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ABNA's Structural Engineering Department

November 15, 2013

Ms. Mary Ann Jacobs, Intermediate Planning Technician
MoDOT Central Office
maryann.jacobs@modot.mo.gov

Letter of Interest for On-Call Professional Services related to LPA Structures

Dear Ms. Jacobs:

ABNA is interested in providing professional services under your **LPA On-Call for Structures** program. We are confident that ABNA is the right firm to support Missouri's Local Public Agencies for work assignments under this program due to our relevant experience, and understanding of structural design related to bridges and retaining walls. ABNA offers a Cohesive Team, with available capacity, and a Project Manager, Stephen Alsbury PE, SE, with Experience on LPA projects and is committed to each project assigned to him.

Why Chose ABNA?

ABNA can deliver a quality finished product as we've been privileged to work on complex structural engineering projects of all sizes since 1994 for governmental agencies, educational institutions, commercial clients, industrial clients and contractors. Our proficiency with design, transportation codes and the LPA process coupled with our firm's excellent reputation for delivering projects on time and within budget, makes our firm ideally suited for this program. ABNA has a solid structural engineering portfolio for all facets of transportation infrastructure and vertical structures including rehabilitations, additions, new construction and demolition. ABNA has managed structural design projects for various public agencies, added project value through cost efficient means and can rapidly mobilize once a work order is received.

Diversity

ABNA's approach to execute the needs for your project will validate the fact that successful project accomplishment perfectly coincides with diversity. ABNA is MoDOT qualified and certified as an M/W/DBE. Our staff reflects members of this community who are experienced engineers, surveyors and support professionals from every part of the US and over 10 other countries. In addition, ABNA works with the diverse youth of our community and encourages them to pursue an education in science and technology. Further we actively recruit from the community so as to reflect the community in which we live and serve. MoDOT encourages qualified DBE firms to submit letters of interest for categories in which they are qualified; hence for this program ABNA is submitting as a prime consultant.

General Experience of Firm

Bridges – ABNA has designed both pedestrian and vehicle bridges and tunnels and is currently completing plans for several LPA projects in Jefferson County & St. Louis City. We are proficient in grade separations for highways and railroads along with bridges over the streams and rivers. ABNA has invested in the necessary tools to quickly and efficiently design all types of structures. Our design are cost efficient due to our experience designers that have worked with many contractors performing Value Engineering studies and plan changes to increase the contractors production while reducing cost. This knowledge is what allows us to produce cost effective solutions within project budgets. In 2008, ABNA was tasked by MoDOT's Bridge Division with designing the final rehabilitation plans for 4 bridges as part of the 800 Bridge Program. ABNA designed bridges over Moniteau Creek in Howard County, Bridge Creek in Carroll County and Slough Creek and Edmondson Creek both in Saline County. Each bridge consisted of a three span steel rolled beam structure which required new composite cast-in-place slab

decks and other repairs completed within an accelerated three month schedule. ABNA has also designed numerous bridges with precast wing walls as well as 3-sided bridges.

Retaining Walls – ABNA has experience working on cast-in-place, precast MSE and short block retaining walls. ABNA’s experience includes wall modifications such as on the depressed lanes of I-70 in downtown St. Louis and new construction such as on I-64 at Tower Grove also in St. Louis. ABNA designed several retaining walls for the MetroLink Cross County Extension ranging small up to large ones of 24-feet tall. In general, all walls exceeding 4-feet in height receive an accompanying geotechnical investigation and those over 10-feet in height are evaluated for global stability.

Past Performance

The following chart reflects our proven history and ability to efficiently prepare project design within realistic budgets.

<i>Project Description</i>	<i>Estimate</i>	<i>Low Bid</i>	<i>Difference</i>
Mapaville Road Bridge	\$1,164,100.00	\$927,999.00	-25%
Bucklick Creek Road Bridge	\$223,000.00	\$225,664.00	1.2%
Camp Mo-Val Road Bridge	\$433,000.00	\$388,567.48	-10.3%
Fountain City Road Bridge	\$780,820.00	\$793,357.71	1.6%
Hardin Road, Road Bridge	\$803,000.00	\$770,658.01	-4.0%
Hawk's Nest Road Bridge	\$1,702,644.65	\$1,565,829.13	-8.0%
Missouri State Road Bridge	\$588,000.00	\$532,967.20	-9.4%
Shotwell Road Bridge	\$313,000.00	\$297,196.00	-5.0%

While past performance assists with predicting success, having the dedication of a winning hands-on **Project Manager, Stephen Alsbury PE, SE** leading the team, coupled with the support of ABNA’s Structural Engineering Department and ABNA’s managing Principals, is the best assurance to trust a well-executed project will be delivered.

