

Connected Vehicle Pilot Deployment Program Phase 3

Operational Capability Showcase Plan – Tampa (THEA)

www.its.dot.gov/index.htm

Final Report — January 2019

FHWA-JPO-18-717



U.S. Department of Transportation

Produced by Tampa Hillsborough Expressway Authority (THEA) CV Pilot Team
U.S. Department of Transportation
Intelligent Transportation Systems Joint Program Office (ITS JPO)

Notice

This document is disseminated under the sponsorship of the Department of Transportation in the interest of information exchange. The United States Government assumes no liability for its contents or use thereof. The U.S. Government is not endorsing any manufacturers, products, or services cited herein and any trade name that may appear in the work has been included only because it is essential to the contents of the work.

This document is based upon work supported by the Federal Highway Administration under contract number DTFH6116H00025. Any opinions, findings and conclusions or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the views of the Federal Highway Administration.

Technical Report Documentation Page

1. Report No. FHWA-JPO-18-717		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle Connected Vehicle Pilot Deployment Program Phase 3, Operational Capability Showcase Plan – Tampa (THEA)				5. Report Date January 2019	
				6. Performing Organization Code	
7. Author(s) Jeff Brown (Global-5), Sue Chrzan (THEA)				8. Performing Organization Report No.	
9. Performing Organization Name And Address Tampa Hillsborough Expressway Authority 1104 East Twiggs Street, Suite 300 Tampa, Florida 33602				10. Work Unit No. (TR AIS)	
				11. Contract or Grant No. DTFH6116H00025	
12. Sponsoring Agency Name and Address U.S. Department of Transportation ITS Joint Program Office 1200 New Jersey Avenue, SE Washington, DC 20590				13. Type of Report and Period Covered Final Report	
				14. Sponsoring Agency Code	
15. Supplementary Notes Govind Vadakpat, AOR Sarah Tarpgaard, AO					
16. Abstract The Tampa Hillsborough Expressway Authority (THEA) Connected Vehicle (CV) Pilot, as part of the U.S. Department of Transportation (USDOT) CV Pilot Deployment Program, is required to plan and stage an Operational Capability Showcase (OCS) no later than the first 12 months from the beginning of Phase 3 of the pilot, which began on September 1, 2018. The OCS is intended to be a media event to communicate the capabilities, intent and value of the deployment. This plan describes the planned activities for the OCS, which is scheduled for November 29, 2018.					
17. Key Words Intelligent Transportation Systems, Connected Vehicles, Intelligent Vehicles, Connected Vehicle Pilot Deployment, Vehicle Communication, Outreach, Communications, Media Relations			18. Distribution Statement (Remove; Insert Information Here or leave blank)		
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No. of Pages 13	22. Price

Version History

#	Date	Author(s)	Summary of Changes
1.0 Initial Draft	10/26/18	THEA/Global-5	
1.1 Final	11/26/18	THEA/Global-5	

Table of Contents

1 Introduction	2
2 Interoperability Activity	3
3 Demonstrations	4
3.1 DEMO #1 – STREETCAR SAFETY	4
3.2 DEMO #2 – BUS SAFETY	5
3.3 DEMO #3 – PEDESTRIAN SAFETY	6
4 Media Relations	7
5 Agenda	8

1 Introduction

The Tampa Hillsborough Expressway Authority (THEA) Connected Vehicle (CV) Pilot, as part of the U.S. Department of Transportation (USDOT) CV Pilot Deployment Program, is required to plan and stage an Operational Capability Showcase (OCS) no later than the first 12 months from the beginning of Phase 3 of the pilot, which began on September 1, 2018. The OCS is intended to be a media event to communicate the capabilities, intent and value of the deployment.

The THEA CV Pilot OCS is scheduled for November 29, 2018. The event begins at THEA headquarters with a welcome and speaking opportunities for THEA and USDOT representatives, after which attendees will be invited to experience a series of three demonstrations of CV applications, each at a different location in downtown Tampa. Each demonstration may be conducted multiple times if necessary to accommodate the number of attendees. The estimated capacity of the event is 50 attendees due to the size of the meeting room and the time available for demonstrations.

