



**Missouri's  
Local  
Program**  
*for community  
development*

## COVER SHEET

(This must accompany your firm's letter of interest and does not count in the page limit)

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Work Category:

- Roadway Design
- Trails & Sidewalks
- Construction Inspection
- Traffic Engineering & TEAP
- Structures
- Environmental
- Historic Preservation
- Multimodal Planning / Systems and Facilities Design
- Transportation Planning – **NEW CATEGORY**

December 12, 2025

Ashley Buechter, PE | Local Program Administrator  
105 W. Capitol Avenue  
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via email to [LPAoncall@modot.mo.gov](mailto:LPAoncall@modot.mo.gov)

**RE: Missouri LPA On-Call Professional Services Work  
Category: Traffic Engineering & TEAP**

Dear Selection Committee,

It is Garver’s professionals’ wide range of skills that make us an invaluable on-call resource for state departments of transportation (DOTs) and local agencies. Throughout our history, Garver has provided similar on-call services to local agencies, the Missouri Department of Transportation (MoDOT), and other DOTs in Alabama, Arkansas, Kansas, Mississippi, Oklahoma, Tennessee, and Texas. Garver has the expertise and capacity to provide services for the upcoming Missouri Local Program Agency (LPA) Traffic Engineering & TEAP projects. Several Garver staff have completed the LPA training certification class, and Garver is on MoDOT’s approved list of prequalified consultants.

**GENERAL EXPERIENCE OF THE FIRM**

Established in 1919, Garver brings more than 100 years of engineering experience and a long, proven history of delivering on-call design services for state DOTs and local governments. Our Team has supported on-demand roadway, bridge, interchange, traffic, and multimodal design needs through decades-long relationships with agencies including MoDOT (statewide on-call services since 2001), ARDOT (continuous on-call contracts since 2002), and ODOT (on-demand engineering support for over 29 years). Across these programs, Garver has designed hundreds of miles of roadway and numerous bridges, interchanges, and traffic systems demonstrating deep expertise and reliability in meeting the recurring, fast-response needs of DOT clients.

Garver's 29-member Traffic Team includes nine Professional Traffic Operation Engineers (PTOE), an International Municipal Signal Association (IMSA) certified traffic signal technician, and three certified Road Safety Professionals (RSP1) within a larger company of over 1,500 professionals. Our diverse experience eliminates the learning curve and allows our Team to provide safe, practical, and cost-effective solutions to the MoDOT LPA program for:

**Traffic Engineering Assistance Program (TEAP):** Garver has performed traffic studies for virtually every type of traffic engineering situation from simple, isolated intersections to complex interstate access justification reports (IAJRs) involving trip generation and VISSIM microsimulation. Our capabilities include data collection and field observation, operations analysis using Highway Capacity Manual (HCM) methodologies, traffic projections/trip generation, safety analysis using the Highway Safety Manual (HSM), traffic simulation with calibration/validation, signal warrant analysis, access management, safety audits, speed studies, multimodal analysis, and parking studies. We apply robust data collection, crash analysis, and HSM tools to identify issues, evaluate trends, and prioritize improvements. This comprehensive approach has helped our clients develop targeted, cost-effective solutions that enhance safety and mobility across all modes.



**Traffic Engineering:** Garver’s Traffic Team has performed a range of traffic engineering services that relieve traffic issues and enhance safety through improved signalization, signing, lighting, and pavement markings. From traffic impact studies and modeling to signal design and timing updates, our Team identifies issues, develops practical improvements, and enhances corridor operations. **Our Team has recently provided coordinated signal timing for 50 signals in the St. Louis metro area, including the Main Street corridor in the City of O’Fallon, as part of the St. Charles County Gateway Green Light Program.**

Our Traffic Team is also skilled at planning and designing improvements that address multimodal needs. Our designs include proper intersection turning radii and stop-bar locations using AutoTURN software, appropriately sized turn lanes, and pavement markings that promote safety. We have studied and designed safety improvements, such as roundabouts and J-Turns, and context-sensitive concepts, such as access management and traffic calming. In addition, we have expertise in developing permanent signing plans using SignCAD software and have designed ADA Improvements, **including an on-call task order on Route 63, Macon County, in the MoDOT Northeast District.**

**PAST PERFORMANCE**

Garver brings a strong record of on-call performance for cities, counties, and metropolitan planning organizations (MPOs), delivering fast-response engineering, planning, and environmental services that help local agencies keep projects moving. Whether supporting MoDOT Districts or smaller municipalities, Garver provides consistent, dependable on-call responsiveness backed by deep technical expertise and familiarity with local standards and procedures.

