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Kenny Voss, PE
Local Program Administrator
Missouri Department of Transportation
By e-mail to: MaryAnn.Jacobs@modot.mo.gov

RE: On-Call Traffic Engineering and TEAP Services

Dear Kenny,

At Affinis our focus is on engineering ways to make your life easier. In a holistic sense, our transportation professionals have a passion for making life easier and safer for transportation system users. Our traffic engineering team is well versed at doing just that - completing safety studies and data analysis, recommending improvements and preparing construction documents for those improvements. We are ready and available to provide the various services as your on-call traffic engineering and TEAP consultant.

GENERAL EXPERIENCE OF THE FIRM

Located in the Kansas City Metropolitan Area, Affinis is a civil engineering firm committed to excellence, collaboration, servant leadership, and trustworthiness. Our staff of 26 co-workers includes four with experience in traffic engineering. Three which are Professional Engineers (PE) and two are also Professional Traffic Operations Engineers (PTOE). Together we have over 30 years of experience in traffic engineering.

PAST PERFORMANCE

MoDOT TEAP Program - Under previous employment, Mike McKenna was the project manager for the TEAP program and completed a variety of safety studies for Missouri communities such as a citywide signing inventory and MUTCD recommendations for Ava, Missouri. Another example was a traffic safety review for the Village of Indian Point, Missouri, where Mike conducted speed studies, conformance to the MUTCD for signing and pavement markings, and geometric and traffic control recommendations (based on existing volumes and anticipated changes to Silver Dollar City traffic patterns).

MoDOT ADA Sidewalk Projects - Route 1 (J4P2266) and Route 169 (J4P265) - These projects reconstructed sidewalks to meet Americans with Disabilities Act (ADA) compliance along a 2.7-mile corridor of Route 1 (Antioch Road) in Kansas City and Gladstone, Missouri and along a 2.1-mile corridor of Route 169 in Smithville, Missouri. The projects were designed in a three month compressed time frame in order to receive American Recovery and Reinvestment Act of 2009 (ARRA) funding. In addition to replacing deteriorated sidewalks and bringing them up to ADA standards, the projects also included curb and gutter replacement; signal modification to accommodate revised ADA intersection ramp configurations; and pavement marking.

Route 7 and Country Club Drive Signal and Pedestrian Path Design - Pleasant Hill, Missouri - After obtaining federal funds, the City of Pleasant Hill retained Affinis to design a traffic signal at Missouri Route 7 and Country Club Drive. Missouri Route 7 is a 3-lane roadway with a center left turn lane and Country Club Drive is a 2-lane collector roadway. With the added development along Missouri Route 7 and expansion of the schools along Country Club Drive, traffic volumes continue to increase at the intersection. A right turn lane was also designed on Country Club Drive to handle the added traffic. To accommodate the pedestrian traffic, pedestrian signals were designed along with the traffic signals. A strong attention to detail was needed to configure ramps and sidewalk within the existing right-of-way and still meet Americans with Disabilities Act (ADA) guidelines.

“At the City of Overland Park, we set the bar high for our consultants to meet our standard of excellence. For the past 10 years, Affinis continually provides us exceptional plans that ensure accurate bidding that saves time and money. As a result, Affinis earns our repeat business.”

-Doug Brown, PE, Director Public Works, Overland Park, Kansas

Cambridge Street Improvements - Prairie Village, Kansas - Affinis performed a traffic study to evaluate the function of the Cambridge/Booth and the Cambridge/Somerset intersections using the existing and alternative geometries. Each alternative was evaluated based on its impact to traffic flow and its potential for creating the greatest opportunity for expansion of Weltner Park. Intersection delay and capacity were determined using the traffic modeling software Synchro Studio 7. Recommendations were then used by Affinis to design the improvements constructed in 2011.



159th Street Preliminary Engineering Study (PES) from Metcalf Avenue to Nall Avenue - Overland Park, Kansas

Through data collection and modeling, our team evaluated road widening for both a three-lane section and a five-lane section as well as determining intersection traffic control for the 1 mile section of 159th Street. We looked at signals, roundabouts and stop control options. As part of the process we studied the changes in traffic from adding the new US-69 interchange west of Metcalf Avenue on 159th Street, traffic circulation at Blue Valley High School and access management along the corridor. Key stakeholders included the city public works, Johnson County and Blue Valley School District. Affinis will design the improvements including a new signal, two roundabouts, pavement markings, signing, lighting, construction phasing and temporary traffic control.

Blue Valley Northwest High School Parent Drop-off/Pick-up Routing - Overland Park, Kansas - Affinis worked closely with the Blue Valley School District staff to reconfigure the parent drop-off and pick-up area to include two loops. This reduced the congestion by splitting the car line into two lines. Additionally, the buses were moved to their own drop-off and pick-up area to improve overall safety. The area between the loops provides safe pedestrian passage for the students coming from the parking lot as they no longer have to pass through the parent car line to reach the school.