Qualification of Personnel

ABNA’s Structural Engineering Department has 8 design professionals experienced in both LPA and MoDOT design. Each project awarded under this program will be managed by Mr. Stephen Alsbury PE, SE.

Stephen Alsbury PE, SE has 27 years of experience in engineering, design and construction management for both structural and civil projects and will serve as the **Project Manager**. He will also serve as the Lead Structural Engineer for bridge projects. He has designed over 23 bridge replacement and repair plans for both MoDOT and Missouri LPAs which includes **Stroup Road Bridge** over a tributary to Little Creek, **Wilson Hollow Road Bridge** over a tributary to the Big River, **Mapaville-Hematite Road Bridge** also over a tributary to Little Creek, **Old Sugar Creek Road Bridge** over Sugar Creek, and the **Hillsboro-House Springs Road Bridge** over Heads Creek. Steve has a strong knowledge of AASHTO bridge specifications and design requirements and is a NBIS certified bridge inspector. He is also proficient with MoDOT bridge manuals, specifications and LPA procedures. He will lead ABNA’s Structural Team to ensure successful execution for a quality project delivered within budget and on schedule.

Assisting Stephen with bridge and retaining wall design will be **Ms. Caroline Epperly PE**. Caroline has over 23 years of experience designing bridges and retaining walls. She recently assisted in the design of MoDOT’s I-70 Land Bridge which provided for cover 300-feet of I-70 adjacent to the Arch Grounds as part to the current upgrades to the Jefferson National Expansion Memorial. One of her recent projects was as LPA project for the St. Louis County Department of Highways and Traffic and included a 3-sided bridge carrying Hanley Road over Hampton Branch Creek and Manchester Road over Black Creek.

Robert Loehr PE, SE, will be the **QA/QC lead** and is committed to providing his considerable experience and knowledge to ensure this project is successfully completed to your satisfaction. Bob has managed and designed over 200 bridges in his 41 years of professional experience; including more than 12 MoDOT bridges in the last five years alone. Bob was responsible for contract plan documents for ABNA's work on The New I-64/40 Design/Build Project.

Raymond Bailey PE, RG, PhD will support the team's **geotechnical** efforts and has over 37 years of experience working on bridge, tunnel, and retaining wall projects for MoDOT, IDOT and the Illinois Tollway. Some of his recent projects include working as a subconsultant on the *New Mississippi River Bridge (MRB)* approach, the Geotechnical Inspection Lead on the I-70 EB Flyover to I-64 and on the I-70 WB Flyover from I-64. Both Flyovers are also associated with the New MRB connecting St. Louis and Illinois.

Familiarity/Capability

ABNA also has 4 staff members that have taken the MoDOT LPA Basic Training Class and are fully capable to manage LPA projects. Additionally, ABNA has been delivering federally funded project since 1994, and thus brings 19-years of experience to each project. With a Missouri staff of 65, we are confident that we have the administrative, personnel, and technological capability to deliver a quality project within the time frame needed.

Accessibility

ABNA's main office is located in Missouri along with all personnel that will be assigned to these projects, making it very convenient and cost efficient for field checks as any part of the state is easily accessible by car. ABNA embraces technology and utilizes cloud computing the voice over IP for the feel of being in the cubical next door. Each of ABNA's clients is provided a backup ABNA contact who can fill-in should the project manager ever be unavailable. ABNA is committed to delighting our clients with quality work, utilizing innovate methods for effective project management and being responsive.

Commitment

ABNA's Project Manager, **Stephen Alsbury PE, SE** has worked on numerous bridge projects. His commitment, which is also equally shared by ABNA's Principal, **Abe Adewale PE**, and the other team members that will be assigned to this project, will ensure that outstanding services are provided.

We look forward to continuing our positive and long-term working relationship with MoDOT and extending this relationship with Missouri's LPAs. Please don't hesitate to call upon us should you have questions or need clarifications.

