



May 14, 2021

Honorable Nicole R. Nason
Administrator, Federal Highway Administration
U.S. Department of Transportation
1200 New Jersey Avenue S.E.
Washington, D.C. 20590

Re: Comments for Docket No. FHWA-2020-0001
Notice of Proposed Amendment (NPA) on the Manual on Uniform Traffic Control Devices (MUTCD)
RIN 2125 – AF85

Dear Ms. Nason,

The American Coatings Association (ACA)¹ appreciates the opportunity to provide comments on the proposed revisions to the Manual on Uniform Traffic Control Devices (MUTCD).

Statement of Interest

The paint and coatings industry is an essential and dynamic part of our nation's economy, and plays a key role in creating products that help preserve and protect everything, from everyday objects to our most important infrastructure. While often overlooked or invisible, coatings are indispensable products, engineered to perform well under varied conditions. Coatings not only preserve our cars and homes; they preserve the bridges we drive across and the tunnels through which we travel. Many of ACA member companies manufacture traffic marking coatings, specifically. The U.S. market for traffic marking coatings is approximately \$846 M, and this market is anticipated to grow as it will play a major role in any federal investment to rebuild and upgrade our roads and highways.

¹ ACA is a voluntary, nonprofit trade association working to advance the needs of the paint and coatings industry and the professionals who work in it. The organization represents paint and coatings manufacturers, raw materials suppliers, distributors, and technical professionals. ACA serves as an advocate and ally for members on legislative, regulatory, and judicial issues, and provides forums for the advancement and promotion of the industry through educational and professional development services.

Standardized and consistent traffic markings enhance the safety of drivers, passengers, and pedestrians. Traffic marking coatings are key to providing an important aspect of the infrastructure upon which the autonomous vehicle industry and machine vision technology require to grow and maintain safety in an ever-moving society.

The Notice of Proposed Amendments to the MUTCD

The purpose of the proposed amendments is to revise standards, guidance, options, and supporting information relating to the traffic control devices in all parts of the MUTCD. The proposed changes are intended to update the technical provisions to reflect advances in technologies and operational practices, incorporate recent trends and innovations, and set the stage for automated driving systems as those continue to take shape. The proposed changes would promote uniformity and incorporate technology advances in the traffic control device application, and ultimately improve and promote the safe and efficient utilization of roads that are open to public travel.

The proposed changes would update the technical provisions to reflect advances in technologies and operational practices, incorporate recent trends and innovations, and set the stage for automated driving systems as those systems continue to take shape. These changes would promote uniformity and incorporate technological advances in traffic control device design and application, and ultimately improve and promote the safe and efficient utilization of roads that are open to public travel.

ACA Comments

ACA Applauds the Agency's Effort to Update the MUTCD and Further Standardization of Traffic Control Devices

The current version of the MUTCD was developed in 2009 and since then, numerous technologies and improvements have been realized in traffic control devices, including advanced coatings materials for traffic markings. ACA applauds the Federal Highway Administration for undertaking the effort to update the MUTCD and not only incorporate these advanced technologies but to require standardization, uniformity, and consistency for traffic markings and devices across the country.

Standardization of traffic control markings and devices are essential to the safety of drivers, passengers, bikers and all other pedestrians. FHA has noted that uniformity in the appearance, meaning, application, and other critical attributes of traffic control devices promotes the safe and efficient utilization of the streets and highways. It is critical that drivers, passengers, bikers and pedestrians understand the meaning of traffic control markings and devices and act in a predictable and consistent manner – no matter the geographic location. ACA could not agree more and supports the effort to develop an updated, state of the art guide for standardization of these important traffic markings and devices.

ACA Supports the Inclusion of a New Part 5 entitled "Autonomous Vehicles" (Page 58; Paragraphs 448 – 451)

The inclusion of a new section of the Manual devoted to autonomous vehicles is appropriate. Autonomous vehicles and machine vision technology represent the future of transportation. The status of America's transportation infrastructure has been widely discussed recently and it is no secret that our highways and roads require significant investment. As more and more autonomous vehicles begin to 'take to the highways', it is clear that the highways and roads require more than just repairs. Our transportation systems need to be modernized so that they can seamlessly accommodate the newest and best technologies.

Machine vision technology must be able to "read" the road, just as human drivers currently do. 'Reading the road' and navigating safely on highways, roads, parkways, city and local streets is fundamental. New Part 5 of the MUTCD should be developed with forward-thinking technologies in mind, allowing the inevitable improvements to machine vision technologies to 'hit the road' without any reservations that it will be able to read the traffic markings accurately. ACA and the coatings industry is committed to helping to develop and build the infrastructure to support these technologies – ACA supports the inclusion of a chapter dedicated to autonomous vehicles.

ACA Recommends Specific Changes to Traffic Markings to Accommodate Autonomous Vehicles (Page 58; Paragraph 455)

Key proposed changes in the MUTCD are the considerations for agencies to prepare roadways for automated vehicle technologies and to support the safe deployment of automated driving systems. A fundamental theme is the importance of uniformity, consistency, and standardization of these markings so that machine vision technology can effectively 'read the road.' This uniformity and standardization is important not only for the safe operation of autonomous vehicles, it will also enhance the safety for driver assisted vehicles and human operators.

The need uniform traffic markings across the country is well understood. Vehicle crash studies demonstrate that 'roadway readiness' can increase safety and decrease the amount of vehicle crashes. 'Roadway readiness' includes considerations that traffic markings and signage are accurate, highly visible and consistent. As proposed in paragraph 455, these considerations include uniform line widths, the use of dotted edge line extensions along all entrance and exit ramps as well as all auxiliary lanes and all tapers where a deceleration or auxiliary lane is added, use of chevron markings in exit gore areas, continuous markings in work zones and in all lane transitions, and minimum dimensions for dashed lines. These considerations benefit machine vision as well as human operators and exponentially increase safety.

ACA supports FHWA's proposals on these considerations. Specifically, ACA supports the following:

- Using 6-inch wide markings on interstates, freeways, and expressways,
- Using 6-inch wide edge lines on conventional two-lane highways,
- Using dotted edge lines along exit and entrance ramps,
- Placing chevron markings in gore areas, and

- Eliminating the use of intermittent markings as a substitute for continuous markings.

Advanced coatings technologies will play a significant role in achieving 'roadway readiness'. The coatings industry has worked diligently to facilitate the develop the autonomous vehicle industry and ensure its success and safety on the road. Efforts to ensure readability for machine vision technology and human operators has been ongoing and many successful innovations have been introduced for traffic marking coatings, including innovations that improve visibility in challenging environments.

As indicated above, ACA supports the proposed changes to the MUTCD. Thank you for the opportunity to provide comments on this important endeavor. As you consider our comments, if there are any questions that arise, please do not hesitate to contact me.

Best regards,



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American Coatings Association, Inc.