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November 15, 2013

Ms. Mary Ann Jacobs
Local Programs Administrator
MISSOURI DEPARTMENT
OF TRANSPORTATION (MoDOT)
105 West Capitol Avenue
Jefferson City, Missouri 65102

RE: Letter of Interest for Missouri's Local Program (LPA) On-Call Services Roadway Design Work Category CDG Qualifications No. Q13092.05

Dear Ms. Jacobs:

In response to MoDOT's request for consulting firms to perform on-call professional services for an LPA pre-qualified list, CDG Engineers, Inc. ("CDG") submits this letter of interest. CDG is interested in being qualified for the following work categories: roadway design, trails and sidewalks, construction inspection and structures in all areas of the state. This letter of interest specifically concerns qualifications for Roadway Design.

CDG is a 65-person A/E firm located in the City of St. Louis. Its main disciplines are civil and structural engineering, with in-house capabilities in electrical and mechanical engineering, architecture and construction administration/inspection.

Key personnel at CDG have a complete and thorough understanding of the performance requirements for engineering and design work subject to the design and documentation requirements of the Local Public Agency Manual (LPA). CDG has completed over twenty (20) LPA projects in the last five years for various entities in the State of Missouri. CDG has successfully performed work on projects subject to the LPA Manual without any incidences where the sponsoring community has been in danger of losing its funding due to missed deadlines or the inability to obtain MoDOT acceptance of design submissions. In fact, one of the first things CDG does at the start of an LPA project is to have a meeting with the sponsoring community representative(s) and the MoDOT representative to ensure that all parties are in agreement with project goals and budget, and to identify any new requirements and/or documentation requirements of the LPA. Several members of CDG have attended the LPA Basic Training Classes and are currently certified for LPA projects. Additionally, a member of our firm (Glenn Smith) was a member of the Statewide MoDOT LPA Committee, 2012-2013.

Typical Approach to an LPA Roadway Design Project:

Based on its successful history of multiple roadway design LPA projects that were conducted in a timely and cost efficient manner, CDG offers the following typical approach:

- Conduct a project kick-off meeting with the LPA to review project goals, schedule, and budgets (design and construction).
- Conduct a topographical survey. (CDG usually subs this portion of the project out [including DBEs], but can provide surveying services in-house for smaller projects).
  - Property owners will be notified of the dates when the survey crew is expected to be in the area.
  - Survey crewmembers will wear identification and carry copies of notification fliers previously distributed to residents.

- Conduct any needed geotechnical investigations of the project site area. (CDG subs this portion of a project out. It regularly works with several geotechnical firms [including DBEs]).
- Conceptual Engineering Design will commence after completion of the field survey.
- During concept design, CDG staff member will develop design alternatives for pavement resurfacing, the method of storm water drainage and control; water quality requirements, curb and gutter design; roadway shoulders; and/or other design considerations.
- The concept design effort will be followed by review meetings with the LPA and possibly with utilities (water, electric, gas, etc.) representatives who will provide input.
- Multiple representatives from CDG can attend an open house format public meeting. At this meeting, boards of the concept plans are presented to allow public comments.
- Distribute plans to utilities within the area.
- Incorporate comments from the concept meeting with the LPA into the preliminary plans. Another meeting will be held with them to review the preliminary plans before the final design phase begins.
- Prepare temporary construction easements and descriptions and right-of-way acquisition, if necessary.
- Incorporate comments from the LPA and utility companies into final design plans and specifications for bidding.
- A current working cost estimate will be made available to the LPA at every milestone submittal and at other submittals as necessary.
- Assist the LPA to bid the project, obtain a construction contract and assist in the construction phase, as requested.

Key Personnel:

Mark W. Birchler, P.E., R.L.S., CFM (Principal/Manager of Civil Engineering) – Mark has over 35+ years of experience in design and preparation of plans for roadways, bridges and culvert installation, urban and suburban area renewal and revitalization work, street reconstruction, infrastructure improvements and related public works projects. His expertise includes the preparation of plans and specifications.

