



**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)

Firm's Full Legal
Name:

Structures, Inc.

Firm Contact Name:

John Gruendler

Contact Email
Address:

JJG@stlsi.com

Firm's Mailing Address:

11414 Gravois Road, Suite 201

St. Louis, MO 63126

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**

Contact: John J. Gruendler, PE, SE
Structures, Inc.
11414 Gravois Road, Suite 201
St. Louis, MO 63126
(O) 314.638.6650
JJG@stlsi.com



Thank you for the opportunity to express our interest in providing on-call professional engineering services for Missouri's Local Program (LPA). We are requesting your consideration for the "Structures" work category with this letter.

As requested, we have included a Cover Sheet and our 4-page Company Brochure with this letter. We have organized this letter to coincide with the scoring criteria you identified in your Request for Qualifications. As you evaluate our qualifications, please feel free to contact us if you have any questions about **Structures, Inc.**

1. GENERAL EXPERIENCE OF FIRM

Located in south St. Louis County, **Structures, Inc.** is owned and managed by John J. Gruendler, PE, SE and Roy E. Jennings, PE, SE. Our firm consists of seven full-time engineers, technicians, and administrative support staff. **Structures** has professional engineers licensed in Missouri and several surrounding states. Our experience is in the design, construction inspection, maintenance, and rehabilitation of bridges, tunnels, retaining walls, as well as commercial and industrial structures.

Since its inception in 2001, **Structures** has provided bridge design services to regional transportation agencies for a variety of cities, counties, and municipalities. We have provided engineering services to local agencies for federally funded projects that are administered through MoDOT's Local Public Agency (LPA) program. **Structures** is prequalified with MoDOT and listed in MoDOT's Approved Consultant Prequalification List.

We currently hold several on-call contracts with a number of private and public entities. Dating back to 2011, we have been selected by Jefferson County for consecutive, 2-year, on-call structural engineering contracts. **Structures** has been called upon to design several bridge replacement and rehabilitation projects under these contracts.

2. PAST PERFORMANCE

The following project descriptions highlight some of **Structures'** recent, similar projects. Included with these descriptions are Project Performance Indicators which demonstrate our performance relative to critical project elements.

Allen Road over Sandy Creek

Location: Jefferson County, MO
Client/Owner: Jefferson County Department of Public Works
Owner's Representative: Mr. Jason Jonas, 636.797.5369
jonas@jeffcomo.org
Start Date: 2021 **Completion Date:** 2024 (Construction)



This **federally funded** project replaces an existing two-span bridge with a single span structure, approximately 100-ft long. **Structures** was the prime consultant and provided the preliminary and final design for the new prestressed concrete NU-girder bridge. Due to the long length of the new girders, truck hauling routes and turning movements on the rural roadways were investigated to ensure the new girders could satisfactorily be delivered to the project site. This project was designed in accordance with MoDOT's EPG and the LPA Manual.

Project Performance Indicators

	Design Schedule	Design Fee	Construction Cost	M/W/DBE Goals
Plan/Est.	20 months	\$241 K	\$1.18 M	16%
Actual/Bid	20 months	\$231 K	\$1.05 M	17%

Tesshire Drive Bridge over Gravois Creek

Location: St. Louis County, MO
Client/Owner: St. Louis County Department of Transportation
Owner's Representative: Ms. Pamela Thebeau, 314.615.8579
PThebeau@stlouisco.com
Start Date: 2017 **Completion Date:** 2021 (Construction)



This project replaces a deteriorated three span bridge in St. Louis County with a new two span structure. **Structures** was the prime consultant and provided the preliminary and final design for the new prestressed concrete NU-girder bridge. This project was **federally funded** and designed in accordance with the LPA Manual.

