Collecting GPS Coordinates for Traffic-Counting Devices

Purpose
The traffic count data that consultants collect for the State Highway Administration (SHA) lays the foundation for the data that SHA submits to Federal Highway Administration and other planning entities. As such, SHA must ensure that exact traffic-count locations are consistent from year to year. This has proved problematic in the past because of changing road conditions and characteristics, consultant counter placement, and other factors. Therefore, SHA is providing this policy to ensure that traffic-count locations are within the same section of roadway, regardless of changes to roadway characteristics (such as the number of lanes, signals, construction, intersecting roads, or anything else that might impede traffic).

Methodology
Collect GPS points for each traffic-counting counter (box).

Machine Counts
Take GPS points on the edge of the road where the traffic counter (box) is placed. If there are multiple boxes, take one point at the edge of the roadway for each box. See the diagrams on the following page for where to collect the GPS points.

Specifications for the X, Y Coordinates
SHA prefers to receive its GPS data in the format of X, Y coordinates in the Maryland State Plane, NAD83 Feet HARN. This is the standard at SHA; therefore, submitting the coordinates in this format most easily integrates with SHA’s and HISD’s workflow. SHA prefers sub-meter accuracy; however, three-meter accuracy is also acceptable.

Data Submission
Submit the GPS data with each Program and Special Machine Count, by task (identified by Job Number, Station_id, & Counter Number) in an .xls file (Excel format) for each counter.
Location for Collecting GPS Points

On Two-Lane Highways

On Multi-Lane Highways