Brandt M. Genz, P.E. (Project Manager/Civil Engineer) – Brandt has successfully completed civil engineering work on numerous municipal public works and infrastructure projects in the St. Louis Metropolitan Area. He also has experience in roadway improvements, bridge replacements and storm water control system upgrades, as well as construction engineering/inspection services.

Michael J. Caruso, P.E. (Civil Engineer) – Mike has specialized civil engineering and design experience for streets, highways, utilities, culverts and storm water drainage sewer systems and other public works associated with site and infrastructure improvement work.

"... I've enjoyed tremendously working with You [Mark Birchler], Brandt [Genz] and the rest of CDG. Your firm is absolutely at the top regards in competency and customer service. . . I know that you will continue to give Katie the superb support/service you've always given me."

David Leake, Retired PM, St. Louis Development Corp. Carrie Avenue Improvements

Teresa L. Entwistle, P.E., CFM (Civil Engineer) – Terry has twenty-five (25) years of civil engineering analysis and design experience. Engineering work has included street layouts and pavement design; storm water drainage system layout and design, including the preparation of construction plans; utility relocations

and installations, site grading and drainage planning and design and construction site administration and inspection.

Katerina Polovina, P.E. (Civil Engineer) – Katerina has approximately 30 years of civil engineering analysis and design experience, including work on roadways, pedestrian facilities and trails, bridges, culverts and storm water drainage as part of publically-funded site infrastructure projects.

* All key personnel listed have worked on multiple LPA roadway design projects over the last five years.

Recent Roadway Design Project Experience:

Delor Avenue Improvements (LPA Project), St. Louis, Missouri – Street improvements to Delor included the installation of new pavements; replacement of curbs, drainage structures, new sidewalks, improved exterior lighting, as well as other urban area site enhancements. *Reference: Roger Allison, Chief Design Engineer, (314) 589-6615 allisonr@stlouis-mo.gov*

Carrie Avenue Reconstruction (LPA Project), City of St. Louis SLDC/LCRA – CDG prepared preliminary and final construction plans and specifications for road improvements to Carrie Avenue. Included: repair of approximately 1,600 feet of the Carrie Avenue concrete roadway located between Terminal Railroad Association tracks and Hall Street and overlaid with asphalt; new driveway entrances, as well as resetting of granite curbs; replaced and added sidewalk and installation of ADA accessible ramps. *Reference: Otis Williams, SLDC Deputy Director and Director of Major Projects Group, (314) 657-3703, williamsot@stlouis-mo.gov*

Clay Avenue Improvements, Kirkwood, Missouri – Engineering and design services for street and sidewalk improvements to sections of Clay Avenue, a total distance of approximately 2,800 lineal feet in a residential area of the City. This project included the design of site improvements for several road intersections, the installation of new sidewalks for improved pedestrian access in the residential area and the replacement of a water line for the City of Kirkwood Water Department. Another major element in the project was to address water quality issues as it related to storm water drainage and control requirements for MSD. Reference: *Todd Rehg, City Engineer, (314) 822-5822, rehgta@kirkwoodmo.org*

Driftwood Lane Improvements, Maryland Heights, Missouri – Engineering and design services for pavement improvements for a two-lane street in a residential area of the City. This project included pavement reconstruction, sidewalk improvements, the installation of ADA-compliant curb ramps, storm drainage system upgrades and utility relocations to accommodate the improvement work. *Reference: L.G. Loos, Engineering Manager, (314) 738-2252, lloos@marylandheights.com*

CDG is very interested in providing roadway design services on LPA projects across the State of Missouri. Please refer to our three (3) company reference forms and four page qualifications for more information.

Respectfully submitted,

CDG Engineers, Inc.

Michael A. Augustine
Manager, Project Development

Mark W. Birchler, P.E., R.L.S., CFM
Principal/Project Manager

Enclosures

CDG Engineers, Inc.

