



MISSOURI  
Laclede Gas Building  
720 Olive, Suite 1660  
St. Louis, MO 63101  
tel/ 314.588.8381  
fax 314.588.9605

ILLINOIS  
Eastport Business Center 1  
100 Lanter Court, Suite 1  
Collinsville, IL 62234  
tel/ 618.345.2200  
fax 618.345.7233

[www.oatesassociates.com](http://www.oatesassociates.com)

November 15, 2013

MaryAnn Jacobs  
Missouri Department of Transportation  
Re: Missouri's Local Program | Structures

Dear Ms. Jacobs:

Federally funded transportation infrastructure has been a major component of our work and continues to be the primary design and construction services that we provide to municipalities. The range of our bridge services includes grant preparation, National Bridge Inventory (NBI) inspections, bridge condition assessments and repairs, full design plans and construction observation services.

### **General Experience of Firm**

For over 30 years, Oates Associates has provided municipal engineering services for a range of projects throughout local communities. We have worked closely with municipalities including public works, planning and zoning, parks, city councils and economic development departments. We understand that early coordination with the local agency, as well as residents and businesses who will be impacted by the project, opens the lines of communication to deliver a successful project that meets goals and exceeds expectations.

Our structural design staff includes six Professional Engineers and a graduate engineer. This staff has significant experience in bridge / box culvert design and retaining walls as well as building structures. They have designed over 150 bridges in the last 20 years, from box culverts for small stream crossings to major interstate interchange structures and from rehabilitations and replacements to new structures. Hydraulic design for new bridges and replacements is performed in-house by experienced hydraulic engineers. Oates has significant hydraulic analysis and design experience, having performed over 200 hydraulic studies. Our services typically involve data collection, hydraulic survey, site investigation, hydraulic analysis and report preparation. Our hydraulic engineers work closely with our structural engineers to determine the optimal structure type.

The structural services we provide extend from the traditional planned projects to forensics to emergency repairs that require an immediate response. As with any project, identifying the project constraints whether it be topography, schedule or budget is essential for developing a proper scope to ensure a successful project and earn public trust. Through our discussions with the client, we customize our services to best meet the project goals and budget. Our structural design experience includes curved girder bridges, steel and pre-stressed concrete beam bridges, concrete slab bridges, seismic design in high risk zones, three-sided box culverts, precast and cast-in-place box culverts and retaining walls. In addition, we are identified as the National Bridge Inspection Standard (NBIS) program manager for several municipalities and conduct and oversee the routine inspections for over 20 bridges. Our experience also includes special inspection services involving condition assessments due to damage or excessive deterioration, which also include the long range planning and the more immediate development of repair plans to bring the structures up to current standards. While Oates does not provide geotechnical services, we routinely subcontract those services to trusted design partners to provide an all inclusive design package for our clients.

### **Past Performance**

Oates Associates has been involved with every aspect of capital improvement projects utilizing federal funds. Within the last five years we have completed over 30 federally funded projects across the region, including six federally funded projects through MoDOT's LPA program. In addition to the projects highlighted on the Company Reference Form, a condensed list of local agency bridge projects is provided on the next page.

Bridge	Federal	Length	Spans	Hydraulics
Allard Bridge over Silver Creek		180'	3	•
Alton Pedestrian Walkway over US 67 & UP/NS Railroad		320'	3	
Center Grove Road Bridge Rehabilitation		304'	4	
Cleveland Avenue Bridge over Richland Creek	•	79'	1	•
South Clinton Street Bridge over Tributary to Silver Creek	•	102'	3	•
Eastport Drive over Schoolhouse Branch		100'	3	•
Gillham Road Bridge over Gillham Creek		100'	3	•
Governors' Parkway over Tributary to Dunlap Lake		125'	1	•
Humbert Road over Black Creek		50'	1	•
Iberg Road Bridge over CSXT Railroad		235'	2	
Lebanon Avenue over MetroLink Transit Line		50'	1	
Lilac Road over Lake Fork Creek		52'	1	•
Long Street Bridge over Little Canteen Creek	•	65'	1'	•
Mill Hill Road over Canteen Creek		40'	1	•
Moro Bridge over Indian Creek	•	87'	1	•
Mulberry Road Bridge over Canteen Creek	•	90'	1	•
Michael Road Bridge over Sugar Creek		112'	3	
Pierce Lane over Rocky Fork Creek	•	32'	1	•
Powder Mill Road over East Fork of Wood River		200'	3	•
Robinson School over Richland Creek		160'	4	•
Schlueter Road over Richland Creek		150'	3	
Seven Hills over Willard Street & CSX Railroad		180'	2	
Staunton Road Bridge over Silver Creek		47'	1	•
Liberty Road over Tributary to Mill Creek		16'	1	•
Summit Avenue Bridge over Brush Creek	•	24'	1	•
Wood Station Road over W. Fork of Wood River		110'	3	•

