

**CONSULTANT SELECTION RATING:****On-Call Sanitary Sewer Design - North Highway Shed**

Committee Member - Overall Score (combination of members)

**COMMITTEE MEMBERS:**

1. Kristy Moss

2. Kerry Rogers

3. Kurt Wengert

4. Eric Larson

	1	2	3	4	5	6
Consultant	RFQ Submittal Compliance (Yes or No)	Related Experience & Technical Competence/ Certifications (400 pts. Max)	Capacity & Capability (400 pts. Max)	Past Record of Performance (400 pts. Max)	Location & Proximity (400 pts. Max)	Total Score (60 pts. Max)
Govero Land Services - Sanitary Sewer Design - North Hwy Shed	Yes	315	290	305	390	1300
Hurst-Rosche, Inc. - Sanitary Sewer Design - North Hwy Shed	Yes	330	325	305	370	1330
Abna Engineering - Sanitary Sewer Design - North Hwy Shed	Yes	340	360	325	320	1345
Cochran - Sanitary Sewer Design - North Hwy Shed	Yes	335	325	295	330	1285
TWM Engineers & Surveyors - Sanitary Sewer Design - North Hwy Shed	Yes	365	360	330	330	1385
Smith & Co. Engineers - Sanitary Sewer Design - North Hwy Shed	Yes	295	290	285	220	1090
Kuhlmann Design Group, Inc. - Sanitary Sewer Design - North Hwy Shed	Yes	340	350	330	315	1335
RJN Group - Sanitary Sewer Design - North Hwy Shed	Yes	340	320	300	315	1275
EDM Incorporated - Sanitary Sewer Design - North Hwy Shed	Yes	340	355	310	320	1325
VonArx Engineering, Inc. - Sanitary Sewer Design - North Hwy Shed	Yes	330	335	345	380	1390
Terra Engineering Ltd. - Sanitary Sewer Design - North Hwy Shed	Yes	340	340	335	320	1335

**COLUMN NOTES:**

1 - Did the consultant submit a letter of interest that met the stated deadline and did not exceed four pages total (excluding a cover letter or memo)?

2 - Rate the firm on their related experience and technical competence as demonstrated in the LOI.

3 - Rate the firm on their staff capacity and capability to take on this project as demonstrated in the LOI.

4 - Rate the firm on their past record of performance as demonstrated in the LOI.

5 - Rate the firm on their location within the St. Louis region as demonstrated in the LOI.

6 - Total score is the sum of columns 2 thru 5.

**Highlighted firms are essentially tied. Upon conducting interviews, firms were ranked below.**

Consultant	Ranking
TWM Engineers & Surveyors - Sanitary Sewer Design - North Hwy Shed	1st
VonArx Engineering, Inc. - Sanitary Sewer Design - North Hwy Shed	2nd
<b>Note:</b> Consultants are ranked 1 being most qualified and 2 being least qualified.	

# **GOVERO**

## **Land Services**

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**SURVEYING • ENGINEERING**

5929 Old State Road  
Imperial, MO 63052  
(636) 464-9380

### **JEFFERSON COUNTY**

### **SANITARY SEWER DESIGN**

### **NORTH HIGHWAY SHED – HIGHWAY MM (HOUSE SPRINGS)**

Date: 10/15/2015  
Request To: Kristy Moss, Deputy Director of Public Works



# GOVERO

## Land Services

**SURVEYING • ENGINEERING**

**5929 Old State Road  
Imperial, MO 63052  
(636) 464-9380**

October 15, 2015

Kristy Moss  
Deputy Director of Public Works Department  
PO Box 100  
Hillsboro, MO 63050

Dear Kristy,

Govero Land Services, Inc. is pleased to submit our letter of interest regarding the Request for Qualifications for "Sanitary Sewer Design North Highway Shed-Highway MM (House Springs) Project" for the Jefferson County Public Works Department.

Govero Land Services, Inc. was established in 1988, by Daniel L. Govero, Professional Land Surveyor. Govero Land Services, Inc. is a Civil Engineering and Surveying firm which provides a wide range of services including Surveying, Land Planning, Engineering and Aerial Photography and GIS, not only in Jefferson County, but in the surrounding areas of Ste. Genevieve, St. Louis, Fort Leonard Wood, St. Louis County, Franklin County, St. Francois County, and many other areas..

With almost 100 years of combined experience in engineering and surveying, we have a significant amount of knowledge and a thorough understanding of design standards for each project we perform. We use state of the art technology and the latest software utilizing Terra Model and Hydro-Flow Hydrographs. We offer our clients outstanding customer service and personalized attention to their project. Our Clients and their projects benefit from our vast amount of experience and our ability to deal with all the variables of the project. We have done a significant number of projects and all meet ADA compliance standards.

We have done a significant number of sanitary sewer designs for various commercial and public projects. We would do the design and construction oversight of a new public sewer connection, and the closure of the existing septic system. We will perform the survey, handle the right of way negotiations, design, construction oversight, permitting, and all services necessary to get the new sewer system online.

We would welcome the opportunity to discuss our qualifications in further detail. We look forward to hearing from you.

Sincerely,

Daniel L. Govero, PLS  
President

DLG/dgc

## Key Project Personnel

**Daniel L. Govero, President & P.L.S.:** Dan is the President and Owner of Govero Land Services, Inc. which he established in 1988 at the urging of many Jefferson County Contractors and Developers. Govero Land Services, Inc. specializes in all forms of Surveying and Engineering. Dan has been surveying for 40 years and his brother Jerry Govero, our Director of Engineering, has more than 50 years of experience in the engineering field. This level of experience allows Govero Land Services to offer practical and economical solutions to expensive problems. Dan's experience and responsibilities include the successful management and the day to day operations of his company. He oversees every aspect including Administration, Licensed Professionals including Surveyors, Engineers, Drafters and Technicians.

At Govero Land Services personalized service is given to each of our clients depending on their specific project or need. Typical projects include residential developments, office/warehouse facilities, retail buildings, churches, schools, sewer districts, municipal projects, public works projects, and Floodplain Management.

**Project Experience:** Includes Site Development Plans & Grading for many Commercial and Residential projects throughout the area. Municipal Projects which include Record Plats, Storm Drain Projects, Creek Erosion Repair and Construction Staking, Road Projects, Lift Station Elimination & Connection to Gravity Sewers, Creek Bank Stabilization, Zoning and Colored zoning Maps, Aerial Photo with property Overlay, Storm Drain projects, and City Annexation Projects. Many Sanitary, Storm Sewer, Grading & Excavation Projects. Many School Projects involving site design, site grading, topographic survey work, parking lots, athletic fields and school additions.

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**Jerome J. Govero, P.E., & Director of Engineering :** Jerry Govero joined Govero Land Services, Inc. in 1988 as Director of Engineering. He has more than 50 years of experience in the field of civil engineering and construction management. His experience and responsibilities include supervising all phases of construction management, contracting, bidding, billing, labor negotiations, and job management. Review commercial and residential plans and plats for compliance with City, County, State and Federal standards and ordinances. Approval of all engineering plans. Jerry also confirms the viability of engineering design of wet and dry utilities, accessibility, and traffic flow. Ensure all projects comply with approved construction plans, applicable ordinances and laws. Typical projects include residential developments, office/warehouse facilities, retail buildings, churches, schools, and public works projects.

**Project Experience:** Includes managing, organizing and coordinating projects which includes large lot subdivisions, commercial shopping centers, sewage treatment plants, classroom additions, road paving projects, grading and excavation projects, sanitary and storm sewer projects. His technical expertise also includes determining proper paving techniques, construction methods, material and quality standards according to specifications, Cost estimation and project budgeting. Jerry's expertise includes the supervision and installation of sanitary sewer, storm sewer, and water lines along with grading and paving, utilizing extensive construction techniques from years of field experience, and inspecting projects and confirming compliance with approved construction plans, applicable laws and ordinances.



**Douglas Bjornstad, P.E.:** joined Govero Land Services, Inc. in May, 2015 as a Professional Engineer. Doug currently holds the position of Professional Engineer, and has over 26 years of engineering experience. Doug is responsible for the layout and design of residential, commercial, industrial and municipal projects. In addition, he works with the Corp. of Engineers, FEMA, MO DNR, MODOT, St Louis MSD, and various Municipalities to coordinate services and/or revisions to various projects as needed.

**Project Experience:** Includes preparation of new infrastructure plans, repair changes, and/or redesign of failing infrastructures. Design and layout of commercial, residential, industrial and municipal projects. Designing projects according to specifications. Doug's experience also includes Design of Intersections, Street Alignments, Widening and Street Improvements, Design of Sanitary Lift Stations and On-Site Sewage Treatment Systems, Drinking Water Treatment, Water Distribution and Water Storage for private and municipal systems, prepares SWPPP's for various projects. Doug also prepares Water Quality Studies and Hydrology Analysis for various projects. He prepares Flood Elevations, LOMA's, LOMR's and coordinates with FEMA on processing revisions to Firm Maps and Flood Studies. He prepares HEC-RAS Studies for Base Flood Elevation determination, floodway determination, and/or No Rise Certification.

Doug is also a Qualified outsource Inspector by MODOT, and a Qualified Special Inspector by Jefferson County Dept. of County Services & Code Enforcement. In addition, he works with various Government Agencies and Municipalities to coordinate design services, and site development for various projects.

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**Glenn Mazuranic, P.L.S. & Survey Manager:** Glenn has been with Govero Land Services since 2014. Glenn has over 22 years of surveying experience with 16 of them in management positions. Glenn oversees the surveyors, drafters and engineers. He prioritizes the workload, assigns the projects and ensures the accuracy and timely completion of projects. He coordinates daily with the Survey Crew Chief and provides crew with technical support. He works with a variety of Government Agencies and Clients on a daily basis.

**Project Experience:** Includes design and draft civil plans for residential, commercial and municipal projects, including grading, roads, storm, water and sewers for large lot subdivisions. Prepares ALTA/ ACSM surveys, subdivision plats, right of way plats, survey and easement plats, legal descriptions for right of way takings and easements, and resolve and draft all types of surveys including foundation surveys, boundary surveys, property boundary and improvements surveys, topographic surveys, and as-built surveys. **North Jefferson County Ambulance District Project** management of field survey work, property research, title report review and resolution for a Property Boundary Survey. **Five Star Auto Body Project** included property research and title review, boundary adjustment plat, processing field work, and prepare record plat. **Gannon Plaza Project (Verizon Store & Home Depot)** this project consisted of property research, title review, compile and evaluate field data, and prepare ALTA/ACSM Survey. **Tesson Ferry Professional Center-** this project required the preparation of a site development plan and boundary adjustment plat for a new professional center.

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# GOVERO Land Services

**SURVEYING • ENGINEERING**

## **COMPANY EXPERIENCE**

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Govero Land Services, Inc. was established in 1988, by Daniel L. Govero, Professional Land Surveyor. Govero Land Services, Inc. is a Civil Engineering and Surveying firm which provides a wide range of services including Surveying, Land Planning, Engineering and Aerial Photography and GIS.

Govero Land Services has done many sewer projects that involve preparation of Sewer Expansions, Sanitary Sewer lines, Design of Force Mains and Lift Stations, Pump Stations, Sanitary Sewer Plans, Storm Water Pollution Prevention Plans (SWPPP), Elevation Certificates, Creek Stabilizations, Valve Vaults, large creek crossings with culverts and/or bridges, flood plain studies, etc.

### **Job Services Description for Jefferson County, MO, Sanitary Sewer Design, North highway Shed – Highway MM (House Springs)**

Govero Land Services, Inc. has done numerous sewer projects over the years

#### ***Sanitary Sewer Projects for which Govero Land Services, Inc. has provided Surveying & Engineering Services.***

- Bethel Baptist Church – Designed Force Main & Sewer, American Legion Drive, Festus, MO
- Truman Village – Lift Station – Festus, MO
- Lagoon South of Truman Village – Festus, MO
- Sewer Expansion Study – City of Festus, Festus, MO
- Cynthia Drive Sewer
- Valley Drive Sewer
- First Baptist Sewer Subdistrict
- Pomme Road Sewer
- Kleinschmidt Sewer
- Donna Bender Arlene Sewer
- Richardson Place Sewer
- Lift Station Starlight & Rosewood Sewer
- Hilltop Sewer
- Grandview Industrial Park Sewer
- Dewberry Heights Sewer Subdistrict

#### ***Various Subdivisions with Sanitary Sewers for which Govero Land Services, Inc. prepared the plans.***

- Fawn Meadows
- Stardust Acres
- Theodore Ridge
- Cathedral Heights
- St. John's Crossing
- Linderhof
- Riverbluff Estates





October 23, 2015

OCT 21 2015

Hurst-Rosche, Inc.

James W. Roth, PE, PLS  
President

Ms. Kristy Moss  
Deputy Director of Public Works  
Jefferson County Public Works Department  
P.O. Box 100  
Hillsboro, Missouri 63050

Re: *Professional Engineering Services for  
Sanitary Sewer Design, North Highway Shed, Highway MM*

Dear Ms. Moss:

As requested by the *Jefferson County Public Works Department*, we are pleased to submit this Letter of Interest for professional engineering services for the Sanitary Sewer Design, North Highway Shed, Highway MM project.

*Hurst-Rosche, Inc.* is a full-service architectural / engineering firm, providing professional services, since 1937, to municipal and other governmental entities throughout Missouri and Illinois. If selected, as you will see in the enclosed materials, the *Jefferson County Public Works Department* would have a firm that has vast experience in project management services for design and construction of sanitary sewer improvements to help make a successful project on time and on budget.

The *Jefferson County Public Works Department* would receive considerable value if our team is selected. Our experience and our proximity would allow us to be very cost competitive. The *Jefferson County Public Works Department* would receive experienced guidance in the optimal selection of the materials of construction and construction techniques for the subject project. The *Jefferson County Public Works Department* would receive reliable value added services so we can look forward to a long working relationship.

Our firm has over 78 years of experience in the design and construction of a variety of projects, with a construction inspection and testing department that serves our clientele. *Hurst-Rosche* has experience in the construction phase of Federal, State and Local Funded municipal projects, including sanitary sewer infrastructure, sidewalks, streets, traffic control, storm water, pedestrian bridges and trails, potable water infrastructure, creek bank stabilization projects, etc. *Hurst-Rosche* also owns and operates a certified soils laboratory and mobile concrete testing lab.

Mark Bloome, PE

*Experience and Technical Competence*

Zac York, PE, PLS

*Hurst-Rosche's* staff personnel assigned to this project has extensive in-depth knowledge in sanitary sewer design. Our firm's diversity and design experience over the past years provides assurance to the Jefferson County Public Works Department that we have the ability and expertise to complete the work in a most effective and efficient manner. Personnel from our Arnold, Missouri office will provide the requested professional engineering services for this project. Said personnel are familiar with MoDNR design requirements and guidelines and documentation requirements.

3675 W. Outer Road,  
Ste. 101  
Arnold, MO 63010  
(t) 636.333.3351

[hurst-rosche.com](http://hurst-rosche.com)

We believe the following project experience will provide you with the necessary information required to make a complete evaluation of our services and experience as they relate to your needs for the *Sanitary Sewer Design, North Highway Shed, Highway MM* project:

*Woodland Heights Subdivision Sewer Improvements, P.W.S.D. No. 1 of Crawford County, MO* Design of the District's sanitary sewer system that consisted of the installation of 6,600 LF of 8" diameter gravity sanitary sewer main, duplex 8' diameter lift station with valve vault box and fencing, 5,000 LF of 4" diameter sanitary sewer forcemain, closure of existing lagoon facility, manholes, sanitary sewer laterals and cleanouts, services connections to all existing homes, asphalt removal and replacement, sitework and grading for lift station site and lift station access road, water meters for billing purposes, forcemain air release valves, several driveway bores with steel casing pipe, highway bore with steel casing pipe, emergency standby generator with transfer switch and all appurtenances to make the system fully operational. This project required MoDNR permitting of all infrastructure improvements, USDA-RD and CDBG approval for project funding purposes and City of Sullivan approval for wastewater treatment from proposed project improvements.

*West Desloge WPA Channel Improvements, City of Desloge, MO* This project consists of the design of large block retaining wall to replace existing rock walled channel installed during the Works Progress Administration (WPA). Project includes approximately 14,400 square feet of retaining wall, 1,400 linear feet of sewer relocation, sewer laterals, various landscaping, grading, and erosion control. Project included Army Corp of Engineer and MoDNR permitting.

*Melody Lane Roadway and Stormwater Improvements, City of Arnold, MO* The project included roadway and stormwater improvements to Melody Lane, Harmony Lane, Tempo Lane and Rhythm Lane for the City of Arnold, Missouri. Major design features include roadway realignment and culvert removal and replacement, retaining walls, rock rip rap, bank stabilization, stormwater piping network, sanitary sewer extension to address utility conflicts, 6,000 lineal feet of roadway milling and overlay or removal and replacement, concrete curb and gutter removal and replacement, minor grading, erosions control, traffic control, surveying, geotechnical, stormwater drainage basin management and analysis.

