elevations to determine the areas of the watershed that should be prioritized for drainage improvements. Alternatives were crafted and prioritized based on the level of overall watershed improvements and community impacts.

— Clark Avenue Emergency Culvert Repair, Raleigh, NC: Assisted on the emergency repair project by analyzing the current hydraulic capacity of the culvert and providing design recommendations for the culvert replacement. The existing contributing watershed and infrastructure was modeling using EPA SWMM. This project was an emergency repair and had a condensed timeline. Deliverables included construction plans and hydraulic summary memorandum.

— Lake Wheeler Road Emergency Culvert Repair, Raleigh, NC: Conducted the hydrologic and hydraulic analysis of the failing culvert under Lake Wheeler Road using EPA SWMM. The hydraulic model determined the culvert's existing level-of-service and proposed drainage improvements considered potential development upstream. Design recommendations were proposed based on the hydraulic performance of the pipe and the materials available to the client. This emergency project was expedited to reduce lane closures and eliminate the public safety hazards.

Withers Basin Watershed Study, Myrtle Beach, SC: Conducted the hydrologic and hydraulic analysis in EPA SWMM of the existing stormwater conveyance system within the Withers Basin. Floodplains derived from EPA SWMM and GIS were compared to FEMA floodplains effective prior to expansive development of the coastal city. The watershed possessed drainage problems consistent with coastal areas. Alternatives included stormwater control measures and other green infrastructure to provide water quality improvements as well as hydraulic retention.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Miranda Smalling, EI Water Resources Engineer
Project Assignment:
Water Resources Engineer
Name of Firm with which associated:
WSP USA Inc.
Years' experience with this Firm:
6.5
Education: Degree(s)/Year/Specialization:
B.S., Environmental Engineering, NC State University / 2015
Active registration: Year first registered/discipline:
Engineering Intern
Other experience and qualifications relevant to the proposed Project:
Miranda has 6.5 years of experience in hydrologic and hydraulic analysis, drainage system design, and utility design. Miranda's project experience includes the completion of preliminary hydraulic studies, municipal drainage and utility design, and contract documentation.

MIRANDA SMALLING, EI

WATER RESOURCES ENGINEER

Years total

6.5

Professional qualifications

Engineering Intern

CAREER SUMMARY

Miranda has 6.5 years of experience in hydrologic and hydraulic analysis, drainage system design, and utility design. Miranda's project experience includes the completion of preliminary hydraulic studies, municipal drainage and utility design, and contract documentation.

EDUCATION

B.S., Environmental Engineering, North Carolina State University, 2015

PROFESSIONAL EXPERIENCE

- **Cutchin Drive Storm Drainage Improvements Project, Charlotte, NC:** Assisted with the 98% design submittal which involved design plan edits, quantities, and special provisions. This project includes an existing conditions analysis, alternative analysis, and design of the selected alternative for storm drainage improvements along the system.
- **Wake Transit Plan Bus Rapid Transit (BRT) 30% Drainage Design, Raleigh, NC:** Reviewed the existing drainage infrastructure hydraulic analysis for quality assurance and quality control. Assisted with the technical memorandum summarizing existing conditions and proposed drainage improvements for the New Bern Avenue BRT line. Performed the inlet placement and spread analysis for proposed inlets along the corridor and assisted with the 30% drainage design plans.
- **Southland Hills Storm Drain Replacement, Baltimore County, MD:** Assisted with utility coordination for final design plans. This project included storm drain infrastructure replacement within the Southland Hills area to alleviate flooding impacts.
- **Downtown Cary Multi-Modal Transit Facility Feasibility Study, Cary, NC:** Assisted with the preliminary stormwater analysis of the preferred facility site to address stormwater quantity and quality control requirements. This project includes a comprehensive analysis of the transportation requirements for a new Downtown Cary Multi-Modal Transit Center.
- **Withers Basin Watershed Study, Myrtle Beach, South Carolina (2019):** project engineer that assisted with the hydrologic and hydraulic analysis in EPA SWMM of the existing stormwater conveyance system within the Withers Basin. Floodplains derived from EPA SWMM and GIS were compared to FEMA floodplains effective prior to expansive development of the coastal city. The watershed possessed drainage problems consistent with coastal areas. Alternatives included stormwater control measures and other green infrastructure to provide water quality improvements as well as hydraulic retention.
- **Swann Street Drainage Improvement Project, Raleigh, North Carolina (2019):** project engineer that conducted the street spread analysis and hydraulic design to mitigate existing flooding in the Beckana neighborhood. The selected design incorporated stream design elements to minimize channel impacts, improvements to the existing closed drainage system, additional inlets, traffic control, erosion control, and utility coordination.
- **Stormwater Master Plan, Greenville, North Carolina (2015):** project engineer that assisted with the hydrologic and hydraulic modeling for the City of Greenville stormwater master plan that evaluated four watersheds encompassing

approximately 15 square miles. A technical report was presented with the findings and recommendations.

