

Memorandum

To: Distribution,

From: Dustin Rouse, P.E., Chief Engineer *DR*

Date: October 22, 2024

Subject: 11th Edition of the Manual on Uniform Traffic Control Devices – Adoption and Conformance date of January 1, 2026

This design memo addresses the implementation and adoption of the 11th Edition of the Manual on Uniform Traffic Control Devices (11th MUTCD). MDT currently is using the 2009 Edition of the Manual on Uniform Traffic Control Devices (09 MUTCD).

Legal Requirements

The MUTCD is required by 23 CFR 655.603 to be the national standard for traffic control devices on roads open to the public (generally). MCA 61-8-202 requires that MDT adopt a manual for a uniform system of traffic control devices and must correlate with and so far as possible conform to the MUTCD published by FHWA.

On December 19, 2023, a Final Rule adopting the 11th Edition of the MUTCD was published in the *Federal Register* with an effective date of January 18, 2024. States must adopt or be in substantial conformance with the 11th Edition of the MUTCD as their legal State standard for traffic control devices within two years from the effective date. The *Federal Register* notice, which provides detailed discussion of the final dispositions of major changes from the 2009 edition, can be viewed at <https://www.federalregister.gov/d/2023-27178>. (FHWA website for the MUTCD).

Adoption Options and Direction

There are three options for states to implement or adopt the MUTCD they are as follows in order of complexity:

1. Adopt the 11th Edition of the MUTCD in its entirety.
2. Adopt the 11th Edition of the MUTCD with a State of Montana supplement to the manual, this supplement could address some option statements within the manual for contextual situations that are encountered in Montana. This supplement must be in substantial conformance with the 11th MUTCD.

3. Develop a State of Montana MUTCD in its entirety that is in substantial conformance with the 11th MUTCD.

Substantial conformance as defined in 23 CFR 655.603 means that the State MUTCD or Supplement shall conform as a minimum to the Standard statements included in the national MUTCD. The Guidance statements contained in the national MUTCD shall also be in the State MUTCD or Supplement unless the reason for not including it is satisfactorily explained based on engineering judgment, specific conflicting State law, or a documented engineering study.

Montana has elected to adopt the 11th Edition of the MUTCD in its entirety (option 1) without supplement.

Montana Adoption Date: January 1, 2026

New Projects

All new projects nominated from the issuance of this memorandum are to comply with the 11th MUTCD.

Existing Projects

Any Traffic Control Device (temporary or permanent) that is or will be installed after January 1, 2026, must comply with the 11th MUTCD. For existing projects in design, it is up to the Preconstruction team to determine if the project must be updated to incorporate the 11th MUTCD or not – since each project is unique on timing, letting, and construction.

Change Orders that extend the completion date (substantially complete as defined in our specifications) of a project past the effective date are to be evaluated on a case-by-case basis regarding compliance with the 11th MUTCD requirements and if these requirements are necessary to be included in the change order.

The Traffic and Safety Engineer is the decision authority for 11th MUTCD questions for projects and change orders, with the ability to elevate disputes or challenges to the Chief Engineer.

Systematic Upgrades

Section 1B.03 Compliance of Devices addresses how devices in general are to be upgraded as well as compliance dates for specific devices. Guidance for situations is provided as follows:

Preconstruction

Non-compliant devices are to be upgraded as projects are nominated. Corridor projects to upgrade non-compliant devices are an option but are not required as 3R type projects is expected to be the primary method of addressing non-compliant devices for Preconstruction.

Construction

Non-compliant devices are to be upgraded after the effective date if within the limits of a construction project. It is not expected that addressing non-compliant devices by Construction forces will be extensive and should be addressed via the implementation of the 11th MUTCD in

projects during design. However, information will be provided to help construction crews identify non-compliant devices.

Temporary Traffic Control devices are to be compliant by the effective date for any device on an MDT project under construction. If non-compliant devices are present after the effective date replacement with a compliant device is required. Coordination with MCA will be required to address any changes needed so TTC Contractors are ready and compliant for the effective date.

