

National Committee on Uniform Traffic Control Devices

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2022 Summer Meeting - Actions of NCUTCD Council Friday, June 17, 2022, Founders Inn, Virginia Beach, VA Meeting Summary

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General Session - Call to Order

NCUTCD Chair Gene Hawkins called the meeting to order at 8:00 AM Eastern Daylight Time.

Safety Briefing

Rick Campbell presented the safety briefing to all attendees.

Attendance and Determination of Quorum

Sponsor	Voting Members	Sponsor	Voting Members
AAA	Jeff Bagdade	IACP	Rick Campbell
AAR	Tony Bellamy	IBTTA	Shannon Bonilla
AASHTO	Meg Pirkle, Chair Christina Bennett Mark Bott Neil Boudreau Jody Colvin Maysa Hanna Tom Honich Bill Lambert	IMSA	Lenny Addair
AHUA	Jonathan Upchurch	ITE	Steven Jewell, Chair ¹ Mike Cynecki Kathy Falk Eagan Foster ¹ Gene Hawkins Marc Jacobson Brent Ogden ² Zoubir Ouadah
APBP	(Peter Koonce	ITS America	Bobby McCurdy
APTA	Gary Howard	LAB	Rock Miller
APWA	Steve Oliver, Chair Monica Suter Bob Garbacz	NACE	Lee Billingsley, Chair Tim Haagsma Mark Nahra
AREMA	Cayela Wimberly	NACTO	Patrick Baxter, Chair Uyen Dang Katy Sawyer
ARTBA	Tim Cox	NSC	Dan Magri
ASCE	Robert Bryson		
ATSSA	Donna Clark		
HFR	Fred Hanscom		

Honorary Members

George Butzer

¹ Replaced as an ITE voting member by Scott Kuznicki at 10:30 AM EDT. Foster became chair of the ITE delegation upon Jewell's departure.
² Ahmed Aburahmah replaced Brent Ogden at 10:30 AM EDT.

Executive Secretary Richard Moeur stated a quorum of voting members was present and all 41 voting seats filled.

18 **Chair's Report**

19 Chair Hawkins asked for any first-time Council members to stand and be recognized.

20

21 Bill Lambert moved and Steve Jewell seconded approval of the meeting summary for the
22 January 2022 meeting, which passed in a unanimous voice vote.

23

24 Chair Hawkins then gave a summary of the Executive Board meeting of May 26th. Instead of
25 holding a meeting during the busy schedule of the in-person general meeting, the board has
26 moved to holding a virtual meeting prior to each general meeting. This was mainly an
27 administrative meeting in which the Board approved a new contract for the Executive Secretary,
28 budgets for the upcoming fiscal year and meetings, received reports from Board committees,
29 appointed a new chair (Neil Boudreau) and vice chair (Ryan Lancaster) for the Temporary
30 Traffic Control Technical Committee, and recognized John Leonard for his service as chair of
31 TTC. The Board approved Scott Wainwright as the newest Honorary Member, which is the
32 highest level of NCUTCD membership.

33

34 Chair Hawkins then read off the names of persons who were approved by the Board for
35 NCUTCD membership (see list), and welcomed them to NCUTCD. Each new member who was
36 in attendance was greeted by Chair Hawkins and given a NCUTCD membership pin.

37

38 NCUTCD will be investigating the feasibility of offering merchandise with a NCUTCD logo or
39 motif. Any member with experience in this area is invited to contact the Executive Secretary.

40

41 Executive Secretary Moeur presented an update on the June 2023 meeting. Richard is working
42 with Brian Walsh of Washington State DOT and June Housman (AASHTO CTE meeting
43 planner) to locate a hotel for this meeting. As of now, it seems the meeting will be in the greater
44 Seattle area, and once a contract is signed, an announcement will be made to the NCUTCD
45 membership. The June 2024 meeting is tentatively scheduled to be in the state of Delaware, but
46 no details have been set yet.

47

48 Chair Hawkins stated that although he has retired from Texas A&M University, he will be
49 retaining his A&M e-mail address, which will continue to be his primary contact address for
50 NCUTCD issues (chair@ncutcd.org also points to that address). Hawkins also noted that his
51 MUTCD-related webpages on the Texas A&M website will be migrating to a new website
52 maintained by Kittelson LLC, his new employer.

53

54 While NCUTCD waits for the Final Rule and the 11th Edition of the MUTCD, work is underway
55 on planning for the 12th Edition. Three members have been selected to co-chair a working
56 group that will coordinate committee and task force work on the 12th Edition - Eli Ferrari, Ryan
57 Lancaster, and Jonathan Upchurch. In addition, for entertainment purposes, NCUTCD will be
58 creating a "pool" on the website tabulating members' guesses at to what date the Final Rule will
59 be published, with the closest guesser declared the winner.

60

61 **Other Reports**

62 *Website:*

63 Webmaster Marc Jacobson announced a new member database that will be implemented after
64 the recordkeeping for the June 2022 meeting is completed. This new database will have better

65 tracking of task forces and allow the creation of new e-mail lists for joint task forces and other
66 groups. He also noted the Final Rule “pool” will be available for entry when the new database is
67 implemented.

68

69 *New Member Orientation:*

70 Jonathan Upchurch reported on the session held Wednesday afternoon. This was the first
71 orientation at a summer NCUTCD meeting. 26 people attended, including new and more-
72 experienced members. He reminded members they are welcome to attend, and asked members
73 to reach out and help new members in their committees. Chair Hawkins commended Upchurch
74 for leading these sessions for 10 years and for helping new members feel more comfortable in
75 participating.

76

77 Chair Hawkins then recognized some long-time members of NCUTCD at the other end of the
78 experience range. Dick Luettich has been involved for over 60 years, and planned to attend this
79 meeting, but called yesterday to extend his regrets for not coming due to family concerns.
80 NCUTCD also has three 50-year members, and several 40-year members. The members in
81 attendance stood up and were recognized.

82

83 *TOMC / Canadian MUTCD:*

84 Scott Wainwright attended the May 2022 virtual meeting of the Canadian TOMC. He reported
85 work on symbols for active travel modes, devices to note when specific rules or speeds are in
86 effect, and signalization for turning movements at bikeways (see attached presentation). He will
87 be attending the fall 2022 TOMC meeting in Edmonton, Alberta.

88

89 *FHWA:*

90 Chair Hawkins reminded attendees that FHWA cannot comment in any detail on items still
91 under review in the NPA.

92

93 Kevin Sylvester of the FHWA MUTCD Team presented the FHWA update (see attached
94 presentation). With Dave Kirschner’s departure there is a vacancy on the team, and Toni
95 Whitfield of the Arizona Division is helping and attending this meeting. FHWA estimates there
96 were 35,000 specific comments submitted in the recent 11th Edition rulemaking. Due to this
97 volume of comments, the action has been designated “significant”, requiring added levels of
98 review. There continues to be broad support in FHWA for moving to a Final Rule. Sylvester then
99 noted the open rulemaking on pavement marking retroreflectivity, which may proceed soon to
100 Final Rule. If it is released prior to the 11th Edition, it will be Revision #3 to the 2009 MUTCD.
101 He then gave a status update on the Access Board’s long-pending rulemaking on PROWAG,
102 and noted the current regulatory agenda calls for a fall 2022 date for a Final Rule. After the final
103 version of PROWAG is released, FHWA will then assess what changes might be needed in the
104 MUTCD and begin drafting revisions, but this will take additional time. This is likely to be
105 Revision #1 of the 11th Edition when complete. More than 190 official experiments have been
106 approved under the 2009 MUTCD, including 40 locations employing “advisory bike lanes”. Many
107 of the successful experimental devices were included in the draft for the 11th Edition. Earlier this
108 year, FHWA requested updates from experiments with little or no reporting, and may be closing
109 out nonresponsive ones. Sylvester then commented on how future MUTCDs would be updated,
110 which may involve partial revisions instead of complete rewrites, and their impacts on state-level
111 adoption. He then addressed the possible content of a 12th Edition of the MUTCD, noting the
112 number of comments requesting a “reimaging and reinvent” approach, and the uncertainty as to

113 the size and scope of future MUTCD editions and the lack on unanimity on what a 12th Edition
114 would comprise, or the timeframe in which a full 12th Edition would be completed.

115
116 Chair Hawkins asked how many attendees would be interested in purchasing a hardcopy book
117 version of the 11th Edition of the MUTCD if it was made available through sponsoring
118 organizations at a price similar to that charged for the 2009 edition hardcopy. A relatively small
119 percentage of attendees (estimated at less than 20%) raised their hands.

