



FIRM PROFILE

ROADWAY PLANNING & DESIGN



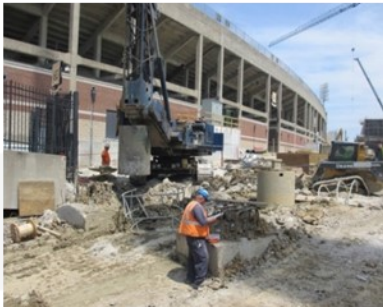
Engineering Surveys & Services

DELIVERING YOUR VISION™

As a full-service civil engineering practice, ES&S offers our clients a comprehensive list of engineering planning, consulting, and design services related to public infrastructure. Our firm's specific service offerings include:

Engineering / Consulting

Our engineering, design and support personnel have the technical expertise and project management skills needed to guide projects from the conceptual design phase, through construction documents, to facility startup. With our extensive design experience supplemented by our knowledge of local, county, state, and federal regulations pertaining to site development, we can manage and design a variety of civil engineering projects:



CIVIL ENGINEERING

Land-Use Planning	Storm Water & Floodplain Management
Conceptual Site Screening & Layout	Storm Water Quality & Impact Mitigation
Permitting for Site Development	Channel Protection & Restoration
Transportation Planning & Roadway Design	Pavement Consulting
Site Plans - Commercial, Residential, Institutional, Educational & Industrial Developments	

GEOTECHNICAL ENGINEERING

Subsurface Investigations	MSE Retaining Wall Design
Soil Analysis & Classification	Global Stability Analysis
Slope & Stream Bank Stabilization	Hydrology & Hydrogeology
Foundation & Pavement Design Recommendations	

ENVIRONMENTAL ENGINEERING

Facility Planning & Engineering Reports	Drinking Water Distribution Systems
Waste Water - Small Treatment Systems	Surface Water Monitoring & Evaluation
Waste Water Collection Systems	Permit & Grant Application Assist.
Analytical Laboratory; Water & Waste Water Laboratory Analysis	

Land Surveying & Data Collection

Leveraging the latest equipment technology in data acquisition, ES&S's land surveying division is fully capable of providing all of your surveying needs. The firm's long history in central Missouri has produced an extensive inventory of records and project files for land corner monumentation on all types of tracts and parcels throughout the region. We also offer capability to use *Unmanned Aircraft System* (UAS; i.e., drones) and 3D scanning technology to efficiently collect data to best serve the needs of the project. ES&S regularly provides the following land surveying services:



LAND SURVEYING & DATA COLLECTION

Topographic Surveys	Cadastral & Geodetic Surveys
Boundary Surveys	Construction Surveys & Layout
Utility Surveys & Mapping	Volumetric Surveys
Hydrographic Surveys	GPS Machine Control Setup
ALTA/NSPS Land Title Surveys	Land Acquisition Assistance
UAS Photogrammetry / Aerial Imagery	3D Scanning & Precision Surveys

ON THE COVER:

(Top Left) Nifong Boulevard Improvements | Columbia ♦ (Top Right) Aurora Drive & Nova Way Connectors | Columbia ♦