### Qualifications of Personnel

Bruce Schopp, PE, SE is a Missouri licensed Professional Engineer and Illinois licensed Structural Engineer. He provides principal oversight on the firm's structural projects. Mr. Schopp has been with Oates Associates for 28 years and he has served as the project manager or project principal for projects involving rehabilitations, reconstructions, and new structures as well as inspections.

Jeff Rensing, PE, SE is a Missouri licensed Professional Engineer and Illinois licensed Structural Engineer with over fifteen years of design experience including bridge design, intersection layout, highway and roadway design and pedestrian accommodations. He is also experienced in the hydraulic analysis of floodplain crossings and roadside drainage facilities. He is familiar with Federal, State, and Local permitting, the LPA process and plan review by the Missouri Department of Transportation (MoDOT).

Dan Lutz, PE, SE has been with Oates for over 10 years. He is a Missouri licensed Professional Engineer and an Illinois licensed Structural Engineer. He is experienced with bridge and roadway projects for state and local clients. His experience includes bridge, culvert and retaining wall design, inspections, seismic analysis, curved girder design and structural repair plans. He has provided design for complex highway bridge structures and local agency projects funded with federal bridge funds.

Phil Murphy, PE, a Missouri licensed Professional Engineer, directs hydraulic studies and drainage design for many of the firm's transportation projects. Since joining the firm in 1995, he has managed roadway design, hydraulic analysis and the design of drainage and detention facilities.

Steve Keil, PE, PLS manages all survey services for the firm and serves as Project Manager on several of the firm's larger transportation projects. He is a Missouri licensed Professional Engineering and Professional Land Surveyor. He has been practicing as a licensed Professional Land Surveyor for over 15 years, and has extensive experience and knowledge in a wide variety of land surveys. He has a great deal of experience in boundary and right of way

surveys along with overseeing the preparation of numerous right of way plats and ALTA/ACSM Land Title Surveys. His expertise also includes extensive route surveys as part of transportation engineering projects. Mr. Keil also manages right-of-way survey, property research and document preparation for local agency projects.

### **Familiarity / Capability**

Oates Associates' primary engineering focus is transportation. About 90% of these projects are federally funded. Funding for our municipal projects has ranged from general funds to federal transportation funds, so we are familiar with a variety of design and documentation requirements by outside funding agencies. We have a thorough understanding of MoDOT and FHWA guidelines from the funding application stage through the construction / implementation process.

Oates' project managers average about 20 years of experience with federal, state, and local agency projects. Our experience includes bridge and roadway projects funded by federal and local funds. Oates' knowledge of the federal process has benefitted our clients by accomplishing:

- Grant application assistance which has resulted in securing over \$30 million in federal funding
- Planning, design, construction and/or reconstruction of:
  - nearly 30 federally funded roadways within the last five years
  - 7 federally funded streetscapes
  - 7 federally funded bridges
  - 20 federally funded intersections, including 3 roundabouts

We have provided structural engineering services for many federally funded projects and we understand the project process. When a project arises, guidelines set forth by MoDOT and FHWA will be followed closely and coordinated with the local agency. Through our experience in developing federally funded improvement plans for many governmental agencies, we understand the importance of this coordination. The project will utilize the guidelines established by the Local Public Agency Manual administered by MoDOT, 2010 AASHTO Load and Resistance Factor Design, the AASHTO Policy on the Geometric Design of Highways and Streets, the Highway Capacity Manual, the ADA Public Right-of-Way Access Guidelines (PROWAG), the Manual of Uniform Traffic Control Devices, local ordinances and guidelines, and other relevant standards as they relate to the project.

