

CIVIL ENGINEERS SINCE 1989

November 15, 2013

MoDOT Central Office - Local Program Administrator

c/o MaryAnn.Jacobs@modot.mo.gov

Re: **On-Call Services, Trails & Sidewalks**

SK Design Proposal No. 13p143

We are pleased to submit our proposal to provide roadway design services to MoDOT LPA.

Our Unique Qualifications

- ▶ SK Design has been in business for over 24 years, and we have provided services to a progressively growing list of clients. We specialize in project management and civil design. We currently have a staff of 19, including 10 engineers, 7 of whom are professional engineers, and 4 construction inspectors. We utilize AutoCAD 2013, Civil 3D 2013, AUTOTURN, HYDROFLOW STORM SEWERS, ESRI ArcGIS 10.1, HEC-1, HEC-2, HEC-RAS 3.3, HEC-HMS, TR55, AND HY-8 and other state-of-the-art computer applications. The quality of our services surpasses the industry standards. We subscribe to the philosophy of a complete design. A complete design is one which requires virtually no additional clarification during construction. This philosophy requires thorough analysis and design of all aspects of the project. All details must be worked out, and all ambiguities resolved.
- ▶ SK Design produces quality work which lends to cost control. Our construction documents are accurate and complete, resulting in accurate bids, ease of construction, elimination of unwarranted change orders, and ultimately, control of costs. Ninety percent of our projects had change orders less than 1%. The other 10% have change order rates of 3-5%. Over 95% of our work is with repeat clients, which attests to the quality of our work.
- ▶ When you hire SK Design, all aspects of your project are managed by an experienced team of senior level engineers. One of the unique qualities of SK Design is the vast amount of project experience available to our clients due to our personnel. All of our projects are managed by one of our seven professional engineers with a combined average experience of 26 years. In fact, five out of the seven have a Master Degrees in Civil Engineering and three of the engineers identified on this project have Master's Degrees.
- ▶ We have recently implemented the new Architectural Barriers Act – American with Disabilities Act (ABA-ADA) Outdoor Developed Areas Guide criteria for a project with similar terrain near Branson Missouri for the “Young Life Campground” site. The campground is expected to accommodate up to 800 campers per week during the peak occupancy spring, summer and fall months. Accessibility for all campers was a key goal of the project. The project site is approximately 43 acres in size and has 140 feet of drop across the site. SK developed multiple layout and grading options to provide accessibility along roadways, drop off areas and pathways between the dining hall, gym, dorms, pool area and club room facilities planned for the site.
- ▶ We understand the requirements in the MoDOT Local Public Agency (LPA) Policy manual. SK recently provided an alignment study for a 2-mile trail segment of the Trolley-Blue River Connector Trail that provides the connecting link between the Indian Creek Greenway Trail, Blue River Trail and Trolley Trail. We just completed the Plans, Specifications and Estimate (PSE) for the first section of the trail and are providing construction administration services for this federally funded trail segment for the KCMO Parks and Recreation Department. As part of the first phase, SK Design provided full environmental documentation for the project including, Section 106 clearance, 404 and 401 permits for work along the Blue River and Indian Creek, a no rise certificate and 4F clearance. A 330-foot, 3-section bike/pedestrian bridge was required over Indian Creek to pass the 100-year flow without impacting the 10-year water surface elevation. The bridge abutments were set back 25 feet from the top of bank to mitigate 404 impacts. An intermediate bent was installed to provide the required conveyance area and reduce the bridge section lengths.
- ▶ We are very familiar with MoDOT's design criteria and approval process. In 2008 we designed the Mick Deaver Drive extension for the University from Champions Drive to S. Providence Road intersection. A portion of the Hinkson Creek Trail was reconstructed to accommodate the addition of the northbound Providence Road right turn lane at Mick Deaver Drive. A new trail crossing was provided at the intersection along with a connecting trail segment along the north side of Mick Deaver Drive to the existing MU Recreation Trail. The roadway alignment and grade line required filling in the Hinkson Creek Floodplain. We used HEC-RAS to determine if the proposed roadway improvements would impact the 100-year water surface elevation along Hinkson Creek. All work at the intersection was coordinated with and approved by MoDOT.

