

Effective Dates of Manuals



CA MUTCD Adoption Changes

- Change List on CA MUTCD web site
- Compares MUTCD 2003 + CA Supplement (May 20, 2004) to CA MUTCD (September 26, 2006)

Change List
(California MUTCD) Page 1 of 58

Although every effort has been made to keep this list current and updated, it is merely being provided as an additional reference and should not be used as the only means of comparison between the relevant documents. It is recommended that the actual text, figures and tables of the California MUTCD be reviewed in their entirety for a complete and all-inclusive comparison of the changes included in the California MUTCD.

Change List (California MUTCD)
(Compares California Supplement issued on May 20, 2004 to California MUTCD released on September 26, 2006)

As of September 26, 2006 the California Department of Transportation has adopted the California Manual on Uniform Traffic Control Devices (FHWA's MUTCD 2003 Revision 1, as amended for use in California), also called the California MUTCD, to prescribe uniform

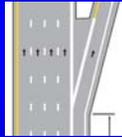
What is the MUTCD?

National MUTCD

National standard for all traffic control devices installed on any street, highway, or bicycle trail open to public travel.

Types of TCDs

- Signs - Part 2
- Markings - Part 3
- Signals - Part 4
- Parts 6 - 10 are TCD usage “environments”
 - Work Zones, School Zones, Bicycle Facilities, RR Grade Xings & LRT Xings



CA MUTCD Parts

- 1 General
- 2 Signs
- 3 Markings
- 4 Highway Traffic Signals
- 5 Traffic Control Devices for Low Volume Roads
- 6 Temporary Traffic Control
- 7 Traffic Controls for School Areas
- 8 Traffic Control for Highway-Rail Grade Crossings
- 9 Traffic Controls for Bicycle Facilities
- 10 Traffic Controls for Highway-LRT Grade Crossings



Meeting the MUTCD Requirement

- National MUTCD



- National MUTCD + Supplement



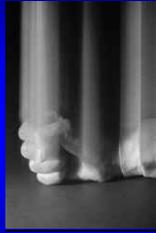
- State MUTCD



OR



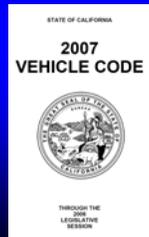
Why the TM or CA MUTCD?



It's the Law!!!

Why the TM or CA MUTCD?

All TCDs on all public streets and highways in CA must conform to Caltrans adopted rules & regulations subject to the provisions of CVC.



Why FHWA doesn't enforce all states?

- State/Federal Law Issues
- Acceptable modifications are allowed by FHWA
- Purpose is minimum national standard and a uniform template outline to aid uniformity
- Flexibility built-in on purpose to allow for differing regional & state demographics and preferences and also to allow engineering discretion

Who enforces MUTCD? (Who are "The Sign Police"?)

FHWA responsible for:

- developing standards contained in MUTCD
- determining State Supplements and State MUTCDs to be in "substantial conformance" with National MUTCD

Caltrans responsible for:

- Adopting a State TCD manual that is in substantial conformance" with National MUTCD after consultation with local agencies and the public of California

Facility Owner (State/local/private) responsible for:

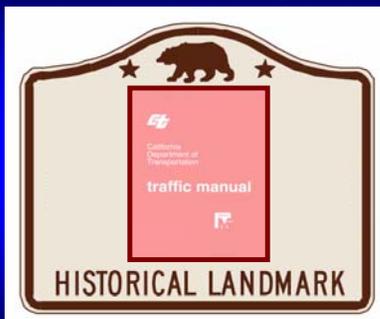
- selecting, installing, and maintaining TCDs

Answer: The Court System

Why Comply?

- Highest B/C of any safety improvement (20-60:1)
- 29% of tort liability lawsuits related to TCDs
- In actual practice, adherence to MUTCD varies across states and jurisdictions per tort laws and exposure and design immunity issues experience

Traffic Manual Status



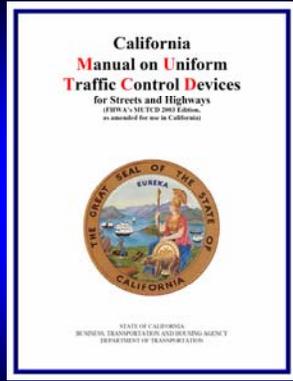
As of May 20, 2004 for TCD topics

Most Current Manual

Effective as of 9/26/06, to date

Includes:

- FHWA's MUTCD 2003 Revision 1 dated November 20, 2004
- MUTCD 2003 California Supplement dated May 20, 2004
- All TCD policies approved after May 20, 2004



MUTCD Versions & their applicability in CA

Version	Released	Adopted
MUTCD 2000	12/20/00	Never
MUTCD 2000 Errata No. 1	6/20/01	Never
MUTCD 2000 Revision No. 1	12/20/01	Never
MUTCD 2003	11/20/03	5/20/04
MUTCD 2003 Revision No. 1	12/1/04	9/26/06

The MUTCD isn't just FHWA's opinion...



