



Alaska Department of Transportation & Public Facilities

Alaska Traffic Manual Supplement

To be Used in Conjunction with the Manual
on Uniform Traffic Control Devices, 11th
Edition (December 2023)

Effective January 20, 2026

Revision 0 (Original Document)

INTRODUCTION

The 2026 Alaska Traffic Manual (ATM) is intended to enhance road safety and operation by specifying uniform, understandable, and effective traffic control devices for Alaska roads. Traffic control devices installed on state roads are required by state statute to conform to the ATM. Traffic control devices on roads under municipal jurisdiction shall conform “as far as practicable” to the ATM, as specified in Alaska Statutes (AS) 28.01.010(d). Devices installed or replaced after the publication date of the ATM shall conform to the ATM upon installation. Unless noted otherwise, existing devices that do not conform to the current ATM shall be replaced at the end of their useful life.

The 2026 ATM is composed of:

- 2026 Alaska Traffic Manual Supplement (ATMS)
- Manual on Uniform Traffic Control Devices (MUTCD) 11th Edition, dated December 2023, published by the Federal Highway Administration (FHWA)
- Any adopted revisions or interim addenda to either document issued subsequently and corrections to known errors to either document

The MUTCD and any revisions may be downloaded from the following website:

https://mutcd.fhwa.dot.gov/kno_11th_Edition.htm.

The Alaska Department of Transportation and Public Facilities’ State Traffic and Safety Engineer shall circulate requests for changes in the ATM to the Regional Traffic and Safety Engineers, the FHWA Alaska Division Engineer, and the Anchorage and Fairbanks traffic engineers for their input.

How to Use the Alaska Traffic Manual Supplement

Both the ATMS and the MUTCD shall be consulted when researching traffic control device issues. The ATMS parts, chapters, and sections correlate to the MUTCD parts, chapters, and sections in sequence, heading, and numbering. The two documents interact as follows:

- MUTCD sections, figures, or tables not mentioned in the ATMS are adopted for Alaska without any changes or additions.
- MUTCD text modified by the ATMS is indicated by ~~blue strikethrough~~ text for deletions and blue underline text for additions. In some cases, portions of unmodified MUTCD are shown as black text along with deletions and additions to provide context.
- MUTCD figures and tables modified by the ATMS are changed either as directed by the instructions in blue brackets ([]) or as shown in the ATMS to replace the MUTCD version.

Where no equivalent section, figure, or table exists in the MUTCD, the section, figure, or table in the ATMS is the standard. Alaska-unique sections begin with a .100 suffix (as in Section 2A.100) unless there is a MUTCD .100 sign suffix. Similarly, Alaska-unique figures and tables begin with -100 suffixes.

Adopted revisions to the ATMS incorporated after initial adoption on January 20, 2026, are listed individually in the table below.

Adopted Revisions to the 2026 ATMS

Section Number	Section Title	Date Approved	Description of Change
	None at this time		

Table of Contents

Part 1 | General

CHAPTER 1A. GENERAL	1
Section 1A.03 Target Road Users	1
Section 1A.05 Relation to Other Publications	1
CHAPTER 1B. LEGAL REQUIREMENTS FOR TRAFFIC CONTROL DEVICES	2
Section 1B.04 Interpretations.....	2
Section 1B.05 Experimentation	2
Section 1B.06 Changes to the MUTCD.....	3
Section 1B.07 Interim Approvals.....	3
Section 1B.08 Requesting Official Interpretations, Experiments, Changes to the MUTCD, or Interim Approvals.....	5
CHAPTER 1C. DEFINITIONS, ACRONYMS, AND ABBREVIATIONS USED IN THIS MANUAL	6
Section 1C.02 Definitions of Words and Phrases Used in this Manual	6
Section 1C.03 Meanings of Acronyms and Abbreviations Used in the Manual	8
CHAPTER 1D. PROVISIONS APPLICABLE TO TRAFFIC CONTROL DEVICES IN GENERAL.....	9
Section 1D.01 Purpose and Principles of Traffic Control Devices	9
Section 1D.02 Responsibility and Authority for Traffic Control Devices	10
Section 1D.05 Color Code	11

Part 2 | Signs

CHAPTER 2A. GENERAL	12
Section 2A.01 Function and Purpose of Signs.....	12
Section 2A.04 Design of Signs	12
Section 2A.06 Colors	12
Section 2A.07 Dimensions	12
Section 2A.13 Standardization of Location.....	14
Section 2A.15 Mounting Height	14
Section 2A.17 Orientation	15
Section 2A.100 Directional and Service Signing.....	15
CHAPTER 2B. REGULATORY SIGNS, BARRICADES, AND GATES	17
Section 2B.03 Size of Regulatory Signs	17
Section 2B.19 Yield Here To Pedestrians Signs and Stop Here For Pedestrians Signs (R1-5 Series).....	23
Section 2B.20 In-Street and Overhead Pedestrian and Trail Crossing Signs (R1-6 and R1-9 Series).....	24
Section 2B.21 Speed Limit Sign (R2-1)	25

Section 2B.23 Night Speed Limit Plaque (R2-3P)..... 29

Section 2B.25 Higher Fines Signs and Plaque (R2-6P, R2-10, and R2-11)..... 29

Section 2B.27 Intersection Lane Control Signs (R3-5 through R3-8, R3-106, and R3-108 Series)..... 32

Section 2B.29 Optional Movement Lane Control Signs (R3-6 Series and R3-106)..... 33

Section 2B.30 Advanced Intersection Lane Control Signs (R3-8 Series and R3-108 Series) 33

Section 2B.38 KEEP RIGHT EXCEPT TO PASS Sign (R4-16), SLOWER TRAFFIC KEEP RIGHT Sign (R4-3), and TRUCKS USE RIGHT LANE Sign (R4-5)..... 34

Section 2B.42 Slow Vehicle Turn-Out Signs (R4-12, R4-13, and R4-14)..... 36

Section 2B.45 Selective Exclusion Signs and Plaques 36

Section 2B.52 Parking, Standing, and Stopping Signs (R7 and R8 Series)..... 38

Section 2B.53 Design of Parking, Standing, and Stopping Signs..... 39

Section 2B.54 Placement of Parking, Standing, and Stopping Signs 40

Section 2B.58 Traffic Signal Pedestrian and Bicyclist Actuation Signs (R10-1 through R10-4, and R10-24 through R10-26)..... 41

Section 2B.59 Traffic Signal Signs and Plaques (R10-5 through R10-30, and R10-100) 41

Section 2B.60 No Turn on Red Signs (R10-11 Series, ~~R10-17a~~, and R10-30, R10-110, and R10-111) ... 44

Section 2B.64 Weight Limit Signs (R12-1 through R12-7 and R12-100 through R12-102)..... 46

Section 2B.65 Weigh Station Sign (R13-1, R13-100, and R13-101)..... 48

Section 2B.66 TRUCK ROUTE Sign (R14-1 and R14-101)..... 48

Section 2B.73 Headlight Use Signs (R16-5 through R16-11, R16-110, R16-116, and I-190) 48

Section 2B.74 Seat Belt Symbol..... 49

Section 2B.100 NO STUDDERED TIRES Sign (R5-100) and NO STUDDERED TIRES MAY 1 TO SEPT 15 (APRIL 15 TO SEPT 30) Sign (R12-103)..... 49

Section 2B.101 NO ROAD MAINTENANCE AFTER (date) Sign (R11-100) 50

Section 2B.102 ALL TRUCKS STOP BEFORE MOVING ON BRIDGE Sign (R12-1001) 50

Section 2B.103 ONE TRUCK AT A TIME ON BRIDGE (R12-1101)..... 50

Section 2B.104 \$1000 FINE FOR LITTERING Sign (R16-106)..... 50

Section 2B.105 No Shooting Signs (R16-104, R16-105) 51

Section 2B.106 Chains Required Signs (R12-104 through R12-108) 51

Section 2B.107 ALL VEHICLES STOP AT CUSTOMS Sign (R13-103)..... 51

Section 2B.108 NO FISHING FROM BRIDGE Sign (R16-108) 51

Section 2B.109 NO DUMPING Sign (R16-109)..... 52

CHAPTER 2C. WARNING SIGNS AND OBJECT MARKERS..... 53

Section 2C.02 Design of Warning Signs..... 53

Section 2C.17 ROAD NARROWS Sign (W5-1)..... 54

Section 2C.22 Freeway or Expressway Ends Signs (W19 Series)..... 54

Section 2C.24 DEAD END, NO OUTLET, and ROAD ENDS Signs and NO TURN AROUND Plaque (W14-1, W14-1a, W14-2, W14-2a, W14-200P, W8-26, and W8-26a)..... 55

Section 2C.25 Low Clearance Signs (W12-2, W12-2a, ~~and~~ W12-2b, and W12-200)..... 55

Section 2C.29 Shoulder Signs (W5-100, W8-4, W8-9, W8-17, W8-23, and W8-25) 57

Section 2C.33 NO TRAFFIC SIGNS Sign (W18-1) and PRIMITIVE ROAD NO WARNING Sign (W16-113)..... 58

Section 2C.35 Advance Traffic Control Signs (W3-1, W3-2, W3-3, and W3-4)..... 58

Section 2C.41 Intersection Warning Signs (W2-1 through W2-8)..... 59

Section 2C.44 Traffic Signal Oncoming Extended Green Signs (W25-1 and W25-2)..... 60

Section 2C.45 Merge Signs and Plaque (W4-1, W4-5, and W4-5aP)..... 60

Section 2C.46 Added Lane Signs (W4-3 and W4-6) 61

Section 2C.51 Two-Way Traffic Sign (W6-3)..... 62

Section 2C.54 Vehicular Traffic Warning Signs (W8-6, W11-1, W11-5, W11-8, W11-10, W11-11, W11-12P, W11-14, W11-15, ~~and~~ W11-15a, and W11-100)..... 62

Section 2C.55 Non-Vehicular Warning Signs (W11-2, W11-3, W11-4, W11-6, W11-7, W11-9, ~~and~~ W11-16 through W11-22, W11-104, W11-105, W11-107, and W11-108)..... 63

Section 2C.56 Playground Sign (W15-1) 64

Section 2C.59 Advisory Speed Plaque (W13-1P) and Confirmation Advisory Speed Plaque (W13-1aP) 64

Section 2C.61 Distance Plaques (W16-2 Series, W16-3 Series, W16-4P and W7-3aP)..... 66

Section 2C.71 Object Markers for Obstructions within the Roadway..... 66

Section 2C.72 Object Markers for Obstructions Adjacent to the Roadway..... 67

Section 2C.101 LOAD LIMIT WARNING Sign (W12-101) 67

Section 2C.102 End Signs (W14-100 and W14-102) 67

Section 2C.103 SLIDE AREA Signs (W16-100 and W16-101)..... 68

Section 2C.104 WATCH FOR ICE (W16-102) 68

Section 2C.105 WATER OVER ROADWAY Sign (W16-103)..... 68

Section 2C.106 Avalanche Area Signs (W16-110 through W16-112) 68

Section 2C.107 WIND AREA Sign (W16-104)..... 69

Section 2C.108 ROAD CLOSED AHEAD (W14-103) and BRIDGE CLOSED AHEAD (W14-104) Signs..... 69

Section 2C.109 LOW FLYING AIRCRAFT Sign (W16-114) 69

Section 2C.110 AIRCRAFT CROSSING Sign (W16-106)..... 69

Section 2C.111 JET BLAST AREA Signs (W16-108 and W16-109)..... 69

Section 2C.112 SLOW MOVING VEHICLES Sign (W7-100) 70

Section 2C.113 Winter Road Condition Advisory Signs (W14-105 and W14-106)..... 70

Section 2C.114 HIDDEN DRIVEWAY Sign (W7-102)..... 70

Section 2C.115 THRU TRAFFIC MERGE LEFT (RIGHT) Sign (W4-100)..... 71

Section 2C.116 DOG TEAM CROSSING Sign (W11-108)..... 71

Section 2C.117 MOOSE CRASH AREA Sign (W16-115) 71

CHAPTER 2D. GUIDE SIGNS—CONVENTIONAL ROADS 72

Section 2D.05 Size of Lettering..... 72

Section 2D.09 Numbered Highway Systems..... 72

Section 2D.11 Design of Route Signs..... 73

Section 2D.35 Destination and Distance Signs..... 76

Section 2D.36 Destination Signs (D1 Series) 77

Section 2D.44 Location of Distance Signs 79

Section 2D.45 Street Name Signs (D3-1, ~~and~~ D3-1a, and D3-100)..... 79

Section 2D.46 Advance Street Name Signs (D3-2 Series, D3-200, and D3-201) 82

Section 2D.47 Parking Area Guide Sign (D4-1)..... 83

Section 2D.51 WEIGH STATION Signing (D8 Series) 83

Section 2D.55 Community Wayfinding Signs 83

Section 2D.57 National Scenic Byway Sign and Plaque (M10-1 and M10-1aP) 87

Section 2D.100 Community Service Sign (D9-204 and D9-206)..... 88

CHAPTER 2E. GUIDE SIGNS—FREEWAYS AND EXPRESSWAYS..... 90

Section 2E.07 Designation of Destinations..... 90

CHAPTER 2H. GENERAL INFORMATION SIGNS 91

Section 2H.01 Scope..... 91

Section 2H.11 Reference Location Signs (~~D10-1 through D10-3~~ D10-101 through D10-104 and D10-201 through D10-204) and Intermediate Reference Location Signs (~~D10-1a through D10-3a~~ D10-101A through D10-104A and D10-201A through D10-204A) 91

Section 2H.12 Enhanced Reference Location Signs (D10-4) and Intermediate Enhanced Reference Location Signs (D10-5)..... 93

Section 2H.13 Acknowledgment Signs and Plaques (I20 Series)..... 93

Section 2H.100 Miscellaneous Signs..... 93

CHAPTER 2I. GENERAL SERVICE SIGNS 95

Section 2I.02 General Service Signs for Conventional Roads..... 95

Section 2I.03 General Service Signs for Freeways and Expressways 100

Section 2I.04 Interstate Oasis Signing (D5-12 Series)..... 103

Section 2I.05 Rest Area and Other Roadside Area Signs (D5-1 through D5-11 Series)..... 103

Section 2I.08 Tourist Information and Welcome Center Signs (D5-7 Series and D5-8) 104

CHAPTER 2J. SPECIFIC SERVICE SIGNS..... 106

Section 2J.01 Eligibility..... 106

Section 2J.02 Application 107

Section 2J.03 Logos and Business Identification Sign Panels..... 108

Section 2J.04 Number and Size of Signs and Business Identification Sign Panels (LG-F1x2, LG-F3x1, LG-F3x2, LG-R1x2, LG-R1x3, LG-FP, and LG-FP2) 110

Section 2J.12 Signing Policy 110

CHAPTER 2K. TOURIST-ORIENTED DIRECTIONAL SIGNS..... 111

Section 2K.06 Sign Locations..... 111

Section 2K.07 State Policy 111

CHAPTER 2M. RECREATIONAL AND CULTURAL INTEREST AREA SIGNS 113

Section 2M.02 Application of Recreation and Cultural Interest Area Signs..... 113

Section 2M.04 General Design Requirements for Recreation and Cultural Interest Area Symbol Guide Signs..... 113

Section 2M.10 Memorial or Dedication Signing 114

CHAPTER 2N. EMERGENCY MANAGEMENT SIGNING..... 117

Section 2N.03 Evacuation Route Signs (EM1 Series)..... 117

CHAPTER 2S. SPECIAL SIGNS..... 118
 Section 2S.01 Highway Fatality Memorial Signs (I-160 through I-163)..... 118
 Section 2S.02 State Maintenance Begins/Ends Signs (I-180 and I-181) 118
 Section 2S.03 Wildlife Viewing Sign (RS-076)..... 119
 Section 2S.04 Speedometer Check Station Signs (I-140, I-141B, I-141E and I-142) 119
 Section 2S.05 Customs Station Signing (D8-102, D8-103, D8-104, and R13-103)..... 119
 Section 2S.06 FIRE HYDRANT Sign (M12-100) 120
 Section 2S.08 Game Management Unit/Subsistence Hunt Area Signs..... 120
 Section 2S.09 School Destination Signs 121

Part 3 | Markings

CHAPTER 3B. PAVEMENT AND CURB MARKINGS 123
 Section 3B.03 No-Passing Zone Pavement Markings 123
 Section 3B.05 Pavement Markings for Two-Way Left-Turn Lanes..... 124
 Section 3B.09 Edge Line Pavement Markings 125
 Section 3B.10 Warrants for Use of Edge Lines 125
 Section 3B.100 Markings for Climbing and Passing Lanes 126

CHAPTER 3C. CROSSWALK MARKINGS 127
 Section 3C.02 Application of Crosswalk Markings..... 127
 Section 3C.05 High-Visibility Crosswalks..... 129
 Section 3C.08 Bar Pair Crosswalks 130

CHAPTER 3G. DELINEATORS 131
 Section 3G.03 Application 131

Part 4 | Highway Traffic Signals

CHAPTER 4A. GENERAL 136
 Section 4A.06 Meaning of Pedestrian Signal Indications..... 136
 Section 4A.10 Responsibility for Operation and Maintenance..... 136

CHAPTER 4D. DESIGN FEATURES OF TRAFFIC CONTROL SIGNALS 138
 Section 4D.05 Number of Signal Faces on an Approach..... 138
 Section 4D.09 Mounting Height of Signal Faces..... 141
 Section 4D.11 Temporary and Portable Traffic Control Signals..... 142

CHAPTER 4E. TRAFFIC CONTROL SIGNAL INDICATIONS..... 143
 Section 4E.04 Positions of Signal Indications within a Vertical Signal Face 143
 Section 4E.05 Positions of Signal Indications within a Horizontal Signal Face..... 143

CHAPTER 4F. STEADY (STOP-AND-GO) OPERATION OF TRAFFIC CONTROL SIGNALS144
 Section 4F.01 Application of Steady and Flashing Signal Indications during Steady (Stop-and-Go) Operations 144
 Section 4F.02 Signal Indications for Left-Turn Movements – General 144

Section 4F.04 Signal Indications for Permissive Only Mode Left-Turn Movements in a Separate Signal Face..... 147

Section 4F.06 Signal Indications for Protected Only Mode Left-Turn Movements in a Separate Signal Face..... 148

Section 4F.07 Signal Indications for Protected/Permissive Mode Left-Turn Movements in a Shared Signal Face..... 149

Section 4F.08 Signal Indications for Protected/Permissive Mode Left-Turn Movements in a Separate Signal Face..... 150

Section 4F.09 Signal Indications for Right-Turn Movements – General..... 153

Section 4F.10 Signal Indications for Permissive Only Mode Right-Turn Movements in a Shared Signal Face..... 155

Section 4F.11 Signal Indications for Permissive Only Mode Right-Turn Movements in a Separate Signal Face..... 155

Section 4F.13 Signal Indications for Protected Only Mode Right-Turn Movements in a Separate Signal Face..... 157

Section 4F.15 Signal Indications for Protected/Permissive Mode Right-Turn Movements in a Separated Signal Face..... 158