#### Capacity and Capability

*Hurst-Rosche, Inc.* is a full-service Architectural /Engineering (A/E) firm, offering the *Jefferson County Public Works Department*, a staff of professional engineers (civil, electrical, environmental, geotechnical, mechanical and structural), registered architects, landscape architects and land surveyors. The firm's support staff includes engineering and surveying technicians, computer technicians trained in Microstation / AutoCAD / Revit Architecture, certified construction inspectors, accountants and clerical staff.

*Hurst-Rosche's* integrated team of multiple disciplines can address all project phases from preliminary planning and feasibility studies through design and construction phases of the project. Value engineering, learned expertise and common sense are combined to provide and analyze various design and construction alternatives. Our staff has the expertise and capability to handle the design of any project in house, including design and construction of sanitary sewer infrastructure, in accordance with applicable Missouri Department of Natural Resources (MDNR), and US Army Corps of Engineers (USACOE) guidelines and regulations.

*The prime contact for this project will be Mr. Mark Bloome, Project Administrator. Mr. Bloome will be the single point of contact assigned to this project, thereby improving communications and response time.*

We believe that our staff, with assigned key personnel noted herein, has the experience, capability and capacity to provide the requested scope of services in a timely and cost effective manner, consistent with the project budget and goals of the *Jefferson County Public Works Department*. *The proposed professional services for sanitary Sewer Design, North Highway Shed, Highway MM project shall be performed by the professional staff in our Arnold office.*

*Hurst-Rosche's*, Arnold Office has three (3) professional engineers and one (1) senior engineering technicians' on-staff who have been involved in the design and construction of sanitary sewer projects. We have staff architects, engineers, and construction technicians who are experienced with the requirements of MoDNR. Our civil engineers are all experienced in the design of sanitary sewer infrastructure. Backgrounds of the *Team Members* selected for the County's, Sanitary Sewer Design, North Highway Shed, Highway MM (House Springs) project have been included herein, showing each individual's experience and qualifications with similarity to the proposed project.

*Mark Bloome, PE, Project Administrator* Mr. Bloome as the Arnold Office Manager will oversee all aspects of this project that comes through the office. Mr. Bloome has over 20 years of experience as a project/design engineer. His area of expertise is with civil/structural engineering with a concentration in bridge and culvert design. He will utilize this experience in the planning and design phases of this project. Mark's well rounded career, including civil/site, hydraulic and roadway engineering with various state departments of transportation and local authorities, provides a unique combination of skills to serve the needs of the County.

*Zac York, PE, PLS Project Engineer / Land Surveyor* Mr. York's infrastructure design experience for municipalities and public entities includes potable water systems, sanitary sewer networks, street improvements, storm sewer networks, storm water management, site / grading improvements, preparation of preliminary / final plans and specifications, bid documents and opinions of probable construction costs (OPCC). He is experienced in the coordination and relocation of public / private utilities and associated construction permit applications and approvals from governing review and utility agencies. Mr. York is also a professional surveyor who is experienced in the preparation of easement documents and property descriptions. He will utilize both his engineering and surveying experience to assist the County during the design and construction phases of the County's sanitary sewer improvements project.

*Kevin Wolff, PE, Civil Engineer* Mr. Wolff has over 16 years experience in civil engineering design working on projects including sanitary sewer design, street design, pavement reconstruction, design of asphalt and concrete pavement and storm drainage systems, sidewalks and utility relocations.

*James Achter, ET, Construction Observation* Mr. Achter has over 23 years of extensive experience monitoring construction progress and compliance with construction documents. Type of construction projects he has been the residence project representative on, include: sanitary and storm sewers, sidewalks, trails, road construction and resurfacing, water mains, sanitary and storm sewers, grading, concrete curb and gutter and sidewalks.

Our construction technicians (inspectors) have ready access to professional engineers and architects, all within our multi-discipline firm. This affords us the unique ability to respond to technical issues quickly and accurately. Our construction technicians are highly trained and experienced. *Hurst-Rosche* has technicians and field engineers who are MoDOT certified, ACI certified, nuclear density testing (soils and asphalt) certified and OSHA Safety trained. Our testing laboratory provides full geotechnical testing services including concrete testing and soils testing for construction.

#### Past Record of Performance

*Hurst-Rosche, Inc.* has a vast amount of experience designing sanitary sewers and appurtenances. These projects have been funded by federal, state, and local sources. There are fundamental engineering disciplines required for designing sanitary sewer infrastructure. *Hurst-Rosche* can provide the required services for those disciplines with our specialized staff of land surveyors, geotechnical, environmental, civil and structural engineers. *Hurst-Rosche* also has a staff of certified inspectors to ensure a quality project. When required, *Hurst-Rosche* has a team of specialized consultants to perform services such as environmental or archaeological assessments.

*Hurst-Rosche* has a fully trained staff equipped with the latest 3-dimensional design software, soil drilling rig, laboratory equipment, and GPS/EDM surveying equipment. Past engineering services provided by our firm on sanitary sewer construction projects has included some of the following: fields surveys - boundary line, route,



topographic and construction stakeout; preparation of right-of-way maps, property descriptions, easement documents; preparation of preliminary and final engineering drawings, including construction cost estimates, sanitary sewer design, site grading, barrier curbs, retaining walls, fencing, asphalt / concrete pavements, signage, landscaping, lighting, culverts, pedestrian bridges; construction specifications and bid documents; subsurface soil exploration; construction observations including shop drawing reviews, construction diaries, soil density testing, concrete sampling and concrete cylinder testing; preparation of change orders and review of pay request; final project walk through with client and project closeout documentation. Our assembled team members are all familiar with the approval process of MoDNR. We maintain survey crews in each of our offices. All of our engineering / architectural designs and land surveys are performed by Professional Engineers, Registered Architects and Professional Land Surveyors, with materials testing and geotechnical.

*Hurst-Rosche* has an established Construction Administration Department to provide specialized experience and uniformity during the construction phase of the subject project. One of the most important phases of a project is construction - the Contractor must understand the design and the contract requirements and then meet the owner's expectations. Once bids have been awarded, the project construction administrator for *Hurst-Rosche* becomes responsible for communications between the design team and the contractor. A construction observer inspects the work to determine conformance with the project drawing and specifications. Primary tasks, if required are as follows:

- Pre-construction conference
- Review and respond to contractor's submittals and inquiries
- Monitor construction schedules and periodic quality control/observation of the work
- Review certified payrolls, change order processing, and payment processing
- Shop drawings and record drawings
- Inspect construction materials; Conduct construction testing and inspections
- Performance testing, start-up and training, Monitor construction schedules
- Be present during critical construction operations
- Preliminary and final inspection and acceptance & substantial completion
- Acquire operation and maintenance manuals, final product information and lien waivers
- Acquire guarantee and warrantee information and final project affidavits

At *Hurst-Rosche*, we are proud of the ability to produce our projects on schedule, imaginatively, accurately, and reflecting "state of the art" design, within budget and regarding capital cost vs. operational cost and energy management. Our professional staff is always available to ensure that each client receives individual attention and guidance throughout the course of the project, and are ready to answer any questions or provide recommendations upon client request.

We welcome the opportunity to work with the *Jefferson County Public Works Department*. If you have any questions, please feel free to contact us.

Sincerely,

HURST-ROSCHE, INC.



Mark E. Bloome, PE

MEB:vsh

Encl. (4)





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St. Louis, Missouri 63108  
Phone: (314) 454-0222  
Fax: (314) 454-1235  
[www.abnacorp.com](http://www.abnacorp.com)



October 20, 2015

Ms. Kristy Moss  
Deputy Director of Public Works  
County of Jefferson  
PO Box 100  
Hillsboro, MO 63050

Letter of Interest for Sanitary Sewer Design, North Highway Shed – Highway MM (House Springs)

Dear Ms. Moss:

ABNA is interested in providing professional services for the County's **Sanitary Sewer Design, North Highway Shed-Highway MM (House Springs) Project**. We are confident that ABNA is the right fit for this project due to our recent and relevant sewer design and construction management experience, and our understanding of local accepted design practices and standards. ABNA has successfully completed several projects for the County and is familiar with the County staff and procedures. Our enthusiastic interest in this job is based on our desire to deliver an affordable project that delights the public and benefits the County.

*"ABNA has proven to be timely, professional and very supportive during the various phases of this project."*  
– Aminah T Wright, SLDC Major Projects Manager

**Why Chose ABNA?** ABNA will provide the personal and prompt service the County expects and has experienced. ABNA offers a diverse range of professional resources completely in-house. Therefore, this project will benefit from the efficiency of not having to support excessive overhead of a large team and the County will benefit from our firm's flexibility to respond

rapidly to changing project requirements such as additional surveys, utility coordination, resident coordination, or to observe construction operations on short notice without unnecessary delay or the need to negotiate scope and fee adjustments with a sub-consultant or potential team member.

**Project Understanding** Currently the Jefferson County North District Maintenance Shed's sanitary needs are served by a septic system. The proposed project improvements include approximately 1,200 linear feet of new sanitary sewer and the closure of the existing septic system. The project scope includes the survey, design, right-of-way negotiations assistance, construction oversight, and permitting.

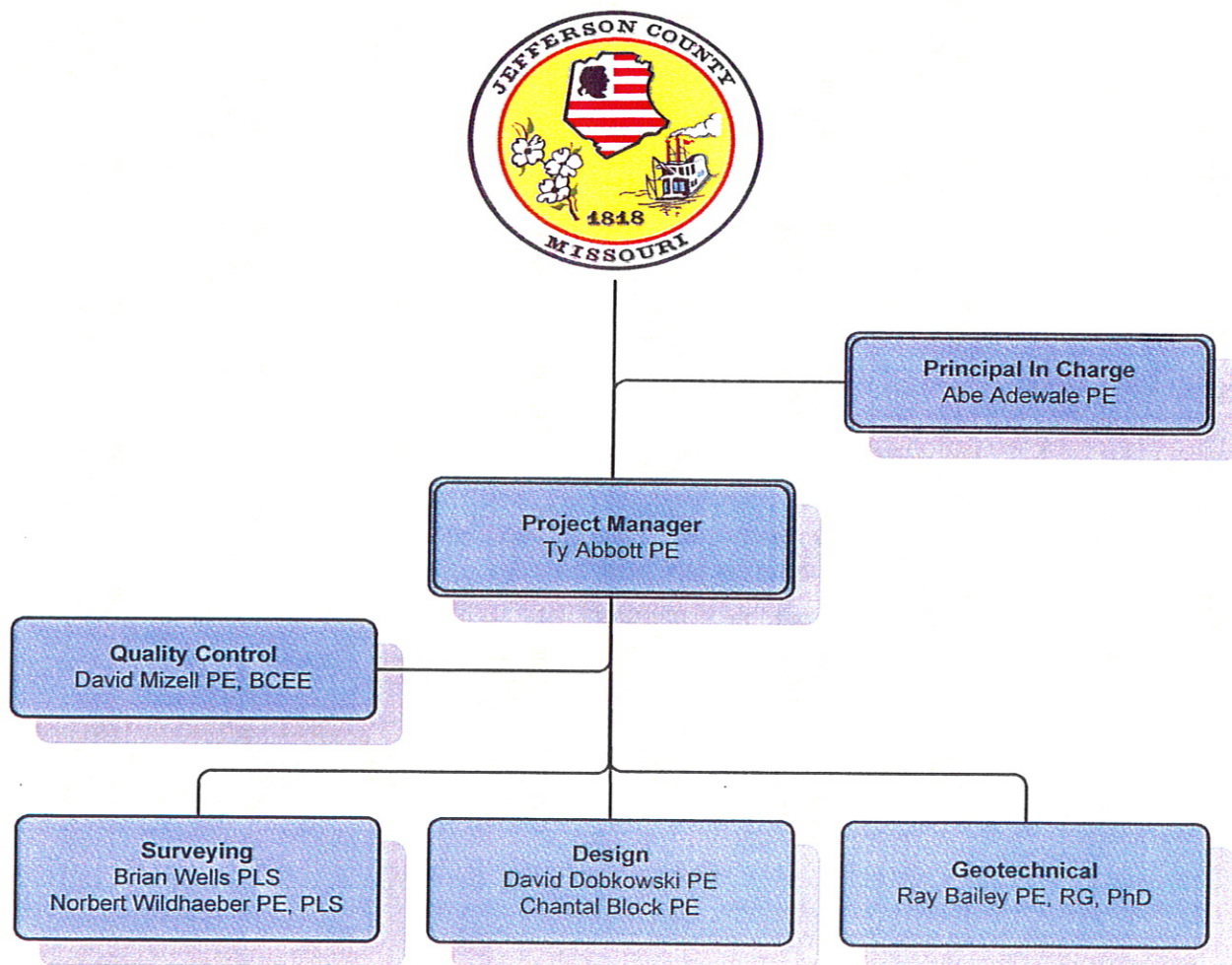
The proposed alignment traverses some heavily wooded and vegetated sections located on private parcels as shown in the picture below. The proposed alignment also includes a creek crossing.

A major challenge on this project will be engagement and communication with adjacent property owners in order to secure needed easements. ABNA also understands that the proposed alignment crosses Hillsboro-House Springs Road and that the design should incorporate phasing to allow some access during construction or incorporate trenchless technology to maintain full access throughout construction.





**Project Team** Our Project Manager, **Ty Abbott PE**, brings a wealth of experience to this project. Ty has 24 years of experience designing and managing public works projects throughout Missouri. Ty has successfully completed numerous storm and sanitary sewer projects in the St. Louis Metropolitan and surrounding areas. Ty has participated in many projects involving stakeholder involvement and easement acquisition. Assisting Ty during the design phase of this project will be **David Dobkowski, PE** and **Chantal Block, PE**. David has an impressive resume of sewer design projects. David has over 33 years of experience and has been fortunate to have worked on a wide variety of interesting and challenging projects including the Creve Coeur Creek Sanitary Trunk Sewer. Chantal has 7 years of experience and has designed sanitary sewers on several private projects. It is not anticipated that any special structures will be required; however, if a structural engineer is needed, **Stephen Alsbury PE, SE** will lead that effort. Stephen has 29 years of structural design experience. Surveying will be led by **Brian Wells PLS**. Brian has 15 years of experience in topographic and boundary surveying. All field and office survey tasks will be managed by Brian. All plats and legal description will be prepared by **Norbert Wildhaber PE, PLS**. Norbert has 13 years of experience. Brian and Norbert both recently completed similar services for the St. Louis Metropolitan Sewer District. **Ray Bailey PE, RG, PhD** has 33 years of experience in geotechnical engineering and will oversee all subsurface explorations and the preparation of a geotechnical report. **Doug Heckel** has 21 years of experience in many areas of field operations and construction management. Depending on the level of construction oversight desired, ABNA can provide a full time construction inspector who will be on site every day or as needed as construction operations are underway. **Dave Mizell, PE, BCEE** will serve as Quality Control Manager. Dave brings 40 years of experience on wastewater projects. Please reference our organizational chart below.





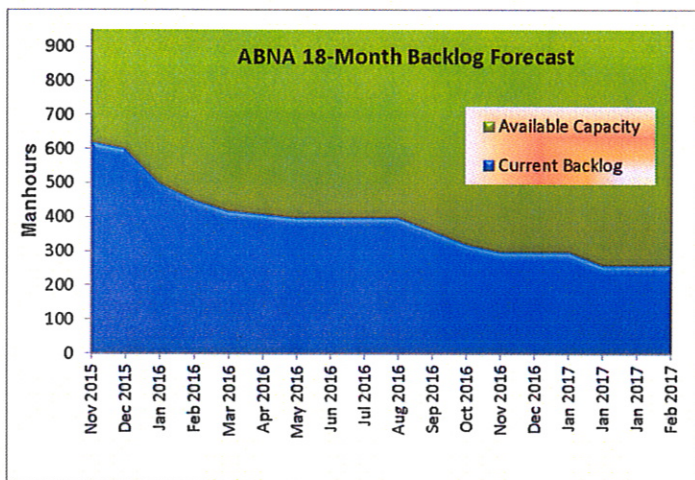
## Experience and Technical Competence on Similar Projects

**Black Creek I/I Reduction Sanitary Sewer Design:** ABNA provided design engineering services as a sub-consultant to achieve inflow/infiltration reduction solutions to the Black Creek system. This \$8.6 million project located in the Deer Creek Sanitary System included the design of approximately 1,044 lineal feet of new eight (8) inch diameter sanitary sewer as well as the rehabilitation of existing sewers ranging from 6" to 30" in diameter, manholes, and service connections. ABNA services included surveying, easement document preparation, and engineering design.