A Hillsborough Area Rapid Transit (HART) bus will be available to transport attendees from one site to the next. However, if some reporters or other attendees wish to see only one or two of the demos, they are free to use their own transportation.

2 Interoperability Activity

The OCS is required to include “an interoperability activity, wherein one or more in-vehicle or mobile devices from a different CV Pilot Deployment site is shown to be interacting successfully with the local deployment.” The Tampa OCS meets this requirement by including an interoperability briefing in the morning agenda. A representative of the USDOT CV Pilot Deployment Program will explain the importance of interoperability and what the pilot deployment sites are doing to achieve that goal. The speaker will also show a video based on the interoperability bench testing that occurred at the USDOT Turner-Fairbank Highway Research Center in McLean, Virginia, on June 26–28, 2018.

3 Demonstrations

3.1 Demo #1 – Streetcar Safety

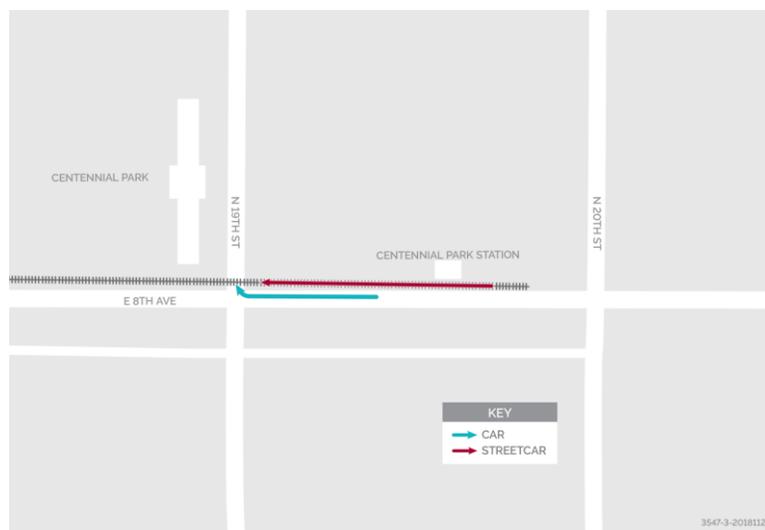
The streetcar safety demo will show how the CV Pilot is deploying the Vehicle Turning Right in Front of Transit Vehicle (VTRFTV) application to prevent crashes between equipped automobiles and streetcars.

Attendees will take the bus from THEA to the Centennial Park Station of the TECO Line Streetcar System. Upon arrival, a HART representative will deliver a short safety briefing.

This demo involves two vehicles: an equipped automobile and an equipped streetcar. A THEA or HNTB employee will drive the automobile and a trained TECO Line streetcar motorman will operate the streetcar. Reporters and other attendees may ride in the back seat of the automobile and/or on the streetcar. Camera crews may also shoot from outside the vehicles.

The automobile begins behind and to the left of the streetcar. As the streetcar moves forward, the automobile driver accelerates alongside the streetcar, activates the right turn signal, and turns to the right as if to cross the track in front of the streetcar. The automobile driver immediately receives an audio and visual alert on the rearview mirror. The streetcar motorman receives an audio and visual alert on the screen and responds by bringing the streetcar to a stop. Finally, the streetcar reverses direction to return to its starting position. Attendees will have an opportunity to ask questions during the demo. This demo may be repeated up to four times if necessary to accommodate all attendees.

Figure 1. Streetcar Safety Demo



U.S. Department of Transportation
Intelligent Transportation Systems Joint Program Office

3.2 Demo #2 – Bus Safety

The bus safety demo will show how the CV Pilot is deploying the Intersection Movement Assist (IMA) application to help prevent crashes between vehicles at intersections.