We truly appreciate the opportunity to submit our proposal and look forward to your favorable decision.

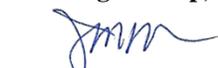
Sincerely,

SK Design Group, Inc.

4600 College Boulevard

Suite 100

Overland Park, KS 66211



John Chamberlin, PE, RLS, Director of Engineering

T ▲ 913.451.1818

F ▲ 913.451.7599

W ▲ skdgm.com

GENERAL EXPERIENCE AND PAST PERFORMANCE

- ▶ Trolley-Blue River Connector Trail: Federal Project STP 3301 (443), KCMO: Responsible for alignment study, preliminary engineering and construction engineering. The alignment study considered cultural, economic, environmental, right-of-way and flood plain impacts. Project clearances in accordance with National Environmental Policy Act (NEPA) included COE404 permit for bank stabilization along Indian Creek, Section 401 Water Quality Certification from MDNR, Section 106, Section 106 Historic Preservation Clearance from MDNR and Section 4F parkland clearance. The first phase of construction begins near the confluence of Indian Creek and the Blue River on the south side of Indian Creek. Here the trail connects the Indian Creek Greenway Trail to the Blue River Trail and extends the trail system north up to old 95th Street near the southeast corner of the U.S. General Services Administration complex. The project includes a 330 foot, two-span bike/pedestrian bridge over Indian Creek. A hydraulic analysis using HEC-1 was completed and a no-rise certificate issued for the bridge.


- ▶ Blue River Trail, (Alex George Lake Connection), KCMO, Federal Project No. STP 3400 (412): Performed hydraulic analysis for a 150-foot span pedestrian bridge crossings over the Blue River and a tributary to the Blue River. Prepared no-rise certificates for the pedestrian bridge channel crossings. Determined location and size of drainage culverts crossing the trail. Assisted with the design and review of trail pavement selections and subgrade preparation. The project was designed in accordance with Federally Funded Transportation Enhancement requirements. The bridge was designed by Leigh-O’Kane to be inundated by flooding along the Blue River. The abutments were set back 30 feet on both ends from the top of bank to eliminate the need for bank stabilization and to stay out of waters of the US under the jurisdiction of the Corps of Engineers thereby eliminating the need for a 404 permit.


- ▶ Turkey Creek Trail, Overland Park, KS: SK Design Group was responsible for the feasibility study and preliminary design of this trail through rugged terrain in the bluffs of Turkey Creek. The trail is approximately 6500 lineal feet long. This trail will eventually link to the metro green bike/pedestrian trail system. Several options were studied ranging from an AASHTO compliant asphalt trail to a primitive wood chip trail. Each option presented significant construction obstacles requiring extensive retaining walls, large cross pipes for drainages, correcting unstable slopes and limited access to perform the work. A large portion of the costs was for retaining walls and steps necessary to minimize adverse effects on adjacent properties, and for creating a safe and accessible path for users. The funding source for this project will be through CMAQ and the City of Overland Park.




- ▶ Six Creek Crossings, Overland Park, KS: Responsible for the design of six creek crossings, including specifying pedestrian bridges, culvert design, grading plans, hydraulic analysis, preparation of “certificate of No Rise”, incorporation of flood studies, permitting and preparation of cost estimates. Two of the six have been designed. SK Design coordinated with the KS Department of Wildlife and Parks, obtained Corps of Engineers permits, and prepared a FEMA Conditional Letter of Map Revision (CLOMR) for each project.
- ▶ Heritage Trail, KCMO and KC, KS, Federal Project CMAQ-3300 (499) SEG 4C MO: This project links the West Bottoms to the Lewis & Clark Trail to the Upper and Lower Westside and Quality Hill areas. Responsible for masterplanning, civil engineering construction documents, and utility infrastructure. Project includes transportation and multiple agency coordination. Civil design of 6000 foot trail in west bottoms, 6100 feet of access roads and 784 lineal foot Belleview / Madison connection and assistance in route selection of the other segments of project.



