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
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.

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