CONNECTED VEHICLE PILOT
Deployment Program

TAMPA HILLSBOUROGH EXPRESSWAY AUTHORITY CV PILOT

Program Manager: Bob Frey, AICP

ITS Joint Program Office

U.S. Department of Transportation

CV Pilot Deployment Program Goals

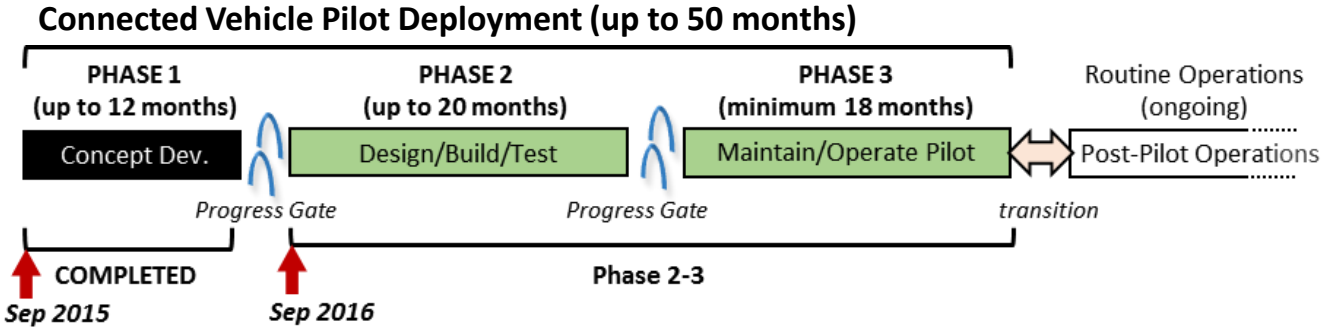
The Three Pilot Sites

- 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.

- Improve safety and mobility of travelers in New York City through connected vehicle technologies.
- Vehicle to vehicle (V2V) technology installed in up to 8,000 vehicles in Midtown Manhattan, and vehicle to infrastructure (V2I) technology installed along high-accident rate arterials in Manhattan and Central Brooklyn.

- 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.

CV Pilot Deployment Schedule



- **Phase 1: Concept Development (COMPLETE)**
  - Creates the foundational plan to enable further design and deployment
  - **Progress Gate: Is the concept ready for deployment?**

- **Phase 2: Design/Deploy/Test (CURRENT PHASE- began September 1, 2016)**
  - 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)

TAMPA (THEA) PILOT DEPLOYMENT OVERVIEW

TAMPA (THEA) PILOT DEPLOYMENT OVERVIEW

Participants

PHOTO: THEA

PHOTO: NPR

PHOTO: THEA

PHOTO: THEA

1,600 **500+** **10** **10**

Morning Backup

PHOTO: TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY (THEA)

- Forward Collision Warning (FCW)
- Emergency Electronic Brake Light (EEBL)
- End of Ramp Deceleration Warning (ERDW)
- Intelligent Signal Systems (I-SIG)

Wrong-Way Drivers

- Wrong-way Entry
- Intersection Movement Assist (IMA)
- MAP
- Signal Phasing and Timing (SPaT)

PHOTO: TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY (THEA)

Pedestrian Safety

- Pedestrian in a Signalize Crosswalk Warning (Ped-X)
- Pedestrian Collision Warning (PCW)

Transit Signal Priority

- I-SIG
- Transit Signal Priority (TSP)
- IMA
- Pedestrian Transit Movement Warning (PTMW)

Streetcar Conflicts

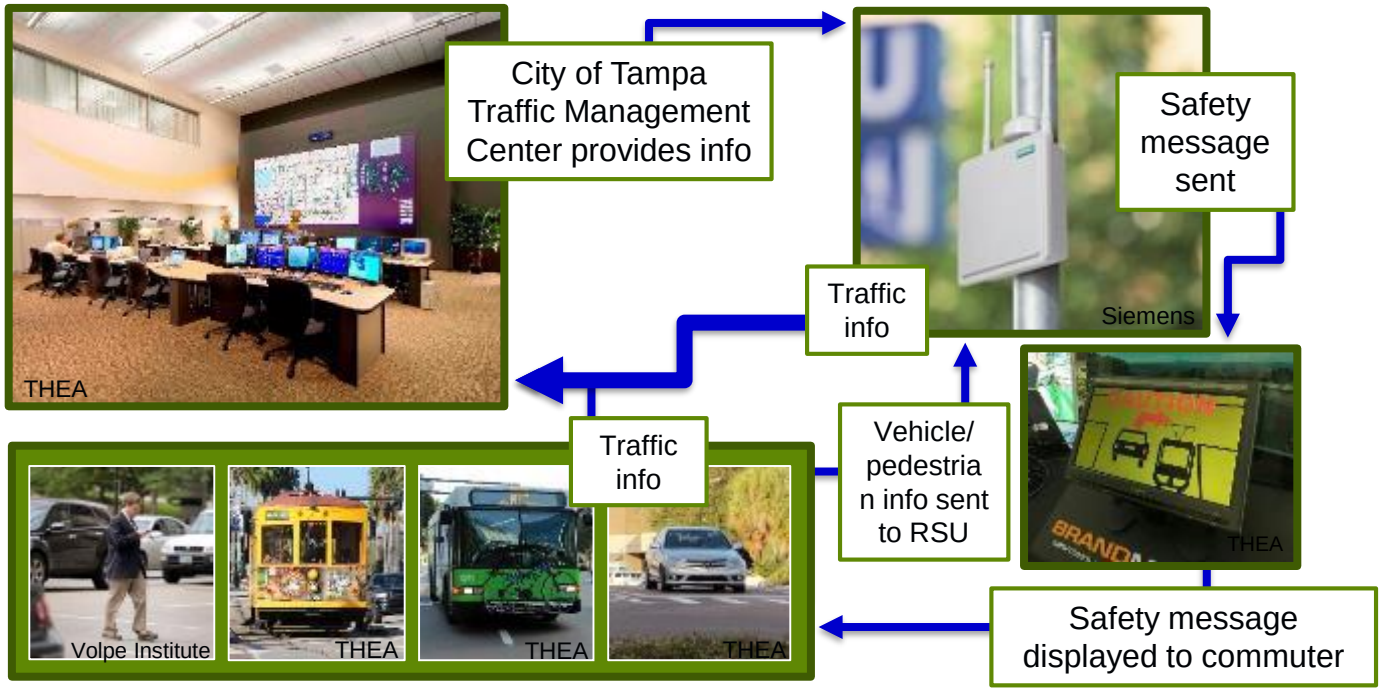
Vehicle Turning Right in Front of Transit Vehicle (VTRFTV)