Maintenance Projects

Projects administered by Maintenance that are addressing signage will follow the requirements of New/Existing projects identified above under the effective date section.

Maintenance operations outside of a project are to replace non-compliant devices with a compliant device when the device is deemed no longer serviceable, is damaged, missing, or being refurbished. Unless one of the two following conditions are met:

1. One compliant device in the midst of a series of adjacent non-compliant devices would be confusing to road users, and/or
2. The schedule for replacement of the whole series of non-compliant devices will result in achieving timely compliance with the MUTCD.

Questions regarding the exceptions are to be directed to District Traffic Engineer's or the Traffic Design Engineer.

Specific Dates

Table 1B-1 from the 11th MUTCD has specific target compliance date requirements for traffic control devices that are deemed critical to be upgraded to protect infrastructure and/or address safety concerns with non-compliant devices or past practices. The table is included below for reference.

Table 1B-1. Target Compliance Dates Established by the FHWA

MUTCD Section(s)	Subject Area	Specific Provision	Compliance Date
2B.64	Weight Limit Signs	Paragraph 14 - requirement for additional Weight Limit sign with the advisory distance or directional legend in advance of applicable section of highway or structure	5 years from the effective date of this edition of the MUTCD
2C.25	Low Clearance Signs (W12-2)	Paragraph 1 - Required posting of the Low Clearance Advance (W12-2) sign in advance of the structure	5 years from the effective date of this edition of the MUTCD
2C.25	Low Clearance Signs (W12-2a, W12-2b)	Paragraph 8 - Recommended posting of Low Clearance Overhead (W12-2a or 12-2b) signs on an arch or other structure under which the clearance varies greatly	5 years from the effective date of this edition of the MUTCD
3A.05	Maintaining Minimum Retroreflectivity	Implementation and continued use of a method that is designed to maintain retroreflectivity of longitudinal pavement markings (see Paragraph 1 of Section 3A.05)	September 6, 2026 ^c
8B.16	High-Profile Grade Crossings	Paragraphs 3 and 7 - Recommended installation of Low Ground Clearance and/or Vehicle Exclusion signs and detour signs for vehicles with low ground clearances that might hang up on high-profile grade crossings at locations with a known history	5 years from the effective date of this edition of the MUTCD
8D.09 through 8D.12	Highway Traffic Signals at or Near Grade Crossings	Assessment and determination of appropriate treatment to achieve compliance (preemption, movement prohibition, pre-signals, queue cutter signals)	10 years from the effective date of this edition of the MUTCD

* 5 year date = January 18, 2029
** 10 year date = January 18, 2034



Section 2B.64: Most of the load posted bridges in Montana do not have the advanced weight limit sign. This requirement for an advanced sign is for all load posted bridges regardless of ownership or maintenance responsibility. Coordination with Bridge Management, Maintenance, as well as counties and municipalities will be required.

Section 2C.25: Most structures with low clearance have advanced warning signs (W12-2), compliance will require coordination with Maintenance.

Section 2C.25: There are limited low clearance structures in Montana that meet the requirements of Section 2C.25 in which the clearance varies greatly. Some examples of these structures would be large culverts or open bottom concrete arch culverts that pass vehicular traffic, which are limited in use.

Section 3A.05: Montana currently meets this requirement for the minimum retro-reflectivity of longitudinal lines. As our maintenance procedures addresses deficiencies in a timely manner in accordance with paragraph 7 and 8 under Section 3A.05.

Section 8B.16: There are limited high clearance crossings in Montana, those that have been identified are currently signed or are known and being addressed via the Highway Rail program. Limited action is expected to comply with the date identified.

Section 8D.09-12: There are limited traffic signals located within the specified distance of a railroad crossing as defined in these sections. A systematic review of these crossings is required, and a plan to address is required, but upgrade prior to the date is not required just a plan to execute. It is expected that some effort will be required but compliance is expected via the required date with low risk.

General affect and changes of the 11th Edition of the MUTCD

The 11th Edition of the MUTCD has made a significant number of changes throughout the manual, the 09 MUTCD contained Part 5 regarding provisions for low volume roads, this Part has since been repurposed and the provisions for low volume roads has been incorporated into the other chapters of the 11th MUTCD. Part 5 is now dedicated to automated driving systems (ADS).

