

Next Phase of THEA's Connected Vehicle Pilot Brings Together Auto Manufacturers and Road Operators

October 15, 2020



TAMPA, Fla. (October 15, 2020) – Since September 2015, the Tampa Hillsborough Expressway Authority (THEA) has been working with the United States Department of Transportation (USDOT) as a Connected Vehicle Pilot site. The next step in the Connected Vehicle space is to begin working with the auto industry manufacturers. To that end, THEA is proud to announce that it is collaborating with Honda R&D Americas, LLC, Hyundai America Technical Center, Inc. (HATCI) and Toyota Motor North America to deploy vehicles with connected vehicle technology already installed. Original Equipment Manufacturer (OEMs) vehicles and hardware provide the next evolution of delivering safer transportation.

This collaboration is among the first of its kind where multiple OEMs are coming together in an existing Connected Vehicle (CV) deployment. The OEM vehicles will not only interact with one another but also the existing CV Pilot participants. Each of the OEMs has selected DENSO, a leading mobility supplier with over 15 years of vehicle-to-everything (V2X) experience, as its onboard unit (OBU) provider. Building on the CV Pilot apps, DENSO will develop a common set of CV apps for the OEMs, enabling the rapid communication between vehicles and surrounding infrastructure.

This is an important step in continuing the testing of transportation safety applications to provide drivers with the best information possible. THEA's CV Pilot applications have proven that information from connected infrastructure can benefit drivers, automakers, and road operators as a means to transmit crucial safety information. In the past 18 months, the THEA CV Pilot has warned 14 wrong-way drivers on interchange ramps, nine potential trolley crashes, and has given over 1,500-speed advisories a month on freeway exit ramps, to state a few examples.

This collaboration with Honda, Hyundai and Toyota is the next step in making connected roadways a reality in Tampa Bay. Connecting roadways and infrastructure lays the foundation toward a technology-based transportation system – a true “Smart City.”

“Through connected vehicle and infrastructure deployment like our Smart Intersection technology in Ohio, Honda has gained an understanding of the early benefit of vehicle-to-everything (V2X) from the infrastructure side,” said Sue Bai, chief engineer, Automobile Technology Research Division, Honda. “The Tampa CV Pilot offers another great opportunity to collaborate with government entities and road operators to expand V2X deployment and help bring safety and mobility benefits to our customers and society sooner, ultimately working toward Honda's vision for a collision-free society.”

“The Tampa CV pilot provides an opportunity for Hyundai Motor Group to continue research the safety, mobility, and ecological benefits of a connected vehicle in a real world environment,” said John Robb, director, Electronic Systems Development, Hyundai Motor Group. “Deployment of prototype OnBoard Units (OBUs) by retrofitting them into participants' vehicles in Tampa enables us to collect data and understand customers' experiences of this V2X technology.”

“Toyota is excited to support the V2X deployment initiative in Tampa because realization of cooperative transportation systems, with V2X technologies is important for creating a more safe and eco-friendly mobility future,” said Jeff Makarewicz, group vice president — Advanced Mobility Research & Development, Toyota Motor North America.

In September 2020, phase 4 of the THEA CV Pilot kicked off to begin the planning for incorporating the OEMs into the pilot. The current plan is for the OEMs to deploy six of the CV Pilot apps. One new app will be added as well. A demonstration showcase will likely be held in Q4 of 2021. At that time, Honda, Hyundai, Toyota and THEA will highlight how OEM vehicles, equipped with prototype CV technologies, can interact with the CV Pilot vehicles and roadside units.

“This next step – integrating multiple auto manufacturers onboard technology, will show how connected vehicle technology can be incorporated into the cars coming off the line,” said Bob Frey, innovation director and CV Project Manager. “Honda, Hyundai and Toyota have been great to work with and have always put safety of their customers first. This new collaboration shows just how much they are willing to work together to achieve their goal.”