Sincerely,



Abe Adewale PE
Firm Principal
Extension 1101



Stephen Alsbury PE, SE
Project Manager
Extension 1114

ABNA Engineering, Inc. founded in 1994, has grown to over 70 employees and is consistently ranked among the top 25 Engineering Firms by the St. Louis Business Journal (2010-2011). ABNA provides **Engineering Design** Services for **Transportation** infrastructure including **Structural** design, **Water Wastewater** systems, and other civil facilities such as educational and healthcare. Additionally, ABNA provides **Surveying, Geotech, Construction Management, Inspection, Materials Testing, Planning/GIS Services** and **Construction Operations**.

ABNA is proud of its planning & design service provided for the Jefferson National Expansion Memorial's Arch Grounds improvements which included a Land Bridge (Lid) over I-70. Also note our 3D High Definition LiDAR services provided for the Delmar Loop Trolley Project. Other significant projects include the High Speed Rail between Chicago and St. Louis, Clayton School District Improvements, Blanchette Bridge Rehabilitation and the Central Business District Streetscape Improvements. Our Construction Management Department continues to offer clients key management services as the owner's representative overseeing construction projects on many federally funded projects such as Franklin County Missouri's Herbst Road Bridge and non-federally funded projects such as the Missouri Botanical Garden's Shaw Nature Reserve.

This experience, our commitment to using innovating approaches and our vast transportation knowledge qualifies ABNA to provide our clients unprecedented professional services.

Surveying

ABNA has supported large and small projects alike by providing survey technicians to perform a number of survey activities such as route surveys, topographic surveys, cross-sections and profiles, and establishing existing, proposed centerline alignments, record research, boundary surveys and adjustments, plotting collected field information, establishing 1st and 2nd order controls, right-of-way monuments, land use determination, complex construction staking, layout and as-builts. ABNA's survey department consists of four survey crews, a field manager, a survey research technician, the survey manager and three additional licensed surveyors. ABNA employs a wide array of survey equipment, which enables the expeditious completion of projects. These instruments include five full Trimble GPS units, five Nikon Total Station Units equipped with the latest TDS data Collectors, digital levels and a variety of other conventional survey equipment. Additionally, ABNA's survey staff have extensive experience in the use of state of the art software such as MicroStation, AutoCAD, GEOPAK, MapInfo, Manifold, STAR*NET TDS Survey Link, and Trimble Geomatics Office. With 5 survey crews, ABNA can rapidly mobilize once work orders are received.



SURVEYING EXPERIENCE

Sample ABNA experience includes MoDOT's Route I-44 Meramec River Bridges, the Illinois Tollway's I-90/Lee Street Interchange, MoDOT Rte. 115 (Natural Bridge Road) Great Streets Project, City of St. Louis' North & South Broadway Streetscaping, several St. Louis Ward Improvement

Projects, Metro’s St. Clair County MetroLink Extension, IDOT’s I-270 over Chain of Rocks Canal Bridge replacement project, and the MetroLink Cross county Extension.

Transportation Engineering

We offer many transportation related services from trails and sidewalk through Interstate highway design. Services provided include:

- Writing grant and TIP applications
- Planning and Studies
- Obtaining Environmental Permits
- Roadway & Drainage Design
- Traffic Signal Design
- Lighting Design
- Estimating
- Completing Bid Documents