Project Performance Indicators

	Design Schedule	Design Fee	Construction Cost	M/W/DBE Goals
Plan/Est.	21 months	\$189 K	\$1.4 M	11%
Actual/Bid	21 months	\$189 K	\$1.2 M	21%

Doc Sargent Rd over LaBarque Creek

Location: Jefferson County, MO
Client/Owner: Jefferson County Department of Public Works
Owner's Representative: Mr. Jason Jonas, 636.797.5369
jjonas@jeffcomo.org
Start Date: 2018 **Completion Date:** 2021 (Construction)



This project replaces a deficient 2-span box beam bridge with a single span NU-girder bridge. **Structures** was the prime consultant and provided the preliminary and final design for the new structure. The bulk of the stream flow was concentrated in one of the two spans of the existing bridge, resulting in a hydraulically inefficient bridge opening. The design of the new bridge improved the hydraulics with a more efficient single span bridge. This project was **federally funded** and designed in accordance with the requirements of the LPA guidelines.

Project Performance Indicators

	Design Schedule	Design Fee	Construction Cost	M/W/DBE Goals
Plan/Est.	31 months	\$144 K	\$655 K	12%
Actual/Bid	23 months	\$144 K	\$654 K	18%

Old Halls Ferry Rd over Halls Ferry Creek

Location: St. Louis County, MO
Client/Owner: St. Louis County Department of Transportation
Owner's Representative: Ms. Pamela Thebeau, 314.615.8579
PThebeau@stlouisco.com
Start Date: 2015 **Completion Date:** 2018 (Construction)



This project replaces a deteriorated single span, 85-yr old bridge in St. Louis County. **Structures** was the prime consultant and provided the preliminary and final design for the new 50-ft single span precast, prestressed spread box beam bridge. This project was **federally funded** and included improvements to the existing reinforced concrete U-channel maintained by the St. Louis MSD.

Project Performance Indicators

	Design Schedule	Design Fee	Construction Cost	M/W/DBE Goals
Plan/Est.	22 months ¹	\$131 K	\$991 K	10%
Actual/Bid	21 months	\$131 K	\$975 K	23%

1. Includes contract modification.

Hanna Rd over Fishpot Creek

Location: City of Valley Park, MO
Owner: City of Valley Park **Client:** Weis Design Group
Owner's Representative: Mr. Gerald Martin, 636.225.5171
gmartin@valleyparkmo.org
Start Date: 2010 **Completion Date:** 2014 (Closeout)



As the structural subconsultant, **Structures** provided the preliminary and final design for the new 75-ft single span precast, prestressed I-girder bridge. The new **federally funded (LPA)** bridge accommodates a 32-ft wide roadway with sidewalk on one side. City officials felt strongly about making the structure something more than a typical highway bridge. They wanted to bring both functionality and beautification to this entrance to the City of Valley Park. Therefore, the final design incorporates aesthetic features such as ornamental fence, concrete form liners, and concrete stains. **This project is a Missouri ACEC Engineering Excellence Honor Award winner.**

Project Performance Indicators

	Design Schedule	Design Fee ¹	Construction Cost ¹	M/W/DBE Goals
Plan/Est.	8 months	\$76 K	\$420 K	10%
Actual/Bid	8 months	\$76 K	\$368 K	13% (Est.)

1. Fees/Costs shown are for Bridge only which was the limit of scope of services furnished by **Structures**.

3. QUALIFICATIONS OF PERSONNEL

John J. Gruendler, PE, SE

Project Manager/Lead Structural Engineer - John Gruendler has over 40 years of experience in bridge design, construction, inspection, evaluation, rehabilitation, and maintenance. Mr. Gruendler is experienced in highway engineering and in the design of marine and other transportation-related structures. Mr. Gruendler's current responsibilities include structural design; preparation of plans, specifications, and cost estimates; project management and scheduling; and quality control.