Part 9 has been expanded to address the growing need for traffic control devices in regard to bicycles.

Prohibitions on practices in the past that have shown to have either safety or operational issues have been expanded within the manual.

Specific changes are outlined in Table 1. These changes are not an exhaustive list but are intended to address common traffic control devices or questions that are used in or asked frequently in Montana and the changes from the 09 MUTCD to the 11th MUTCD.

Table 1: MUTCD changes

11th MUTCD Section	Topic	09 MUTCD	11th MUTCD	Comments or needed action
2A.08	Secondary Language (multi-lingual signs)	Limited description	Restricted secondary language to pedestrians and for users in a parked car, legend is not to be visible to vehicular traffic.	
Section 2	Symbol/legend signs		Requires symbol signs if exist instead of words	Will need to address as encountered.
Section 2B.64	Weight Limit Signs	Recommended advanced signage	Requires advance signage	See above compliance date.
Section 2C.06	Horizontal curve signage		Increased threshold for curve warning installation	MDT to maintain current state of practice using the more restrictive methodology in the design memo.
Section 2D.45	Street name signs		Provides minimum letter height	Mixed case legend also required; this is a change to MDT practice.
Section 2D.58	Scenic and Historic designations	Limited description	Expanded requirements	
Section 2L.02	VMS messages	Limited description	Requires policy for messages, limits non-transportation related messages. Amber alerts are allowed, as well as some emergency information	



11th MUTCD Section	Topic	09 MUTCD	11th MUTCD	Comments or needed action
Section 3A.04	Width/Pattern of longitudinal lines	Did not define a double line	Defines a double line as a pair of lines with a gap of no larger than double the width of the line width.	This is a guidance statement; MDT will continue to follow our 4"-12"-4" double yellow line spacing.
Section 3B.07	Dotted extensions for ramps or non-continuing lanes	Recommended to provide dotted extensions for off-ramps and part of on-ramps	Requires dotted extension lines for off-ramps and part of on-ramps	
Section 3C.02	Legal Crosswalks		Requires crosswalk markings at all legally established crosswalks at non-intersections	MDT conforms already as mid-block crossings are marked.
Section 3C.03	Crosswalk widths	Undefined	Minimum of 6' of width, 8' if a non-intersection crossing with >40 mph.	
Section 3H.03	Aesthetic surface treatments	Limited allowance and definitions	Expansion of definitions and prohibitions	
Section 3H.06	Green colored pavement	N/A	Allows use only for bikes, not EV markings	
Section 3H.07	Red colored pavement	N/A	Allows use only for Bus Lane	
Section 4A.05	Bicycle signal	N/A	Flashing Yellow Bicycle signal has no meaning	
Section 4L	RRFB's	N/A	Integrated interim approval into the MUTCD	
Section 4S.03	Warning beacons	Limited discussion	Does not allow LED border signs to be used instead of warning beacons if "when flashing" is included in the sign	



11 th MUTCD Section	Topic	09 MUTCD	11 th MUTCD	Comments or needed action
Section 8D.09	Preemption of highway traffic signals	Recommended practice based on distance	Required practice based on defined distances	Has specific implementation date for a plan to address
Part 9	Bicycles		Significant expansion of Part 9 to address bicycle traffic control devices	
Section 9C.08	Share the Road	Allowed use of placard	Removed use and substituted with "IN ROAD" or "IN STREET"	FHWA stated that "share the road" did not adequately define the "warning" of potentially bikes in a driving lane.
Section 9E.01	Bike lane symbol	Allowed use of helmeted rider pavement marking	Does not allow use of helmeted rider for pavement marking	Need to address detail drawings

Expected Updates

It should be noted that many of MDT's processes and business are integral with the MUTCD, an update matrix is included in the Appendix, this appendix is a list of the changes needed, a comprehensive list of all information reviewed is available upon request from the Traffic Design Engineer. Many of these needed updates are primarily just a reference update from the 2009 Edition of the MUTCD to the 11th Edition of the MUTCD. However, other needed updates include changes to detail drawings, contract specifications, manuals, guides, design memos, etc.

