

California Manual on Uniform Traffic Control Devices

FHWA's MUTCD 2009 Edition, including Revisions 1 & 2 as amended for use in California.

2014 Edition

State of California
California State Transportation Agency
Department of Transportation



The Manual on Uniform Traffic Control Devices (MUTCD) is approved by the Federal Highway Administrator as the National Standard in accordance with Title 23 U.S. Code, Sections 109(d), 114(a), 217, 315, and 402(a), 23 CFR 655, and 49 CFR 1.48(b)(8), 1.48(b)(33), and 1.48(c)(2).

The California Manual on Uniform Traffic Control Devices (California MUTCD) is published by the State of California, Department of Transportation (Caltrans) and is issued to adopt uniform standards and specifications for all official traffic control devices, in accordance with Section 21400 of the California Vehicle Code.

This manual is current as of the date of publication on the footer page. However, it may be necessary from time to time to modify, change or adopt new standards and specifications for traffic control devices and/or issue errata or editorial changes to the manual. To ensure that the traffic control device practitioner is accessing the most current information regarding traffic control device topics for California, the practitioner is advised to always reference the California MUTCD web site.

The California MUTCD, California Sign Specifications and other publications and related current information is available on the Internet at the following web link:

<http://www.dot.ca.gov/hq/traffops/engineering/>

Addresses for Publications Referenced in the [California MUTCD](#)

American Automobile Association (AAA)
1000 AAA Drive
Heathrow, FL 32746
calstate.aaa.com
800-222-4357

American Association of State Highway and Transportation Officials (AASHTO)
444 North Capitol Street, NW, Suite 249
Washington, DC 20001
www.transportation.org
202-624-5800

American National Standards Institute (ANSI)
1819 L Street, NW, 6th floor
Washington, DC 20036
www.ansi.org
202-293-8020

American Railway Engineering and Maintenance-of-Way Association (AREMA)
10003 Derekwood Lane, Suite 210
Lanham, MD 20706
www.arema.org
301-459-3200

California Building Standards Code
International Conference of Building Officials
5360 South Workman Mill Road
Whittier, CA 90601
www.icbo.org
916-263-0916

California Code Publications &
California Law
<http://leginfo.legislature.ca.gov/faces/codes.xhtml>

California Department of Transportation Publications
Publications Distribution Unit
1900 Royal Oaks Drive
Sacramento, CA 95815-3800
<http://caltrans-opac.ca.gov/publicat.htm>
916-263-0822

California Vehicle Code
Department of Motor Vehicles
Sacramento, California
<http://www.dmv.ca.gov/pubs/pubs.htm>
800-777-0133

Federal Highway Administration Report Center
Facsimile number: 814-239-2156
report.center@fhwa.dot.gov

Illuminating Engineering Society (IES)
120 Wall Street, Floor 17
New York, NY 10005
www.iesna.org
212-248-5000

Institute of Makers of Explosives
1120 19th Street, NW, Suite 310
Washington, DC 20036-3605
www.ime.org
202-429-9280

Institute of Transportation Engineers (ITE)
1099 14th Street, NW, Suite 300 West
Washington, DC 20005-3438
www.ite.org
202-785-0060

International Organization for Standardization
1, ch. de la Voie-Creuse
Case Postale 56
CH-1211
Geneva 20, Switzerland
www.iso.ch
011-41-22-749-0111

International Safety Equipment Association (ISEA)
1901 North Moore Street, Suite 808
Arlington, VA 22209
www.safetyequipment.org
703-525-1695

National Committee on Uniform Traffic Laws and Ordinances (NCUTLO)
107 South West Street, Suite 110
Alexandria, VA 22314
www.ncutlo.org

National Electrical Manufacturers Association (NEMA)
1300 North 17th Street, Suite 1752
Rosslyn, VA 22209
www.nema.org
703-841-3200

Occupational Safety and Health Administration (OSHA)
U.S. Department of Labor
200 Constitution Avenue, NW
Washington, DC 20210
www.osha.gov
800-321-6742

Transportation Research Board (TRB)
The National Academies
500 Fifth Street, NW
Washington, DC 20001
www.nas.edu/trb
202-334-2934

U.S. Architectural and Transportation Barriers Compliance Board (The U.S. Access Board)
1331 F Street, NW, Suite 1000
Washington, DC 20004-1111
www.access-board.gov
202-272-0080

Acknowledgments

The Federal Highway Administration gratefully acknowledges the valuable assistance that it received from the National Committee on Uniform Traffic Control Devices and its over 200 voluntary members in the development of this Manual.

Caltrans gratefully acknowledges the contribution from the following persons for providing invaluable time, support, guidance and direction in the development of this Manual:

- Federal Highway Administration's California Division
- California Traffic Control Devices Committee (CTCDC) members;
 - Hamid Bahadori, Chairman of CTCDC, AAA of Southern CA;
 - William Winter, Los Angeles County;
 - Mark Greenwood, City of Palm Desert;
 - Duper Tong, Caltrans, Division of Traffic Operations;
 - Emma Olenberger, AAA Northern CA, NV & UT;
 - Lt. David Ricks, California Highway Patrol ;
 - Rick Marshall, CSAC, Napa County;
 - John Ciccarelli, Caltrans – Non-motorized, Bicycle Solutions;
 - Brian D. Jones, Caltrans – Non-motorized, Alta Planning + Design;
 - Jay Walter, LOCC, City of San Carlos
- Staff from various cities and counties in California who participated in CTCDC meetings and workshops
- Caltrans headquarters' and districts' staff

Information regarding the California portion (blue text and/or blue border line) of this Manual can be obtained by writing to:

State of California
Department of Transportation,
Chief, Division of Traffic Operations, MS-36
1120 N Street, Sacramento, CA 95814

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The California MUTCD is available on the Caltrans Web Page at:
<http://www.dot.ca.gov/camutcd>

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DIVISION OF TRAFFIC OPERATIONS

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November 7, 2014

Mr. Hamid Bahadori
Chairman
California Traffic Control Devices Committee
P.O. Box 942874, MS-36
Sacramento, CA 94274-0001

Dear Mr. Bahadori,

The California Department of Transportation (Caltrans) has adopted the *California Manual on Uniform Traffic Control Devices* (CA MUTCD) 2014 edition to provide uniform standards and specifications for all official traffic control devices in California. This action was taken pursuant to the provisions of California Vehicle Code Section 21400 and the recommendation of the *California Traffic Control Devices Committee* (CTCDC). Caltrans requested and has received a letter to confirm substantial conformance from the Federal Highway Administration (FHWA) for the CA MUTCD 2014 edition. The revised document is available on the internet at: <http://www.dot.ca.gov/camutcd>.

The updated CA MUTCD includes FHWA's 2009 MUTCD Revisions 1 and 2. The 2014 CA MUTCD revision also includes all policies on traffic control devices issued by the Department since January 12, 2012, recommendations by the CTCDC, and other corrections and format changes that were necessary to update the previous documents.

The Division of Traffic Operations is grateful to the CTCDC members and acknowledges their staff for providing invaluable time, support, guidance and direction in the development of this document. If you have any questions, please contact Duper Tong at (916) 654-5176 or by email at Duper.Tong@dot.ca.gov.

Sincerely,

for 
THOMAS P. HALLENBECK, Chief
Division of Traffic Operations

c: Johnny Bhullar, Executive Secretary, CTCDC



U.S. Department
of Transportation
**Federal Highway
Administration**

California Division

November 4, 2014

650 Capitol Mall, Suite 4-100
Sacramento, CA 95814
(916) 498-5001
916 498-5008 (FAX)

In Reply Refer To:
HDA-CA

Mr. Malcolm Dougherty
Director
California Department of Transportation
1120 N Street
Sacramento, CA 95814

Attention: Tom Hallenbeck, Division Chief
Division of Traffic Operations

SUBJECT: Substantial Conformance with 2009 MUTCD Revisions 1 and 2

Dear Mr. Dougherty:

This letter is in response to the October 28, 2014 letter from Tom Hallenbeck requesting the 2014 California Manual on Uniform Traffic Control Devices for Streets and Highways (CA MUTCD) be found in substantial conformance with the National Manual on Uniform Traffic Control Devices for Streets and Highways, 2009 Edition (2009 MUTCD) Revisions 1 and 2.

Per Title 23, Code of Federal Regulations [23 CFR 655.603(b)(1)], "...The FHWA Division Administrators shall approve the State MUTCDs and supplements that are in substantial conformance with the National MUTCD...". Our office has reviewed the revisions from the 2012 to the 2014 CA MUTCD and found them to be in substantial conformance with the 2009 MUTCD Revisions 1 and 2.

We look forward to continue working with Caltrans, local agencies and the California Traffic Control Devices Committee on the CA MUTCD and to implement traffic control devices that will enhance the safety of California's roadways. We commend the effort that Caltrans' Office of Traffic Engineering devoted to the manual revision to achieve substantial conformance.

If you have any questions please contact Kevin Korth, Traffic Operations Engineer, at (916) 498-5860 or by email at kevin.d.korth@dot.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Vincent P. Mammano".

For: Vincent P. Mammano
Division Administrator

DEPARTMENT OF TRANSPORTATION

DIVISION OF TRAFFIC OPERATIONS

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October 28, 2014

Mr. Vincent Mammano
 Division Administrator
 Federal Highway Administration
 650 Capitol Mall, Suite 4-100
 Sacramento, CA 95814

Dear Mr. Mammano:

On June 10, 2014, the California Department of Transportation (Caltrans) incorporated Federal Highway Administration's (FHWA) Revisions 1 and 2, of the 2009 *National Manual on Uniform Traffic Control Devices* (MUTCD), dated May 2012, in the *California Manual on Uniform Traffic Control Devices* (CA MUTCD). At the time, Caltrans anticipated and noted that additional revisions, including recent recommendations by the California Traffic Control Devices Committee (CTCDC) and Caltrans' Division of Traffic Operations Policy Directives and memos, would be incorporated in a future revision to the CA MUTCD. We have now completed these revisions and plan to release the revised CA MUTCD. Your confirmation is requested that this revised edition is in substantial conformance with the 2009 National MUTCD.

A finding of substantial conformance is required per Code of Federal Regulations title 23 [23 CFR 655.603(b)(1)]. We intend to post the revised CA MUTCD by November 3, 2014 at <www.dot.ca.gov/camutcd>. The 2014 CA MUTCD revisions include a wide range of subjects such as:

- Enhanced crosswalk policy, high-visibility signs and markings.
- Usage of 15 or 20 MPH speed limits in school zones.
- Revisions to International Symbol of Accessibility markings for on-street and off-street parking spaces to comply with the Americans with Disabilities Act.
- Determination of the minimum yellow change interval at signalized intersections.
- Expanded usage of light-emitting diode lights for all regulatory signs.
- Revision in speed reduction in work zones policy.
- Usage of portable transverse rumble strips.
- Revisions to allow high-visibility apparel that meets American National Standards Institute standards.
- Applications of bicycle buffer areas and contraflow bike lanes.
- Signs reminding motorists about the Three Feet for Safety Act recently passed.
- Revisions in terminology to differentiate between tubular markers, portable delineators, and channelizers.

Mr. Vincent Mammano
October 28, 2014
Page 2

Such on-going revisions and updates of the CA MUTCD are vital for providing a safe, sustainable, integrated and efficient transportation system that enhances California's economy and livability.

We would like to acknowledge Mr. Kevin Korth's efforts in working closely with Mr. Johnny Bhullar of our staff and reviewing the changes made in the current edition. This review process was completed to ensure the changes made would be in conformance with the FHWA's 2009 MUTCD Revisions 1 and 2. An electronic version of these pages has been provided to Mr. Korth.

If you would like to discuss the revisions to the 2014 CA MUTCD or have any questions, please contact Duper Tong, Chief of the Office of Traffic Engineering in the Division of Traffic Operations, at (916) 654-5176 or by e-mail sent to <duper.tong@dot.ca.gov>.

Sincerely,



THOMAS P. HALLENBECK
Chief
Division of Traffic Operations

- c: Malcolm Dougherty, Director, Caltrans
- Steve Takigawa, Deputy Director, Maintenance and Operations, Caltrans
- Johnny Bhullar, Executive Secretary, CTCDC

CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

TABLE OF CONTENTS

	<u>Page</u>
REFERENCES	i
ACKNOWLEDGMENTS	v
CTCDC NOTIFICATION LETTER	vii
FHWA LETTER OF SUBSTANTIAL CONFORMANCE	ix
LIST OF FIGURES	25
LIST OF TABLES	38
FOREWORD	41
INTRODUCTION	43
PART 1. GENERAL	53
CHAPTER 1A. GENERAL	53
Section 1A.01 Purpose of Traffic Control Devices	53
Section 1A.02 Principles of Traffic Control Devices	53
Section 1A.03 Design of Traffic Control Devices	54
Section 1A.04 Placement and Operation of Traffic Control Devices	54
Section 1A.05 Maintenance of Traffic Control Devices	54
Section 1A.06 Uniformity of Traffic Control Devices	54
Section 1A.07 Responsibility for Traffic Control Devices	55
Section 1A.08 Authority for Placement of Traffic Control Devices	56
Section 1A.09 Engineering Study and Engineering Judgment	58
Section 1A.10 Interpretations, Experimentations, Changes, and Interim Approvals	58
Section 1A.11 Relation to Other Publications	65
Section 1A.12 Color Code	67
Section 1A.13 Definitions of Headings, Words, and Phrases in this Manual	67
Section 1A.14 Meanings of Acronyms and Abbreviations in this Manual	85
Section 1A.15 Abbreviations Used on Traffic Control Devices	91
PART 2. SIGNS	99
CHAPTER 2A. GENERAL	99
Section 2A.01 Function and Purpose of Signs	99
Section 2A.02 Definitions	99
Section 2A.03 Standardization of Application	99

Section 2A.04	Excessive Use of Signs	100
Section 2A.05	Classification of Signs	100
Section 2A.06	Design of Signs	100
Section 2A.07	Retroreflectivity and Illumination	102
Section 2A.08	Maintaining Minimum Retroreflectivity	103
Section 2A.09	Shapes	104
Section 2A.10	Sign Colors	104
Section 2A.11	Dimensions	104
Section 2A.12	Symbols	105
Section 2A.13	Word Messages	106
Section 2A.14	Sign Borders	107
Section 2A.15	Enhanced Conspicuity for Standard Signs	107
Section 2A.16	Standardization of Location	108
Section 2A.17	Overhead Sign Installations	109
Section 2A.18	Mounting Height	110
Section 2A.19	Lateral Offset	112
Section 2A.20	Orientation	113
Section 2A.21	Posts and Mountings	113
Section 2A.22	Maintenance	114
Section 2A.23	Median Opening Treatments for Divided Highways with Wide Medians	114
Section 2A.101(CA)	Signs Off the State Right-of-Way	114

CHAPTER 2B. REGULATORY SIGNS, BARRICADES, AND GATES 125

Section 2B.01	Application of Regulatory Signs	125
Section 2B.02	Design of Regulatory Signs	125
Section 2B.03	Size of Regulatory Signs	125
Section 2B.04	Right-of-Way at Intersections	126
Section 2B.05	STOP Sign (R1-1) and ALL WAY Plaque (R1-3P)	128
Section 2B.06	STOP Sign Applications	129
Section 2B.07	Multi-Way Stop Applications	129
Section 2B.08	YIELD Sign (R1-2)	130
Section 2B.09	YIELD Sign Applications	130
Section 2B.10	STOP Sign or YIELD Sign Placement	130
Section 2B.11	Yield Here To Pedestrians Signs and Stop Here For Pedestrians Signs (R1-5 Series)	132
Section 2B.12	In-Street and Overhead Pedestrian Crossing Signs (R1-6, R1-6a, R1-9, and R1-9a)	132
Section 2B.13	Speed Limit Sign (R2-1)	133
Section 2B.14	Truck Speed Limit Plaque (R2-2P)	143
Section 2B.15	Night Speed Limit Plaque (R2-3P)	143
Section 2B.16	Minimum Speed Limit Plaque (R2-4P)	143
Section 2B.17	Higher Fines Signs and Plaque (R2-6P, R2-10, and R2-11)	144
Section 2B.18	Movement Prohibition Signs (R3-1 through R3-4, R3-18, and R3-27)	145
Section 2B.19	Intersection Lane Control Signs (R3-5 through R3-8)	147
Section 2B.20	Mandatory Movement Lane Control Signs (R3-5, R3-5a, R3-7, and R3-20)	148
Section 2B.21	Optional Movement Lane Control Sign (R3-6)	150
Section 2B.22	Advance Intersection Lane Control Signs (R3-8 Series)	150
Section 2B.23	RIGHT (LEFT) LANE MUST EXIT Sign (R3-33)	151
Section 2B.24	Two-Way Left Turn Only Signs (R3-9a, R3-9b)	151
Section 2B.25	BEGIN and END Plaques (R3-9cP, R3-9dP)	151
Section 2B.26	Reversible Lane Control Signs (R3-9e through R3-9i)	152
Section 2B.27	Jughandle Signs (R3-23, R3-24, R3-25, and R3-26 Series)	153
Section 2B.28	DO NOT PASS Sign (R4-1)	154
Section 2B.29	PASS WITH CARE Sign (R4-2)	154

Section 2B.30	KEEP RIGHT EXCEPT TO PASS Sign (R4-16) and SLOWER TRAFFIC KEEP RIGHT Sign (R4-3)	154
Section 2B.31	TRUCKS USE RIGHT LANE Sign (R4-5)	155
Section 2B.32	Keep Right and Keep Left Signs (R4-7, R4-8)	156
Section 2B.33	STAY IN LANE Sign (R4-9)	156
Section 2B.34	RUNAWAY VEHICLES ONLY Sign (R4-10)	156
Section 2B.35	Slow Vehicle Turn-Out Signs (R4-12, R4-13, and R4-14)	156
Section 2B.36	DO NOT DRIVE ON SHOULDER Sign (R4-17) and DO NOT PASS ON SHOULDER Sign (R4-18)	157
Section 2B.37	DO NOT ENTER Sign (R5-1)	157
Section 2B.38	WRONG WAY Sign (R5-1a)	158
Section 2B.39	Selective Exclusion Signs	158
Section 2B.40	ONE WAY Signs (R6-1, R6-2)	161
Section 2B.41	Wrong-Way Traffic Control at Interchange Ramps	162
Section 2B.42	Divided Highway Crossing Signs (R6-3, R6-3a)	165
Section 2B.43	Roundabout Directional Arrow Signs (R6-4, R6-4a, and R6-4b)	166
Section 2B.44	Roundabout Circulation Plaque (R6-5P)	166
Section 2B.45	Examples of Roundabout Signing	166
Section 2B.46	Parking, Standing, and Stopping Signs (R7 and R8 Series)	167
Section 2B.47	Design of Parking, Standing, and Stopping Signs	173
Section 2B.48	Placement of Parking, Stopping, and Standing Signs	175
Section 2B.49	Emergency Restriction Signs (R8-4, R8-7, R8-8)	175
Section 2B.50	WALK ON LEFT FACING TRAFFIC and No Hitchhiking Signs (R9-1, R9-4, R9-4a)	176
Section 2B.51	Pedestrian Crossing Signs (R9-2, R9-3)	176
Section 2B.52	Traffic Signal Pedestrian and Bicycle Actuation Signs (R10-1 through R10-4, and R10-24 through R10-26)	176
Section 2B.53	Traffic Signal Signs (R10-5 through R10-30)	177
Section 2B.54	No Turn on Red Signs (R10-11 Series, R10-17a, and R10-30)	178
Section 2B.55	Photo Enforced Signs and Plaques (R10-18, R10-19P, R10-19aP)	179
Section 2B.56	Ramp Metering Signs (R10-28 and R10-29)	180
Section 2B.57	KEEP OFF MEDIAN Sign (R11-1)	181
Section 2B.58	ROAD CLOSED Sign (R11-2) and LOCAL TRAFFIC ONLY Signs (R11-3 Series, R11-4)	181
Section 2B.59	Weight Limit Signs (R12-1 through R12-5)	181
Section 2B.60	Weigh Station Signs (R13 Series)	182
Section 2B.61	TRUCK ROUTE Sign (R14-1)	183
Section 2B.62	Hazardous Material Signs (R14-2, R14-3)	184
Section 2B.63	National Network Signs (R14-4, R14-5)	185
Section 2B.64	Headlight Use Signs (R16-5 through R16-11)	185
Section 2B.65	FENDER BENDER Sign (R16-4)	186
Section 2B.66	Seat Belt Symbol	187
Section 2B.67	Barricades	187
Section 2B.68	Gates	187
Section 2B.101(CA)	NO FISHING (JUMPING) FROM BRIDGE Sign (R23(CA))	188
Section 2B.102(CA)	TWO WAY TRAFFIC AHEAD Sign (R40(CA))	189
Section 2B.103(CA)	\$1000 Fine Signs (R47(CA) and R47A(CA))	189
Section 2B.104(CA)	PRIVATE ROAD (PRIVATE PROPERTY) VEHICLE CODE ENFORCED Sign (R101(CA))	189
Section 2B.105(CA)	Rest Area Disclaimer Sign (SR2(CA))	189
Section 2B.106(CA)	Garbage Prohibition Signs (SR22-1(CA) and SR23-1(CA))	189
Section 2B.107(CA)	GOLF CARTS OK DAYLIGHT HOURS Sign (SR43(CA))	189
Section 2B.108(CA)	Bus and Truck Registration Sign (SR44(CA))	190
Section 2B.109(CA)	EMERGENCY ACCESS KEEP CLEAR Sign (SR46(CA))	190
Section 2B.110(CA)	Off Highway Vehicle Signs (SR47(CA) and SR48(CA))	190

