**Proposal for NCHRP 20-7**

**Development of a Strategic Plan for the Subcommittee on Traffic Engineering (SCOTE)**

*Subcommittee on Traffic Engineering*

Chair: John Barton, P.E., Deputy Executive Director/Chief Engineer, Texas Department of Transportation

*October 2014*

**BACKGROUND / NEEDS STATEMENT**

The traffic engineering profession continues to experience radical changes and positive improvements in all aspects of its profession. Of particular interest are the emerging technologies involving connected and autonomous vehicles, active management of arterials, maturity in freeway operations and dynamic optimization of traffic signal infrastructure to improve throughput and increased travel time reliability. While technologies begin to emerge and attract professionals from the core and ancillary industry sectors such as transportation engineers, planners, designers, and automakers, the traditional traffic engineering areas are experiencing consolidation through the expansion of the Manual on Uniform Traffic Control Devices (MUTCD) to include in-depth coverage of railroad preemption and a nationwide application of bicycle and pedestrian-friendly applications. Needless to say, the traffic engineer must now accommodate multimodalism with the genuine aim to move people, not just vehicles.

Given this background, the Subcommittee on Traffic Engineering (SCOTE) of the American Association of State Highway and Transportation Officials (AASHTO) intends to develop a Traffic Engineering Strategic Plan with the specific purpose of understanding the direction in which traffic engineering may proceed during the near to medium term (5 to 15 years), to identify areas where SCOTE and AASHTO can contribute to enhancing the profession thereby responding to the citizen and industry needs, and ensuring alignment with the newly approved AASHTO Strategic Plan.

SCOTE serves as the technical lead on all traffic engineering aspects that fall under AASHTO, and is tasked with assessing the effectiveness of traffic control practices and devices used on public roadways. The Subcommittee identifies and reports to AASHTO on any federal regulatory mandates of national concern, while exploring methods and equipment to reduce costs, lower energy consumption, improve guidance to motorists, and mitigate road traffic crashes. SCOTE also recommends improvements to the MUTCD while ensuring consistency through a collaborative and cooperative working relationship with other AASHTO technical subcommittees.

SCOTE is composed of State Traffic Engineers from the fifty-two (52) AASHTO member departments within the States, Puerto Rico, and the District of Columbia, and is charged with assessing the effectiveness of traffic control strategies and devices for the efficient and safe operation of the nation’s highway system. SCOTE has eight (8) delegates on the National Committee on Uniform Traffic Control Devices (NCUTCD) who provides AASHTO’s input into the development and update of the MUTCD. The Subcommittee also establishes and maintains a policy on the selection of supplemental guide signs for traffic generators adjacent to freeways, guidelines for airport guide signing, and a list of control cities for use in guide signs on interstate highways. SCOTE also assists in keeping current the AASHTO Guide for Planning, Design, and Operation of Pedestrian Facilities.

SCOTE is further decentralized to provide higher level service through its Technical Teams which are chaired by traffic engineering professionals who carry with them several decades of experience and an in-depth understating of traffic engineering practices. The technical teams on Safety, Wok Zones, and Signing and Markings are respectively chaired by J. Kevin Lacy, NC; Sue Groth, MN; and Mark Bott, MI, respectively. The technical team on Traffic Design, Regulation and Management is headed by Mark Wilson, FL, while the Traffic Signals and Roadway Lighting team is lead by Mark Luszcz, DE.

.

**RESEARCH OBJECTIVE**

The objective of this research is to develop a strategic plan that includes the full cycle of understanding SCOTE’s role in providing guidance to the highest decision-making bodies in the transportation profession to develop a comprehensive vision for SCOTE’s future activities.

**WORK TASKS**

Tasks anticipated in this project include the following:

* **Background.** Provide background on SCOTE and AASHTO with a special focus on traffic engineering activities. To accomplish this task, the Consultant shall study AASHTO and SCOTE, and provide a detailed assessment of the historical contributions of the organization and the subcommittee to the national transportation systems and the traffic engineering profession.
* **Current Practice.** Identify and document the current practice and the role of AASHTO and SCOTE in fulfilling the mission of the federal government and state entities. To accomplish this task, the Consultant shall evaluate the intent of the new AASHTO Strategic Plan as well as ongoing activities of AASHTO and provide a perspective on SCOTE’s contributions to continually improve transportation services to all road users, especially in the traffic engineering domain.
* **SCOTE and NCUTCD.** Discuss the in-depth technical support and guidance provided by SCOTE to the NCUTCD. To accomplish this task, the Consultant shall review the process by which SCOTE contributes to the NCUTCD and shall document the achievements while providing guidance and steering the traffic engineering profession toward accomplishing AASHTO’s mission.
* **Latest Advances**. Identify the latest advances in traffic engineering of relevance and importance to AASHTO. To accomplish this task, the Consultant shall research advances in technology and their applications to traffic engineering. Examples includes the development of connected vehicle technologies and autonomous vehicles.
* **Gaps Identification.** Identify any existing gaps to fulfill its mission. To accomplish this task, the Consultant shall interview SCOTE members and develop a note on gaps that may exist with respect to delivering its mission in the most optimal manner possible. Resource needs may also be identified.
* **SCOTE’s Organizational Structure**. Evaluate the current organizational structure of SCOTE. To accomplish this task, the Consultant shall study the current organizational structure of SCOTE including the formulation of Task Teams and recommend if the current structure should continue or be modified. The roles and responsibilities of the current structure should be evaluated mainly with regard to team-based delivery and optimization of available resources.
* **Other Subcommittees.** Review other subcommittees of AASHTO. To accomplish this task, the Consultant shall review all other Subcommittees of AASHTO and perform an assessment of the best practices among these subcommittees. The objective is to identify if an appropriate model exists within the current AASHTO structure which SCOTE can benefit from and emulate.
* **Time Utilization and Dedication.** Study current mechanism in conducting periodic meetings. To accomplish this task, the Consultant shall study the periodicity of the various meetings conducted by SCOTE at AASHTO, and should propose the most appropriate use of Committee members’ time and availability. Recommendations may also include the meeting methods and periodicity based on work priorities.
* **Vision, Mission, Objectives and Core Values.** To accomplish this task, the Consultant shall combine the outputs from all of the above activities and develop a draft strategic plan statement including vision, mission, objectives, and core values for SCOTE. The guidance in this task is mainly to set a tone for SCOTE to pursue short-term successes and long-term sustainability by taking advantage of the contributions of its member experts and through a proper utilization of their availability.
* **Final strategic plan and implementation plan/approach**. The strategic plan will be finalized and a path for implementation based on input gathered will be proposed.

The final deliverable of this effort is to produce a Strategic Plan for the most effective functioning of SCOTE to deliver the mission of AASHTO.

**URGENCY**

A strategic plan for SCOTE will support the subcommittee’s commitment to provide the highest quality traffic engineering support and allied services to AASHTO and the AASHTO strategic plan.

**FUNDING REQUESTED AND TIME REQUIRED**

It is estimated that this research will take **12** months to complete and will require $90,000.

**CONTACT PERSON**

*John Barton, P.E., Chairman*

*Deputy Executive Director/Chief Engineer*

*Texas Department of Transportation*

*125 East 11th Street*

*Austin, Texas 77701-2483*

*(512) 305-9504*

*John.Barton@txdot.gov*