- Two meetings per year
- 200+ volunteers
- Different experiences and backgrounds (Public, private, vendors)
- Different geographic perspectives
- Analogous to the California Traffic Control Devices Committee (CTCDC)

California Traffic Control Devices Committee (CTCDC)

- CVC 21400: consult with local authorities
- Considers proposals for new or non-standard TCDs
- Represents:
 - Local Agencies (Cities & Counties)
 - Public (Auto clubs)
 - Enforcement (CHP)
 - Caltrans
- Meets 3 to 4 times a year
- Next Meeting on 6/7/07 in San Diego



California Traffic Control Devices Committee (CTCDC)

- Farhad Mansourian, Chairman, Marin County
- Hamid Bahadori, Vice Chairman, ACSC
- Mike Bauer, Caltrans
- Merry Banks, CSAA
- Jacob Babico, San Bernardino County
- Capt. Joe Whiteford, CHP
- Ed von Borstel, City of Modesto
- Hamid Bahadori, ACSC
- **Devinder Singh, Secretary, Caltrans**



MUTCD Applies to.....?



Freeways

MUTCD Applies to.....?



Residential Streets

MUTCD Applies To.....?



Privately-owned parking lotOpen to the public?

TCD Standards - Private Property (California's Position)

How about...?



Only if local agency passes an ordinance to bring it under the purview of CVC, thereby extending it to Caltrans adopted rules & regulations



You've got to be kidding!



If not open to Public Travel...

“Open to Public Travel”

12/14/06 FR Final Rule, 23 CFR 655.603(a) the phrase “open to public travel”:

Includes:
Toll roads & roads within shopping centers, parking lots, airports, sports arenas, & other privately owned business and recreation facilities where public is allowed to travel without access restrictions.

Does Not Include:
Military bases & other gated properties where access is restricted and private railroad grade crossings.

Format – Each page

California MUTCD
(FHWA's MUTCD 2003 Revision 1, as amended for use in California) Page 8B-4

Standard:
Turn prohibition signs that are associated with preemption shall be visible only when the highway-rail grade crossing restriction is in effect.

Support:
Left turns from a nearby signalized intersection toward a highway-rail crossing can be prohibited during railroad or light rail transit pre-emption by use of a red-left arrow display or an extinguishable R5-2 sign. Likewise, right turns from a

Standard:
For all highway-rail grade crossings where STOP or YIELD signs are installed, the placement shall conform to the requirements of Sections 2B.86 and 2B.10. Stop Ahead (W3-1) or Yield Ahead (W3-2) Advance Warning signs (see Figure 2C-4) shall also be installed if the criteria for their installation given in Section 2C.29 is met.

STOP signs shall not be installed at any highway-rail grade crossing which is controlled by automatic traffic control devices except as provided in CVC 21355 and in the Options in this section of this Manual.

Chapter 8B – Signs and Markings September 26, 2006
Part 6 – Traffic Controls for Highway-Rail Grade Crossings

Format - Text

California MUTCD
(FHWA's MUTCD 2003 Revision 1, as amended for use in California) Page 2B-37

Hence, per this offset left-turn lanes scenario, if the type of roadway is a conventional road, the R5-1 sign size used, if feasible, should be from the expressway column (36 x 36 in), not the 750 x 750 mm (30 x 30 in) size in the conventional road column.

Section 2B.35 WRONG WAY Sign (R5-1a)

Option:
The WRONG WAY (R5-1a) sign (see Figure 2B-9) may be used as a supplement to the DO NOT ENTER sign where an at-grade intersection intersects a one-way roadway in a manner that does not physically prevent wrong-way entry (see Figure 2B-10).

Guidance:
If used, the WRONG WAY sign should be placed at a location along the exit ramp or the one-way roadway farther from the crossroad than the DO NOT ENTER sign (see Section 2E.50).

Support:
Refer to Section 2B.34 for the WRONG WAY (R5-1a) sign.

Section 2B.36 Selective Exclusion Signs

Support:
Selective Exclusion signs (see Figure 2B-4) are notice to road users that State or local statutes or ordinances exclude certain types of traffic from using particular roadways or facilities.

Standard:
If used, Selective Exclusion signs shall clearly indicate the type of traffic that is excluded.