CHAPTER 4J. PEDESTRIAN HYBRID BEACONS 162

Section 4J.01 Application of Pedestrian Hybrid Beacons..... 162

Section 4J.02 Design of Pedestrian Hybrid Beacons..... 163

CHAPTER 4S. FLASHING BEACONS..... 165

Section 4S.06 Application of Active Advance Warning Flashers 165

Section 4S.07 Design of Active Advance Warning Flashers..... 165

Part 5 | Traffic Control Device Considerations for Automated Vehicles

Part 6 | Temporary Traffic Control

CHAPTER 6A. GENERAL 168

Section 6A.01 General..... 168

CHAPTER 6B. TEMPORARY TRAFFIC CONTROL ELEMENTS..... 170

Section 6B.01 Temporary Traffic Control Plans..... 170

CHAPTER 6C. PEDESTRIAN AND WORKER SAFETY 172

Section 6C.01 Pedestrian and Worker Safety - General..... 172

Section 6C.02 Pedestrian Considerations 172

CHAPTER 6D. FLAGGER CONTROL 176

Section 6D.01 Qualifications for Flaggers..... 176

Section 6D.02 STOP/SLOW Paddle for Hand-Signaling..... 176

Section 6D.05 Flagger Procedures..... 179

Section 6E.04 Pilot Car Method 180

Section 6F.02 Sign Placement..... 180

CHAPTER 6G. TTC ZONE REGULATORY SIGNS..... 183
 Section 6G.04 Road Closed Signs (R11-2 Series), Road Closed Avalanche Area Sign (R11-101), and Lane Closed Sign (R11-102)..... 183
 Section 6G.08 Work Zone and Higher Fines Signs and Plaques (R16-100, and R16-101) 184
 Section 6G.10 SIDEWALK CLOSED Signs (R9-9, R9-10, R9-11, ~~and~~ R9-11a), R9-100, and R9-101)186

CHAPTER 6H. TTC ZONE WARNING SIGNS..... 187
 Section 6H.15 Flagger Signs (W20-7 and W20-7a) 187
 Section 6H.27 UNEVEN LANES Sign (W8-11) 187
 Section 6H.32 Advisory Speed Plaque (W13-1P)..... 187
 Section 6I.02 Detour Signs and Plaques (M4-8P, M4-8a, M4-8bP, M4-9, M4-9a, M4-9b, M4-9c, ~~and~~ M4-10, M4-100, and M4-103)..... 188
 Section 6H.35 ROAD WORK NEXT XX MILES Sign (G20-1)..... 189
 Section 6K.04 Tubular Markers 189
 Section 6L.02 Automated Flagger Assistance Devices – General 190
 Section 6L.03 STOP/SLOW Automated Flagger Assistance Devices..... 190
 Section 6L.04 Red/Yellow Lens Automated Flagger Assistance Devices 190
 Section 6M.02 Positive Protection and Temporary Traffic Barriers 191
 Section 6N.18 Work during Nighttime Hours..... 192

CHAPTER 6P. TYPICAL APPLICATIONS..... 193
 Section 6P.01 Typical Applications 193

Part 7 | Traffic Control for School Areas

CHAPTER 7A. GENERAL 198
 Section 7A.01 Introduction 198
 Section 7A.02 School Route Plans and School Crossings 198

CHAPTER 7B. SIGNS 201
 Section 7B.01 Design of School Signs 201
 Section 7B.02 School Area Signs and Plaques 201
 Section 7B.03 School Crossing Signs..... 206
 Section 7B.04 School Bus Stop Signs 207
 Section 7B.05 School Speed Limit Signs and Plaques 208
 Section 7B.06 Higher Fines Zone Signs and Plaques in School Areas..... 209
 Section 7B.100 DRUG FREE SCHOOL ZONE Sign (S6-100)..... 210

CHAPTER 7C. MARKINGS..... 211
 Section 7C.01 Crosswalk Markings..... 211

CHAPTER 7D. CROSSING SUPERVISION 212
 Section 7D.01 Adult Crossing Guards 212

Part 8 | Traffic Control for Railroad and Light Rail Transit Grade Crossings

CHAPTER 8A. GENERAL	213
Section 8A.03 Traffic Control Systems and Practices at Grade Crossings.....	213
CHAPTER 8B. SIGNS	215
Section 8B.02 Sizes of Grade Crossing Signs	215
Section 8B.03 Grade Crossing (Crossbuck) Sign (R15-1) and Number of Tracks Plaque (R15-2P) at Active and Passive Grade Crossings.....	215
Section 8B.07 DO NOT STOP ON TRACKS Sign (R8-8).....	216
Section 8B.101 BUSES & HAZMAT VEHICLES USE RIGHT LANE Sign (R16-115).....	217
CHAPTER 8D. FLASHING-LIGHT SIGNALS, AUTOMATIC GATES, AND TRAFFIC CONTROL SIGNALS	218
Section 8D.02 Flashing-Light Signals	218

Part 9 | Traffic Control for Bicycle Facilities

CHAPTER 9B. REGULATORY SIGNS	221
Section 9B.08 Selective Exclusion Signs	221
Section 9B.11 Bicycles Use Ped Signal.....	221
Section 9B.17 Signing for Bicycles on Freeways and Expressways	221
CHAPTER 9C. WARNING SIGNS AND OBJECT MARKERS.....	223
Section 9C.04 Bicycle Warning and Trail Crossing Signs (W11-1 and W11-5).....	223

Part 1 | General

CHAPTER 1A. GENERAL

Section 1A.03 Target Road Users

Support:

- 01 Traffic control devices can be targeted at operators of motor vehicles, including driving automation systems, and at vulnerable road users.
- 02 Targeted operators of motor vehicles include motorists, public transportation operators, truck drivers, and motorcyclists. Targeted users also include vulnerable road users, who have little to no protection from crash forces. These users are defined in Title 23, U.S.C. 148(a). They include bicyclists and pedestrians, including persons with disabilities. Pedestrians with disabilities might be blind or vision-impaired, have mobility limitations, or other impairments. Protection of vulnerable users is a priority in this Manual as directed in Section 11135 of the Infrastructure Investment and Jobs Act.
- 03 Operators of motor vehicles and vulnerable road users are both likely to be present on roadways where adjacent land use suggests that trips could be served by varied modes. Application of traffic control devices on these roadways requires careful consideration of measures to set and design for appropriate speeds; separation of various users in time and space; improvement of connectivity and access for pedestrians, bicyclists, and transit riders, including for people with disabilities; and implementation of safety countermeasures.

03A [All-purpose vehicles \(APVs\) as defined by 13 Alaska Administrative Code \(AAC\) 40.010\(a\)\(67\) and Section 1C.02 are included as Target Road Users on public roads in Alaska unless prohibited by local ordinance as described in 13 AAC 02.482\(c\) Limited use of vehicular ways and areas.](#)

Section 1A.05 Relation to Other Publications

Standard:

- 01 To the extent that they are incorporated by specific reference, the latest editions of the following publications, shall be a part of this Manual: “Standard Highway Signs” publication (FHWA), and “Color Specifications for Retroreflective Sign and Pavement Marking Materials” (appendix to Subpart F of Part 655 of Title 23 of the Code of Federal Regulations).
- 01A [The “Alaska Sign Design Specifications \(ASDS\)” shall be the source document for all signs in the ATM. Where the Standard Highway Signs Publication is referenced in MUTCD Parts 2 through 9, the reference shall instead be to the ASDS.](#)

Support:

- 02 The “Standard Highway Signs” publication includes standard alphabets and symbols and arrows for signs and pavement markings.
- 03 The MUTCD is not a roadway design manual, and engineers seeking guidance on design should refer to appropriate roadway design guides recognized by the Federal Highway Administration as needed for the design application.
- 04 Other publications are referenced in this Manual as useful resources, but they are not regulatory in nature and are not independently legally enforceable.

CHAPTER 1B. LEGAL REQUIREMENTS FOR TRAFFIC CONTROL DEVICES

Section 1B.04 Interpretations

Standard:

01A To promote the use of uniform, understandable, and effective traffic control devices; to avoid varying official interpretations; and to facilitate the orderly development of traffic control policy, the State Traffic and Safety Engineer (STSE) shall be the authority for policy in all matters concerning the ATM.

A. Official interpretations for purposes of Alaska Department of Transportation and Public Facilities' (DOT&PF) practice of these standards shall be made by the State Traffic and Safety Engineer.

B. Those who desire interpretation of a clause in the ATM; a revision to the ATM; or permission to experiment with or use a traffic control device not in the ATM, ASDS, or the DOT&PF Alaska Standard Plans shall submit a written request to the STSE. The request shall clearly identify the existing standard (if any) and the proposed standard, including a complete statement as to how and when it is to be applied, the date, and the name and address of the person making the request.

Support:

01 The FHWA issues authoritative interpretations of this Manual when necessary to provide clarity in response to unique situations for device application or general requests for clarification of a provision.

02 An interpretation includes a consideration of the application and operation of standard traffic control devices, the official meanings of standard traffic control devices, or the variations from standard device designs and design requirements.

Guidance:

03 *Requests for an interpretation of this Manual should contain the following information:*

A. *A concise statement of the interpretation being sought;*

B. *A description of the condition that provoked the need for an interpretation;*

C. *Any illustration that would be helpful to understand the request; and*

D. *Any supporting research data that is pertinent to the item to be interpreted.*

Support:

04 Section 1B.08 contains information on submitting a request for interpretation.

Section 1B.05 Experimentation

Support:

01 Requests for experimentation (see Section 1B.08) include consideration of field deployment for the purpose of testing or evaluating a new traffic control device, its application or manner of use, or a provision not specifically described in this Manual.

Standard:

02 **A traffic control device or application that does not comply with the provisions of this Manual shall not be used on any street, highway, bikeway, or site roadway open to public travel (see definition in Section 1C.02) without first receiving official approval to experiment from the FHWA's Office of Transportation Operations.**

02A Any request for experimentation shall be a letter submitted to the STSE. The letter shall contain all the information required under this section 1B.05. Upon concurrence, the STSE shall send the request to the FHWA. The STSE shall forward the request to the FHWA and share the response when received.

Section 1B.06 Changes to the MUTCD

Support:

01 Continuing advances in technology and approaches to traffic safety will produce changes in the highway, vehicle, and road-user proficiency; therefore, portions of the system of traffic control devices in this Manual will require updating. It is important to have a procedure for recognizing these developments and for introducing new ideas and modifications into the system.

02 A change includes consideration of a new device to replace a present standard device, an additional device to be added to the list of standard devices, or a revision to a traffic control device application or placement criteria.

Guidance:

03 *Requests for a change to this Manual (see Section 1B.08) should contain the following information:*

A. A statement indicating what change is proposed;

B. Any illustration that would be helpful to understand the request; and

C. Any supporting research data that is pertinent to the item to be reviewed.

Support:

04 Requests for a change to this Manual will be evaluated to consider the potential safety and operational benefits of the requested change and be considered for inclusion in a future for consideration in the next rulemaking to issue a new edition or revision of the Manual. A diagram indicating the process for incorporating new traffic control devices into this Manual is shown in Figure 1B-2.

04A The STSE is responsible to review any changes to the MUTCD.

Section 1B.07 Interim Approvals

Support:

01 Interim approval allows for provisional use, pending official rulemaking, of a new traffic control device, a revision to the application or manner of use of an existing traffic control device, or a provision not specifically described in this Manual.

02 The FHWA issues an interim approval by official memorandum signed by the Associate Administrator for Operations and posts this memorandum on the MUTCD Web site.

03 Interim approval allows for the optional use of a traffic control device or application and does not create a new mandate or recommendation for its use. Interim approval includes conditions that jurisdictions, toll facility operators, or owners of site roadways open to public travel agree to comply with in order to use the traffic control device or application until an official rulemaking action has occurred.

04 The issuance by FHWA of an interim approval might result in the traffic control device or application being proposed for adoption in the next scheduled rulemaking process to issue a new edition or revision of this Manual. If the device or application under interim approval is not proposed in the next rulemaking for a new edition or revision, then a statement of the status of the interim approval,

whether it is to be rescinded or remain in effect, will be included in the Federal Register notice for the rulemaking.

05 Interim approval is considered based on the results of experimentation, and/or results of analytical or laboratory studies with a traffic control device or application that analytically demonstrates a device effectively communicates its intended meaning. Interim approval considerations include an assessment of relative risks, benefits, costs, impacts, and other factors.

06 Section 1B.08 contains information on submitting a request for interim approval.

07 Interim approval is ordinarily considered only after published authoritative research and experimentation sufficiently demonstrate that the device or application provides a significant safety or operational improvement. Individual experiments by various jurisdictions, without a research report on the overall findings of the experimental device or application, will not ordinarily qualify for issuance of an interim approval.

08 Interim approval ordinarily is not considered based solely on non-U.S. experience with a new traffic control device or application. Differences in regulations, enforcement and penalties, and driver licensing requirements, among other factors, can result in dissimilar road-user behavior. Additionally, due to variations in conventions for traffic control device design, a non-U.S. traffic control device concept might need to be adapted to U.S. criteria to ensure consistency with the provisions and principles of this Manual. However, documented non-U.S. experience can be considered in the development of requests for experimentation (see Section 1B.05) and within the evaluation plan for traffic control device research.

Standard:

09 **A jurisdiction, toll facility operator, or owner of a site roadway open to public travel that desires to use a traffic control device or application for which FHWA has issued an interim approval shall request and receive permission from FHWA in writing prior to applying the device or application.**

09A **Prior to requesting permission to use a device under an interim approval from the FHWA, a jurisdiction, toll facility operator, or owner of a site roadway open to the public shall provide a copy of the request to the DOT&PF STSE. The STSE shall determine if a statewide request for interim approval is needed and, if so, shall submit a request for statewide approval. The STSE shall forward the request to the FHWA and share the response when received. If it is determined a statewide interim approval is not needed, the STSE shall notify the requestor.**

10 **The request to place a traffic control device or application under an existing interim approval shall contain the following:**

- A. A description of where the device or application will be used, such as a list of specific locations or highway segments or types of situations, or a statement of the intent to use the device or application jurisdiction-wide;**
- B. An agreement to abide by the specific conditions for use of the device or application as contained in the FHWA's interim approval memorandum;**
- C. An agreement to maintain and continually update a list of locations where the device or application has been installed; and**
- D. An agreement to:**
 - 1. Restore the site(s) of the interim approval to a condition that complies with the provisions in this Manual within 3 months following the issuance of a final rule on this traffic control device or application; and**
 - 2. Terminate use of the device or application installed under the interim approval at any time that it determines that safety concerns are directly or indirectly attributable to**

the device or application. The FHWA’s Office of Transportation Operations shall have the right to terminate the interim approval at any time if there is an indication of safety, operational, or other concerns.

Option:

- 11 A State may submit a request for permission to use a device or application under an existing interim approval for all jurisdictions in that State, as long as the request contains the information required in Paragraph 9 of this Section.

Standard:

- 12 **A jurisdiction, toll facility operator, or owner of a site roadway open to public travel that elects to use a device or application under a statewide interim approval shall inform the state of its use of the device or application.**

- 13 **Under a statewide interim approval, the respective jurisdictions, toll facility operators, and owners of site roadways open to public travel shall maintain and continually update a record of all locations on their roads where the device or application is implemented (see Item C of Paragraph 9 of this Section) and shall furnish this information to the State [of Alaska DOT&PF’s STSE](#).**

Section 1B.08 Requesting Official Interpretations, Experiments, Changes to the MUTCD, or Interim Approvals

Guidance:

- 01 *A local jurisdiction, toll facility operator, or owner of a site roadway open to public travel that is requesting permission to experiment or permission to use a device or application under an existing interim approval should first check for any State laws, regulations, and/or directives covering the application of the MUTCD provisions that might apply.*

Standard:

- 02 ~~Except as provided in Paragraph 3 of this Section, requests for an interpretation, permission to experiment, a change to the MUTCD, granting of an interim approval, or permission to use an existing interim approval shall be submitted electronically to the Federal Highway Administration (FHWA), Office of Transportation Operations, MUTCD team, at the following e-mail address: MUTCDofficialrequest@dot.gov.~~

- ~~02A All requests shall be submitted to the DOT&PF’s STSE to review and forward to FHWA.~~

Option:

- 03 ~~If electronic submittal is not possible, requests for an interpretation, permission to experiment, a change to the MUTCD, granting of an interim approval, or permission to use an existing interim approval may instead be mailed to the Office of Transportation Operations, HOTO-1, Federal Highway Administration, 1200 New Jersey Avenue, SE, Washington, DC 20590.~~

Support:

- 04 Communications regarding other MUTCD matters that are not related to official requests will receive quicker attention if they are submitted electronically to the MUTCD Team Leader or to the appropriate individual MUTCD technical lead team member. Their e-mail addresses are available through the links contained on the “MUTCD Team” page on the MUTCD Web site at <http://mutcd.fhwa.dot.gov/team.htm>.

- 05 For additional information concerning interpretations, experimentation, changes, or interim approvals, visit the MUTCD Web site at <http://mutcd.fhwa.dot.gov>.

CHAPTER 1C. DEFINITIONS, ACRONYMS, AND ABBREVIATIONS USED IN THIS MANUAL

Section 1C.02 Definitions of Words and Phrases Used in this Manual

Standard:

- 01 Unless otherwise defined in this Section, or in other Parts of this Manual, words or phrases shall have the meaning(s) as defined in the “Uniform Vehicle Code,” “AASHTO Transportation Glossary (Highway Definitions),” or other appropriate publications.
- 02 Where a term that is defined in this Section or elsewhere in this Manual has a different definition in another resource or in common use, the definition herein shall govern for purposes of the applicability of the provisions of this Manual.
- 03 The following words and phrases, when used in this Manual, shall have the following meanings:

[\[Note: Definitions 1 through 112 are unmodified by this ATMS.\]](#)

113. Intersection—intersection is defined as follows:

- (a) The area embraced within the prolongation or connection of the lateral curb lines, or if none, the lateral boundary lines of the roadways of two highways that join one another at, or approximately at, right angles, or the area within which vehicles traveling on different highways that join at any other angle might come into conflict.
- (b) The junction of ~~an alley~~-driveway, or site roadway with a public roadway or highway shall not constitute an intersection, unless the public roadway or highway at said junction is controlled by a traffic control device. [The junction of an alley with a street or highway is not an intersection by Alaska Administrative Code \(13 AAC 40.010\).](#)
- (c) If a highway includes two roadways separated by a median, then every crossing of each roadway of such divided highway by an intersecting highway shall be a separate intersection if the opposing left-turn paths cross and there is sufficient interior storage for the design vehicle (see Figure 2A-5).
- (d) At a location controlled by a traffic control signal, regardless of the distance between the separate intersections as defined in (c) above:
 - (1) If a stop line, yield line, or crosswalk has not been designated on the roadway (within the median) between the separate intersections, the two intersections and the roadway (median) between them shall be considered as one intersection;
 - (2) Where a stop line, yield line, or crosswalk is designated on the roadway on the intersection approach, the area within the crosswalk and/or beyond the designated stop line or yield line shall be part of the intersection; and
 - (3) Where a crosswalk is designated on a roadway on the departure from the intersection, intersection shall include the area extending to the far side of such crosswalk.
- (e) [On state highways, the Regional Traffic and Safety Engineer \(RTSE\) shall determine if locations not defined in a-d above are intersections using engineering judgement.](#)

[\[Note: Definitions 114 through 129 are unmodified by this ATMS.\]](#)

- 130. Low-Volume Rural Road—**A category of paved or unpaved conventional or special-purpose roadways having an AADT of less than 400 vehicles and lying outside of built-

up or urbanized areas of cities, towns, and communities. A low-volume rural road shall not be on the Numbered Routes Table 2D-100 on the highway system or a residential street in a neighborhood. For the purposes of highway classification, low-volume rural roads typically include agricultural; recreational; resource management and development such as mining, logging, and grazing; and local roads in rural areas. This definition is not the same as low volume per AASHTO Geometric Design for Low Volume Roads (2019).