**Fee Fee Creek Sanitary Relief Project:** ABNA was a sub-consultant on this MSD project. ABNA designed a sanitary trunk sewer replacement in the Fee Fee Creek Watershed that eliminated surcharging and associated backups and enabled the removal of a sanitary sewer overflow (SSO). The improvements included approximately 7,800 feet of new sanitary sewer ranging from 18" to 24" in diameter. The sewer was designed as a pipe in tunnel in residential areas to avoid operational impacts to businesses and major arterial roads. ABNA's role on this project was surveying, design, construction plans, and preparation of easement documents. ABNA also performed soil exploration, geotechnical analysis, recommendations, and report.

**Creve Coeur Sanitary Trunk Sewer Relief Project:** This LPA project for the City of St. Louis provided for the Streetscaping of 7th and 8th streets between Washington Avenue and Pine Street. Improvements included sidewalk replacement, lighting replacement, street furniture, reconstruction of crosswalks and the installation of 8 micro stormwater detention basins. ABNA was a subconsultant responsible for topographical surveys, roadway design, crosswalk design, and stormwater design.

**Fillmore Combined Sewer System Improvements, Phase 2 Project:** This LPA project for the City of St. Louis' Board of Public Service consisted of roadway and sidewalk improvements along Salisbury Street from Natural Bridge Road to North Florissant Boulevard. ABNA was a subconsultant on this project responsible for surveys and engineering design assistance for the team. ABNA's responsibilities consisted of preparing preliminary plans, final plans, specifications & estimates, reviewing shop drawings and providing consultation during project construction. All improvements were designed according to City of St. Louis, MSD, MoDOT, and FHWA standards.



## Capacity and Capability to Perform the Work

ABNA maintains a staff of 70 surveyors, technicians, engineers and inspectors that provide engineering design services on a multitude of infrastructure projects in the St. Louis area. We are confident that we have the administrative, personnel, technological, and field resources necessary to be accessible to your staff and deliver a quality project within the time frame needed. ABNA makes 18-month forecasts for man-power planning. It is clear that we have the man-power needed for this assignment. The adjacent chart shows our 18-month capacity verse current backlog for the staff which will be assigned to this project. The area above the blue line depicts the surplus capacity of our relevant staff, thus

demonstrating that we have abundant capacity to staff this project and aggressively pursue it to its completion. Should unexpected conditions or situations arise, ABNA is committed to dedicate additional staff as needed to successfully complete the project.

### Past Record of Performance

All four listed sewer projects were completed on or before schedule. Construction cost was within +/- 10 percent of the engineer's estimate. ABNA has consistently met project deadlines while delivering quality projects. ABNA has demonstrated this commitment on previous projects with the County.

### 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 certified as an M/W/DBE with such entities as MoDOT, St. Louis Airport Authority and METRO. For this project, we are submitting as a prime consultant performing all the necessary services in-house, thus making this a **100% DBE** project.


Enclosed along with this Letter of Interest is a copy of our firm's Statement of Qualifications.

We look forward to working with you on this exciting project. Please don't hesitate to contact our office at (314) 454-0222 should you have questions or need clarifications.

Sincerely,



Abe Adewale PE  
Firm Principal  
Extension 1101



Ty Abbott PE  
Project Manager  
Extension 1107





OCT 16 2015

Architecture • Civil Engineering • Land Surveying • Site Development • Geotechnical Engineering • Inspection & Materials Testing

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October 23, 2015

Kristy Moss  
Deputy Director of Public Works  
P. O. Box 100  
Hillsboro, Missouri 63050

Re: Replacement of the existing septic system – Sanitary Sewer Design, North Highway Shed, Highway MM  
(House Springs, Missouri)

Dear Mrs. Moss,

Thank you for the opportunity to submit this Letter of Interest to replace the existing septic system with a public sewer connection. We understand the importance of selecting the right team to assist with this project and to meet your project needs. **With that in mind we have assembled a proven Cochran team led by Mr. Dave Christensen. Mr. Richard Tuttle will act as the "Project Manager" for this project and has over 35 years of design, operation and management experience of wastewater systems.**

Cochran has completed numerous projects with similar needs over almost 60 years. Cochran understands the County's needs and feels meetings with Missouri Department of Natural Resources and the House Springs Sewer District could provide alternative cost effective solutions. Cochran also has a great deal of experience designing alternative on-site systems in poor soil conditions. Examples of our recent projects are listed under "OUR PROJECT EXPERIENCE".

Our approach to this opportunity is to keep in mind your needs and **future** project budgets and schedules. **Our goal is to give you accurate information to make informed design decisions.**

In reviewing our proposal, we offer the following reasons why Cochran is the right choice for this project:

1. **Our ability to start immediately and the large number of similar projects completed by Cochran with a successful track record of completing projects on-time and within budget.**
2. **Cochran's proximity to Jefferson County Highway MM in House Springs, Missouri.**
3. **Cochran has been working with municipalities and counties for almost 60 years. Our proposed project team has almost 80 years of combined experience designing similar projects.**
4. **Cochran is very familiar with this type of project as we have recently completed many similar projects in the past five years, including projects where on-site systems were an option.**
5. **The depth and diversity of the team's experience assisting communities, including design, management and operations of similar facilities. This experience helps develop projects that also look at long term performance, operations and management costs.**

Jefferson County is important to the Cochran team! We will work closely with you and all team members to produce only the highest quality of work, control costs and in a timely fashion. We will focus on your goals to make this project successful.

We appreciate the opportunity to submit our "Letter of Interest" for this project. After reviewing our credentials, we would appreciate the opportunity to meet with you to discuss our qualifications in further detail. If you have any questions concerning our proposal, please feel free to call me at (573) 525-0299. Thank you for your consideration.

Sincerely,

Richard J. Tuttle, P.E.  
Vice President

---

8 East Main Street  
Wentzville, Missouri 63385  
Telephone: 636-332-4574  
Fax: 636-327-0760

530A East Independence Drive  
Union, Missouri 63084  
Telephone: 636-584-0540  
Fax: 636-584-0512

44 Camden Court SE/PO Box 1138  
Camdenton, MO 65020  
Telephone: 573-525-0299  
Fax: 573-525-0298

**737 Rudder Road  
Fenton, Missouri 63026  
Telephone: 314-842-4033  
Fax: 314-842-5957**

www.cochraneng.com

## 1. GENERAL COMPANY INFORMATION:

The staff at COCHRAN, as a whole and individually, have been involved with consulting solutions for many different and unique engineering and construction problems. The firm is defined by nearly 60-years of engineering and surveying experience, construction project bidding, project management, and construction personnel and equipment scheduling. As you will see in this submittal, we specialize in all facets of Civil Engineering, Wastewater Treatment, Environmental, Surveying, Geotechnical, Construction Inspection, and Materials Testing.

**Manpower** – Cochran is a “Full Service” civil engineering and architectural firm, with four offices in Missouri. Our offices are located in St. Louis, Union, Wentzville, and Camdenton. Cochran’s four offices are currently providing professional services on over one hundred projects throughout Midwest. However, Cochran maintains a manageable workload to meet client expectations. We constantly update our resource and staffing capacity (*70+ staff, including 16 professional engineers, 6 professional land surveyors, and 2 licensed architects*).

We provide civil engineering, surveying and architectural services to public and private clients throughout the Midwest. Specifically, we have provided municipal/wastewater engineering solutions, associated with DNR permitting requirements, for numerous governmental entities throughout the state of Missouri.

## 2. PROPOSED STAFF AND QUALIFICATIONS:

**Cochran Project Team Members:** The following key personnel will be designated for this project:

**Mr. Dave Christensen, P.E., MPPA**, is a Vice President of Cochran and has over 18 years of experience and has managed numerous multi-million dollar public works infrastructure projects. Mr. Christensen’s role as the **Project Executive** to assign the appropriate levels of resources to meet the project schedule and budget. Mr. Christensen takes ultimate responsibility to maintain the project budget, project schedule, and project performance.

**Mr. Richard J. Tuttle, P.E.** is a Vice President of Cochran and will serve as the **Project Manager**. Mr. Tuttle will provide overall project oversight and act as the client liaison. In addition Mr. Tuttle will provide quality assurance for the project approach, schedule cost and budget. For over 35 years Mr. Tuttle has focused his municipal experience almost exclusively in wastewater and water projects. His experience has been gained in virtually every application throughout Missouri and other regions of the Country operating and managing water and wastewater systems. Mr. Tuttle brings extensive leadership experience and communication capabilities to advise clients regarding the issues and procedures during evaluation, design, bidding and construction phases.

**Mr. James M. Rericha, P.E.** will serve as **Project Manager/Design Engineer**. As **Project Engineer**, Mr. Rericha is in charge of the preparation of project engineering designs and reports complete with field survey, analysis of data and consideration given to feasibility and alternatives, project design, cost estimation, financial analysis and recommendations. As project engineer, he is responsible for the study, layout and design of the project from the initial conceptual drawings through the construction plan preparation/permitting process and final completion.

**Mr. Timothy Van Leer, PLS** will serve as **Project Manager/Land Surveyor**. As **Land Surveyor**, Mr. Van Leer is in charge of the preparation of project research county records, research surveying projects, perform and supervise topographic surveys, construction stakeout, Property Boundary surveys and produce the easement documents and Surveyor’s Real property Reports.



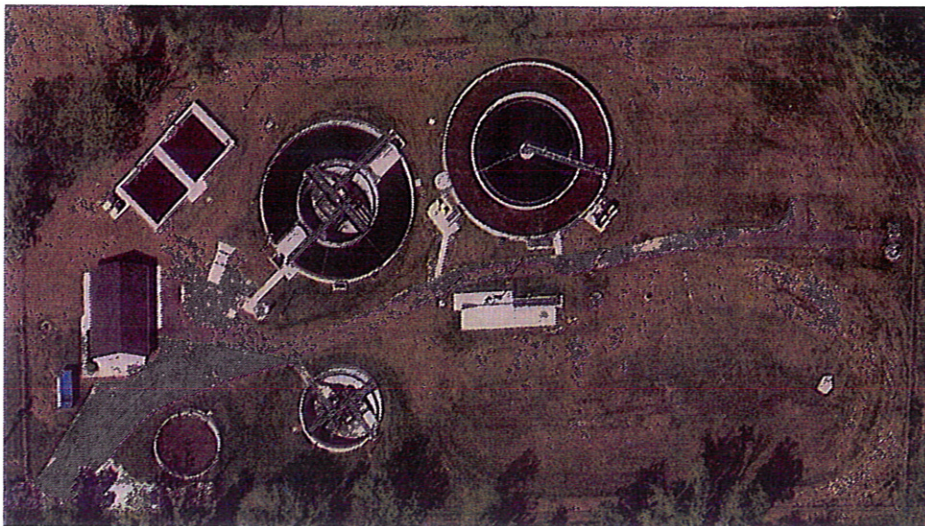
### 3. SANITARY SEWER DESIGN:

#### Lake of Ozarks Properties, Inc. – Wastewater Engineering

Cochran designed a triplex dry pit waste water pumping station for a new development along Lake of the Ozarks in Camdenton, Missouri. Highland Park on the Water Front consisted of 70 new multifamily units and approximately 400 future single family homes. Due to the terrain, static pressures were a major concern. Cochran designed a dry pit pump station consisting of two 125 HP pumps which will deliver 550 GPM at 308 feet of total dynamic lead. Cochran was involved in the design of on-site power generator and electric layout as well. (Reference: Greg Hasty, Developer 573-346-2557)

#### City of Union, Missouri - Lift Station

Cochran designed a new lift station for the City of Union, Missouri to serve the Highway 47 South area of town. The lift station will be constructed in two phases and will be a triplex station. The initial phase will consist of two pumps and will provide service to the existing area. A third pump will be installed upon future build out to serve approximately 1,550 future lots. At full build out, the station will be designed to pump 900 GPM at 100 feet of total dynamic head. In addition, a new overflow basin will be constructed to provide temporary storage for this station should power be disrupted. (Reference: Jonathan Zimmermann, City Engineer 636-583-3600)



#### Lake Ozarks Council of Local Governments – Camelot Estates Sewer District Expansion

Cochran was recently selected to perform a study to determine the feasibility of expanding the existing Camelot Estates Sewer District. The District currently serves approximately 550 customers. However, the treatment facility operates at approximately half capacity. As a result the current customers are paying the debt service for a great deal of unused capacity. This study will determine how many additional customers can be serviced by the treatment plant and if the overall cost to all of the customers will be lower than the current cost. The study will be complete in December 2015. (Reference: Linda Conner, Executive Director 573-346-5692)

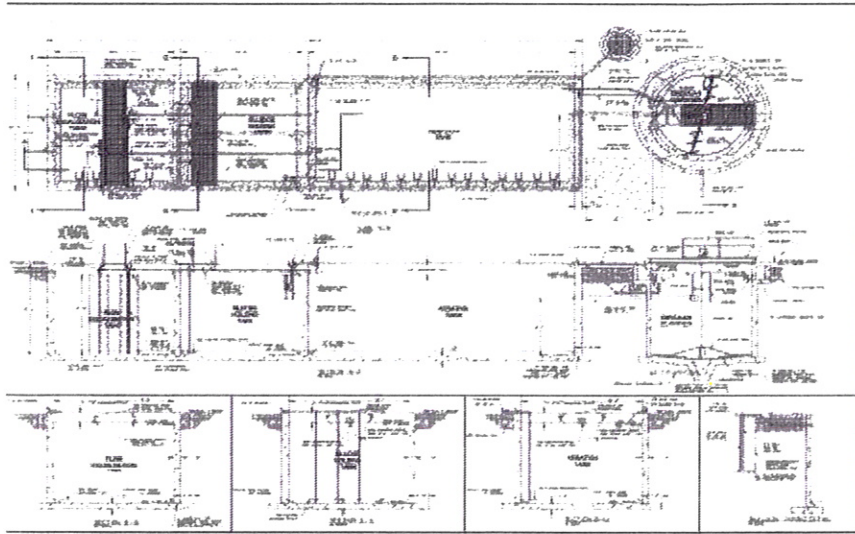
#### City of Marthasville, Missouri – Sanitary Sewer Improvements

Cochran performed a city-wide Master Plan, an analysis of sewage collection and treatment facilities, and an infiltration study. Cochran performed the design for corrections, including separation of storm water, rehabilitation and construction of a new treatment facility. (Mr. Tim Flagg, Facility Operator, 636-390-2517)

#### City of De Soto – Water and Wastewater Engineering

We are currently serving as the City Engineer for the City of De Soto. The following reports and studies were recently completed on a city wide basis: Gravity Sewer Line Engineering Report (in-flow and infiltration evaluation and rehabilitation study); Water and Wastewater System Engineering Reports (overall evaluation of the City's facilities with recommended improvements). Both reports contained recommended phasing and opinion of probable cost of improvement options. These recommendations, based on sound engineering design, were approved by the City, which resulted in a rate increase to construct long term improvements.

(Mr. David Dews, City Manager, 636-586-3326)



#### Village of Innsbrook – Water and Wastewater Engineering

Cochran performed all facilities design since 1998. Cochran recently designed a 144,000 GPD treatment plant to double the capacity. A treatment plant of this size can serve approximately 500 housing units. We installed flow equalization to minimize overloads to the plant; added a new sludge holding tank; design included Ultra Violet disinfection system and installing weir box and a totalizer to monitor flow. Also, ongoing design of low flow pressure sewer system and design of all lift station facilities. We are currently discussing the need to review and update the Village Master Plans for water and wastewater.

(Mr. Duke Hayden, Village Project Manager, 636-928-3366)

#### City of Berger – Sanitary Sewage System

Cochran became involved with the City of Berger after issues arose with the original design for a City wide sanitary sewage collection, conveyance and treatment system. Cochran was able to redesign the project and provided construction oversight without exceeding available funds for the project. The project involved a new sewage collection system throughout, pumping stations, private septic closures, easement acquisitions, treatment facility, land acquisitions and construction.

(Mr. Tim Flagg, Facility Operator, 636-390-2517)

#### Sunny Slope/Country Club Sewer District – Lake Valley Condominiums

Cochran was recently selected to perform design for the Sunny Slope/Country Club Sewer District in Camden County. The project will convert an existing extended aeration wastewater treatment facility to a STEP system by converting the existing plant into a septic tank and pumping the effluent to the existing Sunny Slope treatment facility. (Reference: Jennifer Eblen, Supervisor 573-317-3810)



October 23, 2015

Jefferson County Department of Public Works  
Kristy Moss, Deputy Director  
725 Maple Street, Annex Building, P.O. Box 100  
Hillsboro, MO 63050

OCT 22 2015



RE: Letter of Interest—Sanitary Sewer Design, North Highway Shed—Highway MM

Dear Ms. Moss and Members of the Selection Committee:

Jefferson County wants a trusted engineer who will understand your projects, represent your interests, and advise you of the solutions that best meet your particular needs. You want someone with experience, knowledge, and skill who will listen, communicate effectively, pay attention to detail, and ultimately deliver a quality product. TWM's mission **Exceptional Service, Nothing Less** encompasses all those things and is what we pledge to each of our clients. Your sewer design project is especially suited to our professional expertise, built upon 69 years of experience. Effective yet affordable solutions to your projects are the focus of our team's approach.



