

October 12, 2015

**LPA On-Call Professional Services | Roadway Design**

AECOM Technical Services, Inc. (AECOM) is pleased to submit our qualifications for LPA On-Call Professional Services for Roadway Design. **AECOM has the expertise in federally funded roadway design, drainage design, maintenance of traffic (MOT), and local design standards that ensure detailed, quality construction plans.**

**General Experience of Firm**

URS Corporation joined the AECOM family of companies on October 17, 2014. AECOM is a premier, fully integrated professional and technical services firm positioned to design, build, finance and operate infrastructure assets around the world for public- and private-sector clients. The firm’s global staff — including architects, engineers, designers, planners, scientists and management and construction services professionals — serves clients in over 150 countries around the world, AECOM is ranked as the #1 engineering design firm by revenue in *Engineering News-Record* magazine’s annual industry rankings, and has been recognized by *Fortune* magazine as a World’s Most Admired Company. The firm is a leader in all of the key markets that it serves, including transportation, facilities, environmental, energy, oil and gas, water, high-rise buildings and government. AECOM provides a blend of global reach, local knowledge, innovation and technical excellence in delivering customized and creative solutions that meet the needs of clients’ projects. A *Fortune 500* firm, AECOM companies, including URS Corporation and Hunt Construction Group, had revenue of approximately \$19 billion during the 12 months ended June 30, 2015.

**Missouri Services**

With a presence in Missouri since 1958, our St. Louis and Kansas City offices as well as Overland Park, KS have been serving Missouri clients for over 50 years. The MO-KS offices are staffed with over 290 multi-disciplined professionals - engineers, planners, geologists, scientists, architects, construction managers, technicians, operations and maintenance specialists, and administrative personnel. Our experience covers a **broad range of services from planning studies to reconstruction, widening, upgrades, new construction, and all related specialties including: transportation, geotechnical, permitting, value engineering, cost estimating and public involvement.**

**Missouri Experience**

Our transportation engineers have provided their professional expertise for thousands of miles of roadways and highways within Missouri. Specifically, AECOM (formerly URS) has been involved in the design of roadways for Missouri municipal, county and state agencies including:

- |                      |                     |                          |                     |                    |
|----------------------|---------------------|--------------------------|---------------------|--------------------|
| City of Arnold       | City of Crestwood   | City of Kirkwood         | City of Rolla       | Boone County       |
| City of Bridgeton    | City of Elsberry    | City of Maryland Heights | City of St. Charles | Franklin County    |
| City of Chesterfield | City of Eureka      | City of Mexico           | City of St. Louis   | St. Charles County |
| City of Clayton      | City of Festus      | City of O’Fallon         | City of Washington  | St. Louis County   |
| City of Columbia     | City of Kansas City | City of Pacific          | City of Wentzville  | MoDOT              |

**Past Performance**

Though AECOM has effectively supported numerous communities with LPA funded projects, we chose the following four roadway design projects that demonstrate our experience, as summarized below. *All projects were completed by URS which became a part of the AECOM family of companies in October 2014.*



**CLARK LANE IMPROVEMENTS | CITY OF COLUMBIA, MO** URS was selected by the City of Columbia to provide design services for the reconstruction of Clark Lane from Route PP to St. Charles Road, a distance of approximately one mile. The project included the replacement of the existing two-lane roadway, with a three-lane section providing curb and gutter, roundabout, sidewalks, and bike paths improving capacity, safety, site distance and drainage. Bioengineering concepts (low impact drainage improvements) associated with ditch linings and plant materials were implemented in the design. *Services provided: Geotechnical Investigation | Structural Well Design | Traffic Analysis | Permitting | Conceptual Planning | Public Involvement | Preliminary and Final Design | Utility Coordination | Preparation of Construction Bid Documents*



**GUTERMUTH ROAD RECONSTRUCTION PHASES I AND II | ST. CHARLES COUNTY, MO | FEDERALLY FUNDED** This STP funded project involved reconstruction and widening 4,600 feet of Gutermuth Road to a three lane pavement section for St. Charles County. It also involved construction of a three lane pavement section for 2,800 feet of new alignment. Improvements included concrete curb and gutter, enclosed drainage, sidewalks, retaining wall and signing. The project improved capacity, improved site distance, and enhanced safety. URS incorporated input from open house public information meetings in the final design. *Services provided: Survey | Roadway Design | Traffic Circulation Plan | Construction Plans | Drainage Improvements | Geotechnical | Floodplain Studies and Analysis | ADA Compliance | Utility Coordination | Community Involvement*