[Note: Definitions 131 through 209 are unmodified by this ATMS.]

- 210. School**—a public or private educational institution ~~recognized by the state education authority~~ for one or more grades K through 12 or as otherwise defined by the State. For consideration of traffic control devices in Alaska, “school” includes public, charter, private, and religious schools. Schools are further defined as physical structures where professional and/or certificated teachers provide regular courses and classwork to students. Daycare facilities, preschools, home schools, learning centers, and other similar facilities and commercial entities are not considered schools for the purpose of traffic control devices. Schools located in commercial buildings such as malls or office structures are not considered standalone schools for the purpose of traffic control devices.

[Note: Definitions 211 through 276 are unmodified by this ATMS.]

- 277. Traveled Way**—the portion of the roadway for the movement of vehicles, exclusive of the shoulders, berms, sidewalks, and parking lanes. On two-lane gravel roads or paved roads without striping, the traveled way is considered the 24-foot area centered between hinge points. If the distance between hinge points is 24 feet or less, the traveled way shall be considered 20 feet wide in placement of traffic control devices.

[Note: Definitions 296 through 499 are reserved for future MUTCD definitions.]

- 500. All-purpose vehicle (APV)**—any self-propelled vehicle that is designed to travel on wheels or tracks in contact with the ground and is commonly used to transport persons for recreational purposes, including vehicles such as four-wheel drive units, all-terrain vehicles or utility terrain vehicles, and does not include off-highway vehicles.
- 501. Alaska Sign Design Specifications**—the “Alaska Sign Design Specifications (ASDS)” contains drawings showing dimensions, shapes, colors, and other information necessary for laying out the signs that are used in Alaska. The ASDS consists of the “Standard Highway Signs and Markings” book (FHWA) and the “Alaska Sign Design Specifications Supplement.”
- 502. Alaska Traffic Manual**—the Alaska Traffic Manual (ATM) consists of the Manual on Uniform Traffic Control Devices (MUTCD) 11th Edition, dated December 2023, and this Alaska Traffic Manual Supplement (ATMS).
- 503. City Traffic Engineer**—an employee of a local government agency with road jurisdiction who is responsible for traffic control devices.
- 504. High Speed**—roads with a posted speed limit of 45 mph or higher.
- 505. Hinge Point**—the angle point where the top surface of a road intersects a foreslope, typically at the outside edge of the shoulder.

- 506. Long Combination Vehicle (LCV)—a combination of a power vehicle and cargo-carrying vehicles that exceed the length as specified in 17 AAC 25.012(c). 17 AAC 25.014 further defines length allowances of LCVs on certain Routes in Alaska.
- 507. Low Speed—roads with a posted speed limit less than 45 mph.
- 508. Observed Speed—speed determined by a speed study using the 85th percentile.
- 509. School Area—the neighborhood and spaces surrounding and including a school and its grounds, including the road and non-road portions of the space. A school area may or may not include a designated school zone.
- 510. School District—for public and charter schools, school district refers to the elected advisory school board and responsible organization and persons that administer school functions in the community including student transportation and safety. For private and religious schools, school district refers to the authorized and responsible organization and persons that administer school functions, including student transportation and safety.
- 511. State Highways—all public vehicular ways designated as state highways in accordance with Title 19 of the Alaska Statute (AS).
- 512. State-Maintained Roads—the roads maintained by state forces or maintained by others at state expense.

Section 1C.03 Meanings of Acronyms and Abbreviations Used in the Manual

Standard:

- 01 **The following acronyms and abbreviations, when used in this Manual, shall have the following meanings:**

[Note: Acronyms and Abbreviations 1 through 62 are unmodified by this ATMS, and 63 to 99 are reserved for future MUTCD acronyms and abbreviations.]

- 100. AAC—Alaska Administrative Code
- 101. AAWFs—Active Advance Warning Flashers
- 102. APV—all-purpose vehicle
- 103. AS—Alaska Statute
- 104. ASDS—Alaska Sign Design Specifications
- 105. ATM—Alaska Traffic Manual
- 106. ATMS —Alaska Traffic Manual Supplement
- 107. DF&G—State of Alaska’s Department of Fish and Game
- 108. DOT&PF—State of Alaska’s Department of Transportation and Public Facilities
- 109. GET—guardrail end terminal
- 110. GMU—Game Management Units
- 111. LCV—long combination vehicle
- 112. MOA—Municipality of Anchorage
- 113. MVC—Moose-Vehicle Crashes
- 114. RTSE—Regional Traffic and Safety Engineer (RTSE)
- 115. STSE—State Traffic and Safety Engineer (STSE)
- 116. TODS—Tourist-Oriented Directional signs

CHAPTER 1D. PROVISIONS APPLICABLE TO TRAFFIC CONTROL DEVICES IN GENERAL

Section 1D.01 Purpose and Principles of Traffic Control Devices

Support:

- 01 The purpose of traffic control devices, as well as the principles for their use, is to promote highway safety, inclusion and mobility of all road users, and efficiency by providing for the orderly movement of road users on streets, highways, bikeways, and site roadways open to public travel throughout the Nation. Section 1A.03 contains additional information on target road users.
- 02 This Manual contains the basic principles that govern the design and use of traffic control devices for all streets, highways, bikeways, and site roadways open to public travel (see definition in Section 1C.02) regardless of type or class or the public agency, official, or owner having jurisdiction. The text of this Manual specifies the restriction on the use of a device if it is intended for limited application or for a specific system. It is important that these principles be given primary consideration in the selection and application of each device.

Guidance:

- 03 *To be effective, a traffic control device should:*
- A. *Fulfill a need;*
 - B. *Command attention;*
 - C. *Convey a clear, simple meaning;*
 - D. *Command respect from road users; and*
 - E. *Give adequate time for proper response.*
- 04 *Design, placement, operation, maintenance, and uniformity are aspects that should be carefully considered in order to maximize the ability of a traffic control device to be consistent with the five principles listed in Paragraph 3 of this Section. Vehicle speed and road-user types should be carefully considered as an element that governs the design, operation, placement, and location of various traffic control devices.*
- 05 *The proper use of traffic control devices should provide the road user with the information necessary to safely, efficiently, and lawfully use the streets, highways, pedestrian facilities, and bikeways.*
- 05A *In the case of low-volume rural roads, it is possible, in many cases, to provide essential information to road users on low-volume rural roads with a limited number of traffic control devices. Using engineering judgement, the focus should be on devices that:*
- A. *Warn of conditions not normally encountered.*
 - B. *Prohibit unsafe movements, or*
 - C. *Provide minimal destination guidance.*

Section 1D.03 contains information regarding the assistance that is available to jurisdictions that do not have engineers on their staff who are trained and/or experienced in traffic control devices.

Standard:

- 06 **Traffic control devices used on site roadways open to public travel shall have the same shape, color, and meaning as those required by the MUTCD for use on public highways, except as provided otherwise elsewhere in this Manual. Sign size exceptions are noted in each Part as applicable.**

Section 1D.02 Responsibility and Authority for Traffic Control Devices

Standard:

- 01 The responsibility for the design, placement, operation, maintenance, and uniformity of traffic control devices in compliance with the provisions of this Manual shall rest with the public agency or the official having jurisdiction, or, in the case of site roadways open to public travel, with the private owner or private official having jurisdiction.
- 02 All regulatory traffic control devices shall be supported by laws, ordinances, or regulations.

State Highways

- 02A Responsibility for traffic control devices on state highways in Alaska shall rest with the state and all its political subdivisions that have jurisdiction over highways per Alaska Statute (AS) 19.10.040 and AS 19.10.050.
- 02B DOT&PF shall classify, designate, and mark highways under its jurisdiction and shall provide a uniform system of marking and posting these highways. The system of marking and posting shall correlate with and shall, as far as possible, conform to the recommendations of the MUTCD.
- 02C DOT&PF shall prescribe types of traffic control signals to regulate traffic on highways. These signals must correlate with and, as far as possible, conform to the recommendations of the MUTCD. DOT&PF shall adopt uniform regulations for the placing and installation of traffic control signals.
- 02D The required uniform system of marking and posting is defined in the ATM.
- 02E DOT&PF determines the need for all traffic control devices on state-maintained roads, prepares designs, maintains records, and supervises their installation. These activities may be done by contract with others or by state forces. Traffic control devices that are not in conformance with this standard or that require specific approval for their installation shall not be installed without the approval of the STSE.
- 02F As additional specific powers, DOT&PF “may conduct investigations with the assistance of Department of Public Safety and shall determine safe speed limits and safe speed zones on highways and other roadways under its jurisdiction” (AS 19.10.070) and may designate through highways by erecting stop signs on side road approaches (AS 19.10.080). DOT&PF is authorized to make policy for installing, maintaining, and performing all related functions pertaining to traffic control devices on state highways.

Other Highways

- 02G AS 28.01.010, the Alaska Uniform Traffic Laws Act, states, in part, that a municipality shall “erect necessary official traffic control devices on streets and highways within its jurisdiction that as far as practicable conform to the current edition of the Alaska Traffic Manual prepared by the Department of Transportation and Public Facilities.”
- 03 Traffic control devices, public announcements or notices, and other signs or messages within the highway right-of-way shall be placed only as authorized by a public authority or the official having jurisdiction, or, in the case of site roadways or private toll roads open to public travel, by the private owner or private official having jurisdiction, for the purpose of regulating, warning, or guiding traffic.
- 04 When the public agency or the official having jurisdiction over a street or highway or, in the case of site roadways open to public travel, the private owner or private official having jurisdiction, has granted proper authority, others such as contractors and public utility

companies shall be allowed to install temporary traffic control devices in temporary traffic control zones. Such traffic control devices shall comply with the provisions of this Manual.

05 Signs and other devices that do not have any traffic control purpose that are placed within the highway right-of-way shall not be located where they will interfere with, or detract from, traffic control devices.

Support:

06 States are encouraged to adopt, through policy or legislation, the provisions of 23 CFR 750.108 that restrict outdoor advertising from resembling traffic control devices.

06A [State of Alaska has legislation that restricts outdoor advertising under AS 19.25.105. Limitations of outdoor advertising include signs, displays, and devices.](#)

Section 1D.05 Color Code

Support:

01 The following color code establishes general meanings for 11 colors of a total of 13 colors that have been identified as being appropriate for use in conveying traffic control information.

Standard:

02 The general meaning of the 13 colors shall be as follows:

A. **Black**—regulation

B. **Blue**—road-user services guidance, tourist information, and evacuation route

C. **Brown**—recreational and cultural interest area guidance

D. **Coral**—reserved for future designation (see Paragraph 4 of this Section)

E. **Fluorescent Pink**—incident management

F. **Fluorescent Yellow-Green**—~~pedestrian warning, bicycle warning, playground warning, school bus warning,~~ and school warning

G. **Green**—indicated movements or actions permitted and direction guidance

H. **Light Blue**—reserved for future designation (see Paragraph 4 of this Section)

I. **Orange**—temporary traffic control

J. **Purple**—restricted to use only by vehicles with registered electronic toll collection (ETC) accounts

K. **Red**—stop or prohibition

L. **White**—regulation

M. **Yellow**—warning, [pedestrian warning, bicycle warning, and playground warning](#)

03 These colors shall be used only as prescribed for the specific devices or applications throughout this Manual.

Support:

04 The two colors for which general meanings have not yet been assigned are being reserved for future applications that will be determined only by the FHWA after consultation with the States, the engineering community, and the general public. The meanings described in this Section are of a general nature. More specific assignments of colors are given in the individual Parts of this Manual relating to each class of devices.

05 Tolerance limits for each color are contained in 23 CFR Part 655, Appendix to Subpart F and are available at the Federal Highway Administration's MUTCD Web site at <http://mutcd.fhwa.dot.gov>.

Part 2 | Signs

CHAPTER 2A. GENERAL

Section 2A.01 Function and Purpose of Signs

Support:

- 01 This Manual contains Standards, Guidance, and Options for the signing of all types of highways, and site roadways open to public travel. The functions of signs are to provide regulations, warnings, and guidance information for road users. Words, symbols, and arrows are used to convey the messages. Signs are not typically used to confirm rules of the road (See Paragraph 4 of this section).

Section 2A.04 Design of Signs

Support:

- 01 This Manual shows many standard signs and object markers approved for use on streets, highways, bikeways, and pedestrian crossings. Standard signs and object markers have a standardized design, shape, background, and legend as shown in this Manual.
- 02 In the provisions for individual standard signs and object markers, the general appearance of the legend, color, and size are shown in the accompanying tables and illustrations, and are not always detailed in the text.
- 03 Detailed drawings of standard signs, object markers, alphabets, symbols, and arrows (see Figure 2D-3) are shown in the [“Standard Highway Signs and Markings”](#) book [“Alaska Sign Design Specifications.”](#) [Section 1A.05 contains information regarding how to obtain this publication.](#)
- 04 The basic requirements of a sign are that it be legible to those for whom it is intended and that it be understandable in time to allow for a proper response. Desirable attributes include:
- A. High visibility by day and night; and
 - B. High legibility (adequately-sized letters, symbols, or arrows, and a short legend for quick comprehension by a road user approaching a sign).
- 05 Standardized colors and shapes are specified so that the several classes of traffic signs can be promptly recognized. Simplicity and uniformity in design, position, and application are essential for a sign to be effective.

Section 2A.06 Colors

[\[Revise Table 2A-2 of the MUTCD to add “6” next to the Xs under Fluorescent Yellow-Green for pedestrian and bicycle warning signs. Add the following note: 6 The fluorescent yellow-green background color may only be applied to pedestrian and bicycle signs that are used within school areas \(see Section 1D.05\).\]](#)

Section 2A.07 Dimensions

Support:

- 01 The “Standard Highway Signs” publication (see Section 1A.05) prescribes design details for different sizes of each sign or plaque depending on the type of traffic facility, including bikeways.

Smaller sizes are designed to be used on bikeways and some other off-road applications. Larger sizes are designed for use on freeways and expressways, and can also be used in oversized applications to enhance road user safety and convenience on other facilities, especially on multi-lane divided highways and on undivided highways having five or more lanes of traffic and/or high speeds. The intermediate sizes are designed to be used on other highway types. Minimum sizes of signs and plaques for specific applications are prescribed in the various sign size tables in each Chapter of this Manual.

Standard:

- 02 **The sign dimensions prescribed in the sign size tables in the various Parts and Chapters in this Manual and in the “Standard Highway Signs” publication (see Section 1A.05) shall be used unless engineering judgment determines that other sizes are appropriate in accordance with the following. Except as provided in Paragraph 3 of this Section, where engineering judgment determines that sizes smaller than the prescribed dimensions are appropriate for use, the sign dimensions shall not be less than the minimum dimensions specified in this Manual. The sizes shown in the Minimum columns that are smaller than the sizes shown in the Conventional Road columns in the various sign size tables in this Manual shall only be used on low-speed roadways, alleys, site roadways open to public travel, and on low-volume rural roads with operating speeds of 30 mph or less; and only where the reduced legend size would be adequate for the regulation or warning or where physical conditions preclude the use of larger sizes.**

- 02A **Conventional Roads include Single Lane and Multi-Lane roads as shown as a column in various Part 2 tables. The Single Lane includes single lane roads with posted speeds less than 55 mph, and the Multi-Lane includes single lane roads with posted speeds of 55 mph and greater.**

Option:

- 03 For alleys with restrictive physical conditions and vehicle use that limits installation of the Minimum size sign (or the Conventional Road size sign if no Minimum size is shown), both the sign height and the sign width may be decreased by up to 6 inches.

Guidance:

- 04 *The sizes shown in the Freeway and Expressway columns in the various sign size tables in this Manual should also be used for other higher-speed applications on conventional roads, based upon engineering judgment, to provide larger signs for increased visibility and recognition.*
- 05 *The sizes shown in the Oversized columns in the various sign size tables in this Manual should be used for those special applications where speed, volume, or other factors result in conditions where increased emphasis, improved recognition, or increased legibility is needed, as determined by engineering judgment or study.*
- 06 *Except as provided in Paragraph 7 of this Section, and where specifically prohibited in this Manual, increases above the minimum prescribed sizes should be used where greater legibility or emphasis is needed. If signs larger than the prescribed sizes are used, the overall sign dimensions should be increased in 6-inch increments.*

Standard:

- 07 **Where a maximum allowable sign size is prescribed, increases in sign size above the maximum size shall not be allowed.**
- 08 **Where engineering judgment determines that sizes that are different from the minimum prescribed dimensions are appropriate for use, standard shapes and colors shall be used. Standard proportions shall be retained as much as practicable.**

Guidance:

- 09 *Except where specifically prohibited in this Manual, when supplemental plaques are installed with larger- sized signs, a corresponding increase in the size of the plaque and its legend should also be made. The resulting plaque size should be approximately in the same relative proportion to the larger-sized sign as the conventional-sized plaque is to the conventional-sized sign.*

Section 2A.13 Standardization of Location*Guidance:*

- 13 *Because regulatory and warning information is typically more critical to the road user than guidance information, regulatory and warning signing whose locations are critical should be displayed rather than guide signing in cases where conflicts occur. In such cases, the guide sign should be relocated to another appropriate location where it will still be effective. In other cases, such as at a decision point, the guide sign should take precedence over other signs whose locations are not as critical to an immediate decision or action necessary by the road user. In all cases, careful attention should be given to minimizing sign clutter (see Section 2A.20). Community wayfinding and acknowledgment guide signs should have a lower priority as to placement than other guide signs. Signs conveying information of a less-critical nature should be moved to less-critical locations or omitted.*

Support:

- 13A [See Section 2A.100 for order of priority for sign installation.](#)

Section 2A.15 Mounting Height**Standard:**

- 15 **Signs that are post-mounted on a median barrier that overhang any portion of the traveled way shall be mounted with a vertical clearance that complies with that of overhead signs.**
- 16 **Overhead signs, not including signs on traffic signal mast arms, shall provide a vertical clearance of not less than ~~17~~18.5 feet to the sign, light fixture, or sign bridge over the entire width of the pavement and shoulders, except where the structure on which the overhead signs are to be mounted or other structures along the roadway near the sign structure have a lesser vertical clearance. Where clearance is restricted to less than 18.5 feet by the structure a sign is mounted on, the sign shall be mounted as low as is practical without further restricting clearance. Signs mounted on traffic signal mast arms shall provide a vertical clearance of not less than 17.5 feet.**

Option:

- 17 If the vertical clearance of other structures along the roadway near the sign structure is less than 16 feet, the vertical clearance to an overhead sign structure or support may be as low as 1 foot higher than the vertical clearance of the other structures in order to improve the visibility of the overhead signs.
- 18 In special cases the clearance to overhead signs may be reduced if necessary because of substandard dimensions in tunnels and other major structures such as double-deck bridges.