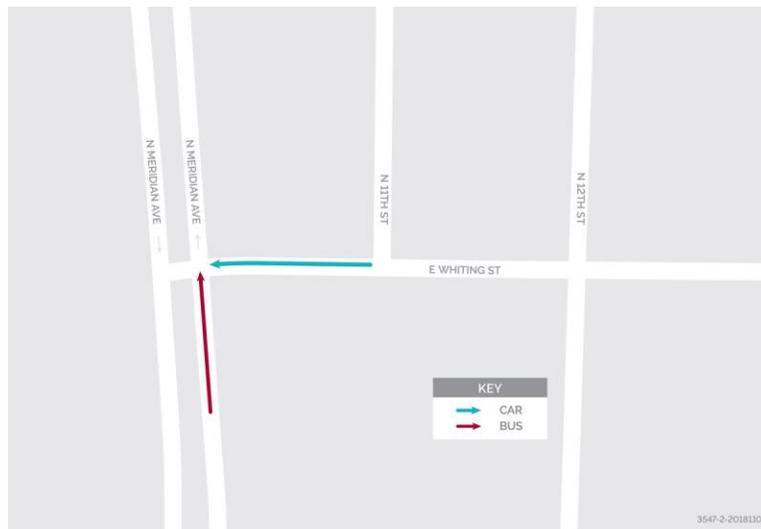
Attendees will take the bus from the HART trolley barn to the east side of Meridian Avenue near the intersection with Whiting Street.

This demo involves two vehicles: an equipped automobile and an equipped HART bus. A THEA or HNTB employee will drive the automobile and a trained HART bus operator will drive the bus. Reporters and other attendees may ride in the back seat of the automobile and/or on the bus. Camera crews may also shoot from the east side of Meridian Avenue and/or north or south of Whiting Street.

The bus travels northbound on Meridian Avenue toward the intersection with Whiting Street while the automobile travels west on Whiting Street toward Meridian Avenue. The automobile driver and bus operator both receive an audio and visual alert warning them of a potential collision. Both vehicles come to a stop. To repeat the demo, the bus backs up to its starting position. Attendees will have an opportunity to ask questions during the demo.

This demo may be repeated up to four times if necessary to accommodate all attendees.

Figure 2. Bus Safety Demo



3.3 Demo #3 – Pedestrian Safety

The pedestrian safety demo will show how the CV Pilot is deploying the Pedestrian Collision Warning (PCW) application to reduce vehicle/pedestrian conflicts on Twiggs Street.

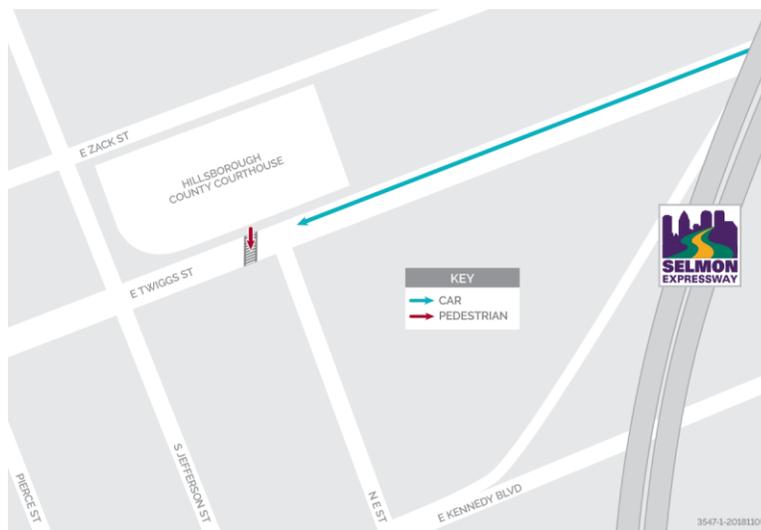
Attendees will return to THEA on the HART bus where they will get into the CV-equipped automobiles and proceed to Twiggs Street, across from the Hillsborough County Courthouse.

