



NC Capital Area Metropolitan Planning Organization

1 Fenton Main St.
Suite 201
Cary NC 27511

Legislation Text

File #: REP 19 -531, **Version:** 2

Non-Motorized Volume Data Program - Phase II Update (May 2019)

Sarah Searcy, ITRE Staff Member

The Institute for Transportation Research and Education (ITRE) currently manages the North Carolina Non-Motorized Volume Data Program (NC NMVDP) on behalf of the North Carolina Department of Transportation (NCDOT). The purpose of the program is to establish a robust data collection framework to reliably calculate sidewalk, shared use path, bike lane, and shared lane volumes through the installation of permanent bicycle and pedestrian counters that continuously collect count data on representative facilities in North Carolina. ITRE, as an agent of NCDOT, has partnered with local agencies and the technology vendor, Eco-Counter, to install and monitor inductive loop bicycle detectors and passive infrared pedestrian sensors at counting locations in various municipalities across North Carolina.

A primary motivation of the NC NMVDP is to use a system of continuous counters to determine travel patterns by purpose and variability over time to inform the development of daily and seasonal factors. Continuous counting locations are assigned to a factor group based on similar pedestrian or bicycle activity patterns (e.g., commuter vs. recreational) and count data from each group is used to develop expansion factors. These factors are then applied to shorter duration counts collected with portable counters to generate annual volumes. Short duration counts provide geographic coverage, while continuous counts provide the temporal coverage needed to account for day of week and seasonal trends. The NC NMVDP is testing and establishing consistent and replicable data collection and analysis processes that will enable municipalities to count users on facilities at any time of the year and extrapolate reliable estimates of annual pedestrian or bicyclist volumes. The continuous counters further provide valuable and comprehensive user volume data to local agency partners to use for various local applications, from justifying facility improvements or network expansion to monitoring visitation to central business districts.

In June 2018, ITRE completed the installation of counters under Phase II of the NC NMDVP that are located in the CAMPO region of NC. These locations were selected based on recommendations from local agency partners in Apex, Cary, Raleigh, and Wake Forest that were assessed by ITRE/NCDOT for suitability based on factors such as site conditions, evaluation of short duration volumes, and anticipated travel patterns.

Non-routine maintenance of the counter locations within CAMPO will be performed by ITRE/NCDOT for the first two years after installation until the counters transfer ownership to CAMPO and its local governments according to their executed Memorandum of Agreements (MOAs). ITRE/NCDOT will also perform data monitoring, validation, QA/QC, and reporting for the counters for the 10 year equipment lifetime.

Beginning in 2019,

- NC NMVDP quarterly and annual data will be provided through Eco-Visio 5 and its dashboard system;
- Regular information on data reports, technical assistance support, training opportunities, and updates to program processes will be provided to agency partners through a quarterly newsletter; and
- ITRE under the guidance of NCDOT will begin a program evaluation of the NC NMVDP to assess the program's performance, inform its future growth, and support changes to program processes and products to better meet the needs of the state and its local agency partners.

Requested Action: Receive as Information.