Prior to joining **Structures**, Mr. Gruendler was vice president, lead structural engineer, and senior manager of the bridge group in the St. Louis office of a prominent international transportation design firm. Mr. Gruendler also served as a bridge engineer for the St. Louis County Department of Transportation where his responsibilities included the annual inspection of over 300 vehicular, railroad, and pedestrian bridges; project management for federally funded bridge projects; review of structural plans prepared by consultants; and design and preparation of plans for in-house bridge projects. Mr. Gruendler has authored and

presented several papers on seismic design, prioritization, and retrofitting of bridge structures.

Select Project Experience

Mr. Gruendler served as the Project Manager and/or Lead Structural Engineer on the following similar bridge projects.

Project Name	Client	(Spans) Length
Allen Road Bridge*	Jefferson Co., MO	(1) 95 ft
Sycamore Lane Bridge*	Jefferson Co., MO	(1) 65 ft
New Ballwin Rd Bridge*	St. Louis Co., MO	(1) 60 ft
Hudson Drive Bridge*	St. Louis Co., MO	(1) 86 ft
Vorhof Drive Bridge*	St. Louis Co., MO	(1) 86 ft
McDonnell Blvd Bridge*	St. Louis Co., MO	(2) 132 ft
Lambert International Blvd Bridge	City of St. Louis, MO	(3) 126 ft
Ficken Rd Culvert	Jefferson Co., MO	(1) 18 ft
Tesshire Drive Bridge*	St. Louis Co., MO	(2) 130 ft
Doc Sargent Rd Bridge*	Jefferson Co., MO	(1) 70 ft
Highland Baptist Church Rd Bridge	Jefferson Co., MO	(1) 27 ft
Three Culverts Project	St. Louis Co., MO	(2) 20 ft; (2) 16 ft & (1) 12 ft
Old Halls Ferry Rd Bridge*	St. Louis Co., MO	(1) 50 ft
13 th Street Bridge Widening	Jeff. Co./Developer	(3) 180 ft
Butcher Branch Rd Bridge*	Jefferson Co., MO	(1) 60 ft
Hanna Rd Bridge*	Valley Park, MO	(1) 75 ft
McDonnell Blvd Bridge Enhancements*	Hazelwood, MO	N.A.
Meyer Rd Box Culvert Rehab	Jefferson Co., MO	(1) 12 ft
Fox Farm Rd Bridge Rehab	Jefferson Co., MO	(1) 20 ft
Loesch Rd Bridge*	Cole Co., MO	(3) 220 ft

* Indicates Federally Funded Project, otherwise Local.

Roy E. Jennings, PE, SE

Senior Structural Engineer – Roy Jennings has over 35 years of experience in the construction industry. Over that time, he has worked with a variety of construction contractors and has developed a highly practical approach to his design. Mr. Jennings' served in a structural engineering design role for recent infrastructure projects at **Structures** and will serve a similar role for on-call projects.

Jacob C. Stobie, EI

Structural/Transportation Engineer – Since joining **Structures**, Jacob Stobie has designed a variety of structures using cast-in-place reinforced concrete, prestressed concrete, and structural steel. In connection with his experience as a

structural engineer, Mr. Stobie is adept at using a variety of structural design software products including a number of the RISA modules, PG Super, and various bridge design spreadsheets. Mr. Stobie will assist with the bridge and roadway design for on-call projects as well as construction plan development.

Roy N. (Nathan) Jennings, EI

Structural/Transportation Engineer – Beginning in 2024, Nathan Jennings joined **Structures** as a full-time employee. He has design experience using a variety of materials including cast-in-place reinforced concrete, prestressed concrete, and structural steel. Mr. Jennings will assist with bridge and roadway design for any on-call projects. He will also be responsible for construction plan development.

Ryan Notheis

Structural CAD Designer – Ryan Notheis has 10 years of experience at **Structures** and manages all facets of drawing development for the firm. With his recent work on LPA projects, Mr. Notheis regularly utilizes the Bridge Standard Drawings found on MoDOT's website and has developed a substantial library of CAD details that are routinely used on similar projects. Mr. Notheis is adept at preparing drawings in both MicroStation and AutoCAD, depending on the client's requirements.