— **Ramblewood Drainage Improvements, Raleigh, North Carolina:** project engineer that assisted in the design of open channel and closed pipe system improvements. Provided construction plans, including utility relocation, erosion control, and traffic control, in addition to design calculations, contract documents, and required permits.

— **Dorothea Drive Drainage Improvements, Raleigh, North Carolina:** project engineer that conducted the hydrologic and hydraulic analysis of the existing culvert and adjacent drainage system and provided an alternative analysis to bring the infrastructure to the required level of service. The project design included culvert replacement, utility relocation and design, as well as erosion control and permitting.

— **Multi-Use Stadium Drainage Design, High Point, North Carolina:** project engineer that assisted in the design of stormwater relocation plans utilizing the Construction Manager at Risk (CMAR) method. The project scope included coordination with other private firms for utility relocation and proposed design. The contract deliverables included construction plans, traffic control plans, and project documents.

— **Fayetteville Spot Repairs, Fayetteville, North Carolina:** project engineer that designed improvements to several small drainage systems as part of the City's spot repair program. Existing infrastructure was modeled and analyzed, and the final designs included upsizing drainage pipes, adding inlets, and roadside swales.

— **Alanhurst-Cherrycrest Storm Drainage Improvements, Charlotte, North Carolina:** project engineer that assisted with design plans that consisted of drainage system replacement, channel stabilization, and culvert rehabilitation. The design was based on a preliminary engineering report in which the existing drainage conditions were evaluated. Components of design also included utility coordination, permitting, public involvement, traffic control, erosion control, and structural design.

— **Parkwood Phase II Storm Drainage Improvement Project, Charlotte, North Carolina:** project engineer that assisted with the study of existing drainage conditions and improvement recommendations. The hydrologic and hydraulic analysis compared existing infrastructure to the City standards and included several design alternatives. The alternatives presented solutions to several complexities of the project, including a fuel storage and transfer facility, large multi-track rail switching facility and bisection of the study area by I-277.

— **Hampton Avenue Storm Drainage Improvements, Charlotte, North Carolina:** project engineer that assisted with design plans that included significant pipe replacements and utility relocations to address existing stormwater related problems in the area. These issues included road flooding, house flooding, and channel erosion.

— **Meadowridge Storm Drainage Improvements, Charlotte, North Carolina:** project engineer that provided assistance during the construction phase of this project including changes to design through issuance of bulletin drawings. This project involved hydrologic and hydraulic analysis, drainage design, stream stabilization, utility relocation, traffic control, erosion control, and structural design.

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:	
19th Street/Convention Center Neighborhood Pump Station and Drainage Improvements Project in Miami Beach, Miami, Florida City of Miami Beach Jorge Rodriguez, PE (305) 673-7071	As part of a design/build team, WSP provided design, permitting and construction of a new stormwater pump station and ancillary site infrastructure and discharge facilities for a stormwater improvement system to reduce flooding and to directly address impacts of sea level rise. In addition to the pump station components and electrical infrastructure to power the station, construction-related services also include site preparation, earthwork, dewatering, storm drainage infrastructure installation, parking reconstruction, utility adjustments, landscaping, and seawall modifications.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
12/2017	$7,388,238	$ 600,000

PROJECT NO. 2

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
North Beach Drainage Improvements and Ocean Outfall Virginia Beach, Virginia City of Virginia Beach Mark Johnson 757-427-4131	WSP provided study, planning, final design, contract documents, specifications, and cost estimates for this stormwater project which was broken into eight phases. The first three phases consisted of $8 million of neighborhood drainage and street improvements discharging to a gravity outfall. Later phases consisted of a 90,000 gallons per minute (gpm) submersible pump station, 2,000 linear foot 48-inch stormwater force main ocean outfall, and approximately 10,000 feet of collection system. Other elements of the project included environmental permitting, public utility relocations, architectural design for pump station generator building, and landscaping consistent with the oceanfront resort community environment.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
05/2011	$ 20,000,000	$ 3,500,000

