

# DEVELOPMENT OF QA/QC PROCESSES FOR BICYCLE AND PEDESTRIAN DATA

## NORTH CAROLINA NON-MOTORIZED VOLUME DATA PROGRAM



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### Introduction

Phase I of North Carolina's Non-Motorized Volume Data Program (NMVDP) was conducted in NCDOT Divisions 7 and 9 in the Triad/Piedmont region of NC. Continuous Count Stations (CCS) to monitor bicyclist and pedestrian traffic at twelve locations went live in late 2014. These stations cover a mix of sites across different land uses, travel patterns, and volume groups. The following programmatic elements (indicated in RED in the diagram) were piloted to select, install, and ensure data quality for the twelve CCS stations.

### Methods

The accuracy of non-motorized data collected by Continuous Count Stations (CCS) is important to be able to create sound estimates of walking and bicycling volumes and factor data from Short Duration Count (SDC) locations. Data quality is important for any application because it affects the credibility and usability of the data for agency decisions. In a volume data program, there are numerous points at which Quality Assurance and Quality Control (QA/QC) processes or procedures can be applied before, during, and after data is collected. The diagram shows the actions taken to ensure data quality for the NMVDP.

### Results

Selected sites were installed with assistance from local agency staff in the following NC municipalities: Carrboro, Chapel Hill, Greensboro, and Winston-Salem. Data was monitored for the 12-month reporting period and invalid days were removed from the data. The equipment at each CCS underwent a validation process to ground-truth each stream of non-motorized count data and correct it for errors related to data collection. A data summary is provided for each station based on the resulting count data, with days of missing data and data related to equipment errors removed.

### Acknowledgements

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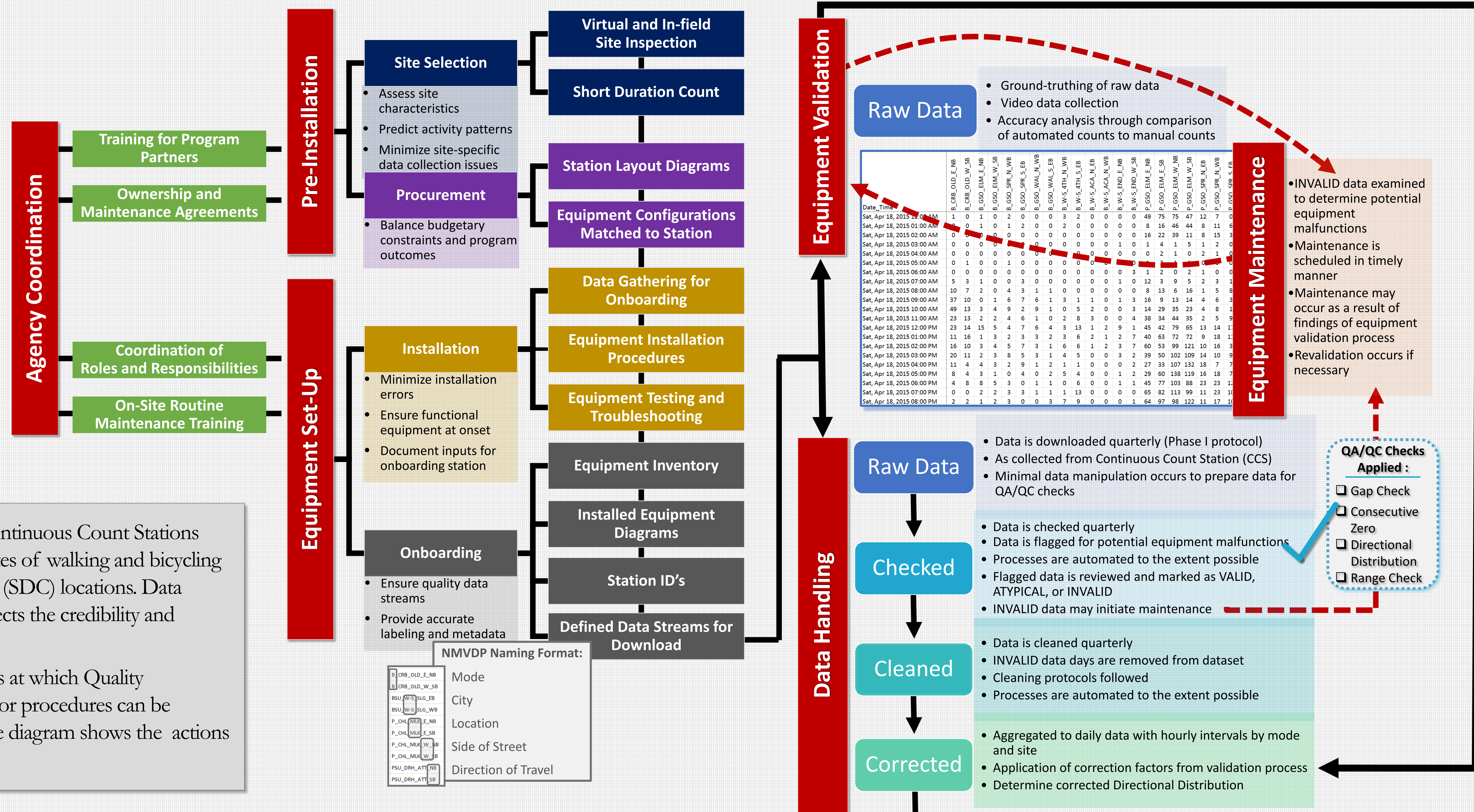


Table 1. Summary Volume Statistics<sup>1</sup> (12/01/2014 - 11/30/2015)

	Highest Volume:	Lowest Volume:
<b>Pedestrians</b>	Spring	Winter
Season	Spring	Winter
Month	May	February
Day of Week	Saturday	Friday
Date	Sun, Feb 8, 2015 (1,056)	NA
Peak Period	Weekends 8AM-5PM	
12 Month Pedestrian Count	101,720	
Annual Average Daily Pedestrian Traffic	349 AADPT	
<b>Bicyclists</b>	Summer	Winter
Season	Summer	Winter
Month	August	February
Day of Week	Sunday	Thursday
Date	Mon, May 25, 2015 (1,038)	NA
Peak Period	Sundays 10AM-4PM	
12 Month Bicycle Count	92,480	
Annual Average Daily Bicycle Traffic	260 AADBT	