Guidance:

- 19 *While a maximum mounting height for signs is generally not prescribed in this Manual, agencies should ensure that signs are not mounted at such a height as to be out of the road user's normal field of vision (see Paragraph 3 of Section 1D.09), especially in urban settings where signs are mounted on traffic signal or light poles.*

Support:

- 20 Figure 2A-2 illustrates some examples of the mounting height requirements contained in this Section.

[\[Revise Figure 2A-2\(H\) to show 17.5 feet minimum for signal mast arms and 18.5 feet minimum for other overhead signs.\]](#)

Section 2A.17 Orientation

Guidance:

- 01 *Unless otherwise provided in this Manual, signs should be vertically mounted at [approximately right angles to the direction of, and facing, the traffic that they are intended to serve.](#)*
- 02 *Where mirror reflection from the sign face is encountered to such a degree as to reduce legibility, the sign should be turned slightly away from the road. Signs that are placed 30 feet or more from the pavement edge should be turned toward the road. On curved alignments, the angle of placement should be determined by the direction of approaching traffic rather than by the roadway edge at the point where the sign is located.*
- 02A [The face of all overhead signs should be tilted at least 3 degrees downward to reduce the amount of dirt, dust, snow, and bird droppings that would otherwise build up on the face of a sign.](#)

Option:

- 03 On grades, sign faces may be tilted forward or back from the vertical position to improve the viewing angle.

[\[The following is a new section. There is no corresponding section in the MUTCD.\]](#)

Section 2A.100 Directional and Service Signing

Support:

- 01 [Table 2A-101 provides a quick reference summary of the signs used in Alaska to direct travelers to roads, destinations, and services.](#)

Standard:

- 02 [When signs compete for roadside space, permanent signs shall be placed according to the priority shown in Table 2A-101.](#)

Support:

- 03 [Table 2A-101 prioritizes signs for placement.](#)
- 04 [Only permanent signs have been prioritized. Refer to Chapters 6F through 6M for placement of temporary traffic control devices.](#)
- 05 [Reference the AAC for information about all signs that have an AAC reference listed under the “Regulation” column. Regulation information is not duplicated in this publication.](#)

Table 2A-101. Summary of Directional/Service Signs

Sign Type	Sign No(s) from ASDS	Purpose	Priority	Applicable References		Allowed on Expwy or Fwy?	Permit Available?	Remarks
				Regulation	ATM			
Guide, Conventional Roads	D1 to D17 (excluding signs below) and M1 to M11	Direction to roads and destinations	4	n/a	2D	No	No	
Guide, Freeway & Expressway	E1 to E13	Direction to roads and destinations	4	n/a	2E	Yes	No	
General Service	D9-1 to D9-400	Direction to generic services	5	n/a	2I	Expy OK Fwy No	No	
General Information	I1-1 to I-12 I101 to I-231	Identification of roadside points of Interest	6	n/a	2H	Yes	No	
RCIA	D7-1 to D7-105 and RA - RW Series	Direction to recreational or cultural points of interest	7	17 AAC 60.201 to .215	2M	Yes	Yes	See regulation for permit requirements
Community Service	D9-204 and D9-206	Direction to communities and identification of services	8	n/a	2D.100	Yes	No	May be installed where TODS, RCIA, or LOGO signs are too numerous
Specific Service – LOGO	LG-Series	Direction to services identified by business symbol or name	9	17 AAC 60.101 to .120	n/a	Yes	Yes	See regulation for permit requirements
Tourist- Oriented Directional Signs (TODS)	D9-205	Direction to businesses identified by business name	10	17 AAC 60.001 to .020	2K	No	Yes	See regulation for permit requirements
Community Wayfinding	n/a	Direction to civic, cultural, visitor, and recreational attractions	11	n/a	2D.55	No	Yes	
Traveler Information Kiosks (not traffic control devices)	n/a	Direction to community services (signs not visible from road)	n/a	17 AAC 60.401 to .420	n/a	In turnouts only	Yes	See regulations. May be installed where TODS, RCIA, or LOGO signs are too numerous.

* Priorities shown in the table begin with Priority #4 because regulatory, warning, and school signs (not shown in the table) have the top three priorities, not necessarily in that order. Sign precedence for regulatory, warning, and school signs shall be determined based on the specifics of each case.

CHAPTER 2B. REGULATORY SIGNS, BARRICADES, AND GATES

Section 2B.03 Size of Regulatory Signs

Standard:

- 01 Except as provided in Section 2A.07, the minimum sizes for regulatory signs shall be as shown in Table 2B-1.

01A Multi-lane roads included single lane roads with posted speed limits 55 mph or greater.

Support:

- 02 Section 2A.07 contains information regarding the applicability of the various columns in Table 2B-1.

Standard:

- 03 Except as provided in Paragraphs 5 and 6 of this Section, the minimum sizes for regulatory signs facing traffic on multi-lane conventional roads shall be as shown in the Multi-Lane column of Table 2B-1.

- 04 The minimum size of regulatory signs applied on low-volume rural roads with operating speeds of 30 mph or less shall be as shown in the Minimum column of Table 2B-1.

Option:

- 05 Where the posted speed limit is 35 mph or less on a multi-lane highway or street, other than for a STOP sign, the minimum size shown in the Single Lane column in Table 2B-1 may be used.

- 06 Where a regulatory sign, other than a STOP sign, is placed on the left-hand side of a multi-lane roadway in addition to the installation of the same regulatory sign on the right-hand side or the roadway, the minimum size shown in the Single Lane column in Table 2B-1 may be used for both the sign on the right-hand side and the sign on the left-hand side of the roadway.

Guidance:

- 07 *The minimum sizes for regulatory signs facing traffic on exit and entrance ramps [at major interchanges connecting an Expressway or Freeway with an Expressway or Freeway \(see Section 2E.11A \(a\)\)](#) should be as shown in the column of Table 2B-1 that corresponds to the mainline roadway classification (Expressway or Freeway). If a minimum size is not provided in the Freeway column, the minimum size in the Expressway column should be used. If a minimum size is not provided in the Freeway or Expressway Column, the size in the Oversized column should be used.*

- 08 *The minimum sizes for all regulatory signs facing traffic on exit and entrance ramps at all other classifications of interchanges (see Section 2E.11A(b) B and C) should be the sizes shown in Table 2B-1 in the Conventional Road Single Lane column for single-lane ramps and in the Multi-Lane column for multi-lane ramps.*

[Revise Table 2B-1 (Sheet 1 of 6) and (Sheet 5 of 6) of the MUTCD as shown in this ATMS.]

[Add Note 3 to Table 2B-1 (Sheet 1 of 6) through (Sheet 6 of 6) of the MUTCD]

Note 3: Conventional Road Column

The multi-lane conventional roads also includes single lane roads with posted speeds of 55 mph or greater

Table 2B-1. Regulatory Sign and Plaque Sizes (Sheet 1 of 6)

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
Stop	R1-1	2B.04	30 x 30	36 x 36	36 x 36	—	30 x 30*	48 x 48
Yield	R1-2	2B.05	36 x 36 x 36	48 x 48 x 48	48 x 48 x 48	60 x 60 x 60	30 x 30 x 30*	—
To Oncoming Traffic (plaque)	R1-2aP	2B.18	24 x 18	24 x 18	36 x 30	48 x 36	24 x 18	—
To Traffic in Circle (plaque)	R1-2bP	2B.18	24 x 15	24 x 15	—	—	24 x 15	36 x 24
To All Lanes (plaque)	R1-2cP	2B.18	24 x 15	24 x 15	—	—	24 x 15	36 x 24
All Way (plaque)	R1-3P	2B.04	18 x 6	18 x 6	—	—	—	30 x 12
Yield Here to Pedestrians	R1-5	2B.19	—	36 x 36	—	—	—	36 x 36
Stop Here for Pedestrians	R1-5b	2B.19	—	36 x 36	—	—	—	36 x 36
Yield Here to (Stop Here for) Trail Crossing	R1-5d, 5e	2B.19	—	36 x 42	—	—	—	—
In-Street Pedestrian Crossing - Yield (Stop)	R1-6, 6a	2B.20	12 x 36	12 x 36	—	—	—	—
In-Street Trail Crossing - Yield (Stop)	R1-6d, 6e	2B.20	12 x 36	12 x 36	—	—	—	—
Overhead Pedestrian Crossing - Yield (Stop)	R1-9, 9a	2B.20	90 x 24	90 x 24	—	—	—	—
Overhead Trail Crossing	R1-9d, 9e	2B.20	72 x 24	72 x 24	—	—	—	—
Except Right Turn (plaque)	R1-10P	2B.04	24 x 18	24 x 18	—	—	—	—
Speed Limit	R2-1	2B.21	24 x 30	30 x 36	36 x 48	48 x 60	18 x 24	30 x 36
Truck Speed Limit (plaque)	R2-2P	2B.22	24 x 24	24 x 24	36 x 36	48 x 48	—	36 x 36
Bus Speed Limit (plaque)	R2-2aP	2B.22	24 x 24	24 x 24	36 x 36	48 x 48	—	36 x 36
Truck-Bus Speed Limit (plaque)	R2-2bP	2B.22	24 x 30	24 x 30	36 x 42	48 x 54	—	36 x 42
Vehicles Over X Tons Speed Limit (plaque)	R2-2cP	2B.22	24 x 30	24 x 30	36 x 42	48 x 54	—	36 x 42
Night Speed Limit (plaque)	R2-3P	2B.23	24 x 24	24 x 24	36 x 36	48 x 48	—	36 x 36
Minimum Speed Limit (plaque)	R2-4P	2B.24	24 x 24	24 x 24	36 x 36	48 x 48	—	36 x 36
Combined Maximum and Minimum Speed Limits	R2-4a	2B.24	24 x 48	24 x 48	36 x 72	48 x 96	—	36 x 72
Unless Otherwise Posted (plaque)	R2-5P	2B.21	24 x 18	24 x 18	36 x 24	36 x 24	—	36 x 24

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
Citywide (plaque)	R2-5aP	2B.21	24 x 6	24 x 6	—	—	—	30 x 9
Neighborhood (plaque)	R2-5bP	2B.21	24 x 6	24 x 6	—	—	—	30 x 9
Residential (plaque)	R2-5cP	2B.21	24 x 6	24 x 6	—	—	—	30 x 9
Fines Higher (plaque)	R2-6P	2B.25	24 x 18	24 x 18	36 x 24	48 x 36	—	36 x 24
Fines Double (plaque)	R2-6aP	2B.25	24 x 18	24 x 18	36 x 24	48 x 36	—	36 x 24
\$XX Fine (plaque)	R2-6bP	2B.25	24 x 18	24 x 18	36 x 24	48 x 36	—	36 x 24
Begin Higher Fines Zone	R2-10	2B.25	24 x 30	24 x 30	36 x 48	48 x 60	—	36 x 48
End Higher Fines Zone	R2-11	2B.25	24 x 30	24 x 30	36 x 48	48 x 60	—	36 x 48
End Variable Speed Limit	R2-13	2B.21	24 x 30	24 x 30	36 x 48	48 x 60	—	36 x 48
End Truck Speed Limit	R2-14	2B.21	24 x 30	24 x 30	36 x 48	48 x 60	—	36 x 48
Movement Prohibition	R3-1,2,3,4,18,27	2B.26	24 x 24	36 x 36	36 x 36	—	—	48 x 48
Movement Prohibition - Trucks	R3-1b	2B.26	24 x 36	24 x 36	36 x 54	36 x 54	—	—
Movement Prohibition - Trucks Buses	R3-1c	2B.26	24 x 42	24 x 42	36 x 60	36 x 60	—	—
Movement Prohibition - Trucks Over X Tons	R3-1d	2B.26	24 x 48	24 x 48	36 x 66	36 x 66	—	—
Movement Prohibition - Except Buses	R3-1e	2B.26	24 x 36	24 x 36	36 x 54	36 x 54	—	—
Movement Prohibition - Except Buses Taxis	R3-1f	2B.26	24 x 42	24 x 42	36 x 66	36 x 66	—	—
Movement Prohibition - Time and Day	R3-1g	2B.26	24 x 36	24 x 36	36 x 54	36 x 54	—	—

[Note 3: Conventional Road Column](#)

The multi-lane conventional roads also include single lane roads with posted speeds of 55 mph or greater

Table 2B-1. Regulatory Sign and Plaque Sizes (Sheet 5 of 6)

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
Use Crosswalk (plaque)	R9-3bP	2B.57	18 x 12	18 x 12	—	—	—	—
No Hitchhiking (symbol)	R9-4	2B.56	18 x 18	18 x 18	—	—	—	24 x 24
No Hitchhiking	R9-4a	2B.56	18 x 24	18 x 24	—	—	12 x 18	—
No Skaters	R9-13	2B.45	18 x 18	18 x 18	24 x 24	30 x 30	—	30 x 30
No Equestrians	R9-14	2B.45	18 x 18	18 x 18	24 x 24	30 x 30	—	30 x 30
No Snowmobiles	R9-15	2B.45	18 x 18	18 x 18	24 x 24	30 x 30	—	30 x 30
No All-Terrain Vehicles	R9-16	2B.45	18 x 18	18 x 18	24 x 24	30 x 30	—	30 x 30
Except on Shoulder (plaque)	R9-19P	2B.45	18 x 12	18 x 12	24 x 18	30 x 24	—	30 x 24
Cross Only On Green	R10-1	2B.58	12 x 18	12 x 18	—	—	—	—
Pedestrian Signs	R10-2,3,3b,3c,3d,4	2B.58	9 x 12	9 x 12	—	—	—	—
Pedestrian Signs	R10-3a,3e,3f,3g,3h,3i,4a	2B.58	9 x 15	9 x 15	—	—	—	—
Left on Green Arrow Only	R10-5	2B.59	30 x 36	30 x 36	30 x 36	—	24 x 30	48 x 60
Stop Here on Red	R10-6	2B.59	24 x 36	24 x 36	—	—	—	36 x 48
Stop Here on Red	R10-6a	2B.59	24 x 30	24 x 30	—	—	—	36 x 42
Do Not Block Intersection	R10-7	2B.59	24 x 30	24 x 30	—	—	—	—
Use Lane with Green Arrow	R10-8	2B.59	30 x 36	30 x 36	36 x 42	—	—	60 x 72
Left (Right) Turn Signal	R10-10	2B.59	24 x 30	24 x 30	—	—	—	30 x 36
U- Turn Signal	R10-10a	2B.59	24 x 30	24 x 30	—	—	—	30 x 36
No Turn on Red	R10-11	2B.60	24 x 30	24 x 30	—	—	—	36 x 48
No Turn on Circular Red	R10-11a	2B.60	24 x 30	24 x 30	—	—	—	36 x 48
No Turn on Red	R10-11b	2B.60	24 x 24	24 x 24	—	—	—	36 x 36
No Turn on Red Except From Right Lane	R10-11c	2B.60	30 x 36	30 x 36	—	—	—	—
No Turn on Red From This Lane	R10-11d	2B.60	30 x 42	30 x 42	—	—	—	—
Left Turn Yield on Green	R10-12	2B.59	30 x 36	30 x 36	—	—	—	—
Left Turn Yield on Flashing Yellow Arrow	R10-12a	2B.59	30 x 36	30 x 36	—	—	—	—
Left Turn Yield to Bicycle	R10-12b	2B.59	30 x 36	30 x 36	—	—	—	—
Emergency Signal	R10-13	2B.59	36 x 24	36 x 24	—	—	—	42 x 30
Emergency Signal - Stop on Flashing Red	R10-14	2B.59	36 x 42	36 x 42	—	—	—	—
Emergency Signal - Stop on Flashing Red (overhead)	R10-14a	2B.59	60 x 24	60 x 24	—	—	—	—
Stop Here on Flashing Red	R10-14b	2B.59	24 x 36	24 x 36	—	—	—	36 x 48
Turning Vehicles Yield to Pedestrians	R10-15	2B.59	30 x 30	30 x 30	—	—	—	—
Turning Vehicles Stop for Pedestrians	R10-15a	2B.59	30 x 30	30 x 30	—	—	—	—

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
U-Turn Yield to Right Turn	R10-16	2B.59	30 x 36	30 x 36	—	—	—	—
Right on Red Arrow After Stop	R10-17a	2B.60	30 x 36	30 x 36	—	—	—	36 x 48
Traffic Laws Photo Enforced	R10-18	2B.69	36 x 24	36 x 24	48 x 30	54 x 36	—	54 x 36
Traffic Signal Photo Enforced	R10-18a	2B.69	30 x 42	30 x 42	30 x 42	—	—	36 x 54
Photo Enforced (symbol plaque)	R10-19P	2B.69	24 x 12	24 x 12	36 x 18	48 x 24	—	48 x 24
Photo Enforced (plaque)	R10-19aP	2B.69	24 x 18	24 x 18	36 x 24	48 x 36	—	48 x 36
MON—FRI (and times) (3 lines) (plaque)	R10-20aP	2B.60	24 x 24	24 x 24	—	—	—	—
SUNDAY (and times) (2 lines) (plaque)	R10-20aP	2B.60	24 x 18	24 x 18	—	—	—	—
Crosswalk - Stop on Red	R10-23	2B.59	24 x 30	24 x 30	—	—	—	—

[Note 3: Conventional Road Column](#)

[The multi-lane conventional roads also include Single Lane roads with posted speeds 55 mph or greater](#)

Table 2B-1. Regulatory Sign and Plaque Sizes (Sheet 6 of 6)

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
Stop on Red - Yield on Flashing Red After Stop	R10-23a	2B.59	24 x 30	24 x 30	—	—	—	—
Push Button For Warning Lights - Wait for Gap in Traffic	R10-25	2B.58	9 x 12	9 x 12	—	—	—	—
Left Turn Yield on Flashing Red Arrow After Stop	R10-27	2B.59	30 x 36	30 x 36	—	—	—	—
XX Vehicles per Green	R10-28	2B.61	24 x 30	24 x 30	—	—	—	—
XX Vehicles per Green Each Lane	R10-29	2B.61	36 x 24	36 x 24	—	—	—	—
Right Turn on Red Must Yield to U-Turn	R10-30	2B.60	30 x 36	30 x 36	—	—	—	—
At Signal (plaque)	R10-31P	2B.59	24 x 9	24 x 9	—	—	—	—
Push Button for 2 Seconds for Extra Crossing Time	R10-32P	2B.58	9 x 12	9 x 12	—	—	—	—
Keep Off Median	R11-1	2B.62	24 x 30	24 x 30	—	—	—	—
Road Closed	R11-2,2a, 2b,2c	2B.63	48 x 30	48 x 30	—	—	—	—
Road Closed - Local Traffic Only	R11-3,3a, 3b,4	2B.63	60 x 30	60 x 30	—	—	—	—
Weight Limit	R12-1, 2	2B.64	24 x 30	24 x 30	36 x 48	—	—	36 x 48
Weight Limit - Axle, Gross	R12-4	2B.64	36 x 24	36 x 24	—	—	—	—