### **Accessibility**

We have staff available for assignment who can begin work immediately and they will be committed to the individual agency's project for the amount of time required to meet the project schedule. Oates Associates has proven our ability to be responsive on a variety of projects for several clients. Once a schedule is set for a project, we commit the necessary resources to complete the project within the specified timeframe. Every project is assigned a Quality Assurance / Quality Control (QA/QC) manager. The QA/QC manager meets with the project manager at intervals throughout the project to ensure successful delivery. This includes making certain that schedules are met and projects are within budget.

Oates Associates has been awarded several contracts with local municipalities, almost all of which are repeat clients. We believe these continual relationships with our clients speak to the level of their satisfaction. We understand that your willingness to engage us on your next effort is solely based on our ability to provide quality products and great service.

Thank you for the opportunity to submit our qualifications to be included on the LPA On-Call Consultant List. We are hopeful that our structural engineering experience and dedication to quality will be viewed favorably by the selection committee. Please contact us should you have any questions. We look forward to hearing from you.

Sincerely,

**OATES ASSOCIATES, INC.**

*Bruce P Schopp*

Bruce P. Schopp, PE  
President / Chief Operating Officer

# Engineering + Architecture



**OATES ASSOCIATES**  
Engineering + Architecture

## SERVICES

### Transportation Engineering

At Oates, our team of transportation engineers works with agencies, municipalities, neighborhoods and developers to creatively craft solutions and genuinely build consensus. We offer creative yet realistic solutions on a variety of scales from local street reconstructions to full development of interstate highway systems. Further, Oates is fluent in the design requirements of federally funded transportation projects, having completed over 30 federally funded roadway projects in the last five years.

- Local Streets
- Interstates and Interchanges
- Corridor / Alignment Studies
- Transportation Planning
- Intersection Design
- ADA Compliance Assessments & Design
- Storm Water Drainage Analysis & Design
- Hydraulic Studies
- Utility Coordination
- Public Coordination

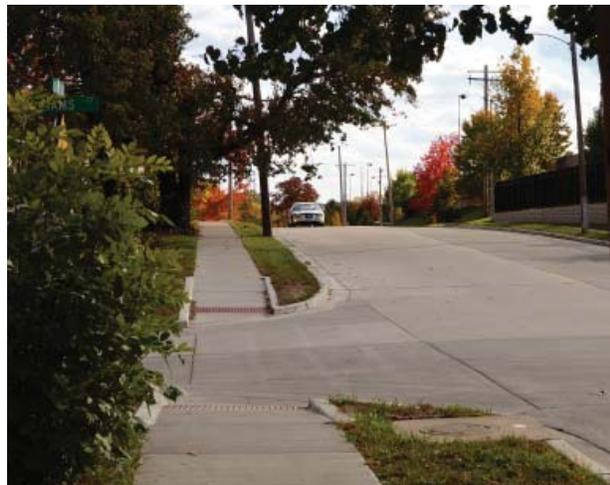
### Pedestrian Facilities

At Oates, we have the depth of pedestrian and bicycle facility experience to create an amenity that enhances the vehicular corridor. Our experience extends from ADA Transition Plans and bicycle master planning to facility design to construction. Many of our roadway projects involve upgrading pedestrian facilities to meet the current ADA requirements. Oates Associates understands that accessible design is a dynamic process that must be followed closely to comply with the most current design and construction guidelines and recommendations.