Garver has an extensive performance record with traffic on-call contracts for our clients, as detailed below, as well as experience performing projects for the TEAP and LPAs. Recent experience includes signal designs, traffic impact study reviews, road diets, roundabout analyses, and roadway closure analyses for municipal clients in Missouri, Oklahoma, and Texas.

➤ **City of Norman On-Call Traffic Services, Norman, OK.** Since 2010, Garver has performed on-call traffic services for the City of Norman, including signal timing plan development along the City’s busiest arterial routes (eight corridors/85 intersections), traffic impact studies, and traffic signal design and plan development. These projects have included fiber-optic interconnect, pavement markings, and sidewalk and ADA ramp improvements. Garver has also provided the City with intersection design, citywide transportation plans, and complex traffic volume projections and simulations for proposed interchange modifications.

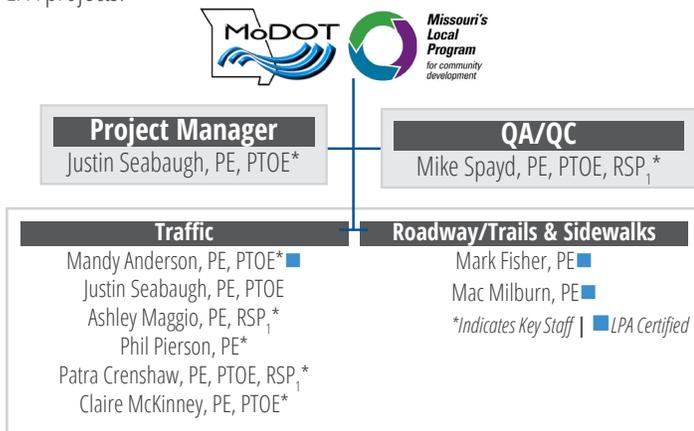
**TxDOT On-Call Traffic Engineering, Multiple Districts, TX.** Since 2018, Garver has partnered with TxDOT on 50 safety-focused signing, marking, and signalization projects across urban and rural areas, including fast-track ADA improvements at over 800 ramps, school zone enhancements, J-turn intersections, and signal timing at complex interchanges. Work assignments have included access management evaluations for the Paris District, Intersection Control Evaluations for the Wichita Falls District, and serving as the Austin District's in-house signal reviewer.

**ARDOT On-Call Design & Traffic/Planning Services, Statewide AR.** Garver's partnership with ARDOT since 2002 has included traffic engineering services through successive on-call contracts. Projects involved traffic signal design, pedestrian studies, Safe Routes to School accommodations, traffic impact analyses and trip generation, roundabout studies, and corridor planning. Through more than 90 task orders, our Team has provided traffic signal plans with pedestrian accommodations, data collection, signage, and pavement marking plans.

**MDOT Roadway, Traffic, and Planning On-Call Services, Statewide MS.** Since 2001, Garver has provided a range of traffic services for MDOT's Traffic Division on projects assigned under master contracts. We have delivered traffic studies, roundabout and intersection analyses, rural safety evaluations, permanent signing, traffic signal design and timing, ITS elements, RSAs, PEL studies, and access management improvements.

## QUALIFICATIONS OF PERSONNEL

The Garver Team is familiar with MoDOT standards, policies, and procedures, and pledges to deliver the quality designs that MoDOT and our LPA clients expect. The organization chart illustrates our Team structure and brief bios of our Key Team members who will complete these MoDOT LPA projects.



**Along with these key staff, Garver's traffic, roadway, and multidisciplinary Teams work seamlessly together, integrating modeling, safety analysis, and design to deliver coordinated, efficient project solutions for MoDOT.**

 **Justin Seabaugh, PE, PTOE**, Project Manager, brings 12 years of experience specializing in transportation impact studies, traffic modeling, signal timing and design, and comprehensive safety analysis. He has led corridor studies, safety plans, RSAs, and multimodal evaluations across numerous states, applying advanced tools and GIS-based crash mapping to develop predictive analyses, CMFs, SPFs, and data-driven safety countermeasure evaluations. Justin's background includes future traffic

volume forecasting, simulation of design alternatives, coordinated signal timing for more than 60 corridors, and hands-on field experience working with interconnected signal systems and ITS components. His blend of technical expertise, field insight, and collaborative experience with DOTs, LPAs, and municipal clients allows him to deliver practical, defensible, and safety-focused solutions for all modes of transportation.