Section 2B.111(CA)	State Property Signs (S8(CA) and S20(CA))	190
Section 2B.112(CA)	MOVE OVER OR SLOW FOR STOPPED EMERGENCY AND MAINTENANCE VEHICLES Sign (R110(CA))	

CHAPTER 2C. WARNING SIGNS AND OBJECT MARKERS 257

Section 2C.01	Function of Warning Signs	257
Section 2C.02	Application of Warning Signs	257
Section 2C.03	Design of Warning Signs	257
Section 2C.04	Size of Warning Signs	258
Section 2C.05	Placement of Warning Signs	258
Section 2C.06	Horizontal Alignment Warning Signs	259
Section 2C.07	Horizontal Alignment Signs (W1-1 through W1-5, W1-11, W1-15)	259
Section 2C.08	Advisory Speed Plaque (W13-1P)	260
Section 2C.09	Chevron Alignment Sign (W1-8)	261
Section 2C.10	Combination Horizontal Alignment/Advisory Speed Signs (W1-1a, W1-2a)	262
Section 2C.11	Combination Horizontal Alignment/Intersection Signs (W1-10 Series)	263
Section 2C.12	One-Direction Large Arrow Sign (W1-6)	263
Section 2C.13	Truck Rollover Warning Sign (W1-13)	264
Section 2C.14	Advisory Exit and Ramp Speed Signs (W13-2 and W13-3)	264
Section 2C.15	Combination Horizontal Alignment/Advisory Exit and Ramp Speed Signs (W13-6 and W13-7)	265
Section 2C.16	Hill Signs (W7-1, W7-1a)	265
Section 2C.17	Truck Escape Ramp Signs (W7-4 Series)	266
Section 2C.18	HILL BLOCKS VIEW Sign (W7-6)	266
Section 2C.19	ROAD NARROWS Sign (W5-1)	266
Section 2C.20	NARROW BRIDGE Sign (W5-2)	267
Section 2C.21	ONE LANE BRIDGE Sign (W5-3)	267
Section 2C.22	Divided Highway Sign (W6-1)	267
Section 2C.23	Divided Highway Ends Sign (W6-2)	267
Section 2C.24	Freeway or Expressway Ends Signs (W19 Series)	267
Section 2C.25	Double Arrow Sign (W12-1)	268
Section 2C.26	DEAD END/NO OUTLET Signs (W14-1, W14-1a, W14-2, W14-2a)	268
Section 2C.27	Low Clearance Signs (W12-2 and W12-2a)	268
Section 2C.28	BUMP and DIP Signs (W8-1, W8-2)	269
Section 2C.29	SPEED HUMP Sign (W17-1)	270
Section 2C.30	PAVEMENT ENDS Sign (W8-3)	270
Section 2C.31	Shoulder Signs (W8-4, W8-9, W8-17, W8-23, and W8-25)	270
Section 2C.32	Surface Condition Signs (W8-5, W8-7, W8-8, W8-11, W8-13, and W8-14)	271
Section 2C.33	Warning Signs and Plaques for Motorcyclists (W8-15, W8-15P, and W8-16)	272
Section 2C.34	NO CENTER LINE Sign (W8-12)	272
Section 2C.35	Weather Condition Signs (W8-18, W8-19, W8-21, and W8-22)	272
Section 2C.36	Advance Traffic Control Signs (W3-1, W3-2, W3-3, W3-4)	273
Section 2C.37	Advance Ramp Control Signal Signs (W3-7 and W3-8)	274
Section 2C.38	Reduced Speed Limit Ahead Signs (W3-5, W3-5a)	274
Section 2C.39	DRAW BRIDGE Sign (W3-6)	275
Section 2C.40	Merge Signs (W4-1, W4-5)	275
Section 2C.41	Added Lane Signs (W4-3, W4-6)	276
Section 2C.42	Lane Ends Signs (W4-2, W9-1, W9-2)	276
Section 2C.43	RIGHT (LEFT) LANE EXIT ONLY AHEAD Sign (W9-7)	277
Section 2C.44	Two-Way Traffic Sign (W6-3)	278
Section 2C.45	NO PASSING ZONE Sign (W14-3)	278
Section 2C.46	Intersection Warning Signs (W2-1 through W2-8)	278

Section 2C.47	Two-Direction Large Arrow Sign (W1-7)	279
Section 2C.48	Traffic Signal Signs (W25-1, W25-2)	280
Section 2C.49	Vehicular Traffic Warning Signs (W8-6, W11-1, W11-5, W11-5a, W11-8, W11-10, W11-11, W11-12P, W11-14, W11-15, and W11-15a)	280
Section 2C.50	Non-Vehicular Warning Signs (W11-2, W11-3, W11-4, W11-6, W11-7, W11-9, and W11-16 through W11-22)	281
Section 2C.51	Playground Sign (W15-1)	283
Section 2C.52	NEW TRAFFIC PATTERN AHEAD Sign (W23-2)	283
Section 2C.53	Use of Supplemental Warning Plaques	283
Section 2C.54	Design of Supplemental Warning Plaques	284
Section 2C.55	Distance Plaques (W16-2 Series, W16-3 Series, W16-4P, W7-3aP)	284
Section 2C.56	Supplemental Arrow Plaques (W16-5P, W16-6P)	284
Section 2C.57	Hill-Related Plaques (W7-2 Series, W7-3 Series)	284
Section 2C.58	Advance Street Name Plaque (W16-8P, W16-8aP)	284
Section 2C.59	CROSS TRAFFIC DOES NOT STOP Plaque (W4-4P)	285
Section 2C.60	SHARE THE ROAD Plaque (W16-1P)	285
Section 2C.61	Photo Enforced Plaque (W16-10P)	285
Section 2C.62	NEW Plaque (W16-15P)	286
Section 2C.63	Object Marker Design and Placement Height	286
Section 2C.64	Object Markers for Obstructions Within the Roadway	287
Section 2C.65	Object Markers for Obstructions Adjacent to the Roadway	287
Section 2C.66	Object Markers for Ends of Roadways	288

CHAPTER 2D. GUIDE SIGNS—CONVENTIONAL ROADS 315

Section 2D.01	Scope of Conventional Road Guide Sign Standards	315
Section 2D.02	Application	315
Section 2D.03	Color, Retroreflection, and Illumination	315
Section 2D.04	Size of Signs	317
Section 2D.05	Lettering Style	317
Section 2D.06	Size of Lettering	317
Section 2D.07	Amount of Legend	318
Section 2D.08	Arrows	318
Section 2D.09	Numbered Highway Systems	320
Section 2D.10	Route Signs and Auxiliary Signs	321
Section 2D.11	Design of Route Signs	322
Section 2D.12	Design of Route Sign Auxiliaries	323
Section 2D.13	Junction Auxiliary Sign (M2-1)	324
Section 2D.14	Combination Junction Sign (M2-2)	324
Section 2D.15	Cardinal Direction Auxiliary Signs (M3-1 through M3-4)	324
Section 2D.16	Auxiliary Signs for Alternative Routes (M4 Series)	325
Section 2D.17	ALTERNATE Auxiliary Signs (M4-1, M4-1a)	325
Section 2D.18	BY-PASS Auxiliary Sign (M4-2)	325
Section 2D.19	BUSINESS Auxiliary Sign (M4-3)	325
Section 2D.20	TRUCK Auxiliary Sign (M4-4)	325
Section 2D.21	TO Auxiliary Sign (M4-5)	326
Section 2D.22	END Auxiliary Sign (M4-6)	326
Section 2D.23	BEGIN Auxiliary Sign (M4-14)	326
Section 2D.24	TEMPORARY Auxiliary Signs (M4-7, M4-7a)	326
Section 2D.25	Temporary Detour and Auxiliary Signs	326
Section 2D.26	Advance Turn Arrow Auxiliary Signs (M5-1, M5-2, and M5-3)	327
Section 2D.27	Lane Designation Auxiliary Signs (M5-4, M5-5, and M5-6)	327
Section 2D.28	Directional Arrow Auxiliary Signs (M6 Series)	327

Section 2D.29	Route Sign Assemblies	328
Section 2D.30	Junction Assembly	328
Section 2D.31	Advance Route Turn Assembly	329
Section 2D.32	Directional Assembly	330
Section 2D.33	Combination Lane-Use/Destination Overhead Guide Sign (D15-1)	331
Section 2D.34	Confirming or Reassurance Assemblies	331
Section 2D.35	Trailblazer Assembly	331
Section 2D.36	Destination and Distance Signs	332
Section 2D.37	Destination Signs (D1 Series)	332
Section 2D.38	Destination Signs at Circular Intersections	335
Section 2D.39	Destination Signs at Jughandles	336
Section 2D.40	Location of Destination Signs	336
Section 2D.41	Distance Signs (D2 Series)	336
Section 2D.42	Location of Distance Signs	337
Section 2D.43	Street Name Signs (D3-1 or D3-1a)	337
Section 2D.44	Advance Street Name Signs (D3-2)	339
Section 2D.45	Signing on Conventional Roads on Approaches to Interchanges	340
Section 2D.46	Freeway Entrance Signs (D13-3 and D13-3a)	341
Section 2D. 47	Parking Area Guide Sign (D4-1)	342
Section 2D.48	PARK - RIDE Sign (D4-2)	342
Section 2D.49	Weigh Station Signing (D8 Series)	343
Section 2D.50	Community Wayfinding Signs	343
Section 2D.51	Truck, Passing, or Climbing Lane Signs (D17-1 and D17-2)	347
Section 2D.52	Slow Vehicle Turn-Out Sign (D17-7)	347
Section 2D.53	Signing of Named Highways	347
Section 2D.54	Crossover Signs (D13-1 and D13-2)	348
Section 2D.55	National Scenic Byways Signs (D6-4, D6-4a)	348
Section 2D.101(CA)	Inventory Markers	349
Section 2D.102(CA)	Intersection Number (G98(CA)) Sign	351
Section 2D.103(CA)	State Property Signs (SG26(CA), S1-1(CA), and S27(CA))	352

CHAPTER 2E. GUIDE SIGNS—FREEWAYS AND EXPRESSWAYS 387

Section 2E.01	Scope of Freeway and Expressway Guide Sign Standards	387
Section 2E.02	Freeway and Expressway Signing Principles	387
Section 2E.03	Guide Sign Classification	387
Section 2E.04	General	388
Section 2E.05	Color of Guide Signs	388
Section 2E.06	Retroreflection or Illumination	388
Section 2E.07	Characteristics of Urban Signing	388
Section 2E.08	Characteristics of Rural Signing	389
Section 2E.09	Signing of Named Highways	389
Section 2E.10	Amount of Legend on Guide Signs	389
Section 2E.11	Number of Signs at an Overhead Installation and Sign Spreading	389
Section 2E.12	Pull-Through Signs (E6-2, E6-2a)	390
Section 2E.13	Designation of Destinations	390
Section 2E.14	Size and Style of Letters and Signs	391
Section 2E.15	Interline and Edge Spacing	392
Section 2E.16	Sign Borders	392
Section 2E.17	Abbreviations	392
Section 2E.18	Symbols	393
Section 2E.19	Arrows for Interchange Guide Signs	393
Section 2E.20	Signing for Option Lanes at Splits and Multi-Lane Exits	393

Section 2E.21	Design of Overhead Arrow-per-Lane Guide Signs for Option Lanes	394
Section 2E.22	Design of Freeway and Expressway Diagrammatic Guide Signs for Option Lanes	396
Section 2E.23	Signing for Intermediate and Minor Interchange Multi-Lane Exits with an Option Lane	397
Section 2E.24	Signing for Interchange Lane Drops	397
Section 2E.25	Overhead Sign Installations	398
Section 2E.26	Lateral Offset	399
Section 2E.27	Route Signs and Trailblazer Assemblies	399
Section 2E.28	Eisenhower Interstate System Signs (M1-10, M1-10a)	400
Section 2E.29	Signs for Intersections at Grade	400
Section 2E.30	Interchange Guide Signs	400
Section 2E.31	Interchange Exit Numbering	401
Section 2E.32	Interchange Classification	404
Section 2E.33	Advance Guide Signs	404
Section 2E.34	Next Exit Plaques	405
Section 2E.35	Other Supplemental Guide Signs	406
Section 2E.36	Exit Direction Signs	407
Section 2E.37	Exit Gore Signs (E5-1 Series)	408
Section 2E.38	Post-Interchange Signs	409
Section 2E.39	Post-Interchange Distance Signs	409
Section 2E.40	Interchange Sequence Signs	409
Section 2E.41	Community Interchanges Identification Signs	410
Section 2E.42	NEXT XX EXITS Sign	411
Section 2E.43	Signing by Type of Interchange	411
Section 2E.44	Freeway-to-Freeway Interchange	411
Section 2E.45	Cloverleaf Interchange	412
Section 2E.46	Cloverleaf Interchange with Collector-Distributor Roadways	412
Section 2E.47	Partial Cloverleaf Interchange	412
Section 2E.48	Diamond Interchange	413
Section 2E.49	Diamond Interchange in Urban Area	413
Section 2E.50	Closely-Spaced Interchanges	413
Section 2E.51	Minor Interchange	414
Section 2E.52	Signing on Conventional Road Approaches and Connecting Roadways	414
Section 2E.53	Wrong-Way Traffic Control at Interchange Ramps	414
Section 2E.54	Weigh Station Signing	414
 CHAPTER 2F. TOLL ROAD SIGNS		 465
Section 2F.01	Scope	465
Section 2F.02	Sizes of Toll Road Signs	465
Section 2F.03	Use of Purple Backgrounds and Underlay Panels with ETC Account Pictographs	465
Section 2F.04	Size of ETC Pictographs	466
Section 2F.05	Regulatory Signs for Toll Plazas	466
Section 2F.06	Pay Toll Advance Warning Sign (W9-6)	467
Section 2F.07	Pay Toll Advance Warning Plaque (W9-6P)	468
Section 2F.08	Stop Ahead Pay Toll Warning Sign (W9-6a)	468
Section 2F.09	Stop Ahead Pay Toll Warning Plaque (W9-6aP)	469
Section 2F.10	LAST EXIT BEFORE TOLL Warning Plaque (W16-16P)	469
Section 2F.11	TOLL Auxiliary Sign (M4-15)	469
Section 2F.12	Electronic Toll Collection (ETC) Account-Only Auxiliary Signs (M4-16 and M4-20)	469
Section 2F.13	Toll Facility and Toll Plaza Guide Signs – General	469
Section 2F.14	Advance Signs for Conventional Toll Plazas	471

Section 2F.15	Advance Signs for Toll Plazas on Diverging Alignments from Open-Road ETC Account-Only Lanes	472
Section 2F.16	Toll Plaza Canopy Signs	472
Section 2F.17	Guide Signs for Entrances to ETC Account-Only Facilities	473
Section 2F.18	ETC Program Information Signs	473
CHAPTER 2G.	PREFERENTIAL AND MANAGED LANE SIGNS	483
Section 2G.01	Scope	483
Section 2G.02	Sizes of Preferential and Managed Lane Signs	483
Section 2G.03	Regulatory Signs for Preferential Lanes – General	483
Section 2G.04	Preferential Lane Vehicle Occupancy Definition Regulatory Signs (R3-10 Series and R3-13 Series)	486
Section 2G.05	Preferential Lane Periods of Operation Regulatory Signs (R3-11 Series and R3-14 Series)	487
Section 2G.06	Preferential Lane Advance Regulatory Signs (R3-12, R3-12e, R3-12f, R3-15, R3-15a, and R3-15d)	489
Section 2G.07	Preferential Lane Ends Regulatory Signs (R3-12a, R3-12b, R3-12c, R3-12d, R3-12g, R3-12h, R3-15b, R3-15c, and R3-15e)	490
Section 2G.08	Warning Signs on Median Barriers for Preferential Lanes	490
Section 2G.09	High-Occupancy Vehicle (HOV) Plaque (W16-11P)	491
Section 2G.10	Preferential Lane Guide Signs – General	491
Section 2G.11	Guide Signs for Initial Entry Points to Preferential Lanes	494
Section 2G.12	Guide Signs for Intermediate Entry Points to Preferential Lanes	494
Section 2G.13	Guide Signs for Egress from Preferential Lanes to General-Purpose Lanes	495
Section 2G.14	Guide Signs for Direct Entrances to Preferential Lanes from Another Highway	496
Section 2G.15	Guide Signs for Direct Exits from Preferential Lanes to Another Highway	496
Section 2G.16	Signs for Priced Managed Lanes – General	497
Section 2G.17	Regulatory Signs for Priced Managed Lanes	498
Section 2G.18	Guide Signs for Priced Managed Lanes	499
Section 2G.101(CA)	Preferential Lane Enforcement Signing (SR50(CA)) Series	500
Section 2G.102(CA)	Regulatory Signs for Preferential Lanes at Metered On-Ramps	500
CHAPTER 2H.	GENERAL INFORMATION SIGNS	535
Section 2H.01	Sizes of General Information Signs	535
Section 2H.02	General Information Signs (I Series)	535
Section 2H.03	Traffic Signal Speed Sign (I1-1)	538
Section 2H.04	Miscellaneous Information Signs	538
Section 2H.05	Reference Location Signs (D10-1 through D10-3) and Intermediate Reference Location Signs (D10-1a through D10-3a)	539
Section 2H.06	Enhanced Reference Location Signs (D10-4, D10-5)	540
Section 2H.07	Auto Tour Route Signs	541
Section 2H.08	Acknowledgment Signs	541
CHAPTER 2I.	GENERAL SERVICE SIGNS	551
Section 2I.01	Sizes of General Service Signs	551
Section 2I.02	General Service Signs for Conventional Roads	551
Section 2I.03	General Service Signs for Freeways and Expressways	552
Section 2I.04	Interstate Oasis Signing	562

Section 2I.05	Rest Area and Other Roadside Area Signs	563
Section 2I.06	Brake Check Area Signs (D5-13 and D5-14)	565
Section 2I.07	Chain-Up Area Signs (D5-15 and D5-16)	565
Section 2I.08	Tourist Information and Welcome Center Signs	565
Section 2I.09	Radio Information Signing	568
Section 2I.10	TRAVEL INFO CALL 511 Signs (D12-5 and D12-5a)	570
Section 2I.11	Carpool and Ridesharing Signing	571
CHAPTER 2J.	SPECIFIC SERVICE SIGNS	583
Section 2J.01	Eligibility	583
Section 2J.02	Application	587
Section 2J.03	Logos and Logo Sign Panels	588
Section 2J.04	Number and Size of Signs and Logo Sign Panels	589
Section 2J.05	Size of Lettering	589
Section 2J.06	Signs at Interchanges	590
Section 2J.07	Single-Exit Interchanges	590
Section 2J.08	Double-Exit Interchanges	591
Section 2J.09	Specific Service Trailblazer Signs	592
Section 2J.10	Signs at Intersections	592
Section 2J.11	Signing Policy	593
Section 2J.101(CA)	Signs at Ramps	593
CHAPTER 2K.	TOURIST-ORIENTED DIRECTIONAL SIGNS	601
Section 2K.01	Purpose and Application	601
Section 2K.02	Design	601
Section 2K.03	Style and Size of Lettering	602
Section 2K.04	Arrangement and Size of Signs	602
Section 2K.05	Advance Signs	603
Section 2K.06	Sign Locations	603
Section 2K.07	State Policy	603
CHAPTER 2L.	CHANGEABLE MESSAGE SIGNS	609
Section 2L.01	Description of Changeable Message Signs	609
Section 2L.02	Applications of Changeable Message Signs	609
Section 2L.03	Legibility and Visibility of Changeable Message Signs	611
Section 2L.04	Design Characteristics of Changeable Message Signs	611
Section 2L.05	Message Length and Units of Information	613
Section 2L.06	Installation of Permanent Changeable Message Signs	614
Section 2L.101(CA)	Extinguishable Message Signs	614
CHAPTER 2M.	RECREATIONAL AND CULTURAL INTEREST AREA SIGNS	615
Section 2M.01	Scope	615
Section 2M.02	Application of Recreational and Cultural Interest Area Signs	615
Section 2M.03	Regulatory and Warning Signs	621
Section 2M.04	General Design Requirements for Recreational and Cultural Interest Area Symbol Guide Signs	621
Section 2M.05	Symbol Sign Sizes	621
Section 2M.06	Use of Educational Plaques	621