#### EXPERIENCE & TECHNICAL COMPETENCE

TWM's years of experience working for local municipalities, counties, and sewer districts in Missouri and Illinois make us well-suited for your sewer design project. Our staff has extensive knowledge in sewer design, including the many challenges that are typically encountered on a project like yours, such as DNR sign-off and property acquisition. We have developed regulatory relationships that help expedite the review process and have years of experience in assisting clients with easement acquisition.

We understand the potential challenges and constraints of your sewer design project, and we are fully capable of providing the complete range of services required for its unique needs with in-house staff. We will work closely with you, planning and designing with your needs, budget, and schedule as our highest priority. Our firm has a strong track record of meeting not only the expectations of our clients, but the state and federal requirements associated with each project. In order to efficiently service Jefferson County's unique needs, TWM has assembled an experienced and technically diverse project team.

#### *TWM Proposed Project Manager*

**Chris Bergmann, P.E.**, will serve as Project Manager. Chris has 14 years of experience, first having gained regulatory expertise at the Illinois EPA and subsequently moving to TWM where he designs and manages water and wastewater projects throughout the St. Louis Metropolitan Area. Skilled in sewer design, he has served as Project Manager and Lead Engineer on all types of wastewater improvement projects ranging from small sewer extensions to larger interceptor projects as well as upgrades to existing wastewater treatment plants. Several projects that Chris has successfully managed have not only included design of sewer systems in previously developed areas with tight construction constraints, but also required coordination with property owners for the purpose of easement acquisition.



Christopher G.  
Bergmann, P.E.

720 Olive St,  
Ste 200A  
St. Louis, MO 63101  
P: (314) 241-6300  
F: (314) 241-2391

cbergmann@twm-inc.com

**REGISTRATIONS / CERTIFICATIONS**  
Professional Engineer, MO, IL  
LEED Accredited Professional (Building  
Design and Construction Focus)

**EDUCATION**  
Bachelor of Science - 2001  
Materials Science and Engineering -  
University of Illinois Urbana-  
Champaign

Master of Business  
Administration - 2004  
University of Illinois Springfield

Chris complements his technical and regulatory background with business skills to assist in management of projects. Having obtained a Masters in Business Administration, he is able to combine the business and management knowledge he gained with his technical expertise to ensure projects remain on budget and within schedule. The following are some recently completed projects on which he served as either Project Manager or Lead Engineer:

#### As Project Manager

- Lee Avenue Storm Sewer Extension - Kirkwood, MO (St. Louis MSD)
- Gravois Creek OMCI Storm Sewer Design - St. Louis MSD
- Phase 2 CSO LTCP Relief Sewer - Belleville, IL
- Terminal Lift Station and Sanitary Sewer Extension - Shiloh, IL
- Hollandia Interceptor Replacement - Fairview Heights, IL

#### As Design Engineer

- Jefferson Woods Subdivision UV Disinfection - Hillsboro, MO (Jefferson County)
- Summer Set WWTP Improvements - De Soto, MO (Jefferson County)
- Weinle Hills Sewer System - Fairview Heights, IL
- Greenmount and IL Route 177 Sanitary Sewer Extension - Belleville, IL
- Ogles Creek Sanitary Sewer Re-Routing and Replacement - Fairview Heights, IL
- Meadowbrooke Gravity Interceptor Sewer to Hampton Glen - Troy, IL

#### **THOUVENOT, WADE & MOERCHEN, INC.**

■ 720 Olive Street, Suite 200A, St. Louis, MO 63101  
■ Phone: (314) 241-6300 Fax: (314) 241-2391 www.twm-inc.com

**EXCEPTIONAL SERVICE.  
NOTHING LESS.**



**TWM Key Personnel**

Chris will be supported by a full team of engineers, surveyors, and technical staff. Below, you will find the technical knowledge and experience of our team's key personnel. In addition to the staff below, we will also utilize TSI Engineering or Geotechnology, Inc. for any geotechnical services needed. By assembling a team of diverse expertise, TWM has the flexibility to adapt to the unique needs of your project.

**Chad Ross, PE, CPESC - Lead Design Engineer**

*MS Environmental Engineering, BS Civil Engineering Licensed PE: MO, IL Years Exp: 17*

Chad is experienced in providing design of sanitary sewer collection systems, lift stations, and collection facilities. His projects have frequently required design of new sewer systems in congested, developed areas as well as replacement, rehabilitation and upgrades to existing systems. He is involved in all phases of projects including design, permitting, and construction management.

- Weinel Hills Sewer System - Caseyville Township Sewer System, Fairview Heights, IL
- Center Park Circle Sewer Replacement - Caseyville Township Sewer System, O'Fallon, IL
- Sewer Extension to Belleville West High School - Belleville, IL
- Pleasant Ridge Sanitary Sewer Extension - Caseyville Township Sewer System, Fairview Heights, IL

**Scott Goforth - Right-of-Way & Document Preparation for Easement Acquisition / Construction Oversight**

*BS Civil Engineering Licensed PE: MO Years Exp: 10*

A Jefferson County native living in nearby Cedar Hill, Scott has experience in multiple civil engineering disciplines, with a current emphasis on roadway design projects in Missouri. Through his past experience, he has gained the knowledge necessary for preparation of right-of-way documents and legal descriptions / exhibits required for easement acquisition. His local knowledge of the area will provide additional benefit in this task and make him readily available to provide construction oversight.

- Route Y Shoulder Widening, Pavement Improvements, & Storm Sewer - MoDOT (Jefferson County)
- Mapleview-Lafon Drainage Improvements Project - University City, MO
- West Clay Street Reconstruction & Storm Sewer, Phase I - St. Charles City, MO
- Manchester Road Streetscape, Phase 3 - Wildwood, MO

**Vicki Wade, PE - Design Engineer/Regulatory Expert**

*MS Environmental Engineering, BS Civil Engineering Licensed PE: MO, IL Years Exp: 24*

As a specialist in municipal work, Vicki has been responsible for the design of sanitary sewer collection systems, wastewater treatment facilities, and lift stations. That experience has helped her develop valuable relationships with multiple regulatory entities, including Missouri DNR and the EPA, that help ensure the permitting process is efficiently completed.

- Jefferson Woods Subdivision UV Disinfection - Hillsboro, MO (Jefferson County)
- Summer Set WWTP Improvements - De Soto, MO (Jefferson County)
- Old Collinsville Road Sanitary Sewer Interceptor - Swansea, IL
- Brackett Street Sanitary Sewer Interceptor - Swansea, IL

**Derek Twente, PLS, EI - Survey Manager**

*BS Civil Engineering Licensed PLS: MO, IL Licensed EI: MO Years Exp: 11*

As Manager of TWM's Land Survey Department, Mr. Twente works closely with the firm's survey crews and other Professional Land Surveyors, creating standards for operating at the highest level of quality with professionalism and integrity. Mr. Twente's responsibilities include project coordination, project management, proposal review, and communication with clients. Up to 8 survey crews can be staffed simultaneously.

- Route Y Shoulder Widening, Pavement Improvements, & Storm Sewer - Jefferson County, MO (MoDOT)
- Lee Avenue Sewer Improvements - St. Louis MSD, Kirkwood, MO
- Terrie Lane Sewer Improvements - St. Charles, MO
- Pralle Lane 38FF Water Main Upgrade - St. Charles, MO
- Storm Sewer 3D Scan - St. Charles, MO
- Sewer Surveys - Swansea, IL (Intergovernmental Grants Department)



### CAPACITY TO COMPLETE WORK

While TWM team staff have some existing workload obligations, there is sufficient availability to meet your project demands, as seen in the graph at right. The members of the project team were chosen specifically for their expertise in the services you require. In addition, our firm size and diversity allows us to reallocate staff as necessary in order to meet schedule demands due to unforeseen delays or work surge. We also have the benefit of having enough survey staff to provide up to 8 simultaneous crews, ensuring that we can meet your project needs. Our team flexibility positions us to provide excellent service and accountability throughout your project.

#### TWM AVAILABILITY

■ Obligated/Anticipated ■ Available



### PROXIMITY / FAMILIARITY

Our selected team members have successfully served nearby municipalities and sewer districts in the metro region from our St. Louis office, including St. Charles City, St. Louis MSD, St. Charles County PWSD #2, St. Charles County Highway Department, MoDOT, City of St. Louis, University City, Creve Coeur, and Ste. Genevieve. As a Jefferson County resident, Scott Goforth will be an influential asset to the TWM team. He will be able to assist Chris with any questions that may arise during the design and could easily stop by the job site to gather information. Moreover, having a face that's familiar to residents and stakeholders will ensure the desires of the community are considered in the design and will help facilitate successful negotiations during easement acquisition.

Furthermore, Chris and the entire project team have the capability through TWM's mobile network to work anywhere a wi-fi connection is available. This mobility allows the team to remain flexible and work diligently in collaboration with County staff to address your needs.

### PAST PERFORMANCE

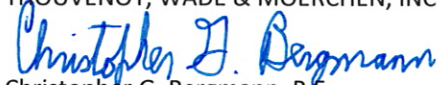
At TWM we understand that quality is not the result of a single process, but of multiple, inter-related processes. That's why each team member performs their individual tasks with accuracy and the highest level of attention to detail. Knowledgeable and qualified senior staff provide oversight and guidance. And structured reviews are performed not just after a project is complete, but throughout the project phases and at designated milestones. Our project-specific QA/QC plans outline the procedures for checking all reports, calculations, drawings, and other milestone deliverables.

On the following page, we've attached to this letter just a sampling of the hundreds of projects we design for a wide spectrum of clients each year. This particular list includes similar sewer design projects as well as projects where property acquisition was a critical element. Within the descriptions of these projects, we included client contact information and encourage you to call any of our clients for a candid opinion of our past performance. We have an impressive record of keeping projects on time and in budget for the clients we serve, working diligently to make sure each is done right. Based on the feedback we have received, we believe our clients are very pleased with TWM's past performance and work. The fact that **85% of our work comes from repeat business** provides some indication of our track record.

We welcome the potential to demonstrate to you firsthand our capabilities and level of client service. Should you need additional information or have any questions, please feel free to contact me directly at 314-241-6300 or by email at [cbergmann@twm-inc.com](mailto:cbergmann@twm-inc.com).

Sincerely,

THOUVENOT, WADE & MOERCHEN, INC.



Christopher G. Bergmann, P.E.

Project Manager

#### MORE SEWER DESIGN PROJECTS

2014 Various Sewer Projects—surveying, engineering, & construction phase services, City of East St. Louis

Cookson St Sewer Repairs Ph. 1, 2, & 3—rehabilitation of approx. 3,100 l.f. of 24" - 27" sanitary sewers, Village of Fairmont City

2015 Sanitary Sewer Rehab. Projects—approx. 2,600 l.f. of sanitary sewers, Village of Fayetteville

2013 Sewer Rehabilitation—approx. 2,000 l.f. of existing 8" & 12" VCP sanitary sewers, Village of Fayetteville

Jefferson & Pulliam Ave Sewer Rehabilitation—approx. 2,700 l.f. of 8" & 12" sanitary sewers, Village of Fayetteville

Sanitary Sewer Rehabilitation, Caseyville Township

Sewer Main Lining Projects—more than 7,550 l.f. of faulty 8" sewer mains, Caseyville Township

Sewer Main Rehabilitation—2,450 l.f. of faulty 12" sanitary sewer mains, Village of Swansea

Replacement of several faulty sanitary creek crossings, Village of Swansea

North Belt West & West Main Manhole Rehabilitation, City of Belleville

Lincoln Street Sanitary Lift Station—Replacement of sanitary lift station including valve vault, electrical controls, & associated sewer mains, St. Libory

Rudder Street Lift Station—Replacement of sanitary lift station including valve vault, electrical controls, and approx. 1,200 l.f. of sewer mains, St. Libory

Southwestern Illinois Correctional Facility Lift Station & Forcemain—Repl. of 6" sanitary forcemain with approx. 6,780 l.f. of 8" forcemain.



**OWNER / CONTACT**

Kirkwood MO / St. Louis MSD  
John Shrewsbury, Project Manager  
2350 Market Street  
St. Louis, MO  
(314) 768-6301

**LEE AVENUE STORM SEWER EXTENSION**

As part of a drainage improvement for an existing subdivision, the St. Louis Metropolitan Sewer District hired TWM to design an extension to an existing storm sewer system. **The project involved substantial coordination with property owners, requiring 22 easements.** Design incorporated connection of several existing pipes from the nearby houses (e.g., downspout connections), and minimized the impact to landscaping on the existing lots. TWM also employed a geotechnical subcontractor to check for the depth of rock in the location of the proposed sewer. **TWM prepared the design plans, completed the topographic survey, and prepared all easement plats.**

COMPLETION DATE: 2016 (est)

CONSTRUCTION COST: \$333,000 (est)

KEY PERSONNEL: Chris Bergmann, PE; Chad Ross, PE; Derek Twente, PLS, EI

**OWNER / CONTACT**

Caseyville Township Sewer System  
Jeff Bevirt, Interim Sewer Manager  
#1 Ecology Drive  
O'Fallon, IL 62269  
(618) 632-2414

**CENTER PARK CIRCLE SEWER REPLACEMENT**

The primary purpose of this project was the re-routing of an existing 8" sewer line away from an area experiencing mine subsidence. **Design of the new 926' sewer line took into account the significant commercial development in the area,** ensuring that design and construction would have minimal impact on the local businesses. The design incorporated a crossing of the local road servicing the existing businesses with the new sewer line. Given the existing development, utility coordination also presented challenges during construction.

COMPLETION DATE: 2014

CONSTRUCTION COST: \$88,000

KEY PERSONNEL: Chad Ross, PE

**OWNER / CONTACT**

Caseyville Township Sewer System  
Jeff Bevirt, Interim Sewer Manager  
#1 Ecology Drive  
O'Fallon, IL 62269  
(618) 632-2414

**WEINLE HILLS SANITARY SEWER SYSTEM**

Due to the difficulty of installing sewer on this **rocky, hilly terrain** surrounding a lake, the homes in this subdivision used privately-owned aeration and septic systems. The water quality of the lake had been impacted by seepage from these systems, so the Township's Sewer District hired TWM to **design a sewer system to replace the private septic systems.** The design included a combination of gravity sewers, low pressure sewers, grinder pumps, and seven lift stations to service the 323 homes, considering proper access and aesthetic concerns. Easements were acquired for installation of the force main pump stations in some locations, while in others, the existing right-of-way was used.

COMPLETION DATE: 2014

CONSTRUCTION COST: \$6,051,614

KEY PERSONNEL: Chad Ross, PE; Chris Bergmann, PE

**OWNER / CONTACT**

City of Belleville  
Royce Carlisle, WRF Director  
450 Environmental Drive  
Belleville, IL 62220  
(618) 233-7146

**PHASE 2 CSO LTCP RELIEF SEWER**

TWM designed the second phase of sewer construction for the CSO Long-Term Control Plan, which required interceptor sewers between 36" - 60" in diameter. **Complications included installation in areas that were already developed and contained significant utility conflicts.** Three separate bores and casings were needed, including installation of a 48" interceptor sewer under a railroad, a tie-in to an existing sewer located at the intersection of two State highways, and multiple locations containing high value fiber-optic cable serving the nearby Scott Air Force Base. Coordination with the railroad, the DOT, and the base was a necessary part of the design.

COMPLETION DATE: 2013

CONSTRUCTION COST: \$3,567,011

KEY PERSONNEL: Chris Bergmann, PE

**OWNER / CONTACT**

Village of Shiloh  
Norm Etling, PE, Village Engineer  
#1 Park Drive  
Shiloh, IL 62269  
(618) 632-1022

**TERMINAL LIFT STATION AND GRAVITY SEWER EXTENSION**

As part of this project, TWM upgraded the existing terminal lift station and designed a new lift station upstream to serve a future development area. Interceptor sewers were also designed as part of the smaller lift station to serve the future development areas. **The sewer extension also serviced some existing commercial areas that had been storing wastewater on site prior to it being hauled to a treatment plant.** Due to the location of the project, coordination with Scott Air Force Base and Mid-America Airport was required throughout design and construction.