 **Mike Spayd, PE, PTOE, RSP<sub>1</sub>**, QA/QC, has over 21 years of experience in transportation impact studies, signal timing and design, advanced traffic modeling, and comprehensive safety evaluations, including CMF/SPF development and systemic safety planning. His leadership on MoDOT and regional traffic and safety projects ensures compliant, defensible, and cost-effective solutions, translating complex technical analyses into clear, data-driven recommendations that improve operations and safety.

 **Ashley Maggio, PE, RSP<sub>1</sub>**, has nine years of experience working on projects for municipalities and DOTs involving traffic safety and operations, and project prioritization. She has delivered major MoDOT corridor studies, developed CMF- and SPF-based countermeasures, and applied data-driven tools including crash analysis, benefit-cost evaluations, and GIS hotspot identification to prioritize over \$1.5M in safety improvements.

 **Amanda (Mandy) Anderson, PE, PTOE**, has 23 years of experience and will lead traffic safety studies while assisting with project management. Residing in the Kansas City area, Mandy's management experience includes handling multiple task orders for on-call contracts, performing work to MoDOT standards, and providing responsive service to MoDOT's pressing needs. Mandy's recent experience includes leading rural safety projects from on-call contracts for KDOT.

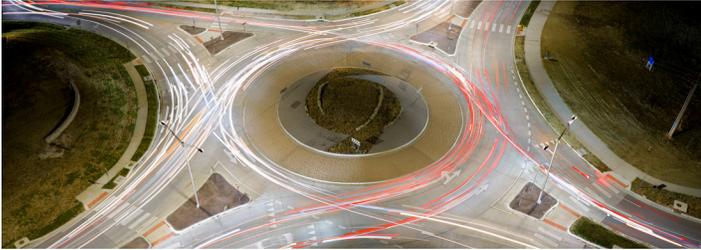
 **Patra Crenshaw, PE, PTOE, RSP<sub>1</sub>**, brings 21 years of traffic engineering and roadway design experience performing safety studies that involve evaluating crash data, calculating crash rates, and performing HSM predictive method analysis using the ISATe tool and HSM-based spreadsheets to compare the expected crashes between alternatives. Patra applied these HSM tools on large projects requiring Access Justification Reports (AJRs), including I-30 through downtown Little Rock, AR, and 20 miles of elevated express lanes in San Antonio, TX.

 **Phil Pierson, PE**, is a Project Engineer with 12 years of experience and works in our St. Louis office. Phil evaluated crash data, developed crash rates, and created crash diagrams for Garver's urban corridor projects in Springfield. Phil's prior experience at MoDOT's St. Louis District brings knowledge of the Engineering Policy Guide (EPG) and MoDOT standards and practices.

 **Claire McKinney, PE, PTOE**, has 17 years of experience in performing intersection analysis, designing traffic signals, computing traffic and roadway quantities, developing signing plans, developing maintenance of traffic plans, designing Intelligent Transportation Systems (ITS), and drafting with MicroStation and AutoCAD. Claire is also skilled in a variety of traffic engineering analysis programs and has experience using ArcGIS.

## FAMILIARITY/CAPABILITY

Garver brings decades of experience delivering federally funded transportation projects comply with stringent federal laws, regulations, and requirements. Our Team routinely navigates NEPA, Section 106, ADA, FHWA design criteria, federal permitting, and documentation standards for roadway, bridge, safety, and ITS projects. This experience is strengthened by former MoDOT staff and personnel who bring firsthand knowledge of MoDOT's processes, standards, and project expectations, minimizing the need for oversight from your staff. The following projects demonstrate our past performance of efficient project delivery aligned with MoDOT's preferences and requirements:



### Colbern Road Reconstruction | Lee's Summit, MO.

Garver performed a detailed corridor analysis that considered the impact of numerous developments anticipated to generate 15,000 new trips per day. Study elements included detailed trip generation, access management, and the setting of future median openings; analysis of two interchanges, a roundabout, and multimodal LOS; and safety analysis to determine the use of on-street bike lanes versus a shared-use path. Garver developed temporary, staged construction and final signal design plans for the Douglas Street at Colbern Road intersection for this LPA-funded project.