Section 2M.07	Use of Prohibitive Circle and Diagonal Slash for Non-Road Applications	621
Section 2M.08	Placement of Recreational and Cultural Interest Area Symbol Signs	622
Section 2M.09	Destination Guide Signs	622
Section 2M.10	Memorial or Dedication Signing	623
Section 2M.101(CA)	Historical Landmark Signs (G13-1(CA), G13-2(CA) and G14(CA))	626
Section 2M.102(CA)	POINT OF HISTORICAL INTEREST Sign (G15(CA))	627
Section 2M.103(CA)	Historic Route Signs (SG2(CA), SG2A(CA), S18(CA) and S25(CA))	627
Section 2M.104(CA)	Historic Bridge Signs (S29(CA), S29-1(CA) and S29-2(CA))	628
CHAPTER 2N.	EMERGENCY MANAGEMENT SIGNING	643
Section 2N.01	Emergency Management	643
Section 2N.02	Design of Emergency Management Signs	643
Section 2N.03	Evacuation Route Signs (EM-1 and EM-1a)	643
Section 2N.04	AREA CLOSED Sign (EM-2)	644
Section 2N.05	TRAFFIC CONTROL POINT Sign (EM-3)	644
Section 2N.06	MAINTAIN TOP SAFE SPEED Sign (EM-4)	645
Section 2N.07	ROAD (AREA) USE PERMIT REQUIRED FOR THRU TRAFFIC Sign (EM-5)	645
Section 2N.08	Emergency Aid Center Signs (EM-6 Series)	645
Section 2N.09	Shelter Directional Signs (EM-7 Series)	646
PART 3.	MARKINGS	649
CHAPTER 3A.	GENERAL	649
Section 3A.01	Functions and Limitations	649
Section 3A.02	Standardization of Application	649
Section 3A.03	Maintaining Minimum Pavement Marking Retroreflectivity	649
Section 3A.04	Materials	650
Section 3A.05	Colors	650
Section 3A.06	Functions, Widths, and Patterns of Longitudinal Pavement Markings	651
CHAPTER 3B.	PAVEMENT AND CURB MARKINGS	667
Section 3B.01	Yellow Center Line Pavement Markings and Warrants	667
Section 3B.02	No-Passing Zone Pavement Markings and Warrants	668
Section 3B.03	Other Yellow Longitudinal Pavement Markings	670
Section 3B.04	White Lane Line Pavement Markings and Warrants	671
Section 3B.05	Other White Longitudinal Pavement Markings	673
Section 3B.06	Edge Line Pavement Markings	674
Section 3B.07	Warrants for Use of Edge Lines	674
Section 3B.08	Extensions Through Intersections or Interchanges	675
Section 3B.09	Lane-Reduction Transition Markings	675
Section 3B.10	Approach Markings for Obstructions	676
Section 3B.11	Raised Pavement Markers – General	677
Section 3B.12	Raised Pavement Markers as Vehicle Positioning Guides with Other Longitudinal Markings	678
Section 3B.13	Raised Pavement Markers Supplementing Other Markings	679
Section 3B.14	Raised Pavement Markers Substituting for Pavement Markings	679
Section 3B.15	Transverse Markings	680
Section 3B.16	Stop and Yield Lines	680
Section 3B.17	Do Not Block Intersection Markings	682

Section 3B.18	Crosswalk Markings	682
Section 3B.19	Parking Space Markings	685
Section 3B.20	Pavement Word, Symbol, and Arrow Markings	686
Section 3B.21	Speed Measurement Markings	690
Section 3B.22	Speed Reduction Markings	691
Section 3B.23	Curb Markings	691
Section 3B.24	Chevron and Diagonal Crosshatch Markings	693
Section 3B.25	Speed Hump Markings	694
Section 3B.26	Advance Speed Hump Markings	694
Section 3B.101(CA)	Turnouts	694
CHAPTER 3C.	ROUNDABOUT MARKINGS	769
Section 3C.01	General	769
Section 3C.02	White Lane Line Pavement Markings for Roundabouts	769
Section 3C.03	Edge Line Pavement Markings for Roundabout Circulatory Roadways	769
Section 3C.04	Yield Lines for Roundabouts	770
Section 3C.05	Crosswalk Markings at Roundabouts	770
Section 3C.06	Word, Symbol, and Arrow Pavement Markings for Roundabouts	770
Section 3C.07	Markings for Other Circular Intersections	770
CHAPTER 3D	MARKINGS FOR PREFERENTIAL LANES	785
Section 3D.01	Preferential Lane Word and Symbol Markings	785
Section 3D.02	Preferential Lane Longitudinal Markings for Motor Vehicles	786
CHAPTER 3E.	MARKINGS FOR TOLL PLAZAS	795
Section 3E.01	Markings for Toll Plazas	795
CHAPTER 3F	DELINEATORS	797
Section 3F.01	Delineators	797
Section 3F.02	Delineator Design	797
Section 3F.03	Delineator Application	797
Section 3F.04	Delineator Placement and Spacing	798
Section 3F.101(CA)	Culvert Markers	800
Section 3F.102(CA)	Emergency Passageway Marker	800
Section 3F.103(CA)	Narrow Bridge Signing and Marking	800
Section 3F.104(CA)	Median Barrier Delineation	801
CHAPTER 3G	COLORED PAVEMENTS	809
Section 3G.01	General	809
CHAPTER 3H	CHANNELIZING DEVICES USED FOR EMPHASIS OF PAVEMENT MARKING PATTERNS	811
Section 3H.01	Channelizing Devices	811

CHAPTER 3I	ISLANDS	813
Section 3I.01	General	813
Section 3I.02	Approach-End Treatment	813
Section 3I.03	Island Marking Application	813
Section 3I.04	Island Marking Colors	814
Section 3I.05	Island Delineation	814
Section 3I.06	Pedestrian Islands and Medians	814
CHAPTER 3J	RUMBLE STRIP MARKINGS	815
Section 3J.01	Longitudinal Rumble Strip Markings	815
Section 3J.02	Transverse Rumble Strip Markings	815
PART 4	HIGHWAY TRAFFIC SIGNALS	817
CHAPTER 4A	GENERAL	817
Section 4A.01	Types	817
Section 4A.02	Definitions Relating to Highway Traffic Signals	817
CHAPTER 4B	TRAFFIC CONTROL SIGNALS—GENERAL	819
Section 4B.01	General	819
Section 4B.02	Basis of Installation or Removal of Traffic Control Signals	819
Section 4B.03	Advantages and Disadvantages of Traffic Control Signals	819
Section 4B.04	Alternatives to Traffic Control Signals	820
Section 4B.05	Adequate Roadway Capacity	820
Section 4B.101(CA)	Traffic Signal Development Procedures – Introduction	821
Section 4B.102(CA)	Project Report	821
Section 4B.103(CA)	Submittals	822
Section 4B.104(CA)	Financing	822
Section 4B.105(CA)	Design Cost	822
Section 4B.106(CA)	Construction Costs - Conventional Highways	823
Section 4B.107(CA)	Construction Costs – Freeways	824
Section 4B.108(CA)	Roadway Improvements by Local Agencies	825
Section 4B.109(CA)	Cooperative Agreements	825
Section 4B.110(CA)	Engineering Services for Local Agencies	825
Section 4B.111(CA)	Salvaged Electrical Equipment	825
Section 4B.112(CA)	Encroachment Permits	826
Section 4B.113(CA)	Modifications of Existing Signals	826
Section 4B.114(CA)	Signals on Poles Owned by Others	826
CHAPTER 4C	TRAFFIC CONTROL SIGNAL NEEDS STUDIES	827
Section 4C.01	Studies and Factors for Justifying Traffic Control Signals	827
Section 4C.02	Warrant 1, Eight-Hour Vehicular Volume	829
Section 4C.03	Warrant 2, Four-Hour Vehicular Volume	830
Section 4C.04	Warrant 3, Peak Hour	830
Section 4C.05	Warrant 4, Pedestrian Volume	831
Section 4C.06	Warrant 5, School Crossing	832

Section 4C.07	Warrant 6, Coordinated Signal System	832
Section 4C.08	Warrant 7, Crash Experience	833
Section 4C.09	Warrant 8, Roadway Network	833
Section 4C.10	Warrant 9, Intersection Near a Grade Crossing	833
Section 4C.101(CA)	Criterion for School Crossing Traffic Signals	835
Section 4C.102(CA)	Bicycle Signal Warrant	835

CHAPTER 4D TRAFFIC CONTROL SIGNAL FEATURES 851

Section 4D.01	General	851
Section 4D.02	Responsibility for Operation and Maintenance	851
Section 4D.03	Provisions for Pedestrians	852
Section 4D.04	Meaning of Vehicular Signal Indications	853
Section 4D.05	Application of Steady Signal Indications	855
Section 4D.06	Signal Indications – Design, Illumination, Color, and Shape	859
Section 4D.07	Size of Vehicular Signal Indications	859
Section 4D.08	Positions of Signal Indications Within a Signal Face – General	860
Section 4D.09	Positions of Signal Indications Within a Vertical Signal Face	861
Section 4D.10	Positions of Signal Indications Within a Horizontal Signal Face	862
Section 4D.11	Number of Signal Faces on an Approach	863
Section 4D.12	Visibility, Aiming, and Shielding of Signal Faces	864
Section 4D.13	Lateral Positioning of Signal Faces	865
Section 4D.14	Longitudinal Positioning of Signal Faces	866
Section 4D.15	Mounting Height of Signal Faces	866
Section 4D.16	Lateral Offset (Clearance) of Signal Faces	867
Section 4D.17	Signal Indications for Left-Turn Movements – General	867
Section 4D.18	Signal Indications for Permissive Only Mode Left-Turn Movements	868
Section 4D.19	Signal Indications for Protected Only Mode Left-Turn Movements	870
Section 4D.20	Signal Indications for Protected/Permissive Mode Left-Turn Movements	871
Section 4D.21	Signal Indications for Right-Turn Movements – General	873
Section 4D.22	Signal Indications for Permissive Only Mode Right-Turn Movements	875
Section 4D.23	Signal Indications for Protected Only Mode Right-Turn Movements	876
Section 4D.24	Signal Indications for Protected/Permissive Mode Right-Turn Movements	877
Section 4D.25	Signal Indications for Approaches With Shared Left-Turn/Right-Turn Lanes and No Through Movement	880
Section 4D.26	Yellow Change and Red Clearance Intervals	881
Section 4D.27	Preemption and Priority Control of Traffic Control Signals	883
Section 4D.28	Flashing Operation of Traffic Control Signals – General	887
Section 4D.29	Flashing Operation – Transition Into Flashing Mode	888
Section 4D.30	Flashing Operation – Signal Indications During Flashing Mode	888
Section 4D.31	Flashing Operation – Transition Out of Flashing Mode	889
Section 4D.32	Temporary and Portable Traffic Control Signals	889
Section 4D.33	Lateral Offset of Signal Supports and Cabinets	890
Section 4D.34	Use of Signs at Signalized Locations	891
Section 4D.35	Use of Pavement Markings at Signalized Locations	891
Section 4D.101(CA)	Traffic Signal Design and Operations	892
Section 4D.102(CA)	Signal Plan Schedules	892
Section 4D.103(CA)	Vehicle Detectors	892
Section 4D.104(CA)	Bicycle Signals	893
Section 4D.105(CA)	Bicycle/Motorcycle Detection	893
Section 4D.106(CA)	Selection of Traffic Signal Operation	894
Section 4D.107(CA)	Selection of Left-Turn Phasing	895
Section 4D.108(CA)	Dual Left-Turn Phasing	895

Section 4D.109(CA)	Lead-Lag Left-Turn Phasing	895
Section 4D.110(CA)	Opposite or Opposing (Six Phase Opposing Operation)	895
Section 4D.111(CA)	Permissive Left-Turn Phasing	895
Section 4D.112(CA)	Signals at Interchanges	896
Section 4D.113(CA)	Timing of Green Intervals	896
Section 4D.114(CA)	Review of Traffic Signal Operations	896
CHAPTER 4E	PEDESTRIAN CONTROL FEATURES	941
Section 4E.01	Pedestrian Signal Heads	941
Section 4E.02	Meaning of Pedestrian Signal Head Indications	941
Section 4E.03	Application of Pedestrian Signal Heads	941
Section 4E.04	Size, Design, and Illumination of Pedestrian Signal Head Indications	942
Section 4E.05	Location and Height of Pedestrian Signal Heads	943
Section 4E.06	Pedestrian Intervals and Signal Phases	943
Section 4E.07	Countdown Pedestrian Signals	945
Section 4E.08	Pedestrian Detectors	946
Section 4E.09	Accessible Pedestrian Signals and Detectors – General	947
Section 4E.10	Accessible Pedestrian Signals and Detectors – Location	949
Section 4E.11	Accessible Pedestrian Signals and Detectors – Walk Indications	949
Section 4E.12	Accessible Pedestrian Signals and Detectors – Tactile Arrows and Locator Tones	951
Section 4E.13	Accessible Pedestrian Signals and Detectors – Extended Pushbutton Press Features	951
CHAPTER 4F	PEDESTRIAN HYBRID BEACONS	959
Section 4F.01	Application of Pedestrian Hybrid Beacons	959
Section 4F.02	Design of Pedestrian Hybrid Beacons	959
Section 4F.03	Operation of Pedestrian Hybrid Beacons	960
CHAPTER 4G	TRAFFIC CONTROL SIGNALS AND HYBRID BEACONS FOR EMERGENCY-VEHICLE ACCESS	965
Section 4G.01	Application of Emergency-Vehicle Traffic Control Signals and Hybrid Beacons	965
Section 4G.02	Design of Emergency-Vehicle Traffic Control Signals	965
Section 4G.03	Operation of Emergency-Vehicle Traffic Control Signals	966
Section 4G.04	Emergency-Vehicle Hybrid Beacons	966
CHAPTER 4H	TRAFFIC CONTROL SIGNALS FOR ONE-LANE, TWO-WAY FACILITIES	969
Section 4H.01	Application of Traffic Control Signals for One-Lane, Two-Way Facilities	969
Section 4H.02	Design of Traffic Control Signals for One-Lane, Two-Way Facilities	969
Section 4H.03	Operation of Traffic Control Signals for One-Lane, Two-Way Facilities	969
CHAPTER 4I	TRAFFIC CONTROL SIGNALS FOR FREEWAY ENTRANCE RAMPS	971
Section 4I.01	Application of Freeway Entrance Ramp Control Signals	971
Section 4I.02	Design of Freeway Entrance Ramp Control Signals	971
Section 4I.03	Operation of Freeway Entrance Ramp Control Signals	972

CHAPTER 4J	TRAFFIC CONTROL FOR MOVABLE BRIDGES	973
Section 4J.01	Application of Traffic Control for Movable Bridges	973
Section 4J.02	Design and Location of Movable Bridge Signals and Gates	973
Section 4J.03	Operation of Movable Bridge Signals and Gates	975
CHAPTER 4K	HIGHWAY TRAFFIC SIGNALS AT TOLL PLAZAS	977
Section 4K.01	Traffic Signals at Toll Plazas	977
Section 4K.02	Lane-Use Control Signals at or Near Toll Plazas	977
Section 4K.03	Warning Beacons at Toll Plazas	977
CHAPTER 4L	FLASHING BEACONS	979
Section 4L.01	General Design and Operation of Flashing Beacons	979
Section 4L.02	Intersection Control Beacon	979
Section 4L.03	Warning Beacon	981
Section 4L.04	Speed Limit Sign Beacon	981
Section 4L.05	Stop Beacon	982
Section 4L.101(CA)	Flashing Beacons at School Crosswalks	982
Section 4L.102(CA)	Flashing Beacons for Fire Stations	982
Section 4L.103(CA)	Flashing Beacons at Bus Stops on Freeway Interchanges	983
CHAPTER 4M	LANE-USE CONTROL SIGNALS	985
Section 4M.01	Application of Lane-Use Control Signals	985
Section 4M.02	Meaning of Lane-Use Control Signal Indications	985
Section 4M.03	Design of Lane-Use Control Signals	986
Section 4M.04	Operation of Lane-Use Control Signals	987
CHAPTER 4N	IN-ROADWAY LIGHTS	989
Section 4N.01	Application of In-Roadway Lights	989
Section 4N.02	In-Roadway Warning Lights at Crosswalks	989
Section 4N.101(CA)	In-Roadway Warning Lights at Crosswalks Financing and Maintenance-State Highways	991
PART 5	TRAFFIC CONTROL DEVICES FOR LOW-VOLUME ROADS	993
CHAPTER 5A	GENERAL	993
Section 5A.01	Function	993
Section 5A.02	Application	993
Section 5A.03	Design	994
Section 5A.04	Placement	994
CHAPTER 5B	REGULATORY SIGNS	997
Section 5B.01	Introduction	997
Section 5B.02	STOP and YIELD Signs (R1-1 and R1-2)	997
Section 5B.03	Speed Limit Signs (R2 Series)	997

Section 5B.04	Traffic Movement and Prohibition Signs (R3, R4, R5, R6, R9, R10, R11, R12, R13, and R14 Series)	997
Section 5B.05	Parking Signs (R8 Series)	997
Section 5B.06	Other Regulatory Signs	998
CHAPTER 5C	WARNING SIGNS	999
Section 5C.01	Introduction	999
Section 5C.02	Horizontal Alignment Signs (W1-1 through W1-8)	999
Section 5C.03	Intersection Warning Signs (W2-1 through W2-6)	999
Section 5C.04	Stop Ahead and Yield Ahead Signs (W3-1, W3-2)	999
Section 5C.05	NARROW BRIDGE Sign (W5-2)	999
Section 5C.06	ONE LANE BRIDGE Sign (W5-3)	999
Section 5C.07	Hill Sign (W7-1)	1000
Section 5C.08	PAVEMENT ENDS Sign (W8-3)	1000
Section 5C.09	Vehicular Traffic Warning and Non-Vehicular Warning Signs (W11 Series and W8-6)	1000
Section 5C.10	Advisory Speed Plaque (W13-1P)	1000
Section 5C.11	DEAD END or NO OUTLET Signs (W14-1, W14-1a, W14-2, W14-2a)	1000
Section 5C.12	NO TRAFFIC SIGNS Sign (W18-1)	1001
Section 5C.13	Other Warning Signs	1001
Section 5C.14	Object Markers and Barricades	1001
CHAPTER 5D	GUIDE SIGNS	1005
Section 5D.01	Introduction	1005
CHAPTER 5E	MARKINGS	1007
Section 5E.01	Introduction	1007
Section 5E.02	Center Line Markings	1007
Section 5E.03	Edge Line Markings	1007
Section 5E.04	Delineators	1007
Section 5E.05	Other Markings	1007
CHAPTER 5F	TRAFFIC CONTROL FOR HIGHWAY-RAIL GRADE CROSSINGS	1009
Section 5F.01	Introduction	1009
Section 5F.02	Grade Crossing (Crossbuck) Sign and Number of Tracks Plaque (R15-1, R15-2P)	1009
Section 5F.03	Grade Crossing Advance Warning Signs (W10 Series)	1009
Section 5F.04	STOP and YIELD Signs (R1-1, R1-2)	1009
Section 5F.05	Pavement Markings	1010
Section 5F.06	Other Traffic Control Devices	1010
CHAPTER 5G	TEMPORARY TRAFFIC CONTROL ZONES	1011
Section 5G.01	Introduction	1011
Section 5G.02	Applications	1011
Section 5G.03	Channelization Devices	1011
Section 5G.04	Markings	1012
Section 5G.05	Other Traffic Control Devices	1012

CHAPTER 5H	TRAFFIC CONTROL FOR SCHOOL AREAS	1013
Section 5H.01	Introduction	1013
PART 6	TEMPORARY TRAFFIC CONTROL	1015
CHAPTER 6A	GENERAL	1015
Section 6A.01	General	1015
CHAPTER 6B	FUNDAMENTAL PRINCIPLES	1017
Section 6B.01	Fundamental Principles of Temporary Traffic Control	1017
CHAPTER 6C	TEMPORARY TRAFFIC CONTROL ELEMENTS	1021
Section 6C.01	Temporary Traffic Control Plans	1021
Section 6C.02	Temporary Traffic Control Zones	1023
Section 6C.03	Components of Temporary Traffic Control Zones	1023
Section 6C.04	Advance Warning Area	1024
Section 6C.05	Transition Area	1024
Section 6C.06	Activity Area	1024
Section 6C.07	Termination Area	1025
Section 6C.08	Tapers	1026
Section 6C.09	Detours and Diversions	1027
Section 6C.10	One-Lane, Two-Way Traffic Control	1027
Section 6C.11	Flagger Method of One-Lane, Two-Way Traffic Control	1027
Section 6C.12	Flag Transfer Method of One-Lane, Two-Way Traffic Control	1028
Section 6C.13	Pilot Car Method of One-Lane, Two-Way Traffic Control	1028
Section 6C.14	Temporary Traffic Control Signal Method of One-Lane, Two-Way Traffic Control	1028
Section 6C.15	Stop or Yield Control Method of One-Lane, Two-Way Traffic Control	1028
CHAPTER 6D	PEDESTRIAN AND WORKER SAFETY	1035
Section 6D.01	Pedestrian Considerations	1035
Section 6D.02	Accessibility Considerations	1037
Section 6D.03	Worker Safety Considerations	1038
Section 6D.101(CA)	Bicycle Considerations	1040
CHAPTER 6E	FLAGGER CONTROL	1041
Section 6E.01	Qualifications for Flaggers	1041
Section 6E.02	High-Visibility Safety Apparel	1041
Section 6E.03	Hand-Signaling Devices	1042
Section 6E.04	Automated Flagger Assistance Devices	1043
Section 6E.05	STOP/SLOW Automated Flagger Assistance Devices	1044
Section 6E.06	Red/Yellow Lens Automated Flagger Assistance Devices	1046
Section 6E.07	Flagger Procedures	1047
Section 6E.08	Flagger Stations	1048