Format – Figures & Tables

California MUTCD
(FHWA's MUTCD 2003 Revision 1, as amended for use in California) Page 8B-10

Figure 8B-12 Example of Lane Reduction Message

September 26, 2006

California MUTCD
(FHWA's MUTCD 2003 Revision 1, as amended for use in California) Page 8B-11

Figure 8B-12 (CA) Example of Signs and Lane Reduction Warnings (Sheet 1 of 2)

September 26, 2006

Format – Figures

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Text Headings

- Standard (“shall”) – required; mandatory or prohibitive - no exceptions
- Guidance (“should”) – recommended; engineering judgment or study
- Option (“may”) – permissive
- Support - informational statement

Text Headings

Section 6F.75 Lighting Devices

Guidance:

Lighting devices should be provided in TTC zones based on engineering judgment. When used to supplement channelization, the maximum spacing for warning lights should be identical to the channelizing device spacing requirements.

Support:

Four types of lighting devices are commonly used in TTC zones. They are floodlights, flashing warning beacons, warning lights, and steady-burn electric lamps.

Option:

Lighting devices may be used to supplement retroreflectORIZED signs, barriers, and channelizing devices. During normal daytime maintenance operations, the functions of flashing warning beacons may be provided by high-intensity rotating, flashing, oscillating, or strobe lights on a maintenance vehicle.

Standard:

Although vehicle hazard warning lights are permitted to be used to supplement high-intensity rotating, flashing, oscillating, or strobe lights, they shall not be used instead of high-intensity rotating, flashing, oscillating, or strobe lights.

Let's talk about the TCD Exception Process...

THERE ISN'T ONE!!!

- **Standard:** No Deviations
- **Guidance:** May deviate based on your engineering judgement or study
 - Good idea to document

Compliance – for Projects

Projects in Design



- **DEFAULT:**
 - All TCDs shall be in compliance with CA MUTCD.
- **EXCEPTION:**
 - If significant delay or increase in project cost per engineering judgment, OK to use previous manuals

Compliance – for Projects

Projects in Construction



- **DEFAULT:**
 - All TCDs shall be in compliance with CA MUTCD before opening to traffic.
- **EXCEPTION:**
 - If significant delay or increase in project cost per engineering judgment, OK to use previous manuals

Compliance – TCDs on Existing Roadways

- **On Roadways:** All non-compliant TCDs can remain in use through end of useful service life (USL).
- **In Inventory:** Any non-compliant TCDs can be used to replace existing TCD, if purchased prior to issuance of TCD manual (that deleted it), until inventory depletion.

How to determine end of 'USL'



For Now:
Engineering Judgement

In Future:
Minimum Levels of
Retroreflectivity
are being proposed
(was open for public comment
thru 11/06/06)



Compliance – TCDs on Existing Roadways

- If reconstruction project does not modify or relocate a particular TCD, no obligation (it is encouraged) to upgrade regardless of nature of project.
- 20 specific existing R and W signs have to be replaced by certain dates.

Target Compliance Dates

These target compliance dates established by the FHWA shall be as follows:

Section 2A.19 Lateral Offset—crashworthiness of sign supports—January 17, 2013 for roads with posted speed limit of 80 km/h (50 mph) or higher.

Section 2B.03 Size of Regulatory Signs—increased sign sizes and other changes to Table 2B-1—10 years from the effective date of the Final Rule for the 2003 MUTCD.

Section 2B.04 STOP Sign (R1-1)—4-WAY plaque requirement—January 17, 2004.

Section 2B.06 STOP Sign Placement—signs mounted on back of STOP sign—10 years from the effective date of the Final Rule for the 2003 MUTCD.

Section 2B.09 YIELD Sign Applications—changes in YIELD sign application criteria from the 1988 MUTCD—January 17, 2011.

Section 2B.10 YIELD Sign Placement—signs mounted on back of YIELD sign—10 years from the effective date of the Final Rule for the 2003 MUTCD.

Section 2B.11 Yield Here to Pedestrians Signs (R1-5, R1-5a)—new section—10 years from the effective date of the Final Rule for the 2003 MUTCD.

Section 2B.13 Speed Limit Sign (R2-1)—color of changeable message legend of YOUR SPEED—10 years from the effective date of the Final Rule for the 2003 MUTCD.

Section 2B.25 Reversible Lane Control Signs (R3-9d, R3-9f through R3-9i)—removal of R3-9c and R3-9e signs—10 years from the effective date of the Final Rule for the 2003 MUTCD.

All FHWA Dates Deleted

Deleted Signs – w/ Target Compliance Dates Figure & Table I-101(CA)