



November 14, 2014

Mr. Kenny Voss, P.E.  
Local Program Administrator  
Missouri Department of Transportation  
105 West Capitol Avenue  
Jefferson City, Missouri 65102

**RE: Letter of Interest - On-Call Professional Services - Roadway Design**

Dear Selection Committee:

This letter is in response to the request for letters of interest for on-call professional services for roadway design. The Tetra Tech team has the technical skills, experience, and critical thinking necessary to provide Missouri's Local Program (LPA) with the highest level of professional roadway design services.

#### **GENERAL EXPERIENCE OF FIRM**

Established in 1966, Tetra Tech is a leading provider of consulting, engineering, and technical services worldwide. We are a diverse company, including individuals with expertise in science, research, engineering, construction, and information technology. Our staff includes a regional transportation group of 22 engineers, engineer interns, and technicians. Over 500 transportation professionals and experts from around the county supplement our regional transportation staff.

As one of the leading transportation engineering firms in the United States, Tetra Tech provides a full range of services to federal, state, municipal, and private sector clients. We have been providing transportation services since 1981. Our experience includes highway and roadway design, urban street improvements, major interchanges, pedestrian/bicycle trail design, pavement rehabilitations, utility coordination, storm water analysis and design, and conceptual studies.

#### **FAMILIARITY / CAPABILITY**

The Tetra Tech team has extensive familiarity with federal-aid projects and the demonstrated ability to deliver federal-aid projects that are compliant with federal law. Our key staff members have many years of experience working for various LPA's. The Tetra Tech team has completed numerous transportation projects from concept to preliminary plans, to right-of-way plans, to final PS&E hitting all of the regulatory steps in between such as:

- Assisted with the environmental process. Team members have submitted Section 404/401 permit applications, assisted with Section 106 investigations and Section 4(f) evaluations, and prepared exhibits as necessary or requested as part of the NEPA.
- Prepared project specific erosion control plans to comply with the DNR.
- Coordinated with utilities/railroads. Staff have completed utility relocation plans and assisted with utility clearance. Mr. Barker is an AREMA member and serves on Committee 8. Through this association he is familiar with railroad staff along with their policies and procedures.
- Complied with the ADA particularly as it relates to sidewalk and bike path facilities but also parking lots and buildings.
- Evaluated floodplain impacts. The Tetra Tech team has successfully submitted scores of LOMR/CLOMR projects to FEMA.

## QUALIFICATIONS OF PERSONNEL

**Joshua Castor**, PE, will serve as Tetra Tech's primary point of contact for roadway design work anticipated under this on-call contract. He has over 14 years of transportation experience including 6 ½ years of experience with MoDOT in the Northwest District's Design Department. He is exceedingly familiar with the LPA project development process. His MoDOT experience has included the roadway design, from concept to final PS&E, of Route 116 over the Platte River and Castile Creek in Buchanan County and Route T over the East Fork of the Grand River in Worth County. While at MoDOT he represented the District on the statewide Hydrology and Hydraulics Quality Circle committee acting as the District's expert for hydraulic design issues. Since his departure from MoDOT, he has continued to provide roadway design, hydraulic design, and pedestrian/bicycle facility design for various agencies including the City of Kansas City and the City of Independence. His LPA experience has included the award winning Vermont Avenue Bridge over Rock Creek in Independence, improvements to historic Cliff Drive for the Kansas City Parks Department, and rehabilitation and replacement of R.D. Mize Road in Independence.

**John W. (Bill) Barker**, PE, has over 35 years of experience managing transportation projects across the U.S. His work has resulted in awards from the Precast Concrete Institute and the Kansas City APWA. Prior to Tetra Tech, Mr. Barker served as Structural Department Manager for HNTB in Tulsa, HDR in Boston, and TranSystems in Kansas City. His LPA experience includes R.D. Mize Road in Independence, the Vermont Avenue Bridge over Rock Creek in Independence, and the Wornall Road Bridge over Brush Creek on the Country Club Plaza in Kansas City.

**Michael Schwab**, PE, has more than 10 years of experience with rural and urban roadway geometric design and drainage design. He has been a design engineer on numerous highway and street design projects for various municipalities and Departments of Transportation. Mr. Schwab has experience leading and mentoring other engineers in the design of closed drainage systems, roadway geometric design, and is adept at accurately analyzing construction sequencing to incorporate impacts into roadway and drainage design.

**Jonathan Heusel**, Oklahoma PE, has managed and designed numerous multi-million dollar projects throughout his civil engineering career. He has over 17 years of experience which includes the design and management of many transportation-related projects. Mr. Heusel's responsibilities include roadway design, drainage and channel designs, hydrology and hydraulics, right-of-way plans, detailed traffic control / construction sequencing plans, public meetings and consensus building, water line replacement, geometric design, and coordination with multidisciplinary professionals on notable streetscape projects.