### MoDOT SW District Urban Corridor Safety and Operational Improvements: Chestnut Expressway, Sunshine Street (Route D), Glenstone Avenue/LP44/Bus 65, and Kearney Street/MO 744 | Springfield, MO.

Garver has conducted multiple safety and operational studies on urban corridors in Springfield, assessing thousands of crash records and analyzing 80 signalized intersections. These studies led to the development and prioritization of over 500 potential safety improvement projects across 30 miles of MoDOT roadways, totaling more than \$7M in recommended investments. On Glenstone Avenue, Garver completed a comprehensive safety and operational study and provided full design services, including ADA upgrades, signal upgrades, HAWK crossings, and public engagement through virtual and in-person platforms, as well as direct meetings with City staff. For the Chestnut Expressway and Sunshine Street corridors, Garver analyzed 37 intersections and identified over 250 improvement projects, focusing on access management, pedestrian enhancements, and signal modifications. On Kearney Street, Garver conducted a traffic study and is delivering design services that include turn lanes, lane alignment, driveway consolidation, and upgraded traffic signals with pedestrian accommodations.

### St. Charles County Traffic Signal Optimizations | O'Fallon, MO.

Garver updated coordinated signal timings at 25 locations within the City of O'Fallon. Duties included the collection of new data and field observation, development of existing traffic models, and production of updated models to enhance vehicle progression with updated pedestrian and vehicle clearance intervals for safety. Garver provided new yellow/all-red intervals, pedestrian crossing times, and signal splits, sequences, offsets, and cycle lengths for 24/7 operation. The use of lead/lag left turns, half cycles, and omitted left turn phases by time of day was utilized to increase efficiency. Signal timings were implemented using TransSuite and field fine-tuned for optimal operation. A before-and-after study indicated a benefit-cost ratio of 28:1.



### On-Call Expertise for DOT and Local Agency Programs

Garver performs a wide range of on-call LPA work on behalf of our DOT clients. In addition to Missouri LPAs, we serve municipal, county, and state agencies across multiple states including Kansas, Oklahoma, Texas, Arkansas, and Mississippi. We are prequalified to perform comprehensive engineering, planning, and environmental services—from bike path design, bridge replacements, H&H analyses, transportation and corridor studies, to rewrite of LPA manuals for DOTs. The Garver Team has the resources and capability to deliver LPA projects on time and within budget.

## ACCESSIBILITY

Our work on past similar projects for MoDOT attests to the Garver Team's ability to exceed your expectations of economical, practical design and quality engineering documents. Garver has an established record of responsiveness to client needs, consistently delivering timely, high-quality products for MoDOT and local agencies. With staff strategically located in Kansas City, St. Louis, and Springfield supported by nearby offices in Kansas, Arkansas, and Oklahoma Garver provides readily available, in-person support while maintaining efficiency through virtual collaboration. The Team utilizes web meetings, conference calls, and web-based file sharing to ensure continuous communication, quick coordination, and seamless document exchange. This combination of regional presence, experienced personnel, and technology-driven communication allows Garver to remain highly accessible and responsive to clients across all project phases.

## SUMMARY

The Garver Team brings a proven history of performance and experienced personnel to your project and we are committed to serving as an extension of MoDOT and local agency staff. We look forward to continuing to provide MoDOT, local agencies, and the road users of Missouri with the quality and responsive design services you have come to expect from us. We ask that you select the Garver Team.

Sincerely,  
**GARVER**

  
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**MISSOURI'S LOCAL PROGRAM**

**› INNOVATIVE SOLUTIONS**

When it comes down to it, we are more than just engineers, planners, and architects. We plan, survey, design, manage construction, and even operate facilities. We don't just provide project solutions; we deliver forward-thinking, data-driven approaches that elevate traditional project delivery and move Missouri communities forward.



## ► FULL-SERVICE EXCELLENCE, MORE THAN A CENTURY OF EXPERIENCE

With more than a century of delivering infrastructure projects, Garver is a full-service firm that guides projects from concept to completion through innovative, cost-effective design and efficient scheduling. Leveraging our comprehensive in-house expertise including environmental services, architecture, surveying, design, and construction management the Garver Team provides integrated solutions that streamline delivery and deliver project success.

