

Stephanie Pollack, Acting Administrator  
Federal Highway Administration  
US Department of Transportation  
1200 New Jersey Ave S.E.  
Washington, DC 20590

May 14, 2021

RE: Comments and recommendations on the MUTCD to advance safety, climate, and equity

Dear Acting Administrator Pollack,

Since January, hundreds of organizations, government agencies, and individuals have written to your office calling on FHWA to reframe and rewrite the Manual as a proactive safety regulation and help meet our country's sustainability and inequity challenges. In that spirit, I am writing to offer the following comments and recommendations about the draft 11th edition of the Manual on Uniform Traffic Control Devices (MUTCD). I thank you and your staff for their thoughtful work thus far, and urge consideration of the comments summarized below as you begin the important work of updating the MUTCD.

I work as the Bicycle and Pedestrian Coordinator for a municipality. I regularly consult the MUTCD. While this letter does not reflect the views of this municipality, it does reflect my personal experience trying to encourage walking and biking and trying to keep people walking and biking safe in our city. Pedestrian and bike fatalities are increasing nationally and my city is among the most dangerous to walk and bike; I feel a degree of personal responsibility for this. I need the MUTCD to be a document that helps rather than hinders our efforts to keep people safe on our transportation network.

We have a car-centric culture both within and outside the City. Staff recognizes the MUTCD as federal law and will follow it to the letter. If the MUTCD promotes safety over Level of Service, our engineers will follow that guidance. If the MUTCD promotes walking, biking, and transit as important transportation modes along with cars, our engineers will follow that guidance. But if the MUTCD continues to reflect a car-centric approach to road design, our engineers will be happy to follow that too. Streets didn't used to be a place where fast, efficient vehicular movement trumped all other concerns, including human lives. We chose that priority with guidance from documents like the MUTCD. Please consider the specific comments created/compiled by NACTO to make our streets safer and more welcoming to the diverse ways people move and live and do business along our street network.<sup>1</sup>

**The 11th edition of the MUTCD is a unique opportunity for the Biden Administration to enshrine its safety, sustainability and equity goals in a core regulatory document that impacts nearly every roadway in the country.** However, we believe that the proposed draft

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<sup>1</sup> <https://docs.google.com/spreadsheets/d/1iDKFK96q2dnt-loBbEyQwFSiSJ9sBjBPI69LzeTw1D4/edit#gid=1921131807>

undercuts the Administration by continuing to elevate operational efficiency for motor vehicles above safe and accessible mobility for people. Without significant revisions and reframing, the MUTCD will continue to enable almost 40,000 people to die each year on US roads and encourage unsustainable increases in greenhouse gas emissions from the transportation sector.

**I encourage FHWA to seize this moment to reframe the MUTCD** to become a document that goes beyond merely allowing practitioners to build safer roads and instead encourages and empowers them to do so while also addressing the inequitable and unsustainable elements of our land use and transportation systems. **I support the comments submitted by the National Association of City Transportation Officials (NACTO), as well as those from America Walks, Transportation for America, and others.** We urge FHWA to take these comments in full as they embark on the process of finalizing the 11th edition of the MUTCD. In particular, we urge FHWA to pay close attention to the following issues within the draft MUTCD and enact the listed recommendations:

- **Elevate the goal of eliminating serious injuries and deaths as a guiding principle of the Manual, ensuring a “safe systems” approach throughout the document:**
  - **Description:** The Manual unrealistically identifies target road users as pedestrians and bicyclists who always act “alertly and attentively”, “reasonably and prudently”, and “in a lawful manner” (Section 1A.03). This definition fails to recognize the inevitability of human error, as well as the enormous range of urban street users. Most children, for example, would not meet this standard. By including it, the Manual implies that engineers are only responsible for protecting road users who meet this specific impractical definition.
  - **Recommended Actions:**
    - Define the Manual’s goal as enabling safe roadways for all users. (Section 1A.01)
    - Remove Section 1A.03.
    - Replace Section 1D.03 with contextually-sensitive text that recognizes the limits of uniformity—using identical signs everywhere—as an approach to the inherently diverse environment of city streets.
- **Remove guidance recommending the use of free-flow speeds, including the 85th percentile speed, in setting speed limits.**
  - **Description:** A substantial body of published research, most recently from [The National Transportation Safety Board \(NTSB\) in 2017](#), shows that using the 85th percentile approach to establish speed limits leads to increases in vehicular speed over time. As a result, a wide consortium of American safety and engineering organizations, including the [National Committee on Uniform Traffic Control Devices \(NCUTCD\)](#), the [National Safety Council](#), [NACTO](#), and the [Vision Zero Network](#) no longer endorse the MUTCD’s recommended speed-limit-setting approach. While FHWA has downgraded the use of the 85th percentile approach from a requirement to a recommendation, even the persisting recommendation sends the message that local engineers may continue using this highway-based tool on most or all urban streets.
  - **Recommended Actions:**

- Remove all guidance recommending the use of free-flow / 85th percentile speed in setting speed limits. (Section 2B.21)
  - Require that states and cities adopt an injury-minimization approach to setting speed limits.
- **Make it safer to cross the street by reforming signal and hybrid beacon warrants so that practitioners can install protected street crossings without requiring pedestrians to risk their lives.**
  - **Description:** The Manual's circular signal warrants call for *either* a high volume of people crossing the street without a protected crossing *or* waiting for multiple traffic injuries or deaths to occur in order to justify installing signals or beacons for pedestrians - while motor vehicle signals are routinely installed simply on the basis of traffic projections from a new development (Chapter 4C, Section 4J.01, Sections 2B.06 to 2B.17). These warrant volumes are significantly higher than those in other industrialized countries with far lower traffic fatalities, including Canada. In some cases, the Manual's unreasonably restrictive warrants prevent practitioners from installing safe crossings, even when they can expect that a fatality or serious injury may occur.
  - **Recommended Actions:**
    - Allow normal signals to be installed wherever a Pedestrian Hybrid Beacon is warranted, with guidance that traffic on the minor street can be de-emphasized using signal timing and geometric design if speeding to the green is a concern. (Section 4C and 4J)
    - Provide a signal warrant or prioritization system that aims to make major streets safe to cross at regular intervals, establishing basic guidance on the distance people can be expected to walk to get to a crosswalk. Revisions are needed to Chapter 4C (signal warrants), 4J.01 (Hybrid Beacon warrants) and Section 2B.06 to 2B.17 (stop sign warrants) and Section 3B.02 (crosswalk warrants).
    - Allow the flexible use of effective pedestrian crosswalk signs. (Section 2B.19 and 2B.20)
    - Require pedestrian signals to be installed at signalized intersections as a standard, rather than a recommendation. (Section 4D.02)
- **Eliminate geometric design restrictions for urban bikeways.**
  - **Description:** The MUTCD is not intended to be geometric design guidance, yet includes dozens of standards and recommendations about bike lane positioning—where bike lanes are facilitated at all.
  - **Recommended Actions:**
    - Adopt the NACTO *Urban Bikeway Design Guide* and MassDOT *Separated Bikeway Design Guide* as primary references for the MUTCD in Part 1, adding to the MUTCD *all traffic control devices and applications thereof* referred to in those guidelines. (Part 1)
    - Change most of the Standards in Part 9 to Options or Support statements (see detailed comments spreadsheet for specific line edits). (Part 9)