120 **Research Committee**

121 Research Committee Vice Chair Scott Kuznicki reported on committee activities. The committee
122 met in person yesterday with 11 members and 25 visitors in attendance. Kuznicki invited
123 members to submit manuscripts for the new Traffic Control Device Research Journal to be
124 published by NCUTCD. Kuznicki requested that members with suggestions for research projects
125 submit them through their technical committee chair and not directly to the Research
126 Committee. Proposal submitted through TCs may be forwarded through AASHTO CTE for
127 potential future NCHRP or TCD Pooled Fund projects. Chair Hawkins noted that submissions
128 for the NCUTCD Journal may not need to be as lengthy or detailed as typical manuscripts for
129 other journals, and can be as simple as before-after studies for a device installation. The goal is
130 to feature useful practitioner-focused information in this journal.

131 **Connected and Automated Vehicle Joint Task Force**

132 CAV JTF Chair Paul Carlson reported on task force activities. The task force met Wednesday
133 with 50 attendees. There was a presentation on data crowdsourcing provided by Mobileye,
134 which could be useful to agencies. According to the presentation, the company has very recent
135 data on nearly all US roadways. Carlson also noted the upcoming Automated Roads
136 Symposium in California in July.

137 **Rules of the Road Joint Task Force**

138 ROR JTF Chair Ronnie Bell reported on task force activities. The task force met Wednesday
139 with 13 members, 3 alternates, and 26 other attendees. ROR is awaiting the issuing of the 11th
140 Edition to determine what UVC changes may be needed, but is developing lists of possible
141 changes. Bell solicited input from members as to any possible UVC changes that they might see
142 as appropriate. The Task Force plans to hold monthly virtual meetings to work on items.

143 **Pedestrian Joint Task Force**

144 Pedestrian JTF Chair Eagan Foster reported on task force activities. The task force met
145 Wednesday with 13 members and 45 visitors. The task force discussed several research
146 projects affecting pedestrians. The task force will be reaching out to TCs to confirm official
147 members from each committee, but visitors are welcome to attend and contribute. Foster also
148 thanked Randy McCourt for serving as acting Ped JTF chair while Eagan was recovering from
149 surgery.

150
151 Chair Hawkins stated that the five Joint Task Forces will need to work with TC chairs to set a
152 roster of official members equally representing each technical committee.

153 **Toll and Managed Lane Joint Task Force**

154 TML JTF Chair Shannon Bonilla reported on task force activities. The task force met
155 Wednesday with 8 members and 7 visitors, and noted that other task force meetings at the

156 same time affected attendance. Bonilla said she is looking for representatives from managed
157 and toll lane facilities from across the United States.

158 **Roundabout Joint Task Force**

159 Roundabout JTF Chair Brian Walsh reported on task force activities. The JTF is looking at
160 guidance and practices for signing and markings at urban roundabouts. The JTF is working with
161 several TCs on how to best address roundabouts in the 12th Edition of the MUTCD.

162 **Edit Committee**

163 Vice Chair of Programs and Edit Committee Chair Bill Lambert reported on committee activities.
164 The committee met virtually on June 3rd with 14 members. Lambert gave a brief update on the
165 work to revise the NCUTCD Bylaws and Operating Procedures. Edit Committee is looking at
166 how a "Safe Systems Approach" used by agencies will affect the MUTCD. Edit worked with
167 Signals TC on a concern with "shall be permitted" wording in Standards in Part 4. Edit is working
168 on style guides for developing MUTCD content and text. Lambert then presented Edit's ideas for
169 the 12th Edition, noting that some of the comments regarding the size of the MUTCD may be
170 more related to the organization of the Manual or how difficult it may be to find specific content.
171 If material is removed, it will need to be in a reference where practitioners can easily find it.
172 Figures are useful, but could be improved in clarifying the status (Standard, Guidance, Option,
173 Support) of a device or treatment.

174
175 Chair Hawkins noted that future editions of the MUTCD may include publication capabilities
176 beyond those of a traditional paper book, such as interactive multi-layered figures depicting
177 different aspects of an example such as required devices, optional devices, etc. This is the sort
178 of "out of the box" thinking that NCUTCD should adopt when envisioning the 12th Edition and
179 beyond.

180 **Guide and Motorist Information Sign Technical Committee**

181 GMITC Chair Tom Honich reported on committee activities. The committee met yesterday with
182 31 members and 9 visitors. There were presentations on cardinal directions and on non-
183 standard signs used around the US. Honich then discussed GMI's ideas on the 12th Edition,
184 focusing on ease of information access, using an example that some users only read until they
185 find the first reference to a device or treatment, but don't proceed to find all the other references
186 to that device in the Manual that affect use. Print versions may no longer be practical. The
187 content of the MUTCD may not be well understood by non-practitioners. GMI suggests
188 relocating content to the Standard Highway Signs and Markings book or other references,
189 rearranging technical guidance for ease of use, possibly adding chapters or Parts to address
190 additional device, treatment, user, and facility types, links to Interim Approvals or Official
191 Interpretations, and reformatting for greater readability while clearly showing level of mandate.

192 **Recess**

193 The Council session recessed from 10:15 to 1045 AM EDT.

194 **Regulatory and Warning Sign Technical Committee**

195 RWSTC Chair Tom Heydel reported on committee activities. The committee met yesterday with
196 30 members and 8 visitors. Task forces reported progress on assigned issues, including
197 possible PROWAG impacts on sign height and improvements to signs for push buttons.
198 RWSTC submitted several research requests to Research Committee. Heydel then presented
199 RWSTC's ideas for the 12th Edition (see attached).

200

201 **Markings Technical Committee**

202 Markings TC Chair Jody Colvin reported on committee activities. The committee met yesterday
203 with 28 members and 12 visitors. Task forces reported progress on assigned issues. The
204 committee discussed orange markings for temporary traffic control zones and will form a multi-
205 committee task force with TTC TC to address this marking. MTC also discussed lane width
206 measurements and lane reduction treatments. Colvin presented MTC's ideas for the 12th
207 Edition (see attached) and acknowledged that there wasn't unanimity of opinion on these topics
208 within MTC.

209 **Signals Technical Committee**

210 Signals TC Chair John Fisher reported on committee activities. The committee met yesterday
211 with 36 members and 7 visitors. STC recognized George Butzer and Richard Nassi for more
212 than 40 years of service, and Scott Wainwright and Frank Tramontozzi for more than 30 years
213 of service. There was a presentation on NCHRP 03-141 on midblock signals for pedestrians.
214 They viewed [a 1937 film on signals included in the first edition of the MUTCD](#). Fisher presented
215 STC's ideas for the 12th Edition (see attached) and discussed the issue where Option and
216 Standard information is intermixed.

217 **Temporary Traffic Control Technical Committee**

218 TTC Chair John Leonard reported on committee activities. The committee met all day yesterday
219 with 34 members and 8 visitors. Task forces met Wednesday. There were several presentations
220 to the TC and two research project proposals sent to Research Committee. The Typical
221 Applications comprise 11% of the volume of the whole MUTCD, and there may be a need to
222 retire obsolete TAs and add new TAs. Leonard presented TTC's ideas for the 12th Edition
223 (see attached). Leonard finished by reminiscing about work on three editions of the MUTCD and
224 the need to bring more and younger practitioners into the process and congratulated Neil
225 Boudreau as the new chair of TTC and Ryan Lancaster as vice-chair.

226 **Railroad and Light Rail Transit Technical Committee**

227 RRLRT Chair Rick Campbell reported on committee activities. The committee met yesterday
228 with 39 members and 2 visitors. The Bicycle-Rail MCTF met on Wednesday, and more research
229 and work is needed in this area. Other RRLRT task forces also met on Wednesday. Campbell
230 presented RRLRT TC's ideas for the 12th Edition (see attached), and showed examples of pre-
231 signals and downstream signals as devices that could have added content in the MUTCD.
232 RRLRT wants to see the MUTCD integrate better with the FRA/FHWA Rail Crossing Handbook
233 in future editions.

234

235 Chair Hawkins took a moment to recognize Suzanne Carlisle (Executive Secretary Moeur's
236 wife) for staffing the registration table since Tuesday afternoon. The attendees gave Suzanne a
237 round of applause in appreciation for her volunteer work.