CHAPTER 6F TEMPORARY TRAFFIC CONTROL ZONE DEVICES 1053

Section 6F.01	Types of Devices	1053
Section 6F.02	General Characteristics of Signs	1054
Section 6F.03	Sign Placement	1055
Section 6F.04	Sign Maintenance	1056
Section 6F.05	Regulatory Sign Authority	1056
Section 6F.06	Regulatory Sign Design	1056
Section 6F.07	Regulatory Sign Applications	1056
Section 6F.08	ROAD (STREET) CLOSED Sign (R11-2)	1056
Section 6F.09	Local Traffic Only Signs (R11-3a, R11-4)	1057
Section 6F.10	Weight Limit Signs (R12-1, R12-2, R12-5)	1057
Section 6F.11	STAY IN LANE Sign (R4-9)	1057
Section 6F.12	Work Zone and Higher Fines Signs and Plaques	1057
Section 6F.13	PEDESTRIAN CROSSWALK Sign (R9-8)	1058
Section 6F.14	SIDEWALK CLOSED Signs (R9-9, R9-10, R9-11, R9-11a)	1059
Section 6F.15	Special Regulatory Signs	1059
Section 6F.16	Warning Sign Function, Design, and Application	1059
Section 6F.17	Position of Advance Warning Signs	1060
Section 6F.18	ROAD (STREET) WORK Sign (W20-1)	1060
Section 6F.19	DETOUR Sign (W20-2)	1061
Section 6F.20	ROAD (STREET) CLOSED Sign (W20-3)	1061
Section 6F.21	ONE LANE ROAD Sign (W20-4)	1061
Section 6F.22	Lane(s) Closed Signs (W20-5, W20-5a)	1062
Section 6F.23	CENTER LANE CLOSED AHEAD Sign (W9-3)	1062
Section 6F.24	Lane Ends Sign (W4-2)	1062
Section 6F.25	ON RAMP Plaque (W13-4P)	1062
Section 6F.26	RAMP NARROWS Sign (W5-4)	1062
Section 6F.27	SLOW TRAFFIC AHEAD Sign (W23-1)	1063
Section 6F.28	EXIT OPEN and EXIT CLOSED Signs (E5-2, E5-2a)	1063
Section 6F.29	EXIT ONLY Sign (E5-3)	1064
Section 6F.30	NEW TRAFFIC PATTERN AHEAD Sign (W23-2)	1064
Section 6F.31	Flagger Signs (W20-7, W20-7a)	1064
Section 6F.32	Two-Way Traffic Sign (W6-3)	1064
Section 6F.33	Workers Signs (W21-1, W21-1a)	1065
Section 6F.34	FRESH OIL (TAR) Sign (W21-2)	1065
Section 6F.35	ROAD MACHINERY AHEAD Sign (W21-3)	1065
Section 6F.36	Motorized Traffic Signs (W8-6, W11-10)	1065
Section 6F.37	Shoulder Work Signs (W21-5, W21-5a, W21-5b)	1065
Section 6F.38	SURVEY CREW Sign (W21-6)	1066
Section 6F.39	UTILITY WORK Sign (W21-7)	1066
Section 6F.40	Signs for Blasting Areas	1066
Section 6F.41	BLASTING ZONE AHEAD Sign (W22-1)	1066
Section 6F.42	TURN OFF 2-WAY RADIO AND CELL PHONE Sign (W22-2)	1066
Section 6F.43	END BLASTING ZONE Sign (W22-3)	1066
Section 6F.44	Shoulder Signs and Plaque (W8-4, W8-9, W8-17, and W8-17P)	1066
Section 6F.45	UNEVEN LANES Sign (W8-11)	1067
Section 6F.46	STEEL PLATE AHEAD Sign (W8-24)	1067
Section 6F.47	NO CENTER LINE Sign (W8-12)	1067
Section 6F.48	Reverse Curve Signs (W1-4 Series)	1068
Section 6F.49	Double Reverse Curve Signs (W24-1 Series)	1068
Section 6F.50	Other Warning Signs	1068
Section 6F.51	Special Warning Signs	1068

Section 6F.52	Advisory Speed Plaque (W13-1P)	1069
Section 6F.53	Supplementary Distance Plaque (W7-3aP)	1069
Section 6F.54	Motorcycle Plaque (W8-15P)	1069
Section 6F.55	Guide Signs	1069
Section 6F.56	ROAD WORK NEXT XX MILES Sign (G20-1)	1070
Section 6F.57	END ROAD WORK Sign (G20-2)	1070
Section 6F.58	PILOT CAR FOLLOW ME Sign (G20-4)	1070
Section 6F.59	Detour Signs (M4-8, M4-8a, M4-8b, M4-9, M4-9a, M4-9b, M4-9c, and M4-10)	1071
Section 6F.60	Portable Changeable Message Signs	1071
Section 6F.61	Arrow Boards	1074
Section 6F.62	High-Level Warning Devices (Flag Trees)	1076
Section 6F.63	Channelizing Devices	1077
Section 6F.64	Cones	1078
Section 6F.65	Tubular Markers	1079
Section 6F.66	Vertical Panels	1080
Section 6F.67	Drums	1081
Section 6F.68	Type 1, 2, or 3 Barricades	1081
Section 6F.69	Direction Indicator Barricades	1083
Section 6F.70	Temporary Traffic Barriers as Channelizing Devices	1083
Section 6F.71	Longitudinal Channelizing Devices	1083
Section 6F.72	Temporary Lane Separators	1084
Section 6F.73	Other Channelizing Devices	1084
Section 6F.74	Detectable Edging for Pedestrians	1085
Section 6F.75	Temporary Raised Islands	1085
Section 6F.76	Opposing Traffic Lane Divider and Sign (W6-4)	1086
Section 6F.77	Pavement Markings	1086
Section 6F.78	Temporary Markings	1087
Section 6F.79	Temporary Raised Pavement Markers	1088
Section 6F.80	Delineators	1088
Section 6F.81	Lighting Devices	1089
Section 6F.82	Floodlights	1089
Section 6F.83	Warning Lights	1089
Section 6F.84	Temporary Traffic Control Signals	1091
Section 6F.85	Temporary Traffic Barriers	1092
Section 6F.86	Crash Cushions	1093
Section 6F.87	Rumble Strips	1094
Section 6F.88	Screens	1095
Section 6F.101(CA)	LOOSE GRAVEL Sign (W8-7)	1095
Section 6F.102(CA)	NARROW LANE(S) Sign (C12(CA))	1095
Section 6F.103(CA)	OPEN TRENCH Sign (C27(CA))	1095
Section 6F.104(CA)	Moving Lane Closure Signs (W23-1 and SC10(CA), SC11(CA), SC13(CA), SC15(CA))	1096
Section 6F.105(CA)	Object Markers	1096
Section 6F.106(CA)	Slow For The Cone Zone (SC19(CA) and SC20(CA)) Signs	1097
Section 6F.107(CA)	FRESH CONCRETE (C43(CA)) Sign	1097
Section 6F.108(CA)	CAUTION FREQUENT STOPPING AND BACKING STAY BACK 100 FEET (SC21(CA)) Sign	1097
CHAPTER 6G	TYPE OF TEMPORARY TRAFFIC CONTROL ZONE ACTIVITIES	1119
Section 6G.01	Typical Applications	1119
Section 6G.02	Work Duration	1119
Section 6G.03	Location of Work	1121
Section 6G.04	Modifications To Fulfill Special Needs	1121
Section 6G.05	Work Affecting Pedestrian and Bicycle Facilities	1122

Section 6G.06	Work Outside of the Shoulder	1123
Section 6G.07	Work on the Shoulder with No Encroachment	1123
Section 6G.08	Work on the Shoulder with Minor Encroachment	1124
Section 6G.09	Work Within the Median	1124
Section 6G.10	Work Within the Traveled Way of a Two-Lane Highway	1124
Section 6G.11	Work Within the Traveled Way of an Urban Street	1125
Section 6G.12	Work Within the Traveled Way of a Multi-Lane, Non-Access Controlled Highway	1126
Section 6G.13	Work Within the Traveled Way at an Intersection	1127
Section 6G.14	Work Within the Traveled Way of a Freeway or Expressway	1128
Section 6G.15	Two-Lane, Two-Way Traffic on One Roadway of a Normally Divided Highway	1129
Section 6G.16	Crossovers	1129
Section 6G.17	Interchanges	1129
Section 6G.18	Work in the Vicinity of a Grade Crossing	1130
Section 6G.19	Temporary Traffic Control During Nighttime Hours	1130
CHAPTER 6H	TYPICAL APPLICATIONS	1133
Section 6H.01	Typical Applications	1133
CHAPTER 6I	CONTROL OF TRAFFIC THROUGH TRAFFIC INCIDENT MANAGEMENT AREAS	1251
Section 6I.01	General	1251
Section 6I.02	Major Traffic Incidents	1252
Section 6I.03	Intermediate Traffic Incidents	1253
Section 6I.04	Minor Traffic Incidents	1253
Section 6I.05	Use of Emergency-Vehicle Lighting	1254
Section 6I.101(CA)	FLOODING AHEAD TURN AROUND DON'T DROWN Sign (W86(CA))	1254
PART 7	TRAFFIC CONTROL FOR SCHOOL AREAS	1257
CHAPTER 7A	GENERAL	1257
Section 7A.01	Need for Standards	1257
Section 7A.02	School Routes and Established School Crossings	1257
Section 7A.03	School Crossing Control Criteria	1259
Section 7A.04	Scope	1259
CHAPTER 7B	SIGNS	1261
Section 7B.01	Size of School Signs	1261
Section 7B.02	Illumination and Reflectorization	1261
Section 7B.03	Position of Signs	1261
Section 7B.04	Height of Signs	1261
Section 7B.05	Installation of Signs	1261
Section 7B.06	Lettering	1262
Section 7B.07	Sign Color for School Warning Signs	1262
Section 7B.08	School Sign (S1-1) and Plaques	1262
Section 7B.09	School Zone Sign (S1-1) and Plaques (S4-3P, S4-7P) and END SCHOOL ZONE Sign (S5-2)	1262
Section 7B.10	Higher Fines Zone Signs (R2-10, R2-11) and Plaques	1263

Section 7B.11	School Advance Crossing Assembly	1263
Section 7B.12	School Crossing Assembly	1264
Section 7B.13	School Bus Stop Ahead Sign (S3-1)	1265
Section 7B.14	SCHOOL BUS TURN AHEAD Sign (S3-2)	1265
Section 7B.15	School Speed Limit Assembly (S4-1P, S4-2P, S4-3P, S4-4P, S4-6P, S5-1) and END SCHOOL SPEED LIMIT Sign (S5-3)	1265
Section 7B.16	Reduced School Speed Limit Ahead Sign (S4-5, S4-5a)	1268
Section 7B.17	Parking and Stopping Signs (R7 and R8 Series)	1268
CHAPTER 7C	MARKINGS	1283
Section 7C.01	Functions and Limitations	1283
Section 7C.02	Crosswalk Markings	1283
Section 7C.03	Pavement Word, Symbol, and Arrow Markings	1284
CHAPTER 7D	CROSSING SUPERVISION	1287
Section 7D.01	Types of Crossing Supervision	1287
Section 7D.02	Adult Crossing Guards	1287
Section 7D.03	Qualifications of Adult Crossing Guards	1288
Section 7D.04	Uniform of Adult Crossing Guards	1288
Section 7D.05	Operating Procedures for Adult Crossing Guards	1289
Section 7D.101(CA)	School Safety Patrols	1289
PART 8	TRAFFIC CONTROL FOR RAILROAD AND LIGHT RAIL TRANSIT GRADE CROSSINGS	1291
CHAPTER 8A	GENERAL	1291
Section 8A.01	Introduction	1291
Section 8A.02	Use of Standard Devices, Systems, and Practices at Highway-Rail Grade Crossings	1292
Section 8A.03	Use of Standard Devices, Systems, and Practices at Highway-LRT Grade Crossings	1293
Section 8A.04	Uniform Provisions	1294
Section 8A.05	Grade Crossing Elimination	1294
Section 8A.06	Illumination at Grade Crossings	1294
Section 8A.07	Quiet Zone Treatments at Highway-Rail Grade Crossings	1295
Section 8A.08	Temporary Traffic Control Zones	1295
Section 8A.101(CA)	Relation to Other Documents	1295
CHAPTER 8B	SIGNS AND MARKINGS	1297
Section 8B.01	Purpose	1297
Section 8B.02	Sizes of Grade Crossing Signs	1297
Section 8B.03	Grade Crossing (Crossbuck) Sign (R15-1) and Number of Tracks Plaque (R15-2P) at Active and Passive Grade Crossings	1297
Section 8B.04	Crossbuck Assemblies with YIELD or STOP Signs at Passive Grade Crossings	1298
Section 8B.05	Use of STOP (R1-1) or YIELD (R1-2) Signs without Crossbuck Signs at Highway-LRT Grade Crossings	1300
Section 8B.06	Grade Crossing Advance Warning Signs (W10 Series)	1300
Section 8B.07	EXEMPT Grade Crossing Plaques (R15-3P, W10-1aP)	1301
Section 8B.08	Turn Restrictions During Preemption	1302

Section 8B.09	DO NOT STOP ON TRACKS Sign (R8-8)	1303
Section 8B.10	TRACKS OUT OF SERVICE Sign (R8-9)	1303
Section 8B.11	STOP HERE WHEN FLASHING Signs (R8-10, R8-10a)	1303
Section 8B.12	STOP HERE ON RED Signs (R10-6, R10-6a)	1303
Section 8B.13	Light Rail Transit Only Lane Signs (R15-4 Series)	1304
Section 8B.14	Do Not Pass Light Rail Transit Signs (R15-5, R15-5a)	1304
Section 8B.15	No Motor Vehicles On Tracks Signs (R15-6, R15-6a)	1304
Section 8B.16	Divided Highway with Light Rail Transit Crossing Signs (R15-7 Series)	1304
Section 8B.17	LOOK Sign (R15-8)	1305
Section 8B.18	Emergency Notification Sign (I-13)	1305
Section 8B.19	Light Rail Transit Approaching-Activated Blank-Out Warning Sign (W10-7)	1306
Section 8B.20	TRAINS MAY EXCEED 80 MPH Sign (W10-8)	1306
Section 8B.21	NO TRAIN HORN Sign or Plaque (W10-9, W10-9P)	1306
Section 8B.22	NO GATES OR LIGHTS Plaque (W10-13P)	1306
Section 8B.23	Low Ground Clearance Grade Crossing Sign (W10-5)	1306
Section 8B.24	Storage Space Signs (W10-11, W10-11a, W10-11b)	1307
Section 8B.25	Skewed Crossing Sign (W10-12)	1307
Section 8B.26	Light Rail Transit Station Sign (I-12)	1307
Section 8B.27	Pavement Markings	1307
Section 8B.28	Stop and Yield Lines	1308
Section 8B.29	Dynamic Envelope Markings	1308
Section 8B.101(CA)	Train Station Signs (I-7, G95F(CA), G95G(CA) and G97A(CA))	1309
Section 8B.102(CA)	Trolley Crossing Signs (W82(CA) and W82-1(CA))	1309
CHAPTER 8C	FLASHING-LIGHT SIGNALS, GATES, AND TRAFFIC CONTROL SIGNALS	1327
Section 8C.01	Introduction	1327
Section 8C.02	Flashing-Light Signals	1328
Section 8C.03	Flashing-Light Signals at Highway-LRT Grade Crossings	1329
Section 8C.04	Automatic Gates	1329
Section 8C.05	Use of Automatic Gates at LRT Grade Crossings	1330
Section 8C.06	Four-Quadrant Gate Systems	1330
Section 8C.07	Wayside Horn Systems	1332
Section 8C.08	Rail Traffic Detection	1332
Section 8C.09	Traffic Control Signals at or Near Highway-Rail Grade Crossings	1332
Section 8C.10	Traffic Control Signals at or Near Highway-LRT Grade Crossings	1334
Section 8C.11	Use of Traffic Control Signals for Control of LRT Vehicles at Grade Crossings	1335
Section 8C.12	Grade Crossings Within or In Close Proximity to Circular Intersections	1335
Section 8C.13	Pedestrian and Bicycle Signals and Crossings at LRT Grade Crossings	1336
CHAPTER 8D	PATHWAY GRADE CROSSINGS	1347
Section 8D.01	Purpose	1347
Section 8D.02	Use of Standard Devices, Systems, and Practices	1347
Section 8D.03	Pathway Grade Crossing Signs and Markings	1347
Section 8D.04	Stop Lines, Edge Lines, and Detectable Warnings	1347
Section 8D.05	Passive Devices for Pathway Grade Crossings	1348
Section 8D.06	Active Traffic Control Systems for Pathway Grade Crossings	1348

PART 9	TRAFFIC CONTROL FOR BICYCLE FACILITIES	1351
CHAPTER 9A	GENERAL	1351
Section 9A.01	Requirements for Bicyclist Traffic Control Devices	1351
Section 9A.02	Scope	1351
Section 9A.03	Definitions Relating to Bicycles	1351
Section 9A.04	Maintenance	1351
Section 9A.05	Relation to Other Documents	1351
Section 9A.06	Placement Authority	1351
Section 9A.07	Meaning of Standard, Guidance, Option, and Support	1352
Section 9A.08	Colors	1353
Section 9A.101(CA)	Traffic Controls for Bicycle Facilities at Rail Crossings	1353
CHAPTER 9B	SIGNS	1355
Section 9B.01	Application and Placement of Signs	1355
Section 9B.02	Design of Bicycle Signs	1355
Section 9B.03	STOP and YIELD Signs (R1-1, R1-2)	1355
Section 9B.04	Bike Lane Signs and Plaques (R3-17, R3-17aP, R3-17bP)	1356
Section 9B.05	BEGIN RIGHT TURN LANE YIELD TO BIKES Sign (R4-4)	1356
Section 9B.06	Bicycles May Use Full Lane Sign (R4-11)	1356
Section 9B.07	Bicycle WRONG WAY Sign and RIDE WITH TRAFFIC Plaque (R5-1b, R9-3cP)	1357
Section 9B.08	NO MOTOR VEHICLES Sign (R5-3)	1357
Section 9B.09	Selective Exclusion Signs	1357
Section 9B.10	No Parking Bike Lane Signs (R7-9, R7-9a)	1357
Section 9B.11	Bicycle Regulatory Signs (R9-5, R9-6, R10-4, R10-24, R10-25, and R10-26)	1357
Section 9B.12	Shared-Use Path Restriction Sign (R9-7)	1358
Section 9B.13	Bicycle Signal Actuation Sign (R10-22)	1358
Section 9B.14	Other Regulatory Signs	1358
Section 9B.15	Turn or Curve Warning Signs (W1 Series)	1358
Section 9B.16	Intersection Warning Signs (W2 Series)	1358
Section 9B.17	Bicycle Surface Condition Warning Sign (W8-10)	1358
Section 9B.18	Bicycle Warning and Combined Bicycle/Pedestrian Signs (W11-1 and W11-15)	1359
Section 9B.19	Other Bicycle Warning Signs	1359
Section 9B.20	Bicycle Guide Signs (D1-1b, D1-1c, D1-2b, D1-2c, D1-3b, D1-3c, D11-1, D11-1c)	1359
Section 9B.21	Bicycle Route Signs (M1-8, M1-8a, M1-9)	1360
Section 9B.22	Bicycle Route Sign Auxiliary Plaques	1361
Section 9B.23	Bicycle Parking Area Sign (D4-3)	1361
Section 9B.24	Reference Location Signs (D10-1 through D10-3) and Intermediate Reference Location Signs (D10-1a through D10-3a)	1362
Section 9B.25	Mode-Specific Guide Signs for Shared-Use Paths (D11-1a, D11-2, D11-3, D11-4)	1362
Section 9B.26	Object Markers	1363
Section 9B.101(CA)	Freeway Bicycle Signs (R5-10a, R5-10b, R5-10c, R44B(CA), R44C(CA))	1363
Section 9B.102(CA)	PASS Bicycle 3 FT MIN Sign (R117(CA))	1363
Section 9B.103(CA)	EXCEPT Bicycle Plaque (R118(CA))	1363
CHAPTER 9C	MARKINGS	1379
Section 9C.01	Functions of Markings	1379
Section 9C.02	General Principles	1379
Section 9C.03	Marking Patterns and Colors on Shared-Use Paths	1379

Section 9C.04	Markings For Bicycle Lanes	1380
Section 9C.05	Bicycle Detector Symbol	1383
Section 9C.06	Pavement Markings for Obstructions	1384
Section 9C.07	Shared Lane Marking	1384
Section 9C.101(CA)	Barrier Posts on Class I Bikeways	1384
CHAPTER 9D	SIGNALS	1403
Section 9D.01	Application	1403
Section 9D.02	Signal Operations for Bicycles	1403
APPENDIX A1.	CONGRESSIONAL LEGISLATION	1407
APPENDIX A2.	METRIC CONVERSIONS	1409