SK DESIGN GROUP, INC. DIVERSITY PLAN

BACKGROUND:

- ▶ As a concept, diversity is considered to be inclusive of everyone. In many ways, diversity initiatives complement non-discrimination compliance programs by creating the workplace environment and organizational culture for making differences work. Diversity is about learning from others who are not the same, about dignity and respect for all, and about creating workplace environments and practices that encourage learning from others and capture the advantage of diverse perspectives.
- ▶ Businesses that foster an inclusive workplaces see lower turnover rates.

PLAN:

- ▶ SK Design Group fosters an inclusive workplace that combines workers from diverse backgrounds and experiences that together breed a creative, innovative and productive workforce.
- ▶ SK Design plans to perform an assessment of our diversity plan to evaluate its effectiveness. We plan to prepare a customized employee satisfaction survey for this assessment. The intent of the survey is to assist our management team to determine which challenges and

obstacles to diversity are present in our workplace and which policies need to be added or eliminated. Periodic reassessment will determine the success of our diversity plan.

- ▶ SK Design Group will evaluate opportunities for incorporating cooperative/training programs that target the wide range of individual characteristics associated with a diverse workforce.
- ▶ SK Design Group is an equal employment employer and intends to abide by a policy of non-discrimination and equal employment opportunity, and requires that all employees and applicants be treated equally regardless of race, color, sex, national origin, religion, ancestry, age and physical handicap which is unrelated to the ability to perform a particular job or occupation. This policy is to apply to all company operations including, but not limited to employment, upgrading, promotion, demotion, transfer, recruitment or requirement advertising, layoffs or terminations, rates of pay or other forms of compensation, and selection for training. Please refer to the company affirmative action plan.

CURRENT ASSESSMENT OF SK DESIGN GROUP'S DIVERSITY PLAN (NOVEMBER 2013)

- ▶ SK Design Group embraces work force diversity. SK Design Group currently employs four women, one of whom is a partner of the firm, eight minorities, and two African Americans.
- ▶ SK Design Group has established a relationship with The University of Missouri Kansas City (UMKC) to help engineering students (particularly civil engineering students) with career-related internships and/or other activities within the Kansas City community. SK Design plans to contact other area universities to expand our internship program.
- ▶ SK Design Group assembles diverse project teams to support workforce diversity. SK Design Group has developed a long term relationship with local MBE/WBE/DBE firms and consistently teams with them on projects requiring additional expertise.

FAMILIARITY/CAPABILITY

- ▶ We have successfully completed the following federal projects that are compliant with federal law:
 - Trolley-Blue River Connector Trail: Federal Project STP 3301 (443), KCMO: Project clearances in accordance with National Environmental Policy Act (NEPA) included COE404 permit for bank stabilization along Indian Creek, Section 401 Water Quality Certification from MDNR, Section 106, Section 106 Historic Preservation Clearance from MDNR and Section 4F parkland clearance. The project includes a 330 foot, two-span bike/pedestrian bridge over Indian Creek. A hydraulic analysis using HEC-1 was completed and a no-rise certificate issued for the bridge.
 - United States Courthouse, Jefferson City, MO
 - Lewis and Clark State Office Building, Jefferson City, MO: SK Design incorporated storm water management measures to reduce or eliminate surface water runoff, erosion, sedimentation and flooding, which consisted of infiltration areas, bio-swales, level spreaders and pervious pavement.
 - Department of Conservation Regional Offices, Jackson County, MO
 - Upper Line Creek Valley Trail, Federal Project STP 3301 (442): Provided environmental documentation.
 - Blue River Trail, 103rd Street to Alex George Lake, Federal Project STP 3400 (412): Provided environmental documentation and no rise certificate for the bridge over the Blue River

ACCESSIBILITY

- ▶ SK Design has a proven track record of meeting or exceeding fast-track design schedules while maintaining exceptional design quality. We just completed a roadway reconstruction design project for Kansas University. This \$1.4 million, 2400 LF roadway project included portions of Constant Avenue, Irving Hill Road and 19th Street. The design was completed and the project bid in 60 days to meet their summer construction schedule. We have met similar schedules for Mick Deaver Drive and the Red Campus Chilled Waterline projects on the University of Missouri, Columbia campus. The design and bidding for Mick Deaver Drive (\$2.7 million) was completed in 90 days and the Red Campus Chilled Waterline (\$2.5 million) was designed and bid in 45.

