



November 14, 2013

Mr. Kenny Voss, P.E.  
Local Program Administrator  
Missouri's Local Program for Community Development

RE: TRAFFIC ENGINEERING AND TEAP – LETTER OF INTEREST

Dear Mr. Voss:

Snyder & Associates is pleased to submit this Letter of Interest to Missouri's Local Public Agency for traffic engineering and TEAP engineering services. This letter will summarize why Snyder & Associates is superbly qualified to provide these services to area communities and counties.

- Over 30 years of firm experience with DOT, STP, Enhancement, and Community Block Grant programs.
- Project Director with 24 years of experience in varied roadway design and rehabilitation projects.
- Established Transportation Engineering Group with five full-time engineers, their experience ranges from two to 42 years; plus support staff.
- Key resources at local offices in St. Joseph and Maryville, Missouri, with additional support staff located in our other offices.
- Cost effective engineering services
- Proven ability to meet schedules and budgets.
- Exceptional working knowledge of DOT, LPA, FHWA, and APWA requirements.
- Practical municipal agency experience with multiple city and county engineering duties/projects.

### **Experience**

Snyder & Associates' Traffic Group, consisting of five full-time engineers, works exclusively on traffic and safety engineering projects and project elements. Each of these individuals has significant related experience, including previous TEAP, SRTS, and traffic engineering design experience with DOT's. The Traffic Engineering Group, lead by Director Mark Perington, P.E., PTOE, was established at Snyder 20 years ago to meet the traffic and safety needs of public and private clients. The group's continuous growth through ongoing work with established clients is a testament to the quality of their work.

Our team has considerable experience in rural, small town, metropolitan area and school related traffic studies that encompass an entire range of traffic conditions as well as local citizen concerns and emotions. Our strong focus on traffic engineering allows us to provide you comprehensive traffic and safety engineering services on a wide variety of projects. From typical TEAP studies to traffic signal timing and ITS implementation, we have the experience and ability to meet your project needs. Snyder & Associates has developed a very professional "can-do" working relationship with several DOT's, which allows us to perform our services as merely an extension of the Local Public Agency.

### **Past Performance**

- *Highway 36 Diamond Interchange Traffic Study, St. Joseph/Buchanan County, MO:* Snyder & Associates completed a preliminary traffic study for a Diamond Interchange over Highway 36 for the Agri-Business Expo Center. The study included traffic counts, trip generation, traffic forecasts,

capacity analysis, functional roadway and interchange design, corridor layouts, identification of drainage, right-of-way and possible wetland impacts, recommended concept, and construction budget estimates.

- *Iowa Traffic Engineering Assistance Program, Iowa DOT:* Mr. Perington, our firm's Traffic Engineering Group Director, has been an on-call traffic engineer for IDOT for over 24 years, providing assistance to communities requesting aid in determining possible solutions to traffic safety issues. Studies include traffic signal warrants, intersection geometrics, pavement marking, railroad grade crossings, traffic sign layouts, and school route studies. Funding categories applied to study outcomes – TSIP, U-STEP, C-STEP, SRTS, HES, and ICAAP.
- *100<sup>th</sup> & Douglas Traffic Signal Interconnect System, Urbandale, IA:* Design and plan and specification preparation of fiber optic interconnect system for 22 signalized intersections on approximately 9 miles of arterial street system. Project features include Eagle NEMA controllers, setup of field masters for closed loop system, and system timing plan development utilizing Synchro software. This project was funded through ICAAP.

**Summary of Qualifications**

Following is a summary of the Snyder & Associates Team qualifications for conducting and completing the TEAP, SRTS, and miscellaneous traffic/safety engineering services.