**Eric Atkinson**, Oklahoma PE, has 13 years of roadway design experience. He has worked on various roadway projects including the design of four-lane divided highways, two-lane highways, interchanges, and arterial and non-arterial street rehabilitation. These projects ranged from new alignment, complete reconstruction, widening and overlay design, to patching and pavement rehabilitation. He has been responsible for providing geometric design, traffic control plans, signing and striping plans, erosion control plans, utility relocation plans, storm sewer and drainage design, and implementation of stormwater management practices. Mr. Atkinson also has substantial project experience with pedestrian/bicycle trail design and streetscape enhancements.

**Brian Rubel**, Michigan PE, has 22 years of experience. He is a hydraulics/hydrology specialist. His experience has included the hydraulic evaluation of over 200 bridges. He has designed drainage facilities for over 100 miles of interstate and urban highways. Mr. Rubel holds an adjunct position at the University of Michigan's Department of Civil and Environmental Engineering and teaches hydraulic design.

## ACCESSIBILITY

The key Tetra Tech team members that will be assigned to provide on-call professional services are located in our Leawood, Kansas office. Support team members will primarily come from our Oklahoma offices. We have an established record of responsiveness to our client's needs, which is highlighted below in past performance. We



are diligent about meeting project milestones. We value a strong line of communication where we take great care to quickly respond to client communications and where we timely convey any project issues or consequential information to our client.

#### **PAST PERFORMANCE**

An illustration of our past performance record is our 2007 KC Metro APWA Project of the Year award for construction projects under \$2 million. Mr. Barker was the project manager and Mr. Castor was the project engineer for this City of Independence project on Vermont Avenue over Rock Creek. This project entailed nearly every facet of a public works project including hydraulics, 404/401 permitting, environmental considerations, roadway design, bridge design, geotechnical investigations, sanitary sewers, storm sewers, water lines, erosion control, landscaping, and public involvement. Part of the award criteria for selection was that the project was to be on time and under budget.

Another highlight of our past performance record includes our work on SH7 over Clear Boggy and Dry Boggy Creeks for the Oklahoma DOT. Mr. Barker was the project manager and Mr. Castor was the project engineer for this \$7 million dollar project. It included two bridges totaling over 1000 feet in length and over 1 mile of new roadway. The project was built on an offset alignment and included hydraulic analysis of the bridges and geotechnical investigations. This project was one of the largest projects in the program with the shortest duration. We were given a Notice to Proceed on June 20<sup>th</sup> and completed the design, ahead of schedule, on November 2<sup>nd</sup> of the same year. In addition, we saved the Oklahoma Department of Transportation \$100,000 in design fees and the construction project costs came in \$500,000 under budget.

Other examples of our successful past performance are included in our company brochure submittal. All of the projects in the brochure were either designed or managed or both and mostly both by the team listed in Qualifications of Personnel.

#### **COMMITMENT TO WORKFORCE DIVERSITY**

Tetra Tech has a long history of meeting workforce diversity goals. Tetra Tech is a strong believer in workforce diversity. Tetra Tech's overall staffing includes 21% minorities and 29% women, and we receive high marks and awards for our disadvantaged and small business programs.

We look forward to hearing from you and the opportunity to serve the Missouri's Local Program.

Sincerely,

A handwritten signature in blue ink that reads 'John W. Barker'.

John W. (Bill) Barker, PE  
Vice President



TETRA TECH

## Roadway Design Services

Tetra Tech's professional transportation engineers excel in all phases of infrastructure development. We have successfully completed a wide range of projects, from the rehabilitation of small rural roadways to the construction of complex interstates, urban and rural highways, bridges, urban corridors, and traffic improvements.

Tetra Tech delivers cost-effective solutions to transportation access and safety challenges. We offer technical expertise, a full knowledge of best practices, applicable regulations, and codes; and seasoned management to guide even the most challenging transportation projects to fruition.

Tetra Tech has a strong record of accomplishment in helping government agencies, municipalities, and private clients achieve their program objectives in a timely manner, including transportation services support for land development and economic revitalization. We are skilled in addressing challenging constructability issues as well as balancing the needs of motorists, bicyclists, pedestrians and transit patrons alike. Our transportation staff understand the importance of developing traffic control plans that work in the real world to protect the workers and the traveling public. In short, Tetra Tech manages the technical, regulatory, and public process needs of transportation projects with a full complement of services.

### Roadway Design Services

- Geometric Design
- Hydraulics
- Stormwater Design
- Traffic Control
- Bicycle and Pedestrian Trail Design
- ADA Compliance
- Utility Relocation Coordination
- National Environmental Policy Act (NEPA) Compliance and Environmental Studies



# Roadway Design Services

## Project Experience



**RD Mize Road Improvements  
Kansas City, MO**

This 1.2 mile project extended from Hidden Valley Road to Little Blue Parkway. It upgraded the street to major arterial standards while minimizing the impact to adjacent homes and keeping costs low. The project was federally funded. It included roadway widening, asphalt mill and overlays, roadway reconstruction, curb and gutter, 3000 feet of new storm sewer, a 110-foot triple 9x9 box culvert, retaining walls, and 8000 feet of new sidewalk and shared bike path/pedestrian walk with multiple ADA ramps.



