



**Missouri's
Local
Program**
*for community
development*

COVER SHEET

(This must accompany your firm's letter of interest and does not count in the page limit)

Firm's Full Legal
Name:

Shannon & Wilson, Inc.

Firm Contact Name:

James Dutt

Contact Email
Address:

james.dutt@shanwil.com

Firm's Mailing Address:

10422 Baur Boulevard

St. Louis, MO 63132

Work Category:

- Roadway Design
- Trails & Sidewalks
- Construction Inspection
- Traffic Engineering & TEAP
- Structures
- Environmental
- Historic Preservation
- Multimodal Planning / Systems and Facilities Design
- Transportation Planning – **NEW CATEGORY**

December 11, 2025

Jeffery Cremer
Missouri's Local Program
Jeffrey.cremer@modot.mo.gov

RE: ON-CALL PROFESSIONAL SERVICES: ENVIRONMENTAL

Dear Mr. Cremer:

Shannon & Wilson, Inc. (S&W) is pleased to have the opportunity to provide our qualifications for environmental consulting services for the LPA On-Call.

WORKFORCE DIVERSITY:

As an employee-owned firm, it is our desire to create a work environment that is diverse, equitable, and inclusive. We strive to ensure we give the same access to resources and opportunities for advancement to all employees. We also encourage and promote opportunities for professional growth for everyone regardless of age, gender identity, sexual orientation, physical and mental ability, ethnicity, personality styles, backgrounds, beliefs, and perspectives. We believe that when we listen to each other and learn from each other, we will better serve our clients and community. One of the most inwardly visible instances of this was at a company-wide technical training held in Seattle in January 2025 where all technical staff met at our corporate headquarters for two days of interactive technical training. Shannon & Wilson has a strong history of partnering with disadvantaged businesses to achieve the technical goals of our projects and clients. We ensure that our actions and words are clear to our employees, who are diverse in many ways, so that they know they are valued and respected for who they are as individuals and employees, regardless of any facet of one's unique identity; our clients, many of which are public agencies with their own diversity, equity, and inclusion (DEI) requirements in their contracts, that we are genuine allies in advancing DEI within our field; and our applicants, that we are a welcoming workplace with equal opportunities to advance one's career.

GENERAL OVERVIEW OF THE FIRM:

Shannon & Wilson is a 100% employee-owned consulting firm of over 300 professionals established almost 70 years ago. We are recognized by our clients and peers to be among the leaders in Missouri and the nation in geotechnical engineering, environmental consulting, and construction/project management. In-house capabilities include geotechnical engineering and instrumentation, geology and geophysics, rock mechanics and underground engineering, earthquake engineering, and environmental science. These services typically support the design and construction of highways, bridges, and other transportation facilities; tunnels and underground operations; structural foundations; excavations and retention systems; landslide/slope stabilizations and; groundwater management systems.

GENERAL EXPERIENCE OF THE FIRM:

Shannon & Wilson has a variety of environmental, NEPA and permitting experience for a variety of LPA type projects as shown below:

MacArthur Bridge East Approach – TRRA – East St. Louis, MO

Shannon & Wilson Inc. performed a NEPA Categorical Exclusion documentation under Federal Railroad Administration (FRA) oversight for retrofit of the tower substructures on the mainline and wye on the eastern approach on the Douglas MacArthur Bridge spanning the Mississippi River from St. Louis, MO to East St. Louis, IL. We performed waters of the U.S. delineations and Section 404/401 permitting and hydraulic studies to determine a no-rise condition. In addition, we coordinated the archaeological consultation under Section 106 with FRA, Illinois and Missouri State Historic Preservation Offices, and local tribes. These studies were required due to federal funding of the project. (Federally funded).

TRRA NEPA, Connection Study, Design Nine, Inc. | Sauget, IL

Shannon & Wilson, Inc. performed a NEPA desktop study for the reestablishment of a 3200 linear foot connection track for Terminal Railroad Association in St. Clair County, Illinois. The purpose of this project was to assist in environmental due diligence for a grant application and then NEPA support after the funding was awarded under FHWA and Illinois DOT guidelines. Work included evaluation of alternatives and affected environment including Location and Lane Use, Cultural Resources, Parks and Recreational Facilities, Transportation, Noise and Vibration, Air Quality, Hazardous Materials, Hazardous Waste, Property Acquisition, Community Impacts and Environmental Justice, Impacts on Wetlands, Floodplain Impacts, Water Quality, Navigable Waterways, Coastal Zones, Prime and Unique Farmlands, Critical Habitat and Threatened/Endangered Species, Public Safety, Cumulative Impacts, Indirect Impacts, and Mitigation. (Federally funded).