COMPLETION DATE: 2014

CONSTRUCTION COST: \$1,525,414

KEY PERSONNEL: Chris Bergmann, PE



901 Vine Street  
P.O. Box 72  
Poplar Bluff, MO 63902  
Phone 573.785.9621  
Fax 573.785.2651

# SMITH & CO.

## ENGINEERS

October 19, 2015

Ms. Kristy Moss  
Deputy Director of Public Works  
Jefferson County Public Works Department  
PO Box 100  
Hillsboro, MO 63050

Re: Statement of Engineer Qualifications  
Professional Engineering Services  
Public Sewer Connection

Dear Ms. Moss:

We would welcome the opportunity to assist the Jefferson County Public Works Department and respectfully submit our Letter of Interest to complete the project administration for the design and construction oversight of a new public sewer connection and the closure of the existing septic system.

Smith & Company is experienced in helping communities complete important infrastructure improvements, including community wastewater planning and projects. Our 45 employee-owners deliver quality work every day.

S. H. Smith & Company (doing business as Smith&Co.) is a multidisciplinary consulting firm established in 1968 by Samuel H. Smith, PE, PLS. and is 100% employee owned. Over the years, Smith&Co. has expanded its services to respond to regional market needs and to provide opportunities for the growth of our company and our employee-owners. Our firm presently offers civil engineering, surveying, environmental & geotechnical services, and material testing.

Our staff consists of Professional Engineers, Registered Geologists, Professional Land Surveyors, and other scientific and technical professionals. With these capabilities, Smith & Company can complete all of the activities of your project without additional sub-consultants.

Smith & Company employee ownership culture encourages and delivers a professional approach to our projects and provides professional results for our clients.

Again, we welcome the opportunity to serve the Jefferson County Public Works Department. Should you have any questions, please feel free to contact Bob MacDonald, Billy Cobb, or me at (573)785-9621.

Sincerely,



Bill Robison, P.E.  
Director of Business Development

October 2015

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## STATEMENT OF QUALIFICATIONS

## SUBMITTAL REQUIREMENTS

1. Four copies of all of the information is included.
2. The package will be no longer than four pages in total length.
3. Company Information:  
 Smith & Co.  
 901 Vine Street – P.O. Box 72  
 Poplar Bluff, MO 63902  
 573-785-9621 Office  
 573-785-2651 Fax  
[www.shsmithco.com](http://www.shsmithco.com)
4. Smith & Co. was established in 1968.
5. Services Provided:  

Civil Engineering	Surveying	Geotechnical
Material Testing	Environmental	
6. Names of Principals and states they are registered in: Smith & Co. is 100% employee-owned by 45 employees; operating under an Employee Stock Ownership Plan. Principal leadership:
  - a. Bob MacDonald, CEO
  - b. Steve Hicks, COO (registered in Arkansas and Missouri)
  - c. Billy Cobb, Engineering Manager (registered in Arkansas, Illinois, Tennessee and Missouri)
  - d. Bill Robison, Director of Business Development (registered in Missouri)
7. Names of key personnel, with experience of each and length of time in the firm:
  - a. Dominic Thompson, P.E., L.S.I.T., Project Manager (6 years with Smith & Co.)
 

Registration:	Professional Engineer, Missouri; Land Surveyor in Training in Missouri
Education:	B.S. Civil Engineering, Arkansas State University, 2003
Experience:	Project Manager, Smith & Company, 2009 - present. Project Engineer, Great Rivers Engineering, Inc., 2004 - 2009. Project Engineer, Schultz Engineering Services, 2003 – 2004.
Affiliations:	Missouri Airport Managers Association, Missouri Society of Professional Engineers, National Society of Professional Engineers, Missouri Society of Professional Surveyors
  - b. Greg Bell, P.E., Project Manager (11 years with Smith & Co.)
 

Registration:	Professional Engineer, Missouri
Education:	B.S. Civil Engineering, Arkansas State University, 2002
Experience:	Project Manager, Smith & Company, 2009 – present. Project Engineer, Smith & Company, 2003 - 2009.
  - c. William Cobb, P.E., Engineering Department Manager (10 years with Smith & Co.)
 

Registration:	Professional Engineer, Missouri
Education:	B.S. Civil Engineering, University of Missouri, Columbia 1999
Experience:	Department Manager, Smith & Company, 2011-Present Project Manager, Smith & Company, 2011 Project Manager, Cole & Associates, 2006 - 2011. Project Engineer, Smith & Company, 2000 - 2006.

8. Number of Staff available for assignment: Billy Cobb, Engineering Manager; Dominic Thompson, Project Manager; 1 Project Engineer; 2 Surveyors; 1 Drafting Technician; and 1 Construction Inspector will work on the project at various times.
9. Outside consultants and associates usually retained:
  - a. Smith & Co. completes its projects without retaining sub-consultants.
10. Projects Completed or Underway:

<b>TABLE 1 – Wastewater Projects</b>					
<b>Owner</b>	<b>Project Name</b>	<b>Services</b>	<b>Project Cost</b>	<b>Funding</b>	<b>Completion Date</b>
City of Poplar Bluff, Missouri	Wastewater Treatment Plant Improvements	Design and Construction Inspection	\$17,200,000 (Est)	City/SRF	Under Design
City of Malden, Missouri	Wastewater Land Application Treatment Improvements	Design and Construction Inspection	\$2,400,000	City	2013
City of Essex, Missouri	Wastewater Treatment Plant Improvements	Design and Construction	\$1,060,000	USDA and City	2012
City of Malden, Missouri	Pump Station Additions	Design and Construction Observation	\$150,000	City	2012
City of Charleston, Missouri	Wastewater Treatment Plant Improvements	Design and Construction Inspection	\$1,250,000	USDA and City	2012
City of Fisk, Missouri	Wastewater Treatment Plant and Pump Station Improvements	Design and Construction Inspection	\$1,000,000	USDA, CDBG and City	2011
City of Doniphan, Missouri	Wastewater Plant and Collection System Improvements	Design and Construction Inspection	\$850,000	City	2010

11. Company Profile: S.H. Smith & Company (doing business as Smith&Co.) is a multi-disciplinary consulting firm established in 1968 by Samuel H. Smith, PE, PLS. The company is now 100% employee-owned. The employee ownership trust was formed in 1994 to enable the continued success of the firm and our employee-owners. Over the years, Smith&Co. has expanded its services to respond to regional market needs and to provide opportunities for the growth of our company and our employee-owners. Our firm presently offers civil engineering, surveying, environmental & geotechnical services, and material testing.
12. Client references including names of individuals, telephone numbers, and email addresses:

Ted Bellers  
City of Malden, Missouri  
(573) 276-4502

Dennis Carmack, Operator  
City of Essex, Missouri  
(573) 283-5990

Bill Bach  
City of Poplar Bluff, Missouri  
(573) 686-8020

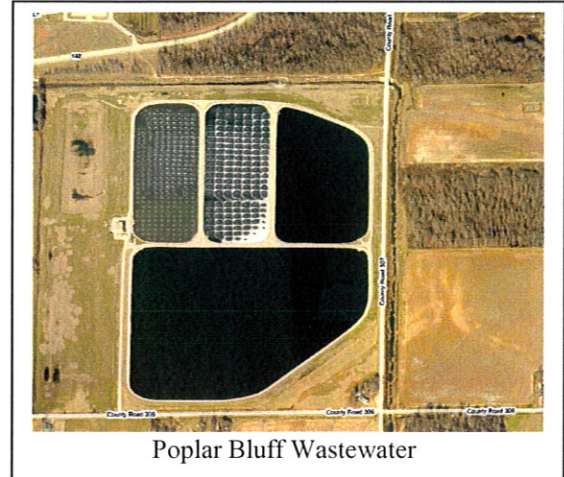
Shannon Poole, Mayor  
City of Fisk, Missouri  
(573) 967-3810



13. Smith & Co. has a great record of performance on wastewater treatment projects. We have developed projects to fit the needs of communities and meet the budgetary requirements. A Facility Plan, Project Design, Construction Permit and Construction Inspection were completed, or will be completed soon, on the following projects:

#### **Poplar Bluff Wastewater Treatment Plant Improvements**

Smith&Co. completed a Facility Plan and preliminary engineering report for the proposed lagoon treatment upgrades for the 10 million gallon per day (MGD) wastewater treatment plant for the City of Poplar Bluff. The project has just moved into the final design phase and is estimated to cost \$17,200,000. The project will be an upgrade to the City's existing facilities and includes new blowers, aeration headers, diffusers, mixers, lagoon covers, a polishing reactor, ultraviolet disinfection, and a new effluent flow meter. The residents within the City of Poplar Bluff passed a bond election in late 2012 to allow the City to pursue low interest financing. The project is being funded by the City and MDNR's State Revolving Fund.



Poplar Bluff Wastewater

#### **Malden Wastewater Treatment Improvements**

Smith & Co completed the engineering design to upgrade the City of Malden's existing Wastewater Treatment Facility to land application (no discharge) system. The land application system was designed to handle an average daily flow of 680,000 gallons per day. The project consists of adding detention basins sized to store a minimum of 60 days of flow at the average design flow. The system also includes the construction of a concrete wet well, pump station, valve vault, effluent filtration system, approximately 8,000 linear feet of 16" PVC force main, and a center pivot to irrigate approximately 350 acres. The project was completed in 2013 and the total project cost was approximately \$2,400,000. The project was funded by private financing that was obtained by the City of Malden through a lease purchase agreement.



Malden Existing Wastewater Treatment Site



October 23, 2015

Ms. Kristy Moss  
Deputy Director of Public Works  
County of Jefferson  
725 Maple Street  
Annex Building  
Hillsboro, Missouri 63050

RE: Letter of Interest: Sanitary Sewer Design - North Highway Shed/Highway MM project

Dear Ms. Moss:

The Kuhlmann *design* Group, Inc. (KdG) Team is excited to express our interest in the Sanitary Sewer Design North Highway Shed/Highway MM project for Jefferson County. Jefferson County residents maintain high standards and expect quality infrastructure; ensuring a smooth sewer design project is key to providing the residents with these expectations. KdG is ready to assist the County in accomplishing its goals and completing a successful project.

***KdG brings the following benefits to the County:***

- **PERSONAL ATTENTION FROM TOP MANAGEMENT AT KdG DUE TO THE SIZE OF OUR FIRM.** Our firm of approximately 50 individuals allows top management, including President and Chief Operating Officer W. Peter Maruska, AIA, to directly oversee projects. This helps to ensure projects are managed and completed to provide optimum service to the client.
- **QUICK RESPONSE TIME.** KdG's office is in Maryland Heights, approximately 40 miles from the project site and the County. Response time for project related items, residential concerns, and County requests will be minimal. The project manager or key project leaders respond to phone and email communication quickly.
- **FREQUENT, CLEAR, AND CONCISE COMMUNICATION WITH THE COUNTY.** The relationship we intend to continue while working on this project for the County includes discussing all aspects of the project, from resident impacts to budget and schedule constraints. From project commencement through project completion, KdG will work with Jefferson County as an extension of the County's staff. KdG will accompany the County to meetings outside of normal business hours to answer questions of boards, councils, or residents in clear terms.
- **A HIGH QUALITY PROJECT, DELIVERED ON-TIME AND WITHIN BUDGET, OVERSEEN BY PROFESSIONAL ENGINEERS EXPERIENCED IN SANITARY SEWER DESIGN.** The County will benefit from our experience on similar projects with our in-house civil engineering and surveying capabilities providing sewer design expertise. All work will be checked for quality assurance before being delivered on or before specified milestone dates.

**OVERALL EXPERIENCE AND TECHNICAL COMPETENCE**

With over forty years in the business of providing both engineering and architectural services, KdG has a staff of 50 individuals organized into four divisions. Our infrastructure division includes experienced civil, transportation, and structural engineering professionals with a long-term commitment to partnering with local communities. We have provided professional engineering services to numerous municipalities, including Festus, Cape Girardeau, Troy, Park Hills, St. Louis City and County, Ladue, Warson Woods, Des Peres, Manchester, Chesterfield, Maryland Heights, Creve Coeur, University City, Ellisville, O'Fallon, St. Charles, and Wright City. Outside of the immediate St. Louis vicinity, we have worked with St. Clair County, Belleville, and Mascoutah in Illinois. The work for these clients has encompassed a wide variety of projects, including sanitary and storm sewers, roadway construction, highway and transportation projects, aesthetic improvements, evaluation and improvements to existing municipal structures, traffic studies, and construction phase services.

KdG's first priority will be to initiate a kick off meeting with the County to discuss the design expectations, project budget, and major project stakeholders. The project team will then commence work on the topographic survey, geotechnical investigations, and preliminary layouts. A set of 60% plans will be forwarded to the utility companies to coordinate and identify necessary temporary or permanent relocations, as water and electric utilities are likely to be in conflict along the preliminary route. Plans will also be submitted to other governing agencies, such as the US Army Corps of Engineers for permitting issuance at a drainage ditch and Heads Creek crossings, as well as the Missouri Department of Natural Resources for septic system decommissioning. Major project stakeholders can be included in this review because their properties will have impacts along the corridor and input from them will be crucial in gaining support. Once the County has reviewed and commented on the 60% submittal, the design team



will then move to completing 95% plans for easement determinations. KdG will assist the County in meetings with property owners and entities for project questions and right-of-way negotiations, as needed. When all comments are received, the design team will complete final plan documents, easement plats, project specifications, and construction cost estimates. During the design process, the County will be given multiple opportunities to review the design and ensure the final documents meet expectations as to appearance, functionality, and cost. As the County's design representative, KdG will keep the County well informed of all project progress and updated as to project schedule and submittals. Should any issues arise throughout the project, the design team will provide detailed information to help the County make decisions requested of them. KdG will assist the County with bidding, construction observation and inspection, and project closeout. Our goal is to provide as much assistance to the County such that the design team will require minimal direction and effort on the part of the County staff.

Representative examples of similar projects KdG has completed are:

**FORESTATE & TEXAS SANITARY RELIEF - Grantwood Village and St. Louis County**

Client: Metropolitan St. Louis Sewer District (MSD), Steven M. Roberts, 314.768.6310

Year Completed: 2015 - under construction

KdG designed a sanitary relief sewer along a new alignment with an increase in size from 10 inches to 15 inches to remove constructed sanitary sewer overflow (SSO) BP-389, reduce basement backups, and alleviate sanitary sewer surcharging. The new sewer is approximately 2,500 feet long with three creek crossings, two roadway crossings, utility coordination and gabion wall replacement. The project also included Private Inflow and Infiltration Reduction in the project area, US Army Corps of Engineers permitting assistance, easement documentation, and extensive utility coordination.

**PICKWICK - BERNADINE - BIMINI SANITARY RELIEF - St. Louis County, Missouri**

Client: Metropolitan St. Louis Sewer District (MSD), Steven M. Roberts, 314.768.6310

Year Completed: 2015 - under construction

KdG designed a sanitary relief sewer along an existing alignment to remove constructed sanitary sewer overflows (SSOs) BP-629, BP-401, and BP-522, reduce basement backups, and alleviate sanitary sewer surcharging. The new sewer is approximately 3,023 feet long ranging in size from 8 inches to 21 inches with two creek crossings, roadway reconstruction, utility coordination and lateral reconnections. The project also included Private Inflow and Infiltration Reduction in the project area.

**CSO MCKNIGHT RD #2737 CSO INTERCEPTOR (I-298)/OUTFALL (L-161)**

St. Louis County, Missouri

Client: Metropolitan St. Louis Sewer District (MSD), Steven M. Roberts, 314.768.6310, 2350 Market Street, St. Louis, MO 63103

Year Completed: 2014 - ongoing

KdG designed approximately 2,260 feet of new 8-inch to 18-inch sanitary sewer and rehabilitation of 6,110 feet of 6-inch to 15-inch sewer for transitioning use from a combined sewer to a storm sewer. Removal of private inflow and infiltration connections by inspection of 619 privately owned properties to separate the combined sewers and reduce inflow and infiltration in the project area. The project is intended to alleviate wet weather building backups and remove one combined sewer overflow (CSO) outfall, L-161.

**SANITARY SEWER SYSTEM STUDY - Wright City, Missouri**

Client: City of Wright City, Larry Janish, Public Works Dir., 314.745.3101

Year Completed: On-going

KdG performed a Sanitary Sewer System Study for the City while teaming with Lochmueller Group and ADS Environmental. The project consists of updating City Mapping, determining options for Ammonia Removal at the treatment facility, modeling the system to determine undersized piping and areas of concern, and developing a plan to correct issues within the system. KdG collected all of the system data needed to build the model and analyzed the system for pinch points, undersized pipes, areas of increased inflow and infiltration, and provide an over-all system analysis. KdG's report included suggestions and a program to remove sources of inflow and infiltration into the system.