SK DESIGN GROUP, INC. GENERAL BROCHURE

MISSOURI DEPARTMENT OF TRANSPORTATION

PROFILE

- ▶ **SK Design Group** is dedicated to providing the very best in professional engineering services to our clients. Our expertise covers a wide variety of services in the areas of civil engineering and construction administration. SK Design staff includes several LEED accredited professionals with extensive experience in projects that have achieved Silver, Gold or Platinum certification.
- ▶ Although each project is unique, **SK Design Group** incorporates sustainable engineering solutions and Best Management Practices (BMPs) into all of our projects. Our sustainable “Green Solution” approach has resulted in lower initial construction cost, greatly improved storm water quality, reduction in “Heat Island Effect”, preservation of wildlife habitat, and enhanced recreational opportunities.
- ▶ We believe that the success of each project depends on our responsiveness to our client’s needs, our commitment to our client’s budget, and our adherence to the schedule. We build strategic alliances to develop consensus, to transform the built environment, and to effect change through sustainability. We pride ourselves in our ability to bring together various corporate, institutional, community and government stakeholders. Key skills that are central to our way of doing business are good management and keeping an open line of communication.
- ▶ Thanks to our expert engineering teams, our work ethic, and our relationship-building style of management, we have an impressive following of repeat clients.

▶ **SK Design Group** offers the following professional engineering services:

Civil Engineering

- Sustainable Site/Land Development
- Subdivisions
- I & I Studies
- Highways/Roads
- Pavement Design/Rehabilitation
- Airfields/Airports
- Drainage Studies
- Sanitary and Storm Sewers
- Water Lines
- Parks and Recreation

Construction Phase Services

- Shop Drawing Review
- Inspections
- Special Inspections
- Coordination
- Testing

▶ We utilize MicroStation-Geopak, AutoCAD 2014, Civil 3D 2013, AUTOTURN, HYDROFLOW STORM SEWERS, ESRI ArcGIS 10.1, HEC-1, HEC-2, HEC-RAS 3.3, HEC-HMS, TR55, AND HY-8 and other state-of-the-art computer applications. The quality of our services surpasses the industry standards. We subscribe to the philosophy of a complete design. A complete design is one which requires virtually no additional clarification during construction. This philosophy requires thorough analysis and design of all aspects of the project. All details must be worked out, and all ambiguities resolved.



CREATIVITY

We view our clients' parameters of time, budget and needs as opportunities that challenge our imagination. ▶



PERFECTION

Our vision of perfection drives us to hone our skills to better serve our clients. ▶



HARMONY

We strive to protect the natural assets of each site to enhance the project. ▶



FLUIDITY

Fluidity allows us to develop multiple solutions to every design problem, which gives our clients a variety of options to satisfy their needs. ▶

