OVERVIEW

- Connected Vehicles Pilot Deployment Program Overview

- Overview of 2015 CV Pilot Program Award Sites
  - ICF/Wyoming CV Pilot Deployment
  - New York City CV Pilot Deployment
  - Tampa (THEA) CV Pilot Deployment

- How to Stay Connected
CV PILOT DEPLOYMENT PROGRAM GOALS

Spur Early CV Tech Deployment
Wirelessly Connected Vehicles
Mobile Devices
Infrastructure

Measure Deployment Benefits
Limit 35
Safety
Mobility
Environment

Resolve Deployment Issues
Technical
Institutional
Financial
Phase 1: Concept Development (*Current Phase*)
- Creates the foundational plan to enable further design and deployment
- **Progress Gate: Is the concept ready for deployment?**

Phase 2: Design/Deploy/Test
- Detailed design and deployment followed by testing to ensure deployment functions as intended (both technically and institutionally)
- Progress Gate: Does the system function as planned?

Phase 3: Maintain/Operate
- Focus is on assessing the performance of the deployed system
- Post Pilot Operations (CV tech integrated into operational practice)
ICF/Wyoming

- Reduce the number and severity of adverse weather-related incidents in the I-80 Corridor in order to improve safety and reduce incident-related delays.
- Focused on the needs of commercial vehicle operators in the State of Wyoming.

New York City

- Improve safety and mobility of travelers in New York City through connected vehicle technologies.
- Vehicle to vehicle (V2V) technology installed in up to 10,000 vehicles in Midtown Manhattan, and vehicle to infrastructure (V2I) technology installed along high-accident rate arterials in Manhattan and Central Brooklyn.

Tampa (THEA)

- Alleviate congestion and improve safety during morning commuting hours.
- Deploy a variety of connected vehicle technologies on and in the vicinity of reversible express lanes and three major arterials in downtown Tampa to solve the transportation challenges.
Objective:
- Reduce the number and severity of adverse weather-related incidents (including secondary incidents) in the I-80 Corridor in order to improve safety and reduce incident-related delays.
  - Focused on the needs of the commercial vehicle operator in the State of Wyoming

Approach:
- Equip fleet vehicles (combination of snow plows, maintenance fleet vehicles, emergency vehicles, and private trucks) that frequently travel the I-80 corridor to transmit basic safety messages (BSMs), collect vehicle and road condition data and provide it remotely to the WYDOT TMCs
- Deploy DSRC roadside equipment (RSE) to supplement existing assets and initiatives
- Road weather data shared with freight carriers who will transmit to their trucks using exiting in-vehicle systems

Deployment Team:
- Prime Consultant: ICF International; Partner State: Wyoming DOT
- Sub Consultants: Trihydro Corporation, National Center for Atmospheric Research, University of Wyoming, Catt Laboratory and McFarland Management
Objective:
- Improve safety and mobility of travelers in New York City through connected vehicle technologies
  - Aligned with the NYC’s Vision Zero initiative, which seeks to reduce crashes and pedestrian fatalities, and increase safety of travelers in all modes of transportation

Approach:
- Equip up to 10,000 vehicles (taxis, buses, commercial fleet delivery trucks, and City-owned vehicles) that frequently travel in Midtown Manhattan and Central Brooklyn to transmit and receive connected vehicle data
- Install V2I technology at high-accident rate arterials:
  - Upgrade 239 traffic signals along 1st, 2nd, 5th, and 6th Avenues in Manhattan and Flatbush Avenue in Central Brooklyn (emergency evacuation route)
  - Deploy Roadside equipment (RSE) along FDR Drive

Deployment Team:
- Prime Consultant: NYC DOT
- Sub Consultants: JHK Engineering, Battelle, Cambridge Systematics, KLD Engineering, Security Innovation and Region 2 University Transportation Research Center
NYC Pilot Deployment Vision

- Smartphone
- Traffic Control System
- Data Collection
- Advanced Traffic Controller
- NYC Wireless Network
- Other CV Support
- Security Credential Management System
- Vulnerable Road User Detector
- Aftermarket Safety Device (ASD)
- Roadside Equipment (RSE)
- Modified Vulnerable Road User (VRU) Device
- Commercial Vehicle Warning Device
Objective:

- The primary objective of this deployment is to alleviate congestion and improve safety during morning commuting hours.
  - Deploy a variety of vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) safety, mobility, and agency data applications to create reinforcing benefits for motorists, pedestrians, and transit operation.

Approach:

- Deploy a variety of connected vehicle technologies on and in the vicinity of reversible express lanes and three major arterials in downtown Tampa to solve the following transportation challenges:
  - Morning peak hour queues, wrong-way entries, pedestrian safety, bus rapid transit (BRT) signal priority optimization, trip time and safety, streetcar trolley conflicts, and enhanced signal coordination and traffic progression.

Deployment Team:

- Prime Consultant: Tampa Hillsborough Expressway Authority (THEA)
- Sub Consultants: HNTB Corporation, Siemens Industry, Inc., Booz Allen Hamilton, Center for Urban Transportation Research at University of South Florida and Global-5 Communications
Data exchange will use DSRC (Dedicated Short Range Communications) or other wireless media. SCMS (Security Credential & Management System) will be used where appropriate.
# Overview of Pilot Deployment Proposed CV Applications

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*Deployment of applications is dependent upon Final ConOps and funding*
## Concept Development Activities and Public Events

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♦♦♦ Public webinars to share the concept development activities from the three sites (see website for exact dates and times)
Join us for the *Getting Ready for Deployment Series*

- Discover more about the 2015 CV Pilot Sites
- Learn the Essential Steps to CV Deployment
- Engage in Technical Discussion

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