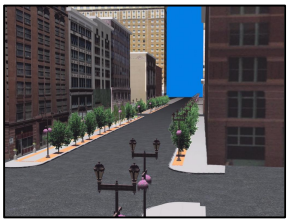
Public Works and Infrastructure Services Overview

St. Louis, Missouri

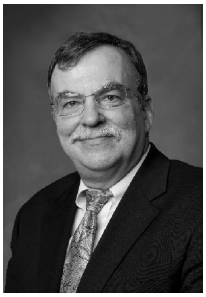
CDG Engineers, Inc. is a full service, multi-discipline professional services organization with more than 65 personnel. Technical services have included various engineering studies, design and construction coordination assignments. Specialized experience and technical expertise for the following:

- Pedestrian and Bikeway Trails and Walkways
  - Recreational Park and Recreational Site Improvements and Amenities
  - Hiking and Biking Trails (locations studies, alternative alignments, design, etc.)
- Street and Streetscape Improvements and Other Transportation Enhancements
  - Site Planning and Landscaping Improvements
  - New Sidewalks, Curbs and Gutters
  - Street and Pedestrian Lighting
- Creek/Channel/Stream Restoration, including Erosion Control
- Flood Plain Protection Studies, including hydrological and hydraulic modeling
- Permitting Assistance, Permit Applications and Compliance
  - Flood Plain Development, Army Corps of Engineers, State Department of Natural Resources (or Environmental Protection Agency) and Water Quality Permits
- Roads/Bridges/Culverts/Retaining Wall Structures
  - Plans, Specifications, Construction Estimates, Construction Administration
- LPA Project Administration and Execution
  - Preparing Applications for Local Public Agency (LPA) funding assistance
  - Managing LPA funded projects and complying with all technical requirements
- City Engineer Services
  - Performance of on-call task order assignments
  - Indefinite Delivery/Indefinite Quantity (IDIQ) contracts
- Area-wide Exterior, Security and Pedestrian Lighting
- Parking Lots, Equipment Storage Yards, Material Storage Facilities
- Parking Structures (New Construction and Repair/Restoration)
  - Studies, Inspections, Design and Construction Administration
- Sanitary Sewers and Storm Water Drainage and Control Systems
  - Sanitary Relief Sewers
  - Combined Sewer Relief Projects
  - Channel Restoration and Stream Bank Stabilization
  - Sewer Rehabilitation and/or Replacement
  - Pump Stations and Outfalls
- Administrative, Maintenance and Support Buildings Programming and Design, as well as Site Planning and Other Project and Construction Administration Services

CDG Engineers and its full-time 65-person technical staff routinely provide multi-discipline expertise for various municipalities and governmental entities.

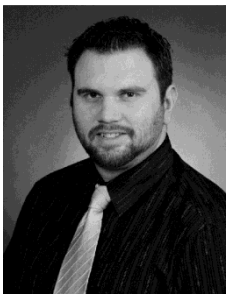


CDG ENGINEERS



Mark W. Birchler, P.E., R.L.S., CFM (Principal/Manager of Civil Engineering) – Mark has over 35+ years of experience in design and preparation of plans for roadways, bridges and culvert installation, urban and suburban area renewal and revitalization work, street reconstruction, infrastructure improvements and related public works projects. His expertise includes the preparation of plans and specifications, as well as LPA project management. Mark has directed roadway and storm water drainage system upgrades for work in Arnold, Clayton, Fenton, Overland, Pacific, Pasadena Hills, University City, Webster Groves, Wentzville and Wildwood.