PROJECT EXPERIENCE MATRIX ++ ROADWAY DESIGN | TRAILS & SIDEWALKS



PROJECT NAME	OWNER / CLIENT	PROJECT LOCATION	Year Complete (Constr.)	Funding Program	COMMENTS	Project Length (LF, unless strom otherwise)	Corridor & Location Studies / Planning	Traffic Engineering / Traffic Control Plan	Signal Design (facilitated)	Roundabout Design	Operations Modeling / VISIM (facilitated)	Roadway Geometric Design	Bridges & Structures (facilitated)	Roadway Drainage - Hydraulics / Hydrology	Sustainable Context - Sensitive Design	Bike Ped / Multimodal	Lighting	Topographic	Legal Descriptions / ROW - Easement Assisit	Geotechnical Studies / Reports	Foundation / Pavement Design	Construction Materials	Testing	Construction Observ. / Quality Mgmt.	Pavement Evaluation & Preservation	Public Involvement / Community Outreach	ADA Evaluation / Upgrades	OTHER	
Fairview Road / Worley Street Roundabout Intersection	Broadway-Fairview TDD	Columbia, Missouri	future			1,000																							
W Broadway / Fairview Improvements	Broadway-Fairview TDD	Columbia, Missouri	2008		1650-LF of major arterial & 1450-LF of minor arterial widening; 1100-LF of local roadway on new alignment	4,200																							
Angel Lane Full-Depth Reclamation (FDR) Reconstruction	City of Ashland	Ashland, Missouri	2014	RTP	Agency coordination (jointly funded with Boone County)	6,600																							
South Katy Bridge Trailhead Improvements, Phase I	City of Boonville	Boonville, Missouri	2016	RTP	RTP 2014-06: 1100-LF trail, 480-LF access drive, 240-LF sidewalk, parking lot	1,100																							
COU Prof Svcs Under On-Call Engr MSA (Prime: Burns & McDonnell)	City of Columbia - Public Works Department	Columbia, Missouri	varied		subconsultant to Burns & McDonnell as On-Call Engr, Exhibit "A" Property Inventory Map Update																								
Blue Ridge Road Reconstruction	City of Columbia - Public Works Department	Columbia, Missouri	2005	STP	STP-2100 (514)	3,400																							
Roadway Pavement Improv & ADA Upgrades	City of Columbia - Public Works Department	Columbia, Missouri	2016	STP	STP-2104 (505), Superpave asphalt overlay & design of 30+ ADA-compliant sidewalk ramps; night constr. sub to CDG Engineers	2,500																							
Clark Lane - Hinkson Creek Trail Connector	City of Columbia - Public Works Department	Columbia, Missouri	2017	NTTP		2,800																							
College Avenue Safety Enhancement (CASE) Project	City of Columbia - Public Works Department	Columbia, Missouri	2015	STP/TE	STP-2100 (522); incl two mid-block ped crossings w/ HAWK signals; aesthetic access mgmt features included sanitary sewer exten to connect to City system	1,200																							
Discovery Drive Extension	City of Columbia - Public Works Department	Columbia, Missouri	2017	EDA		950																							
Pedestrian Scramble @ 9th & Elm Street Intersection	City of Columbia - Public Works Department	Columbia, Missouri	2017		sub to HR Green																								
Stadium & Old Highway 63 Intersection Improvements	City of Columbia - Public Works Department	Columbia, Missouri	2017	NTTP																									
Nifong Boulevard Improvements - Providence to Willowbrook	City of Columbia - Public Works Department	Columbia, Missouri	2021		EFK Moen provided traffic study, VISSIM modeling, signal, & street lighting design.	7,750																							
Aurora Drive / Nova Way	City of Columbia - Public Works Department	Columbia, Missouri	2021		6-span, steel girder bridge design by Modjeski & Masters (St. Louis)	1,100																							
COLT RR Overpass Over US Route 63	City of Columbia - Water and Light Department	Columbia, Missouri	2010			2,500																							
Wabash Walkway Pedway - Phase I & II	City of Columbia - Water and Light Department	Columbia, Missouri	2007 - Ph I 2008 - Ph II	NTTP		1,200																							
Concordia Entrance Improv., Ph I - MO Route 23 & L70	City of Concordia	Concordia, Missouri	2017	TAP	TAP-3301 (500)	1,130																							
Trail Connection Project, Phase II - Hibernia Park to Greenway Park	City of Holts Summit	Holts Summit, Missouri	2015	RTP	5-foot wide pedway, combination of PCC and aggregate surface; Agency coord. - MDNR [RTP-2014-12]	4,000																							
Ellis Porter - Riverside Park Greenway Trail Extension	City of Jefferson - Parks & Recreation Department	Jefferson City, Missouri	2007		1200-LF MSE retaining wall.	4,300																							
Morris Street / Lakeview Road Improv.	City of Mexico	Mexico, Missouri	2017	STP	STP-4400 (308)																								
Main Street Accessibility Project, Phase I	City of Monroe City	Monroe City, Missouri	2019	TAP	TAP-9900 (389); prepared TAP application	1,650																							
Downtown Streetscape, Phase IIIa - Downtown Gateway	City of Sedalia	Sedalia, Missouri	2016	STP	STP-5700 (509), S. Ohio Street, 7th Street to Broadway (Hwy 50)	600																							
Downtown Streetscape, Phases I & II	City of Sedalia	Sedalia, Missouri	2009 - Ph I 2010 - Ph II		Ph I: \$1.7M - ES&S sub to BR&P; Ph II: \$1.6M - ES&S prime to City; streetscape, historic lighting	2,800																							
Business 50 West Sidewalk & ADA Improv. - Rte T ROW to Carel Rd.	City of St. Martins	St. Martins, Missouri	2020	TAP	TAP 9901 (515); 1.1-mile Pmnt & ADA Upgrades;	5,800																							
Downtown Revitalization, Ph IV - Holden St. - RR Track to South St.	City of Warrensburg	Warrensburg, Missouri	2018	STP	STP-6300 (407); 400-LF resurf, 550-LF reconstr, new ADA-compliant sidewalk & aesthetic features	950																							
Rangleline Road Streetscape and Pedestrian Improvements	Columbia College	Columbia, Missouri	2011		Aesthetic landscap/streetscape features; ADA, historic lighting; mid-black ped crossings	1,300																							
Peachtree IRBHS Connector - Nova Way to RBHS Parking Lot	Columbia Public Schools	Columbia, Missouri	2017			830																							
Roadway Improvements for Muriel Battle High School	Columbia Public Schools	Columbia, Missouri	2013		New Battle Avenue & Spartan Drive; widen existing St. Charles Road, box culvert exten;	3,500																							
Bus Loop 70/Conley Road Extension	Conley Road TDD	Columbia, Missouri	2018		Hinkson Creek crossing; FEMA [C]LOMR, McDOT coord;	4,000																							
Pavement Improv & ADA Upgrades - MO Route 763 (College Ave.)	MoDOT - Central District	Columbia, Missouri	2019		Route 763 (Job No. J553159); 2.03-mile Pmnt Resurfic & ADA Upgrades, 81 ramps (mods or replac)	11,035																							
Pavement Improv & ADA Upgrades - MO Route B	MoDOT - Central District	Columbia, Missouri	2018		Route B (Job No. J553155); 4.41-mile Pmnt Resurfic & ADA Upgrades, 148 ramps (mods or replac)	23,300																							
Missouri State Penitentiary (MSP) Greenway Trail	State of Missouri - OA - FMDC	Jefferson City, Missouri	2011			4,000																							
MO Route 163 (South Providence Road & Southampton Intersection)	University of Missouri-Columbia	Columbia, Missouri	2013		Add left turn lanes, signal modif., Facil traffic study and signal design (by CBB)	500																							
South Providence Medical Building - Paved Trail	University of Missouri-Columbia	Columbia, Missouri	2016			3,000																							