238 **Bicycle Technical Committee**

239 BTC Chair Bill DeSantis reported on committee activities. The committee met yesterday with 23
240 members and 7 visitors. On Wednesday BTC members attended MCTF meetings with Signals
241 and RRLRT and reported a number of action items were developed, which may include
242 research project proposals. The BTC reviewed developments on advisory bike lanes, and a
243 BTC member gave a report on recent research on crash risks for bicyclists in central Florida,

244 and this work may be used to shape future proposals. There was an after-action review of the
245 NPA review and comment process in the BTC to improve efficiency in the future. DeSantis
246 noted that although NCUTCD and FHWA take great efforts to try to make Part 9 content clear to
247 practitioners and agencies, erroneous installations still occur, and he showed examples.
248 DeSantis presented BTC's ideas for the 12th Edition (see attached).

249 **Other Business**

250 Eagan Foster (acting ITE delegation chair) reminded attendees that ITE has published two
251 editions of the Traffic Control Devices Handbook since 2001, with many chapters written by
252 NCUTCD members, and urged members to order it from ITE and use it in their practice.

253
254 Chair Hawkins charged TC chairs with holding at least one virtual TC meeting prior to the next
255 in-person meeting in January 2023. NCUTCD has Zoom e-meeting accounts for all TCs and will
256 soon have accounts for all JTFs as well. TC chairs should notify Executive Secretary Moeur of
257 the meeting dates and times so information can be posted on the online NCUTCD calendar for
258 reference.

259
260 Chair Hawkins stated that a webinar may be scheduled for late summer 2022 to cover the 12th
261 Edition material presented by the TCs in cooperation with the 12th Edition group co-chairs
262 (Ferrari, Lancaster, Upchurch).

263 **Adjournment**

264 Suter moved and Falk seconded adjourning the meeting. The motion passed in a unanimous
265 voice vote and the meeting was adjourned at 11:55 AM EDT. Maximum session attendance for
266 the day was estimated at 175.

267
268
269 Respectfully submitted,

270
271 Richard C. Moeur, PE
272 Executive Secretary

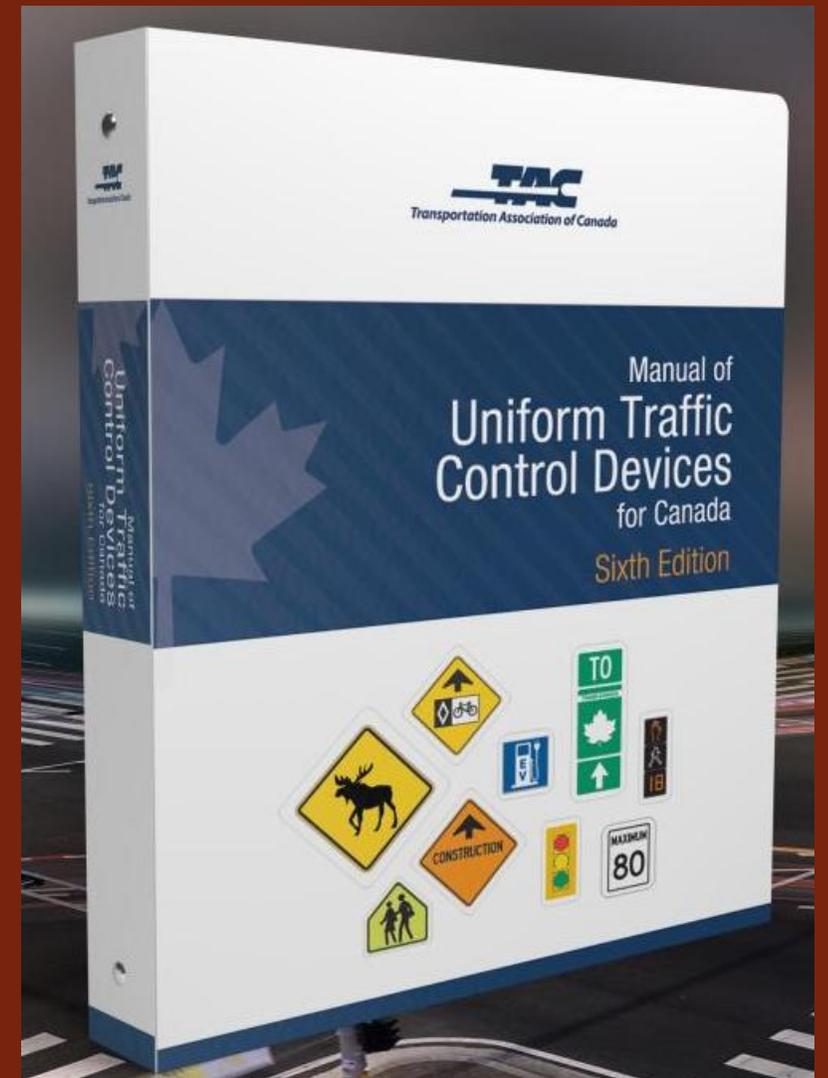


New Members June 2022

Alan	Bakotic	Metra	Railroad & Light Rail
Johnny	Bhullar	Caltrans	Temp Traf Ctrl
Brian	Crossley	PennDOT	Temp Traf Ctrl
Tim	Lang	Impact Recovery Systems	Temp Traf Ctrl
Venu	Nemani	City of Seattle WA	Bicycle
Joey	Paskey	City of Las Vegas NV	Reg & Warn Sign
Sara	Peters	Kansas DOT	Signals
Ethan	Peterson	Minnesota DOT	Markings
Rick	Plenge	VHB	Reg & Warn Sign
Rafael	Riojas	Texas DOT	Temp Traf Ctrl
Duane	Sayers	Denver Metro RTD	Railroad & Light Rail
Amber	Stoffels	BNSF Railway	Railroad & Light Rail
Bob	Stolle	Oregon DOT	Railroad & Light Rail

Activities of the Canadian Traffic Operations & Management Committee (TOMC)

June 2022 Update



W. Scott Wainwright, P.E., PTOE
Proprietor
Wainwright Traffic Consulting Services, LLC
(FHWA Retired)

TOMC Meeting May 2022

- **Virtual, 1 day only**
- **Mostly status updates on projects in progress**
- **4 recently initiated projects of note:**

Symbols for Active Modes

Project committee of 6-7 volunteers:

- Literature/internet images search
- Narrow down to best 1 or 2 candidates for each mode
- Legibility & anticipated ease of ID by users
- Depict as prohibitory & permissive signs
- Schedule for comprehension testing

Hoverboard



Segway



Scooter



Skateboard



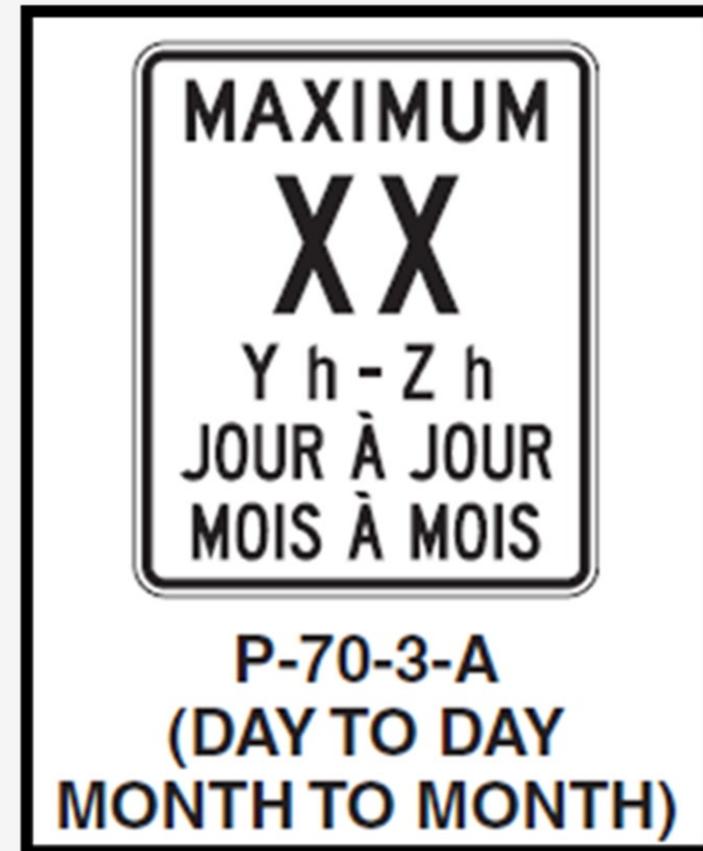
Rollerskates



Electric Mode



Difficult-to-Read “Times In Effect” Supplemental Plaques





02/18/2014

MAXIMUM
30
7 h - 17 h
LUN. À VEN.
SEPT. À JUIN



MAXIMUM
30
7 h - 17 h
LUN. À VEN.
SEPT. À JUIN

Boulevard de l'Énergie

SAO



Australia – blank-out



- Improve conspicuity of “in effect” periods

- Static plaque remains for legal reference if electrical devices fail

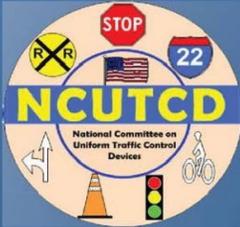
RFFB w/ 1x/sec flash rate (yellow or white)

Signalized Turning Movements in the Presence of Cycling Facilities

- Evaluate flashing yellow arrow for permissive turns across bi-directional bike lanes
- Product = new national guideline on the design and operation of arrow-based signal heads



**History of the
National Committee on Uniform
Traffic Control Devices
(NCUTCD)**



June 2018

MUTCD-C & TOMC History?

