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November 26, 2018

Ms. Heidi Renate King
Deputy Administrator
National Highway Traffic Safety Administration (NHTSA)
U.S. Department of Transportation
1200 New Jersey Avenue, S.E.
Washington, DC 20590

Re: Docket No. NHTSA-2018-0092

Dear Deputy Administrator King:

The Texas Department of Transportation (TxDOT) appreciates the opportunity to provide you with comments on the *Advanced Notice of Proposed Rulemaking on a Pilot Program for Collaborative Research on Motor Vehicles with High or Full Driving Automation*.

The following pages provide comments on the four topics posed in NHTSA's request for comments.

If you have any questions concerning TxDOT's comments, please contact me directly at (512) 305-9508 or at Darran.Anderson@txdot.gov.

Sincerely,

Darran Anderson
Director, Innovation and Strategy

cc: James Bass, Executive Director
Marc D. Williams, P.E., Deputy Executive Director
Jerry Haddican, Director, Government Affairs

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NHTSA is proposing to establish an Automated Driving System (ADS) vehicle national pilot program to facilitate, monitor and learn from the testing and development of high and fully automated vehicles (i.e., Level 4 and 5 ADS vehicles) and to assure the safety of these activities.

1 Potential factors that should be considered in designing a pilot program for the safe on-road testing and deployment of vehicles with high and full driving automation and associated equipment.

TxDOT would like to support NHTSA establishing a national ADS vehicle pilot program.

Subchapter J to Section 545 of the Texas Transportation Code addresses the requirement to operate automated driving systems on Texas roadways. In general, use of an automated system is allowed as long as the vehicle meets the requirements of Section 545.454. This section requires the automated vehicle to be:

- in compliance with applicable traffic and motor vehicle laws
- equipped with a recording device
- equipped with an automated driving system that complies with federal law and motor vehicle safety standards
- registered and titled in the state
- covered by insurance in line with normal state requirements

ADSs are using machine-vision technology to assist vehicles negotiating curves, reading static warning signs, regulatory signs, rumble strips, pavement markings, and dynamic message signs, as well traffic signals. However, there have been issues with ADSs being unable to read the road due to various conditions such as missing reflectors, lanes not being clearly delineated during construction, or faded paint stripes. Changes that may need to be made to highways and traffic control devices such as road markings to allow ADSs to operate safely are still to be determined. For example, the recently released guidance *Automated Vehicles 3.0: Preparing for the Future of Transportation* states that USDOT has tasked the Federal Highway Administration (FHWA) to update the 2009 Manual on Uniform Traffic Control Devices (MUTCD), which will take into consideration the needs of high and fully automated vehicles. However, the pilot program should consider coordinating with state, local governments, and other entities to better understand the interaction of transportation infrastructure and ADSs and how they can better adapt to each other.

2 The use of existing statutory provisions and regulations to allow for the implementation of such a pilot program.

The State of Texas does not require any pilot or test deployments to meet the codified language as written by the Texas legislature, as codified by direction of the State of Texas described in (1). In passing state legislation Texas legislators have determined that no additional restrictions are necessary at this time.

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- 3 Any additional elements of regulatory relief (e.g., exceptions, exemptions, or other potential measures) that might be needed to facilitate the efforts to participate in the pilot program and conduct on-road research and testing involving these vehicles, especially those that lack controls for human drivers and thus may not comply with all existing safety standards.

In addition to Texas Transportation Code, Sections 547 and 548, which concerns vehicle equipment, Texas Statute relies primarily on the Federal Motor Vehicle Safety Standards (FMVSS) and federal law to create a homogenized regulatory framework for automated vehicles across the nation. Modification of the FMVSS, as provided for in 83 FR 2607, earlier this year may be appropriate.

- 4 The nature of the safety and any other analyses that it should perform in assessing the merits of individual exemption petitions and on the types of terms and conditions it should consider attaching to exemptions to protect public safety and facilitate the Agency's monitoring and learning from the testing and deployment, while preserving the freedom to innovate.

The State of Texas statute allows for ample innovation and freedom and does not require individual exemption petitions.

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