TRRA Madison Yard Expansion | Madison, IL

Shannon & Wilson, Inc. performed a National Environmental Policy Act (NEPA) Study for the proposed expansion of Terminal Railroad Association of St. Louis (TRAA) Madison, IL Yard. We coordinated the archaeological review, Environmental Justice review, Air Quality, and Noise and Vibration with subcontractors and Floodplain Review within Shannon & Wilson. We performed the preliminary Threatened and Endangered Species assessment for aquatic and terrestrial species, evaluated impacts to Waters of the U.S. including wetlands and assisted with the potential impacts to Prime and Unique farmland. These studies were part of environmental due diligence to assist TRRA in Federal grant applications to fund the project for use in the required Environmental Assessment that is required by the Federal Railroad Administration. (Federally funded).

Merchants Bridge Main Span Replacement, Modjeski and Masters, Inc. | St. Louis, MO

Shannon & Wilson, Inc. performed a National Environmental Policy Act (NEPA) study for the replacement of the main span over the Mississippi River. We evaluated the U.S. Coast Guard's NEPA checklist for applicability and coordinated architectural review, performed the preliminary Threatened and Endangered Species assessment for aquatic and terrestrial species, evaluated impacts to Waters of the U.S., and coordinated the NEPA review with the U.S. Coast Guard. The review concluded the U.S. Coast Guard NEPA documentation could be satisfied with a Categorical Exclusion and identified additional natural resource coordination and permitting requirements including National Historic Preservation Act Section 106 Consultation with the Missouri State Historic Preservation Office. This consultation was formally initiated and the Illinois Historic Preservation Agency ceded lead agency status to the MO SHPO. Requirements for Threatened and Endangered Species Section 7 consultation with the U.S. Fish and Wildlife Service were identified along with consultation requirements with the Missouri Department of Conservation. We also assisted with permitting through the U.S. Army Corps of Engineers, including either a Section 10 permit under the Rivers and Harbors Act or Section 404 and 401 permitting under the Clean Waters Act. (Federally funded).

INRD - Bridges H&H and Permitting, Design Nine, Inc. | IL, IN

Shannon & Wilson, Inc. was retained by Design Nine, Inc. to perform multiple tasks including Environmental Permitting, Geotechnical Engineering, and Hydrology and Hydraulics analysis for a total of 37 bridge replacement projects along the Indiana Railroad (INRD) stretching from central Illinois to Indianapolis, Indiana. We performed the Clean Water Act Section 404/401 permitting at all of the locations. We also performed NEPA Categorical Exclusion documentation support in coordination with the Federal Railroad Administration for 9 of these bridges in Crawford County, Illinois. Work included evaluation of alternatives and affected environment including Location & Land Use, Cultural Resources, Parks and Recreational Facilities, Transportation, Noise and Vibration, Air Quality, Hazardous Materials, Hazardous Waste, Property Acquisition, Community Impacts and Environmental Justice, Impacts on Wetlands, Floodplain Impacts, Water Quality, Navigable Waterways, Coastal Zones, Prime and Unique Farmlands, Critical Habitat & Threatened/Endangered Species, Public Safety, Cumulative Impacts, Indirect Impacts, & Mitigation.

QUALIFICATIONS OF PERSONNEL:

We assemble teams of highly qualified personnel to deliver client-focused service and solutions. Our teams have the experience and technical resources to focus on the critical elements of your projects to accomplish tasks on schedule and within budget.

Personnel/Years Exp.	Registration	Education
Russ Schwab (37)	RG: MO	MS, Civil Engineering BS, Geology
James Dutt (26)	PG: IL;RG: MO	MS, Environmental Science BS, Environmental Science
Trystan Thompson (2)	PE: MO	BS, Environmental Plant Science
Emily Persinger (3)	GIT	MS, Geosciences BS, Geology

Russ Schwab

Russ is Vice President and serves on the Board of Directors, as Shannon & Wilson’s Chief Technology Officer, and runs daily operations of the Saint Louis office. His responsibilities require him to continually demonstrate the ability to integrate data and technology into professional engineering workflow, decision-making, and analysis. He has served as project manager and geologist on numerous projects, including environmental site assessments required by the National Environmental Policy Act and Phase I and II Environmental Site Investigations, and he has worked on the design, installation, and maintenance of many remedial systems.