Fall 2022 – In-Person – Edmonton, Alberta – October 1-2, 2022





U.S. Department of Transportation
Federal Highway Administration

Est. November 7, 1935

**Manual on
Uniform Traffic
Control Devices**
for Streets and Highways



Notice of Proposed
Amendments
for the
**Eleventh
Edition**

U.S. Department of Transportation
Federal Highway Administration

Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD)

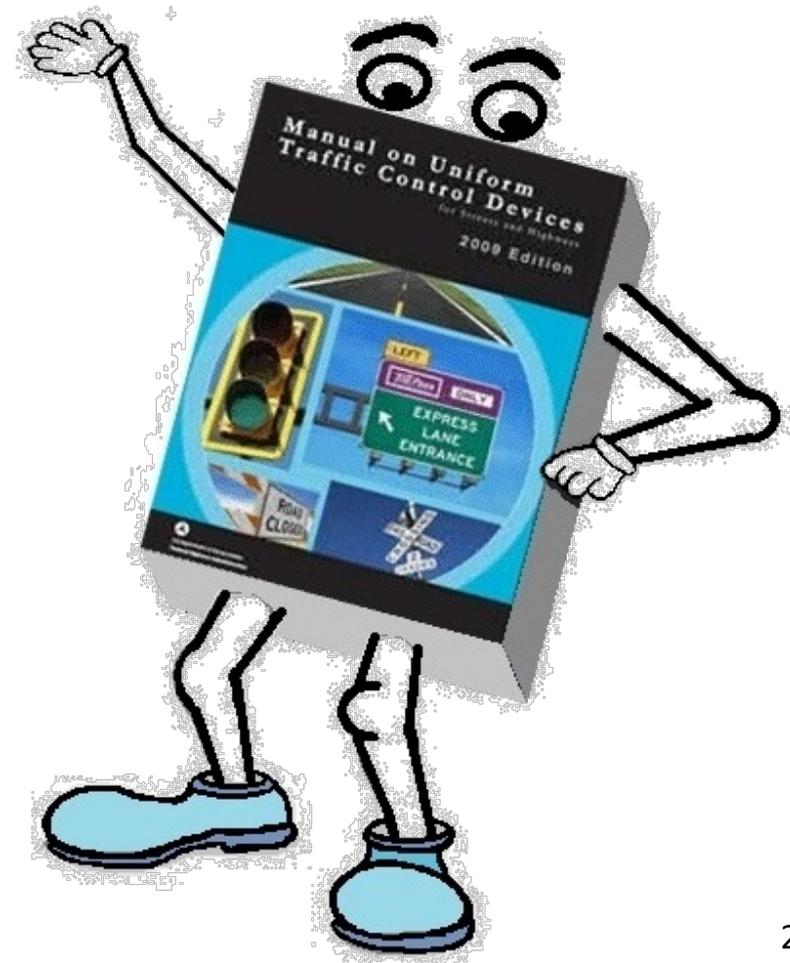
**National Committee on
Uniform Traffic Control Devices
Semi-annual Meeting**

FHWA Report

**Presented June 17, 2022
by Kevin J. Sylvester, P.E., PTOE
FHWA Office of Operations**

Preview

- **MUTCD Team**
- **Rulemakings**
 - MUTCD 11th Edition
 - Pavement Markings Retroreflectivity
 - PROWAG
- **Experimentation**
- **MUTCD of the Future**



FHWA's Traffic Control Devices Team

Kevin J. Sylvester, P.E., PTOE
Team Leader, Traffic Control Devices

S. Usman Ali, P.E., PTOE, RSP
Technical Lead, Bicycle Facilities

Marty Calawa, P.E.
*Technical Lead, Guide and
Motorist Information Signs*

J. Eric Ferron, P.E.
*Technical Lead, Pavement Markings,
Temp. Traffic Control*

Duane Thomas, P.E.
*Technical Lead, Highway Traffic Signals
and Railroads/LRT*

Matt Zeller, P.E.
*Technical Lead, Regulatory and
Warning Signs, School Zones*

VACANT – TBA
(formerly Kirschner)

← **NEW**

contact us

<https://mutcd.fhwa.dot.gov>



Rulemakings – MUTCD 11th Edition

The MUTCD NPA in brief

- Dec. 2020 – NPA issued
- May 2021 – Docket closed
- Approx. **17,000** docket entries
- More than **35,000** individual, unique comments



Rulemakings – MUTCD 11th Edition

Current Status

- Continued broad support for issuing new edition in USDOT/FHWA
- Proceeding to Final Rule
- May 2023 – New edition required by IIJA
- Redesignated “**significant**” due to unprecedented volume of comments



Other Rulemakings

- **Pavement Markings Retroreflectivity**
 - Still on separate track
 - Final Rule stage
 - Rev. 3 of 2009 MUTCD (10th Ed.)

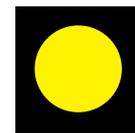


Other Rulemakings

- **U. S. Access Board: *Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way* (“PROWAG”)**
 - On Unified Regulatory Agenda for Final Rule—Fall 2022
 - USDOT must issue rulemaking to adopt PROWAG
 - **Then, the MUTCD can be revised to comply**



**PROWAG is NOT a
FHWA/USDOT rulemaking!**



Experimentation

- **190+ approved under 2009 MUTCD**
 - Many included in NPA
 - More than 80% of requests approved

- **“Advisory” Bike Lanes**
 - 40 locations approved
 - Evaluating/monitoring results



Experimentation

- **Results are critical!**

- Jan. 2022 – Sent requests/reminders for reports
- Large volume of experiments have few/no reporting
- Closeout letters will be coming
- Database on Web site
 - Format updated
 - Updated content coming
 - More descriptive search categories (in progress)

The screenshot shows the 'Official Rulings' search page on the MUTCD website. The page title is 'Manual on Uniform Traffic Control Devices (MUTCD)'. The search interface includes several dropdown menus for filtering results:

- Part in 2009 MUTCD:** Part 1 - General Provisions, Part 2 - Signs, Part 3 - Markings, Part 4 - Highway Traffic Signals.
- Edition:** 2009, Pre-2009.
- Year:** 2010 to 2022, 2004 to 2009, 2000 to 2003, Pre-2000, 2000, 2001, 2002, 2003, 2004.
- Request Type:** Change, Experiment, Interpretation.
- State:** N/A, AK, AL, AR, AZ, CA, CO, CT, DC.
- Official Ruling Approval Status:** All, Approved, Denied.
- Experiment Status Details:** All, Active, Closed, Final Report Received.

There is also a 'Keywords' field with options like 'Active Traffic Management', 'Beacons', and 'Bikes'. A checkbox at the bottom right allows users to 'Use the "and" condition for keywords'.



Experimentation

- **Why?**
 - Can't advance (potentially) proven concepts
 - Expand experiment to address gaps, explore variations
 - Interim Approval
 - Propose for MUTCD Revision



MUTCD of the Future

- **Revisions vs. New Edition**
 - Timing, approach depend on extent of content
 - States have up to 2 years to adopt
 - State MUTCDs or Supplements
 - State-of-the-Practice



MUTCD of the Future

- **The 12th Edition**
 - What does a 12th Edition of the MUTCD look like?



MUTCD of the Future

- **The 12th Edition**
 - Comments to docket on 11th Edition:
 - ***“Reimagine”***
 - ***“Reframe”***
 - ***“Reinvent”***
 - ***“Repeal”***
 - ***“Rescind”***



MUTCD of the Future

- **The 12th Edition**

- What does a 12th Edition of the MUTCD look like?

- More?

- **More of same, or more of something else?**

- Less?

