



ENGINEERING & PROFESSIONAL SERVICES

FIRM EXPERIENCE

CONSTRUCTION MATERIALS TESTING
& INSPECTION SERVICES

SUBMITTED TO:

Missouri Department of
Transportation



SUBMITTED BY:

ENGINEERING SURVEYS & SERVICES



ES&S is a trusted multidisciplinary firm serving clients since 1954, offering civil, geotechnical, and environmental engineering, surveying, materials testing, and landscape architecture. With three offices across Missouri and project experience throughout the U.S., we deliver site-responsive, constructible solutions tailored to municipal, community, hospitality, utility design, and commercial developments—bringing client visions to life through a collaborative and market-driven approach.

Our three locations allow efficient and effective response to your needs for design, design-support, and construction-support services. We have an onsite materials labs in our three locations with a USACE- validated construction material testing labs in Columbia as well as a mobile testing lab.

Key Personnel & Team Capacity

Engineering Surveys & Services (ES&S) organizes its services within four core practice areas, led by the following individuals to provide planning and design of civil infrastructure and site development. From concept through construction they are available to help facilitate projects.



- Ben Ross, PE, PTOE – Vice President, Civil Engineering. Ben will serve as Principal-in-Charge and primary contact. He has over 30 years of experience leading roadway, traffic, and municipal infrastructure projects across Missouri, including corridor improvements, safety enhancements, and multimodal accessibility upgrades.
- Fred Carroz, PLS – Vice President, Land Surveying. Fred leads survey operations including boundary, topographic, and right-of-way acquisition mapping. In addition to traditional survey methods, Fred’s team utilizes UAS and 3D scanning technologies to expedite data collection and improve accuracy.
- Josh Lehmen, PE – Vice President, Geotechnical & Construction Support. Josh oversees laboratory services, subsurface investigations, and construction materials testing. He manages MoDOT-certified technicians and a USACE-validated testing lab.
- Chadd Fuemmeler, MLA, PLA – Landscape Architecture Lead. Chadd leads ES&S’s landscape architecture services, integrating site design, planting, and open-space planning with civil engineering to create context-sensitive, sustainable, and community-focused solutions. His experience includes municipal streetscapes, park and trail systems, and commercial development projects throughout Missouri and beyond.

Supporting these leaders is a staff of sixty engineers, landscape designers, surveyors, field technicians, design drafting and inspectors—one of the strongest and most stable engineering and technicians design/construction support practices in mid-Missouri. Our proximity allows us to mobilize quickly and maintain strong coordination with City staff, contractors, and stakeholders as we work to integrate our services through the life of a project.

To discuss strategic partnering with ES&S, contact:
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Sedalia
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 Sedalia, MO 65301
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Construction-Support | Materials & Analytical Laboratory Services

ES&S technicians are full-time employees, allowing us to maintain consistently-trained, high-quality staff to respond efficiently to our clients' QA/QC testing needs. ES&S' Columbia materials laboratory and mobile materials lab are validated by the U.S. Army Corps of Engineers for numerous soils, concrete, mortar and aggregate test procedures. The firm also has certified technicians available for MoDOT projects and for a variety of special inspections required by the International Building Code (IBC), Chapter 17. 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. ES&S maintains MoDOT-certified technicians for responsive construction observation and materials testing services on state and local transportation projects.

ES&S believes critical construction activities and field observations requiring added engineering judgment should be overseen by licensed professionals and have registered engineers available for observation of mass excavation, structural backfill, foundations of many types, and can provide a certified weld inspector for inspection and non-destructive testing of structural steel connections. Below is a list of common services provided by ES&S technicians and professional staff.

Materials Testing & Quality Assurance/ Control

- Earthwork Observation & Testing
- Concrete, Grout & Mortar Testing/Mix Design Consulting
- Pavement & Subgrade Condition Assessment
- Reinforcing Steel Placement/Post-Tensioned Concrete Tendon Placement & Loading Documentation
- Foundation Construction Observation & Documentation (Shallow Foundation, Drilled Shafts, Rammed Aggregate Piers, Driven & Auger Cast Piles, Micropiles)
- Non-Destructive Testing
- Certified Welding Inspector for Structural Steel Connections
- Floor Flatness/Levelness Observation
- Fireproofing Adhesion, Cohesion, Applied Density, & Intumescent Paint



Construction Engineering / Quality Management

- Maintenance of the Construction Diary
- Quality Assurance/Quality Control Testing
- Progress Report Preparation
- Wage Rate Interviews/Assist with EEO Compliance
- Document Quantities of Work-In-Place for Pay Estimates
- Change Order Documentation
- Perform Semi-Final Observation/Coordinate Final Observation
- Submit Final Observation Report & Applicable Final Documentation



Analytical Laboratory

- Ground Water, Surface Water, Landfill Gas Monitoring & Analyses
- Water, Waste Water, & Sludge Sampling & Analyses (autosampler available for composite samples)
- Storm Water Quality Sampling & Analyses
- Industrial Pretreatment/Process Monitoring & Analyses
- Facilitation of WET Testing, RBCA Testing, etc.
- NPDES Permit Consulting
- Soil Permeability/Contamination Monitoring & Analyses