4. FAMILIARITY/CAPABILITY

The **Past Performance** and **Qualifications of Personnel** sections of this letter demonstrate our extensive familiarity with federal projects. As part of our normal course of business, the **Structures**' staff holds internal, weekly project management meetings to discuss project progress and resource needs to ensure we have the capability to deliver our projects on time and within budget.

In addition to the firm's design capabilities, **Structures** has successfully utilized and cleared MoDOT's Request for Environmental Review processes on its federal projects.

5. ACCESSIBILITY

As discussed in our 4-page brochure, one of the two key principles setting **Structures** apart from other engineering firms is our customer-based focus on **responsive engineering**. Being responsive means addressing a project from our client's perspective. It demands we do what is right for our clients in a timely manner and we provide technical knowledge, expertise, and consistency at a fair value.

We invite you to contact any of the client contacts listed in the **Past Performance** section of this letter if you have any questions regarding our accessibility.



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St. Louis, Missouri 63126
314-638-6650
www.stlsi.com

“Supporting the Past - Structuring the Future”

Firm Facts:

- **STRUCTURES, INC.** was founded in 2001.
- Firm’s Principals:
 - John J. Gruendler, PE, SE
 - Roy E. Jennings, PE, SE
- Our staff has designed, inspected, and rated well over 1,000 bridges and crossroad culverts.
- The firm is licensed in 10 states throughout the Midwest, including Missouri.

Located in south St. Louis County, **STRUCTURES, INC.** is a consulting engineering firm providing structural design and engineering services to the transportation, industrial, commercial, and institutional construction markets. As our tagline suggests, we provide engineering services for facility modifications and rehabilitation/strengthening projects for clients planning to preserve their existing infrastructure as well as for those clients building completely new improvements from the ground up. **STRUCTURES, INC.** is prequalified with MoDOT and listed in MoDOT’s Approved Consultant Prequalification List.

STRUCTURES, INC. is a leader in delivering innovative solutions when confronted with complex engineering challenges. Our success is centered on two key principles setting us apart from other engineering firms: a customer-based focus on *responsive engineering* and production of truly *constructible designs*.

Responsive Engineering

STRUCTURES, INC. understands that maintaining a project schedule and budget is critical to our client's success. Being responsive means addressing a project from our client's perspective. Being responsive means doing what is right for our clients and making certain we are providing technical knowledge, expertise, and consistency at a fair value.

Constructible Designs

With our field experience, **STRUCTURES, INC.** understands the importance of producing designs that are constructible. So often designs are developed and construction documents are produced that "work on paper" but are difficult, if not impossible, to construct. This typically results in unnecessary hardships for the construction contractor and costly overruns for the owner.

We are often called upon to provide the solution that allows "the square peg to fit into the round hole." We have several on-call contracts with both private and public entities. These ongoing contracts are a testament to our outstanding client responsiveness and the exceptional quality of our work.

Structures Services:

- Bridge/Culvert/Retaining Wall Design
- Design of Temporary Earth Retention Structures
- Construction Document Preparation
- Structural Inspections
- Structure Retrofit/Rehabilitation
- Bridge Load Ratings
- Condition & Damage Assessments
- Feasibility Studies
- Peer Reviews



STRUCTURES

STRUCTURES, INC. was responsible for the design, preparation of construction documents, and periodic inspection for the following projects:

Project Name	Client	(Spans) Length
Allen Road Bridge*	Jefferson Co., MO	(1) 95 ft
Sycamore Lane Bridge*	Jefferson Co., MO	(1) 65 ft
New Ballwin Rd Bridge*	St. Louis Co., MO	(1) 60 ft
Hudson Drive Bridge*	St. Louis Co., MO	(1) 86 ft
Vorhof Drive Bridge*	St. Louis Co., MO	(1) 86 ft
McDonnell Blvd Bridge*	St. Louis Co., MO	(2) 132 ft
Lambert International Blvd Bridge Rehabilitation	City of St. Louis, MO	(3) 126 ft
Tesshire Drive Bridge*	St. Louis Co., MO	(2) 130 ft
Doc Sargent Rd Bridge*	Jefferson Co., MO	(1) 70 ft
Highland Baptist Church Rd Bridge	Jefferson Co., MO	(1) 27 ft
Three Culverts Project	St. Louis Co., MO	(2) 20 ft; (2) 16 ft & (1) 12 ft
Old Halls Ferry Rd Bridge*	St. Louis Co., MO	(1) 50 ft
13 th Street Bridge Widening	Jeff. Co./Developer	(3) 180 ft
Old Lemay Ferry Rd Bridge	Jefferson Co., MO	(1) 39 ft
Butcher Branch Rd Bridge*	Jefferson Co., MO	(1) 60 ft
Hanna Rd Bridge*	Valley Park, MO	(1) 75 ft
McDonnell Blvd Bridge Enhancements*	Hazelwood, MO	N.A.
Bella Fontaine Bridges	Great Rivers Greenway	(1) 130 ft; (1) 115 ft & (1) 100 ft

* Indicates Federally Funded LPA Project - Otherwise Project Funded with Local Funds

The following projects are examples of our experience with Local Public Agency bridge projects:

Tesshire Drive Bridge over Gravois Creek

Location: St. Louis County, MO



This project replaces a deteriorated three span bridge in St. Louis County with a new two span structure. **STRUCTURES** was the prime consultant and provided the preliminary and final design for the new prestressed concrete NU-girder bridge. This project was **federally funded** and designed in accordance with the **LPA Manual**.

Old Halls Ferry Rd over Halls Ferry Creek

Location: St. Louis County, MO



This project replaces a deteriorated single span, 85-yr old bridge in St. Louis County. **STRUCTURES** was the prime consultant and provided the preliminary and final design for the new 50-ft single span precast, prestressed spread box beam bridge. This project was **federally funded** and included improvements to the existing reinforced concrete U-channel maintained by the St. Louis MSD.

Doc Sargent Rd over LaBarque Creek

Location: Jefferson County, MO



This project replaces a deficient 2-span box beam bridge with a single span NU-girder bridge. **STRUCTURES** was the prime consultant and provided the preliminary and final design for the new structure. The bulk of the stream flow was concentrated in one of the two spans of the existing bridge, resulting in a hydraulically inefficient bridge opening. The design of the new bridge improved the hydraulics with a more efficient single span bridge. This project was **federally funded** and designed in accordance with the requirements of the **LPA** guidelines.

CONSTRUCTION INSPECTION

STRUCTURES, INC. provides Construction Services as needed by the client. These services may include full time inspection, inspection during critical construction operations, shop drawing review, project documentation, responding to requests for information from the Contractor, review of Contractor change order requests, and coordination with and support of the LPA staff. Our staff includes a former Resident Engineer for a local transportation agency as well as an engineer who formerly worked for a Construction Contractor. We understand the importance of promptly responding to inquiries during construction to prevent impacting the construction schedule and to avoid any potential delay claims by the Contractor.

Construction Inspection Services:

- LPA Project Inspection & Documentation
- Bid Reviews & Recommendations
- Shop Drawing Review
- Respond to Contractor's Requests for Information
- Support of LPA Staff
- Value Engineering (VE) Reviews
- Final Inspection & Punch List Preparation
- As-Built Drawing Preparation



STRUCTURES, INC. provided Construction Services for the following example projects:

- Sycamore Lane Bridge, Jefferson County
- Lambert International Blvd. Bridge, City of St. Louis
- New Ballwin Road Bridge, St. Louis County
- Allen Road Bridge, Jefferson County
- Hudson Drive Bridge, St. Louis County
- Vorhof Drive Bridge, St. Louis County
- Doc Sargent Road Bridge, Jefferson County