**IOC MAIN STREET RELOCATION AND LIFT STATION - Cape Girardeau, Missouri**

Client: City of Cape Girardeau, Casey Brunke, City Engineer, 573.339.6327

Year Completed: 2011

KdG designed storm sewers, sanitary sewers, 8-in and 30-in water lines, and the relocation of a sanitary pump station. Over 2,300 ft. of sanitary sewer had to be carefully staged and designed to work with both old and new pump stations to allow for no loss in service.





**GRAVOIS TRUNK PRE-DESIGN REEVALUATION (MSD #90032) - St. Louis County, Missouri**

Client: Metropolitan St. Louis Sewer District (MSD), Gary Moore, 314.768.6200

Year Completed: 2015

KdG completed a Pre-Design Study of the Gravois Creek Sanitary Trunk Sewer in 2004 for MSD, and the project has since been implemented through the first several phases. Property ownership challenges and the deadlines imposed by an EPA Consent Decree required a re-evaluation of the initial alignment. KdG was instrumental in determining the rehabilitation and relocation efforts necessary to meet the project deadlines and goals. KdG staff reviewed existing CCTV data records, inflow/infiltration reports, complaint records, previous planning studies, geotechnical data, previous site visit findings, creek evaluations, and as-built drawings. Findings were submitted with cost estimates, multiple alternatives, and recommended improvements.

**TOPPING SANITARY RELIEF SEWER (MSD #2007068) - Town & Country, Missouri**

Client: Metropolitan St. Louis Sewer District (MSD), Jerry Jung, 314.768.6200

Year Completed: 2015

KdG completed the design of 2,200 feet of 8-inch to 15-inch sanitary sewer to alleviate surcharging and residential sewer backups. Preparation of plans, specifications, cost estimates and as-built surveys were included.

**BROOKTON WAY TO MERAMEC BOTTOM ROAD SANITARY RELIEF (MSD #2000083) - St. Louis, Missouri**

Client: Metropolitan St. Louis Sewer District (MSD), Patricia Pride, 314.768.6275

Year Completed: 2011

The project consists of preparation of plans, specifications, and cost estimates for approx. 10,705 feet of 8 inch to 30 inch diameter sanitary sewer and the elimination of a bypass near the upstream end of the project.

**CAPACITY AND CAPABILITY**

Our design team is composed of experienced professional engineers and designers who have extensive experience with roadway and transportation projects. Our projected workload capacity for the next six to twelve months is at approximately 75%. The experience of our key team members is as follows:

- **April M. Giesmann, PE - Civil Department Manager, Project Manager**, Ms. Giesmann has over 18 years of experience in civil engineering design, including extensive experience working with municipalities, DOTs, and other permitting agencies. She has been involved in the design of storm sewers, sanitary sewers, parking lots, and play fields for educational facilities, commercial projects, residential properties, municipal projects, and recreational facilities. Her areas of expertise include hydraulic modeling for floodplain analyses, storm sewer analysis and design, water quantity detention routing, and water quality Best Management Practice (BMP) design. *For Jefferson County, she will manage the project and provide sanitary sewer design, cost estimating, and technical specifications.*



- MSD Lemay Watershed: St. Louis County, Missouri – Ms. Giesmann has been an integral part of the Lemay Watershed Team, working on multiple projects for the Metropolitan St. Louis Sewer District. Three types of projects comprise the work for this Team: Sanitary Relief Sewer and Combined Sewer Separation Design, Private Inflow & Infiltration Reduction (PIR), and Public Inflow & Infiltration Reduction (Public I/I). Ms. Giesmann has been heavily involved in all three and is currently the KdG Project Manager for all Lemay Watershed projects.
- Metropolitan St. Louis Sewer District Projects
  - Forestate and Texas - Sanitary Sewer (*Project Manager*)
  - Pickwick-Bernadine- Bimini Sanitary Relief (*Project Manager*)
  - CSO McKnight Rd #2737 CSO Interceptor (I-298)/Outfall (L-161) (*Project Manager*)
  - Brookton Way Sanitary Relief
  - Pardee-Blackthorn-Holly-Arban I/I Reduction (*Project Manager*)
  - Topping Sanitary Relief
  - Gravois Phase VI Design Study and Gravois Re-Evaluation of Pre-Design Study (*Project Manager*)
  - Lynn Haven Sanitary Relief Phase II
- Creek "A": Festus, Missouri – Flood plain analysis for creek relocation

- **AJ Girondo, III, PE, Project Engineer**, Mr. Girondo has over 14 years of experience in civil engineering design and construction administration. He has been involved with various types of projects for clients including municipalities and state departments, private developers, and individual homeowners. He has worked on projects from conception through the completion and closeout of construction. Mr. Girondo has worked on extensions of water distribution systems, modeling of water systems, sanitary sewer extensions, sanitary sewage





pump stations, and low pressure sewer systems in several neighboring municipalities. *For Jefferson County, he will provide engineering assistance and manage construction phase services.*

- Sanitary Sewer System Study: Wright City, Missouri - Analysis and modeling of current system
- Metropolitan St. Louis Sewer District Projects
  - Gravois Trunk Sanitary Relief Sewer Phase VI
  - CSO McKnight Rd #2737 CSO Interceptor (I-298)/Outfall (L-161)
  - Forestate and Texas - Sanitary Sewer
  - Pickwick-Bernadine- Bimini Sanitary Relief
- Katy Trail Lift Station: Augusta, Missouri - Analysis and design of emergency storage chambers
- Key Harbour Estates: Lake St. Louis, Missouri - Analysis, design, and layout of an existing low pressure sewer system to re-route flow from an existing lift station to a new outlet in a gravity sewer for PWSD No. 2. The project also included the connection of to water mains to loop an existing service system.
- Villages at Huntleigh: Wentzville, Missouri - Layout and design of water distribution system and sanitary collection system to serve a 300+ lot subdivision
- Creek "A": Festus, Missouri - Creek restoration design (*Project Manager*)
- **Christine M. Beasley, PLS, Survey Department Manager - Surveyor**, Ms. Beasley has over 23 years of experience in land surveying, civil design, and project management. Her project experience consists of GIS mapping, GPS surveying, residential, commercial, municipal, and roadway projects, environmental projects, boundary surveys, record plats, topographic surveys, construction surveys, ALTA/ACSM surveys, storm and sanitary sewer design and includes the use of AutoCAD/Civil3D, Microstation, GeoPAK, ArcMap, and Map 3D. *For Jefferson County, she will provide surveying services.*
  - Metropolitan St. Louis Sewer District (MSD): St. Louis, Missouri - GPS surveys, GIS, as-builts, easement documents, strip maps
  - Duckett Creek Sanitary District: St. Charles County, Missouri - GPS surveys, GIS, various mapping, as-builts, topographic surveys, easement documents, property descriptions, sanitary sewer design
  - City of Maryland Heights: Missouri - Topographic surveys for park and sewer improvements
  - Wentzville School District: St. Charles, Missouri - Utility coordination, sanitary sewer review

#### PAST RECORD OF PERFORMANCE

Jefferson County will benefit from KdG's four decades of engineering design experience. Past performance is measured in multiple ways, but the best testimony as to the quality of KdG's design is that more than 75% of our work is from repeat clients. Only satisfied customers continue to return to the same provider of services for future projects. We believe that our cost control for the client is a large factor of performance. FREQUENT COMMUNICATION WITH THE CLIENT IS A TOP PRIORITY to identify conditions which may impact schedules well in advance.

Finally, we believe the quality of our work and our client relationships are best expressed by our clients themselves. Recent references from clients included the following quotes:

- *"Quality work and design. Very responsive to needs of City and residents."*  
- Happy Welch, City Administrator, City of Festus, 636.937.4694
- *"I have had good experiences with Kuhlmann design Group, Inc. They are thorough, creative, and project personnel have been personable and professional."*  
- Mike Geisel, Director of Public Services, City of Chesterfield, 636.537.4762
- *"Kuhlmann design Group proved to be very responsive and easy to work with...The City of Creve Coeur will certainly include Kuhlmann design Group on future requests for qualifications for engineering design services."*  
- Matt Wohlberg, City Engineer, City of Creve Coeur, 314.442.2084

Thank you very much for your consideration. We appreciate this opportunity and look forward to partnering with the Jefferson County. Should you have any questions or require additional information, please do not hesitate to contact us.

Respectfully,

Kuhlmann *design* Group, Inc.



April M. Giesmann, PE  
Civil Department Manager, Project Manager

AMG2/dmk4

October 23, 2015

Ms. Kristy Moss  
Deputy Director  
Jefferson County Public Works – Facilities  
P.O. Box 100  
Hillsboro, MO 63050

Subject: Heads Creek Sewer Extension

Dear Ms. Moss:

RJN Group, Inc. (RJN) is pleased to submit this letter of interest to perform engineering design and construction oversight for the Heads Creek Sewer Extension project. This project is necessary to extend services to the existing public sewer from a septic system and take the septic system off line.



We understand the scope of the project consists of designing and performing construction oversight for approximately 700 feet of sanitary gravity sewer and appurtenances, along with the closure of the existing septic system. Design services will include the engineered design and capacity analysis of the proposed alignments; construction documents including plans and profile sheets, along with any special details required; an opinion of probable construction cost; and specifications. If Jefferson County Public Works – Facilities (County) has existing bid documents including contracts, we will use those; otherwise, we will work closely with the County to develop the necessary documents.

Survey services for the project will include a topographic survey, strip maps, and easement legal descriptions and exhibits. It is our understanding that at least five and possibly as many as six easements will be required to construct this project. We also understand that we will be required to negotiate these easements with the property owners.

Professional engineers with the RJN team have been very successful in developing design plans and specifications for similar improvements for various municipalities and sewer districts in the St. Louis region and across the central United States. We look forward to meeting project challenges and providing an efficient design that exceeds your expectations within the budget parameters.

### **RJN Qualifications**

RJN, established in 1975, is a nationally recognized engineering consulting firm focused on assessing and improving municipal wastewater collection systems. Collectively, our engineers have evaluated more than 270 million linear feet of sewer system, designed over 8 million linear feet of improvements addressing both capacity issues and structural conditions, and managed construction of collection system improvements in excess of \$340,000,000. Project sites have ranged from environmentally sensitive areas to fully developed and congested urban areas to topographically challenging areas.

As design professionals, we develop innovative, cost-effective, and sustainable construction solutions. We are ranked 18th in the *Trenchless Technology* list of "Top 50 Trenchless Design Firms" and routinely utilize



trenchless alternatives to overcome obstacles associated with pipeline construction. These technologies are employed for a variety of reasons including preserving natural terrain/landscape, improving capacity, minimizing disruptions to facilities and property, limiting impacts to wetlands and other sensitive environmental areas, and avoiding existing utilities and/or structures.

RJN engineers understand the complexities of the various construction alternatives and will implement the "right solution" to meet budgets and address unique project sites/conditions. Since opening our St. Louis office in 2001, local engineering professionals have designed sewer extensions, sewer repair and rehabilitation measures, capacity improvements, relief sewers, and sewer extensions. We are a full-service engineering provider and routinely evaluate conditions and capacity requirements, develop designs for adjacent utility and pavement restoration/replacement, conduct easement negotiations, prepare permits, and assist with public outreach and funding alternatives.

### **Management Approach**

Proactive management will ensure that the project meets the goals of the County and is completed on time and within budget. The RJN management approach centers around active communication and includes the following:

- Meetings/workshops
- Team and stakeholder communications
- Adhering to standards
- Schedule and budget tracking
- Quality assurance/quality control (QA/QC)

The RJN Project Manager, Jeffrey P. King, will identify and establish all management criteria in the project Work Plan that will be presented at the kickoff meeting. The development of a working planning document ensures that all parties are in agreement with the work to be done, critical milestones, and the project goals. Developing clearly defined project milestones is critical to keeping the project on schedule. The planning document will be used throughout the project to ensure that each member of the team is meeting their deadlines, thus enabling the successful completion of all project goals.

RJN will implement our proven QA/QC processes and procedures to ensure that we provide constructible design solutions that meet County objectives and requirements. Highlights of our quality measures include independent and "fresh-eye" reviews; site walkthroughs at 10%, 30%, 60%, and 90% complete; constructability and value reviews; and stringent QA/QC checklists requiring signoff by team management. Quality begins at project startup and is measured at each step in the project. Our goal is always to deliver solutions that add value and ensure long-term service life of municipal assets.

### **Project Team Qualifications**

The RJN project team consists of licensed engineers with extensive experience in the design of sanitary gravity sewers. This team, led by Jeffrey P. King, P.E., includes Project Engineers Jennifer Gerwitz and Kevin Madden, as well as Designer Adam Martin. Their project roles and experience are described in more detail below.

#### **Project Manager**

Jeffrey P. King, P.E. will lead the overall project effort and will serve as the single point of contact for communication. Jeff is the Branch Manager of RJN's St. Louis office and has led multiple similar projects in

the past for clients ranging from the Metropolitan St. Louis Sewer District to the City of Maryland Heights. Jeff's experience is focused on the efficient and innovative design of wastewater and storm water conveyance systems.

Jeff is a 21-year retired veteran of the United States Air Force and has 15 years of engineering experience in the St. Louis region. Jeff has successfully completed projects ranging from storm and sanitary sewer designs to stream stabilizations, Federal Emergency Management Association hydraulic and hydrologic analyses and map updates, storm water pollution prevention plans, and inflow/infiltration (I/I) investigations. Jeff is a licensed Missouri Professional Engineer and a 2014 graduate of the Water Environment Federation Water Leadership Institute. His recent projects include:

- *Glendale Section D Sanitary Relief Phase III (SKME 624)* – This project included the disconnection of storm water connections to the separate sanitary sewer on 1,100 private properties and the design of 2,000 feet of storm sewer.
- *GC-11 Gravois Creek Sanitary Relief* – The purpose of this project was to alleviate wet-weather sanitary overflows and basement backups through the design and construction of 2,140 feet of sanitary sewer.
- *Upper Sugar Creek Sanitary Relief Section C Phase II* – The purpose of this project was to eliminate two pump stations by constructing gravity outfall sewers to connect to the existing sewer system that was completed as part of Phase I. This project included the design of approximately 3,800 linear feet of 8- to 10-inch sanitary sewer and appurtenances to eliminate the two pump stations and reduce the occurrence of sanitary sewer overflows.
- *Coldwater Creek Storm Sewer Improvements* – This project consisted of three separate storm water projects in the Coldwater Creek Watershed. The project included approximately 5,000 linear feet of 12- to 42-inch storm sewer and appurtenances.
- *Fiscal Year 2011 Capital Improvements Program Storm Water Projects* – This program consisted of four storm water projects, all four of which were intended to address local flooding, drainage, or erosion issues. In total, these projects included over 1,000 linear feet of 18- to 36-inch storm sewer and appurtenances.

### **Project Engineers**

Jennifer Gerwitz and Kevin Madden are both recent graduates of Southern Illinois University Edwardsville's School of Engineering. They are lifelong residents of the St. Louis area and have been involved with a variety of projects since joining RJN. Both are experienced users of ArcGIS and AutoCAD.

### **Project Designer**

Adam has 15 years of experience assisting with design and development of CAD drawings for sanitary construction projects. He has expertise in AutoCAD, AutoCAD Land Development Desktop, AutoCAD Civil 3D, and ESRI ArcGIS. Recent RJN programs include the Parkridge Sewer Separation and multiple private sewer disconnection programs for the Metropolitan St. Louis Sewer District, sewer and storm sewer replacement programs delivered as design-build contracts, and sewer replacement programs for the City of St. Charles and the Village of Godfrey (Illinois).



