

Engineering Surveys and Services

Consulting Engineers, Geologists, and Land Surveyors
Analytical and Materials Laboratories

1113 Fay Street
Columbia, Missouri 65201
Telephone 573-449-2646
Facsimile 573-499-1499

E-Mail ess@ESS-Inc.com
<http://www.ESS-Inc.com>

November 14, 2013

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

RE: **Missouri's Local Program
On-Call Professional Services Prequalification
ROADWAY DESIGN**

Dear Mr. Voss,

As a professional services firm that has served mid-Missouri clients since our founding, *Engineering Surveys and Services* (ES&S) is excited about the chance to serve in an "on-call" capacity for roadway design services for participants of Missouri's Local Program for community development. ES&S offers the right in-house combination of civil engineering and design/construction support services (surveying, geotechnical engineering, materials testing, etc.); we offer recent relevant experience and a thorough knowledge of the region; and we are "in the neighborhood", with three mid-Missouri production offices. ES&S will draw on these resources to deliver the following value to Local Public Agency clients throughout central Missouri:

- **One of the strongest and most stable engineering and design support practices in mid-Missouri.** Firm-wide staff approaches 50 - a mix of registered professional engineers and surveyors; design drafting and field services technicians; and laboratory specialists.
- **Outstanding design support staff that is integrated into the design process throughout the life of a project;**
- **A commitment to the region, the State of Missouri, and our clients developed over ES&S's nearly sixty-year history of providing professional services!**

In the *Letter of Interest* (LOI) that follows, we offer a brief profile of our firm, an introduction to the key staff available to serve LPA clients, and examples of our firm's relevant experience with similar projects. We have provided three *Company Reference Forms* for the following projects:

1. **City of Columbia:** West Broadway/Fairview Road Improvements
2. **City of Jefferson:** Water Street Pavement Stabilization
3. **City of Sedalia:** Downtown Streetscape, Phase II

Finally, we wish to confirm that ES&S is prequalified with MoDOT and listed on the Approved Consultant Prequalification List. We are hopeful that in your review of our LOI and discussions with our previous clients, you will agree that ES&S is uniquely located, capable and committed to successfully deliver projects for agencies participating in Missouri's Local Program.

Best regards,



Ross A. Kasmann, PE – Manager, Jefferson City Office
Engineering Surveys and Services

General Firm Profile & Experience

Engineering Surveys and Services (ES&S) delivers solutions for the built-environment of mid-Missouri - and has been doing so since its founding in 1954. Over the decades, the firm has added to the services provided to public agencies and clients in the private sector. Today, ES&S offers consulting services for the planning and design of civil infrastructure in the transportation and water industries; site preparation for vertical construction; full-service land surveying, construction observation services; and laboratory facilities to perform a comprehensive list of analytical and construction material testing required for most public infrastructure and building projects.

ES&S has three mid-Missouri offices (Columbia, Sedalia, Jefferson City) to offer prompt, personal service to clients in the region. Each office is a production office, providing surveying, civil and geotechnical engineering design, and materials testing and construction observation. We have been providing this full-service approach longer than any other central Missouri-based firm. Our staff has amassed extensive knowledge of the region's surveying records and geotechnical conditions. We enjoy strong working relationships with regulatory agencies and utility providers, helping us to deliver design that is more efficient and at a reduced cost of construction for our clients. The combination of comprehensive services available in each office and accumulated knowledge of the region allows for effective, hands-on project management and enhances control over project deadlines and budget.

Key Staff

Leading our efforts for engineering design is **David Bennett, PE**. David manages the firm's Engineering Division from our Columbia Office. He has been providing civil engineering design services in mid-Missouri since 1978, all with the ES&S. Dave is assisted in the Columbia Office by Project Managers, **Ben Ross, PE, PTOE**, and **Matt Kriete, PE**. Ben is an 18 year veteran of ES&S, and served for five years as manager of the firm's Sedalia Office. Matt has been with ES&S for a dozen years, and in addition to roadway design, has had extensive experience with hydraulics and hydrology analysis for the firm's

infrastructure and site development assignments. Examples of project assignments where the three have worked closely together include:

<i>Project Name</i>	<i>Description</i>	<i>Proj. Mgr. (Constr YR)</i>
Blue Ridge Road Improv. (Columbia)	3400-LF urban arterial widening; STP-2100 (514)	Bennett (2005)
24 th Street Improv. (Sedalia)	2000-LF roadway upgrade; STP-5711(501)	Ross (2002)
Rangeline Road (Columbia)	1300-LF upgrade to ped safety, access mgmt., and streetscape	Kriete (2011)
W Broadway/Fairview Road (Columbia)	3000-LF of major & minor arterial widening (MO Rte TT)	Ross (2008)
Grindstone Parkway Improv. (Columbia)	1100-LF major collector (MO Rte AC), 3000-LF local rdwy	Ross (2006)
MO Rout 5 Turn Lane (Boonville)	New turn lane at entrance for Boonville High School expansion	Ross (2009)
East Boulevard Exten. (Columbia)	4000-LF of new urban arterial, incl bridge over Hinkson Creek	Ross (2014)