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
Weight Limit	R12-5	2B.64	24 x 36	24 x 36	36 x 48	48 x 60	—	—
Weight Limit - Specialized Hauling Vehicles	R12-6	2B.64	30 x 42	36 x 48	36 x 48	48 x 60	—	48 x 60
Weight Limit - Emergency Vehicles	R12-7	2B.64	30 x 36	30 x 36	48 x 60	48 x 60	—	48 x 60
Weight Limit - Emergency Vehicles (plaque)	R12-7aP	2B.64	30 x 30	30 x 30	48 x 48	48 x 48	—	48 x 48
Weigh Station	R13-1	2B.65	72 x 54	72 x 54	96 x 72	132 x 90	—	—
Truck Route	R14-1	2B.66	24 x 18	24 x 18	—	—	—	—
Hazardous Material	R14-2,3	2B.67	24 x 24	24 x 24	30 x 30	36 x 36	—	42 x 42
National Network	R14-4,5	2B.68	30 x 30	30 x 30	36 x 36	36 x 36	—	42 x 42
Move Over or Reduce Speed	R16-3	2B.71	—	60 x 48	84 x 60	102 x 72	—	84 x 60
Minor Crashes Move Vehicles from Travel Lanes	R16-4	2B.70	—	60 x 42	84 x 54	96 x 60	—	84 x 54
Lights On When Using Wipers or Raining	R16-5,6	2B.73	24 x 30	24 x 30	36 x 48	48 x 60	—	36 x 48
Turn On Headlights Next XX Miles	R16-7	2B.73	60 x 18	60 x 18	96 x 30	132 x 36	—	96 x 30
Turn On, Check Headlights	R16-8,9	2B.73	42 x 18	42 x 18	60 x 30	78 x 36	—	60 x 30
Begin, End Daytime Headlight Section	R16-10,11	2B.73	60 x 18	60 x 18	96 x 30	120 x 36	—	96 x 30
No Hand-Held Phone Use By Driver	R16-15	2B.72	—	—	72 x 48	72 x 48	—	—
No Hand-Held Phone Use By Driver	R16-15a	2B.72	30 x 42	30 x 42	—	—	—	—

*See Table 9A-1 for minimum sizes required for signs on bicycle facilities

- Notes: 1. Larger signs may be used when appropriate
 2. Dimensions in inches are shown as width x height

[Note 3: Conventional Road Column](#)

[The multi-lane conventional roads also include Single Lane roads with posted speeds 55 mph or greater](#)

Section 2B.19 Yield Here To Pedestrians Signs and Stop Here For Pedestrians Signs (R1-5 Series)

[\[Delete signs R1-5b and R1-5e from Table 2B-1 and Figure 2B-2.\]](#)

Support:

- 01 The R1-5 series signs are intended to mitigate the scenario that can place pedestrians at risk by blocking other drivers' view of pedestrians and by blocking the pedestrians' view of the vehicles approaching in the adjacent lanes.

Standard:

- 02 Yield Here to ~~(Stop Here for)~~ Pedestrians (R1-5, R1-5a, ~~R1-5b~~, R1-5c, and R1-5d, ~~and R1-5e~~) signs (see Figure 2B-2) shall be used if yield ~~(stop)~~ lines are used in advance of a marked crosswalk only where it crosses an uncontrolled multi-lane approach. The Stop Here for Pedestrians signs shall not be used in Alaska. only be used where the law specifically requires that a driver must stop for a pedestrian in a crosswalk. The legend STATE LAW shall not be displayed on the R1-5 series signs.

Guidance:

- 03 If yield ~~(stop)~~ lines and Yield Here to ~~(Stop Here for)~~ Pedestrians signs are used in advance of a crosswalk that crosses an uncontrolled multi-lane approach, the signs should be placed 20 to 50 feet in advance of the nearest edge of the crosswalk (see Section 3B.19 and Figure 3B-16).

Standard:

- 04 When used with a School Crossing assembly within school zones (see Part 7), the R1-5a and R1-5c signs shall be used in place of the R1-5 and R1-5b signs in accordance with Paragraph 2 of this Section.
- 05 When used with a Trail Crossing assembly (see Section 2C.54), the R1-5d and R1-5e signs shall be used in place of the R1-5 and R1-5b signs in accordance with Paragraph 2 of this Section.

Guidance:

- 06 When Yield Here to ~~(Stop Here for)~~ Pedestrians signs are provided in advance of a crosswalk across a multi-lane approach, parking should be prohibited in the area between the yield ~~(stop)~~ line and the crosswalk.
- 07 Yield ~~(stop)~~ lines and Yield Here to ~~(Stop Here for)~~ Pedestrians signs should not be used in advance of crosswalks that cross an approach to or departure from a roundabout.

Option:

- 08 Yield Here to ~~(Stop Here for)~~ Pedestrians signs may be used in accordance with Paragraphs 2 through 4 of this Section even if yield ~~(stop)~~ lines are not used.
- 09 A Pedestrian Crossing (W11-2) warning sign may be placed overhead or may be post-mounted with a diagonal downward-pointing arrow (W16-7P) plaque at the crosswalk location where Yield Here to ~~(Stop Here for)~~ Pedestrians signs have been installed in advance of the crosswalk.

Standard:

- 10 If a W11-2 sign is post-mounted at the crosswalk location where a Yield Here to ~~(Stop Here for)~~ Pedestrians sign is used on the approach, the Yield Here to ~~(Stop Here for)~~ Pedestrians sign shall not be placed on the same post as the W11-2 sign.

Option:

- 11 An advance Pedestrian Crossing (W11-2) warning sign with an AHEAD or a distance supplemental plaque may be used in conjunction with a Yield Here to ~~(Stop Here for)~~ Pedestrians sign on the approach to the same crosswalk.
- 12 In-Street Pedestrian Crossing signs and Yield Here to ~~(Stop Here for)~~ Pedestrians signs may be used together at the same crosswalk.

Section 2B.20 In-Street and Overhead Pedestrian and Trail Crossing Signs (R1-6 and R1-9 Series)

[\[Delete signs R1-6a, R1-6e, R1-9a, and R1-9e from Table 2B-1 and Figure 2B-2.\]](#)

Option:

- 01 The In-Street Pedestrian Crossing (R1-6 ~~or R1-6a~~) sign (see Figure 2B-2), In-Street Trail Crossing (R1-6d or R1-6e) sign (see Figure 2B-2), the Overhead Pedestrian Crossing (R1-9 ~~or R1-9a~~) sign (see Figure 2B-2), or the Overhead Trail Crossing (R1-9d ~~or R1-9e~~) sign (see Figure 2B-2) may be used to remind road users of laws regarding right-of-way at an unsignalized crosswalk. The legend STATE LAW may be displayed at the top of the R1-6 series and R1-9 series signs if applicable. On the R1-6 series signs, the legends ~~s-STOP or~~ YIELD may be used instead of the ~~appropriate STOP sign or~~ YIELD sign symbol.
- 02 Highway agencies may develop and apply criteria for determining the applicability of In-Street Pedestrian Crossing signs.

Standard:

- 03 The STOP FOR legend shall ~~not be used in Alaska. only be used in States where the State law specifically requires that a driver must stop for a pedestrian or a bicyclist in a crosswalk.~~
- 04 If used, In-Street Pedestrian or Trail Crossing signs shall only be placed in the roadway at the crosswalk location on the center line, on a median island, on a lane line, or on an edge line.
- 05 The In-Street Pedestrian or Trail Crossing sign shall not be post-mounted on the left-hand or right-hand side of the roadway.

Support:

- 06 Section 3I.02 contains information about the use of tubular markers to provide additional emphasis for a pedestrian crossing.

Standard:

- 07 If used, the Overhead Pedestrian or Trail Crossing sign shall be placed over the roadway at the crosswalk location.
- 08 When used at an uncontrolled crossing, the In-Street or Overhead Pedestrian Crossing sign shall be used only as a supplement to a Pedestrian Crossing (W11-2) warning sign with a diagonal downward-pointing arrow (W16-7P) plaque at the crosswalk location.
- 09 When used at an uncontrolled crossing, the In-Street or Overhead Trail Crossing sign shall be used only as a supplement to a Trail Crossing (W11-15) warning sign with a diagonal downward-pointing arrow (W16-7P) plaque at the crosswalk location.
- 10 An In-Street or Overhead Pedestrian or Trail Crossing sign shall not be placed in advance of the crosswalk to educate road users about the State law prior to reaching the crosswalk, nor shall it be installed as an educational display that is not near any crosswalk.

Guidance:

10A *The In-Street Pedestrian Crossing sign should not be used on roadways with a posted speed limit of greater than 35 mph.*

11 *If an island (see Chapter 3J) is available, the In-Street Pedestrian or Trail Crossing sign, if used, should be placed on the island.*

Option:

12 In-Street Pedestrian or Trail Crossing signs may be mounted back-to-back in the median or on the center line of an undivided roadway.

Standard:

13 **The In-Street Pedestrian or Trail Crossing sign and the Overhead Pedestrian Crossing or Trail sign shall not be used at crosswalks on approaches controlled by a traffic control signal, pedestrian hybrid beacon, or an emergency-vehicle hybrid beacon.**

14 **Except where the In-Street Crossing sign is placed on a physical island, the sign support shall be designed to bend over and then bounce back to its normal vertical position when struck by a vehicle.**

Option:

15 The In-Street and Overhead Pedestrian and Trail Crossing sign may be used at intersections or midblock pedestrian crossings with flashing beacons.

Support:

16 The provisions of Section 2A.15 concerning mounting height are not applicable for the In-Street Pedestrian Crossing sign. Section 2A.18 contains information about sign mounting methods.

Standard:

17 **The top of an In-Street Pedestrian or Trail Crossing sign shall be a maximum of 4 feet above the pavement surface. The top of an In-Street Pedestrian or Trail Crossing sign placed in an island shall be a maximum of 4 feet above the island surface.**

Option:

18 The In-Street Pedestrian Crossing or Trail Crossing signs may be used seasonally to prevent damage in winter because of plowing operations and may be removed at night if the pedestrian activity at night is minimal.

19 Both sign mounting types, In-Street Crossing (R1-6 series) signs and Overhead Crossing (R1-9 series) signs, may be used together at the same crosswalk.

Guidance:

19A *If an In-Street Pedestrian Crossing sign is not permanently installed, a maintenance agreement should be developed with the highway authority.*

Section 2B.21 Speed Limit Sign (R2-1)

[Delete sign R2-3P from Table 2B-1 and Figure 2B-3.]

Standard:

00A **Speed limits on state highways shall be set in accordance with DOT&PF Policy and Procedure 05.05.020.**

Option:

00B Speed limit signs may be used on low-volume roads that carry traffic from, onto, or adjacent to higher volume roads that have posted speeds.

Support:

- 01 In general, the maximum speed limits applicable to rural and urban roads are established:
- A. Statutorily – a maximum speed limit applicable to a particular class of road, such as freeways or city streets, that is established by State law; or
 - B. As speed zones – based on engineering studies.
- 02 State statutory limits might restrict the maximum speed limit that can be established on a particular road, notwithstanding what an engineering study might indicate.
- 03 Agencies with designated authorities to set speed limits, which include States, and sometimes local jurisdictions, can establish non-statutory speed limits or designate reduced speed zones using an engineering study. Setting appropriate speed limits is especially important to ensure safety for all road users in varying types of contexts, particularly on roadways where adjacent land use suggests that trips could be served by varied modes. These situations include urban and suburban non-freeway arterials or rural arterials that serve as main streets in smaller communities, consistent with the context classifications of urban core, urban, suburban, and rural towns found in “A Policy on Geometric Design of Highways and Streets,” 2018 Edition, AASHTO. When setting a speed limit, a range of factors such as land-use context, pedestrian and bicyclist activity, crash history, intersection spacing, driveway density, roadway geometry, roadside conditions, roadway functional classification, traffic volume, and observed speeds can influence the speed limit determined in the engineering study. The engineering study will determine which of the recommended factors will prevail in setting the speed limit.
- 04 Jurisdictions can use speed limit setting tools and methods such as expert systems and those consistent with the safe system approach as part of the required engineering study for a non-statutory speed limit. As speed limit setting tools vary, jurisdictions need to be aware of their limitations and advantages, possible variation between the tools and the need to explore gaps or weaknesses of tools, and weigh the output accordingly in consideration of setting speed limits.
- 05 To achieve desired operating speeds, agencies often implement other speed management strategies concurrently with setting speed limits, such as traffic calming measures, geometric design features, speed safety cameras, and increased enforcement.

Standard:

- 06 **Speed zones (other than statutory speed limits) shall only be established on the basis of an engineering study that has been performed in accordance with traffic engineering practices. The engineering study shall consider the roadway context.**

Guidance:

- 07 *Among the factors that should be considered when conducting an engineering study for establishing or reevaluating speed limits within speed zones are the following:*
- A. *Roadway environment (such as roadside development, number and frequency of driveways and access points, and land use), functional classification, public transit volume and location or frequency of stops, parking practices, and pedestrian and bicycle facilities and activity;*
 - B. *Roadway characteristics (such as lane widths, shoulder condition, grade, alignment, median type, and sight distance);*
 - C. *Geographic context (such as an urban district, rural town center, non-urbanized rural area, or suburban area), and multi-modal trip generation;*
 - D. *Reported crash experience for at least a 12-month period;*
 - E. *Speed distribution of free-flowing vehicles including the pace, median (50th-percentile), and 85th-percentile speeds; and*

F. A review of past speed studies to identify any trends in operating speeds.

08 When the 85th-percentile speed is appreciably greater than the posted speed limit, and the roadway context does not support setting a higher speed limit, the engineering study should consider whether changes to geometric features, enforcement, and/or other speed-reduction countermeasures might improve compliance with the posted speed limit. A similar approach should be used if the results of past speed studies indicate that the 85th-percentile speed has consistently increased.

09 On urban and suburban arterials, and on rural arterials that serve as main streets through developed areas of communities, the 85th-percentile speed should not be used to set speed limits without consideration of all factors described in Paragraph 7 of this Section.

10 On a freeway, expressway, or rural highway (outside urbanized locations or conditions), the speed limit that is posted within a speed zone should be within 5 mph of the 85th-percentile speed of free-flowing motor-vehicle traffic under the following conditions:

A. All factors described in Paragraph 7 of this Section have been considered and determined to be non-mitigating, and

B. The measures described in Paragraph 8 of this Section have been considered to the extent practicable.

11 State and local agencies should conduct engineering studies to reevaluate non-statutory speed limits on segments of their roadways that have undergone significant changes since the last review (such as changes to roadway context, the addition or elimination of parking, ~~significant changes in or~~ driveways, density or use, changes in the number of travel lanes, changes in the configuration of bicycle lanes, changes to road geometrics, major changes in traffic control signal coordination, or significant changes in major street traffic volumes).

12 Speed studies for signalized intersection approaches should be taken outside the influence area of the traffic control signal, which is generally considered to be approximately 1/2 mile, to avoid obtaining skewed results for the speed distribution. If the signal spacing is less than 1 mile, the speed study should be at approximately the middle of the segment.

Standard:

13 The Speed Limit (R2-1) sign (see Figure 2B-3) shall display the limit established by law, ordinance, regulation, or as adopted by the authorized agency based on an engineering study. The speed limits displayed shall be in multiples of 5 mph.

14 Speed Limit (R2-1) signs, indicating speed limits for which posting is required by law, shall be located at the points of change from one speed limit to another.

15 At the downstream end of the section to which a particular speed limit applies, a Speed Limit sign showing the next speed limit shall be installed.

16 Speed Limit signs indicating the statutory speed limits shall be installed at entrances to the State and, where appropriate, at jurisdictional boundaries in urban areas.

Guidance:

17 Additional Speed Limit signs should be installed beyond interchanges and major intersections and at other locations where it is necessary to remind road users of the speed limit that is applicable.

Support:

18 The “Traffic Control Devices Handbook” contains suggested criteria on the spacing of speed limit signs.

Option:

19 If a jurisdiction has a policy of installing Speed Limit signs in accordance with statutory requirements only on the streets that enter a city, neighborhood, or residential area to indicate the

speed limit that is applicable to the entire city, neighborhood, or residential area unless otherwise posted, a CITYWIDE (R2-5aP), NEIGHBORHOOD (R2-5bP), or RESIDENTIAL (R2-5cP) plaque may be mounted above the Speed Limit sign and an UNLESS OTHERWISE POSTED (R2-5P) plaque may be mounted below the Speed Limit sign (see Figure 2B-3).

Support:

- 20 Section 2C.40 contains information about the use of speed zone signs to inform road users of a reduced or variable speed zone to provide advance notice to comply with the posted speed limit ahead.

Option:

- 21 If a W3-5b sign is posted to provide notice of a variable speed zone, an END VARIABLE SPEED LIMIT (R2-13) sign (see Figure 2B-3) may be installed at the downstream end of the zone to provide notice to road users of the termination of the speed zone.

Standard:

- 22 **If a W3-5c sign is posted to provide notice of a truck speed zone, an END TRUCK SPEED LIMIT (R2-14) sign (see Figure 2B-3) shall be installed at the downstream end of the zone to provide notice to road users of the termination of the speed zone.**

Guidance:

- 23 *An advisory speed plaque (see Section 2C.59) mounted below a warning sign should be used to warn road users of an advisory speed for a roadway condition. A Speed Limit sign should not be used for this purpose.*

- 24 *Advance traffic control warning signs (see Section 2C.35), intersection warning signs (see Section 2C.41), and/or other traffic control devices are appropriate warning prior to a signalized intersection. A Speed Limit sign should not be used for this purpose.*

- 24A [On state highways, speed limit signs should be located and spaced in accordance with DOT&PF Policy and Procedure 05.05.020.](#)

[Option:](#)

- 24B [On multi-lane divided and multi-lane one-way roadways, speed limit signs may be installed on the left-hand side of the roadway to supplement a speed limit sign installed on the right-hand side of the roadway.](#)

- 25 Two types of Speed Limit signs may be used: one to designate passenger car speeds, including any ~~nighttime information or~~ maximum or minimum speed limit that might apply; and the other to show any special speed limits for trucks and other vehicles.

Guidance:

- 26 *No more than three speed limits should be displayed on any one Speed Limit sign or assembly.*

Option:

- 27 A variable speed limit sign that changes the speed limit for traffic and ambient conditions may be installed provided that the appropriate speed limit is displayed at the proper times and locations in accordance with Paragraphs 9 and 10 of this Section.

Standard:

- 28 **The variable speed limit sign legend “SPEED LIMIT” shall be a black legend on a white retroreflective background. The variable speed limit legend shall be displayed in white LEDs on an opaque black background.**

Support:

- 29 Section 2C.13 contains information about the use of a Vehicle Speed Feedback plaque mounted below a Speed Limit sign that displays to approaching drivers the speed at which they are traveling.