**NORTH OUTER FORTY | CITY OF CHESTERFIELD, MO** URS was selected to provide design services for the widening of North Outer 40, a distance of approximately 5,000 feet. The project started at the eastern edge of MoDOT's proposed Spirit of St. Louis Boulevard improvements, matching the existing two-lane section. The existing pavement was widened providing a center turn lane. Limited spot repair of existing North Outer 40 pavement and right turn lanes from existing and proposed park exits were included. *Services provided:* **Survey and Plans | Roadway Design | Drainage Improvements | Signage | Permitting | Traffic Control | Utility Coordination | Preliminary and Final Design | Construction Phase Services.**



**FEE FEE ROAD RECONSTRUCTION | CITY OF MARYLAND HEIGHTS, MO | FEDERALLY FUNDED** URS designed the proposed improvements to Fee Fee Road from Midland Avenue to the north City limits, a distance of 0.32 miles. The improvements replaced the existing two-lane roadway, with a three-lane (39 foot wide back of curb to back of curb) section with curb and gutter, enclosed storm sewers and sidewalks on both sides. The existing bridge was replaced with a box culvert in the same location. These improvements included modifications to the bridge just north of Midland Avenue. Replacement of the pedestrian signal near Alan Shepard Drive to a fully signalized intersection was also included in the design. URS was responsible for surveying, as well as the design of all roadway and drainage improvements including the design of the new concrete box culvert. Fee Fee Road remained open to traffic in one direction at all times during construction. *Services provided:* **Roadway Design | Traffic Control and Signals | Preliminary and Final Plans and Specifications | Right-of-Way Plans | Concrete Pavement | Curbs and Gutters | Sidewalks | Drainage Design | Geotechnical | Cost Estimating | Survey | ADA Compliance | Utility Coordination | Community Involvement**

### Qualifications of Personnel

The following are key AECOM personnel with demonstrated success in managing federally funded projects for a variety of municipal clients and have the experience and technical expertise to successfully complete roadway projects of all complexities.

**Mike Brown, PE | LPA-Certified** has 19 years of roadway engineering experience including 12 years with AECOM (formerly URS). He has led numerous projects for municipalities, counties and MoDOT, recently serving as the Project Manager for the I-270/Route 364 (Page Avenue) Interchange. Mike was the Project Manager for Fee Fee Road in Maryland Heights and Deputy Project Manager/Roadway Engineer on the Clark Lane Improvements Project. Mike began his career working for a municipality where he prepared plans and specifications for many roadway and drainage projects.

**Jo Emerick, PE | LPA-Certified** has over 35 years of experience in transportation engineering encompassing planning, design and management responsibilities. Jo has managed numerous roadway LPA projects for municipalities across the state. Jo was the Project Manager for North Outer 40 project for the City of Chesterfield, and the Sidewalk Improvements and Clark Lane Improvements for the City of Columbia. Jo has an extensive understanding of MoDOT's LPA Manual.

**JC Murray, PE | LPA-Certified** has been with the firm for 15 years and has extensive transportation engineering experience, including both federally and non-federally funded projects. His roadway experience includes location studies for new alignments, new roadway reconstruction and widening of existing roadways. JC is currently managing the Muegge Road at Mexico Road intersection improvements project for the City of St. Charles, and was recently the Project Manager for the City's Highway 79 Corridor Study. JC's other projects include Fee Fee Road in Maryland Heights, Jefferson Street Extension in Pacific, and Sidewalk Improvements in Columbia, MO.

TECHNICAL EXPERTISE	STL	OVP/ KC
Roadway Design	6	1
Drainage	9	2
LPA Certified	5	
Sidewalks and Trails	5	2
Utility Coordination	7	2
Pavement Markings	4	
Right-of-Way Plans	4	1
Traffic Signals and Lighting	2	
Parking Lot Design	3	2
Geotechnical	7	2

In addition to the key personnel listed above left, the Missouri/Kansas offices in St. Louis (STL) and Kansas City area (OVP/KC) have staff available to support all roadway design projects, as indicated in the technical expertise matrix, above

### Familiarity | Capability

The AECOM Missouri/Kansas offices have a wide-range of experience delivering projects that utilize federal funding including STP funds. This experience has given us the knowledge and relationships with the governing and review agencies, including Missouri Department of Transportation (MoDOT), East-West Gateway Council of Governments, St. Louis County Department of Highways and Traffic, St. Louis Metropolitan Sewer District (MSD), and also the Ozark Transportation Organization.