- **Less in general, or just less in the Manual itself?**

- Same, but easier?

- **Make use of supplemental/companion documents?**

- Something else?

- **...but still fulfills its purpose**



Thanks!!

FHWA's National Traffic Control Devices Program

- e-Subscribe Service
 - Official Rulings
 - *Standard Highway Signs*
 - FAQ
 - MUTCD News Feed

for more information

<https://mutcd.fhwa.dot.gov>



U.S. Department of Transportation
Federal Highway Administration

Est. November 7, 1935

Manual on
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for Streets and Highways



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Federal Highway Administration

MUTCD \ 'em-yü- , tē-sē-dē\ ¹ *n* (ca. 1935): the national standard for traffic control devices on all roads open to public travel in the United States.

¹ Not \ 'myüt-sid\, \ 'mæt-sid\, or \ 'mæt-kid\.



GMI 12th Edition Discussion Summary

- Should the MUTCD be provided in printed format or just electronic so it can be updated more frequently and include hyperlinks for easier navigation and cross linking
- Should the way the guidance is presented be re-evaluated in its formatting (currently broken down in Standard, Guidance, Option and Support paragraphs) can a new format be developed so the guidance flows more smoothly and naturally yet still clearly identify the levels of mandate
 - Possibly have an independent 3rd party conducting “human factors” evaluation of possible alternative solutions, a party who may specialize in communications vs. engineering
- Is there content in the manual which could be relocated to other documents and not go through rule making, yet still be referenced in the MUTCD, such as:
 - Sign design guidance and detail information, move all such information to the SHSM
 - Should the SHSM also include more detailed design guidance for sign, markings and possibly electronic signs
 - Traffic Studies guidance and processes, maybe resurrect the concept of the FHWA Traffic Control Devices Handbook concept
- Use individual TCD images as section headers to facility quick reference of associated information vs. grouping all signs of a category into a figure with guidance found before and/or after the figure
 - This would require common guidance shared by like devices to be repeated for each device, however, this would make it easier for the user to identify and discern the specific guidance for that one traffic control device vs. having to read and pick out related data from combined guidance.
- Should there be new chapters added to the manual to make some information more intuitive to find and reference, such as:
 - A dedicated chapter for electronic display signs – Expanding chapter 2L
 - Possibly a chapter dedicated to Toll and Managed Lanes like Rail Roads
 - Chapter for pedestrian facilities
 - Possibly a chapter for TCDs for urban areas to address those unique situations
- Revisit the exiting chapter breakdowns to make information more intuitive to locate, regulatory and warning signs are very intuitive, such as:
 - Guide sign information is less so with the conventional / freeway-expressway breakdown and the overlap that exists in some areas
 - Possibly add something like a supplemental guide sign category
- With the likelihood of more revisions being used between updates, having revision dates associated with specific traffic control sections could be useful, this would especially be true if the manual became more of a living document without actually issuing new revisions.
 - Having the history associated with the revisions would also be very beneficial as a means to explain the change and keep from reinventing the wheel as experience roles over in our profession

- Place Interim approvals in relevant sections of the manual which are clearly marked as needing pre-approval before implementation, placing the information in an easier location to find and making it clear the need to follow the interim approval process to utilize
- Links in specific sections of the manual to official interpretations made on those sections to make this information more intuitive to find
- 4 levels of Mandate, we discussed we didn't believe that was necessary, also discussed this week at AASHTO CTE

12th Edition of the MUTCD
Presentation to Council
June 17, 2022

Regulatory and Warning Sign Technical
Committee

Tom Heydel, Chair

What is the role of the MUTCD?

- Who is the stake-holder that we are designing the MUTCD for:
 - ✓ knowledgeable person (practioner, engineer, field technician, law enforcement);
 - ✓ less sophisticated local personnel;
 - ✓ all transportation users
 - ✓ legal
- Emphasize that it is for the transportation system user (driver, CAV, vulnerable user)

Is there a better way to structure the MUTCD?

- Use hyper-links to access background info, research, and applications
- Better organize such as pedestrian signing in Part 2B should have pedestrian sections in succession not spread out in Part 2B.

What are the critical issues that the MUTCD needs to address?

- Should be less prescriptive and more general principles
- What is the weight that the figures in the MUTCD carry, especially if no supporting text?; provide supporting text for figures not just some. Example: Part 6 figures are good in that they show shall, should and may on them
- Interim approvals should be incorporated into the MUTCD sooner
- No need for a 4th level of material between “shall” and “should”; “should” already interpreted as nearly a “shall” unless supported by study
- Devices need to be intuitive; uniform application creates intuitiveness
- Consider safety uniformity (mobility and equity)

What are the mundane issues the MUTCD needs to address?

- Need to retain printed versions of MUTCD as well as electronic versions for access by local personnel to have available in the field

If the MUTCD were to be reduced in size, what do you definitely want to keep in the MUTCD?

- Criteria for determining speed limits
- Criteria for multi-way STOP control

If the MUTCD were to be reduced in size, what should be removed from the MUTCD?

- A lot of material in MUTCD that is too prescriptive; do not need to include every possible sign such as “no parking” signs; provide general guidance on how to design a sign if needed. Provide color, letter sizes required.
- Avoid redundancy; include signs only in one Part, not separated into Parts 4, 7, 8, etc.

If the MUTCD were increased in size, what should be added to the MUTCD?

- Use figures to illustrate what we can do, rather than text saying what not to do
- Pedestrian crossing criteria

How could delivery of the MUTCD content be improved? (Is there a better way to deliver the MUTCD?)

- Provide “best practices” for sign design in *Standard Highway Signs* book. Provide more design guidelines for signs in the SHS book such as for guide signs. Already is some guidance but could be improved.

MUTCD 12th Edition

Thoughts About the Next Edition

Markings Technical Committee
Summer Meeting 2022

Preliminary Steps in Developing a new MUTCD:

Who uses the MUTCD? - There are many different entities, manufacturers, professionals and non-professionals who use the MUTCD.

The members of the NCUTCD have varying experience, professional focus and priorities.

Must ask: Who are we writing the MUTCD for?

Before considering content in future editions, two items must be clarified:

1. Decide what is the purpose of the MUTCD.
2. Define who the practitioner is.

Format:

Keep the MUTCD as one book, but break it into two parts:

Part 1: Rules

Part 2: User Guide - guidance to practitioners (i.e. typical applications)

Style:

1. Must be easily understood by practitioner
2. Utilize Plain Language
3. Write MUTCD in active voice
4. Use clearer terms instead of *Shall*, *Should* and *May*

Focus:

1. City vs Rural like AASHTO Green Book
2. Group elements as part of a project rather than individually
3. Elevate status of “minor” chapters
 - A. Integrate bike and pedestrian
 - B. Integrate CAV

Publishing:

1. Electronic Only-

Pro - Easy to update and access

Con -Version control can be difficult

2. Create apps

3. Create hyperlinks to other documents that are referenced

4. Link to experimentations

Illustrations:

1. Provide more figures showing options of what is acceptable
2. Use figures with links
 - A. Link to other documents
 - B. Link to section within MUTCD

Critical Issues:

1. Current MUTCD is too highway centric
2. Share focus on warning motorized and non-motorized
3. Need a section on pedestrians or integrate pedestrians and bicycles into the current chapters

Critical Issues - continued:

4. Mandate safety solutions
5. Mandate retro on roadways/durable striping on roadways
6. Add solutions for speed management techniques
7. Address rumble strips

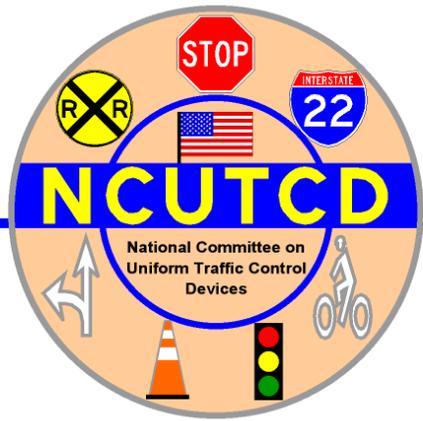
Miscellaneous Suggested Changes:

1. Part 1 General should be eliminated
2. Keep figures
3. Keep Shall statements
4. Guidance could be removed from new Part 1 and put in a new Part 2)
5. Cover context/intersection area
6. Revisit CAV chapter and see how fits



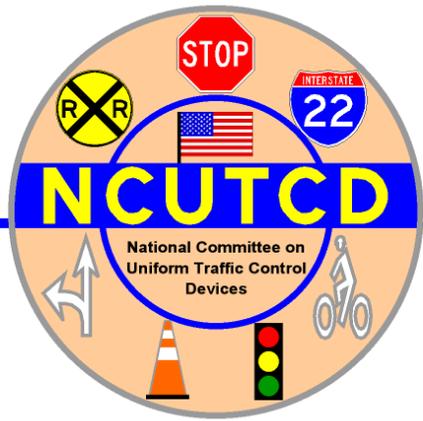
**Signals Technical Committee
Future of the MUTCD
Report to Council
June 17, 2022**





Removal of Text?