30 Advisory speed signs and plaques are discussed in Sections 2C.12 and 2C.59. Temporary traffic control zone speed signs are discussed in Part 6. The WORK ZONE (G20-5aP) plaque intended for installation above a Speed Limit sign is discussed in Section 6G.08. School Speed Limit signs are discussed in Section 7B.05.

Guidance:

30A On state highways, speed limit signs should be located and spaced in accordance with DOT&PF Policy and Procedure 05.05.020.

Option:

30B On multi-lane divided and multi-lane one-way roadways, speed limit signs may be installed on the left-hand side of the roadway to add emphasis to a speed limit sign installed on the right-hand side of the roadway.

Section 2B.23 Night Speed Limit Plaque (R2-3P)

[Delete the entirety of Section 2B.23 and replace with the following.]

Standard:

00A Night Speed Limit signs shall not be used in Alaska.

Section 2B.25 Higher Fines Signs and Plaque (R2-6P, R2-10, and R2-11)

Standard:

01 **Except as provided in Paragraph 3 of this Section, if increased fines are imposed for traffic violations within a designated zone of a roadway, a BEGIN HIGHER FINES ZONE (R2-10) sign (see Figure 2B-3) or a FINES HIGHER (R2-6P) plaque (see Figure 2B-3) shall be used to provide notice to road users.**

01A When fines are increased in temporary traffic control zones in accordance with 17 AAC 99.010, the signs described in Section 6G.08 shall be used.

02 **If an R2-10 sign or an R2-6P plaque is posted to provide notice of increased fines for traffic violations, an END HIGHER FINES ZONE (R2-11) sign (see Figure 2B-3) shall be installed at the downstream end of the zone to provide notice to road users of the termination of the increased fines zone.**

Option:

03 The BEGIN HIGHER FINES ZONE (R2-10) sign or FINES HIGHER (R2-6P) plaque may be omitted where the higher fines zone is established by statute.

Guidance:

04 *The BEGIN HIGHER FINES ZONE sign or FINES HIGHER plaque should be located at the beginning of the temporary traffic control zone, school zone, or other applicable designated zone and just beyond any interchanges, major intersections, or other major traffic generators.*

05 *Agencies should limit the use of the Higher Fines signs and plaque to locations where work is actually underway, or to locations where the roadway, shoulder, or other conditions, including the presence of a school zone and/or a reduced school speed limit zone, require a speed reduction or extra caution on the part of the road user.*

Standard:

06 **The Higher Fines signs and plaque shall have a black legend and border on a white rectangular background. All supplemental plaques mounted below the Higher Fines signs and plaque shall have a black legend and border on a white rectangular background.**

07 **The FINES HIGHER plaque shall be mounted below an applicable regulatory or warning sign in a temporary traffic control zone (see Section 6G.08), a school zone (see Section 7B.06), or other applicable designated zone.**

Option:

08 Alternate legends such as BEGIN (or END) DOUBLE FINES ZONE may also be used for the R2-10 and R2-11 signs.

09 The legend FINES HIGHER on the R2-6P plaque may be replaced by FINES DOUBLE (R2-6aP), \$XX FINE (R2-6bP), or another legend appropriate to the specific regulation (see Figure 2B-3).

10 The following may be mounted below an R2-10 sign or R2-6P plaque:

- A. A supplemental plaque specifying the times that the higher fines are in effect (similar to the S4-1P plaque shown in Figure 7B-1),
- B. A supplemental plaque WHEN CHILDREN (WORKERS) ARE PRESENT, or
- C. A supplemental plaque WHEN FLASHING (similar to the S4-4P plaque shown in Figure 7B-1) if used in conjunction with a Speed Limit Sign Beacon (see Section 4S.04).

Support:

10A The BEGIN HIGHWAY SAFETY ZONE TRAFFIC FINES DOUBLE (R16-112) and END DOUBLE TRAFFIC FINES (R16-101) signs legally establish the beginning and end of safety zones.

10B Safety zones become effective when the Commissioner of the DOT&PF and Commissioner of the Department of Public Safety sign a Highway Safety Corridor Designation form.

Standard:

10C Safety zone (corridor) signing in accordance with AS 19.10.075 shall only be installed on rural, state-maintained roads that meet all the following conditions:

- A. Are designated as either
 - 1. an Interstate, or
 - 2. a rural major arterial, or
 - 3. a rural major collector with 2000 ADT or more, or
 - 4. a rural minor arterial with 2000 ADT or more.
- B. Have a 3-year fatal plus major injury crash rate per mile that exceeds 110% of the statewide average for rural arterials.
- C. Have a 3-year fatal plus major injury crash rate per 100 million vehicle miles that exceeds 110% of the statewide average for rural arterials.
- D. DOT&PF and the police agency with jurisdiction agree on a coordinated traffic control/traffic patrol plan.
- E. DOT&PF and the police agree the proposed safety zone will be effective in reducing highway crashes.
- F. The police agency with jurisdiction agrees to define the amount of enforcement needed to increase safe driver behavior in the safety zone and to provide that enforcement on an ongoing basis.

10D No more than 10 safety zones shall exist in Alaska at one time.

Option:

10E DOT&PF may choose not to sign all road segments that meet the above criteria.

10F Periods longer than 3 years (up to 5 years) may be used for crash and injury rates used for establishing safety zones.

Support:

10G The two crash rates serve different purposes. The per-mile injury rate indicates crash concentration while the per-vehicle mile crash rate is an indication of correctability. If both thresholds are exceeded, safety countermeasures can be expected to significantly reduce crashes.

Guidance:

10H Safety zones should include road segments of similar character and begin and end at logical locations. If a short non-qualifying segment exists between two qualifying segments, consider extending the zone across the non-qualifying segment. Zones should be no shorter than 5 miles.

Option:

10I Safety zone signs may be removed if the DOT&PF and police agency with jurisdiction agree the safety zone is no longer effective or conditions have changed in a way that makes the safety zone unnecessary.

Standard:

10J BEGIN HIGHWAY SAFETY ZONE TRAFFIC FINES DOUBLE (R16-112) signs and SAFETY ZONE SPEED LIMIT DOUBLE FINES (R2-101) signs shall be posted at the beginning of every safety zone, in that order.

10K END DOUBLE TRAFFIC FINES (R16-101) signs shall be posted at the end of every safety zone.

10L All existing regulatory speed limit signs within the double fines zone shall either be replaced with SAFETY ZONE SPEED LIMIT DOUBLE FINES (R2-101) signs or supplemented with FINES DOUBLED (R2-6aP) plaques.

10M When a double fine zone is longer than 3 miles, SAFETY ZONE SPEED LIMIT DOUBLE FINES (R2-101) signs or standard SPEED LIMIT (R2-1) signs with FINES DOUBLE (R2-6aP) plaques shall be posted at spacings not greater than 3 miles (+/- ½ mile) within the safety zone.

10N SAFETY ZONE SPEED LIMIT DOUBLE FINES (R2-101) signs or standard SPEED LIMIT (R2-1) signs with FINES DOUBLE (R2-6aP) plaques shall be installed on the main street on either side of major intersections within the safety zone.

10O Install either SAFETY ZONE BEGIN DOUBLE TRAFFIC FINES (R16-113) or BEGIN HIGHWAY SAFETY ZONE TRAFFIC FINES DOUBLE (R16-112) signs on side streets entering the safety zone. These signs shall only be required on side streets functionally classified as collector or higher.

10P Install HEADLIGHTS ON AT ALL TIMES (R16-110) signs or other approved Headlight Use signs in designated safety zones. The ENFORCEMENT ENDS (R16-116) sign, mounted below a HEADLIGHTS ON FOR SAFETY (I-190) sign, shall be used to mark the end of a HEADLIGHTS ON AT ALL TIMES zone.

Guidance:

10Q The spacing of HEADLIGHTS ON AT ALL TIMES (R16-110) signs or other approved Headlight Use signs should be approximately every 10 minutes of travel time.

Section 2B.27 Intersection Lane Control Signs (R3-5 through R3-8, R3-106, and R3-108 Series)

Standard:

- 01 **Intersection Lane Control signs (see Figure 2B-4), if used, shall require road users in certain lanes to turn, shall permit turns from a lane where such turns would otherwise not be permitted, shall require a road user to stay in the same lane and proceed straight through an intersection, or shall indicate permitted movements from a lane.**

Support:

- 02 Intersection Lane Control signs have three applications:
- A. Mandatory Movement Lane Control (R3-5 series and R3-7 series) signs,
 - B. Optional Movement Lane Control (R3-6 series [and R3-106](#)) signs, and
 - C. Advance Intersection Lane Control (R3-8 series [and R3-108 series](#)) signs.

Guidance:

- 03 *When Intersection Lane Control signs are mounted overhead, each sign used should be placed over the lane or a projection of the lane to which it applies.*
- 04 *On signalized approaches where through lanes that become mandatory turn lanes, multiple-lane turns that include shared lanes for through and turning movements, or other lane-use regulations are present that would be unexpected by unfamiliar road users, overhead Intersection Lane Control signs should be installed at the signalized location over the appropriate lanes or projections thereof and in advance of the intersection over the appropriate lanes.*
- 05 *Where overhead mounting on the approach is impracticable for the Advance and/or Intersection lane Control signs, one of the following alternatives should be employed:*
- A. *At locations where through lanes become mandatory turn lanes, a Mandatory Movement Lane Control (R3-7) sign should be post-mounted on the left-hand side of the roadway where a through lane is becoming a mandatory left-turn lane on a one-way street or where a median of sufficient width for the signs is available, or on the right-hand side of the roadway where a through lane is becoming a mandatory right-turn lane.*
 - B. *At locations where a through lane is becoming a mandatory left-turn lane on a two-way street where a median of sufficient width for the signs is not available, and at locations where multiple-lane turns that include shared lanes for through and turning movements are present, an Advance Intersection Lane Control (R3-8 series [or R3-108 series](#)) sign should be post-mounted in a prominent location in advance of the intersection, and consideration should be given to the use of an oversized version in accordance with Table 2B-1.*
- 06 *Use of an overhead sign for one approach lane should not require installation of overhead signs for the other lanes of that approach.*

Option:

- 07 Intersection Lane Control signs may be omitted where:
- A. A turn bay has been provided by physical construction or pavement markings, and
 - B. Only the road users using such turn bays are permitted to make a turn in that direction.
- 08 At roundabouts, Intersection Lane Control (R3-5, R3-6, ~~and R3-8 series~~, [R3-106, and R3-108 series](#)) signs may display any of the arrow symbol options shown in Figure 2B-5.

Section 2B.29 Optional Movement Lane Control Signs (R3-6 Series and R3-106)

Standard:

- 01 **Optional Movement Lane Control (R3-6, R3-6a, ~~and~~ R3-6b, and R3-106) signs** (see Figure 2B-4), if used, shall be used for two or more movements from a specific lane or to emphasize permitted movements. The Optional Movement Lane Control sign shall be mounted overhead over the specific lane to which it applies.

Section 2B.30 Advanced Intersection Lane Control Signs (R3-8 Series and R3-108 Series)

Option:

- 01 Advance Intersection Lane Control (R3-8, R3-8a, ~~and~~ R3-8b, [R3-108A](#), [R3-108B](#), [R3-108C](#), and [R3-108D](#)) signs (see Figure 2B-4) may be used to indicate the configuration of all lanes ahead.
- 02 The word messages ONLY, THRU, HOV 2+, TAXI, BUS, or BIKE, or the bicycle symbol, may be used within the border in combination with the arrow symbols of the R3-8 [and R3-108](#) sign series. The R3-5cP, R3-5dP, and R3-5gP supplemental plaques may be installed at the top outside border of the R3-8 sign over the applicable lane designation on the sign. The diamond symbol may be used instead of the word message HOV. The minimum allowable vehicle occupancy requirement may vary based on the level established for a particular facility.
- 03 Where a bicycle lane is between two general-purpose lanes the R3-8 series signs may be modified to show the bicycle lane with a white legend on a black background in accordance with designs of the R3-8x series signs (see Figure 2B-4).

Guidance:

- 04 *When used, an Advance Intersection Lane Control sign should be placed at an adequate distance in advance of the intersection, either along the lane tapers or at the beginning of the turn lane so that road users can select the appropriate lane (see Figure 2A-4).*

Option:

- 05 An Advance Intersection Lane Control sign may be repeated closer to the intersection along the approach for additional emphasis.

Standard:

- 06 **An Advance Intersection Lane Control (R3-8 series) sign shall not be mounted at the far side of an intersection to which it applies.**
- 07 **Where three or more approach lanes are available to traffic, Advance Intersection Lane Control (R3-8 series or R3-108) signs, if used, shall be post-mounted in advance of the intersection and shall not be mounted overhead.**
- 08 **When only the two outermost lanes of the roadway are shown on a R3-8 sign, the R3-5bP or R3-5fP plaque shall be mounted above the R3-8 sign.**

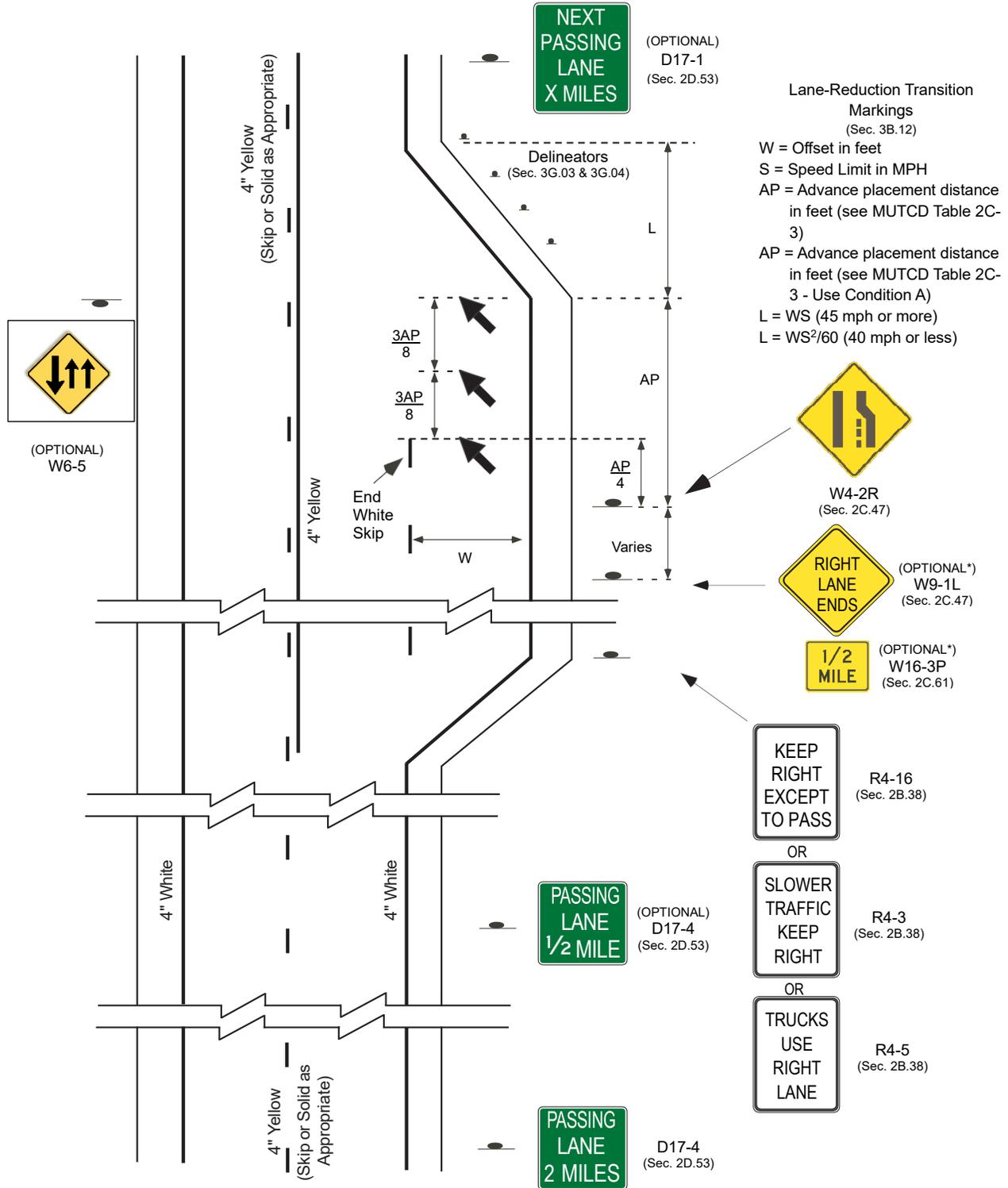
Section 2B.38 KEEP RIGHT EXCEPT TO PASS Sign (R4-16), SLOWER TRAFFIC KEEP RIGHT Sign (R4-3), and TRUCKS USE RIGHT LANE Sign (R4-5)

Guidance:

06 *If an extra lane has been provided for trucks and other slow-moving traffic, a Lane Ends sign (see Section 2C.47) should be installed in advance of the point where the extra lane ends. Appropriate pavement markings should be installed at both the upstream and downstream ends of the extra lane (see [Section 3B.12 and Figure 3B-14](#) [Figure 2B-100](#)).*

06A *[Signs and pavement markings for climbing and passing lanes should be installed as shown in \[Figure 2B-100\]\(#\).](#)*

Figure 2B-100. Typical Signing/Striping for Truck or Passing Lanes



* If the Right Lane Ends (W9-1L) advance warning sign is used, a corresponding distance plaque (W16-3P) must be included on the same post.

Section 2B.42 Slow Vehicle Turn-Out Signs (R4-12, R4-13, and R4-14)

Support:

- 01 On two-lane highways in areas where traffic volumes and/or vertical or horizontal curvature make passing difficult, turn-out areas are sometimes provided for the purpose of giving a group of faster vehicles an opportunity to pass a slow-moving vehicle.

Standard:

- 01A The signs in this section shall only be used to indicate turnouts to the right.

Option:

- 02 A SLOW VEHICLES WITH ~~XX~~5 OR MORE FOLLOWING VEHICLES MUST USE TURN-OUT (R4-12) sign (see Figure 2B-10) may be installed on two-lane, rural state highways at locations determined by the RTSE in advance of a turn-out area to inform drivers who are driving so slow that they have accumulated ~~a specific number of 5~~ vehicles behind them that they are required by 13 AAC 02.050 the traffic laws of the State to use the turn-out to allow the vehicles following them to pass.

Guidance:

- 02A These signs should only be placed on sections of highway where slow-moving vehicle turnouts, meeting the requirements of the "DOT&PF Alaska Highway Preconstruction Manual," are periodically available.

Support:

- 03 The specific number of vehicles displayed on the R4-12 sign provides law enforcement personnel with the information they need to enforce this regulation.

Option:

- 04 If an R4-12 sign has been installed in advance of a turn-out area, a SLOW VEHICLES MUST USE TURN-OUT AHEAD (R4-13) sign (see Figure 2B-10) may also be installed downstream from the R4-12 sign, but upstream from the turn-out area, to remind slow drivers that they are required to use a turn-out that is a short distance ahead.