TEC Professional Services Questionnaire

PROJECT NO. 3		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility**	
Shop Creek Stormwater Rehabilitation City of Aurora Water, CIP Clint Weisz 720-859-4337	WSP provided design support and construction inspection for the replacement of existing 54-inch and 72-inch corrugated metal pipe (CMP). The Park had re-occurring sink hole problems, associated with the steep and corroded CMP stormsewer. WSP designed the replacement utilizing a new stormsewer consisting of 66-inch and 72-inch reinforced concrete pipe (RCP). The upstream 200-linear-feet was scheduled to be lined, however due to the severely deteriorated condition, it was decided to replace the remaining system. In addition, WSP assisted in the field inspection and shop drawing review, providing revisions to vault details due to changing field conditions in Dutch Creek, in an expedited manner to assist the project schedule.	
Completion Date (Actual or estimated)	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
09/2010	$ 2,700,000	$247,088

PROJECT NO. 4		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Boyd Avenue and 21st Street Pumping Station Improvements Baton Rouge, Louisiana Sarah Golz Louisiana Department of Transportation and Development Public Works, Hydraulic Section 225-379-1430 Sarah.Golz@LA.GOV	Under a statewide retainer contract with the Louisiana Department of Transportation and Development (LADOTD), WSP provided engineering design services for rehabilitation of storm water pumping stations along the I-110 corridor in Baton Rouge, Louisiana. As part of an overall program of pumping station upgrades, WSP was the prime consultant for rehabilitation effort of the Boyd Avenue station and two stations (old and new) at 21st Street. WSP provided architectural, mechanical, electrical, and hydraulic design services and coordinated structural and civil design services from a local subconsultant.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
12/2019	$414	$414

TEC Professional Services Questionnaire

PROJECT NO. 5		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
MdTA Environmental Permit Management & Watershed Planning - Statewide, MD Maryland Transportation Authority Peter Mattejat 410-537-7874	WSP provided watershed planning services involving targeted watershed assessment and conceptual design of stormwater management BMPs and the acquisition and management of stormwater, environmental permits and mitigation. This task involved a variety of watershed planning activities in support of the MDTA's Phase II NPDES MS4 permit. Targeted watershed assessments were performed along MDTA corridors and within MDTA facilities. Assessments included detailed GIS data analysis, review of existing stormwater reports and as-built plans, reviews of facility Stormwater Pollution Prevention Plans, field site searches, pollutant loading analyses including initial pollutant loads and pollutant load reductions provided by proposed BMPs, and conceptual design sketches that can be used to prioritize construction funding and implementation. WSP also reviewed local watershed plans and identified potential partnering opportunities between the MDTA and local jurisdictions. Innovative techniques were considered such as living shorelines and floating wetlands to provide opportunities for water quality treatment in high priority watersheds with limited right of way and direct drainage to local water bodies.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2016	$ 158,200	$ 158,200

PROJECT NO. 6		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Midtown Tunnel Stormwater Pump Stations Norfolk, VA Virginia Department of Transportation Jim Long 757-494-5470	The Midtown (Elizabeth River) Tunnel project included five stormwater pump stations. One of these, the Midtown Tunnel Stormwater Pump Station, pumps stormwater and tunnel wash water received from the tunnel low point pump station which discharges to the tidally-influenced Elizabeth River. WSP's design for the tunnel involves stormwater pumping of rainfall on the open approach. The area is well below the FEMA tidal flood plain and approach roads must be protected from tidal surge overflowing into the tunnel. This is accomplished by isolating the entrance to the tunnel and draining it by means of stormwater pumping. Levees were required and approach roads elevated or isolated with flood walls to prevent the rainfall events that flood Tarrant Creek from overflowing into the tunnel. The drainage design must meet the 25 year rain event. However, given that the area is experiencing sea level rise, the basis for design included a modification to consider the future 25 year tide event.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
11/2014	$3,500,000	$ 3,100,000

TEC Professional Services Questionnaire

PROJECT NO. 7		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Eastern Shore Drive Stormwater Pump Stations Virginia Beach, VA City of Virgina Beach Mike Mundy 757-385-8452	WSP is providing planning, design, permitting and construction services for three stormwater pump stations and associated conveyance systems to protect the community against rainfall and tidal inundation flooding and is located adjacent to the Chesapeake Bay and Atlantic Ocean. The three pump stations range in size from 45,000 to 80,000 gpm. The largest pump station will be a Smart Pump Station and will usher in a new era of flood protection using automated logic controls to provide flooding protection against tidal influence and rainfall. Pump station controls will be interconnected with other pump stations and consider remote operation and storm forecasting for preemptive action. This is a multi-disciplinary project including water, civil, structural, architectural, traffic, mechanical, electrical, and environmental disciplines.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
12/2020	$83,000,000	$ 7,000,000 (estimated)