**Surveyor**

Cochran Engineering (Cochran) will provide all project surveying services. They are well known throughout the region for providing exceptional services. Established in 1954, Cochran excels at complex projects and solving challenges. They know that the value of an accurate and comprehensive survey cannot be overestimated. Cochran's surveying services cover all facets of land surveying including:

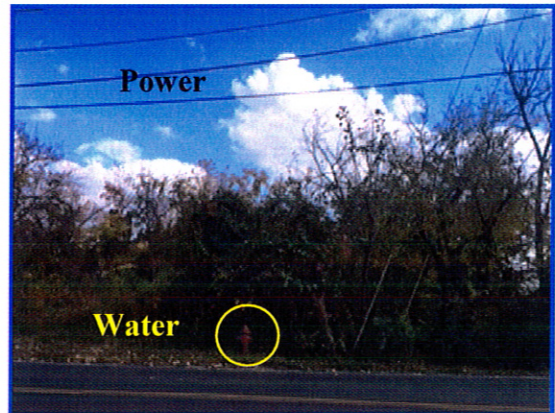
- ALTA/ACSM Land Title
- Construction Stakeout
- Surveying/GPS
- Property Boundary
- Geodetic Controls
- Utility Inventories
- Right-of-Way
- 3D Laser Scanning
- Utility Mapping

Cochran has provided surveying services on many projects in the region including, but not limited to, the following:

- Augusta Lagoon – St. Charles, Missouri
- Pine Lake – Franklin County, Missouri
- Walker Hill – Jefferson County, Missouri
- Franklin County Water District #3
- City of Union Water and Sewer

**Potential Challenges and Considerations**

Engineers from RJN recently visited the proposed project site. During this visit several challenges to the project were observed. These challenges include exposed rock outcroppings along the alignment (see photo, page 1). Rock excavation will be considered during design. RJN also noticed multiple locations where the alignment intersects overhead power transmission lines. RJN will evaluate the need for shielding during construction. Underground utilities were evident along the alignment including water and telephone. RJN will contact the necessary utility companies to coordinate the design and make appropriate, cost-efficient alignment changes. Finally, RJN noticed that the existing manhole identified for the final connection to the sanitary sewer is located in the middle of a creek. This may be a good opportunity to move that manhole out of the flow line of the creek. This is a very likely source for I/I (storm water) to enter the sanitary sewer.



Finally, RJN noticed that the existing manhole identified for the final connection to the sanitary sewer is located in the middle of a creek. This may be a good opportunity to move that manhole out of the flow line of the creek. This is a very likely source for I/I (storm water) to enter the sanitary sewer.

Thank you for the opportunity to submit our qualifications. Please contact me at (314) 372-7807 or [jking@rjnmail.com](mailto:jking@rjnmail.com) with any questions or comments. The project team presented is available upon notice to proceed and has the experience to provide the services required for this project. We are motivated to begin and look forward to the start of a long and mutually beneficial relationship with the County.

Sincerely,

Handwritten signature of Jeffrey P. King, P.E.

Jeffrey P. King, P.E.  
Branch Manager



October 23, 2015

Ms. Kristy Moss  
Deputy Director  
Jefferson County Public Works – Facilities  
Maple Street Annex  
725 Maple Street - PO Box 100  
Hillsboro, Missouri 63050

Re: Heads Creek Sewer Extension

Dear Ms. Moss:

### **INTRODUCTION**

EDM Incorporated is very interested in being considered (and selected) for the design and construction oversight of the referenced project.

We bring the necessary experience, personnel and team to this project to perform the required tasks, to anticipate your needs and meet your expectations.

The personnel who will be assigned to the project include Steven M. Skasick, PE, Leonard J. Madalon, MS, PE and Anthony J. Tarro, civil designer. Both Steve and Len are registered professional engineers in the State of Missouri. Our team will also include Burdine & Associates, Inc. (surveyors) and Gateway Geotechnical, LLC (geotechnical engineers). This team of consultants has a long history of completing successful projects together.

### **APPROACH:**

Our approach began with a pre-proposal site visit the week of October 12<sup>th</sup>. During that visit we observed significant gravel deposits in the creek bed, but no rock outcroppings. Those deposits are also visible on the aerial photo, which accompanied the RFQ. On the east side of Hillsboro-House Springs Road, we noticed a fire hydrant and overhead utilities running parallel to the road (see photo, next page). The proposed alignment runs along the south property line of the VFW. There are several large trees along that alignment, which will be lost, unless the alignment is shifted. The last leg of the alignment runs parallel to and west of an Ameren service yard. Just downstream of that leg, the alignment crosses the entry drive to a county maintenance yard and a small ditch, all of which are visible on the RFQ aerial photo.

If selected, EDM's first task will be to schedule a design kick-off meeting with all stakeholders (Jefferson County, downstream sewer owner, treatment plant owner, affected property owners, surveyor, geotechnical engineer and designers).

At this meeting we would review the scope of services, walk the proposed alignment, verify the project limits and scope of services and discuss major schedule milestones, such as surveys, geotechnical investigations, engineering report (if required), permit application completion, plan preparation, bidding and construction dates.

If an engineering report is required (not anticipated), it would address existing system deficiencies, existing and projected population and flow or the population equivalent for non-domestic flow. The purpose of the engineering report is to verify the need and viability of the proposed sewer extension.

**EDM Incorporated**



220 Mansion House Center

St. Louis, MO 63102-1902

**Tel: 314 231 5485**

Fax: 314 231 8167

[www.edm-inc.com](http://www.edm-inc.com)

[steve.skasick@edm-inc.com](mailto:steve.skasick@edm-inc.com)

Direct: 314/335-6919

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Surveys and geotechnical investigations would be commissioned along the proposed route to identify topography, utilities and potential obstacles. Upon receipt of the survey, a preliminary alignment will be plotted, followed by a review meeting with appropriate stakeholders. The findings of the geotechnical investigation and report will also be incorporated into the plans. That report will identify any unfavorable ground conditions such as soft soil, bedrock or insufficient bearing capacity for proposed sewer structures.

Upon approval of the alignment by the stakeholders, final plans, profiles, specifications, a cost estimate and easements will be prepared. After the final plans are approved and the easements are acquired, bidding documents will be prepared and the project will be advertised for construction bids.



Looking east across Hillsboro-House Springs Road. Note fire hydrant left of center and utility pole to the right.

## ***EXPERIENCE***

EDM has been designing sanitary sewer projects for The Metropolitan St. Louis Sewer District since 1980. Mr. Skasick has led EDM's MSD sanitary sewer designs since 1984.

We have provided design services to MSD on more than 25 sewer projects over the past 35 years, 7 of which were sanitary sewer projects. The most recently designed projects include the MSD Gravois Trunk Sanitary Relief Phases II and III projects, consisting of approximately 3,200 feet of 84-inch and 90-inch sanitary relief sewers. The proposed alignment tunneled under the Union Pacific Railroad in two locations. It is in close proximity to a delineated wetland and Interstate 55 near Bayless Ave. EDM was the design engineer and lead consultant responsible for sanitary sewer design, structural design, preparation of plans, specifications and estimates and project management. EDM completed our work in August 2014.





The Lindenwood Sewer System Relief (2001072) project involved replacement of approximately 2,400 feet of combined sewers ranging in size from 12 to 36 inches. EDM was the prime consultant, responsible for the hydraulic analysis of the preliminary design, preparation of plans, specifications and cost estimates. EDM identified and recommended additional reaches of sewer for replacement or relief due to hydraulic deficiencies, and identified cost-saving solutions for the project. One was to relocate a replacement sewer to avoid costly water line relocation. It is estimated this recommendation alone saved the District \$60,000. EDM was awarded an "Exceeds Job Expectations" rating.

Under a General Services Agreement contract with MSD, EDM designed a 5,000 GPM pump station near Grand Glaize WWTP and a force main over the levee to direct wet weather flows to the Grand Glaize WWTP wet weather lagoon. This involved construction of approximately 300 linear feet of force main, 18" in diameter, 107 linear feet of 16" diameter suction pipe, and 82 linear feet of 12" to 24" pipe sewers. Also under this contract, EDM designed a wet weather storage improvement project which involved design of drain line, outfall modifications and an overflow for the existing lagoon to increase drawdown rate; construction of 125 linear feet of 18-inch diameter pipe sewers, a new return structure, emergency spillway and modifications to an existing overflow structure.

We are familiar with the Missouri DNR permitting process for water pollution control facilities, including form MO 780-1632 (sewer extension) and DNR-required engineering reports, which are addressed in 10 CSR 20-8.110(4)(A)4.A. For flows less than 22,500 gallons per day, the engineering report may be waived.

***PERSONNEL:***

Steven M. Skasick, PE, Executive Vice President: 30+ years of experience, registered Civil Engineer in Missouri, Illinois & Ohio. Steve has provided design engineering, project management, and construction management services on virtually all of EDM's MSD projects, and the majority of the civil engineering projects for various municipalities since joining EDM in 1984. Steve will be responsible for contract negotiations, sub-consultant management, project management and oversight and quality assurance. He will be the primary point of contact for Jefferson County.

Len Madalon, MS, PE, is a Vice President of the firm and has been EDM's lead water resources engineer for 14 years. He is experienced in both sanitary and storm sewer designs, having worked on and managed studies and design projects for municipalities including stormwater needs assessments, stormwater master planning, creek bank stabilization, bio-stabilization, flood studies, bridge and culvert replacements, storm and sanitary sewer lines and pump station projects. Len will be responsible for leading the technical team of surveyors, geotechnical engineers and sewer designers. He will be responsible for engineering reports, preparation of plans and specifications and permit applications.

Len also has considerable experience with right-of-way negotiations. He is a Notary Public, which allows him to legally secure easements for sewer projects, while negotiating with the property owners. Len has provided this service to the City of Frontenac in conjunction with the stormwater improvement projects for the past 10 years. Len has negotiated, notarized and recorded hundreds of easements in that capacity.





Anthony J. Tarro is a civil designer, working for EDM. Tony has more than 20 years' experience performing construction oversight on a variety of infrastructure projects. He is most familiar with the reporting requirements dictated by MoDOT for LPA projects. Those requirements (daily logs, weekly progress reports, change order preparation and tracking, pay requests and wage interviews) are easily transferable skills to any infrastructure project.

#### ***SUBCONSULTANTS:***

Design surveys will be prepared by Burdine & Associates, Inc. EDM and Burdine have been teaming on infrastructure projects since 1988. They have prepared over 90% of EDM's design surveys over the past 25+ years. Their office is located in Arnold, MO, less than 10 miles from the project site.

Geotechnical investigations will be prepared by Gateway Geotechnical, LLC. EDM has been working with Gateway since their founding in 2006 and with the principal owner prior to that. Their investigations will identify the presence and character of rock, which can adversely affect the sewer's installation cost.

#### ***CAPACITY & CAPABILITY***

We recently completed three storm sewer design projects for MSD with the same personnel who will be assigned to the Heads Creek Sanitary Sewer Project. Those three projects had an estimated construction cost of more than \$1.2 million and consisted of over 2,000 feet of 12" to 42" pipe. All three projects were completed in less than one year. We were also designing several other sewer projects at the same time for a municipal client.

#### ***PAST RECORD OF PERFORMANCE***

We encourage you to contact the MSD personnel, who managed the three recent storm sewer projects and the last two sanitary projects designed by EDM. They are: Terry Forster (314) 768-2783, and Steven Roberts (314) 768-6310.

Thank you for reading our letter of interest. We look forward to adding you to our list of satisfied and repeat customers.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Steven Skasick'.

Steven M. Skasick, PE  
Executive Vice President

SMS/vp

# VonArx Engineering, Inc.



Civil Engineering Services

*Honesty • Integrity • Experience*

10785 Business 21, Suite A, Hillsboro, Missouri 63050 • 636-797-8425

October 23, 2015

Ms. Kristy Moss  
Deputy Director of Public Works  
P.O. Box 100  
Hillsboro, Missouri 63050

Re: Letter of Interest  
Jefferson County, Sanitary Sewer Design, North Highway Shed – Highway MM

Dear Ms. Moss:

VonArx Engineering, Inc. is pleased to submit this letter of interest to Jefferson County for Sanitary Sewer Design. VonArx Engineering, Inc. has significant sewer design experience on Jefferson County projects. VonArx Engineering, Inc. and our predecessor firm, Associated Land Surveyors & Engineers, Inc. have been in business since 1977. The customer service philosophy of our firm is simple, the clients are first, the employees are second and profits are third. This philosophy is applied to our approach to each project and client, and serves to guide our performance with respect to meeting our client's expectations and needs. Our principle goal is to provide high-quality solutions with honesty, integrity and experience.

VonArx Engineering, Inc. has been focused on Jefferson County throughout our history and David Vonarx has been primarily performing civil engineering in Jefferson County since 1993. We feel uniquely qualified to provide the requested services based upon our level of technical experience, our community involvement and understanding of the needs and challenges that face the County. None of these unique qualifications are easily or quickly obtained. They only occur through years of continued service to our Jefferson County clients, serving on boards and committees in our County and living and owning our business in Jefferson County.

Please review the information provided herein which we feel demonstrates our unique qualifications and provides a brief look into our ability to serve the County with Sewer Design Services.

Sincerely,

David Vonarx, P.E.  
President



## **Experience & Technical Competence:**

VonArx Engineering, Inc. has a staff with extensive sewer design experience with completion of many projects in Jefferson and St. Louis Counties. The principle of the firm, David Vonarx, P.E. has 26 years of professional experience. Mr. Vonarx has experience with significant projects with St. Louis MSD and all of the Jefferson County sewer districts. VonArx Engineering has performed projects for many of the Districts and for individuals and developers. The following is an abbreviated list of successful projects performed by VonArx Engineering, Inc.:

### **1) *Jefferson County Public Works ~ Light Fleet Building Sewer Design***

The project scope included survey and design of a sewer extension to serve the 7,000 s.f. building under construction at the County Maintenance Facility on Highway B. The design included the evaluation of alternative designs relative to constructability, facility operations and cost. The project is located in Hillsboro, Missouri.

Scope of services included:

- performing a topographic survey
- Evaluation of route alternatives
- Preparation of sewer plan and profile sheets and details
- Jefferson County permits

### **2) *Metropolitan St. Louis Sewer District ~ CC-17 Sanitary Sewer Relief***

The project scope included complete design of a 15 inch diameter sanitary relief sewer. The 2,383 foot sewer project included crossing Woods Mill Road, deep sewers, poor soils, wetlands, and stream bank restorations. The project is located in the City of Chesterfield, Missouri.

Scope of services included:

- preliminary engineering
- hydra analysis
- final design and specifications
- cost estimates and construction phase services

### **3) *Northeast Sewer District ~ New Facility & Commercial Subdivision***

The project scope included complete design of sanitary sewers to serve the new office and maintenance building for the District and a commercial subdivision on 9 acres. The 1,000 foot sewer project included evaluating route alternatives, steep grades and poor soil conditions. The project is located on the Gravois Road in Fenton, Missouri.

Scope of services included:

- preliminary engineering
- final design and specifications
- cost estimates and construction phase services

### **4) *Metropolitan St. Louis Sewer District ~ Harmony Acorn Sanitary Sewer Relief***

The project scope included design of 1,450 feet of sanitary sewer and 920 feet of storm sewer to separate a combine sewer system serving 203 homes and businesses. VonArx Engineering was involved as a sub consultant and provided engineering support and served as surveying services manager. The project is located in Afton, Missouri.

# VonArx Engineering

Scope of services included:

- topographic survey
- strip map
- preliminary design and final design
- preparation of easement documents

## **5) Metropolitan St. Louis Sewer District ~ Rosemary Philo Kathleen Sewer Separation & I/I Reduction**

The project scope included design of 1,800 feet of sanitary sewer and 600 feet of storm sewer to separate a combine sewer system serving 125 homes and businesses. VonArx Engineering was involved as a sub consultant and provided engineering support and served as surveying services manager. The project is located in the Afton, Missouri.

Scope of services included:

- topographic survey
- strip map
- preliminary design and final design
- preparation of easement documents

## **Capacity and Capability:**

VonArx Engineering provides timely solutions relative to sewer design projects through the management of personnel, the application of our experience and through the use of the latest design software and computers. The firm is managed by David Vonarx, PE who takes an active role in all design projects and our team uses AutoCAD Civil 3D which is effectively used to determine alternatives and select effective designs. We pride ourselves on creative cost effective solutions that are mindful of long-term feasibility.

**David L. Vonarx, P.E., Principal/Project Manager** - President of VonArx Engineering, Inc. Mr. Vonarx has over 26 years experience with roadway, infrastructure and site improvement projects for municipal, institutional, and private clients. Mr. Vonarx received a MSCE from Purdue University in 1993 where he specialized in hydraulics, hydrology and flood plain studies, and a BSCE from the University of Missouri Rolla, 1989. Mr. Vonarx was honored by the Jefferson County Council on November 23, 2010 with a proclamation as "David Vonarx Day" in Jefferson County for 13 years of service to the Jefferson County Parks Board. Mr. Vonarx has responsible charge of all engineering work performed by the staff and his experience includes these areas of expertise:

- Utility – MSD, Rock Creek Public Sewer District and Northeast Public Sewer District sewer projects including lift stations, force mains, gravity sewers, low-pressure sewer systems and treatment plants.
- Site Development - commercial and residential projects in the Jefferson County and St. Louis metropolitan area on sites ranging from 1 acre to 200 acres. Provided complete development solutions from conceptual plans, zoning through the development of construction plans, construction phase services to project close-out.
- Flood Plain Studies – prepared HEC-RAS flood studies for FEMA Letters of Map Amendment, bridge and stream bank restoration projects, site development and flood plain development permits and for insurance disputes.



# VonArx Engineering

**Brenda Mattingly, Senior AutoCAD Technician** - a member of the firm since 2005, Ms. Mattingly has over 20 years' experience with roadway design, infrastructure improvements, drainage and storm water projects relative to development and redevelopment site improvement projects for municipal, institutional, and private clients.