LIST OF FIGURES

Page

Figure I-101(CA)	Deleted California Signs with Target Compliance Dates	51
Figure 1A-1	Process for Requesting and Conducting Experimentations for New Traffic Control Devices	92
Figure 1A-1(CA)	Process for Requesting and Conducting Experimentations for New Traffic Control Devices in California	93
Figure 1A-2	Process for Incorporating New Traffic Control Devices into the MUTCD	94
Figure 1A-101(CA)	Process for the Use of Traffic Control Devices in California Approved as Interim Approval (IA) by FHWA	95
Figure 2A-1	Examples of Enhanced Conspicuity for Signs	115
Figure 2A-2	Examples of Heights and Lateral Locations of Sign Installations	116
Figure 2A-2(CA)	Examples of Heights and Lateral Locations of Sign Installations	117
Figure 2A-3	Examples of Locations for Some Typical Signs at Intersections	118
Figure 2A-4	Relative Locations of Regulatory, Warning, and Guide Signs on an Intersection Approach	119
Figure 2B-1	STOP and YIELD Signs and Plaques	191
Figure 2B-2	Unsignalized Pedestrian Crosswalk Signs	191
Figure 2B-3	Speed Limit and Photo Enforcement Signs and Plaques	192
Figure 2B-3(CA)	Speed Limit and Photo Enforcement Signs and Plaques	193
Figure 2B-4	Movement Prohibition and Lane Control Signs and Plaques	194
Figure 2B-4(CA)	Movement Prohibition and Lane Control Signs and Plaques	195
Figure 2B-5	Intersection Lane Control Sign Arrow Options for Roundabouts	196
Figure 2B-6	Center and Reversible Lane Control Signs and Plaques	196
Figure 2B-7	Location of Reversible Two-Way Left-Turn Signs	197
Figure 2B-8	Jughandle Regulatory Signs	198
Figure 2B-9	Examples of Applications of Jughandle Regulatory and Guide Signing	199
Figure 2B-10	Passing, Keep Right, and Slow Traffic Signs	202
Figure 2B-10(CA)	Passing, Keep Right, and Slow Traffic Signs	203
Figure 2B-11	Selective Exclusion Signs	204
Figure 2B-11(CA)	Selective Exclusion Signs	205
Figure 2B-12	Locations of Wrong-Way Signing for Divided Highways with Median Widths of 30 Feet or Wider	206
Figure 2B-12(CA)	Locations of Wrong-Way Signing for Divided Highways A – with Median Widths of 30 feet or Wider	207
	B – with Median Widths Narrower than 30 feet	208
Figure 2B-13	ONE WAY and Divided Highway Crossing Signs	209
Figure 2B-14	Locations of ONE WAY Signs	210
Figure 2B-15	ONE WAY Signing for Divided Highways with Median Widths of 30 Feet or Wider	211
Figure 2B-16	ONE WAY Signing for Divided Highways with Median Widths Narrower Than 30 Feet	212
Figure 2B-17	ONE WAY Signing for Divided Highways with Median Widths Narrower Than 30 Feet and Separated Left-Turn Lanes	213
Figure 2B-18	Example of Application of Regulatory Signing and Pavement Markings at an Exit Ramp Termination to Deter Wrong-Way Entry	214
Figure 2B-18(CA)	Examples of Application of Regulatory Signing and Pavement Markings at an Exit Ramp Termination to Deter Wrong-Way Entry	215
Figure 2B-19	Example of Application of Regulatory Signing and Pavement Markings at an Entrance Ramp Terminal Where the Design Does Not Clearly Indicate the Direction of Flow	220
Figure 2B-20	Roundabout Signs and Plaques	220
Figure 2B-21	Example of Regulatory and Warning Signs for a Mini-Roundabout	221

Figure 2B-22	Example of Regulatory and Warning Signs for a One-Lane Roundabout	222
Figure 2B-23	Example of Regulatory and Warning Signs for a Two-Lane Roundabout with Consecutive Double Lefts	223
Figure 2B-24	Parking and Standing Signs and Plaques (R7 Series)	224
Figure 2B-24(CA)	Parking and Standing Signs and Plaques (R7 Series)	226
Figure 2B-25	Parking and Stopping Signs and Plaques (R8 Series)	229
Figure 2B-25(CA)	Parking and Stopping Signs and Plaques (R8 Series)	229
Figure 2B-26	Pedestrian Signs and Plaques	230
Figure 2B-26(CA)	Pedestrian Signs and Plaques	231
Figure 2B-27	Traffic Signal Signs and Plaques	232
Figure 2B-27(CA)	Traffic Signal Signs and Plaques	233
Figure 2B-28	Ramp Metering Signs	233
Figure 2B-28(CA)	Ramp Metering Signs	233
Figure 2B-29	Road Closed and Weight Limit Signs	234
Figure 2B-29(CA)	Road Closed and Weight Limit Signs	234
Figure 2B-30	Truck Signs	235
Figure 2B-30(CA)	Truck Signs	236
Figure 2B-31	Headlight Use Signs	237
Figure 2B-32	Other Regulatory Signs and Symbols	237
Figure 2B-32(CA)	Other Regulatory Signs and Symbols	237
Figure 2B-101(CA)	Example of Speed Zone Survey Sheet	238
Figure 2B-102(CA)	Example of Cumulative Speed Curve Sheet	239
Figure 2B-103(CA)	Example of Vehicle Speed Survey Sheet for City and County Through Highways, Arterials, and Collector Roads	240
Figure 2B-104(CA)	Example of Vehicle Speed Survey Sheet for (For 40 MPH and Under)	241
Figure 2B-105(CA)	U-Turn Signs for Signalized Intersections with Separate Turn Phase	242
Figure 2B-106(CA)	California Miscellaneous Regulatory Signs	243
Figure 2C-1	Horizontal Alignment Signs and Plaques	289
Figure 2C-1(CA)	Horizontal Alignment Signs and Plaques	290
Figure 2C-2	Example of Warning Signs for a Turn	291
Figure 2C-3	Example of Advisory Speed Signing for an Exit Ramp	292
Figure 2C-4	Vertical Grade Signs and Plaques	293
Figure 2C-4(CA)	Vertical Grade Signs and Plaques	293
Figure 2C-5	Miscellaneous Warning Signs	294
Figure 2C-5(CA)	Miscellaneous Warning Signs	294
Figure 2C-6	Roadway and Weather Condition and Advance Traffic Control Signs and Plaques	295
Figure 2C-6(CA)	Roadway and Weather Condition and Advance Traffic Control Signs and Plaques	296
Figure 2C-7	Reduced Speed Limit Ahead Signs	296
Figure 2C-8	Merging and Passing Signs and Plaques	297
Figure 2C-8(CA)	Merging and Passing Signs and Plaques	297
Figure 2C-9	Intersection Warning Signs and Plaques	298
Figure 2C-9(CA)	Intersection Warning Signs and Plaques	298
Figure 2C-10	Vehicular Traffic Warning Signs and Plaques	299
Figure 2C-10(CA)	Vehicular Traffic Warning Signs and Plaques	299
Figure 2C-11	Non-Vehicular Warning Signs	300
Figure 2C-11(CA)	Non-Vehicular Warning Signs	300
Figure 2C-12	Supplemental Warning Plaques	301
Figure 2C-12(CA)	Supplemental Warning Plaques	301
Figure 2C-13	Object Markers	302
Figure 2C-13(CA)	California Object Markers	303
Figure 2C-101(CA)	Determination of Comfortable Speed from Ball Bank Indicator Readings	305
Figure 2D-1	Examples of Color-Coded Destination Guide Signs	353
Figure 2D-2	Arrows for Use on Guide Signs	353

Figure 2D-2(CA)	Arrows for Use on Guide Signs	354
Figure 2D-3	Route Signs	356
Figure 2D-3(CA)	California Route Signs	356
Figure 2D-4	Route Sign Auxiliaries	357
Figure 2D-4(CA)	Route Sign Auxiliaries	357
Figure 2D-5	Advance Turn and Directional Arrow Auxiliary Signs	358
Figure 2D-5(CA)	Advance Turn and Directional Arrow Auxiliary Signs	358
Figure 2D-6	Illustration of Directional Assemblies and Other Route Signs (for One Direction of Travel Only)	359
Figure 2D-7	Destination and Distance Signs	363
Figure 2D-7(CA)	California Destination and Distance Signs	364
Figure 2D-8	Destination Signs for Roundabouts	365
Figure 2D-9	Examples of Guide Signs for Roundabouts	366
Figure 2D-10	Street Name and Parking Signs	368
Figure 2D-10(CA)	Street Name and Parking Signs	368
Figure 2D-11	Example of Interchange Crossroad Signing for a One-Lane Approach	369
Figure 2D-12	Example of Minor Interchange Crossroad Signing	370
Figure 2D-13	Examples of Multi-Lane Crossroad Signing for a Diamond Interchange	371
Figure 2D-14	Examples of Multi-Lane Crossroad Signing for a Partial Cloverleaf Interchange	372
Figure 2D-15	Examples of Multi-Lane Crossroad Signing for a Cloverleaf Interchange	373
Figure 2D-16	Example of Crossroad Signing for an Entrance Ramp with a Nearby Frontage Road	374
Figure 2D-17	Example of Weigh Station Signing	375
Figure 2D-17(CA)	Example of Weigh Station Signing	376
Figure 2D-18	Examples of Community Wayfinding Guide Signs	376
Figure 2D-19	Example of a Community Wayfinding Guide Sign System Showing Direction from a Freeway or Expressway	377
Figure 2D-20	Example of a Color-Coded Community Wayfinding Guide Sign System	378
Figure 2D-21	Crossover, Truck Lane, and Slow Vehicle Signs	379
Figure 2D-21(CA)	Crossover, Truck Lane, and Slow Vehicle Signs	379
Figure 2D-22	Examples of Use of the National Scenic Byways Sign	379
Figure 2D-101(CA)	California Miscellaneous Guide Signs	380
Figure 2E-1	Example of Guide Sign Spreading	415
Figure 2E-2	Pull-Through Signs	415
Figure 2E-2(CA)	California Pull-Through Signs	416
Figure 2E-3	Overhead Arrow-per-Lane Guide Sign for a Multi-Lane Exit with an Option Lane	416
Figure 2E-4	Overhead Arrow-per-Lane Guide Signs for a Two-Lane Exit to the Right with an Option Lane	417
Figure 2E-5	Overhead Arrow-per-Lane Guide Signs for a Two-Lane Exit to the Right with an Option Lane (Through Lanes Curve to the Left)	418
Figure 2E-6	Overhead Arrow-per-Lane Guide Signs for a Split with an Option Lane	419
Figure 2E-7	Diagrammatic Guide Sign for a Multi-Lane Exit with an Option Lane	420
Figure 2E-8	Diagrammatic Guide Signs for a Two-Lane Exit to the Right with an Option Lane	421
Figure 2E-9	Diagrammatic Guide Signs for a Two-Lane Exit to the Right with an Option Lane (Through Lanes Curve to the Left)	422
Figure 2E-10	Diagrammatic Guide Signs for a Split with an Option Lane	423
Figure 2E-11	Example of Signing for a Two-Lane Intermediate or Minor Interchange Exit with an Option Lane and a Dropped Lane	424
Figure 2E-12	Example of Signing for a Two-Lane Intermediate or Minor Interchange Exit with Option and Auxiliary Lanes	425
Figure 2E-13	EXIT ONLY and LEFT Sign Panels	426
Figure 2E-13(CA)	EXIT ONLY and LEFT Sign Panels	426
Figure 2E-14	Guide Signs for a Split with Dedicated Lanes	427
Figure 2E-15	Guide Signs for a Single-Lane Exit to the Left with a Dropped Lane	428

Figure 2E-16	Guide Signs for a Single-Lane Exit to the Right with a Dropped Lane	429
Figure 2E-17	Interstate, Off-Interstate, and U.S. Route Signs	430
Figure 2E-18	Eisenhower Interstate System Signs	430
Figure 2E-19	Example of Interchange Numbering for Mainline and Circumferential Routes	431
Figure 2E-20	Example of Interchange Numbering for Mainline, Loop, and Spur Routes	432
Figure 2E-21	Example of Interchange Numbering for Overlapping Routes	433
Figure 2E-22	Examples of Interchange Advance Guide Signs, Exit Number Plaques, and LEFT Plaque	434
Figure 2E-22(CA)	Examples of Interchange Advance Guide Signs, Exit Number Plaques, and LEFT Plaque	435
Figure 2E-23	Next Exit Plaques	435
Figure 2E-24	Supplemental Guide Sign for a Multi-Exit Interchange	436
Figure 2E-25	Supplemental Guide Sign for a Park – Ride Facility	436
Figure 2E-26	Examples of Interchange Exit Direction Signs	437
Figure 2E-26(CA)	Examples of Interchange Exit Direction Signs	438
Figure 2E-27	Interchange Exit Direction Sign with an Advisory Speed Panel	438
Figure 2E-28	Exit Gore Signs	439
Figure 2E-28(CA)	Exit Gore Signs	439
Figure 2E-29	Post-Interchange Distance Sign	440
Figure 2E-30	Example of Using an Interchange Sequence Sign for Closely-Spaced Interchanges	441
Figure 2E-31	Interchange Sequence Sign	442
Figure 2E-31(CA)	Interchange Sequence Sign	442
Figure 2E-32	Community Interchanges Identification Sign	443
Figure 2E-33	NEXT EXITS Sign	443
Figure 2E-33(CA)	NEXT EXITS Sign	443
Figure 2E-34	Examples of Guide Signs for a Freeway-to-Freeway Interchange	444
Figure 2E-34(CA)	Examples of Guide Signs for a Freeway-to-Freeway Interchange	446
Figure 2E-35	Examples of Guide Signs for a Full Cloverleaf Interchange	447
Figure 2E-35(CA)	Examples of Guide Signs for a Full Cloverleaf Interchange	448
Figure 2E-36	Examples of Guide Signs for a Full Cloverleaf Interchange with Collector-Distributor Roadways	449
Figure 2E-37	Examples of Guide Signs for a Partial Cloverleaf Interchange	450
Figure 2E-37(CA)	Examples of Guide Signs for a Partial Cloverleaf Interchange	451
Figure 2E-38	Examples of Guide Signs for a Diamond Interchange	452
Figure 2E-38(CA)	Examples of Guide Signs for a Diamond Interchange	453
Figure 2E-39	Examples of Guide Signs for a Diamond Interchange in an Urban Area	454
Figure 2E-39(CA)	Examples of Guide Signs for a Diamond Interchange in an Urban Area	455
Figure 2E-40	Examples of Guide Signs for a Minor Interchange	456
Figure 2E-40(CA)	Examples of Guide Signs for a Minor Interchange	457
Figure 2F-1	Examples of ETC Account Pictographs and Use of Purple Backgrounds and Underlay Panels	474
Figure 2F-2	Toll Plaza Regulatory Signs and Plaques	474
Figure 2F-3	Toll Plaza Warning Signs and Plaques	475
Figure 2F-4	ETC Account-Only Auxiliary Signs for Use in Route Sign Assemblies	475
Figure 2F-5	Examples of Guide Signs for Entrances to Toll Highways or Ramps	476
Figure 2F-6	Examples of Guide Signs for the Entrance to a Toll Highway on which Tolls are Collected Electronically Only	477
Figure 2F-7	Examples of Guide Signs for Alternative Toll and Non-Toll Ramp Connections to a Non-Toll Highway	478
Figure 2F-8	Examples of Conventional Toll Plaza Advance Signs	479
Figure 2F-9	Examples of Toll Plaza Canopy Signs	479
Figure 2F-10	Examples of Mainline Toll Plaza Approach and Canopy Signing	480

Figure 2F-11	Examples of Guide Signs for a Mainline Toll Plaza on a Diverging Alignment from Open-Road ETC Lanes	481
Figure 2G-1	Preferential Lane Regulatory Signs and Plaques	502
Figure 2G-1(CA)	Preferential Lane Regulatory Signs and Plaques	504
Figure 2G-2	Example of Signing for an Added Continuous-Access Contiguous or Buffer-Separated HOV Lane	505
Figure 2G-3	Example of Signing for a General-Purpose Lane that Becomes a Continuous-Access Contiguous or Buffer-Separated HOV Lane	506
Figure 2G-4	Examples of Warning Signs and Plaques Applicable Only to Preferential Lanes	507
Figure 2G-4(CA)	Examples of Warning Signs and Plaques Applicable Only to Preferential Lanes	507
Figure 2G-5	Example of an Overhead Advance Guide Sign for a Preferential Lane Entrance	508
Figure 2G-6	Examples of Overhead or Post-Mounted Preferential Lane Entrance Direction Signs	508
Figure 2G-6(CA)	Examples of Overhead or Post-Mounted Preferential Lane Entrance Direction Signs	509
Figure 2G-7	Entrance Gore Signs for Barrier-Separated Preferential Lanes	509
Figure 2G-8	Example of Signing for an Entrance to Access-Restricted HOV Lanes	510
Figure 2G-9	Example of Signing for an Intermediate Entry to a Barrier- or Buffer-Separated HOV Lane	511
Figure 2G-10	Example of Signing for the Intermediate Entry to, Egress from, and End of Access-Restricted HOV Lanes	512
Figure 2G-11	Examples of Barrier-Mounted Guide Signs for an Intermediate Egress from Preferential Lanes	513
Figure 2G-12	Examples of Guide Signs for an Intermediate Egress from a Barrier- or Buffer-Separated HOV Lane	514
Figure 2G-13	Example of Signing for a Direct Entrance Ramp to an HOV Lane from a Park and Ride Facility and a Local Street	515
Figure 2G-14	Exit Gore Sign for a Direct Exit from a Preferential Lane	516
Figure 2G-14(CA)	Advance Exit and Exit Gore Sign for a Direct Exit from a Preferential Lane	516
Figure 2G-15	Examples of Guide Signs for Direct HOV Lane Entrance and Exit Ramps	517
Figure 2G-15(CA)	Examples of Guide Signs for Direct HOV Lane Entrance and Exit Ramps	518
Figure 2G-16	Examples of Guide Signs for a Direct Access Ramp between HOV Lanes on Separate Freeways	519
Figure 2G-17	Regulatory Signs for Managed Lanes	520
Figure 2G-18	Examples of Guide Signs for Entrances to Priced Managed Lanes	521
Figure 2G-19	Example of an Exit Destinations Sign for a Managed Lane	521
Figure 2G-20	Example of a Comparative Travel Time Information Sign for Preferential or Managed Lanes	521
Figure 2G-21	Example of Signing for the Entrance to an Access-Restricted Priced Managed Lane	522
Figure 2G-22	Example of Signing for the Entrance to an Access-Restricted Priced Managed Lane Where a General-Purpose Lane Becomes the Managed Lane	523
Figure 2G-23	Example of Signing for an Intermediate Entry to a Barrier- or Buffer-Separated Priced Managed Lane	524
Figure 2G-24	Example of Signing for the Intermediate Entry to, Egress from, and End of Access-Restricted Priced Managed Lanes	525
Figure 2G-25	Examples of Guide Signs for an Intermediate Egress from a Barrier- or Buffer-Separated HOV Lane	526
Figure 2G-26	Examples of Guide Signs for Direct Managed Lane Entrance and Exit Ramps	527
Figure 2G-27	Examples of Guide Signs for a Direct Access Ramp between Managed Lanes on Separate Freeways	528
Figure 2G-28	Examples of Guide Signs for a Direct Entrance Ramp to a Priced Managed Lane and Trailblazing to a Nearby Entrance to the General-Purpose Lanes	529
Figure 2G-29	Examples of Guide Signs for Separate Entrance Ramps to General-Purpose and Priced Managed Lanes from the Same Crossroad	530
Figure 2H-1	General Information and Miscellaneous Information Signs	544