Reference update

With the effective date of the 11th Edition of the MUTCD above, all references in design manuals and guides are to be considered referencing the 11th Edition of the MUTCD. Reference updates to the manuals and guides are not required, but updates should be included in the next version of the manual or guide. It is suggested that in the next update that language change to reference the MUTCD as the most current edition adopted.

Content update

Areas with responsibility for maintaining manuals, guides, design memo's, detail drawings, contract provisions, etc. will need to execute an update or submit for update prior to the effective date above.



Primarily minor updates to specifications, special provisions, and detail drawings are expected. If there are any questions regarding 11th MUTCD compliance, coordinate with MDT's Traffic Design Engineer.

Exceptions

No guidance document can predict all situations that can be encountered when addressing an update of this magnitude to the Manual on Uniform Traffic Control Devices. Engineering judgement must be used to address situations that don't have clear guidance within the update or MDT processes and business. For guidance consult with the Traffic Design Engineer or Traffic Operations Engineer regarding MUTCD questions/exceptions, decision authority on 11th MUTCD compliance is with the Traffic and Safety Engineer with option to elevate disputes and challenges to the Chief Engineer.

Closing

It is the intent of this memo to address the necessary updates that are required under 23 CFR 655 to implement and adopt the 11th Edition of the MUTCD. If there are discrepancies between this memo, MDT manuals and/or guides, other design memo's, or the 11th MUTCD, the 11th MUTCD will govern, then this memo, then other design memos, and finally existing manuals and guides.

Attachments: Update Matrix

copies: Distribution

Memo Type	Memo Title	Effectuated	Compliant	Notes	Suggestion	Option	
Bridge Memos	Low Clearance Signs on Bridges	Yes	No	References the 2003 Edition of the MUTCD. Section 2C.25 Guidance: The actual clearance should be displayed on the Low Clearance (W12-2, W12-2a, and W12-2b) sign to the nearest 1 inch not exceeding the actual clearance. However, in areas that experience changes in temperature causing frost action, a reduction, not exceeding 3 inches, should be used for this condition.	Suggest updating the memo to reflect the current standard within the MUTCD or recind the memo and use the MUTCD.	Update or Recind	
Design Memo - Signing & Pavement Markings	Guidance on Signs, Sign Sheeting, Pavement Markings, and Delineation on Department Responsible Roadways	Yes	Yes	Warning signs are described as yellow. Cross walk markings for high visibility.	Current memo is more restrictive and does not permit other high visibility crosswalks shown in the MUTCD. Suggest updating to allow other highvisibility crosswalks if desired.	Update	
Design Memo - Signing & Pavement Markings	Centerline Pavement Markings for Rural Highways	Yes	Yes	Does not match spacing guidance for double lines of no more than double the line width.	NA	NA	
Design Memo - Signing & Pavement Markings	Advance Warning Flashers at Signalized Intersections	Yes	Yes	NA	NA	NA	
Design Memo - Signing & Pavement Markings	Horizontal Alignment Sign Selection	Yes	No	Section 2C.06 Device Selection for Changes in Horizontal Alignment, Section 2C.07 Horizontal Alignment Signs (W1-1 through W1-5, W1-11, and W1-15), Section 2C.09 Combination Horizontal Alignment/Intersection Signs (W1-10 Series), Section 2C.08 Chevron Alignment Sign (W1-8), Section 2C.10 One-Direction Large Arrow Sign (W1-6), Section 2C.12 Advisory Exit and Ramp Speed Signs (W13-2 and W13-3) and Combination Horizontal Alignment/Advisory Exit and Ramp Speed Signs (W13-6 through W13-13), Section 2C.59 Advisory Speed Plaque (W13-1P) and Confirmation Advisory Speed Plaque (W13-1P)	Memo should be updated to address the changes to Section 2C.06, Section 2C.07, Section 2C.08, Section 2C.09, Section 2C.10, Section 2C.12, and Section 2C.59 in MUCTD 2023	Update	
Design Memo - Signing & Pavement Markings	Use of Vehicle Speed Feedback Signs (VSFS) on the State Maintained System	- VSFS Guidelines	Yes	No	Section 2C.13 Vehicle Speed Feedback Sign and Plaque (W13-20 and W13-20aP), Section 7B.05 School Speed Limit Signs and Plaques, Section 2B.21 Speed Limit Sign (R2-1)	Update VSFS Guidelines to have appropriate sections and MUTCD	Update
Design Memo - Signing & Pavement Markings	Policy on Sign Sheeting Materials for Permanent Signs	Yes	No	Retroreflectivity	Memo Recinded no need to address	No action needed	
Engineering Memos	RV Friendly Logo Symbols Policy	Yes	No	Not directly reference in MUTCD. Guidance is provided for Supplemental RV Access	Memo should be updated to address the lack of RV-Friendly symbol in MUTCD	Update	