- Generally, "No"
- Review and Delete on a Case-By-Case Basis
- Remove Signal Warrants?



More Uniform Format

- Background (Support Statements).
- Purpose and Application.
- Restrictions to Usage.
- Physical Placement.
- Sizes and Dimensions.
- Hyperlinks, Links, Index, Cross-References.



Support Statements

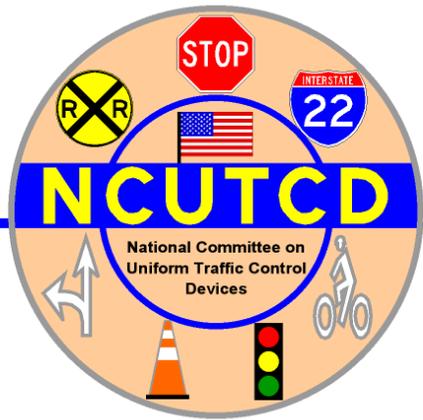
Generally retain.

- Provide Context for Standard and Guidance Statements for posterity.
- Separate Document due to MUTCD size?
- Size not Issue with On-Line Version.
- Reference Research Findings.



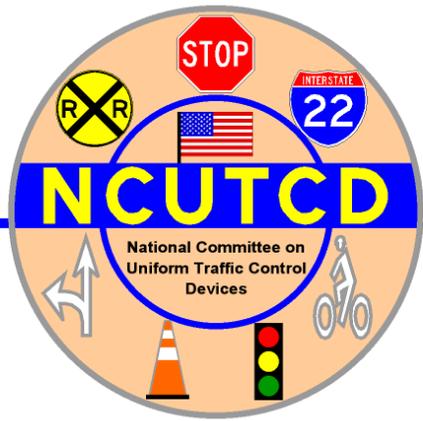
Readability

- Selectively Rewrite for Clarity/Conciseness.
- Limit Sentences of 20-25 Words.
- Use More Bullets/Listed Items.
- Improve Flow of Thought.
- Use More Hyperlinks/Cross-References , including videos.
- Use Professional Technical Writers.



Pedestrians

- Stand-alone Part on Pedestrians that cross-references (via hyperlink) other applicable Parts.
- More complete examples of pedestrian treatments (signing, markings, and control).
- Reduce Numerical Thresholds for Signal Control.
- Consolidate Part 4 Pedestrian Features to one Chapter?
- Retire Chapter 4U (IRWL's).
- Clarify Pedestrian control hierarchy in Part 4.



CAV

- . More Standardization for Machine Recognition?
- . Versus More Options for User Flexibility.



MUTCD 12th Edition

National Committee on Uniform Traffic Control Devices

**Temporary Traffic Control
Technical Committee**

Questions to be Answered

- If we were to write the MUTCD from scratch today, what would it look like?
- What is the role of the MUTCD?
- What are the mundane issues the MUTCD needs to address?
- What are the critical issues that the MUTCD needs to address?
- Is there a better way to structure the MUTCD?
- Is there a better way to deliver the MUTCD?
- How do answers to these questions relate to MUTCD content beyond what TTC is responsible for?

If we were to write the MUTCD from scratch today, what would it look like?

- Suggestion to make the MUTCD into a standards (shall) only document and pull out the rest of the material into more of a guidance document, still managed by FHWA, but this essentially allows for more flexibility for updating and adding user content.
- Organization of overall MUTCD – looking back at the strategic plan and the concept was to move away from the silos of device types, and make new chapters based on the roadway type (intersections, ramps, freeways, arterials....)

What is the role of the MUTCD?

- Focus on two main questions that need to be answered -
 - What is the purpose of the Manual?
 - Who is the audience for the Manual?
- We know that oftentimes the users are not trained Traffic Engineers. How do we make the information available to them so that it can be understood correctly?
- The document needs to be usable by all of the practitioners and not be so concerned with how a lawyer is interpreting the language in the manual.
- The nature of the Manual does not drive technology and innovation, more appropriately the Manual is codifying what has been presented. Some of this is due in part to the pure time that it takes to work through an update to the manual.
- However, it is our responsibility to ensure that the process moves fast enough to keep pace with the advancement of technologies. Consider the expansion of what is allowed under the interim approval process.

What are the mundane issues the MUTCD needs to address?

- Point: Changing things from a Guidance to a Support statement would limit liability / Counterpoint: however, this will introduce a far greater level of variability from state to state
- Streamlining the experimentation process would be helpful to make DOTs more willing to assist with the experimentation of the devices. Maybe FHWA can provide guidance as to what data is needed to address the requirements and provide information as to what other public agencies are also working on similar experimentation efforts.

What are the critical issues that the MUTCD needs to address?

- Experimentation Process – how do we embrace and recognize new technologies or devices and get them tested and out on the streets without a long drawn out process?
- CAV need – define a list of what a CAV requires to be able to navigate a path of roads, both ideal conditions and under modified conditions (work zones / incidents).
- CAV need – should have a more defined testing protocol to run these vehicles through varying traffic control conditions in order to verify their ability to drive in different situations.

Is there a better way to structure the MUTCD?

- There has been a complaint that the Manual is getting “too big.” We could provide more information and more guidance with the electronic versions.
- Needs to be easy to use, accessible and have the ability to provide more information and guidance with an electronic document format – use of hyperlinks to navigate through different sections.
- Need to continue providing a formatted version of the Manual that can be printed either by Chapter or the entire document.
- A lot of rural local municipalities and counties still use the printed edition of the MUTCD.

Is there a better way to deliver the MUTCD?

- Make the MUTCD a “living” document where it is updated more frequently. That would require a change in process.
- Making it available as an electronic document format with hyperlinks provides for portability.
- Consider the use of “keywords” to help search for content.
- Field crews need to be able to access a “mobile” version that is accessible via phone or tablet.
- Consider QR Codes or RFID tags on TCDs that when activated, opens the user's browser to the appropriate section of the Manual where that device is explained.

How do answers to these questions relate to TTC Content?

- Members of TTC were part of the last wholesale change in the manual and at that time there was a desire then to create a “handbook” to supplement the manual and that never happened; the goal is to protect the practitioner in the field who needs to apply the standards in Part 6.
- Is practitioner the right term or should we use “field technician”?
- Ability to access the details in Part 6 and the TAs on tablets and smart phone applications that can be used out in the field and put the information in the hands of those who need it.
- Consider making an application that helps a practitioner/field technician build a site-specific TA.
- There is still a definite need for the Typical Applications but the concept of pulling them out into a separate guidance document could work.
- Need a mechanism to automatically convey a work zone setup to CAVs



RAILROAD & LIGHT RAIL TRANSIT TECHNICAL COMMITTEE



Planning for or Rethinking the 12th Edition
of the MUTCD



RAILROAD & LIGHT RAIL TRANSIT TECHNICAL COMMITTEE



General thoughts regarding all parts of the 12th Edition

Format

A printed version limits the amount of information contained in MUTCD, especially where application information could be provided to better explain traffic control device usage

Lack of a printed version may contribute to more frequent updates to MUTCD



RAILROAD & LIGHT RAIL TRANSIT TECHNICAL COMMITTEE



General thoughts regarding all parts of the 12th Edition

Audience

NCUTCD members have experience with MUTCD, but many practitioners may use the MUTCD infrequently

Photographs and figures of traffic control devices may assist infrequent users in better understanding and complying with the MUTCD



RAILROAD & LIGHT RAIL TRANSIT TECHNICAL COMMITTEE



General thoughts regarding all parts of the 12th Edition

Rulemaking

The MUTCD needs to keep up with evolving technology and best practice, especially with CAV technology

Updates should be completed on a predetermined schedule such as every four years.

This will assist the Technical Committees with planning and scheduling recommended updates



RAILROAD & LIGHT RAIL TRANSIT TECHNICAL COMMITTEE



General thoughts regarding all parts of the 12th Edition

Application

The MUTCD needs a companion document that does not require formal rulemaking for support.