Figure 2H-1(CA)	General Information and Miscellaneous Information Signs	544
Figure 2H-2	Reference Location Signs	545
Figure 2H-3	Intermediate Reference Location Signs	545
Figure 2H-4	Enhanced Reference Location Signs	546
Figure 2H-5	Examples of Acknowledgment Sign Designs	547
Figure 2H-5(CA)	Examples of Adopt-A-Highway Sign Designs	547
Figure 2I-1	General Service Signs and Plaques	572
Figure 2I-1(CA)	General Service Signs and Plaques	573
Figure 2I-2	Example of Next Services Plaque	574
Figure 2I-3	Examples of General Service Signs with and without Exit Numbering	574
Figure 2I-4	Examples of Interstate Oasis Signs and Plaques	575
Figure 2I-5	Rest Area and Other Roadside Area Signs	575
Figure 2I-5(CA)	Rest Area and Other Roadside Area Signs	575
Figure 2I-6	Brake Check Area and Chain-Up Area Signs	576
Figure 2I-6(CA)	Brake Check Area and Chain-Up Area Signs	576
Figure 2I-7	Examples of Tourist Information and Welcome Center Signs	576
Figure 2I-7(CA)	Examples of Tourist Information and Welcome Center Signs	577
Figure 2I-8	Radio, Telephone, and Carpool Information Signs	578
Figure 2I-8(CA)	Radio, Telephone, and Carpool Information Signs	579
Figure 2J-1	Examples of Specific Service Signs	595
Figure 2J-1(CA)	Examples of Specific Service Signs	596
Figure 2J-2	Examples of Specific Service Sign Locations	597
Figure 2J-3	Examples of Supplemental Messages on Logo Sign Panels	598
Figure 2J-4	Examples of RV Access Supplemental Messages on Logo Sign Panels	598
Figure 2J-5	Examples of Specific Service Trailblazer Signs	598
Figure 2K-1	Examples of Tourist-Oriented Directional Signs	605
Figure 2K-1(CA)	Examples of Tourist-Oriented Directional Signs	606
Figure 2K-2	Examples of Intersection Approach Signs and Advance Signs for Tourist-Oriented Directional Signs	607
Figure 2M-1	Examples of Use of Arrows, Educational Plaques, and Prohibitory Slashes	629
Figure 2M-1(CA)	Examples of Use of Arrows, Educational Plaques, and Prohibitory Slashes	629
Figure 2M-2	Examples of Recreational and Cultural Interest Area Guide Signs	630
Figure 2M-2(CA)	Examples of Recreational and Cultural Interest Area Guide Signs	631
Figure 2M-3	Arrangement, Height, and Lateral Position of Signs Located Within Recreational and Cultural Interest Areas	632
Figure 2M-4	Examples of Symbol and Destination Guide Signing Layout	633
Figure 2M-5	Recreational and Cultural Interest Area Symbol Signs for General Applications	634
Figure 2M-6	Recreational and Cultural Interest Area Symbol Signs for Accommodations	635
Figure 2M-7	Recreational and Cultural Interest Area Symbol Signs for Services	635
Figure 2M-8	Recreational and Cultural Interest Area Symbol Signs for Land Recreation	636
Figure 2M-8(CA)	Recreational and Cultural Interest Area Symbol Signs for Land Recreation	636
Figure 2M-9	Recreational and Cultural Interest Area Symbol Signs for Water Recreation	637
Figure 2M-10	Recreational and Cultural Interest Area Symbol Signs for Winter Recreation	638
Figure 2M-10(CA)	Recreational and Cultural Interest Area Symbol Signs for Winter Recreation	638
Figure 2M-101(CA)	Memorial or Dedication Signing	639
Figure 2N-1	Emergency Management Signs	647
Figure 3A-101(CA)	Centerlines – 2 Lane Highways	652
Figure 3A-102(CA)	Lane Lines – Multilane Highways	653
Figure 3A-103(CA)	No Passing Zones – One Direction	654
Figure 3A-104(CA)	No Passing Zones – Two Direction	655
Figure 3A-105(CA)	Left Edge Lines for Divided Highways	656
Figure 3A-106(CA)	Right Edge Line and Right Edge Line Extension Through Intersections	657
Figure 3A-107(CA)	Median Islands	658

Figure 3A-108(CA)	Two-Way Left-Turn lanes	659
Figure 3A-109(CA)	Intersection Markings	660
Figure 3A-110(CA)	Freeway Exit and Entrance Ramp Channelizing Lines	661
Figure 3A-111(CA)	Lane Drop Markings	663
Figure 3A-112(CA)	Channelizing Line and Lane Line/Centerline Extensions	664
Figure 3A-113(CA)	Examples of Preferential Lane Lines	665
Figure 3B-1	Examples of Two-Lane, Two-Way Marking Applications	695
Figure 3B-2	Examples of Four-or-More Lane, Two-Way Marking Applications	696
Figure 3B-3	Examples of Three-Lane, Two-Way Marking Applications	697
Figure 3B-4	Method of Locating and Determining the Limits of No-Passing Zones at Curves	698
Figure 3B-5	Example of Application of Three-Lane, Two-Way Marking for Changing Direction of the Center Lane	699
Figure 3B-6	Example of Reversible Lane Marking Application	700
Figure 3B-7	Example of Two-Way Left-Turn Lane Marking Applications	701
Figure 3B-7(CA)	Example of Two-Way Left-Turn Lane Marking Applications	702
Figure 3B-8	Examples of Dotted Line and Channelizing Line Applications for Exit Ramp Markings	703
Figure 3B-8(CA)	Examples of Dotted Line and Channelizing Line Applications for Exit Ramp Markings	705
Figure 3B-9	Examples of Dotted Line and Channelizing Line Applications for Entrance Ramp Markings	708
Figure 3B-9(CA)	Examples of Dotted Line and Channelizing Line Applications for Entrance Ramp Markings	710
Figure 3B-10	Examples of Applications of Freeway and Expressway Lane Drop Markings	712
Figure 3B-10(CA)	Examples of Applications of Freeway and Expressway Lane-Drop Markings	717
Figure 3B-11	Examples of Applications of Conventional Road Lane-Drop Markings	718
Figure 3B-12	Example of Solid Double White Lines Used to Prohibit Lane Changing	720
Figure 3B-13	Examples of Line Extensions through Intersections	721
Figure 3B-14	Examples of Applications of Lane-Reduction Transition Markings	723
Figure 3B-14(CA)	Examples of Applications of Lane-Reduction Transition Markings	724
Figure 3B-15	Examples of Applications of Markings for Obstructions in the Roadway	727
Figure 3B-16	Recommended Yield Line Layouts	729
Figure 3B-17	Examples of Yield Lines at Unsignalized Midblock Crosswalks	730
Figure 3B-17(CA)	Examples of Crosswalk Enhancements at Uncontrolled Multilane Approaches	731
Figure 3B-18	Do Not Block Intersection Markings	732
Figure 3B-18(CA)	Do Not Block Intersection Markings	733
Figure 3B-19	Examples of Crosswalk Markings	734
Figure 3B-19(CA)	Examples of Crosswalk Markings	734
Figure 3B-20	Example of Crosswalk Markings for an Exclusive Pedestrian Phase that Permits Diagonal Crossing	735
Figure 3B-21	Examples of Parking Space Markings	736
Figure 3B-21(CA)	Examples of Parking Space Markings	737
Figure 3B-22	International Symbol of Accessibility Parking Space Marking	738
Figure 3B-22(CA)	Examples of Disabled Persons Parking Symbol, Legend and Related Markings	739
Figure 3B-23	Example of Elongated Letters for Word Pavement Markings	741
Figure 3B-23(CA)	Example of Elongated Letters for Word Pavement Markings	742
Figure 3B-24	Examples of Standard Arrows for Pavement Markings	743
Figure 3B-24(CA)	Examples of Standard Arrows for Pavement Markings	745
Figure 3B-25	Examples of Elongated Route Shields for Pavement Markings	753
Figure 3B-26	Yield Ahead Triangle Symbols	753
Figure 3B-27	Examples of Lane-Use Control Word and Arrow Pavement Markings	754
Figure 3B-28	Example of the Application of Speed Reduction Markings	755
Figure 3B-29	Pavement Markings for Speed Humps without Crosswalks	756
Figure 3B-30	Pavement Markings for Speed Tables or Speed Humps with Crosswalks	757
Figure 3B-31	Advance Warning Markings for Speed Humps	758

Figure 3B-101(CA)	Examples of Left-Turn Channelization Markings	759
Figure 3B-102(CA)	Examples of Fire Hydrant Location Pavement Markings	760
Figure 3B-103(CA)	Examples of Intersection Markings	761
Figure 3B-104(CA)	Treatment of Divided Highway Illusion	762
Figure 3B-105(CA)	Examples of Signs and Markings for Highways Where Speed is Enforced by Aircraft	763
Figure 3B-106(CA)	Passing Lanes	764
Figure 3B-107(CA)	Examples of Signing and Marking Turnouts	765
Figure 3B-108(CA)	Electric Vehicle Charging Station Pavement Marking Details	766
Figure 3C-1	Example of Markings for Approach and Circulatory Roadways at a Roundabout	771
Figure 3C-2	Lane-Use Arrow Pavement Marking Options for Roundabout Approaches	771
Figure 3C-3	Example of Markings for a One-Lane Roundabout	772
Figure 3C-4	Example of Markings for a Two-Lane Roundabout with One- and Two-Lane Approaches	773
Figure 3C-5	Example of Markings for a Two-Lane Roundabout with One-Lane Exits	775
Figure 3C-6	Example of Markings for a Two-Lane Roundabout with Two-Lane Exits	776
Figure 3C-7	Example of Markings for a Two-Lane Roundabout with a Double Left Turn	777
Figure 3C-8	Example of Markings for a Two-Lane Roundabout with a Double Right Turn	778
Figure 3C-9	Example of Markings for a Two-Lane Roundabout with Consecutive Double Lefts	779
Figure 3C-10	Example of Markings for a Three-Lane Roundabout with Two- and Three-Lane Approaches	780
Figure 3C-11	Example of Markings for a Three-Lane Roundabout with Three-Lane Approaches	781
Figure 3C-12	Example of Markings for a Three-Lane Roundabout with Two-Lane Exits	782
Figure 3C-13	Example of Markings for Two Linked Roundabouts	783
Figure 3C-14	Example of Markings for a Diamond Interchange with Two Circular-Shaped Roundabout Ramp Terminals	784
Figure 3D-1	Markings for Barrier-Separated Preferential Lanes	789
Figure 3D-2	Markings for Buffer-Separated Preferential Lanes	789
Figure 3D-3	Markings for Contiguous Preferential Lanes	791
Figure 3D-4	Markings for Counter-Flow Preferential Lanes on Divided Highways	792
Figure 3D-101(CA)	Diamond Symbol (HOV Lane)	793
Figure 3F-1	Examples of Delineator Placement	802
Figure 3F-101(CA)	Examples of Delineators	803
Figure 3F-102(CA)	Examples of Delineator Placement When Used at Intersections, Islands, Ramps and Connectors	804
Figure 3F-103(CA)	Examples of Runaway Truck Ramp Signs and Markings	806
Figure 3F-104(CA)	Narrow Bridge Signs and Markings (One-Way and Two-Way Roadways)	807
Figure 3F-105(CA)	Examples of Median Barrier Delineation	808
Figure 3H-101(CA)	Example of Channelizers	812
Figure 3J-1	Examples of Longitudinal Rumble Strip Markings	816
Figure 4C-1	Warrant 2, Four-Hour Vehicular Volume	836
Figure 4C-2	Warrant 2, Four-Hour Vehicular Volume (70% Factor)	836
Figure 4C-3	Warrant 3, Peak Hour	837
Figure 4C-4	Warrant 3, Peak Hour (70% Factor)	837
Figure 4C-5	Warrant 4, Pedestrian Four-Hour Volume	838
Figure 4C-6	Warrant 4, Pedestrian Four-Hour Volume (70% Factor)	838
Figure 4C-7	Warrant 4, Pedestrian Peak Hour	839
Figure 4C-8	Warrant 4, Pedestrian Peak Hour (70% Factor)	839
Figure 4C-9	Warrant 9, Intersection Near a Grade Crossing (One Approach Lane at the Track Crossing)	840
Figure 4C-10	Warrant 9, Intersection Near a Grade Crossing (Two or More Approach Lanes at the Track Crossing)	840
Figure 4C-101(CA)	Traffic Signal Warrants Worksheet	841
Figure 4C-102(CA)	Traffic Count Worksheet	846

Figure 4C-103(CA)	Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)	847
Figure 4D-1	Example of U-Turn Signal Face	897
Figure 4D-2	Typical Arrangements of Signal Sections in Signal Faces That Do Not Control Turning Movements	897
Figure 4D-3	Recommended Vehicular Signal Faces for Approaches with Posted, Statutory, or 85th-Percentile Speed of 45 mph or Higher	898
Figure 4D-4	Lateral and Longitudinal Location of Primary Signal Faces	899
Figure 4D-5	Maximum Mounting Height of Signal Faces Located Between 40 Feet and 53 Feet from Stop Line	900
Figure 4D-6	Typical Position and Arrangements of Shared Signal Faces for Permissive Only Mode Left Turns	900
Figure 4D-7	Typical Position and Arrangements of Separate Signal Faces with Flashing Yellow Arrow for Permissive Only Mode Left Turns	901
Figure 4D-8	Typical Position and Arrangements of Separate Signal Faces with Flashing Red Arrow for Permissive Only Mode and Protected/Permissive Mode Left Turns	901
Figure 4D-9	Typical Positions and Arrangements of Shared Signal Faces for Protected Only Mode Left Turns	902
Figure 4D-10	Typical Position and Arrangements of Separate Signal Faces for Protected Only Mode Left Turns	903
Figure 4D-11	Typical Position and Arrangements of Shared Signal Faces for Protected/Permissive Mode Left Turns	903
Figure 4D-12	Typical Position and Arrangements of Separate Signal Faces with Flashing Yellow Arrow for Protected/Permissive Mode and Protected Only Mode Left Turns	904
Figure 4D-13	Typical Positions and Arrangements of Shared Signal Faces for Permissive Only Mode Right Turns	904
Figure 4D-14	Typical Position and Arrangements of Separate Signal Faces with Flashing Yellow Arrow for Permissive Only Mode Right Turns	905
Figure 4D-15	Typical Position and Arrangements of Separate Signal Faces with Flashing Red Arrow for Permissive Only Mode and Protected/Permissive Mode Right Turns	905
Figure 4D-16	Typical Positions and Arrangements of Shared Signal Faces for Protected Only Mode Right Turns	906
Figure 4D-17	Typical Position and Arrangements of Separate Signal Faces for Protected Only Mode Right Turns	907
Figure 4D-18	Typical Positions and Arrangements of Shared Signal Faces for Protected/Permissive Mode Right Turns	908
Figure 4D-19	Typical Position and Arrangements of Separate Signal Faces with Flashing Yellow Arrow for Protected/Permissive Mode and Protected Only Mode Right Turns	909
Figure 4D-20	Signal Indications for Approaches with a Shared Left-Turn/Right-Turn Lane and No Through Movement	910
Figure 4D-101(CA)	Left-Turn Phasing Methods (Phase Diagrams)	913
Figure 4D-102(CA)	Typical Signal Layout at Offset Intersections, Signalized and Marked as a Single Intersection	914
Figure 4D-103(CA)	Typical Signal Layout (Two Phase Operation)	918
Figure 4D-104(CA)	Typical Signal Layout (Three Phase Operation)	919
Figure 4D-105(CA)	Typical Signal Layout (Five Phase “Dual Left” Operation)	920
Figure 4D-106(CA)	Typical Signal Layout (Six Phase “Opposing” Operation)	921
Figure 4D-107(CA)	Typical Signal Layout (Eight Phase “Quad Left” Operation)	922
Figure 4D-108(CA)	Typical Traffic Signal Installation	923
Figure 4D-109(CA)	Diamond Interchange Timing Chart (Heavy Left-Turn – 200 vphpl or More – Using Two Controllers)	924
Figure 4D-110(CA)	Diamond Interchange Timing Chart (Light Left-Turn – 200 vphpl or Less– Using Two Controllers)	925
Figure 4D-111(CA)	Bicycle Detection Systems	926
Figure 4D-112(CA)	Example of Bicycle Signal Face	929
Figure 4E-1	Typical Pedestrian Signal Indications	953

Figure 4E-2	Pedestrian Intervals	954
Figure 4E-3	Pushbutton Location Area	955
Figure 4E-4	Typical Pushbutton Locations	956
Figure 4F-1	Guidelines for the Installation of Pedestrian Hybrid Beacons on Low-Speed Roadways	962
Figure 4F-2	Guidelines for the Installation of Pedestrian Hybrid Beacons on High-Speed Roadways	962
Figure 4F-3	Sequence for a Pedestrian Hybrid Beacon	963
Figure 4G-1	Sequence for an Emergency-Vehicle Hybrid Beacon	968
Figure 4L-101(CA)	Flashing Beacon at School Crossings Worksheet	984
Figure 4M-1	Left-Turn Lane-Use Control Signals	988
Figure 4M-101(CA)	Example of Lane Control Signal Face	988
Figure 4N-101(CA)	Typical Layout For In Roadway Warning Lights (IRWL's)	992
Figure 5B-1	Regulatory Signs on Low-Volume Roads	998
Figure 5B-2	Parking Signs and Plaques on Low-Volume Roads	998
Figure 5C-1	Horizontal Alignment and Intersection Warning Signs and Plaques and Object Markers on Low-Volume Roads	1002
Figure 5C-2	Other Warning Signs and Plaques on Low-Volume Roads	1003
Figure 5C-2(CA)	Other Warning Signs and Plaques on Low-Volume Roads	1004
Figure 5F-1	Highway-Rail Grade Crossing Signs and Plaques for Low-Volume Roads	1010
Figure 5G-1	Temporary Traffic Control Signs and Plaques on Low-Volume Roads	1012
Figure 6C-1	Component Parts of a Temporary Traffic Control Zone	1029
Figure 6C-2	Types of Tapers and Buffer Spaces	1030
Figure 6C-3	Example of a One-Lane, Two-Way Traffic Taper	1031
Figure 6E-1	Example of the Use of a STOP/SLOW Automated Flagger Assistance Device (AFAD)	1049
Figure 6E-2	Example of the Use of a Red/Yellow Lens Automated Flagger Assistance Device (AFAD)	1050
Figure 6E-3	Use of Hand-Signaling Devices by Flaggers	1051
Figure 6F-1	Height and Lateral Location of Signs—Typical Installations	1098
Figure 6F-2	Methods of Mounting Signs Other Than on Posts	1099
Figure 6F-3	Regulatory Signs and Plaques in Temporary Traffic Control Zones	1100
Figure 6F-4	Warning Signs and Plaques in Temporary Traffic Control Zones	1102
Figure 6F-5	Exit Open and Closed and Detour Signs	1105
Figure 6F-6	Advance Warning Arrow Board Display Specifications	1106
Figure 6F-7	Channelizing Devices	1107
Figure 6F-101(CA)	California Temporary Traffic Control Signs	1108
Figure 6F-102(CA)	Channelizer (CA) and Portable Delineator	1110
Figure 6F-103(CA)	Examples of Object Markers in Temporary Traffic Control Zones	1111
Figure 6F-104(CA)	Typical Layout Using Channelizing Devices to Delineate a Portable Changeable Message Sign on Shoulder	1112
Figure 6H-1	Work Beyond the Shoulder (TA-1)	1139
Figure 6H-2	Blasting Zone (TA-2)	1141
Figure 6H-3	Work on the Shoulders (TA-3)	1143
Figure 6H-4	Short-Duration or Mobile Operation on a Shoulder (TA-4)	1145
Figure 6H-5	Shoulder Closure on a Freeway (TA-5)	1147
Figure 6H-5(CA)	Shoulder Closure on a Freeway (TA-5)	1148
Figure 6H-6	Shoulder Work with Minor Encroachment (TA-6)	1150
Figure 6H-7	Road Closure with a Diversion (TA-7)	1152
Figure 6H-8	Road Closure with an Off-Site Detour (TA-8)	1154
Figure 6H-9	Overlapping Routes with a Detour (TA-9)	1156
Figure 6H-10	Lane Closure on a Two-Lane Road Using Flaggers (TA-10)	1158
Figure 6H-10(CA)	Lane Closure on a Two-Lane Road Using Flaggers (TA-10)	1159
Figure 6H-10A(CA)	Lane Closure on a Two-Lane Road Using Flaggers (TA-10A) Using Portable Transverse Rumble Strips	1160