Traffic Study for Vernon Street and 26th Street relocation - North Kansas City, Missouri - As a subconsultant, Affinis completed a traffic study to analyze the relocation of the west entrance to North Kansas City Hospital from a residential street (26th Street) to a connection further south on Vernon Street. The new road is outside of the residential area. In addition to analyzing the new traffic patterns, signal warrants, pedestrian routes, access spacing, and turn bay storage, Affinis also completed the design of a new traffic signal, pavement markings, signing, and wireless connection to the signal at Hwy 210 and Vernon Street.

Operation Green Light Expansion (OGL), Mid America Regional Council (MARC) - Kansas City, Missouri - Affinis was recently selected to complete the design for expansion of the OGL system including the addition of 62 cameras and wireless communication. In addition to this effort, under previous employment, Mike McKenna managed the design of the original OGL wireless communication system. This project will be completed through the MoDOT LPA process.

QUALIFICATIONS OF PERSONNEL

Mike McKenna, PE, PTOE - Project Manager - Mike McKenna serves as Affinis's senior traffic engineer. Before entering private practice, Mike worked nine years with KDOT. His more than 20 years of professional experience includes work in the fields of traffic engineering, Intelligent Transportation Systems (ITS), roadway design, and construction engineering. Mike has completed studies and design for numerous projects throughout the metropolitan area.

Kurt Roterling, PE, PTOE - Project Engineer - Kurt brings nearly six years of ITS and traffic engineering experience to the team. Representative assignments include signal, detection, wireless communication, power systems, and utility design. Kurt will assist with design and lead the plan preparation, field review, and utility coordination for the team.

Linda Rottinghaus, PE, Project Engineer - In addition to over 20 years of experience in highway, municipal street design, and traffic design Linda is also very familiar with the MoDOT LPA process. She **currently serves on MoDOT's LPA Advisory Committee** and has been designing and actively involved in similar LPA projects since 1997. Linda will provide QA/QC and be a resource for managing the LPA process. Early in her career, she worked for MoDOT-Kansas City District (District 4) for six years.

Jason Fine - CADD Technician - Jason has been with Affinis since 2005. In his role as traffic technician he is involved in pavement marking, signal, street lighting, fiber optic, and traffic control design. He is also experienced in topographic, basic-street, and residential street surveys.

FAMILIARITY/CAPABILITY

Our team has a wealth of knowledge in traffic engineering to offer MoDOT. The projects listed above represent a small number of the total projects our team has completed. **We view ourselves as an extension of your traffic staff to help you successfully complete your responsibilities.** In addition to our team members we have the latest traffic software and traffic counting equipment. We continually attend training opportunities to provide our clients the best solutions available.

Regarding the TEAP Program more specifically, Affinis understands both the purpose and the process. Many smaller communities do not have the resources or funding to provide safety analysis for their local roads. In their continued effort to keep safety improvement as a key piece of managing the transportation system, MoDOT, and Federal Highway Administration (FHWA) have set aside funding to be provided to smaller communities to analyze traffic elements and provide countermeasures to make improvements. Through this process MoDOT selects a handful of consultants to be available to provide these services. Once selected a consultant may work with a community to develop a project to identify safety improvement opportunities for transportation systems that are not on the MoDOT system. Our team has performed a wide variety of studies. **Through our experiences we can help bring common sense solutions** that work with the limited funding available to each community.

ACCESSIBILITY

As mentioned, Affinis is located in the Kansas City metropolitan area with easy access to I-435. Our team can reach nearly all possible project locations within the state in about six hours. One of our strengths as a small business is our ability to be more flexible and respond quicker than some of our larger competitors.

Thank you for the opportunity to submit this letter of interest to provide traffic engineering and TEAP assistance. As we continually find ways to make your life easier and the lives' of roadway users safer and easier, we also focus on being outstanding stewards of your and the taxpayer's dollars. We appreciate you considering Affinis and look forward to hearing from you.

For the team,



Mike McKenna, PE, PTOE
Principal

“Affinis recently completed two traffic studies for two different types of owners. In both cases, the reports were comprehensive, met the objectives, and the solutions presented made sense to implement.” -Coby Crawl, PE, Wallace Engineering

About Affinis

Our approach to making our clients' lives easier starts with **project management based on our mission to build long-lasting relationships with clients by listening, learning, delivering and celebrating**. At Affinis, project management is more than just delivering a project on time and under budget; it's about understanding your challenges, communicating and collaborating with you while we explore solutions, and striving to achieve higher levels of service and satisfaction for our clients. We celebrate our individual project accomplishments, but more importantly we celebrate relationships we develop along the way. Our **high ratio of repeat clients** speaks to the need of our philosophy in the marketplace and to our success in living it.