Standard:

- 05 **If an R4-12 sign has been installed in advance of a turn-out area, a SLOW VEHICLES MUST TURN OUT (with arrow) (R4-14) sign (see Figure 2B-10) shall be installed at the entry point of the turn-out area.**

Guidance:

- 05A NO PARKING (R8-3) signs should be installed within the turnout unless it is wide enough to allow movement through the turnout unimpeded by parked cars.

Support:

- 06 Section 2D.54 contains information regarding advance information signs for slow vehicle turn-out areas.

Section 2B.45 Selective Exclusion Signs and Plaques

[Delete sign R5-4 from Table 2B-1 and Figure 2B-11.]

Option:

- 01 Selective Exclusion signs (see Figure 2B-12) may be used to provide notice to road users that State or local statutes or ordinances exclude designated types of traffic from using particular roadways or facilities.

Standard:

- 02 **Selective Exclusion signs shall clearly indicate the type of traffic that is excluded.**

Support:

- 03 Typical exclusion messages include:
- A. No Trucks (R5-2),
 - B. NO MOTOR VEHICLES (R5-3),
 - ~~C. NO COMMERCIAL VEHICLES (R5-4),~~
 - D. NO VEHICLES WITH LUGS (R5-5),
 - E. No Bicycles (R5-6),
 - F. NO NON-MOTORIZED TRAFFIC (R5-7),
 - G. NO MOTOR-DRIVEN CYCLES (R5-8),
 - H. No Pedestrian Crossing (R9-3),
 - I. No Skaters (R9-13),
 - J. No Equestrians (R9-14),
 - K. No Snowmobiles (R9-15),
 - L. No All-Terrain Vehicles (R9-16),
 - M. Hazardous Material (R14-3) (see Section 2B.67),
 - N. NO THRU TRAFFIC (R5-12),
 - O. NO THRU TRUCKS (R5-2b),
 - P. EXCEPT ON SHOULDER (R9-19P) plaque, ~~and~~
 - Q. EXCEPT LOCAL DELIVERY (R5-2aP) plaque, ~~and~~
 - R. [NO MOTOR VEHICLES and PATHWAY \(plaque\) \(R5-103P\).](#)

Option:

- 04 Appropriate combinations or groupings of these legends into a single sign, such as NO PEDESTRIANS BICYCLES MOTOR-DRIVEN CYCLES (R5-10 and R5-10a) or NO PEDESTRIANS OR BICYCLES (R5-10b), may be used.

Guidance:

- 05 *If an exclusion is governed by vehicle weight, a Weight Limit sign (see Section 2B.64) should be used instead of a Selective Exclusion sign.*
- 06 *If used on a ramp to a freeway or expressway where pedestrian and bicyclist travel are prohibited by law or regulation, the NO PEDESTRIANS OR BICYCLES (R5-10b) sign should be installed in a location where it is clearly visible to any pedestrian or bicyclist attempting to enter the limited access facility from a street intersecting the ramp. In locations where a freeway or expressway is accessed from a ramp from a roadway parallel to the freeway or expressway, the sign should be placed in a location that clearly indicates the prohibition applies only to the freeway or expressway or to the ramp.*
- 07 *The Selective Exclusion sign should be placed on the right-hand side of the roadway at an appropriate distance from the intersection so as to be clearly visible to all road users turning into the roadway that has the exclusion. The NO PEDESTRIANS (R5-10c) or No Pedestrian Crossing (R9-3) sign (see Section 2B.57) should be installed so as to be clearly visible to pedestrians who are at a location where an alternative route is available.*

Option:

- 08 The NO PEDESTRIANS (R5-10c) or No Pedestrian Crossing (R9-3) sign may also be used at underpasses or elsewhere where pedestrian facilities are not provided.
- 09 The NO THRU TRAFFIC (R5-12) or NO THRU TRUCKS (R5-2b) signs may be used at locations to prohibit through traffic from using a particular roadway or facility.
- 10 The EXCEPT LOCAL DELIVERY (R5-2aP) plaque may be mounted below the R5-2 or R5-2b sign.
- 11 The EXCEPT ON SHOULDER (R9-19P) plaque may be used where such modes are allowed on a shoulder but not on the traveled way and placed at intersections with other roads and established paths or trails, where such vehicles or modes are expected to enter the highway.
- 12 The AUTHORIZED VEHICLES ONLY (R5-11) sign may be used at median openings and other locations to prohibit vehicles from using the median opening or facility unless they have special permission (such as law enforcement vehicles or emergency vehicles) or are performing official business (such as highway agency vehicles).

Standard:

- 12A **The No Commercial Vehicles (R5-4) sign shall not be used in the State of Alaska.**

Option:

- 12B When an R5-2 No Trucks symbol sign is used, it shall be installed in the far-right position at the last intersection where trucks may turn to avoid the prohibited street. A supplemental R5-2 sign may be necessary on the left side of the restricted roadway if additional emphasis is needed.

Guidance:

- 12C A TRUCK ROUTE (R14-1 series) sign should be installed on the right, 500 feet or one-half block (whichever is less) in advance of the intersection where commercial vehicles must turn to avoid entering a restricted section of roadway. The R14-1 series signs should also be used in the same manner as trail markers to guide the trucker along the truck route unless other signing gives sufficient direction.
- 12D If used, the VEHICLES WITH LUGS PROHIBITED (R5-5) sign should be used to designate areas where pavement damage has occurred or is likely to occur due to vehicles with lugs traversing the pavement. Install the sign on the right where a vehicle with lugs can leave the roadway before arriving at the paved roadway.

Section 2B.52 Parking, Standing, and Stopping Signs (R7 and R8 Series)

Support:

- 01 Parking signs pertain to the parking, standing, and stopping of vehicles along the roadway and in designated parking areas. They cover a wide variety of regulations, and only general guidance can be provided here. The word “standing” when used on the R7 and R8 series of signs refers to the practice of a driver keeping the vehicle in a stationary position while continuing to occupy the vehicle. The word “stopping” when used on the R7 and R8 series signs refers to any vehicle, occupied by a driver or not, that stops other than to avoid conflict with other traffic or to comply with official direction. Other types of activities such as active loading, active passenger loading, and/or waiting might be established in State or local codes for use on R7 and R8 series signs.
- 02 Parking signs are categorized as either (1) prohibiting parking or (2) permitting parking with restrictions on how parking is allowed.
- 03 The types of parking, standing, or stopping prohibitions that might be encountered include, but are not limited to:

- A. Prohibited at all times;
 - B. Prohibited only at certain times of the day and/or days of the week;
 - C. Prohibited with exceptions, such as for bus stops, loading/unloading zones, persons with disabilities, or electric vehicle charging stations; or
 - D. Prohibited under certain conditions, such as Snow Emergency Routes.
- 04 Permissive parking signs allowing parking with restrictions include, but are not limited to:
- A. Parking only allowed for limited time duration (such as 30 minutes or for 1 hour);
 - B. Metered parking requiring payment at an individual or a multi-space parking meter, or through electronic means such as by telephone or mobile application;
 - C. Parking only for specific persons (such as those with disabilities or patrons or employees of a business) or specific vehicle types (such as electric vehicles, police/government vehicles, motorcycles, bicycles, or taxis);
 - D. Angled or back-in angled parking when it is not commonly used in the area;
 - E. Parking programs such as neighborhood/residential permits, school areas, or special events; and
 - F. Emergency parking or stopping only.

Section 2B.53 Design of Parking, Standing, and Stopping Signs

Standard:

- 16 **Where parking spaces are reserved for persons with disabilities, the Accessible Parking (R7-8) sign (see Drawing D in Figure 2B-25) shall be used to designate the space and shall display the official International Symbol of Accessibility.**
- 17 **Where parking spaces that are reserved for persons with disabilities are designed to accommodate wheelchair vans, a VAN ACCESSIBLE (R7-8aP) plaque (see Drawing D in Figure 2B-25) shall be mounted below the R7-8 sign.**

Option:

- 17A R7-300 signs, “UNLESS YOU NEED VAN ACCESS PLEASE USE OTHER ACCESSIBLE SPACES FIRST,” may be used to encourage drivers with disabilities not to use van accessible parking spaces unless they need them.

Guidance:

- 18 *Where parking spaces are designated for parking of electric vehicles, an Electric Vehicle Parking (R7-111 series, R7-112 series, and R7-113) sign (see Drawing E of Figure 2B-25) should be installed adjacent to the designated spaces. Where there is no time limit, the R7-111 series sign should be used. Where parking is subject to a time limit, the R7-112 series sign should be used.*
- 19 *Where parking spaces are only designated for charging of electric vehicles, an R7-113 sign or R7-114 series sign (see Drawing E in Figure 2B-25) should be installed adjacent to the designated spaces.*
- 20 *Where additional restrictions apply while a vehicle occupies the designated space, the R7-113P series plaques should be installed below the R7-113 sign or the R7-114 series signs.*

Option:

- 21 Where parking is prohibited during certain hours and time-limited parking or parking in a particular manner is allowed during certain other time periods, the red Parking Prohibition and green Permissive Parking signs may be designed as follows (see Drawing C in Figure 2B-25):
- A. Two 12 x 18-inch parking signs may be used with the red Parking Prohibition (R7-1) sign installed above or to the left of the green Permissive parking (R7-108) sign; or

B. A single sign (R7-200 or R7-200a) may be used.

22 At the transition point between two parking zones, a single sign (R7-200 or R7-200a) or two signs mounted side-by-side may be used.

23 The words NO PARKING may be used as an alternative to the No Parking symbol (see the R7-2a sign in Drawing A in Figure 2B-25).

24 Alternate designs for the R7-107 sign may be developed such as the R7-107a sign (see Drawing A in Figure 2B-25). Alternate designs may include, on a single sign, a transit logo, an approved bus symbol, a parking prohibition, the words BUS STOP, and an arrow. The reverse side of the R7-107 series signs may display bus routing information for pedestrians.

25 A Tow-Away Zone (R7-201P or R7-201aP) plaque (see Drawing A in Figure 2B-25) may be mounted below any parking prohibition sign. The word legend TOW-AWAY ZONE may be incorporated into the parking prohibition sign in lieu of using a separate plaque.

26 The R7-201P plaque may have a black or red symbol and border on a white background.

Guidance:

27 *When a legend other than that on the standard parking signs is necessary, letter height, symbol size, and basic sign layout should be consistent with those shown on the standard parking signs as detailed in the “[Standard Highway Signs—Alaska Sign Design Specifications](#)” publication (see Section 1A.05.)*

28 *In general, the letter height of the principal legend on parking signs sized for urbanized applications should be at least 2 inches.*

Section 2B.54 Placement of Parking, Standing, and Stopping Signs

Support:

01 The efficacy of parking, standing, and stopping signs, when used on conventional roads in urbanized or developed environments, depends on their visibility and consistent placement along a street or within a particular block. It is often impracticable for the entire legend to be legible from similar distances as for other types of signs. Therefore, it is important that their conventional form be recognizable from an adequate distance such that the road user can obtain the information upon closer inspection.

Guidance:

02 *When signs with arrows are used to indicate the extent of the restricted zones, the signs should be set at an angle of not less than 30 degrees or more than 45 degrees with the line of traffic flow in order to be visible to approaching traffic.*

03 *When signs are placed at the head of perpendicular parking stalls, the signs should be parallel to the roadway facing the parking stall.*

04 *Spacing of signs should be based on legibility, conspicuity, and sign orientation.*

05 *If the zone is long, signs should be used at intermediate points within the zone.*

06 *If the signs are mounted at an angle of 90 degrees to the curb line, two signs should be mounted back-to-back at the transition point between two parking zones, each with an appended THIS SIDE OF SIGN (R7-202P) supplemental plaque (see Drawing A in Figure 2B-25).*

07 *If the signs are mounted at an angle of 90 degrees to the curb line, signs without any arrows or appended plaques should be used at intermediate points within a parking zone, facing in the direction of approaching traffic. Otherwise, the standards of placement should be the same as for signs using directional arrows.*

07A *NO STOPPING (R8 series) signs should not be used in combination with NO PARKING (R7 and R8 series) signs in the same zone. They should be used only where the full roadway is required for moving traffic and where there is no shoulder area for stopping outside the traffic stream.*

Option:

08 Blanket parking regulations that apply to an entire jurisdiction may, if legal, be posted in the vicinity of the jurisdictional boundary lines. Blanket parking regulations that apply to a posted zone or district may, if legal, be posted at the entry points to the zone or district.

Section 2B.58 Traffic Signal Pedestrian and Bicyclist Actuation Signs (R10-1 through R10-4, and R10-24 through R10-26)

Standard:

01 **Where manual actuation of a traffic signal is required for pedestrians or bicyclists to call a signal phase to cross the roadway, traffic signal signs applicable to pedestrian actuation (see Figure 2B-27) or bicyclist actuation (see Figure 9B-1) shall be mounted immediately above or incorporated into the push button detector units (see Section 4I.05).**

Support:

- 02 Traffic signal signs applicable to pedestrians include:
- A. CROSS ONLY ON GREEN (symbolic circular green) (R10-1),
 - B. CROSS ONLY ON (symbolic walk indication) SIGNAL (R10-2),
 - C. Push Button for Walk Signal (R10-3 series), and
 - D. Push Button for Green Signal (R10-4 series)

Guidance:

02A *The R10-3e or R10-3i sign should be used when pedestrian push button units are provided.*

Section 2B.59 Traffic Signal Signs and Plaques (R10-5 through R10-30, and R10-100)

[Delete signs R10-15a and R10-27 from Table 2B-1 and Figure 2B-28.]

Option:

- 01 To supplement traffic signal control, traffic signal (R10-5 through R10-30) signs (see Figure 2B-28) may be used to regulate road users.
- 02 Traffic signal signs may be installed at certain locations to clarify signal control. Among the legends that may be used for this purpose are:
- A. LEFT (RIGHT) ON GREEN ARROW ONLY (R10-5),
 - B. STOP HERE ON RED (R10-6 or R10-6a) for observance of stop lines,
 - C. DO NOT BLOCK INTERSECTION (R10-7) for avoidance of traffic obstructions,
 - D. USE LANE(S) WITH GREEN ARROW (R10-8) for obedience to lane-use control signals (see Chapter 4T),
 - E. LEFT (RIGHT) TURN SIGNAL (R10-10),
 - F. U TURN SIGNAL (R10-10a) for exclusive control of a U-turn movement,
 - G. U TURN YIELD TO RIGHT TURN (R10-16),
 - H. LEFT (RIGHT) TURN YIELD ON GREEN (symbolic circular green) (R10-12),
 - I. LEFT (RIGHT) TURN YIELD ON FLASHING YELLOW ARROW (R10-12a), and

J. ~~LEFT (RIGHT) TURN YIELD ON FLASHING RED ARROW AFTER STOP (R10-27).~~K. LEFT ONLY YIELD ON GREEN (R10-100)*Guidance:*

- 03 *If used, the LEFT ON GREEN ARROW ONLY sign, the LEFT TURN SIGNAL sign, the LEFT TURN YIELD ON GREEN (symbolic circular green) sign, or the LEFT TURN YIELD ON FLASHING YELLOW ARROW sign, ~~or the LEFT TURN YIELD ON FLASHING RED ARROW AFTER STOP sign~~ should be located adjacent to the left-turn signal face.*

Option:

- 03A The (symbolic left turn arrow) ONLY YIELD ON GREEN (symbolic circular green) (R10-100) sign may be installed on signal mast arms at intersections with exclusive left-turn lanes and protected-permissive phasing where a CIRCULAR GREEN indication is used to indicate a permissive left-turn movement (see Section 4D.14).

Standard:

- 03B The (symbolic left turn arrow) ONLY YIELD ON GREEN (symbolic circular green) (R10-100) sign shall not be installed on signal mast arms where a flashing left-turn YELLOW ARROW is used to indicate a permissive left-turn movement (see Section 4D.08).

Option:

- 03C The LEFT (RIGHT) TURN YIELD ON GREEN (symbolic circular green) (R10-12) sign may be installed on signal mast arms at intersections for a shared turn/thru lane and protected-permissive or permissive phasing.

- 03D A supplemental post-mounted LEFT TURN YIELD ON GREEN (symbolic circular green) (R10-12) sign may be installed adjacent to or above the far-left signal display at intersections with protected-permissive phasing.

Guidance:

- 04 *If used, the RIGHT ON GREEN ARROW ONLY sign, the RIGHT TURN SIGNAL sign, or the RIGHT TURN YIELD ON FLASHING YELLOW ARROW sign, ~~or the RIGHT TURN YIELD ON FLASHING RED ARROW AFTER STOP sign~~ should be located adjacent to the right-turn signal face.*
- 05 *A U TURN YIELD TO RIGHT TURN (R10-16) sign should be installed near the left-turn signal face if U-turns are allowed on a protected left-turn movement on an approach from which a right-turn GREEN ARROW signal indication is simultaneously being displayed to drivers making a right turn from the conflicting approach to their left.*

Option:

- 06 *If used, a U TURN SIGNAL (R10-10a) sign may be installed adjacent to the signal face that exclusively controls a U-turn movement.*
- 07 *If needed for additional emphasis, an additional LEFT TURN YIELD ON GREEN (symbolic circular green) (R10-12) sign with an AT SIGNAL (R10-31P) supplemental plaque (see Figure 2B-28) may be installed in advance of the intersection.*
- 08 *In situations where traffic control signals are coordinated for progressive timing, the Traffic Signal Speed (I1-1) sign may be used (see Section 2H.04).*

Standard:

- 09 **The CROSSWALK—STOP ON RED (symbolic circular red) (R10-23) and STOP ON STEADY RED- YIELD ON FLASHING RED AFTER STOP (R10-23a) signs (see Figure 2B-28) shall only be used in conjunction with pedestrian hybrid beacons (see Section 4J.02).**

10 The EMERGENCY SIGNAL (R10-13) sign (see Figure 2B-28) shall be used in conjunction with emergency-vehicle traffic control signals (see Section 4M.02).

11 The EMERGENCY SIGNAL—STOP ON FLASHING RED (R10-14 or R10-14a) sign (see Figure 2B-28) shall be used in conjunction with emergency-vehicle hybrid beacons (see Section 4N.02).

Option:

12 If needed for extra emphasis, a STOP HERE ON FLASHING RED (R10-14b) sign may be installed with an emergency-vehicle hybrid beacon.

Standard:

13 The Left Turn Yield to Bicycles (R10-12b) sign shall be limited to applications where the conflicting bicyclist movement would be unexpected in direction, location, or similar condition that would tend to violate the expectation of a turning motorist.

Guidance:

14 The Left Turn Yield to Bicycles sign should be located adjacent to the left-turn signal face.

Option:

15 If needed for additional emphasis, an additional Left Turn Yield to Bicycles sign with an AT SIGNAL (R10-31P) supplemental plaque (see Figure 2B-28) may be installed in advance of the intersection for motor vehicles.

16 Where conditions might warrant additional emphasis to drivers turning at a signalized intersection where potential pedestrian conflicts might not be readily apparent, a Turning Vehicles Yield to ~~(Stop for)~~ Pedestrians (R10-15; ~~R10-15a~~) sign (see Figure 2B-28) may be used.