### ENVIRONMENTAL

- NEPA Documentation
- Environmental Compliance
- Public Involvement
- Agency Coordination
- Biological and Habitat Evaluations
- Hazardous Materials Investigations
- Cultural Resources Investigations
- Noise Modeling
- Farmland Impacts Evaluations
- Section 4(f) and 6(f) Evaluations
- Section 508 compliance

### TRAFFIC ENGINEERING & TEAP

- Corridor Planning Studies –High-Level Traffic
- Interstate Access Justification Reports
- Planning and Environmental Linkage Studies
- Corridor Studies – Detailed Traffic
- Pedestrian Safety Studies
- Road Audits
- Corridor Safety Studies
- Signalization
- Traffic Impact Analyses
- Signing and Pavement Marking
- Temporary Traffic Control
- Intelligent Transportation Systems
- Innovative Intersections
- Signal Timings
- Signal Inspections
- Traffic Control
- Transportation Systems Management and Operations

### STRUCTURES

- Long and short-span structures (steel and concrete)
- Bridge inspection, rehabilitation, widening, and seismic retrofits
- Sound walls and retaining walls
- Hydraulic and grade separation structures
- Bridge/culvert hydraulic design
- Bridge scour analysis and evaluation
- Bridge scour and stream instability countermeasure design
- One dimensional (1D) and two dimensional (2D) hydraulic modeling
- FEMA studies
- CLOMR/LOMR applications
- Accelerated bridge construction (ABC)

### ROADWAY DESIGN

- Alignment studies
- Local roads and streets design
- Interstate, freeway, and highway design
- Street enhancements
- Interchange design
- Pavement evaluation and rehabilitation
- Intersection and roundabout design
- ADA, sidewalks, and wheelchair ramps
- Storm sewer design
- Open channel and median drainage design

### CONSTRUCTION INSPECTION

- Contract administration
- Shop drawing management
- Materials testing coordination
- Final project closeout and audits
- Bridge and structure inspections

- Stormwater and BMP inspections
- Bridge coating/painting inspections
- Prestressed concrete girder fabrications
- Asphalt and concrete pavement
- Critical path method (CPM) schedule evaluations
- Change order review and negotiations
- Construction contract claim review

### TRAILS & SIDEWALKS

- Multi-use trails and bike lanes
- Pedestrian/ bicycle bridges and underpasses
- Accessibility design
- Safe Routes to Schools
- Right of way planning
- Roadway crossing design
- Trail lighting
- Signage and wayfinding
- Landscape and amenity design

### TRANSPORTATION PLANNING

- Corridor studies, corridor management plans, long-range plans, and active transportation evaluations
- PEL studies, NEPA documentation, environmental constraint mapping, and functional classification/system assessments
- Program, funding, and stakeholder support including STIP development, benefit-cost analysis, project prioritization, federal grant applications, conceptual design, and public/ stakeholder engagement



## ENVIRONMENTAL

Garver offers clients full-service environmental capabilities, including environmental studies, NEPA documentation, public involvement, and agency coordination. Clients trust Garver to build cooperative relationships with regulatory and resource agencies and to provide environmental studies, permitting, and documentation in accordance with current regulations.

## STRUCTURES

Garver has the expertise to provide a full range of structural design services for new and existing bridges, including plan development, detailing, hydraulic studies, geotechnical work, survey, cost comparisons, environmental clearances, and right of way work. Our bridge team stays up to date on design specifications to provide standard and non-standard bridge and structures designs, repairs, and ratings. We have the knowledge, experience, and tools to meet your needs concerning complex and unique structures.

## ROADWAY DESIGN

Garver's roadway engineers consider all factors and provide cost-effective design solutions for both new and existing roadway facilities. Our experience includes concept development, alternative analysis, widening and resurfacing, pavement reconstruction, utility design and coordination, right of way, environmental clearance, traffic signals and lighting, general lighting, surveying, sidewalks and trails, stormwater design, and parking lot design.

## TRAFFIC ENGINEERING & TEAP

Garver's Traffic Team has the experience and skill diversity to tackle all types of projects from complex traffic forecasting and simulation (using VISSIM and Synchro) to pedestrian access and connectivity. Our expertise includes signalization, signing, lighting, and pavement markings; corridor and intersection safety and operational analysis; speed limit reviews; sign inventory; pedestrian and bike route analysis; parking studies; and traffic signal timing.