#### LPA Experience

We have successfully designed and delivered numerous federally-funded roadway projects for LPAs including the cities of Clayton, Columbia, Maryland Heights, Pacific and St. Charles. As a result we have built solid relationships with MoDOT LPA liaisons. We have hands-on knowledge of MoDOT's LPA Manual guidelines, East-West Gateway Council of Governments' Reasonable Progress Schedule, and other permitting requirements across the state which will enable us to efficiently progress through project development. A majority of our project managers have received MoDOT certification for LPA projects. Our LPA experience is useful in minimizing project delays and ensuring funding milestones are met and projects are implemented correctly.

#### Schedule and Cost Control

AECOM consistently provides projects to our clients that are on-time and under-budget. Our clients take comfort in knowing that AECOM commits the necessary personnel to satisfy all of their needs. We take client satisfaction seriously and are proud of our hard-earned reputation for ensuring projects are complete, within budget, and on schedule. The range of construction bids received on our projects are typically very close to our estimate, indicating not only the accuracy of our estimates but the completeness and quality of our bid documents.

#### Quality Control

The principles of AECOM's stringent QA/QC policy include detail checking of plans and calculations at each step of design, identification of Independent Technical Reviewers to examine plans and offer fresh perspectives, and extensive documentation to ensure that the highest quality products are delivered. The process includes review of the design and/or report by a well-qualified professional engineer (who is not directly involved with the project) prior to each submittal. All items in the plans or reports will be checked and verified using a two-person system of reviewing, checking, correcting and verifying. Using this two-person system (including the independent professional engineer) ensures a high-quality product.

### Accessibility

AECOM has local and available staff that will serve each project in our Missouri/Kansas Operations. Depending on the project, regularly scheduled internal team meetings with task leads and critical staff will take place in the local office. Our staff will be available for team and core meetings as dictated by schedule and project issues. The frequency and location of team meetings and core team meetings will be defined in AECOM's Project Execution Plan and distributed to all team members to define project and client expectations. AECOM has three offices that can serve our clients across the state of Missouri with roadway design services.

Thank you for reviewing our letter of interest. We look forward to discussing our capabilities in further detail with you.