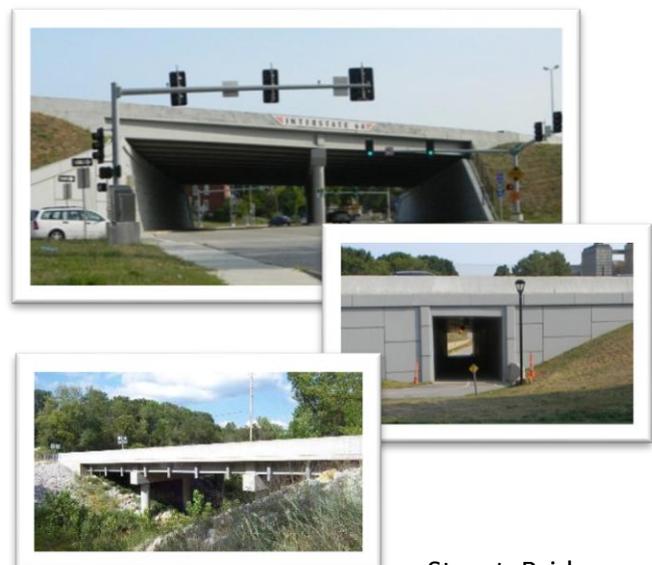
TRANSPORTATION EXPERIENCE

In the last several years, ABNA has had the opportunity to work on numerous federally funded roadway projects including the Jefferson National Expansion Memorial’s Park over the Highway (I-70 Lid), Missouri’s Rte. 115 (Natural Bridge Road) Great Streets Project, The City of St. Louis’ Washington Ave., Phase 3 Streetscape Project and their Central Business District Streetscape Project, MoDOT New I-64 Design/Build, the New Mississippi River Bridge, MetroLink, Illinois Route 3, the Lindbergh Tunnel, and reconstruction of the I-90/Lee Street Interchange for the Illinois Tollway.

Non-roadway projects include the Delmar Loop Trolley, several projects associated with the Chicago to St. Louis High-Speed Rail, and various airport, and trail projects.

Structural Engineering

One of ABNA’s largest groups is the Structural Engineering Department. Their experience includes design of all types of roadway structures, buildings, parking facilities, specialty foundations, pump stations, flood walls, retaining walls, gates, box culverts, dams, walled channels, drop structures and energy dissipaters. In addition to design, ABNA provides structural inspections of bridges and tunnels as well as load ratings.



STRUCTURAL EXPERIENCE

Some of ABNA recent projects include the Lee over I-90 for the Illinois Tollway, subconsultant support for MoDOT’s Poplar Street Bridge Slide, Poplar Street Approach Ramps, Walnut Street Bridge over

I-70, Land Bridge over I-70, and the Pine Street Bridge over I-70, Route 141 Bridge over Creve Coeur Creek, the I-70 Blanchette Memorial Bridge over the Missouri River and several bridges and pedestrian tunnels associated with MoDOT *The New I-64* Design/Build project in St. Louis. ABNA was also selected for 4 bridge replacement projects as part of MoDOT's Safe & Sound 800 bridge program. Those bridges were Rte. TT Bridge over Slough Creek in Saline County, Rte. M over Bridge Creek in Carroll County, Rte. W over Moniteau Creel in Howard County, and Rte. FE over Edmondson Creek in Saline County. Some of our local agency projects include Jefferson Counties Mapaville-Hematite Bridge over Little Creek Tributary, Wilson Hollow Bridge over a Tributary to the Big River and specialty foundation design for the City of St. Louis' Washington Avenue, Phase 3 Streetscape project and Kiener Plaza.

Construction Management

We offer many construction related services including estimating, value engineering, construction staking, testing for plumbness of steel and forms, concrete, soil & asphalt testing, project inspection and field engineering. We can also provide support for scheduling and QA/QC documentation. ABNA's Construction Services, Construction Management and Engineering staff includes experienced civil engineers and geologists, NBIS, in addition to technical support personnel. Services provided include:

- Resident Engineering
- Scheduling
- Estimating
- In-place density tests on compacted fill material
- In-place density tests on asphalt
- Field test of concrete and casting
- In-place density tests on asphalt
- Lab compression testing of concrete cylinders in accordance with ASTM Procedures
- Testing and reporting
- Trimming of irregular client cast cylinders to meet ASTM requirements (only if required)
- Atterberg limits determination
- Marshall Stab. & Flow (ASTM D 1559)
- Extraction and gradation (ASTM D 2172)
- Bulk specific gravity
- Obtaining of pavement core samples



CONSTRUCTION MANAGEMENT EXPERIENCE

ABNA has been fortunate to have had the opportunity to work on numerous challenging federally funded projects such as MoDOT's Boone Bridge Design/Build, The New Mississippi River Bridge, MoDOT New I-64 Design/Build, IDOT's I-55/Route 59 Interchange, and several MetroLink projects such as the Eads Bridge



Retrofit and the Cross County Extension. ABNA recently complete construction management services for Franklin County's Herbst Road Bridge replacement. On this project ABNA was the prime consultant and performed all LPA construction management duties from Resident Engineer thru laboratory material testing. ABNA has also been selected by the City of St. Louis for full construction management on their Washington Avenue Streetscaping, Phase 3 project.