For projects more efficiently served from one of our other locations, routine management of the definition of scope and fee, staff commitments, and design process may fall to one of ES&S's location leaders – **Ross Kasmann, PE – Manager, Jefferson City Office** and **Abby McMullin, EI – Manager, Sedalia Office**. ES&S has 12 additional project engineers available for assignment, ten of those being registered Professional Engineers in the State of Missouri; two Registered Geologists; and three Professional Land Surveyors.

Tim Reed, PLS, serves as ES&S' Surveying Manager and in this capacity provides oversight for the land survey services required for design work assigned to the firm. In his 36-year tenure at the firm, Tim has undertaken directly or managed the broad range of land surveying services, including preparation of legal descriptions and displays and assistance during negotiation to support the land acquisition process.

Relevant Experience

ES&S has provided a number of projects that required coordination with MoDOT; utilization of STP, SRTS, TE, CDBG, and other funding programs; project administration under the LPA program, and dealing with federal compliance issues in permitting, bidding and construction. We have summarized a number of such recent projects on the following page.





Blue Ridge Road Reconstruction, STP-2100 (514) – Columbia, MO: 3,400-LF of urban collector; features included asphalt pavement and PCC curb & gutter, addition of enclosed storm sewers and paved sidewalk / pedway, coordination or design of utility relocations, reconfiguration of intersections with the addition of turn lanes, and agency coordination with MoDOT and USACE.



W Broadway & Fairview Road Improvements – Columbia, MO: ES&S provided design services for upgrades to two urban arterials serving the fast-growing western side of Columbia – West Broadway (MO Route TT) and Fairview Road. The project corridor consisted of 3,100-LF of arterial widening and 1,100-LF of local roadway on new alignment. Improvements required coordination with MoDOT and the City of Columbia, included the addition of landscaped medians, right-in/right-out entrances pedestrian-friendly Australian right turn lanes for access management, and stamped pavement treatments to delineate pedestrian crossing and enhance aesthetics.



Downtown Streetscape - Phase II – Sedalia, MO: This project included sidewalk reconstruction adjacent to buildings; ADA compliance; historic lighting, stamped concrete and other streetscape and hardscape features. ES&S performed surveying and design services, materials testing and construction observation for the five city block area, including the streets around the Pettis County Courthouse. Financing for the \$1.6M project were primarily from CDBG funds. The City of Sedalia recently engaged ES&S to perform similar services for Phase IIIa of the *Downtown Streetscape* initiative.



New Hannah Cole Primary & Boonville HS Expansion – Boonville, MO: Project included site improvements for facilities on the Boonville R-1 School District’s campus just north of MO Route 5/I-70 interchange. Primary facility additions were the new K-2 Hannah Cole Primary School and an 11,100-SF addition to the existing Boonville HS. In addition to the new campus roadways, coordination with MoDOT was required to provide for widening and new turning access from MO Route 5 (shown at left).



Rangeline Streetscape & Pedestrian Improvements – Columbia, MO: Upgrades to 1,300-LF of urban collector through the historic Columbia College campus. The project consisted of a new asphalt pavement overlay, reconstructed concrete curb & gutter and the addition of sidewalks on each side of the street. Other features included storm drainage upgrades, historic street lighting, a number of several mid-block pedestrian crossings and havens to promote safety and ADA accessibility, and aesthetically pleasing streetscapes.



Water Street Pavement Stabilization – Jefferson City, MO: Subsurface investigation, survey and civil design of roadway pavement repair due to a failed embankment on Water Street, northeast of the Capitol Building. This segment of Water Street runs along the edge of the bluff, immediately southeast of the Missouri River Bridge, and has a very steep elevation drop on the river-side of the roadbed. The bank and road shoulder was stabilized and roadway pavement and guardrail replaced.



COLUMBIA



JEFFERSON CITY



SEDALIA



COMPANY PROFILE

PUBLIC SECTOR SERVICES

Engineering Surveys and Services
Columbia ♦ Jefferson City ♦ Sedalia

History

Since its founding in 1954, *Engineering Surveys and Services* (ES&S) has been delivering solutions to support the built environment of mid-Missouri for clients in the public sector and in private industry. Today, ES&S offers consulting services for the planning and design of civil infrastructure in the transportation and water industries; site preparation for vertical construction; full-service land surveying; construction observation; and laboratory facilities to perform a comprehensive list of analytical and materials testing required for regulatory compliance and quality assurance of public infrastructure and building construction.