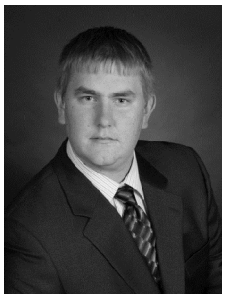
Teresa L. Entwistle, P.E., CFM (Civil Engineer/Assistant Manager of Civil Engineering) – Terry has approximately twenty-five (25) years of civil engineering analysis and design experience, including work for several St. Louis Metropolitan Area municipalities. One of her specialties is the preparation of construction plans and specifications for public works. Engineering work for various residential development companies has included street layouts and pavement design; storm water drainage system layout and design, including the preparation of construction plans; utility relocations and installations, site grading and drainage planning and design and construction site administration and inspection.



Brandt M. Genz, P.E. (Civil Engineer) –Brandt has over 5 years of experience and has successfully completed civil engineering work on numerous municipal public works and infrastructure projects in the St. Louis Metropolitan Area (Black Jack, Brentwood, Crestwood, Hazelwood, St. Louis, Town and Country and Webster Groves). Brandt is a graduate of the University of Missouri at Rolla, and he has also performed construction administration services for roadway improvements, bridge replacements and storm water control system upgrades.

Michael J. Caruso, P.E. (Civil Engineer) – Mike has over 5 years of civil engineering and design experience for streets, highways, bridges, culverts, sidewalks, storm water drainage and sanitary sewer systems and other public works associated with site and infrastructure improvement work. He has worked on several LPA projects. He has performed feasibility studies, hydraulic calculations, engineering and design services for numerous public works and infrastructure projects in the St. Louis Metropolitan Area.

Katerina Polovina, P.E. (Civil Engineer) – Katerina has approximately thirty (30) years of civil engineering analysis and design experience, including work on roadways, bridges, culverts, storm water drainage sewers and a variety of land development projects for building or site infrastructure systems construction. In work for the St. Louis County Department of Highways and Traffic, she has designed several intersection improvements and road realignments and widening projects.



Daniel J. Rieck, P.E. (Civil Engineer) – Dan has civil engineering analysis and design experience, including site data collection and engineering analysis for street improvement projects, storm water drainage and control systems design work, site reconnaissance for utility installation and relocation work, property research for public works improvement projects and capital improvement work for the MSD.

Roadway Design Project Experience

The following listing of roadway design projects represents work administered under the LPA Program that is subject to review by the Missouri Department of Transportation (MoDOT) with coordination through the East-West Gateway Council of Governments (the Local MPO).

City of Chesterfield, *Chesterfield, Missouri* – Engineering design services for the removal and replacement of existing pavement structure on Appalachian Trail Drive (Phase I Improvements) between Olive Boulevard and Beaver Creek Drive. Along this section of road, the City desired to replace the existing pavement with a concrete roadway with curb and gutter, matching the existing width. The roadway was striped with two (2) 11-foot wide lanes flanked by 8-foot parking lanes. Improvements included "bump-outs" at street intersections and lane edge of striping. As a result of the installation of bump-outs, some sidewalks at intersections were extended and new ADA accessible curb ramps installed. The project also required the identification and design of innovative water quality features for the treatment of storm water runoff, and the design of aesthetic improvement to a school entrance through the use of brick pavers. As part of construction engineering services, CDG staff members developed temporary construction easement exhibits.

City of Chesterfield, *Chesterfield, Missouri* – Engineering and design services for the removal and replacement of existing pavement structures on Appalachian Trail Drive (Phase II Improvements) between Beaver Creek and White Road. Selected project improvements included pavement reconstruction and asphalt concrete overlays, replacement of rolled curb with vertical curb and gutter for safety and drainage upgrades, sidewalk replacements, ADA compliant curb ramps, storm water drainage improvements and other site enhancements. Another project feature included the addition of traffic calming through the use of revised lane striping and bump outs.

City of Des Peres, *Des Peres, Missouri* – Provided engineering and design services for the relocation and realignment of a portion of Des Peres Road located south of Manchester Road (Highway 100). Project included the design of various improvements, including storm water drainage, the use of earthen berms for noise buffering (control), landscaping and utility relocations. The construction of pavement for the new roadway was also included.