**Vermont Avenue Bridge over Rock Creek Roadway  
and Bridge Design  
Independence, MO**

This project entailed nearly every facet of a public works project including hydraulics, 404/401 permitting, environmental considerations, roadway design, bridge design, geotechnical investigations, sanitary sewers, storm sewers, water lines, erosion control, landscaping, and public involvement. Part of the award criteria for selection was that the project was to be on time and under budget. Winner of the Kansas City Metro Chapter 2007 Public Works Project of the Year Award for projects less than \$2 million.



**Route 116 over the Platte River & Castile Creek  
Roadway and Bridge Design (Past Experience of  
Mr. Castor)  
Buchanan County, MO**

This \$10 million project involved 2 miles of roadway and replaced the bridges over the Platte River and Castile Creek. The road was raised approximately 16 feet through the floodplain. Route F and Route E were realigned to intersect Route 116 at 90 degrees. Mr. Castor, in coordination with the MoDOT Bridge Division, designed a spillway saving MoDOT \$1 million in bridge construction cost. Mr. Castor designed this project from the conceptual phase through final design.



**SH-79 over the Red River Bridge and Roadway Design  
Jefferson County, OK & Clay County, TX**

This project is a little over a mile in length and replaces a 2,255-foot-long bridge over the Red River between Oklahoma and Texas. The project is designed on an offset alignment so that traffic can be maintained on the existing road during construction. The roadway portion of the Texas side is to be designed according to Texas standards and specs, and the roadway portion of the Oklahoma side is to be designed according to Oklahoma standards and specs.

# Roadway Design Services

## Project Experience



### Sallisaw I-40 & US-64 Interchange Improvements Sallisaw, OK

Features for the design of this project include alternative analysis, hydraulic analysis of bridges and box bridges, survey, traffic analysis, vertical alignment, signalization/lighting, and interchange configurations. Multiple bid packages were developed to meet funding availability. Both steel girder and prestressed concrete beam superstructures were considered for each option for hydraulic modeling. The project also included the evaluation, analysis and cost estimates for the reconstruction of the existing single-loop diamond interchange and the feasibility of a reconfiguration of the interchange to a full diamond interchange.



### US-183 Corridor Widening and Improvements Western OK

Tetra Tech provided management and design services for over 52 miles of rural and urban roadway improvements. Included in this project were survey and aerial mapping, right-of-way plan and document development, and roadway and bridge design. The corridor was divided into 15 projects including 4-lane divided rural highway, 4- and 5-lane urban highway (both curb and open sections), and 29 bridges. Tetra Tech managed the services of ten consulting firms in this project.



### Turner Turnpike Pavement Rehabilitation Design Oklahoma

Tetra Tech provided rehabilitation design in three contracts for the Oklahoma Turnpike Authority for the Turner Turnpike between Tulsa and Oklahoma City on the most heavily traveled portion of turnpike in Oklahoma. Rehabilitation design of over 30 miles of turnpike included: grading and drainage, pavement design, striping, construction sequencing, and traffic control on a fast-track schedule.



### State Bridge Rehabilitation Program Statewide, OK

Tetra Tech is one of five consultants providing 'on-call' services for this program. In the past two years, Tetra Tech has received 10 task orders to prepare field assessment reports, cost estimates, and PS&E documents. These projects have included major rehabilitation of bridges over I-35 and I-40 requiring multiple phases of traffic control. A variety of maintenance of traffic measures have been designed including traffic signal systems, detours, and crossovers.

# Roadway Design Services

## Project Experience



### Fink Park to Hafer Park Trail Edmond, OK

Tetra Tech designed and provided construction phase services for this trail connecting two major parks and six major neighborhoods. It also connects to the three miles of trails/pedestrian network on the campus of the University of Central Oklahoma. Extensive hydraulic studies were required to achieve a CLOMR/LOMR from FEMA. The design included a 100' long by 12' wide prefabricated pedestrian bridge.



### Quapaw Route 66 Sidewalk Design & Improvements Quapaw, OK

Design of 3,100 lf of 5-ft decorative sidewalks and drainage improvements down the Main Street of Quapaw conforming to current ADA guidelines. Tetra Tech delivered the project on a fast-track schedule to assist the Oklahoma Department of Transportation in conforming to the ARRA funds deadlines.

## Tetra Tech Facts

### LEAWOOD, KANSAS OFFICE

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Visit our website:

[www.tetrattech.com](http://www.tetrattech.com)

- Annual Revenue: \$2.6B (FY2013)
- NASDAQ Symbol: TEK
- 14,000 employees worldwide
- 330 offices worldwide



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