Project Title: C-07-14: Virtual WIM Pilot
PIN: R021.00.881
Responsible Unit: 
Project Manager: Hohman, Jack

Project Goal:
The purpose of this project is to investigate WIM technology and determine data uses including improved law enforcement capabilities and program/asset management planning (i.e. pavement life predictions, pavement design improvements). Additionally, the sites will be available to the CVO community to facilitate application development for Commercial Vehicle Infrastructure Integration (CVII).

Actions Proposed:
Phase I efforts:
- Select test sites consistent with the State’s CVISN program and identify WIM system requirements
- Procure, install, test and evaluate two virtual WIM stations, including in-road and roadside equipment (915MHz CVISN compatible electronic screening with WIM) with the potential to install and test 5.9GHz VII/Smart Roadside or similar applications. Each site will involve WIM devices in up to three lanes in each direction of travel and be located near an existing or new commercial vehicle inspection location, each with over height detection equipment.
- Obtain overweight/over height application software necessary to investigate WIM data usage to improve asset (pavement/bridge) management and law enforcement
- Test installation operations including detection of known vehicle over height, overweight and communications.
- Conduct analysis of the data including an initial report of potential asset management and law enforcement products (i.e. focused enforcement based on violation occurrences/patterns)

Phase II efforts:
- Define specifications, procure and install additional roadside equipment upgrade and/or new installations required to provide 915MHz CVISN compatible electronic screening with WIM and to test 5.9GHz VII/Smart Roadside or similar applications.
- Develop and/or procure software to include e-screening functions that are consistent with national Federal Motor Carrier Safety Administration’s CVISN program.
- Develop, procure, install and/or test VII (Vehicle Infrastructure Initiative) equipment and software as necessary to support Thruway’s and NYSDOT 5.9GHz based efforts.

Anticipated Work Products and Accomplishments:
Phase I: In-road and roadside infrastructure and software required to initiate and support WIM based programs within the Thruway yielding data products that are anticipated to improve planning, law enforcement and asset management efforts. Phase I report documenting virtual WIM project including costs, performance and design recommendations for and/or verification of wider interoperable real time network based communication system. The Phase I report will include recommendation on whether to proceed with Phase II.

Phase II: CVISN compatible electronic screening system integrated with the Phase I virtual
WIM system for commercial vehicles capable of demonstrating additional safety and mobility applications consistent with the national CVISN, VII, Smart Roadside and other DSRC based initiatives. The Phase II report will document project including costs, performance and design recommendations for and/or verification of wider interoperable real time network based communication system.

**Proposed Budget:** $550,000