The MUTCD should be limited to Standards and Guidance for rulemaking efficiency

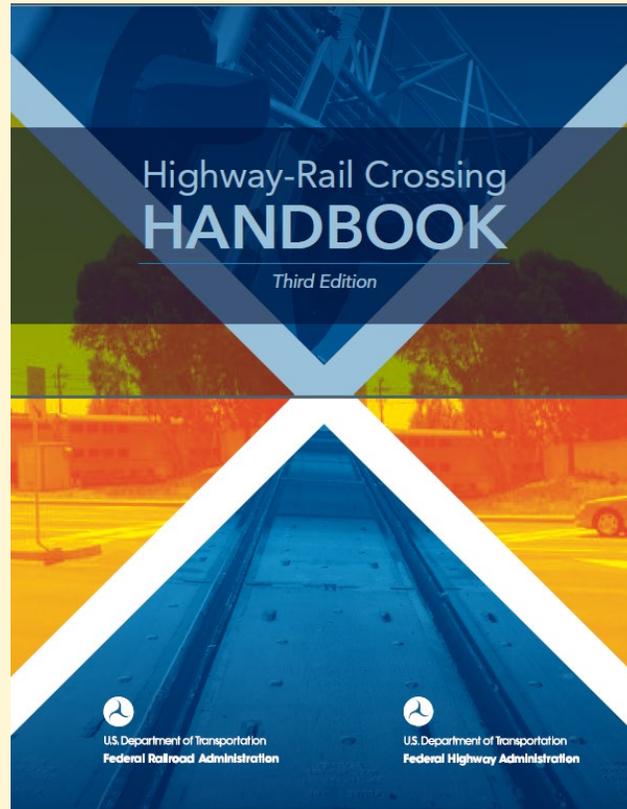
From a Part 8 perspective, the Grade Crossing Handbook would be a worthy adjunct to the MUTCD



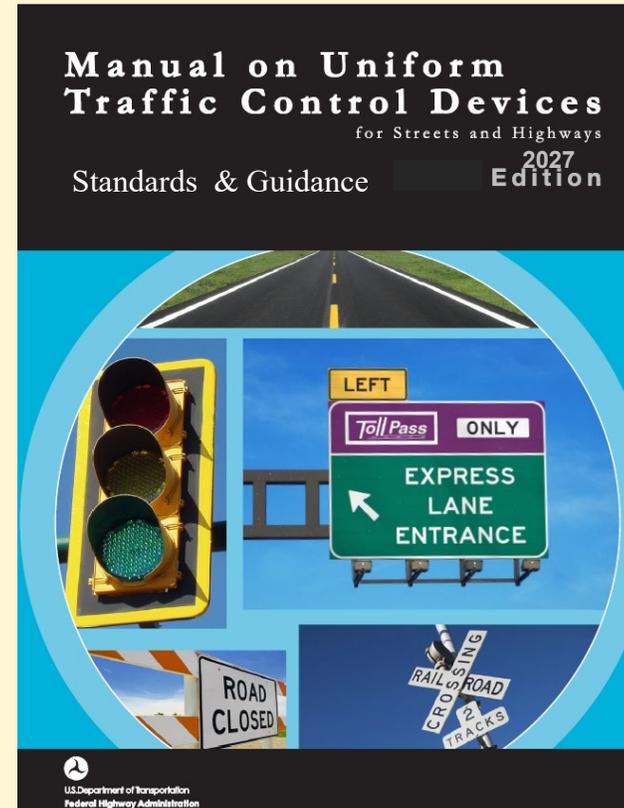
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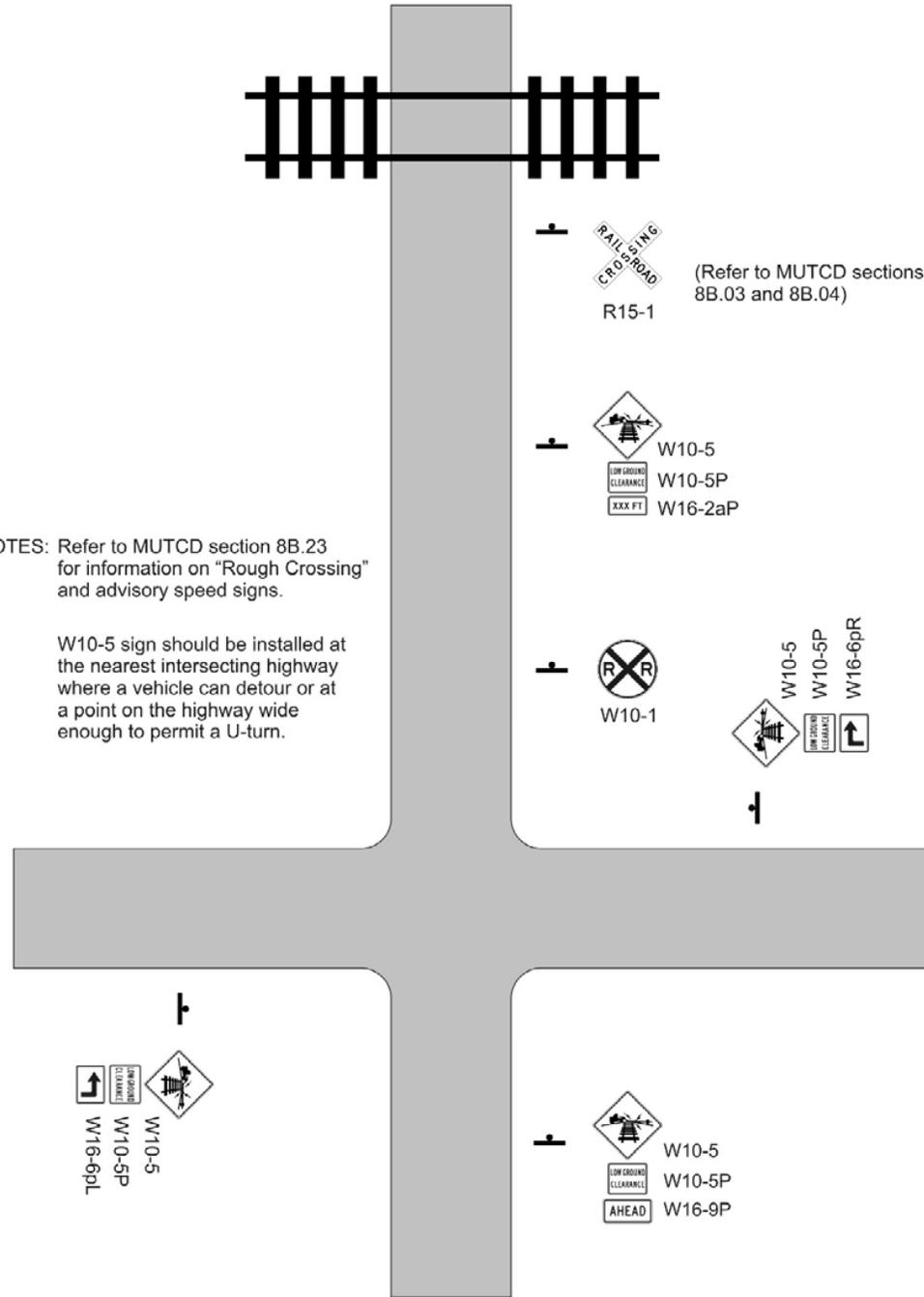


The Grade Crossing Handbook and the 2027 MUTCD



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NOTES: Refer to MUTCD section 8B.23 for information on "Rough Crossing" and advisory speed signs.

W10-5 sign should be installed at the nearest intersecting highway where a vehicle can detour or at a point on the highway wide enough to permit a U-turn.