Factors	Snyder & Associates Qualifications
<b>Past Performance on Similar Projects</b>	
<ul style="list-style-type: none"> <li>• Relevant projects involving traffic operations and safety ranging from local roads and expressway intersections to interchange ramp terminals.</li> <li>• Experience preparing studies or reports that clearly and concisely describe and support recommendations at a level commensurate to the audience.</li> </ul>	<ul style="list-style-type: none"> <li>• Successful completion of TEAP program studies including intersection, corridor, SRTS, truck route, railroad crossing, safety, and traffic signal studies.</li> <li>• Successful completion of numerous traffic studies, signal design, signal timing, signing, intersection and interchange design, lighting, SRTS, and other miscellaneous projects.</li> </ul>
<b>Staffing Expertise</b>	
<ul style="list-style-type: none"> <li>• Ability to analyze, evaluate, and apply crash data to improvement concepts.</li> <li>• Ability to use currently accepted software programs to analyze intersection and corridor capacity, traffic signal coordination, and crash data analysis.</li> </ul>	<ul style="list-style-type: none"> <li>• Extensive experience in crash data analysis and identification of trends, contributing factors, and potential solutions.</li> <li>• Staff expertise with traffic and crash analysis software including; Synchro, SimTraffic, CORSIM, SIDRA, HCS, Torus, SAVER, CMAT, and ArcView GIS software.</li> </ul>
<b>Commitment of Resources</b>	
<ul style="list-style-type: none"> <li>• Ability to allocate necessary resources in timely manner to complete studies within the desired time frame.</li> </ul>	<ul style="list-style-type: none"> <li>• Five full-time traffic professionals and support staff dedicated to quality, and timely completion of studies.</li> <li>• We are an extension of your staff, and are committed to that effort. Our Project Director, Project Manager and Traffic Group staff are accessible by telephone or email, and available to meet with you with minimal notice.</li> </ul>

### **Key Personnel**

Our primary staff will consist of Principle in Charge Andy Macias, P.E., Project Director Mark Perington, P.E., PTOE, Project Engineers Bob Burnett, P.E., Randy Mendenhall, P.E., and Tony Boes, P.E., and support staff from our St. Joseph and Maryville, Missouri offices. Other staff will be utilized from other offices as workload demands.

**Mr. Alexander Macias (Andy), P.E., Principal in Charge** **Snyder & Associates, Inc.**  
B.S. Civil Engineering, University of Missouri Columbia – 1986  
B.S. Geology, Northwest Missouri State University – 1983  
Experience: 26 years, 15 years as a structural engineer, 2 ½ years with MoDOT Bridge Design Department  
Professional Registrations: P.E. – Missouri and Iowa

Mr. Macias has a wide variety of experience in the engineering field. His specific fields of expertise include roadway and structural design, site planning, and storm water management. He has been involved with the construction of numerous roadway and bridge projects. He has worked on a variety of development projects including the preparation of various plans for intersection and traffic improvements in multiple communities across northwest Missouri and southwest Iowa.

**Mr. Mark Perington, P.E., PTOE, Project Director** **Snyder & Associates, Inc.**  
B.S. Civil Engineering, Iowa State University – 1987  
Experience: 25 years of traffic and transportation engineering.  
Professional Registrations: P.E. – Iowa, Missouri, Nebraska, South Dakota, and Wisconsin  
Professional Traffic Operations Engineer, Transportation Professional Certification Board, Inc.

Mr. Perington is Director of Snyder & Associates' Traffic Engineering Group. His work experience covers all aspects of traffic planning, engineering, and operations including; traffic forecasting, trip generation, operational/capacity models and simulation, safety analysis, signing and markings, functional roadway and intersection design, signal systems, lighting systems, and ITS components. Traffic operations and safety study experience include projects ranging from small trip generation and access studies to major corridor and interchange studies in rural, suburban, and central business district metropolitan areas. He has served as an on-call traffic engineer statewide for Iowa DOT on the Traffic Engineering Assistance Program (TEAP) for over 24 years.

### **Accessibility**

Snyder & Associates values and cultivates close communications and positive, long standing client relationships. Our clients, many of whom have enjoyed working with us since 2002, can attest to our responsiveness and attention to detail as reflected in the Company Reference Forms. We are available to provide local support from our St. Joseph and Maryville, Missouri offices and offer you additional assistance from our other offices.

Sincerely,

SNYDER & ASSOCIATES, INC.