Figure 6H-11	Lane Closure on a Two-Lane Road with Low Traffic Volumes (TA-11)	1162
Figure 6H-12	Lane Closure on a Two-Lane Road Using Traffic Control Signals (TA-12)	1164
Figure 6H-13	Temporary Road Closure (TA-13)	1166
Figure 6H-14	Haul Road Crossing (TA-14)	1168
Figure 6H-14(CA)	Haul Road Crossing (TA-14)	1169
Figure 6H-15	Work in the Center of a Road with Low Traffic Volumes (TA-15)	1171
Figure 6H-16	Surveying Along the Center Line of a Road with Low Traffic Volumes (TA-16)	1173
Figure 6H-17	Mobile Operations on a Two-Lane Road (TA-17)	1175
Figure 6H-18	Lane Closure on a Minor Street (TA-18)	1177
Figure 6H-19	Detour for One Travel Direction (TA-19)	1179
Figure 6H-20	Detour for a Closed Street (TA-20)	1181
Figure 6H-21	Lane Closure on the Near Side of an Intersection (TA-21)	1183
Figure 6H-22	Right-Hand Lane Closure on the Far Side of an Intersection (TA-22)	1185
Figure 6H-22A(CA)	Right-Hand Lane Closure on the Far Side of an Intersection (TA-22A(CA))	1186
Figure 6H-22B(CA)	Right-Hand Lane Closure on the Far Side of an Intersection (TA-22B(CA))	1187
Figure 6H-23	Left-Hand Lane Closure on the Far Side of an Intersection (TA-23)	1189
Figure 6H-24	Half Road Closure on the Far Side of an Intersection (TA-24)	1191
Figure 6H-24A(CA)	Half Road Closure on the Far Side of an Intersection (TA-24A(CA))	1192
Figure 6H-25	Multiple Lane Closures at an Intersection (TA-25)	1194
Figure 6H-25A(CA)	Multiple Lane Closures at an Intersection (TA-25A(CA))	1195
Figure 6H-26	Closure in the Center of an Intersection (TA-26)	1195
Figure 6H-27	Closure at the Side of an Intersection (TA-27)	1199
Figure 6H-28	Sidewalk Detour or Diversion (TA-28)	1201
Figure 6H-29	Crosswalk Closures and Pedestrian Detours (TA-29)	1203
Figure 6H-30	Interior Lane Closure on a Multi-Lane Street (TA-30)	1205
Figure 6H-31	Lane Closures on a Street with Uneven Directional Volumes (TA-31)	1207
Figure 6H-32	Half Road Closure on a Multi-Lane, High-Speed Highway (TA-32)	1209
Figure 6H-32(CA)	Half Road Closure on a Multi-Lane, High-Speed Highway (TA-32)	1210
Figure 6H-33	Stationary Lane Closure on a Divided Highway (TA-33)	1212
Figure 6H-34	Lane Closure with a Temporary Traffic Barrier (TA-34)	1214
Figure 6H-35	Mobile Operation on a Multi-Lane Road (TA-35)	1216
Figure 6H-36	Lane Shift on a Freeway (TA-36)	1219
Figure 6H-36(CA)	Lane Shift on a Freeway (TA-36)	1220
Figure 6H-37	Double Lane Closure on a Freeway (TA-37)	1222
Figure 6H-38	Interior Lane Closure on a Freeway (TA-38)	1224
Figure 6H-39	Median Crossover on a Freeway (TA-39)	1225
Figure 6H-40	Median Crossover for an Entrance Ramp (TA-40)	1227
Figure 6H-41	Median Crossover for an Exit Ramp (TA-41)	1229
Figure 6H-42	Work in the Vicinity of an Exit Ramp (TA-42)	1232
Figure 6H-43	Partial Exit Ramp Closure (TA-43)	1234
Figure 6H-44	Work in the Vicinity of an Entrance Ramp (TA-44)	1236
Figure 6H-45	Temporary Reversible Lane Using Movable Barriers (TA-45)	1238
Figure 6H-46	Work in the Vicinity of a Grade Crossing (TA-46)	1240
Figure 6H-101(CA)	Shoulder Closure on Urban (Low Speed) Locations to Accommodate Bicyclists	1242
Figure 6H-102(CA)	Lane Closure on Freeway, Expressway, Rural and Urban (High Speed) Locations to Accommodate Bicyclists	1244
Figure 6H-103(CA)	Detour for Bike Lane on Roads with Closure of One Travel Direction	1246
Figure 6H-104(CA)	Right Lane and Bike Lane Closure on Far Side of Intersection	1248
Figure 6H-105(CA)	Lane Shift on Road with Low Traffic Volumes	1250
Figure 6I-1	Examples of Traffic Incident Management Area Signs	1255
Figure 6I-1(CA)	Examples of Traffic Incident Management Area Signs	1255
Figure 7A-1	Example of School Route Plan Map	1260
Figure 7B-1	School Area Signs	1269

Figure 7B-1(CA)	School Area Signs	1270
Figure 7B-2	Example of Signing for a Higher Fines School Zone without a School Crossing	1272
Figure 7B-3	Example of Signing for a Higher Fines School Zone with a School Speed Limit	1273
Figure 7B-4	Example of Signing for a School Crossing Outside of a School Zone	1274
Figure 7B-5	Example of Signing for a School Zone with a School Speed Limit and a School Crossing	1275
Figure 7B-5(CA)	Example of Signing for a School Zone with a School Speed Limit and a School Crossing	1276
Figure 7B-6	In-Street Signs in School Areas	1277
Figure 7B-101(CA)	Example of School Area Signs with Flashing Yellow Beacons	1278
Figure 7B-102(CA)	Example of Signing for Traffic Control in School Areas with Flashing Yellow Beacons	1279
Figure 7B-103(CA)	Example of Signing for School Area Traffic Control with Extended and/or Reduced School Zone Speed Limits	1280
Figure 7B-104(CA)	Example of Signing for School Crosswalk Warning Assembly	1281
Figure 7C-1	Two-Lane Pavement Marking of "SCHOOL"	1285
Figure 7C-101(CA)	Pavement Word Markings for School Areas	1286
Figure 8B-1	Regulatory Signs and Plaques for Grade Crossings	1310
Figure 8B-1(CA)	Regulatory Signs and Plaques for Grade Crossings	1311
Figure 8B-2	Crossbuck Assembly with a YIELD or STOP Sign on the Crossbuck Sign Support	1311
Figure 8B-3	Crossbuck Assembly with a YIELD or STOP Sign on a Separate Sign Support	1312
Figure 8B-4	Warning Signs and Plaques for Grade Crossings	1314
Figure 8B-4(CA)	Warning Signs and Plaques for Grade Crossings	1314
Figure 8B-5	Example of an Emergency Notification Sign	1314
Figure 8B-6	Example of Placement of Warning Signs and Pavement Markings at Grade Crossings	1315
Figure 8B-6(CA)	Example of Placement of Warning Signs and Pavement Markings at Grade Crossings	1316
Figure 8B-7	Grade Crossing Pavement Markings	1319
Figure 8B-7(CA)	Grade Crossing Pavement Markings	1320
Figure 8B-8	Example of Dynamic Envelope Pavement Markings at Grade Crossings	1321
Figure 8B-9	Examples of Light Rail Transit Vehicle Dynamic Envelope Markings for Mixed-Use Alignments	1322
Figure 8B-101(CA)	Train Station Signs	1323
Figure 8C-1	Composite Drawing of Active Traffic Control Devices for Grade Crossings Showing Clearances	1337
Figure 8C-2	Example of Location Plan for Flashing-Light Signals and Four-Quadrant Gates	1338
Figure 8C-3	Light Rail Transit Signals	1339
Figure 8C-3(CA)	Light Rail Transit Signals	1340
Figure 8C-4	Example of Flashing-Light Signal Assembly for Pedestrian Crossings	1341
Figure 8C-5	Example of a Shared Pedestrian/Roadway Gate	1342
Figure 8C-6	Example of a Separate Pedestrian Gate	1342
Figure 8C-7	Examples of Placement of Pedestrian Gates	1343
Figure 8C-8	Example of Swing Gates	1344
Figure 8C-9	Example of Pedestrian Barriers at an Offset Grade Crossing	1344
Figure 8C-10	Examples of Pedestrian Barrier Installation at an Offset Non-Intersection Grade Crossing	1345
Figure 8D-1	Example of Signing and Markings for a Pathway Grade Crossing	1350
Figure 9B-1	Sign Placement on Shared-Use Paths	1364
Figure 9B-2	Regulatory Signs and Plaques for Bicycle Facilities	1365
Figure 9B-2(CA)	California Regulatory Signs for Bicycle Facilities	1366
Figure 9B-3	Warning Signs and Plaques and Object Markers for Bicycle Facilities	1367
Figure 9B-4	Guide Signs and Plaques for Bicycle Facilities	1368
Figure 9B-4(CA)	California Guide Signs for Bicycle Facilities	1370
Figure 9B-5	Example of Signing for the Beginning and End of a Designated Bicycle Route on a Shared-Use Path	1371
Figure 9B-6	Example of Bicycle Guide Signing	1372

Figure 9B-7	Examples of Signing and Markings for a Shared-Use Path Crossing	1373
Figure 9B-8	Example of Mode-Specific Guide Signing on a Shared-Use Path	1374
Figure 9C-1	Example of Intersection Pavement Markings—Designated Bicycle Lane with Left-Turn Area, Heavy Turn Volumes, Parking, One-Way Traffic, or Divided Highway	1386
Figure 9C-2	Examples of Center Line Markings for Shared-Use Paths	1387
Figure 9C-3	Word, Symbol, and Arrow Pavement Markings for Bicycle Lanes	1388
Figure 9C-4	Example of Bicycle Lane Treatment at a Right Turn Only Lane	1389
Figure 9C-4(CA)	Example of Bicycle Lane Treatment at a Right Turn Only Lane	1390
Figure 9C-5	Example of Bicycle Lane Treatment at Parking Lane into a Right Turn Only Lane	1391
Figure 9C-6	Example of Pavement Markings for Bicycle Lanes on a Two-Way Street	1392
Figure 9C-7	Bicycle Detector Pavement Marking	1393
Figure 9C-8	Examples of Obstruction Pavement Markings	1394
Figure 9C-9	Shared Lane Marking	1394
Figure 9C-101(CA)	Marking Details for Bicycle Lanes	1395
Figure 9C-102(CA)	Examples of Bicycle Lane Treatment Where Vehicle Parking is Prohibited/Permitted	1396
Figure 9C-103(CA)	Example of Bicycle Lane Treatment Through an Interchange	1397
Figure 9C-104(CA)	Examples of Markings for Buffered Bicycle Lanes Where Vehicle Parking is Prohibited/Permitted	1398
Figure 9C-105(CA)	Example of Contraflow Bicycle Lanes	1400
Figure 9C-106(CA)	Example of Bicycle Lane Extensions Through an Intersection	1401

LIST OF TABLES

	<u>Page</u>
Table I-1	49
Table I-1(CA)	49
Table I-2	50
Table I-2(CA)	50
Table I-101(CA)	51
Table 1A-101(CA)	64
Table 1A-1	96
Table 1A-2	97
Table 1A-3	98
Table 2A-1	120
Table 2A-2	120
Table 2A-3	121
Table 2A-4	122
Table 2A-5	123
Table 2A-5(CA)	124
Table 2B-1	244
Table 2B-1(CA)	248
Table 2B-2	254
Table 2B-101(CA)	254
Table 2B-102(CA)	255
Table 2C-1	306
Table 2C-2	307
Table 2C-2(CA)	310
Table 2C-3	311
Table 2C-4	312
Table 2C-5	312
Table 2C-6	313
Table 2C-101(CA)	313
Table 2D-1	381
Table 2D-1(CA)	382
Table 2D-2	383
Table 2D-101(CA)	384
Table 2D-102(CA)	385
Table 2E-1	458
Table 2E-1(CA)	460
Table 2E-2	461
Table 2E-3	462
Table 2E-4	463
Table 2E-5	464
Table 2F-1	482
Table 2G-1	531
Table 2G-1(CA)	532
Table 2H-1	548
Table 2H-1(CA)	549
Table 2I-1	580
Table 2I-1(CA)	581

Table 2J-1	Minimum Letter and Numeral Sizes for Specific Service Signs According to Sign Type	599
Table 2J-101(CA)	California Specific Service Sign and Plaque Sizes	599
Table 2K-101(CA)	California Tourist-Oriented Directional Sign Sizes	607
Table 2L-1	Example of Units of Information	614
Table 2M-1	Category Chart for Recreational and Cultural Interest Area Symbols	640
Table 2M-101(CA)	California Recreational and Cultural Interest Area Sign and Plaque Sizes	641
Table 2N-1	Emergency Management Sign Sizes	647
Table 3B-1	Minimum Passing Sight Distances for No-Passing Zone Markings	768
Table 3D-1	Standard Edge Line and Lane Line Markings for Preferential Lanes	794
Table 3F-1	Approximate Spacing for Delineators on Horizontal Curves	808
Table 4C-1	Warrant 1, Eight-Hour Vehicular Volume	848
Table 4C-2	Warrant 9, Adjustment Factor for Daily Frequency of Rail Traffic	849
Table 4C-3	Warrant 9, Adjustment Factor for Percentage of High-Occupancy Buses	849
Table 4C-4	Warrant 9, Adjustment Factor for Percentage of Tractor-Trailer Trucks	849
Table 4D-1	Recommended Minimum Number of Primary Signal Faces for Through Traffic on Approaches with Posted, Statutory, or 85th-Percentile Speed of 45 mph or Higher	930
Table 4D-2	Minimum Sight Distance for Signal Visibility	930
Table 4D-101(CA)	Suggested Detector Setbacks from Limitline	931
Table 4D-102(CA)	Minimum Yellow Change Interval	932
Table 4D-103(CA)	Traffic Signal Timing Analysis Chart	933
Table 4D-104(CA)	Signal Operations – Vehicular Speed	934
Table 4D-105(CA)	Pole and Equipment Schedule	935
Table 4D-106(CA)	Conductor and Conduit Schedule	936
Table 4D-107(CA)	Available Conduit Area	937
Table 4D-108(CA)	Conductor Size	938
Table 4D-109(CA)	Signal Operations – Minimum Bicycle Timing	939
Table 5A-1	Sign and Plaque Sizes on Low-Volume Roads	995
Table 6C-1	Recommended Advance Warning Sign Minimum Spacing	1032
Table 6C-2	Stopping Sight Distance as a Function of Speed	1032
Table 6C-3	Taper Length Criteria for Temporary Traffic Control Zones	1032
Table 6C-3(CA)	Taper Length Criteria for Temporary Traffic Control Zones (for 12 feet Offset Width)	1033
Table 6C-4	Formulas for Determining Taper Length	1033
Table 6C-101(CA)	Stopping Sight Distance as a Function of Speed on Downgrades	1034
Table 6E-1	Stopping Sight Distance as a Function of Speed	1052
Table 6E-101(CA)	Longitudinal Buffer Space or Flagger Station Spacing on Downgrades	1052
Table 6F-1	Temporary Traffic Control Zone Sign and Plaque Sizes	1113
Table 6F-1(CA)	California Temporary Traffic Control Zone Sign and Plaque Sizes	1116
Table 6F-101(CA)	Maximum Spacing of Channelizing Devices	1117
Table 6F-102(CA)	Pavement Surface Tolerances	1118
Table 6H-1	Index to Typical Applications	1134
Table 6H-1(CA)	Index to Typical Applications	1135
Table 6H-2	Meaning of Symbols on Typical Application Diagrams	1135
Table 6H-3	Meaning of Letter Codes on Typical Application Diagrams	1136
Table 6H-4	Formulas for Determining Taper Length	1136
Table 6H-4(CA)	Taper Length Criteria for Temporary Traffic Control Zones (for 12 feet Offset Width)	1137
Table 7B-1	School Area Sign and Plaque Sizes	1282
Table 7B-1(CA)	California School Area Sign Assembly Sizes	1282
Table 8B-1	Grade Crossing Sign and Plaque Minimum Sizes	1324
Table 8B-1(CA)	California Grade Crossing Sign and Plaque Minimum Sizes	1325
Table 9B-1	Bicycle Facility Sign and Plaque Minimum Sizes	1375
Table 9B-1(CA)	California Bicycle Facility Sign and Plaque Minimum Sizes	1377
Table A2-1	Conversion of Inches to Millimeters	1409

Table A2-2	Conversion of Feet to Meters	1409
Table A2-3	Conversion of Miles to Kilometers	1409
Table A2-4	Conversion of Miles per Hour to Kilometers/Hour	1409

CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES 2014

FOREWORD

The California Department of Transportation (Caltrans) is pleased to announce the 2014 update of the *California Manual on Uniform Traffic Control Devices* (CA MUTCD). This update coincides with implementation of Caltrans' 2014 mission to provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability. This update to the CA MUTCD aims to improve safety and mobility for all travelers in California by providing guidance to transportation practitioners that strives to balance safety and convenience for everyone in traffic—drivers, pedestrians, and bicyclists.

Significantly, the CA MUTCD integrates multimodal policies for safer crossings, work zones, and intersections, with improvements including:

- Crosswalks Enhancements Policy (TOPD 12–03, CA MUTCD 2014 Section 3B.18)
- Temporary Traffic Control Plans (CA MUTCD 2014 Section 6C.01)
- Work Zone and Higher Fines Signs and Plaques (CA MUTCD 2014 Section 6F.12)
- Traffic Control for School Areas (CA MUTCD 2014 Part 7)

As part of this update, Section 1A.10 of the CA MUTCD now includes Table 1A-101(CA), “Status of Interim Approvals Issued By FHWA in California,” which lists adopted statewide policies or approvals authorized by the Federal Highway Administration (FHWA) for use on all California streets and highways (without the Section 1A.10 experimentation approval requirement). Caltrans regularly updates the CA MUTCD with guidance from the California Traffic Control Devices Committee (CTCDC). We encourage all practitioners to not only use this manual but also to visit the CTCDC Web site at <http://www.dot.ca.gov/hq/traffops/engineering/ctcdc/> for the most recent updates and actions by the CTCDC.

In addition, on April 11, 2014, Caltrans endorsed the National Association of City Transportation Officials (NACTO) *Urban Street Design Guide* as a valuable resource when making planning and design decisions about the State Highway System and local streets and roads. The NACTO *Urban Street Design Guide* includes many concepts contained in *Main Street, California: A Guide for Improving Community Transportation Vitality*. Similarly, much of the NACTO *Urban Bikeway Design Guide* is consistent with the guidance provided in the CA MUTCD for related topics. We continue to analyze NACTO guidance and will work with all stakeholders to ensure flexibility and innovation in the design and operation of California streets and highways.

As Caltrans continues to implement its new mission, transportation practitioners should rely on the CA MUTCD for mandatory standards, guidance, and options for twenty-first-century operation of California's multimodal transportation system.



MALCOLM DOUGHERTY
Director
California Department of Transportation

CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

INTRODUCTION

Support:

^{00a} This California Manual on Uniform Traffic Control Devices (California MUTCD) is published by the State of California, Caltrans and is issued to adopt uniform standards and specifications for all official traffic control devices in California, in accordance with Section 21400 of the California Vehicle Code (CVC).

^{00b} This California MUTCD incorporates Federal Highway Administration's Manual on Uniform Traffic Control Devices (2009 Edition) dated December 16, 2009 and the previous California MUTCD dated January 13, 2012. It also incorporates all policies on traffic control devices issued by Caltrans that have been issued since January 13, 2012 and other editorial, errata and format changes that were necessary to update the previous documents.

Standard:

^{00c} The California MUTCD is hereby adopted as, and shall be the standard for all official traffic control devices, under Section 11340.9(h) of California Government Code and Section 21400 of California Vehicle Code.

Support:

^{00d} The California MUTCD supersedes and replaces the previously adopted (on January 13, 2012) California MUTCD. It does not supersede Caltrans' Standard Plans, Standard Specifications or the Standard Special Provisions publications.

^{00e} Caltrans publishes Standard Specifications, Standard Special Provisions, Standard Plans and other manuals, which contain specifications and requirements for traffic control devices, including their use and placement, when performing work on State highways. In some cases those specifications and requirements can vary from, and be more stringent than those shown in the California MUTCD.

Standard:

^{00f} On State highways, the California MUTCD shall mean to include Caltrans' Standard Plans, Standard Specifications and Standard Special Provisions publications.

^{00g} On State highways, the California MUTCD shall not supersede Caltrans' Standard Plans, Standard Specifications or the Special Provisions publications but all Standard statements of the California MUTCD shall be met. On State highways, whenever there is a discrepancy between the specifications and requirements contained in the California MUTCD, and those contained in the Caltrans' Standard Plans, Standard Specifications or the Special Provisions publications, the Caltrans' Standard Plans, Standard Specifications or the Special Provisions publications shall govern.

^{00h} Nothing contained in the California MUTCD shall prevent Caltrans from modifying, changing or adopting new specifications as necessary. Any revisions to the Caltrans' Standard Plans, Standard Specifications or the Special Provisions shall conform to the Standard statements of the California MUTCD.

⁰⁰ⁱ Whenever there is a discrepancy between the specifications and requirements incorporated from FHWA's MUTCD and the California MUTCD amendments, the California MUTCD amendments shall govern.

⁰¹ **Traffic control devices shall be defined as all signs, signals, markings, and other devices used to regulate, warn, or guide traffic, placed on, over, or adjacent to a street, highway, pedestrian facility, bikeway, or private road open to public travel (see definition in Section 1A.13)-by authority of a public agency or official having jurisdiction, or, in the case of a private road, by authority of the private owner or private official having jurisdiction.**

⁰² **The Manual on Uniform Traffic Control Devices (MUTCD) is incorporated by reference in 23 Code of Federal Regulations (CFR), Part 655, Subpart F and shall be recognized as the national standard for all traffic control devices installed on any street, highway, bikeway, or private road open to public travel (see definition in Section 1A.13)-in accordance with 23 U.S.C. 109(d) and 402(a). The MUTCD national standard and Caltrans standards and specifications for traffic control devices shall not be applicable to privately owned and maintained roads or commercial establishments, unless the particular city or county enacts an ordinance or resolution to this effect. Refer to CVC Sections 21100, 21100.1, 21107, 21107.5,**

21107.6, and 21107.7. The policies and procedures of the Federal Highway Administration (FHWA) to obtain basic uniformity of traffic control devices shall be as described in 23 CFR 655, Subpart F.