Built Environment:

"...the human-made space in which people live, work, and recreate on a day-to-day basis."¹

Registration & Licensing

Engineering Surveys and Services is certified to operate as a corporation providing professional services in the State of Missouri as provided below:

- ◆ **Registration as Professional Engineering Corporation**
(Certificate/License No. 2004005018)
- ◆ **Registration as Professional Land Surveying Corporation**
(Certificate/License No. 2004004672)
- ◆ **Certificate of Good Standing** (LC0076100)

The Certificate of Good Standing certifies that ES&S, as a corporation, filed all required annual reports, met all franchise tax requirements and currently maintains a proper registered agent and/or office as required by the Office of the Missouri Secretary of State. ES&S also maintains financial pre-qualification with the Missouri Department of Transportation (MoDOT) to provide professional services for MoDOT and/or Local Public Agencies (LPA). MoDOT developed their pre-qualification process to assist with compliance to the Code of Federal Regulations, and aiding contract approval on projects using state and federal funds.

Engineering Consulting & Design

ES&S regularly performs both as a prime consultant and a design partner for A/E firms on a variety of private and public sector projects. Extensive experience in observing the construction of our design projects, supplemented by knowledge of local, regional, state, and federal regulations pertaining to civil infrastructure and site development, helps ES&S offer detailed and efficient planning and design services for the engineering assignments we undertake.

Civil Engineering

- ◆ Land-Use Planning
- ◆ Water Distribution Systems
- ◆ Transportation & Infrastructure Design
- ◆ Stormwater Management / E&SC / SWPPPs
- ◆ Slope & Stream Bank Stabilization
- ◆ Conceptual Site Layout & Property Evaluations
- ◆ Site Plans for Commercial, Residential, Institutional, Educational & Industrial Developments
- ◆ Permitting for Site Development
- ◆ Construction Cost Estimating
- ◆ Contract / Construction Administration



Geotechnical Engineering

- ◆ Subsurface Exploration
- ◆ Soil Analysis
- ◆ Hydrology & Hydrogeology
- ◆ Foundation Design / Pavement Design Recommendations



Environmental Engineering

- ◆ Water/Wastewater Analysis
- ◆ Permit Applications
- ◆ Wastewater Collection Systems
- ◆ Facility Plans / Engineering Reports
- ◆ Wastewater Treatment—Small Systems
- ◆ Surface/Ground Water Monitoring & Evaluation



¹ Roof, K; Oleru N. – *Public Health: Seattle and King County's Push for the Built Environment*, 2008

Design & Construction Support

The firm's history of providing design support services in central Missouri has allowed ES&S to become a preferred partner helping design architects and multi-discipline engineering firms deliver significant projects in the region. ES&S' surveyors boast an extensive inventory of records and project files for land corner monumentation on all types of tracts and parcels throughout the state. Our engineering technicians are full-time employees, allowing ES&S to maintain consistently-trained, high-quality personnel that respond efficiently to our clients' QA/QC testing needs. We cross-train technicians to provide production capacity and flexibility. Critical construction activities and field observations requiring added engineering judgment are overseen by licensed professionals. For projects requiring certified materials testing, ES&S's Columbia materials laboratory is validated by the *U.S. Army Corps of Engineers* for numerous soils, concrete, mortar and aggregate test procedures. Services provided routinely by ES&S are listed below:

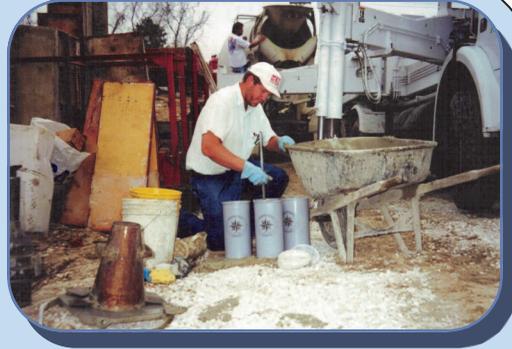
Surveying

- ◆ ALTA/ACSM land title surveys
- ◆ Cadastral surveys
- ◆ Boundary surveys
- ◆ Topographic surveys
- ◆ Construction staking and layout
- ◆ Geodetic surveys
- ◆ Hydrographic surveys



Materials Testing

- ◆ Earthwork observation and testing
- ◆ Concrete, grout and mortar testing
- ◆ Reinforcing steel placement documentation
- ◆ Post-tensioned concrete tendon placement and loading documentation
- ◆ Foundation construction observation and documentation (shallow foundation, drilled shafts, driven piles, rammed aggregate piers, micropiles, auger cast piles)
- ◆ Certified welding inspector for structural steel connections
- ◆ Floor flatness and levelness observation
- ◆ Fireproofing adhesion, cohesion, applied density and intumescent paint