Over the years, we have learned the importance of tailoring each approach to meet a project's unique needs. A single approach cannot be applied to all of types of projects. Each project has its own challenges and circumstances. However, our approach to projects is based on **four cornerstones of project management:**

- ✓ Communication, collaboration and coordination
- ✓ Attention to detail
- ✓ Schedule and budget
- ✓ Quality reviews

Our approach enables buy-in of key stakeholders; development of easily maintained and constructible solutions; and commitment to schedule and budget. In a world in which customer service is less important, Affinis Corp is staking its future on building relationships with clients which results in exceptional customer service. As a matter of fact, *Affinis means relationship in Latin.*

OUR MISSION ...

To build long-lasting relationships with co-workers, clients and colleagues by listening, learning, delivering and celebrating.

We serve our clients in the following areas:

- ▶ Infrastructure Planning & Design
- ▶ Civil/Site Planning & Design
- ▶ Water Resources Analysis & Design
- ▶ Levee & Dam Assessment Analysis & Design
- ▶ Sustainable Design & Green Solutions
- ▶ Surveying
- ▶ Traffic Engineering
- ▶ Consulting Services
- ▶ Construction Observation and Administration

OUR VALUES...

- ▶ **Balance** - We embrace the importance and worth of promoting a balance between work and personal life.
- ▶ **Collaboration** - We cultivate productive and fulfilling collaboration among co-workers, clients and colleagues.
- ▶ **Excellence** - We are committed to employing the best, fulfilling expectations and providing optimal solutions.
- ▶ **Servant Leadership** - We selflessly serve others.
- ▶ **Trustworthiness** - We are committed to establishing trust by being honest in all our relationships. Our actions, both public and private, match our words.



“We always like to think of our consultants as extensions of our in-house team. Rarely are we made to feel that the goals and direction of the consultant are genuinely parallel to our own. Affinis has succeeded in doing that.”

- Scott Crain, PE
Blue Valley School District

Quality Reviews

We know design plans don't exist in a vacuum, they can be the key to a successful construction project. We have an established quality control procedure to help maintain our high quality standards. Each project is assigned a quality assurance manager (QAM), an experienced engineer who is not involved in the day-to-day design process. The QAM reviews plans for accuracy and constructability. We have found that having an independent review of the plans helps us find potential deficiencies overlooked by staff working directly on the project.

This focus on constructability saves our clients time and money in the field. Below is a chart of our recent change order history.

“When it comes to consultant produced plans, Affinis would rate at the top of the list. Their plan accuracy reduces construction change orders resulting in lower total project costs.”

- Mark Dombroski,
O'Donnell & Sons Construction

Project and Location	Bid	Percent of Change Orders	LPA Project
ARRA Sidewalk Improvements - Cleveland, Missouri	\$132,278	-0.02%	✓
Hyde Park Improvements - Hutchinson, Kansas	\$1,741,308	-4.33%	
Botts Road Improvements - Grandview, Missouri	\$979,947	1.00%	✓
Walnut Street Improvements - Independence, Missouri	\$696,701	-0.67%	✓
SW Third Street - Lee's Summit, Missouri	\$6,105,325	4.31%	
Blackwell Road - Lee's Summit, Missouri	\$2,800,000	-2.46%	
Langsford Road - Lee's Summit, Missouri	\$4,500,000	-0.02%	✓
Route 1 ADA Improvements - MoDOT	\$1,219,949	12.55%*	✓
Route 169 ADA Improvements - MoDOT	\$1,116,659	1.54%	✓
Business 7 - Signals (Country Club Drive) - Pleasant Hill, Missouri	\$193,602	-0.30%	✓
Business 7 Improvements - Pleasant Hill, Missouri	\$525,618	0.44%	✓
Blue Ridge Sidewalk Improvements - Raytown, Missouri	\$514,488	-9.27%	✓
Residential Streets Group III (South) 2010, Merriam, Kansas	\$716,715	-9.13%	
Residential Streets Group III (North) 2012, Merriam, Kansas	\$954,747	-8.00%	
Antioch Road Improvements (151st - 167th), Overland Park, Kansas	\$13,600,000	-4.68%	✓
College Boulevard Improvements (US-69 - Pflumm) - Overland Park, Kansas	\$8,400,000	13.43%*	✓
Metcalf Avenue Improvements (99th-103rd) - Overland Park, Kansas	\$8,700,000	2.25%	✓
2012 CDBG Neighborhood Street Reconstruction - Overland Park, Kansas	\$1,596,465	-0.80%	

*Client initiated change orders.