Introduction and Goals

At the request of Transportation Secretary James H. Trogdon, the North Carolina Department of Transportation (NCDOT) Bicycle and Pedestrian Transportation (DBPT) Division is completing an evaluation of its Complete Streets Policy and *Complete Streets Planning and Design Guidelines,* completed in 2009 and 2012 respectively. The Secretary expressed the need to prioritize Complete Streets implementation throughout the State and to evaluate the success of the policy. The goals of the evaluation are to assess how the policy is being utilized across NCDOT business units, assess how NCDOT's policies work in relation to other related state policies, to conduct a best practices review and make recommendations about implementation and tracking.

Interview Process

The project team conducted 45 interviews with stakeholders representing municipalities, metropolitan planning organizations (MPOs), rural planning organizations (RPOs), councils of government (COGs), grassroots advocacy organizations, NCDOT staff and leadership.

Interviewees noted the obstacles for Complete Streets were primarily with implementation rather than with the policy. Most interviewees noted there is not a formal place for Complete Streets in the project planning and development process. Decisions on Complete Streets elements are not typically decided until late in project development and that can lead to project delays or even removal of these elements from the project. Interviewees also noted there is a lack of ownership and accountability of Complete Streets within NCDOT and confusion about who municipalities should work with during the process.

Funding was the most widely cited impediment to implementing Complete Streets by interviewees. Strategic Transportation Investments (Prioritization or SPOT) can act as a barrier, as interviewees shared instances of Complete Streets projects not scoring high enough to receive funding. Cost-share requirements for beyond-the-curb facilities were a widely cited barrier. Municipalities, especially smaller municipalities, often do not have the financial resources to contribute to cost-share requirements. This can lead to an inequitable allocation of Complete Streets projects.

Interviewees noted NCDOT design guidelines, manuals, and other documents have not been updated to reflect the Complete Streets policy or the cross sections provided in the *Complete Streets Planning and Design Guidelines*. This inconsistency can limit implementation of Complete Streets as current design guidelines are largely organized around automobile transportation rather than multimodal options. In addition, strict adherence to the AASHTO design manual or "Green Book" can lead to projects not being context sensitive.

Evaluation of Supporting NCDOT Policies

In a review of NCDOT policies, manuals, and documents, none had been updated to reflect the Complete Streets Policy and *Planning and Design Guidelines*. Some include language related

to bicycle and pedestrian facilities but there is not a consolidated source for bicycle and pedestrian design guidelines within NCDOT. This information is often disseminated through memoranda within the roadway design group.

Best Practices

The evaluation team reviewed the Complete Streets policies and supporting documents of California, Florida, New Jersey, Tennessee, and Virginia. Notable best practices include: a clearly defined implementation process with designated responsible parties; consideration of land use when determining appropriate transportation elements; regular updates to design and related guidelines; development of supporting documents and guidance; clearly defined exemptions processes; and clearly defined funding incentives and options.

Performance Metrics

Providing before and after comparisons of Complete Streets projects can help evaluate the effectiveness of the Complete Streets initiative, as well as serve as a reporting tool to provide accountability. Based on interviews and the best practices review, the following performance metrics are proposed for NCDOT:

- **Safety**: in addition to motor vehicle crash data, data for stand-alone bicycle and pedestrian crashes can be centrally collected and managed to provide a more complete understanding of roadway safety.

- **Congestion**: utilizing multimodal level of service (MMLOS), a metric included in the 2010 Highway Capacity, to measure how Complete Streets affects congestion of all modes present on a roadway.

- **Inventory**: while existing and proposed facilities are collected in the Pedestrian and Bicycle Infrastructure Network geodatabase, this resource can be updated to include more comprehensive sets of data and data from more municipalities throughout the state.

- **Economic Development**: project proximity to commercial areas and low-income Census Block Groups can be measured to ensure projects serve trip purposes beyond recreation and communities at all income levels.

Implementation and Tracking

Based on the interviews, it is apparent that there is a need to standardize the Complete Streets implementation process, clearly incorporate it into the project development lifecycle, and assign responsibility to persons at critical milestones throughout the process. A tracking system would allow the Department to clearly see how and where Complete Streets elements are being implemented throughout the State.

Next Step Recommendations

The next phase of the project will involve a detailed review of the design guidelines with recommendations for improvements, recommendations for process improvements, and development of a training and outreach strategy.