Manual Title	Chapter	Section	Effected	Compliant	Notes	Suggestion	Option
MDT Traffic Engineering Manual	Chapter 2 - Administrative Policies and Procedures	2.3.1,2.3.2	Yes	Yes	Needs update	Being Updated	Update
MDT Traffic Engineering Manual	Chapter 5 - Coordination with Other Publications	5.1	Yes	Yes	Needs update	Being Updated	Update
MDT Traffic Engineering Manual	Chapter 6 - Roadside Safety	6.2	Yes	Yes?	Needs update	Being Updated	Update
MDT Traffic Engineering Manual	Chapter 10 - Plan Preparation (Electrical)	10.1.2.4	Yes	Yes	Needs update	Being Updated	Update
MDT Traffic Engineering Manual	Chapter 12 - Traffic Signal Design	Ch 12	Yes	No	Needs update MUTCD referenced Signals discussed Warrants	Being Updated	Update
MDT Traffic Engineering Manual	Chapter 13 - Highway Lighting Designs	13.1.2	Yes?	No?	Needs update References	Being Updated	Update
MDT Traffic Engineering Manual	Chapter 17 - Plan Preparation (Signing/Pavement Markings)	NA	Yes?	Yes	Needs update MUTCD, overhead signs referenced	Being Updated	Update
MDT Traffic Engineering Manual	Chapter 18 - Highway Signing	18.3.4	Yes	No	Needs update MUTCD referenced	Being Updated	Update
MDT Traffic Engineering Manual	Chapter 19 - Pavement Markings		Yes	No	Needs update	Being Updated	Update
MDT Traffic Engineering Manual	Chapter 28 - Intersections at-Grade		Yes	?	Needs update	Being Updated	Update
MDT Traffic Engineering Manual	Chapter 29 - Interchanges		Yes	No?	Needs update	Being Updated	Update
MDT Traffic Engineering Manual	Chapter 31 - Special Design Elements		Yes	No?	Needs update	Being Updated	Update
MDT Traffic Engineering Manual	Chapter 40 - Speed Studies		Yes	No	Needs update	Being Updated	Update
MDT Traffic Engineering Manual	Chapter 41 - Traffic Impact Studies		Yes	No	Needs update	Being Updated	Update
MDT Traffic Engineering Manual	Chapter 42 - School Crossing Studies		Yes	No	Needs update	Being Updated	Update
MDT Traffic Engineering Manual	Chapter 43 - General Traffic Engineering Studies		Yes	Yes?	Needs update	Being Updated	Update