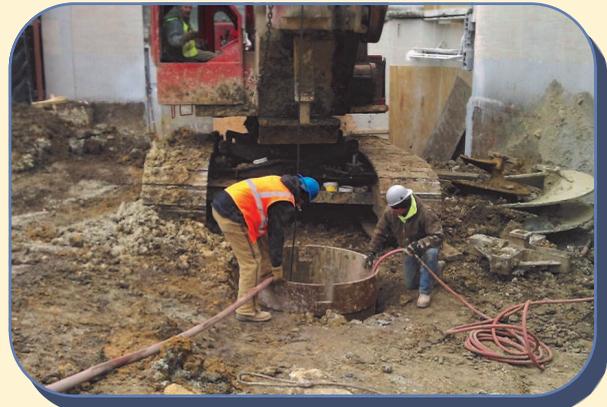


Construction Observation

ES&S maintains MoDOT-certified technicians for construction observation and materials testing services on state and local transportation projects. Our support staff is familiar with MoDOT's *Local Public Agency (LPA)* guidelines and offer construction observation administration and oversight to meet FHWA and MoDOT requirements. These same services are applicable for all manner of public-sector infrastructure and vertical construction projects.

Construction Observation

- ◆ Maintenance of the construction diary
- ◆ Preparation of progress reports
- ◆ Wage rate interviews
- ◆ Assist with EEO compliance
- ◆ Document quantities of work in place for pay estimate purposes
- ◆ Change order documentation (if required)
- ◆ Perform semi-final observation with Contractor
- ◆ Coordinate final observation with Owner
- ◆ Submit final observation report and applicable final documentation as required



Analytical Laboratory

The regulatory structure related to the nation's water and environmental resources is both demanding and dynamic. For this reason, ES&S has maintained a state-of-the-art analytical laboratory since 1973 to serve our clients' regulatory compliance needs.

ES&S's test methods are documented and comply with requirements of a number of relevant regulatory and accrediting agencies, including EPA, APHA, AWWA, WEF, USBM, ASTM, and AASHTO. Laboratory personnel undergo internal certification to perform tests and analyses on a yearly basis, and equipment is checked and calibrated annually by outside agencies.

ES&S maintains an extensive Quality Assurance Program in accordance with the EPA *Handbook for Analytical Quality Control in Water and Wastewater Laboratories*, as well as our own *Laboratory Operations Manual*, which covers every test and analysis performed by our lab. This program contributes to precise and accurate data generation by the various methods used. Standards, blanks, duplicate samples and spike samples are utilized during specified analytical runs to ensure no interference and good repeatability. Also, samples are periodically sent to other laboratories for confirmation of reproducibility. ES&S voluntarily participates in the Environmental Resource Associates (ERA; formerly Analytical Products Group) *Water Pollution Proficiency Testing Program*, regularly achieving a weighted ranking in the top 2% - 5% of participating labs for acceptable data reporting.



ES&S Key Stats:

- ◆ **FOUNDED - 1954 - COLUMBIA, MO**
- ◆ **APPROX. 50 FULL-TIME EMPLOYEES**
- ◆ **THREE MID-MISSOURI LOCATIONS, EACH WITH FULL PRODUCTION CAPABILITIES**
- ◆ **LICENSED PROFESSIONALS IN MULTIPLE DISCIPLINES (PE, PLS, RG, PTOE, CFM)**
- ◆ **USACE-VALIDATED MATERIALS TESTING LAB**
- ◆ **STATE-OF-THE-ART ANALYTICAL LAB**

ES&S Partnering

The firm routinely partners with A/E firms that require design support services for their out-state Missouri projects. Serving as a prime consultant, ES&S has developed relationship with firms providing a variety of design discipline assistance, including structural design; traffic operations analysis; mechanical & electrical engineering; and other services. ES&S actively seeks to build relationships with disadvantaged business enterprise (DBE) firms to help our clients meet their internal utilization goals and to strategically structure teams for efficient, successful project delivery. To discuss strategic partnering with ES&S, contact John Frerking (573-449-2646 / jfrerking@ess-inc.com).

Locations

ES&S offers three locations in mid-Missouri, each capable of efficient and effective response to your needs for design and construction support services. With the exception of the analytical lab services in Columbia, each office location supports engineering design, surveying and material testing capabilities.

Columbia	Jefferson City	Sedalia
1113 Fay Street Columbia, MO 65201	802 El Dorado Drive Jefferson City, MO 65101	1775 West Main Street Sedalia, MO 65301
573-449-2646	573-636-3303	660-826-8618
POC: Larry Hendren lhendren@ess-inc.com	POC: Ross Kasmann rkasmann@ess-inc.com	POC: Abby McMullin amcmullin@ess-inc.com