(Middle) College Avenue Safety Enhancement (CASE) Project | Columbia ♦ (Bottom Left) Downtown Streetscape Improvements, Phase IIIa – Gateway | Sedalia ♦ (Bottom Right) Business Loop 70/Conley Road Extension | Columbia

ES&S Core Practices

ES&S operates three core service areas, integrated to provide planning and design of civil infrastructure and site development from concept through construction. Meet the leaders for each service group.



BEN ROSS, PE, PTOE
CIVIL ENGINEERING

- ES&S since 1995, managing the spectrum of civil infrastructure & facility site design projects
- Over one dozen civil engineers, most licensed in Missouri, some in other states
- Provide planning & design for transportation, environmental (water & waste water systems), storm water management, and site development



FRED CARROZ, PLS
LAND SURVEYING

- ES&S since 1996, managing traditional boundary & topographic surveying & utility mapping
- Overseeing data collection and precision surveys using 3-D scanning & UAS (drone) technologies
- Land acquisition assistance including title research & legal descriptions, easement displays, stakeholder outreach, and negotiation support.



JOSH LEHMEN, PE
**GEOTECHNICAL &
CONSTRUCTION-SUPPORT**

- ES&S since 2010, oversees the firm's geotechnical engineering and lab/field services
- Subsurface investigations
- Foundation & pavement design recommendations
- Certified lab & field materials testing technicians
- USACE-validated materials laboratory

Partnering with ES&S

Throughout the firm's history, ES&S has regularly partnered with A/E firms that provide engineering discipline and design support services (right) that are often required on our clients' projects. Partnering with firms that provide these services has allowed ES&S to actively seek 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, at times when there is no utilization goal.

Structural Engineering	MEP Engineering
Traffic Study/Signal Design	Enviro. Studies/NEPA
Landscape Architecture	Public Outreach

ES&S Value

- ♦ **One of the strongest and most stable engineering and design/construction support practices in mid-Missouri.** Our firm-wide staff is approximately fifty - 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 planning & design process throughout the life of a project.**
- ♦ **A commitment to the region, the State of Missouri, and our clients** developed over ES&S' nearly seven-decade history of providing professional services to the design and construction community!

ES&S has three locations in mid-Missouri, offering efficient and effective response to your needs for design, design-support, and construction-support services. We have onsite construction materials testing labs in Columbia, Jefferson City, and Sedalia; and a USACE-validated mobile testing lab.

COLUMBIA	JEFFERSON CITY	SEDALIA
1113 Fay Street Columbia, MO 65201 573-449-2646	802 El Dorado Drive Jefferson City, MO 65101 573-636-3303	1775 West Main Street Sedalia, MO 65301 660-826-8618