**John Fingerhut AutoCAD Technician** - a member of the firm since 2013, Mr. Fingerhut has over 15 years technical experience with infrastructure and site improvement projects for municipal, and private clients.

**Kelley Vonarx, Business Manager** – a member of the firm since 2013, Mrs. Vonarx has the responsibility for our internal project administration, financial accounting, budgeting, and invoicing. She also has the responsibility for human resources and government compliance relative to staff and firm financial issues. Mrs. Vonarx has a B.S. in Business Administration from the University of Missouri – Columbia and has 18 years of professional experience.

## **Past Record of Performance:**

VonArx Engineering, Inc. employs a business plan that includes marketing the firm and managing the project work load so that quality and service are always maintained. This management and personal service philosophy allows us to be responsive to our clients with respect to starting and finishing the project within the expected time periods. We feel that the quality must always be maintained, while tracking the scope, schedule and budget. We perform rigorous quality reviews and keep a very close watch on the projects with respect to scope, schedule and budget.

VonArx Engineering, Inc. has a healthy project workload, but more importantly we have procedures and methods established to manage the scheduling of work to insure that projects are performed within the expected time frame. The Light Fleet Maintenance Building performed for the Jefferson County Public Works Department is a typical example of our successful past project performance. It is described below:

VonArx Engineering, Inc. performed site and utility design and preparation of construction documents for a 7,000 s.f. building. The preliminary design and construction documents were delivered in accordance with the project schedule. VonArx Engineering provided surveying services for the initial design at no additional cost by adjusting construction phase scope and fees. The construction documents received competitive bids within a narrow range, which affirms their quality.

VonArx Engineering responded to construction phase requests for value engineering relative to the sanitary sewer installation and quickly provided additional surveying services to avoid potential rock excavation and pavement replacement costs. Mr. Vonarx met with the contractor and the Public Works Director to evaluate alternate designs and provided two alternative design routes. This value engineering work was provided very quickly and added significant value to the project.



October 23, 2015

Ms. Kristy Moss, P.E.  
Deputy Director of Public Works  
Jefferson County Department of Public Works  
P.O. Box 100  
Hillsboro, MO 63050

**RE: Letter of Interest for Sanitary Sewer Design, North Highway Shed – Highway MM (House Springs)**

Dear Ms. Moss:

TERRA Engineering, Ltd. (TERRA) will bring a fresh perspective to the Sanitary Sewer Design, North Highway Shed – Highway MM project. Since 1992, TERRA has provided site development, transportation and structural solutions for public and private clients in the greater St. Louis area and throughout the Midwest. Our municipal infrastructure projects have ranged from small individual sites to complex neighborhoods and corridors. Project Manager Greg Recker is confident TERRA's team will develop a unique, innovative, and cost-effective solution for the Jefferson County Department of Public Works. TERRA will work to develop a solution that will maximize the value of the budgeted funds and help the county.

### **Experience and Technical Competence**

#### **About TERRA Engineering, Ltd.**

TERRA Engineering, Ltd. is a multi-disciplinary professional service firm that utilizes our experience, intellect, passion, and diversity to serve our clients. Since our firm's founding in 1992, our portfolio has evolved to include local, national, and global projects ranging in both type and scale. We approach our work from a foundation of comprehensive expertise and resources, allowing our disciplines to collaborate and create intelligently designed, thoughtful, site-specific solutions that skillfully balance aesthetic with function. We are dedicated to making our clients successful, and to enable our clients and staff to make innovative and socially responsible decisions that result in a sustainable and effective design. For this project, TERRA will partner with Lion CSG and Sabur, Inc.

#### **About Lion CSG**

Lion CSG is a firm specialized in services for infrastructure planning, potable water treatment and supply, wastewater collection and treatment, stormwater management, transportation planning, NEPA assistance, permitting assistance, stakeholder engagement, public involvement and funding strategies. They can assist with all aspects of infrastructure issues including: site assessment, hydraulic calculations, modeling, planning, conceptual design, detailed design, permitting, cost estimation, and construction management.

#### **About Sabur, Inc.**

Sabur, Inc. is a professional services business specializing in professional land surveying and construction layout. Since 1993, they have distinguished the firm as a "go-to" surveyor for sewers, heavy highway, local roads, bridge construction projects, trails and parks. Furthermore, Sabur, Inc. provides professional services to the Missouri Department of Transportation, Illinois Department of Transportation, Illinois American Water, the Board of Public Service, and Great Rivers Greenway and is licensed to practice in Missouri and Illinois.

#### **Project Manager | Greg Recker, P.E. (028177)**

Greg Recker will lead TERRA's effort for the Jefferson County Department of Public Works. At TERRA, we carefully assign the right people for each project. Greg brings more than 24 years of engineering experience to the table. His professional portfolio is filled with diverse assignments including conceptual planning, traffic analysis, project cost estimating, community engagement, signal warrants, preliminary design, value engineering studies, earthwork calculations, pavement drainage, enclosed drainage, storm water detention, right-of-way plans, signal plans, erosion control, traffic control, final design and specification writing.

#### **Land Acquisition Specialist | Larry Criswell**

Mr. Criswell joined TERRA Engineering, Ltd. after serving the Illinois Department of Transportation for more than 30 years. Mr. Criswell brings to TERRA a broad spectrum of experience and expertise in the land acquisition field. His experience includes:





performs QC/QA on appraisals and appraisal reviews, negotiating acquisition of residential and commercial property, coordination of relocation activities, ensuring project negotiations comply with regulations and that they meet the letting date. Larry has demonstrated excellent skills in communicating with people of all backgrounds, including attorneys, engineers, business executives, property owners, and the public.

#### **Project Engineer | Nicole Young, P.E. (2003001102)**

For nearly 15 years, the Principal of Lion CSG, Ms. Nicole A. Young, P.E. assisted communities and clients with stormwater issues and hydraulic engineering for infrastructure improvements. Nicole is specialized in services for stormwater design, civil engineering, and hydraulic engineering. She is adept at performing site visits to evaluate issues related to stormwater. Nicole knows how to identify features from the geography and existing conditions to diagnose potential problem stormwater areas. Nicole has experience in HEC-RAS, XPSWMM, HYDRA and MOUSE. StormCAD is similar to other models she has used, and would be an easy transition. Nicole has been taught by national experts that wrote the code for hydraulic modeling software. She understands the theory behind and limitations of the software, allowing optimization of hydraulic modeling for each situation.

#### **Surveyor | Michael Sater, PLS (2001001915)**

Mr. Sater is an accomplished Land Surveyor with over 31 years of experience in the engineering and land surveying industry. His early career as a designer for engineering projects including design work for sewers, highways, subdivisions, grading, and plan approvals creates a unique path to his surveying expertise. This path helps him to understand the needs of engineers and contractors in better clarity, resulting in survey products that better meet their needs. Mr. Sater provides much direction in how a project should be prosecuted to successful completion. His duties include supervision on surveys under his purview, and coordinates document preparation, i.e. easements, deeds, and plats.

### **TERRA's Project Approach**

This sewer system designs is extremely dependent upon the depth of the existing sewer near Heads Creek behind Big 3 Salvage. Supposing the flow line of the existing manhole is the same as the flow line of the creek, then the creek crossing can be handled in one of three ways:

- To lay the sewer line from one manhole through/over the creek with a solid bridge-like structure that can withstand the force of the stream and any stress from drifting impacts. This design will need oversight by a structural engineer. This solution is the preferred method, and it works best if the elevation of the pipe stream crossing is below or close to the flow line of the creek.
- To run the sewer under the creek deep enough to avoid erosion exposure (usually 3 to 4 foot), following to the downstream manhole with a sump (a low stretch of pipe which has a dip that will only drain under pressure). This will require periodic cleanout if the flow is low and/or intermittent.
- To include a pump station with the sewer line, requiring periodic maintenance by someone on-call for power outages when the sewage level exceeds a preset elevation. This method is often more costly.



Greg, our project manager, has designed the nonstructural portion of all three different scenarios before.

If the manhole behind Big 3 is over 4-feet below the Heads Creek streambed elevation, crossing the creek becomes a non-issue.

Once the decision of how to handle the stream crossing is made, the remainder of the design is fairly straightforward. There appears to be sufficient drop to obtain cleanout velocity. Also, plans and hydraulic grade lines for sewers flowing downhill are not very difficult, and the TERRA team fully expects the downstream structures to have sufficient capacity.



The project becomes a streambed landscape design by its location in a stream all under the 100-year flood level. This will require a wetland survey and mitigation plan if any wetland is present. A new stream bed section and a study of different flood levels will also be appropriate for this design. Codes will need to be checked to see if manhole covers are required to be bolted on in the different flood zones present.

The project is in the Northeast Public Sewer District (NPSD). This district is waiting for level 2 continuing authority requested from the clean water commission in July of 2013. Judging by the second request on April 1, 2015, the TERRA team would suspect that the project will be awarded level 2 status soon. This will make getting a permit simple to tie into the Heads Creek sewer (NPSD).

The TERRA team can negotiate with the property owners to obtain right-of-way for the sewer line. Based on research, property lines at the county assessors and at SEMOGIS show that the property lines crosses through existing homes. This may just be a misrepresentation, or, it could be an indication of a complex and unhappy public endeavor. Only careful study of the plats from the county court house and the property fences and corners by a qualified land surveyor will allow right-of-way plats to be drawn-up, negotiated and/or condemned, and finally filed at the court house.

### Our Team's Past Record of Performance

**Sanitary Sewer and Water Main Extension | Matteson, IL:** TERRA provided engineering design services for improvements to the Village of Matteson's existing underground utility system. The project included an extension of the sanitary sewer and water main along Lincoln Highway to the proposed development at Lincoln Highway and Harlem Avenue. Key improvements included 1,900 linear feet each of sanitary sewer and water main, including manholes, valve vaults, tees and bends. Sanitary sewer depths were up to 35 feet below ground. The extensions ran parallel to Lincoln Highway before each being augured under the road for approximately 100 linear feet. Proposed connections to the extension were coordinated with the developer. TERRA also provided field observation services during construction of the sanitary sewer and water main extensions. Contact: Bart Gilliam, Public Works Superintendent, 4900 Village Commons, Matteson, IL 60443, 708.748.1411, bgilliam@villageofmatteson.org

**Illinois American Water Clarewood Watermain Reconstruction | Peoria, IL:** TERRA provided design and permitting services for water main removal and replacement of approximately 2,500 lineal feet of water main in Peoria, Illinois for the Illinois American Water Company (ILAWC). TERRA created construction drawings and specifications for the abandonment in place of an existing asbestos concrete water main and replacement of the abandoned water main with an 8-inch ductile iron pipe (DIP) water main. This project also added five fire hydrants and transferred more than 39 single-family home services to the new water main. TERRA also provided construction administration and construction surveying during the installation of the water main. The project was completed on a tight schedule and included water sampling and record drawings. Contact: Christian Volz, PE, LEED AP, Senior Engineer, Illinois American Water Company, 7500 N. Harker Drive, Peoria, IL 61615, 309.566.4114, christian.volz@amwater.com

**11411 German Church Road | Burr Ridge, IL:** Sanitary sewer and water main extension for five single family lots in the Village of Burr Ridge. Provided engineering drawings and stormwater calculations for the proposed residential development. Village of Burr Ridge water main and sanitary sewer main was extended to provide water and sewer service to the proposed single family residential lots. Contact: Dr. Refaat Malek, 630.936.6695

**Sweet Woods Storm Sewer Repair | Glenwood, IL:** TERRA was contracted by the Village of Glenwood to analyze an approximately 108-acre storm sewer watershed that is tributary to an existing 48-inch CMP discharge pipe to Thorn Creek in order to evaluate and design a solution to a failed headwall and associated 48-inch CMP discharge pipe. The existing discharge pipe was undermined by over 7-ft. due to the erosive velocity of stormwater exiting the discharge pipe at the existing headwall. A large volume of soil and earth that was behind the headwall had washed out due to erosion, forming a large and deep void. This void has caused approximately 40-ft. of 48-inch CMP to break away from the main storm sewer and headwall. The headwall has also been undermined by erosion and is slowly being washed downstream toward Thorn Creek. TERRA has analyzed the storm sewer watershed to determine the velocity exiting the 48-inch CMP for the 2-, 10-, 25-, 50- and 100-year storm events. This analysis formed the basis for the design of the storm sewer repair and both temporary and long-term erosion control measures. Temporary erosion control measures included silt fence around the construction limits, an erosion control blanket, and a temporary gravel construction road 12-ft. wide and 705-ft. in length. Permanent erosion control measures include a rip-rap apron at the proposed 48-inch CMP Flared End Section (FES), native seeding to mitigate the erosive velocity of stormwater discharge, and a permanent turf reinforcement mat that lines the bottom of the channel from the proposed 48-





inch FES to Thorn Creek. Approximately 700-ft. of existing 48-inch CMP storm sewer, the existing discharge pipe, and headwall are located within the Forest Preserve District of Cook County's property. Both TERRA and the Village of Glenwood worked with, and obtained permits from the Forest Preserve District of Cook County. Contact: Mr. Patrick McAneney, Director of Public Works, One Asselborn Way, Glenwood, IL 60425, 708.753.2400, [patrick@villageofglenwood.com](mailto:patrick@villageofglenwood.com)

**Sewer the City | Arnold, MO:** Lion CSG was responsible for planning and preliminary design for the collection system for unsewered areas. Many areas were connected to septic systems that needed to be connected to the larger system. Provided GIS based map locating unsewered parcels. Preliminary plans and budget cost estimates were developed for each project. A phased approach was developed prioritizing projects in a multi-year construction program. Public relations activities kept community updated on infrastructure needs, benefits, and scheduling. Subsequent tasks included final design and construction phase services.

**Railroad Sewer Replacement | Moberly, MO:** Lion CSG prepared final design and bidding services associated with the replacement of approximately 400 feet of existing 24-inch brick arch sewer under railroad tracks. Coordinated with Norfolk & Southern Railroad regarding requirements for construction of the sewer under the railroad.

**Glaise and Rock Creek Combined Sewer Relief, Metropolitan St. Louis Sewer District | St. Louis, MO:** Lion CSG was responsible for planning study and hydraulic model to determine short- and long-term solutions for the watershed. Lion CSG staff assisted in the hydraulic modeling for the Glaise and Rock Creek Combined Sewer Relief project. Project work included, metering and surveying efforts, review and compilation of available information, development of the XPSWMM and HYDRA hydraulic model, QA/QC efforts, calibration and verification of the model, proposing solution alternatives, design and cost estimation.

**20-Year Capital Improvement Program – River Des Peres Watershed, Metropolitan St. Louis Sewer District | St. Louis, MO:** For the consent decree, Lion CSG staff assisted with the planning study and hydraulic model to determine short- and long-term solutions. Lion CSG staff conducted hydraulic modeling, and program-planning recommendations, and conceptual design for the River Des Peres Watershed, the largest of the five major District service areas. Modeling work was completed in XPSWMM, HYDRA and MOUSE. Solutions for the system included projects with design for storm sewers to be installed or increased in size.

**Stormwater Conveyance Systems and Hydraulic Engineering | Jefferson City, MO:** Over the course of a 10-year period, staff of Lion CSG assisted the City of Jefferson with a number of issues including stormwater. For the RWRF, Lion CSG staff provided stormwater conveyance design including evaluation of flow, modeling the system, and design documents. The RWRF stormwater design included a storm system to relieve stormwater issues.

**Stormwater and Hydraulic Engineering, Transportation Planning and Design, Affton Trucking | St. Louis, MO:** Lion CSG was responsible for planning study and engineering for new infrastructure allowing Affton Trucking to expand their business serving the St. Louis region. Project included design of stormwater conveyance, hydraulic engineering, low maintenance erosion and sediment control measures for the finished improvements, as well as, best management practices.

**Stormwater and Hydraulic Engineering, Multiple Sites, Aqua America | Jefferson City, MO:** Aqua American worked with staff of Lion CSG on more than five sites in Missouri for facilities upgrades. Each of the facilities included extensive evaluation and control of stormwater. The projects each included stormwater planning and conveyance design.

**Stormwater Conveyance System and Erosion Control, Bioreactor Landfill | Columbia, MO:** Lion CSG was responsible for a landmark project in the State of Missouri, the first bioreactor landfill in the State. Stormwater and erosion control were significant features of the project. A storm sewer system was designed to relieve stormwater as part of the civil site work.

Sincerely yours,  
TERRA ENGINEERING, LTD.

A handwritten signature in blue ink that reads 'Michael C. Hutchinson'.

M. Christopher Hutchinson, P.E., PTOE  
Senior Traffic Engineer