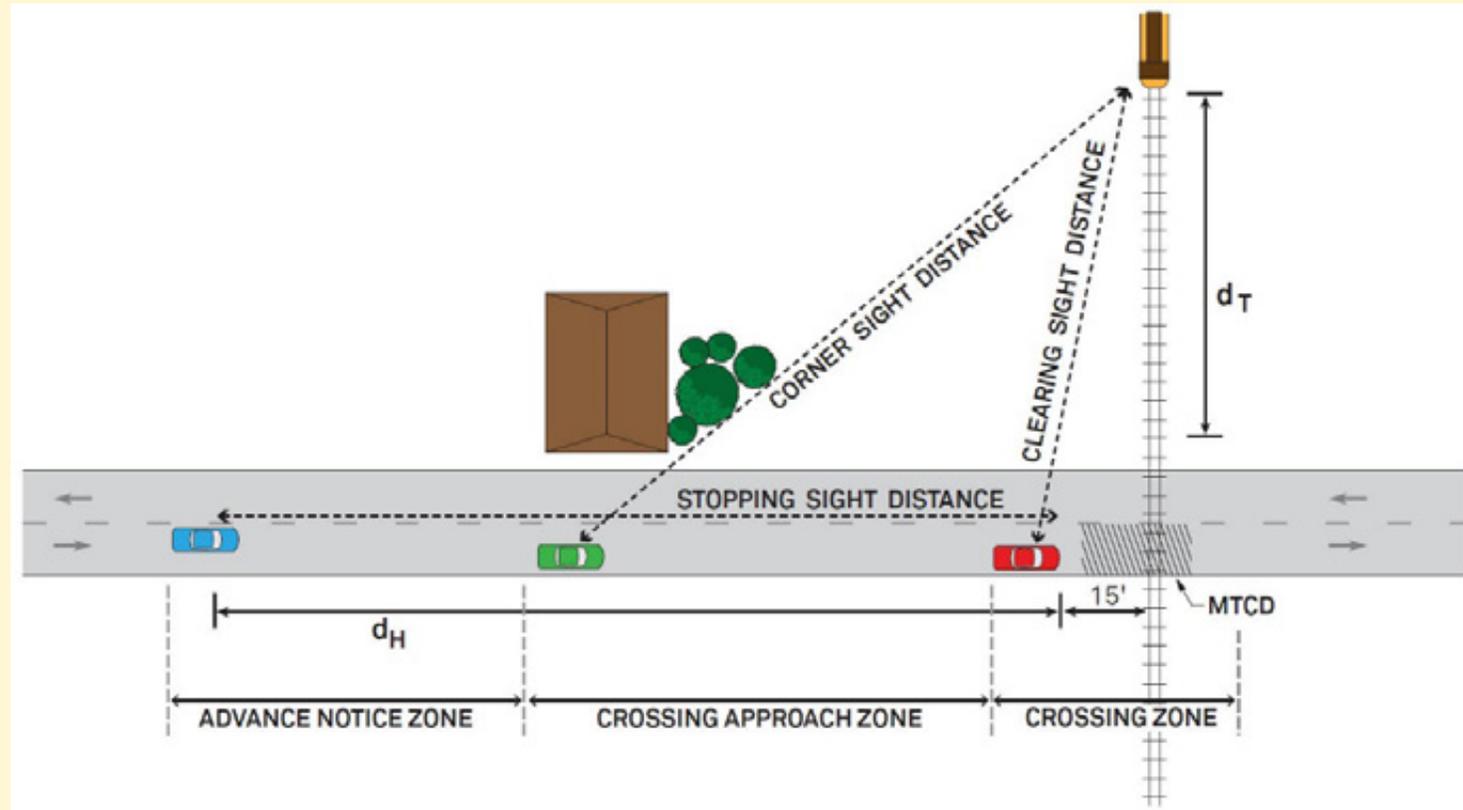
(Refer to MUTCD sections 8B.03 and 8B.04)




 W10-5
 W10-5P
 W16-6pL



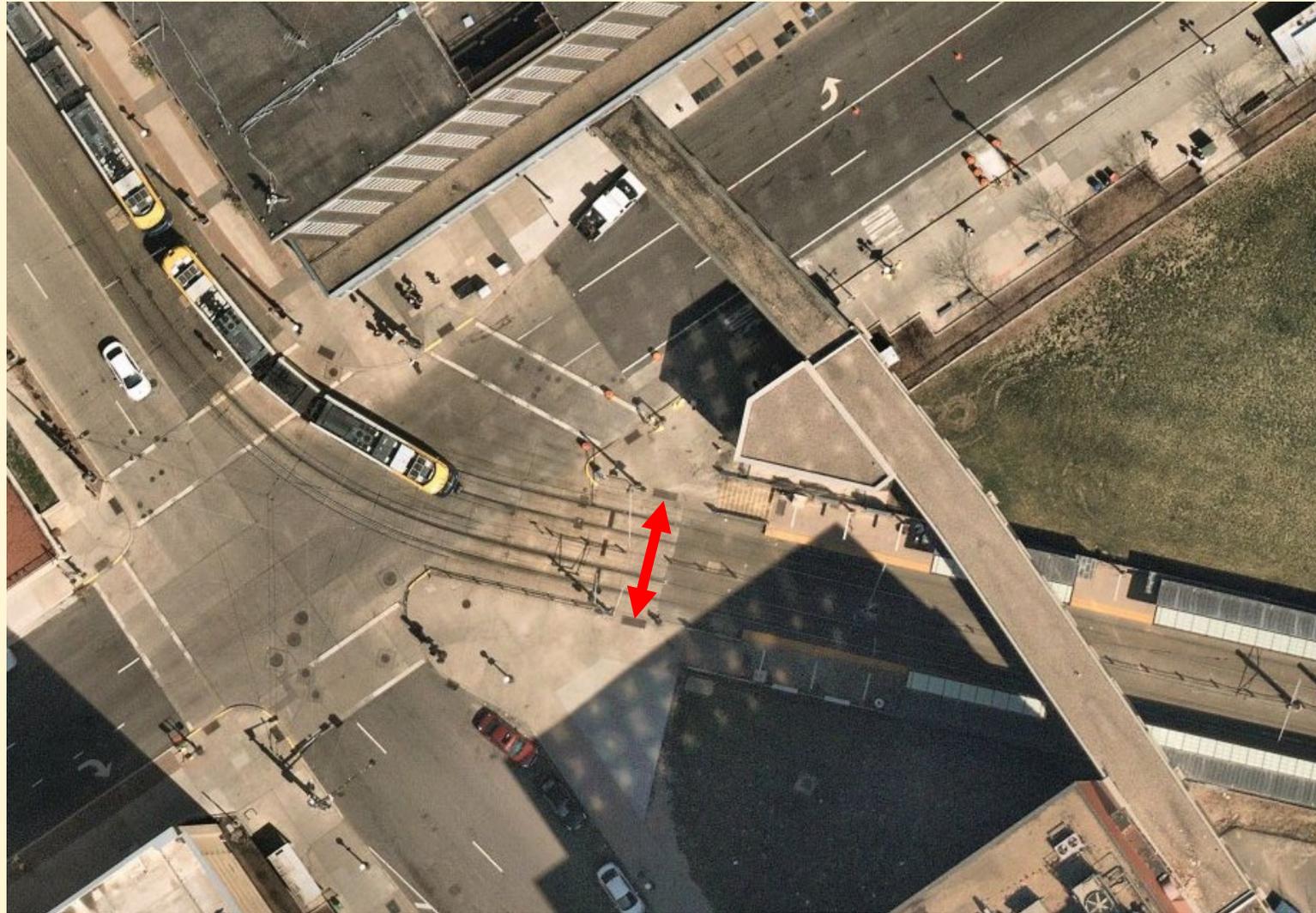

 W10-5
 W10-5P
 W16-9P







Station
Grade
Crossings





Station
Grade
Crossings





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If we use the Grade Crossing Handbook of develop a separate Part 8 Applications Handbook...

How is it approved for use?

- FHWA
- FRA
- FTA
- RRLRT
- NCUTCD Sponsors
- NCUTCD Council
- APTA
- FHWA / FRA / FTA / RRLRT Working Group

**BTC
VISION
12th
EDITION**



BTC VISION 12th Edition

Basic assumptions

- MUTCD is not a roadway or bikeway design manual. It IS the national standard for design and installation of Traffic Control Devices.
- MUTCD should be used in conjunction/collaboration with roadway and bikeway design manuals.
- Types of road and bikeway users will greatly expand (micro-mobility, CVAV's, e-bikes, etc, etc)

BTC Vision 12th Edition Goals

- Facilitate reduction in severe injury and fatal crashes of all users including vulnerable roadway users
- Address the diverse mobility needs of diverse public way and private way users in an equitable manner
- Ensure that the convenience and mobility of one type of roadway user is not prioritized over another user's safety

BTC Vision 12th Edition

- Model the MUTCD after the AASHTO “Green Book” or similar document for design of highways AND streets
- Future MUTCD Parts
 - Elements of TCD Design (size, color, shape, text, graphics)
 - General Standards, Guidance and Options for TCD installation (horizontal and vertical dimensions, orientation, spacing, etc)
 - Standards, Guidance and Options for the when and why for TCD’s based on roadway functional classification, context (i.e. urban/rural) and traffic conditions (low/high speed, low/high volume)