MDT Traffic Engineering Manual	Glossary	NA	Yes	Yes	Needs update	Being Updated	Update
Approach Manual for Landowners and Developers		NA	Yes	Yes	References the MUTCD	NA	NA
Safety Meeting Guidelines for Group Leaders		Work Signs	Yes	Yes	May need to be updated to refer to the MUTCD	NA	NA
Bicyclist Signing Guideline			Yes	Yes	Updated to include pavement markings and new sign requirements from MUTCD	Consider directives for the use of bicycle pavement markings and new sign requirements	New Document
MDT Bridge Inspection Manual		Low Clearance Sign Requirements	Yes	No	Low Clearance Sign Requirements Load Posting should be updated	Issue guidance for low clearance design memo for bridges tunnels or State use of MUTCD	Memo
MDT Timber Bridge Inspection Guide		NA	Yes	Yes	NA	NA	NA
Tunnel Inspection Manual		NA	Yes	Yes	May need to be updated to include Low Clearance information	Issue guidance for low clearance design memo for bridges tunnels or State use of MUTCD	Memo
MDT Bridge Inspection and Rating Manual			Yes	Yes	Out of Date? May need update for load posting ahead.	NA	NA

Load Posting Procedures		Load Posting Signage	Yes	No	References MUTCD Article 2B.67	Recind and update to reference 2B.75 or remove specific reference.	Memo
ADA Transition Plan		NA	Yes	Yes	NA	NA	NA
Work Zone Safety and Mobility			Yes	No	References 2003 MUTCD and TTC plans	State that the 2023 MUTCD should be referenced	Memo
Environmental Manual	CHAPTER 19 SOCIAL IMPACTS.PDF	19.2.11	Yes	Yes	Defines the MUTCD	NA	NA
Environmental Manual	CHAPTER 20 ECONOMIC IMPACTS.PDF	20.2.9	Yes	Yes	Defines the MUTCD	NA	NA
Environmental Manual	CHAPTER 28 CONSTRUCTION IMPACTS.PDF	28.3.2	Yes	Yes	References the MUTCD	NA	NA
Environmental Manual	CHAPTER 41 PED BIKE FACILITIES .PDF		Yes	Yes	discusses bicycle pavement markings and route markers, uniform signing for footpaths and bicycle trails, detours for pedestrian/bicyclist	NA	NA
Geotechnical Manual	Chapter 8 - Subsurface Investigations/Field Tests	NA	Yes	Yes	References MUTCD for Traffic Control	NA	NA
Chip Seal Manual		NA	Yes	Yes	References MUTCD and traffic control	NA	NA
Crack Seal Manual		NA	Yes	Yes	References MUTCD and traffic control	NA	NA
Maintenance Manual Section C - Maintenance Procedures	Chapter 3 - Asphalt Pavement System	NA	Yes	Yes	References MUTCD and traffic control	NA	NA
Maintenance Manual Section C - Maintenance Procedures	Chapter 4 - Concrete Pavement Program	NA	Yes	Yes	References MUTCD and traffic control	NA	NA

Maintenance Manual Section C - Maintenance Procedures	Chapter 5 - Roadway/Roadside Maintenance	NA	Yes	Yes	References MUTCD and traffic control	NA	NA
Maintenance Manual Section C - Maintenance Procedures	Chapter 6 - Roadside Cleanup Program	NA	Yes	Yes	References MUTCD and traffic control	NA	NA
Maintenance Manual Section C - Maintenance Procedures	Chapter 7 - Maintenance of Facilities	NA	Yes	Yes	References MUTCD	NA	NA
Maintenance Manual Section C - Maintenance Procedures	Chapter 8 - Guidance, Safety and Road Closures	NA	Yes	No	References 2000 MUTCD Part VI and traffic control	Update or Memo to reference 2023	Memo
Maintenance Manual Section C - Maintenance Procedures	Chapter 9 - Winter Maintenance	NA	Yes	Yes	References MUTCD and traffic control	NA	NA
Maintenance Manual Section C - Maintenance Procedures	Chapter 10 - Structure Maintenance Program	NA	Yes	No	References noncompliant Low Clearance Signs on Bridges memo and traffic control	Update to reference MUTCD or Memo to reference new memo	Memo
Sign Catalog			Yes	No	Should be updated to include new signs	Update	Update
Complete Manual of Test Procedures	Section 400 - Miscellaneous Materials and Test Methods	10.1.1	Yes	No	Needs to be updated to current MUTCD	Update or memo to reference 2023	Memo
Complete Manual of Test Procedures	Section 500 - Chemistry		Yes	Yes	References testing of traffic paint	NA	NA
Right-of-Way: Volume III - Utilities Manual	Chapter 41 - Utility Agreement Preparation	NA	Yes	Yes	References the MUTCD for traffic control	NA	NA
Right-of-Way: Volume III - Utilities Manual	Chapter 43 - Guidelines for Utility Occupancy on R/W	NA	Yes	Yes	References the MUTCD for traffic control	NA	NA
Right-of-Way: Volume III - Utilities Manual	Chapter 48 - Occupancy of Interstate Right-of-Way	NA	Yes	Yes	References the MUTCD for traffic control	NA	NA
Road Design Manual	Chapter 1 - Road Design Guidelines and Procedures	1.5.1.13	Yes	No	Cites the 2009 MUTCD but nothing in it	Memo to reference 2023 MUTCD	Memo