City of Hazelwood (Public Works Department), *Hazelwood, Missouri* – Engineering and design services were provided for the preparation of construction plans and specifications for Fee Fee Road Improvements between McDonnell Boulevard and Anglum Road in North St. Louis County. The City desired to have this segment of Fee Fee Road to be widened to accommodate a center turn lane from south of McDonnell Boulevard to approximately 200 feet west of Anglum Road. The project was also to improve pedestrian access to the area through the addition of a sidewalk on the east side of Fee Fee Road and another pedestrian crossing at the intersection of Fee Fee and McDonnell. Further improvements were to include a 450 foot landscaped median and the construction of ADA compliant (safe and accessible) curb ramps and pedestrian crossing signals, as well as storm water drainage system upgrades and improvements.

City of Maryland Heights, *Maryland Heights, Missouri* – Engineering design services for surface transportation enhancements to the I-270 and Dorsett Road Interchange and portions of Progress Parkway in the City of Maryland Heights. Work included new crosswalks, pedestrian walks, pavers, lighting, decorative rails, medians, MSE walls, signage and landscaping. CDG had to present possible design ideas to the City Council on several occasions. Animations were created to convey the enhancement design. CDG Engineers prepared plans, specifications and construction cost estimates, as well as provided some

construction administration services.

City of Pacific, *Pacific, Missouri* – Civil engineering analysis and design services for Payne Street site improvements (pavement re-construction and widening, storm water drainage system improvements, new sidewalks, etc.). CDG personnel also were charged with the performance of periodic inspection and construction administration services.

City of St. Louis Board of Public Service (BPS), *St. Louis, Missouri* – Preparation of preliminary and final construction plans and specifications for street enhancement project (landscaping, retaining walls, pedestrian and roadway pavement upgrades, etc.) located along the Delor Avenue street right-of-way, between Ridgewood on the west and Gravois on the east.

City of St. Louis Board of Public Service (BPS), *St. Louis, Missouri* – Preparation of preliminary and final construction plans and specifications for street enhancement project (landscaping, retaining walls, pedestrian and roadway pavement upgrades, etc.) located along the Cherokee Street right-of-way, between Nebraska and Jefferson Avenue (1,925 lineal feet).

City of St. Louis – St. Louis Development Corp. (LCRA), *St. Louis, Missouri* – Preparation of preliminary and final construction plans and specifications for construction of road improvements for a segment of Carrie Avenue between Broadway and Hall Street. This project included extensive utility work, including the design of an improvement storm water management system. This was an A.R.R.A. project with an aggressive design schedule (August thru November of 2009). Following the completion of design services, CDG Engineers provided construction engineering and inspections services during construction.

City of Webster Groves, *Webster Groves, Missouri* – Preparation of engineering designs for the improvement of two (2) segments of North Elm Avenue. These two sections were from Glendale Road to Watson Road (4,120 lineal feet) and Moody to Kirkham Avenue (1,900 lineal feet). Work included selective pavement re-construction, joint repairs, the replacement of damaged curbs and gutters and storm water drainage system improvements, where feasible. Services included field inspections and evaluations, identification of impacted utilities, preparation of preliminary and final plans and post design assistance during construction.

City of Wildwood, *Wildwood, Missouri* – Project consisted of engineering and design for approximately 3,000 feet of site improvements. The improvements consisted of four major components: street widening, improved traffic control elements, the incorporation of street and pedestrian enhancements, and improved storm water drainage. In conjunction with the street widening, curb and gutter structures were installed with double grate, side inlet structures discharging into the new piped drainage system.

City of Wentzville, *Wentzville, Missouri* – Performed engineering study, pre-design and final design services for the improvement of a portion of Old Highway 61 in an older section (mixed use area of commercial and residential properties) in the City. This project was to address the need for better traffic control, increased capacity, improved storm water management and drainage, improved pedestrian access and enhanced safety. One end of the project featured the installation of a traffic roundabout.