PTMW

Traffic Progression

- Probe Data Enabled Traffic Monitoring (PDETM)
- Pedestrian Mobility (PED-SIG)
- I-SIG
- IMA

Information Flow



RSU Photos

Source: Siemens

HMI Photos

Mirror display uses sticker to depict location and concept of warning.
Actual image is still in development

Source: Brand Motion and Global 5

Benefits

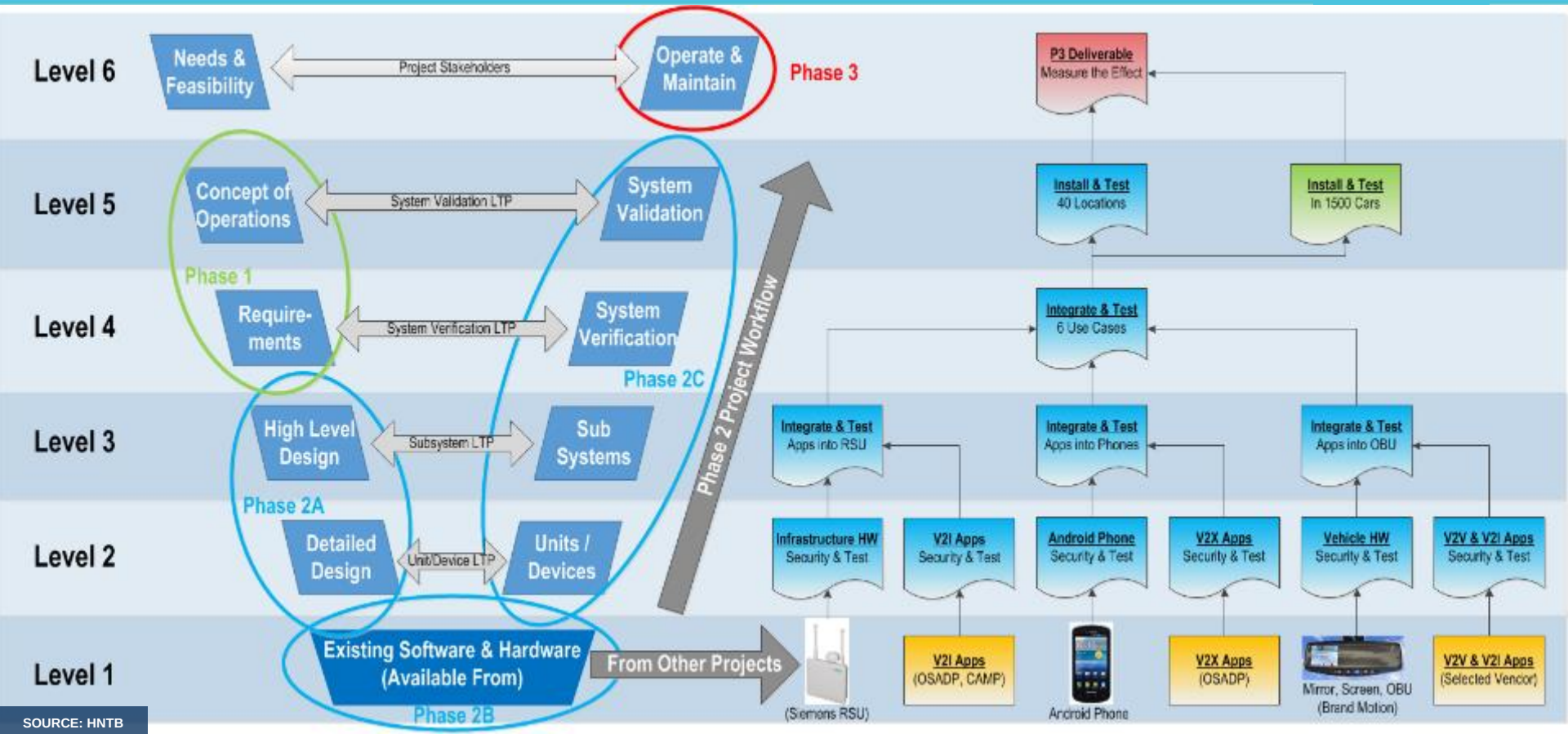
SELMON
EXPRESSWAY

SELMON
EXPRESSWAY
618
SUNPASS
OR WE BILL YOU

DO NOT ENTER

FAILURE TO PAY
TOLLS ENFORCED
$100 PENALTY

Status



SOURCE: HNTB

STAY CONNECTED

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