James Dutt, R.G.

James is an Associate and Environmental/Natural Resource Group Manager and has been with Shannon & Wilson for 26 years working on a variety of geotechnical and environmental projects. He is a licensed geologist with the state of Missouri since 2006. He specializes in Clean Water Act permitting including Section 404 (waters of the U.S.), Section 402 (NPDES/land disturbance), and Section 401 (State Water Quality Certification). James performs and oversees delineations, permitting and storm water pollution prevention plans (SWPPPs). James has participated in hundreds of Phase I and II Environmental Assessments, Clean Water Act permitting, and hazardous waste investigations.

Trystan Thompson

Trystan is a Biologist with Shannon and Wilson in the St. Louis Office. Trystan assists with Environmental and Geotechnical projects while also managing Natural Resource projects that primarily focus on identifying wetlands/WOTUS. Trystan has delineated several sites in MO as well as in IL and OK and has assisted clients in permitting for these areas of concern. Trystan also prepares storm water pollution prevention plans (SWPPP) and performs compliance monitoring.

Emily Persinger

Emily is a geologist in training with Shannon & Wilson’s St. Louis office who assists in both environmental and geotechnical projects and manages several ongoing environmental monitoring programs. She has supported numerous projects including Phase I and Phase II Environmental Site Assessments, groundwater and wastewater sampling programs, PFAS investigations, soil management plans for redevelopment sites, and geochemical evaluations to support site characterization and remediation planning.

FAMILIARITY/CAPABILITY:

Shannon & Wilson is familiar with the requirements for completing construction inspection and transportation projects that include federal funding through our work with a multitude of State Departments including MoDOT, IDOT, IaDOT, CDOT, and WisDOT. We’re also well-versed in work with other public agencies such as City of Des Peres, St. Louis County, Class I Railroads, St. Louis Metropolitan Sewer District, etc. Shannon & Wilson has successfully delivered work for these agencies and more with the knowledge and familiarity of federal requirements and laws.

ACCESSIBILITY:

Shannon & Wilson has the ability to work in the St. Louis Metropolitan area as well as state-wide for our clients, with subcontractors and drillers across Missouri and more. Shannon & Wilson has been known to travel for their clients not only across the state, but across the country. We are also accustomed to providing emergency response to projects as well, having served many of the Class I Railroads in this capacity for decades.

Sincerely,

SHANNON & WILSON



James Dutt

Associate

GEOTECHNICAL ENGINEERING

The key component in our approach to the success on any project is to establish an understanding of project objectives and define the most efficient way to achieve those goals. Our projects, regardless of size and complexity, incorporate some level of work plan preparation and all field projects require a site-specific health and safety plan prior to mobilization to the site.

Subsurface Exploration

Shannon & Wilson prefers a phased approach to the subsurface exploration, which allows us to take full advantage of existing information before initiating the field investigation. This approach has saved many federal, state, and local agencies time and costs by reducing or eliminating unnecessary tasks.

The subsurface exploration may consist of a site reconnaissance, soil and/or rock borings, geophysical surveys, cone penetrometer probes, test pit excavations, geotechnical instrumentation, or another exploration method. Shannon & Wilson has extensive experience in directing complex land and overwater subsurface exploration programs contracting with a variety of specialty geotechnical and environmental drilling firms nationwide. We subcontract the drilling services for subsurface explorations making every effort to subcontract those services in a manner that is most economical to our clients while still meeting project needs.

Data Collection and Engineering Analyses

All geotechnical data developed from the subsurface exploration is assembled and tabulated onto exploration logs profiling soil/rock type, test results, and other subsurface conditions. Based on the subsurface conditions encountered and engineering properties determined by our in-house geotechnical laboratory, engineering properties of the soil/rock profile are assigned in preparation for subsequent engineering analyses.