- Revise the bicycle markings section (9E) to remove all text that prohibits marking bicycle lanes at intersections, recommends dropping the bike lane at an intersection, or recommends against bend-out intersections (protected intersections) See detailed comments spreadsheet for specific line edits.
  - Further simplify the guidance on the use of bike signals and their meaning by more closely aligning the meaning of bike signals (Section 4A.05) with the way they are used in accepted practice, and add yielding to bicycles as a requirement for turning vehicles facing a green, yellow, flashing yellow, or yellow arrow signal (4A.03 and 4A.04).
  - Remove the prohibition on using bicycle signals at Hybrid Beacons and all-bike phases. (Section 4H.02)
- **Remove unnecessary restrictions on the use of green paint for bike lanes and other colored paint for crosswalks.**
  - **Description:** Without any research basis, the proposed Manual prevents practitioners from using green paint to delineate select bike facilities (Section 3H.06). The use of colored pavement in bike lanes is an important and heavily utilized treatment to delineate space on the street, and improves visibility for cyclists. In crosswalks, colorful paint can meaningfully contribute to creating a sense of place and community. There is no evidence to prove that these designs create any adverse safety impacts.
  - **Recommended Actions:**
    - Strike the proposed NPA text that disallows the use of non-traffic-control art between or near roadway markings, removing proposed restrictions. (Section 3H.03)
    - Enable the use of green markings for all bicycle-related uses, including green-backed shared-lane markings, green lanes on separated bikeways, and shared-use paths as needed. (Section 3H.06 & 9E.03)
- **Remove the Manual's new proposed chapter on Autonomous Vehicles.**
  - **Description:** The Manual's new chapter on Autonomous Vehicles (Part 5) places these road users at the top of a new modal hierarchy by absolving AV companies of the responsibility to build vehicles that keep all road users safe within the existing transportation network. Upgrading street markings to be compliant with the proposed MUTCD could cost taxpayers billions of dollars; and if the markings are non-compliant and an AV-involved crash occurs, taxpayers will likely foot the bill for that as well.
  - **Recommended Actions:**
    - Remove Part 5 from the Manual altogether.
    - Establish a multidisciplinary group to review the few appropriate elements that might be incorporated into other sections of the Manual where appropriate.
- **Remove unnecessary restrictions on the use of red paint for bus lanes.**
  - **Description:** Without any research basis, the proposed Manual prevents

practitioners from using red paint in contextually appropriate ways and without an engineering study in transit lanes (Section 3H.07). The use of colored pavement in bus lanes is an important and heavily utilized treatment to delineate space on the street, and improves visibility for transit vehicles. There is no evidence to prove that these designs create any adverse safety impacts.

- **Recommended Actions:**

- Allow engineers to delineate transit lanes using red paint without the undue cost and burden of conducting an engineering study. (Section 3H.07)
- Provide engineers with the flexibility to use red paint in line with local design considerations, rather than requiring that it be used across the full width of the lane. (Section 3H.07)

**Finally, I urge FHWA to expand the transparency and inclusivity of its process for reconciling comments and finalizing the 11th edition of the MUTCD and commit to a more timely process for future updates.** Key stakeholders who have legitimate and fundamental interest in what happens on America's roads have been largely excluded from FHWA's current drafting process. To create a MUTCD that truly meets the needs of all road users, our voices must be included. To this end, I ask FHWA to:

- **Ensure that multimodal safety experts play a formal and substantive role in the finalization of the 11th edition.** In refining this edition, and for all subsequent updates, FHWA must bring new, essential stakeholders into the conversation about safety on America's roads, including cities and transit agencies, public health experts, childhood development specialists, experts on aging, disability advocates and transportation safety champions, among others.
- **Ensure that subsequent editions of the MUTCD are timely and continue to drive progress toward safer streets and a more equitable and sustainable future, FHWA must ensure an inclusive process for more frequent updates to the MUTCD.** The past 12 years have seen significant advances in safety research yet the process for incorporating new safety findings into the MUTCD remains slow and opaque. FHWA should develop a process for the MUTCD that allows for thoughtful experimentation and ensures that new research and life-saving design practices can be quickly incorporated into the document and more expeditiously deployed at scale.

**The MUTCD can be a powerful tool to help the Biden Administration meet its ambitious goals around climate and equity, while ensuring safety for all road users.** If enacted, the recommendations in this letter will help transform the MUTCD into a document that can advance these causes rather than repeating the mistakes of the past. We thank you for your thoughtful consideration of these comments and hope that these recommendations will form the foundation of a meaningful reframing and revision of the MUTCD.

Respectfully,  
John Landosky, Ph.D.