⁰³ In accordance with 23 CFR 655.603(a), for the purposes of applicability of the MUTCD:

- A. Toll roads under the jurisdiction of public agencies or authorities or public-private partnerships shall be considered to be public highways;**
- B. Private roads open to public travel shall be as defined in Section 1A.13; Privately owned and maintained roads or commercial establishments, if the particular city or county enacts an ordinance or resolution to this effect. Refer to CVC Sections 21100, 21100.1, 21107, 21107.5, 21107.6, and 21107.7.**
- C. ~~Parking areas, including the driving aisles within those parking areas, that are either publicly or privately owned shall not be considered to be “open to public travel” for purposes of MUTCD applicability.~~ All publicly owned parking areas and only those privately owned parking areas where the particular city or county has enacted a resolution to this effect, including the driving aisles within those parking areas shall be subject to MUTCD applicability.**

⁰⁴ Any traffic control device design or application provision contained in this Manual shall be considered to be in the public domain. Traffic control devices contained in this Manual shall not be protected by a patent, trademark, or copyright, except for the Interstate Shield and any items owned by FHWA. The Caltrans logos consisting of the “CT” symbol and the “Caltrans” logotype are registered service marks and when used on any traffic control device they shall be presented in a uniform and consistent manner as outlined in Caltrans’ Deputy Directive DD-33-R1.

Support:

⁰⁵ Pictographs, as defined in Section 1A.13, are embedded in traffic control devices but the pictographs themselves are not considered traffic control devices for the purposes of Paragraph 4.

^{05a} This Manual is not applicable to privately owned and maintained roads or commercial establishments in California, unless the particular city or county enacts an ordinance or resolution to this effect. Refer to CVC Sections 21100, 21100.1, 21107, 21107.5, 21107.6, and 21107.7. However, the use of this Manual is encouraged on all privately owned and maintained roads or commercial establishments, in general, as a good practice. See Section 1A.07 for more information.

⁰⁶ The need for uniform standards was recognized long ago. The American Association of State Highway Officials (AASHO), now known as the American Association of State Highway and Transportation Officials (AASHTO), published a manual for rural highways in 1927, and the National Conference on Street and Highway Safety (NCSHS) published a manual for urban streets in 1930. In the early years, the necessity for unification of the standards applicable to the different classes of road and street systems was obvious. To meet this need, a joint committee of AASHO and NCSHS developed and published the original edition of this Manual on Uniform Traffic Control Devices (MUTCD) in 1935. That committee, now called the National Committee on Uniform Traffic Control Devices (NCUTCD), though changed from time to time in name, organization, and personnel, has been in continuous existence and has contributed to periodic revisions of this Manual. The FHWA has administered the MUTCD since the 1971 edition. The FHWA and its predecessor organizations have participated in the development and publishing of the previous editions. There were nine previous editions of the MUTCD, and several of those editions were revised one or more times. Table I-1 traces the evolution of the MUTCD, including the two manuals developed by AASHO and NCSHS.

^{06a} The Division of Highways in California Department of Public Works, now known as Department of Transportation (Caltrans), published a Planning Manual of Instructions in 1952. Part 8, called Traffic was subsequently added to the Planning Manual in 1955. In 1972, the first separate publication called the Traffic Manual was published. Efforts were undertaken in 2000 by Caltrans along with California Traffic Control Devices Committee (CTCDC) to reconcile the Traffic Manual with the National Manual on Uniform Traffic Control Devices (MUTCD). These efforts culminated in the adoption of the National MUTCD with a California Supplement in 2004. In 2006, the California Supplement and the National MUTCD were combined into a single document, called the California MUTCD. Table I-1(CA) traces the evolution of the California MUTCD.

Standard:

⁰⁷ The U.S. Secretary of Transportation, under authority granted by the Highway Safety Act of 1966, decreed that traffic control devices on all public streets and highways open to public travel (and privately owned and maintained roads or commercial establishments, if the particular city or county enacts an ordinance or resolution to this effect), in accordance with 23 U.S.C. 109(d) and 402(a) in each State shall be in substantial conformance with the Standards issued or endorsed by the FHWA.

Support:

⁰⁸ The “Uniform Vehicle Code (UVC)” is one of the publications referenced in the MUTCD. The UVC contains a model set of motor vehicle codes and traffic laws for use throughout the United States.

Guidance:

⁰⁹ *The States should adopt Section 15-116 of the UVC, which states that, “No person shall install or maintain in any area of private property used by the public any sign, signal, marking, or other device intended to regulate, warn, or guide traffic unless it conforms with the State manual and specifications adopted under Section 15-104.”*

Support:

¹⁰ The Standard, Guidance, Option, and Support material described in this edition of the MUTCD provide the transportation professional with the information needed to make appropriate decisions regarding the use of traffic control devices on streets, highways, bikeways, and private roads open to public travel (see definition in Section 1A.13).

¹¹ Throughout this Manual the headings Standard, Guidance, Option, and Support are used to classify the nature of the text that follows. Figures and tables, including the notes contained therein, supplement the text and might constitute a Standard, Guidance, Option, or Support. The user needs to refer to the appropriate text to classify the nature of the figure, table, or note contained therein.

^{11a} The figures shown in the California MUTCD are typical or example applications of the traffic control devices to illustrate their use and manner. Criteria for position, location, and use of traffic control devices in the figures are furnished solely for the purpose of guidance, understanding and information, and are not a legal standard. Engineering judgment must be used to apply these guidelines to the typical or example applications, or adjust them to fit individual field site conditions. The California MUTCD is not intended to be a substitute for engineering knowledge, experience or judgment.

Standard:

¹² When used in this Manual, the text headings of Standard, Guidance, Option, and Support shall be as defined in Paragraph 1 of Section 1A.13. For all purposes, regardless of the text heading, any sentence containing the verb shall or MUTCD text edited to the verb shall, shall be considered a Standard. Similarly, any sentence containing the verb should or MUTCD text edited to the verb should, shall be considered Guidance and any sentence containing the verb may or MUTCD text edited to the verb may, shall be considered an Option.

Support:

¹³ Throughout this Manual all dimensions and distances are provided in English units. Appendix A2 contains tables for converting each of the English unit numerical values that are used in this Manual to the equivalent Metric (International System of Units) values.

Guidance:

¹⁴ *If Metric units are to be used in laying out distances or determining sizes of devices, such units should be specified on plan drawings and made known to those responsible for designing, installing, or maintaining traffic control devices.*

^{14a} *In 1993, Caltrans had adopted the International System of Units as the preferred system of weights and measures to comply with federal law. The law was subsequently changed making the use of the Metric System optional. Caltrans made the decision in 2004 to readopt the U.S. Customary (English) system of units and measures as the preferred system. Guidance on the use of the Metric and U.S. Customary Systems of Measurement is available from Caltrans' Division of Design.*

¹⁵ *Except when a specific numeral is required or recommended by the text of a Section of this Manual, numerals displayed on the images of devices in the figures that specify quantities such as times, distances, speed limits, and weights should be regarded as examples only. When installing any of these devices, the numerals should be appropriately altered to fit the specific situation.*

Support:

¹⁶ The following information will be useful when reference is being made to a specific portion of text in this Manual.

¹⁷ There are nine Parts in this Manual and each Part is comprised of one or more Chapters. Each Chapter is comprised of one or more Sections. Parts are given a numerical identification, such as Part 2 – Signs. Chapters are identified by the Part number and a letter, such as Chapter 2B – Regulatory Signs, Barricades, and Gates. Sections are identified by the Chapter number and letter followed by a decimal point and a number, such as Section 2B.03 – Size of Regulatory Signs.

¹⁸ Each Section is comprised of one or more paragraphs. The paragraphs are indented and are identified by a number. Paragraphs are counted from the beginning of each Section without regard to the intervening text headings (Standard, Guidance, Option, or Support). Some paragraphs have lettered or numbered items. As an example of how to cite this Manual, the phrase “Not less than 40 feet beyond the stop line” that appears in Section 4D.14 of this Manual would be referenced in writing as “Section 4D.14, P1, A.1,” and would be verbally referenced as “Item A.1 of Paragraph 1 of Section 4D.14.”

^{18a} The California MUTCD uses a format similar to the MUTCD. It incorporates FHWA's MUTCD in its entirety and explicitly shows which portions thereof are applicable or not applicable in California. The unedited MUTCD text is shown in “Times New Roman” font with black color. The California edited MUTCD text is also shown in “Times New Roman” font with black color but with strikethrough of all text portions that are not applicable in California and a blue margin line for easier distinction between the two types of MUTCD texts. The California text additions and enhancements are incorporated into the combined document at appropriate locations and shown in an “Arial Narrow” font with blue color and a blue margin line on the right to keep them distinct from the MUTCD content, when the pages are viewed on a computer monitor, or as hard copies in color or as black photocopies. California added paragraphs are shown in “Arial Narrow” font with blue color.

^{18b} All MUTCD figures and tables, or portions thereof, which are not applicable in California, are shown with appropriate size blue X cross-outs. The MUTCD figures and tables that have been modified or added to, in the California MUTCD retain the same MUTCD Figure or Table number but include “(CA)” to indicate that it is the California version of the MUTCD Figure or Table. For example:

- A. Figure 3B-18(CA) Do Not Block Intersection Markings
- B. Table 2H-1(CA) California General Information Sign Sizes

^{18c} For California topics where there is no corresponding section, figure or table in the MUTCD, the California MUTCD gives a number that begins with the number 101 for that section, figure or table and increases in sequence, followed with a “(CA)” to indicate that this is a California created section, figure or table number. For example:

- A. Section 4D.105(CA) – Bicycle/Motorcycle Detection
- B. Figure 6H-103(CA) – Detour for Bike Lane on Roads with Closure of One Travel Direction
- C. Table 4D-102(CA) – Minimum Yellow Change Interval Timing

^{18d} The California MUTCD contents within each chapter (Chapter 2B shown as example below) appear in a consistent order for ease of reference. This sequence is as follows:

- A. MUTCD Sections per sequential numbering. For example, Sections 2B.01 through 2B.68.
- B. California Sections per sequential numbering. For example, Sections 2B.101(CA) through 2B.111(CA).
- C. MUTCD Figures (including edited and deleted) per sequential numbering. For example, Figures 2B-1 through 2B-32.
- D. California Figures based upon or modifying MUTCD Figures are placed immediately after the respective MUTCD figure. For example, Figure 2B-12(CA) follows immediately after the deleted MUTCD Figure 2B-12 it replaces. Another example is Figure 2B-10(CA) which immediately follows MUTCD (undeleted) Figure 2B-10 as the California figure supplements the MUTCD Figure, it does not replace it.
- E. California Figures that are stand alone and not based upon MUTCD Figures follow in sequence per their numbering. For example, Figures 2B-101(CA) through 2B-106(CA) follow after the end of MUTCD numbered figures.
- F. MUTCD and California Tables follow the Figures under similar rules described above for the figures.

Standard:

¹⁹ In accordance with 23 CFR 655.603(b)(3), States or other Federal agencies that have their own MUTCDs or Supplements shall revise these MUTCDs or Supplements to be in substantial conformance with changes to the National MUTCD within 2 years of the effective date of the Final Rule for the changes. Substantial conformance of such State or other Federal agency MUTCDs or Supplements shall be as defined in 23 CFR 655.603(b)(1).

²⁰ After the effective date of a new edition of the MUTCD or a revision thereto, or after the adoption thereof by the State, whichever occurs later, new or reconstructed devices installed shall be in compliance with the new edition or revision.

²¹ In cases involving Federal-aid projects for new highway or bikeway construction or reconstruction, the traffic control devices installed (temporary or permanent) shall be in conformance with the most recent edition of the National MUTCD before that highway is opened or re-opened to the public for unrestricted travel [23 CFR 655.603(d)(2) and (d)(3)].

²² Unless a particular device is no longer serviceable, non-compliant devices on existing highways and bikeways shall be brought into compliance with the current edition of the National MUTCD as part of the systematic upgrading of substandard traffic control devices (and installation of new required traffic control devices) required pursuant to the Highway Safety Program, 23 U.S.C. §402(a). The FHWA has the authority to establish other target compliance dates for implementation of particular changes to the MUTCD [23 CFR 655.603(d)(1)]. These target compliance dates established by the FHWA shall be as shown in Table I-2.

²³ Except as provided in Paragraph 24, when a non-compliant traffic control device is being replaced or refurbished because it is damaged, missing, or no longer serviceable for any reason, it shall be replaced with a compliant device.

Option:

²⁴ A damaged, missing, or otherwise non-serviceable device that is non-compliant may be replaced in kind if engineering judgment indicates that:

A. One compliant device in the midst of a series of adjacent non-compliant devices would be confusing to road users; and/or

B. The schedule for replacement of the whole series of non-compliant devices will result in achieving timely compliance with the MUTCD.

Standard:

²⁵ Unless allowed per the Option below, in cases involving new highway or bikeway construction or reconstruction, the traffic control devices installed (temporary or permanent) shall be in conformance with the current edition of the California MUTCD before that highway is opened or re-opened to the public for unrestricted travel pursuant to the California Vehicle Code 21401.

Option:

²⁶ In cases involving new highway or bikeway construction or reconstruction, the traffic control devices installed (temporary or permanent) may be in accordance with previous traffic control device standards of January 13, 2012, January 21, 2010 or September 26, 2006 California MUTCD or prior to that of MUTCD 2003 and MUTCD 2003 California Supplement or Caltrans Traffic Manual, if in the judgment of the engineer, incorporating the California MUTCD standards would impose a significant delay or a significant increase in costs for the project.

Support:

²⁷ Reconstruction, as used in the previous Standard and Option topics, for the purpose of a traffic control device would mean if a particular device is modified in any form or shape or is relocated. If a reconstruction project does not modify or relocate a traffic control device, although encouraged, there would be no obligation to upgrade the traffic control device per current edition of the California MUTCD standards.

Standard:

²⁸ Unless allowed per the option below, non-compliant traffic control devices on existing highways and bikeways shall be brought into compliance with the California MUTCD as part of the systematic upgrading of substandard traffic control devices (and installation of new required traffic control devices) required pursuant to the California Vehicle Code 21401.

Option:

²⁹ All traffic control devices on existing highways and bikeways that have become non-compliant per California MUTCD adopted standards may remain in service through the end of their useful service life, unless identified specifically with a target compliance date per Table I-101(CA).

³⁰ To limit financial impact on agencies and for fiscal responsibility reasons, existing inventory of non-compliant traffic control devices, except those identified per Table I-101(CA), may continue to be used until these inventories are depleted.

Support:

³¹ The signs listed in Table I-101(CA) are non-compliant per this California MUTCD and have been singled out for specific target compliance dates by the California Traffic Control Devices Committee and Caltrans.

³² Failure to replace a sign listed in Table I-101(CA) by its target compliance date does not reduce the effectiveness of the sign to impart information to the road user.

³³ For ease of reference, Figure I-101(CA) shows the sign sketches of the deleted signs that have target compliance dates.

Standard:

³⁴ The signs listed in Table I-101(CA), although used in the past, shall no longer be used in California. Further, any such signs on existing highways and bikeways shall be removed, and replaced if appropriate, by the target compliance dates shown in Table I-101(CA).

Table I-1. Evolution of the MUTCD

Year	Name	Month / Year Revised
1927	Manual and Specifications for the Manufacture, Display, and Erection of U.S. Standard Road Markers and Signs (for rural roads)	4/29, 12/31
1930	Manual on Street Traffic Signs, Signals, and Markings (for urban streets)	No revisions
1935	Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD)	2/39
1942	Manual on Uniform Traffic Control Devices for Streets and Highways — War Emergency Edition	No revisions
1948	Manual on Uniform Traffic Control Devices for Streets and Highways	9/54
1961	Manual on Uniform Traffic Control Devices for Streets and Highways	No revisions
1971	Manual on Uniform Traffic Control Devices for Streets and Highways	11/71, 4/72, 3/73, 10/73, 6/74, 6/75, 9/76, 12/77
1978	Manual on Uniform Traffic Control Devices for Streets and Highways	12/79, 12/83, 9/84, 3/86
1988	Manual on Uniform Traffic Control Devices for Streets and Highways	1/90, 3/92, 9/93, 11/94, 12/96, 6/98, 1/00
2000	Manual on Uniform Traffic Control Devices for Streets and Highways — Millennium Edition	7/02
2003	Manual on Uniform Traffic Control Devices for Streets and Highways	11/04, 12/07
2009	Manual on Uniform Traffic Control Devices for Streets and Highways	5/12

Table I-1(CA) Evolution of the California MUTCD

Year	Name
1955	Planning Manual of Instructions, Part 8 – Traffic Department of Public Works, Division of Highways
1972	Traffic Manual Department of Public Works, Division of Highways
1996	Traffic Manual (Metric Version) Department of Transportation, Division of Traffic Operations
2004	FHWA's MUTCD 2003 & MUTCD 2003 California Supplement Department of Transportation, Division of Traffic Operations
2006	California MUTCD Department of Transportation, Division of Traffic Operations
2010	California MUTCD (including Revisions. 1 and 2 of FHWA's MUTCD 2003) Department of Transportation, Division of Traffic Operations
2012	California MUTCD (including FHWA's MUTCD 2009) Department of Transportation, Division of Traffic Operations
2014	California MUTCD (including FHWA's MUTCD 2009 Revisions 1 & 2, as amended for use in California) Department of Transportation, Division of Traffic Operations

Table I-2. Target Compliance Dates Established by the FHWA

2009 MUTCD Section Number(s)	2009 MUTCD Section Title	Specific Provision	Compliance Date
2A.08	Maintaining Minimum Retroreflectivity	Implementation and continued use of an assessment or management method that is designed to maintain regulatory and warning sign retroreflectivity at or above the established minimum levels (see Paragraph 2)	2 years from the effective date of this revision of the 2009 MUTCD* June 13, 2014
2A.19	Lateral Offset	Crashworthiness of sign supports on roads with posted speed limit of 50 mph or higher (see Paragraph 2)	January 17, 2019 (date established in the 2009 MUTCD)
2B.40	ONE WAY Signs (R6-1, R6-2)	New requirements in the 2009 MUTCD for the number and locations of ONE WAY signs (see Paragraphs 4, 9, and 10)	December 31, 2019
2C.06 through 2C.14	Horizontal Alignment Warning Signs	Revised requirements in the 2009 MUTCD regarding the use of various horizontal alignment signs (see Table 2C-5)	December 31, 2019
2E.31, 2E.33, and 2E.36	Plaques for Left-Hand Exits	New requirement in the 2009 MUTCD to use E1-5aP and E1-5bP plaques for left-hand exits	December 31, 2014
4D.26	Yellow Change and Red Clearance Intervals	New requirement in the 2009 MUTCD that durations of yellow change and red clearance intervals shall be determined using engineering practices (see Paragraphs 3 and 6)	5 years from the effective date of this revision of the 2009 MUTCD, or when timing adjustments are made to the individual intersection and/or corridor, whichever occurs first June 13, 2017
4E.06	Pedestrian Intervals and Signal Phases	New requirement in the 2009 MUTCD that the pedestrian change interval shall not extend into the red clearance interval and shall be followed by a buffer interval of at least 3 seconds (see Paragraph 4)	5 years from the effective date of this revision of the 2009 MUTCD, or when timing adjustments are made to the individual intersection and/or corridor, whichever occurs first June 13, 2017
6D.03**	Worker Safety Considerations	New requirement in the 2009 MUTCD that all workers within the right-of-way shall wear high-visibility apparel (see Paragraphs 4, 6, and 7)	December 31, 2011
6E.02**	High-Visibility Safety Apparel	New requirement in the 2009 MUTCD that all flaggers within the right-of-way shall wear high-visibility apparel	December 31, 2011
7D.04**	Uniform of Adult Crossing Guards	New requirement in the 2009 MUTCD for high-visibility apparel for adult crossing guards	December 31, 2011
8B.03, 8B.04	Grade Crossing (Crossbuck) Signs and Supports	Retroreflective strip on Crossbuck sign and support (see Paragraph 7 in Section 8B.03 and Paragraphs 15 and 18 in Section 8B.04)	December 31, 2019
8B.04	Crossbuck Assemblies with YIELD or STOP Signs at Passive Grade Crossings	New requirement in the 2009 MUTCD for the use of STOP or YIELD signs with Crossbuck signs at passive grade crossings	December 31, 2019

* Types of signs other than regulatory or warning are to be added to an agency's management or assessment method as resources allow.

** MUTCD requirement is a result of a legislative mandate.

Note: All compliance dates that were previously published in Table I-2 of the 2009 MUTCD and that do not appear in this revised table have been eliminated.

Table I-2(CA). Target Compliance Dates Established by the CTCDC/Caltrans

2014 CA MUTCD Section Number(s)	2014 CA MUTCD Section Title	Specific Provision	Compliance Date
4D.26	Yellow Change & Red Clearance Intervals	Signalized intersections equipped with Red Light Cameras shall comply with 2014 CA MUTCD, Section 4D.26	August 1, 2015
4D.26	Yellow Change & Red Clearance Intervals	All signalized intersections shall comply with 2014 CA MUTCD, Section 4D.26	August 1, 2017

Figure I-101 (CA). Deleted California Signs with Target Compliance Dates



Table I-101(CA) Deleted California Signs with Target Compliance Dates

Sign Code	Title/Description	Comment	Target Compliance Date
SW27(CA)	Skewed RR Crossing symbol with Motorcycle symbol	Use Skewed Crossing symbol (W10-12) sign	January 1, 2015
SW27-1(CA)	Skewed RR Crossing symbol with Motorcycle & Bike symbol	Use Skewed Crossing symbol (W10-12) sign	January 1, 2015
SW28(CA)	STEEL DECK with Motorcycle symbol	Use modified STEEL BRIDGE DECK (SW28 (CA)) word message sign	January 1, 2015