Alexander Macias, P.E.  
Branch Manager



## Traffic Engineering

*Developing transportation networks that include personal vehicles, public transit, emergency services, cyclists, and pedestrians involves planning and engineering to help people arrive at their destinations safely and efficiently. Whether evaluating current and upcoming needs, or working to improve traffic operations for existing facilities, Snyder & Associates, Inc. works to maximize the safety and efficiency of roadway corridors for all users. As traffic demand increases and budgets for new construction tighten, we help municipalities, transportation agencies, and developers improve and optimize traffic operations. Our team excels at coordinating with government agencies and offers a strong understanding of the critical elements, procedures and requirements to help you serve the users.*



*Snyder & Associates, Inc. has the experience and technical skills to assist you with traffic impact studies for proposed developments, assessment of safety issues, new traffic signal installations, interchange justification studies, and other traffic related needs. Our Traffic Engineering Team is prepared to help you identify and evaluate current and future transportation system needs.*

### Services Offered

- Corridor Studies
- Functional Roadway Design
- Interchange Justification Studies
- Traffic Signal System Studies/  
Design/Timing Plans
- Traffic Control/Pavement Marking  
Design
- Traffic Counting/Data Collection
- Access Management
- Traffic Forecasting
- Trip Generation Forecasting
- Traffic Impact Analysis
- Benefit/Cost Analysis
- Intersection Operational Analysis
- Safety Studies
- Railroad Crossing Studies
- School Route/Site Studies
- Roadway/Parking Lot Lighting  
Design
- Roundabout Modeling & Design
- Capacity Analysis & Simulation
- ITS Systems Design



**SNYDER & ASSOCIATES**  
Engineers and Planners

1.888.964.2020  
[www.snyder-associates.com](http://www.snyder-associates.com)

**Traffic Engineering**

# Traffic Engineering

## Safety & Efficiency

Safety issues arise on existing roadway and intersection locations due to dynamic changes in traffic demand. Snyder & Associates, Inc. takes a proactive traffic engineering approach that is focused on protecting lives. Our professionals provide a thoughtful field review of crash history trends to assist agencies with safer alternatives. Recommendations vary from signage and pavement markings to additional lanes and traffic control improvements that allow more efficient travel. Our traffic safety experience is combined with a proven track record of securing additional financial resources to implement public improvements. By reviewing various funding programs and writing successful applications, we effectively leverage agency resources.

## Operations

The public perception of an intersection is often based on limited interactions. These experiences impact the feedback owners or municipalities receive about how well roadways allow traffic to flow. Snyder & Associates, Inc. understands that pedestrians, bicyclists, and drivers respond positively to smooth and efficient travel experiences. Our expertise helps us address the various concerns expressed by policy makers, developers, and the general public. Proper knowledge and application of signing, marking, functional design, and signal system timings are effectively combined to improve operations and the user experience.

## Modeling & Simulation

Software programs have enabled transportation professionals to more effectively communicate the benefits or drawbacks of proposed adjustments to intersections, roadways, and traffic signal timing settings. Snyder & Associates, Inc. applies a thoughtful application of capacity analysis, signal timing, and simulation model programs. We take an analytical approach to evaluating alternatives and test scenarios before significant funding or construction is even considered. Modeling tools are used to provide a visual representation of traffic flows and help illustrate various scenarios for agency staff, policy makers, and the general public. By demonstrating existing conditions and proposed solutions, modeling and simulation provides evidence that changes will improve the current environment. This process often encourages public acceptance, and simplifies the decision making process.

## Systems

Public agencies and private owners are faced with continued growth, operation, and maintenance of various traffic systems. Snyder & Associates, Inc. carefully evaluates what works best for agencies to recommend the right equipment and ensure owners are able to maintain the system. From quick and limited reviews, to the design of new system and communication networks, we understand that systems need to be designed for future growth and minimal maintenance. Our professionals are experienced in all facets of systems management including signing, markings, lighting, traffic signals, traffic observation cameras, and communication networks that support interface and control. We also provide full inventories of devices and equipment to evaluate compatibility with standards and confirm compliance.