## CONSTRUCTION INSPECTION

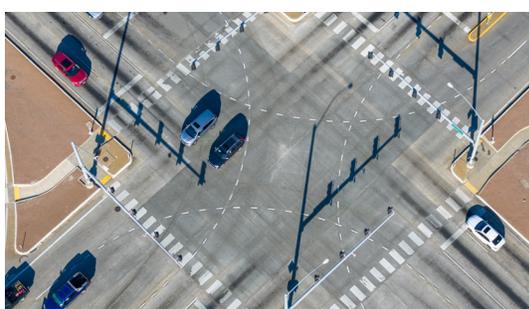
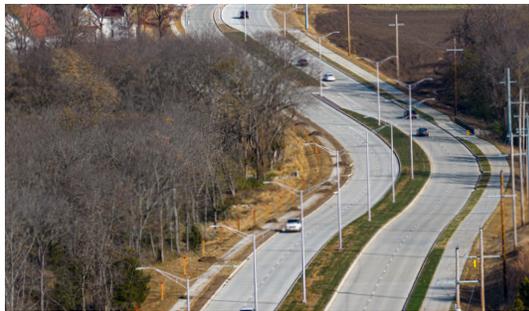
Thorough testing and inspection of construction materials are essential for the successful completion of projects. Our Team collaborates closely with your staff, acting as your on-site representative to support effective communication with contractors and uphold construction quality. Garver offers a range of construction services, from periodic inspections to comprehensive resident inspection services. Our expertise extends throughout the project lifecycle, providing support from the initial advertisement phase to bid opening and final project closeout.

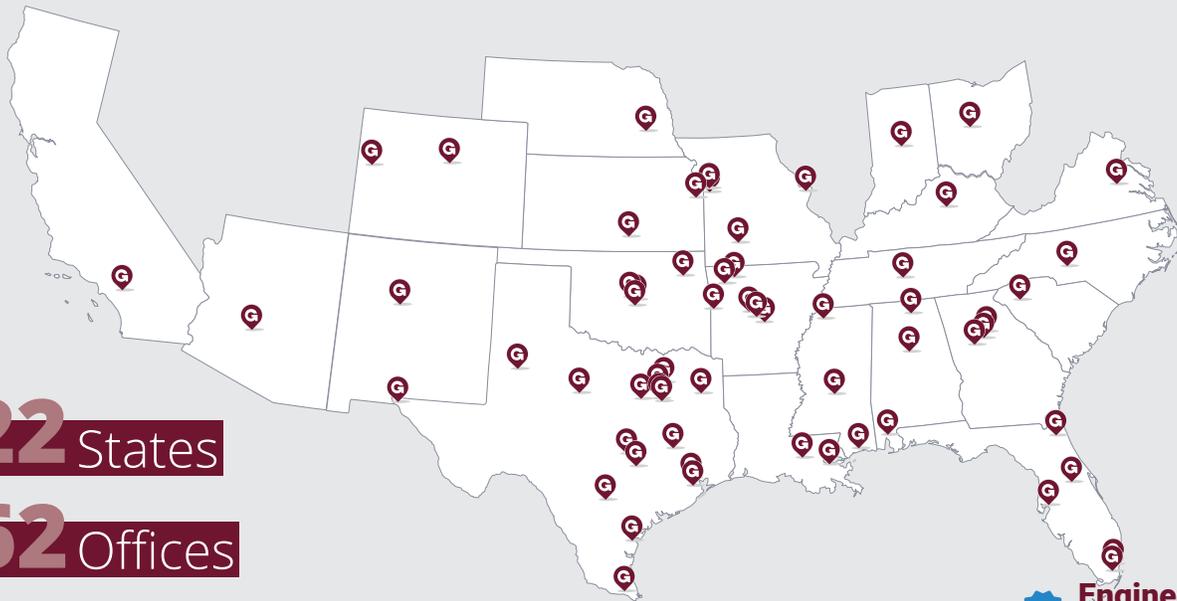
## TRAILS & SIDEWALKS

As part of our commitment to healthy and safe communities, Garver recognizes the importance of pedestrian-friendly environments. Our designs include trail and pedestrian-use facilities, environmental clearance, right of way, signal and lighting, landscaping, and beautification.

## TRANSPORTATION PLANNING

Garver supports long-range planning, corridor studies/assessments, PELs, and system evaluations, backed by strong public engagement and a deep understanding of federal and state requirements. We provide practical and implementable planning solutions that advance projects from concept through delivery.





**Engineering News-Record**  
2025 Top 500 Design Firms  
#88 Nationwide

**22** States

**62** Offices

**1,400+** Employees



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