The data generated during the subsurface exploration and laboratory testing is analyzed by a geotechnical engineer to develop geotechnical design and construction recommendations based on our understanding of the project. Engineering analyses are based on the proposed scope and other geotechnical design or construction concerns identified during our work and typically address:

GEOTECHNICAL SERVICES
Shallow and Deep Foundations
Total and Differential Settlement
Seismic Site Classification and Liquefaction Potential
Lateral Earth Pressure Design Criteria
Slope Stability
Temporary Excavations and Shoring
Earthwork

Geotechnical Report

The Geotechnical Report includes our design and construction recommendations along with a summary of our observations with exploration logs, laboratory test results and associated figures and tables. The report along with associated calculations and analysis are reviewed for technical soundness by a senior level, registered professional engineer specializing in geotechnical engineering and by an Associate or higher member of the firm for quality control and then signed and sealed by a professional engineer.

Environmental Engineering

Contaminated / Hazardous Media – Identification, Investigation, Assessment, and Remediation

Shannon & Wilson provides local experience backed by national resources and expertise. Our diverse staff of more than 300 engineers, geologists, hydrogeologists, environmental scientists, hazardous waste specialists, and support personnel (in Illinois and Missouri allows us to provide flexible, rapid responses to our clients' needs. We are well equipped to undertake a wide range of assignments as they relate to hazardous, toxic, and radiological waste (HTRW), petroleum sites, and hazardous materials. Our services include:

NATURAL RESOURCES & PERMITTING SERVICES
SEPA/NEPA Documentation (CE/AE/EIS)
Wetlands delineations and permitting
Wetland Mitigation
Rare, threatened and endangered species
Plant and animal surveys
Fisheries/Stream Studies
Stream Restoration
Watershed Analysis
Stormwater (NPDES) permitting
Stormwater retention / detention
Best management practices and pollution prevention plans

We routinely develop reports that characterize sites, including models and predications of contaminant migrations in vadose and saturated zones; risk assessments; remedial investigations/feasibility studies; remedial design; RCRA facility investigation and corrective actions; records of decision; and groundwater assessments. We also have experience in designing remedial alternatives. Our history of performing such assignments for projects sponsored by the U.S. Army Corps of Engineers and other government agencies has allowed us to become familiar with appropriate regulatory requirements, including the U.S. Environmental Protection Agency (EPA) and Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response Compensation and Liability Act (CERCLA), Toxic Substances Control Act (TSCA), Clean Air Act (CAA), Clean Water Act (CWA), and Underground Storage Tank (UST) regulations.

Natural Resources and Permitting

Our Natural Resources Group specializes in all aspects of environmental permitting, wetland studies, fisheries investigations, stream restoration, threatened and endangered species studies, wildlife studies, habitat evaluation, and other environmental documentation. Our natural resources staff works with our engineers and hydrogeologists to address environmental issues that impact projects. Our relationships with agencies help us acquire permits for projects that may impact wetlands, streams, threatened and endangered species, or sensitive areas in a timely and cost-effective manner.

ENVIRONMENTAL SERVICES
Phase I and II Environmental Site Assessments
Remediation of hazardous and petroleum waste contamination
Site characterization and risk assessments
Asbestos and lead based paint surveys
Environmental compliance audits
Liability exposure/environmental damage calculations
Regulatory compliance
Monitoring networks for air and water
Soil, sediment, surface-water, air and groundwater sampling programs
An array of air, soil, and groundwater testing programs
Health and safety, quality assurance/quality control, project management plans, data management
Expert testimony

Construction Monitoring Services

Our available services include the observation and testing of earthwork; foundation excavation and installation; subgrade and base for slabs-on-grade; pavement subgrade, base course, and surface courses; concrete; masonry grout and mortar; steel; and engineering consultation to resolve geotechnical construction issues. Construction materials testing services are supported by our laboratory such as determination of moisture-density relationships for compaction of soils.