Road Design Manual	Chapter 2 - Basic Design Controls	2.8.1.4, 2.5	Yes	No	Cites the 2009 MUTCD but nothing in it, discusses 85th percentile for setting speed limits	Memo to reference 2023 MUTCD and Speed limits should probably be directed to Traffic Manual or MUTCD	Memo
Road Design Manual	Chapter 3 - Horizontal Alignment	3.2.3	Yes	No	Cites the 2009 MUTCD	Memo to reference 2023 MUTCD	Memo
Road Design Manual	Chapter 4 - Vertical Alignment	4.5	Yes	Yes	Vertical Clearances	Memo to direct to MUTCD clearances	Memo
Road Design Manual	Chapter 5 - Cross Section Elements	5.2.6.3	Yes	Yes	References pavement markings for TWLTL and flush medians	NA	NA
Road Design Manual	Chapter 6 - Intersections and Interchanges	6.5, 6.6, 6.7	Yes	Yes	Discusses transvers and wide longitudinal pavement markings, dynamic warning signs, roundabouts, pedestrian hybrid beacon, DDI	NA	NA
Road Design Manual	Chapter 7 - Multimodal Design Considerations	7.4.2, 7.6.2	Yes	No?	Cites the 2009 MUTCD, bicycle lanes, crosswalks (high visibility), bike signal, raised pedestrian crossing, RRFB, hybrid beacon, pedestrian signal, bicycle box	Update or memo to reference 2023 proper location of a bike lane	Memo

Road Design Manual	Chapter 8 - Urban Design Considerations	8.4.4	Yes	Yes	Discusses traffic calming measures. Some of these are discussed in the MUTCD	NA	NA
Road Design Manual	Chapter 10 - Work Zone Traffic Control	10.2, 10.4.2, 10.3.5.2	Yes	No	Cites the 2009 MUTCD, taper rates, TTCP, crossovers	Update or memo to reference 2023, address guidance on tapers	Memo
Road Design Manual	Appendix A - Definitions		Yes	Yes	Defines items in the MUTCD but not the MUTCD	NA	NA
Road Design Manual	Appendix F - Sight Distance		Yes	Yes	Passing sight distance, roundabouts	NA	NA
Survey Manual - Entire Manual			Yes	Yes	References the MUTCD	NA	NA
Local Agency Guidelines Manual	Chapter 16	16.5.1	Yes	NA	NA	NA	NA
Local Agency Guidelines Manual	Chapter 17	17.2.2	Yes	Yes	References TTC and the MUTCD	NA	NA

Section	Title	Effected	Compliant	Notes	Suggestion	Option
605	Concrete Barrier Rail	Yes	Yes	Section 3G.04 Placement and Spacing is guidance	NA	NA
606	Guardrail	Yes	No	Section 3G.04 Placement and Spacing is guidance, Section 2C.72 Object Markers for Obstructions Adjacent to the Roadway, CHAPTER 3G. DELINEATORS	Remove reference to reflectorized Type 3 (High Intensity) Sheeting. Consider adding capable of clearly retroreflecting light under normal atmospheric conditions from a distance of 1,000 feet when illuminated by the high beams of standard automobile lights. Or Retroreflective sheeting.	Update
618	Traffic Control	Yes	No	MUTCD Referenced. Section 6F.02 Sign Placement - height from base to bottom of sign	Consider adding the minimum height of 1-ft	Update
619	Signs, Delineators and Guideposts	Yes	No	Section 2A.13 Standardization of Location guidance not followed, Section 2A.10 Sign Borders colors match but the size is guidance, retroreflective sheeting should be updated, Section 3G.04 Placement and Spacing is guidance, MUTCD referenced but not the edition	Update retroreflectivity to match current MUTCD	Update
620	Pavement Markings	Yes	Yes	NA	NA	NA