Sincerely,

AECOM

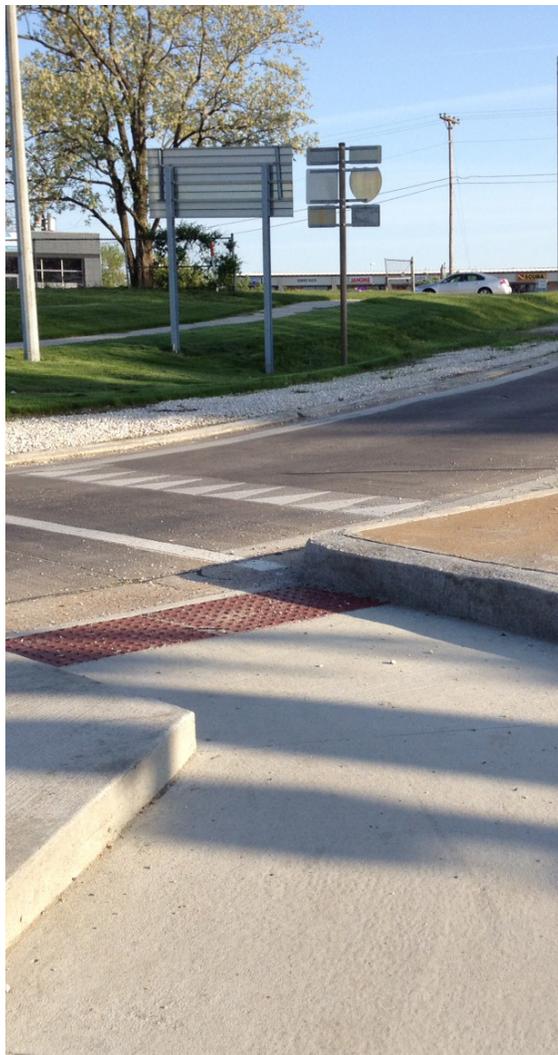


J.C. Murray, PE  
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AECOM SCHEDULE AND COST CONTROL		Engineer Estimate	Low Bid	Final Construction Cost	Met Schedule	Federally Funded
Projects and Clients						
North Outer 40 City of Chesterfield, MO		\$700 K	\$544 K	\$560 K	■	■
Fee Fee Road Reconstruction City of Maryland Heights, MO		\$2.4 M	\$1.9 M	\$1.9 M	■	■
Clark Lane Improvements City of Columbia, MO		\$6.2 M	\$4.9 M	\$4.9 M	■	■
Gutermuth Road Phases I and II St. Charles County, MO		\$5.3 M	\$4.4 M	\$4.4 M	■	■
Birdie Hills Road Phases I and II St. Charles County, MO		\$6.4 M	\$5.5 M	\$5.6 M	■	■
Jefferson Avenue Extension City of Pacific, MO		\$600 K	\$600 K	\$600 K	■	■
Forsyth Blvd Ped Underpass City of Clayton, MO		\$2.3 M	\$2.1 M	\$2.1 M	■	■
Chouteau/Vandeventer Intersection   City of St. Louis, MO		\$15.4 M	\$13.5 M	\$13.5 M	■	■
Route N Improvements City of Pacific, MO		\$1.7 M	\$1.6 M	\$1.9 M	■	■
North 1st Street Improvements City of Pacific, MO		\$1.3 M	\$1.3 M	\$1.4 M	■	■

*These projects were completed by URS which became a part of the AECOM family of companies in October 2014.*

# Transportation and Construction Services *for LPA projects*



## Roadway Design

AECOM has prepared environmental assessments, design reports, locations studies, right-of-way plans, signing and pavement marking and construction plans for several hundred miles of arterial and urban highway improvements. In many instances, particularly in urban areas, the method of sequencing and extent of improvement is significantly influenced by the need to maintain traffic on existing facilities. Our staff has significant experience in the design and construction of projects in highly populated communities.



### Capabilities

- Geometric Design
- Maintenance of Traffic
- Resurfacing
- Environmental Clearance
- Lighting
- Sidewalks
- Parking Lot Design
- Widening
- Hydraulics
- Cost Estimating
- Geotechnical
- Construction Services
- Environmental
- Utilities and Stormwater

## Traffic/TEAP Operations

As traffic engineers, AECOM has prepared traffic studies and TEAP projects varying in size from detailed studies for City of Mexico, City of Maryland Heights, City of Columbia, and City of St. Charles. In addition to conventional street and highway traffic analysis and design, our staff has extensive experience in traffic safety studies, parking needs analysis and design of parking structures.



### Capabilities

- TEAP Studies
- Traffic Analysis
- Traffic Signal Design
- Intersection Design
- Safety Studies
- Parking Needs Analysis
- Signage
- Lighting
- Cost Estimating
- Construction Traffic Handling

## Transportation Planning

Planning of transportation systems is a critical infrastructure component for urban and rural areas. Transportation solutions for growing areas have to address complex needs, while maintaining the quality of life and natural resources of the community. In performing transportation planning for public and private clients, AECOM applies state-of-the-art methods within a planning process that responds to the specific needs of each client. AECOM has extensive experience in all aspects of transportation planning.

### Capabilities

- Regional and Comprehensive Transportation Plans
- Noise and Air Quality Conformity Plans
- Travel Demand Mgt
- Corridor Studies
- Multimodal Studies
- Circulation Studies
- Pedestrian Studies
- Parking Studies
- Traffic Studies
- Transit Studies
- Toll Studies

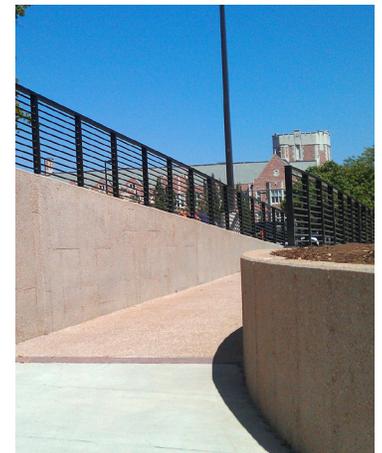


## Structures

The staff of AECOM have designed numerous interstate, urban, local and rural bridges using steel plate girders, steel wide flange beams, reinforced concrete, and precast prestressed concrete deck beams and I-beams.