4600 College Boulevard
Suite 100
Overland Park, KS 66211

T ▶ 913.451.1818

F ▶ 913.451.7599

W ▶ skdg.com

PROJECT EXAMPLES

Site



Shoal Creek Patrol Station



New Metro Patrol Station



KCI Economy Parking

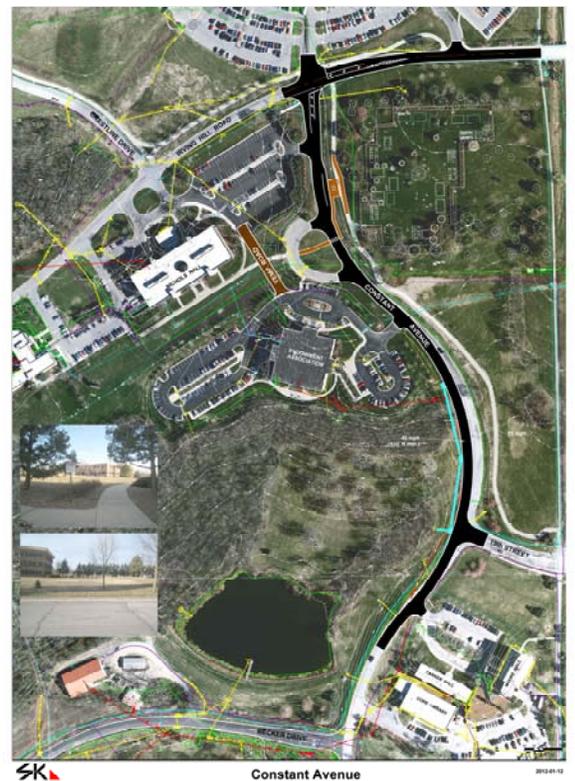


KU Park and Ride

Roadway



Mick Deaver Drive



Constant Avenue

PROJECT EXAMPLES



Tomahawk Creek Trail

Trails



Kansas University Trail



TURKEY CREEK TRAIL



Trolley - Blue River Trail

Construction Inspection and Administration



Cookingham Drive

TIGER Grant State Avenue



Constant Avenue



Munn Avenue



PERSONNEL

▶ **Sassan Mahobian, PE, LEED AP, President**

- Education:
 - MS Civil Engineering, MU
 - BS Civil Engineering, UMKC
- Registration:
 - Engineer Missouri 4 other states;
 - LEED Accredited Professional



▶ **Katereh Mahobian, PE, LEED BD+C, Vice President**

- Education:
 - MS Civil Engineering, KU
 - BS Civil Engineering, UMKC
- Registration:
 - Engineer Missouri
 - LEED Accredited Professional, Building Design and Construction



▶ **John Chamberlin, PE, RLS, Director of Engineering**

- Education: MS and BS Civil Engineering, KU
- Registration: Engineer, Missouri and Kansas, Land Surveyor, Kansas



▶ **Greg Lee, Director of Business Development, Public Involvement Specialist, Small Missouri Communities**

- Greg has over 30 years of experience in working with small Missouri communities



▶ **Gary M. Urkevich, PE, RLS, Senior Project Manager**

- Education MS Water Resources Engineering, BS Civil Engineering, KU
- Registration: Engineer, Missouri and Kansas; Land Surveyor, Missouri and Kansas



▶ **Tim Burfeind, PE, LEED AP, Senior Project Manager**

- Education: MS and BS Civil Engineering, KU
- Registration: Professional Engineer, Kansas; LEED Accredited Professional



▶ **Stephen Brefo, PE, Project Manager**

- Education: MS Civil engineering, Moscow School of Engineering
- Registration: Engineer, Missouri



▶ **Nader Gachkar, Project Manager**

- Education: BS Civil Engineering, Islamic Azad University, Tehran, Iran



▶ **Matthew Kist, PE Project Manager**

- Education: BS Civil Engineering, MU
- Registration: Engineer in Missouri



▶ **Pejmon Mahobian, Project Engineer**

- Education: BS Civil Engineering, KU



▶ **Christopher Francisco, AIA, NCARB, Field Architect**

- Education: BA Architecture, KU
- Registration: Architect in Missouri.



▶ **Ron Andrascik, Field Project Manager**

- Experience:
 - SK Design Group, Inc., May, 2008 to present. Construction Inspection on several projects:
 - Pennsylvania Department of Transportation, Pittsburgh, PA 1969 – 1999



▶ **Don Pepper, PE, Field Project Manager**

- Education: MS Civil Engineering, Construction Management, MU
- Registration: Engineer, Missouri and Kansas



▶ **Rajan Desai, Civil Engineering Technician**

- Education:
 - Assoc. Degree Civil Engineering, S.K.J. Polytechnic Branch, India
 - CAD Courses, Cuyahoga Community College, OH



▶ **Tonya Crockett, Civil Engineering Technician**

- Education: Lincoln University, Jefferson City, MO



▶ **Shohreh Nader, Civil Engineering Technician**

- Education: BS Environmental Architecture, Purdue University