Section	Effectuated	Compliant	Notes	Option
101.02 ACRONYMS AND ABBREVIATIONS	Yes	Yes	Referenced as acronym	NA
101.03 DEFINITIONS	Yes	No	Defines the MUTCD Standardization of Application is Section 2A.02 now	Update
104.05 MAINTENANCE OF WORK	Yes	Yes	104.05.3 Maintenance for Traffic and Detours: References MUTCD	NA
617.03.6 Foundations	Yes	Yes	Foundation height	NA
617.03.10 Conductors and Cable	Yes	Yes	Preemption	NA
617.03.14 Traffic and Pedestrian Signals	Yes	Yes	Minimum Height 15-foot Max height 25.6-foot depending on distance from stop bar.	NA
617.03.17 Pedestrian Push Buttons	Yes	No	Voice messaging required	Update
618.02 MATERIALS	Yes	Yes	References MUTCD	NA
618.03.1 Purpose and Prosecution of Work Zone Traffic Control	Yes	Yes	References MUTCD	NA
618.03.2 Traffic Control Plan	Yes	Yes	References MUTCD	NA
618.03.6 Access Breaks	Yes	Yes	References MUTCD	NA
618.03.13 Traffic Control Device Location and Installation	Yes	Yes	MUTCD provides guidance not all guidance matches	NA
618.03.15 Pilot Car Operations	Yes	Yes	Specifications appear to be within guidance References MUTCD	NA
619.03.2 Design Calculations and Shop Drawings	Yes	No	Currently links to old layout	Update
619.03.4 Inspection	Yes	No?	Should there be a reference to retro reflectivity requirements? They will be inspected.	Consider Update
620.03.5 Temporary Striping	Yes	Yes	Temporary raised pavement markers spaced closer than required	NA
620.03.7 Final Pavement Markings	Yes	No?	Should there be a reference to retro reflectivity requirements?	Consider Update

620.03.8 Concrete Curbs	Yes	No	Retro reflectivity requirements and not all traffic islands should be yellow.	Update
703.07 CONTROL EQUIPMENT	Yes	No	703.07.1 Flasher: Reference no longer valid 4G.01	Update
703.08 TRAFFIC AND PEDESTRIAN SIGNALS	Yes	Yes	References ITE and MUTCD, retro reflectivity requirements not stated calls for Type IX	NA
703.10 PEDESTRIAN PUSH BUTTONS	Yes	No	Voice messaging appears standard	Update
704.01.7 Retro-reflective Sheeting	Yes	No?	Retro reflectivity requirements	Consider Update
704.03 FLEXIBLE DELINEATORS	Yes	No?	Retro reflectivity requirements	Consider Update
704.04 LINEAR DELINEATION SYSTEMS	Yes	No?	Retro reflectivity requirements	Consider Update
714.04 WATERBORNE TRAFFIC PAINT	Yes	No?	Retro reflectivity requirements	Consider Update
714.06 EPOXY OR OTHER POLYMERIC TRAFFIC PAINT	Yes	No?	Retro reflectivity requirements	Consider Update
714.07 PREFORMED PLASTIC PAVEMENT MARKING MATERIAL	Yes	No?	Retro reflectivity requirements 714.07.4 Physical Requirements	Update
714.08 REFLECTIVE GLASS BEADS	Yes	No?	Retro reflectivity requirements	Consider Update
715.01 SIGNS AND CHANNELIZING DEVICES	Yes	Yes	References MUTCD	NA
715.03 ADVANCE WARNING ARROW PANELS	Yes	Yes	References general location in the MUTCD	NA