This demo involves two to four equipped automobiles driven by THEA or HNTB personnel. Reporters and other attendees may ride in the back seat. Camera crews may also shoot from the north or south side of Twiggs Street.

The automobiles will take turns driving west on Twiggs Street toward the midblock crosswalk. A member of the project team will cross the street within the crosswalk as the automobile approaches. The automobile driver will receive an audio and visual alert warning of a pedestrian in the crosswalk ahead. The driver will come to a stop. To repeat the demo, the driver will turn left on Jefferson Street, left on Jackson Street, left on Nebraska Avenue and left on Twiggs Street. Attendees will have an opportunity to ask questions during the demo.

This demo may be repeated multiple times if necessary to accommodate all attendees.

Figure 3. Pedestrian Safety Demo



4 Media Relations

Global-5 will distribute a “save the date” media advisory two weeks before the event and a news release with details of the event 24 hours in advance. The distribution list will include local TV, radio, print and online media; industry media; and national media.

Global-5 will gather resources for the media into an electronic media kit that will be made available at the event and, afterward, online. The electronic media kit will include an agenda, news release, maps of the demonstrations, fact sheets, photos and video of each demo.

Reporters may interview subject matter experts during the day’s demonstrations. The agenda also includes additional time for interviews after the final demonstration. Project managers, engineers and members of the performance measurement team will be available for interviews. Interviewees will be asked to sign a release form.

Global-5 will document the OCS with photos and video.

In addition to the media, THEA will invite elected officials, partner representatives and other dignitaries with an interest in the pilot. An assigned greeter will ask attendees to sign in as they arrive. Global-5 will provide display boards illustrating each of the three demos and an additional display board on the subject of interoperability. Other supporting materials will include fact sheets, printed agendas (including maps) and wayfinding signs. Sandwich boards will mark the site of each demo.

5 Agenda

Time	Duration	Description	Location	Speaker
8:30 a.m.	5 min	Welcome	THEA, 1104 E Twiggs St	Joe Waggoner, Executive Director and CEO, THEA
8:35 a.m.	5 min	Introduction to THEA CV Pilot	THEA	Bob Frey, Director of Planning and Innovations, THEA
8:40 a.m.	5 min	HART perspective	THEA	Ruthie Reyes Burckard, Chief Operating Officer, HART
8:45 a.m.	5 min	Federal Highway Administration perspective	THEA	James Christian, Division Administrator, FHWA
8:50 a.m.	10 min	Interoperability—introduction and video	THEA	Govind Vadakpat, Research Transportation Specialist, USDOT
9:00 a.m.	15 min	Transportation to Centennial Park Station		
9:15 a.m.	45 min	Demo #1: Streetcar safety	Centennial Park Station, 20th St & 8th Ave	
10:00 a.m.	15 min	Transportation to Meridian Ave & Whiting St		
10:15 a.m.	45 min	Demo #2: Bus safety	Intersection of Meridian Ave & Whiting St	
11:00 a.m.	15 min	Transportation to THEA (cars will depart from and return to THEA for Demo #3)		
11:15 a.m.	60 min	Demo #3: Pedestrian safety	Twiggs St at Hillsborough County Courthouse	
12:15 p.m.	5 min	Conclusion & thanks	THEA	Bob Frey
12:20 p.m.	40 min	Media availability for interviews	THEA	Bob Frey, Steve Novosad, Steve Johnson, Rafal Ignatowicz, Dave Miller...
1:00 p.m.		Event ends		

U.S. Department of Transportation
Intelligent Transportation Systems Joint Program Office

U.S. Department of Transportation
ITS Joint Program Office-HOIT
1200 New Jersey Avenue, SE
Washington, DC 20590

Toll-Free "Help Line" 866-367-7487
www.its.dot.gov

FHWA-JPO-18-717



U.S. Department of Transportation