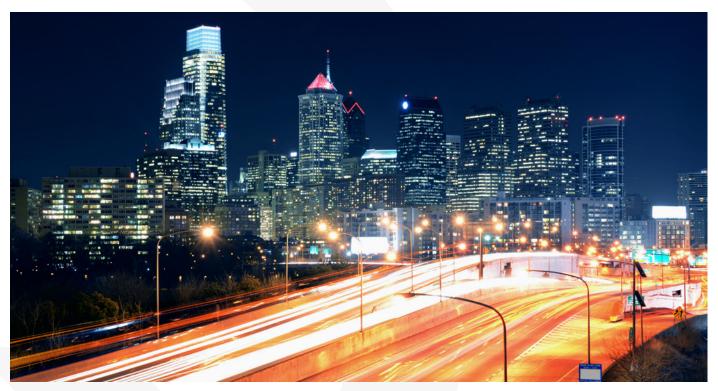
## VS.08.11

## VARIABLE SPEED LIMIT - SCHUYKILL EXPRESSWAY, PENNSYLVANIA



Schuykill Expressway, Philadelphia, Pennsylvania

Under contract with Carr & Duff, Inc., Q-Free was awarded a project to add advanced Queue Warning (QW) and Variable Speed Limit (VSL) capabilities as part of our on-going support to the Pennsylvania Department of Transportation (PennDOT). This project, part of PennDOT's "Early-Action Initiatives for Interstate 76", is located along the Schuykill Expressway (1-76) between the PA Turnpike (I-276), US-1 in Montgomery County and the City of Philadelphia.

Working with PennDOT since 2012, Q-Free implemented a single statewide Advanced Traffic Management System (ATMS) platform, OpenTMS, to promote coordinated traffic management and operations across all five regional Traffic Management Centers (TMC). Now Q-Free has developed an algorithm-based QW and VSL module within OpenTMS. The new module will process and fuse probe and Remote Traffic Microwave Sensor (RTMS) data to detect dangerous speed variances and respond with advanced warning Digital Message Signage (DMS) and harmonized speed limits. The new capability will be fully integrated across DMS, Closed Circuit Television (CCTV) video,

vehicle detection (VD), and travel time subsystems to allow seamless and automated management of both planned and unplanned events. The traffic information collected and processed will be stored for up to seven years.

Based upon a configurable and adaptable software design, PennDOT will also be able to expand the use of QW and VSL in other areas of the state after deployment on the Schuylkill Expressway (I-76).

"This project demonstrates Q-Free's ability to work in partnership with many stakeholders to develop real-world solutions to complex traffic problems. Using advanced data fusion techniques and incorporating an algorithm-based approach to Queue Warning and VSL, we can help PennDOT reduce the occurrence of rear-end crashes and harmonize speed in areas of stop-and-go traffic along this busy corridor," commented Christopher Melton, Managing Director for Q-Free North America Inter-Urban and Tolling divisions.