### Capabilities

- Feasibility and Planning Studies
- Site Explorations
- Structural Design and Evaluation
- Geotechnical Engineering
- Environmental Clearance
- Hydraulics
- Construction Documents
- Cost Estimates and Schedules
- Construction Phase Services



**2015 ENR RANKING**

- #1 DESIGN FIRM
- #1 TRANSPORTATION
- #1 HIGHWAYS
- #1 GENERAL BUILDING
- #1 ARCHITECTURE
- #1 DESIGNER INTERNATIONAL MARKETS

AECOM was ranked #1 on the *Engineering-News Record* (ENR) Top 500 Design Firms. AECOM is consistently ranked among the top design and engineering firms worldwide.

## Pedestrian and Bike Trails

For over many years, AECOM has been deeply rooted in meeting the nation's infrastructure, providing planning and design services for all types of urban and suburban cores, trails and greenways, and natural areas. We have expanded our services to meet the changing infrastructure needs of the nation and the world, while developing a solid reputation for designing within budget and on schedule, complementary to cultural and economic demands, and in harmony with natural features.



### Capabilities

- Environmental Clearance
- Bikeway/Trail Design
- Sidewalks
- Landscape Design
- Rest Area Design
- Streetscapes and Complete Streets
- Surveying
- Agency Coordination

## Geotechnical

The AECOM team brings over 50 years of geotechnical engineering experience. AECOM St. Louis is home to our Corporate Center of Excellence for Geological Services. Consequently, AECOM has extensive local knowledge and experience working throughout Missouri and understands the geology and challenges associated with transportation projects.



### Capabilities

- Slope Stabilization
- Erosion/Sediment Control
- Foundation Engineering
- Groundwater Mgt
- Geotechnical Instrumentation
- Laboratory Testing
- Field Investigations
- Construction Monitoring
- Seismic Evaluations and Retrofits

## Construction Inspection

AECOM provides flexibility and reliability to our LPA clients to deliver each construction inspection assigned project within what may be aggressive schedules. Our construction inspection staff provides the project controls, administration, and field oversight to manage work from the bid phase through closeout. AECOM verifies that contractor schedules have logical work sequences and appropriate resources and activities before we incorporate their data into our master schedule.



### Capabilities

- Geotechnical Work
- Sampling and Testing
- Shop Drawings
- Construction Observation
- Contract Administration
- Scheduling
- Constructability Reviews

## Community Involvement

A project's success often depends on the public's perception of it. AECOM helps build on existing community ties to enhance the public cooperation and dialogue that keep a project moving forward. We provide various levels of assistance, from rapid consultation to complete management and execution of the community relations effort, tailoring each program for the individual project.

### Capabilities

- Open Houses
- Public Meetings
- Small Group
- Individual Meetings
- Advisory Committees
- Newsletters
- Fact Sheets
- Stakeholder Committees
- Surveys and Interviews
- Media Briefings
- Web Sites
- Toll-Free Numbers



### Missouri/Kansas Locations

St. Louis, Missouri Office  
1001 Highlands Plaza Drive West  
Suite 300  
St. Louis, MO 63110

Kansas City, Missouri Office  
2380 McGee Street  
Suite 200  
Kansas City, MO 64108

Overland Park, Kansas Office  
8300 College Boulevard  
Suite 200  
Overland Park, KS 66210

*For more information, please contact J.C. Murray, PE, Transportation Department Manager, 314.429.0100*



## About AECOM

AECOM is a premier, fully integrated professional and technical services firm positioned to design, build, finance and operate infrastructure assets around the world for public- and private-sector clients. The firm's global staff — including architects, engineers, designers, planners, scientists and management and construction services professionals — serves clients in over 150 countries around the world. AECOM is ranked as the #1 engineering design firm by revenue in *Engineering News-Record* magazine's annual industry rankings, and has been recognized by *Fortune* magazine as a World's Most Admired Company. The firm is a leader in all of the key markets that it serves, including transportation, facilities, environmental, energy, oil and gas, water, high-rise buildings and government. AECOM provides a blend of global reach, local knowledge, innovation and technical excellence in delivering customized and creative solutions that meet the needs of clients' projects. A *Fortune 500* firm, AECOM companies, including URS Corporation and Hunt Construction Group, had revenue of approximately \$19 billion during the 12 months ended June 30, 2015.

More information on AECOM and its services can be found at [www.aecom.com](http://www.aecom.com).

## Contact

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