PROJECT NO. 8		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Ridge Road Stormwater Pump Station Sedgwick County, KS Sedgwick County (funded by Kansas DOT) James Weber, PE 316-660-1773	North Ridge Road, previously a two-lane rural roadway with storm water drainage provided by open ditches, was upgraded to a four-lane, curb and gutter urban roadway from K-96 to 53rd Street North. Existing problems with flooding of the underpass at K-96 required the North Ridge Road storm drain system to extend into the underpass area. The storm water pump station was designed to accommodate roadway drainage for the 50-year storm event, a design flow of 165 cubic feet per second. Site constraints mandated a very compact design, and required the pump station to be built into an existing flood-control levee. The station provides three vertical turbine pumps designed to discharge 32,000 gpm, two smaller vertical turbine pumps capable of moving 4,500 gpm and two submersible pumps to dewater the wet well and handle minor inflows. WSP was responsible for architecture, site/civil, structural, hydraulic analysis, mechanical, electrical and plumbing, and instrumentation, as well as construction inspection and engineering services during construction.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
6/2012	$ 5,300,000	$607,241

TEC Professional Services Questionnaire

PROJECT NO. 9		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Maryland State Highway Administration (SHA), Charles County Stormwater Control Measures (SCMs) Maryland Maryland State Highway Administration Jason M. Alwine, PE 443-348-2017 x8409	The Maryland SHA developed this project as part of its program in meeting the requirements of Chesapeake Bay TMDL. Our team was tasked with feasibility analysis and design for new SCMs to provide treatment for currently untreated SHA-owned impervious areas. Using field reconnaissance, our team analyzed 24 separate sites to determine feasibility for new SCMs. Upon completion of the study, 16 sites are currently being designed for installation of new SCMs including nine grass swales, five wet swales, one bio-retention area, and one submerged gravel wetland. For each proposed SCM site, the project team developed detailed nutrient reduction calculations to assist SHA in meeting TMDL requirements.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
1/2018	$ 907,829	$ 907,829

PROJECT NO. 10		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Pierson-Greenhaven Storm Drainage Improvement Project Charlotte, NC City of Charlotte Harold Smith 704-432-5532	The City of Charlotte initiated this project to address frequent and severe flooding of residential properties and public roadways in the Pierson-Greenhaven neighborhood, which is a 110-acre area of mostly residential development within the Edwards Branch watershed. WSP provided planning and design to mitigate flooding including existing conditions analysis, development of alternatives, and final design of measures to alleviate the problems, including drainage system upgrades, channel improvements, and culvert replacements. Our team developed a solution that greatly reduced expected construction impacts and need for easements by designing a bypass alignment that utilized existing right-ofway. The project involved the use of HEC-1, HEC-RAS, HEC-GeoRAS, StormCAD, AutoCAD and Civil3D.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
12/2016	$ 5,000,000	$ 413,741

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 more than 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 with and an understanding of stormwater and drainage conveyance, hydrologic processes, and stormwater pump station design. The controlling factors governing the design discharges and flow volumes in urban pipe networks and open channel systems are a key component in providing successful solutions to Jefferson Parish's drainage needs. Dense development of a watershed and a high percentage of impervious cover generates rapid runoff of stormwater and extremely high peak flow volumes. Limitations on peak flows created by aged and undersized conveyance systems act to dampen the peak flows in interceptors and at outfalls, but in-turn causing increases in flooding in upland neighborhood locations along the watershed. Understanding these existing hydrologic processes is necessary to fully examine the potential success of a proposed project. Our team brings a highly skilled set of water resources engineers that have experience developing dynamic runoff hydraulic models in urban environments. We have experience in developing hydrologic watershed / sewershed models using Rational Method, TR-55, TR-20, HSPF, HP-SWMM, or EPA SWMM. These dynamic models will be developed in consideration of both the flashy nature of stormwater flows in the Parish and considering system constraints that will limit the conveyance of peak flows through the system.

For hydraulic modeling, our team includes technical experts in the development and implementation of piped and open channel conveyance system models. Our team members have both the capacity and capability of delivering on any modeling task from simple HGL hand computations to two-dimensional modeling exercises. We are experienced in all phases of modeling from development and calibration to the execution and routine updates of models to test various proposed condition scenarios.

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