Our construction observation services are available on an on-call basis, or an experienced technician may be assigned full time to a specific project with portable field equipment as needed. Our field service **rates include all equipment charges and there is no minimum charge or overtime surcharge.**

Earthwork

Earthwork for general site grading, backfill of trenches, and base courses for floor slabs and pavement is observed by an experienced technician including:

EARTHWORK SERVICES
Obtaining samples of proposed fill material for testing in our laboratory
Testing fill material to determine moisture-density (Proctor) curves according to ASTM standards
Observing and documenting the stripping and grubbing of the site
Performing periodic density tests using a nuclear densometer per ASTM D2922 or alternative methods
Documenting the materials placed and their condition relative to those specified
Documenting the construction practices used for the compaction of the fills
Observing proofrolling of subgrades and granular base prior to the placement of fill or pavement
Recommending treatment for subgrade determined to be unsuitable

Foundations

Footing excavations and deep foundation installation is observed by a staff engineer or experienced technician including:

FOUNDATIONS SERVICES
Checking subgrade conditions for consistency with the project geotechnical report and design bearing pressure
Verifying that subgrade conditions at the base of the footing are adequate for design bearing pressure
Recommending modifications if the subgrade does not exhibit sufficient bearing capacity
Documenting the causes, locations and quantities of foundation over-excavations
Checking the cleanliness of the base of footing excavations prior to concrete placement
Checking excavated footing dimensions relative to those shown on the project drawings
Checking and documenting placement of reinforcing steel relative to that shown on the project drawings
Observation and documentation of drilled shaft or driven pile installation for conformance with design and project specifications

Concrete

Concrete testing in the field is performed by an ACI certified technician including:

CONCRETE SERVICES
Observing concrete placement for conformance with project specifications
Measuring and recording concrete temperature according to ASTM C31
Measuring and recording concrete slump according to ASTM C272
Measuring and recording air content of concrete according to ASTM C231
Casting test cylinders
Transporting test cylinders to a testing laboratory
Breaking of test cylinders and reporting of compressive strength test results

Similar services can be provided for masonry quality control upon request.

Laboratory Testing Services

Shannon & Wilson has been providing soil and aggregate laboratory testing services to support our projects for over 40 years. Laboratory testing is provided under the direct supervision of our experienced laboratory manager and a registered geotechnical engineer. Our laboratory is setup for efficient processing of either individual samples or a large testing program to determine soil and aggregate engineering properties utilizing a full complement of calibrated laboratory equipment. Our professional staff are highly experienced in performing laboratory testing in accordance with current American Society for Testing of Materials (ASTM), American Association of State Highway and Transportation Officials (AASHTO), and other applicable standards. Our clients have included government agencies, architectural/engineering firms, and other geotechnical consulting firms.

Accreditations

Our Saint Louis laboratory is currently qualified to conduct materials testing for the U.S. Army Corps of Engineers (USACE) following a review of our quality management system and are accredited by AASHTO through **re:source** (formerly AMRL).

Summary of Validated and Accredited Laboratory Testing

AGENCY	SOIL	AGGREGATE
AASHTO (Certificate)	R58, T88, T89, T90, T99, T100, T180, T193, T208, T216, T236, T265, T296, T297, D421, D422, D698, D854, D1140, D1557, D1883, D2166, D2216, D2435, D2487, D2488, D2850, D3080, D4318, D4546, D4767, D5084, D6913, D7928	T11, T27, T85, C117, C127, C136
USACE (Certificate)	D421, D422, D698, D854, D1140, D1557, D1883, D2166, D2216, D2435, D2487, D2488, D2850, D3080, D4318, D4546, D4767, D5084, D6913, D7928	C117, C127, C136

In addition to our Saint Louis office accreditation, our other offices in [Seattle](#), [Fairbanks](#), [Anchorage](#), [Portland](#), [Denver](#), and [Sacramento](#), are also AASHTO accredited.

Quality Management

Shannon & Wilson maintains emphasis on the quality of work which has been conducted under our name since 1954. Our Quality System Manual (QSM) for the Saint Louis laboratory details laboratory testing procedures, laboratory equipment calibration, laboratory technician training, and finalization of laboratory results. An Internal Management and Quality System Review is conducted annually which includes a review of external quality system review reports and records required by the QSM. Following the review, a memorandum is prepared documenting the findings identifying any deficiencies and corrective actions.

All laboratory technicians are trained and must pass quality assurance testing prior to performing testing or calibration independently. We begin training with an established orientation program designed to familiarize our laboratory technicians with the importance of QA/QC in the laboratory. The level of technician training is derived from academic background, experience, technical courses, and on-the-job training with specific instruments or equipment in accordance to standardized testing procedures. In addition, our Laboratory Manager performs a competency evaluation to re-evaluate laboratory personnel.