Florida Department of Transportation

RON DESANTIS
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

KEVIN J. THIBAULT, P.E.
SECRETARY

November 19, 2019

To Whom It May Concern:

Please consider this letter as a request for a license to use Cellular-Vehicle-to-Everything (C-V2X) devices.

The Florida Department of Transportation (FDOT) is an executive agency, which means it reports directly to the Governor. FDOT's primary statutory responsibility is to coordinate the planning and development of a safe, viable, and balanced state transportation system serving all regions of the state, and to assure the compatibility of all components including multimodal facilities. FDOT acts as an infrastructure owner and operator of connected vehicle technology and equipment.

With the proper licensure, FDOT will deploy and test pedestrian and bicyclist safety applications at signalized intersections and unsignalized mid-block crossings in Gainesville, Florida using connected vehicle (CV) equipment and technologies.

The project will utilize roadside units (RSUs) using the 5.9 GHz bandwidth to process detection logic and broadcast personal safety messages. The RSUs will communicate with smartphones to transmit pedestrian and bicyclist presence detection information.

The project objectives are as follows:

- To improve the safety of the pedestrian and bicyclist population
- To receive warnings from pedestrians and bicyclists of a possible conflict at a signalized intersection or mid-block crosswalk
- To send warnings to pedestrians and bicyclists of a possible conflict at a signalized intersection or mid-block crosswalk
- To receive warnings from drivers of a possible conflict at a signalized intersection or mid-block crosswalk
- To send warnings to drivers of a possible conflict at a signalized intersection or mid-block crosswalk
- To receive information from the system for evaluation and development of smartphone application
- To develop capability with CV RSU technology to realize the safety and mobility benefits

Current RSU designs focus on dedicated short-range communication (DSRC). DSRC has been used in FDOT CV deployments. Chip makers and automobile manufacturers are exploring C-V2X. Using C-V2X in the project allows for testing and developing C-V2X technology. Dual mode DSRC and C-V2X are available, and FDOT would like to test equipment with C-V2X communication.

The estimated length of time that will be required to complete the program of experimentation is three years (December 2020 through December 2023). FDOT plans to use 30 RSUs equipped with C-V2X communication.

Thank you in advance for any help you might be able to offer.

Sincerely,

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