- ADA Transition Plans
- ADA Compliance Assessments & Design
- Streetscapes
- ADA Construction Inspection
- Pedestrian Signals
- Parking Lots



*IL 255 from IL 162 to I-270.*



*Federally funded roadway and sidewalk improvements along Laclede Station Road for the City of Maplewood, Missouri.*



*Inventory of sidewalks for the Sidewalk Inventory and ADA Transition Plan for the City of St. Charles, Missouri.*

## SERVICES

### Trails

Our staff has developed considerable experience in the design of bicycle / hiking trails in a variety of settings, from roadway facilities to state parks to college campuses to cross-county trails on abandoned rail lines or river levees. We have designed over 50 miles of bike trails and greenways, including on-street and off-street connections. Further, we have designed shared-use paths and sidewalks compliance with the “Complete Streets” state law.

- Bicycle Master Plans
- ADA Compliance Assessments and Design
- Multi-use Paths
- On-Road Facilities
- Recreational Trails

### Traffic Engineering

Oates has completed traffic impact studies for various municipalities and developers. To complete traffic studies, our engineers are proficient in using Highway Capacity software, Synchro, VISUM, and Nu-Metrics traffic counters. We also routinely perform manual traffic counts to supplement automated counts and help evaluate turning movement patterns.

- Trip Generation Studies,
- Traffic and Capacity Analysis,
- Intersection and Traffic Signal Design,
- Roundabouts
- Traffic Calming
- Control Warrants
- Intersection Modifications / Reconstructions

### Structural Engineering

Our structural design staff has significant experience in bridge / box culvert design and retaining walls as well as building structures. They have designed over 150 bridges in the last 20 years, from box culverts for small stream crossings to major interstate interchange structures and from rehabilitations and replacements to new structures.

Hydraulic design for new bridges and replacements is performed in-house by experienced hydraulic engineers.

- Steel Beam Bridges
- Prestressed Concrete Bridges
- Curved Girder Bridges
- Concrete Slab Bridges
- Pedestrian Bridges
- Box Culverts
- Deep Foundations
- Shallow Foundations
- Hydraulic Modeling



*Federally funded Cleveland Avenue Bridge in Belleville, Illinois.*



*Pedestrian walkway over US 67 and UP / NS Railroad in Alton, Illinois.*

## SERVICES

### Architecture

Our team of architects brings extensive knowledge of the built environment due to diverse design backgrounds. From new construction to renovations to repairs, we have designed facilities for municipalities, universities, schools, private clients, and retail and banking sectors. Our staff includes several LEED Accredited Professionals with practical green building experience and knowledge of sustainable site solutions.

- Conceptual Layout / Planning
- Building Design
- Interior Space Planning and Design
- Building Code Compliance
- Sustainable Design
- LEED Consulting

### Structural Engineering - Buildings

We provide structural engineering design for a variety of buildings and building types throughout the region, creatively adapting the structural components to the design. From new multi-million dollar facilities to building additions, we have crafted solutions that create great places.

- Building Inspections
- Building Structural Systems
- Foundations

### Site Design

Our architects, engineers and landscape architects work together to create site plans and designs that are as pleasantly interactive as they are efficient. Solutions that create great community places that become part of their surroundings rather than intrude on them. We have completed site design for many buildings, for sites up to 1,500 acres and for parking lot improvements affecting over 10,000 spaces in over 80 locations.

- Site Layout / Design
- Parking Facility Planning / Design
- Stormwater Management
- Wastewater Management
- Utility Design

### Survey Services

Our in-house survey staff assists our engineers by providing the initial topographic and right of way survey, and all required land acquisition documents for our projects. Oates Associates provides a wide range of surveying services to its clients which include:

- Control
- Route
- Topographic
- Right-of-Way
- Hydraulic
- ALTA
- Boundary
- Subdivision
- Construction Staking

### Construction Engineering Services

Our construction engineering services are tailored to fit our client's needs on each project. Our roles on construction projects have ranged from resident engineering and full construction observation to part-time inspection and testing to supplement our client's staff. Our construction engineering services include:

- Shop Drawing Reviews
- Coordination and Progress Meetings
- Construction Observation
- Material Testing
- Utility Coordination
- Federal documentation



*Porous pavement parking lot in University City, Missouri. Oates provide civil and construction engineering services.*