~~**Standard:**~~

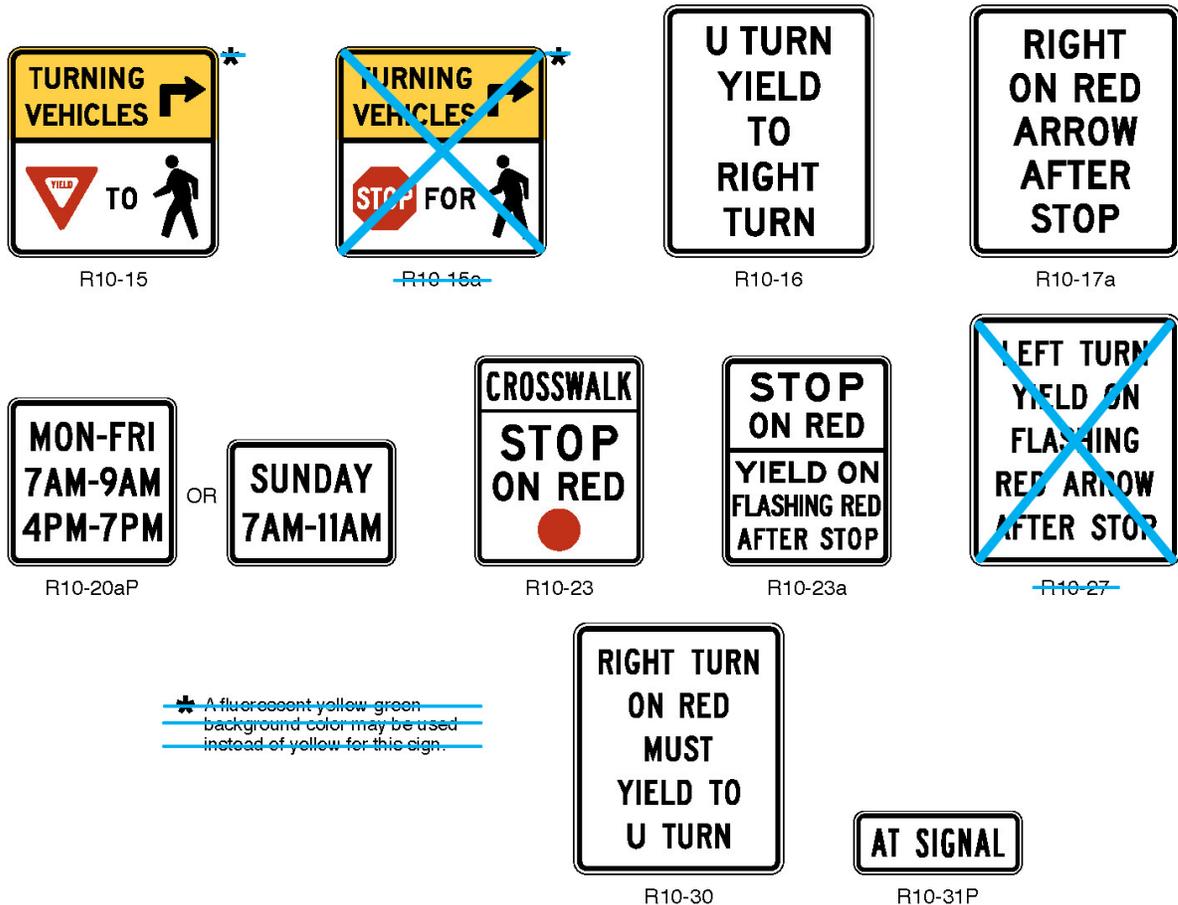
17 ~~The Turning Vehicles Stop for Pedestrians (R10-15a) sign shall only be used in jurisdictions where laws, ordinances or resolutions specifically require that a driver must stop for a pedestrian.~~

Guidance:

18 The R10-15 series signs, where used, should be placed as follows:

- A. On the near right corner of the signalized intersection for right-turning vehicles.
- B. On the far left corner of the signalized intersection for the left-turning vehicles onto a two-way street.
- C. On the near left corner of the signalized intersection for left-turning vehicles from a one-way street onto a one-way street.

Figure 2B-28. Traffic Signal Signs and Plaques (Sheet 2 of 2)



Section 2B.60 No Turn on Red Signs (R10-11 Series, ~~R10-17a~~, and R10-30, R10-110, and R10-111)

[Delete sign R10-17a from Table 2-1 and Figure 2B-28.]

Standard:

- 01 Where a right turn on a circular red signal indication (or a left turn on a circular red signal indication from a one-way street to a one-way street) is to be prohibited, a NO TURN ON RED (R10-11, R10-11b) word message sign (see Figure 2B-28) shall be used. A NO TURN ON RED (symbolic circular red) (R10-11a) sign (see Figure 2B-28) shall be used when the approach is controlled by both circular red and red arrow indications.

Option:

- 01A Where a right turn on red is to be prohibited, a symbolic No Right Turn on Red (Arrow Symbol) (R10-110) may be used in place of R10-11 or R10-11b.
- 01B Where a left turn on red (from a one-way street to a one-way street) is to be prohibited, a symbolic No Left Turn on Red (Arrow Symbol) (R10-111) may be used in place of R10-11 or R10-11b.

Guidance:

- 02 *If used, the No Turn on Red sign should be installed near the appropriate signal head.*
- 03 *A No Turn on Red sign should be considered when an engineering study finds that one or more of the following conditions exists:*
- A. Inadequate sight distance to vehicles approaching from the left (or right, if applicable);*
 - B. Geometrics or operational characteristics of the intersection that might result in unexpected conflicts;*
 - C. An exclusive pedestrian or bicycle phase;*
 - D. An unacceptable number of conflicting pedestrian movements with right-turn-on-red maneuvers, especially involving children, older pedestrians, or persons with disabilities;*
 - E. More than three right-turn-on-red crashes reported in a 12-month period for the particular approach; or*
 - F. The skew angle of the intersecting roadways creates difficulty for drivers to see traffic approaching from their left (or right, if applicable).*

Standard:

- 04 **If an R10-11, R10-11a, R10-11b, ~~or R10-17a~~, R10-110, or R10-111 sign with conventional road size as shown in Table 2B-1 is used on an approach on the far side of the intersection and the distance between the stop line and the sign is greater than 120 feet, then a duplicate sign shall be located on the near side of the intersection to supplement the sign on the far side of the intersection.**

Option:

- 05 When a no-turn-on-red restriction applies during certain time periods only, the following alternatives may be used:
- A. Movement Prohibition (R3-1, R3-2, R3-4, R3-18, and R3-27) signs or NO TURN ON RED signs displayed by using a blank-out sign for the time period or one or more portion(s) of a particular cycle of the traffic control signal during which the prohibition is applicable; or
 - B. Static signs incorporating a supplemental legend or with a supplemental R10-20aP plaque (see Figure 2B-28) showing the hours and days during which the prohibition is applicable.
- 06 White LEDs may be used in the border and activated during periods of turn prohibition to enhance the sign conspicuity.
- 07 On signalized approaches with more than one right-turn lane, a NO TURN ON RED EXCEPT FROM RIGHT LANE (R10-11c) sign (see Figure 2B-28) may be post-mounted at the intersection or a NO TURN ON RED FROM THIS LANE (with down arrow) (R10-11d) sign (see Figure 2B-28) may be mounted over the approximate center of the lane from which turns on red are prohibited.

Guidance:

- 08 ~~*Where turns on red are permitted and the signal indication is a steady RED ARROW, the RIGHT (LEFT) ON RED ARROW AFTER STOP (R10-17a) sign (see Figure 2B-28) should be installed adjacent to the RED ARROW signal indication.*~~

Option:

- 09 A RIGHT TURN ON RED MUST YIELD TO U-TURN (R10-30) sign (see Figure 2B-28) may be installed to remind road users that they must yield to conflicting U-turn traffic on the street or highway onto which they are turning right on a red signal after stopping.

Section 2B.64 Weight Limit Signs (R12-1 through R12-7 and R12-100 through R12-102)

Guidance:

00A Roadways, bridges, and other structures should be posted with signs R12-1 to R12-101 indicating the maximum safe sustainable loading to which they may be subjected if that loading is less than the maximum load allowed without a permit.

Standard:

00B On state highways, bridge postings shall be approved by the Chief Bridge Engineer of the DOT&PF.

Guidance:

00C Weight limit advance signs are not required for weight limits imposed by the state using seasonal weight restrictions allowed under 17 AAC 25.100 (a)-(b). These weight restrictions are to protect the road substructure during seasonally thawing of the road structure. The restrictions are only effective after due notice has been given to the public except in an emergency requiring immediate action.

Standard:

01 **Weight limit signs (see Figure 2B-30) shall be used to indicate a section of highway or structure that has a vehicle weight restriction.**

Guidance:

02 *The units shown on any weight limit sign should be consistent within a State or region with respect to pounds or tons.*

Option:

03 Where the restriction applies to axle weight rather than gross load, the legend AXLE WEIGHT LIMIT XX TONS or AXLE WEIGHT LIMIT XX LBS (R12-2) may be used.

04 In areas where multiple regulations are applicable, such as limiting both axle weight and gross vehicle weight, a WEIGHT LIMIT XX TONS PER AXLE, XX TONS GROSS (R12-4) sign combining the necessary messages on a single sign may be used.

05 Posting of specific load limits may be accomplished by use of the Weight Limit (R12-5) symbol sign. A sign containing the legend WEIGHT LIMIT on the top two lines, and showing up to three different truck symbols and their respective weight limits for which restrictions apply may be used, with the weight limits displayed to the right of each symbol as XX T. A bottom line of legend stating GROSS WT may be included if needed for enforcement purposes.

Support:

06 A specialized hauling vehicle is a single unit truck with multiple closely-spaced axles. Examples include dump trucks, construction vehicles, solid waste trucks and other hauling trucks. Specialized hauling vehicles typically have 4 to 7 axles.

Option:

07 The Weight Limit (R12-6) sign may be used to indicate vehicle weight restrictions for specialized hauling vehicles.

Standard:

08 **The symbols shown on the R12-5 and R12-6 Weight Limit sign shall apply to all trucks of that configuration (single-unit, single-trailer or multi-trailer) regardless of the shape of the vehicle. Symbolic representations of other vehicle shapes or modifications of standard symbols shall not be used.**

Option:

- 09 The facility type (such as “BRIDGE”) may be added to the legend of the sign to clarify the specific applicability of the weight limit.

Standard:

- 10 **If the R12-5 sign depicts only one single-unit vehicle symbol, the weight limit associated with that single-unit vehicle symbol shall apply to all single-unit vehicles, regardless of number of axles.**
- 11 **The weight limit associated with the single-trailer vehicle symbol shall apply to all single-trailer vehicles, regardless of number of axles or vehicle shape.**
- 12 **The weight limit associated with the multi-trailer vehicle symbol shall apply to all multi-trailer vehicles with two or more trailers, regardless of number of axles or vehicle shape.**
- 13 **A weight limit sign (see Figure 2B-30) shall be located at the applicable section of highway or structure.**
- 14 **An additional advance weight limit sign (W12-101), with an advisory distance (W12-100) sign, or directional legend, shall be located in advance of the applicable section of highway or structure so that prohibited vehicles can detour or turn around prior to the limit zone (see Section 2C.101).**
- 14A **Temporary restrictions reading LEGAL LIMIT (variable %) OF MAX. AXLE LOAD (R12-102) shall be posted on state highways during spring thaw or at any time when roadway conditions require restrictions of weights. These signs shall be posted in conspicuous locations when so ordered by the regional director of operations after suitable public notice.**

Option:

- 14B Temporary restriction (R12-102) signs need not be posted on all affected routes when the restrictions apply to an area.
- 14C An AXLE WEIGHT LIMIT 5 TONS (variable weight) (R12-2) sign may be mounted under an R12-102 sign.

Support:

- 15 An emergency vehicle is designed to be used under emergency conditions to transport personnel and equipment to support the suppression of fires and mitigation of other hazardous situations. Emergency vehicles are typically operated by fire departments and are primarily equipped for firefighting, but are also used to respond to and mitigate other hazardous situations in an emergency. They can create higher load effects compared to non-emergency vehicles of similar weight.

Option:

- 16 The Emergency Vehicle Weight Limit (R12-7) sign carrying the legend EMERGENCY VEHICLE WEIGHT LIMIT SINGLE AXLE XX TONS, TANDEM XX TONS, and GROSS XX TONS may be used to indicate vehicle weight restrictions for emergency vehicles.

Standard:

- 17 **When the emergency-vehicle weight limit is displayed in the same assembly as the primary weight limit sign, the Emergency Vehicle Weight Limit (R12-7aP) plaque shall be mounted below.**

Section 2B.65 Weigh Station Sign (R13-1, R13-100, and R13-101)*Guidance:*

- 01 An R13-1 sign with the legend *TRUCKS OVER XX TONS MUST ENTER WEIGH STATION NEXT RIGHT* (see Figure 2B-31) should be used to direct appropriate traffic into an inspection station.
- 01A An R13-100 sign with the legend *ALL TRUCKS COMMERCIAL VEHICLES USE RIGHT LANE* should be used in advance of Weigh Stations where all trucks and commercial vehicles are required to enter a weigh station.
- 01B An R13-101 sign with the legend *TRUCKS OVER XX GVWR STOP AT SCALES WHEN OPEN* should be used to direct appropriate traffic into a Weigh Station.
- 02 The R13-1, R13-100, and R13-101 signs should be supplemented by the D8 series of guide signs (see Section 2D.51).

Section 2B.66 TRUCK ROUTE Sign (R14-1 and R14-101)*Guidance:*

- 01 The TRUCK ROUTE (R14-1 and R14-101) sign (see Figure 2B-31) should be used to mark a route that has been designated to allow truck traffic.

Support:

- 02 Section 2D.20 contains information regarding the use of the TRUCK (M4-4P) auxiliary plaque (see Figure 2D-5) on a designated numbered alternative route.

Section 2B.73 Headlight Use Signs (R16-5 through R16-11, R16-110, R16-116, and I-190)*Support:*

- 01 Some States require road users to turn on their vehicle headlights under certain weather conditions, as a safety improvement measure on roadways experiencing high crash rates, or in special situations such as when driving through a tunnel.
- 02 Figure 2B-34 shows the various signs that can be used for informing motorists of these requirements.

Standard:

- 02A Signs requiring the use of headlights shall not be used except where ordered by the commissioner or headlight use is required by state law or local ordinance. Signs shall not be installed until the commissioner or the commissioner's designated representative certifies by means of a written order that vehicles are required to use headlights on the roadway.

Option:

- 03 A LIGHTS ON WHEN USING WIPERS (R16-5) sign or a LIGHTS ON WHEN RAINING (R16-6) sign may be installed in accordance with the provisions of Section 2A.01 to inform road users of State laws regarding headlight use. Although these signs are typically installed facing traffic entering the State just inside the State border, they also may be installed at other locations within the State.

Guidance:

- 04 If a particular section of roadway has been designated as a safety improvement zone within which headlight use is required, a TURN ON HEADLIGHTS NEXT XX MILES (R16-7) sign or a BEGIN DAYTIME HEADLIGHT SECTION (R16-10) sign should be installed at the upstream end of the

section, and an END DAYTIME HEADLIGHT SECTION (R16-11) sign should be installed at the downstream end of the section.

Option:

- 05 A TURN ON HEADLIGHTS (R16-8) sign may be installed to require road users to turn on their headlights in special situations such as when driving through a tunnel. A CHECK HEADLIGHTS (R16-9) sign may be installed downstream from the special situation to inform drivers that using their headlights is no longer required.

05A When approved by the commissioner, the HEADLIGHTS ON AT ALL TIMES (R16-110) sign or other approved Headlight Use signs may be used to address safety concerns about head-on collisions on undivided highways, at approaches to tunnels, in construction or maintenance work areas where dust impairs visibility, and at other appropriate locations.

Guidance:

05B On rural roads, the HEADLIGHTS ON AT ALL TIMES (R16-110) sign or other approved Headlight Use signs should be placed approximately every 10 minutes of travel time.

05C The END ENFORCEMENT (R16-116) sign, mounted below a HEADLIGHTS ON FOR SAFETY (I-190) sign, should be used to mark the end of a HEADLIGHTS ON AT ALL TIMES zone.

Section 2B.74 Seat Belt Symbol

Guidance:

- 01 The seat belt symbol should not be used alone. If used, the seat belt symbol should be incorporated into regulatory sign messages for mandatory seatbelt use.

Support:

- 02 The seat belt symbol is illustrated in the “Standard Highway Signs” publication (see Section 1A.05).

02A The BUCKLE UP IT’S THE LAW (R16-118) sign is used near major entry points to inform visitors of Alaska’s mandatory safety belt law and at other points to remind and encourage motorists to use their seatbelts.

Option:

- 02B The CLICK IT OR TICKET (R16-117) sign may be used to emphasize Alaska’s mandatory safety belt law.

[The following are new sections. There are no corresponding sections in the MUTCD.]

Section 2B.100 NO STUDDERED TIRES Sign (R5-100) and NO STUDDERED TIRES MAY 1 TO SEPT 15 (APRIL 15 TO SEPT 30) Sign (R12-103)

Standard:

- 01 The NO STUDDERED TIRES (R5-100) sign shall be installed in conspicuous locations at major entrances to an area where a law, commissioner’s order (AS 28.35.155), or local ordinance prohibits the use of studded tires.

Option:

- 02 The NO STUDDERED TIRES MAY 1 TO SEPT. 15 (APRIL 15 TO SEPT. 30) (R12-103) sign may be installed on all highways in conspicuous locations. Use “MAY 1 TO SEPT. 15” north of 60oN latitude and “APRIL 15 TO SEPT. 30” south of 60oN latitude, as per AS 28.35.155.

Section 2B.101 NO ROAD MAINTENANCE AFTER (date) Sign (R11-100)

Guidance:

- 01 The NO ROAD MAINTENANCE AFTER (date) (R11-100) sign should be installed at the location where year-round maintenance ends.

Standard:

- 02 In locations where the R11-100 signs are not permanently installed, signs shall be posted at least 1 month before the effective date.

Option:

- 03 This sign may be installed on a Type III barricade in addition to being post-mounted on the right side of the roadway with the appropriate advance warning signs such as END MAINTENANCE 1000 FT. (W14-102) sign. An additional sign may be placed on the left where the roadway exceeds 40 feet in width.

Section 2B.102 ALL TRUCKS STOP BEFORE MOVING ON BRIDGE Sign (R12-1001)

Option:

- 01 When used, the ALL TRUCKS STOP BEFORE MOVING ON BRIDGE (R12-1001) sign may be posted adjacent to the roadway where heavy truck traffic is present and the RTSE determines it is necessary in consultation with State of DOT&PF Chief Bridge Engineer.

Section 2B.103 ONE TRUCK AT A TIME ON BRIDGE (R12-1101)

Option:

- 01 When used, ONE TRUCK AT A TIME ON BRIDGE (R12-1101) sign may be posted adjacent to the roadway where heavy truck traffic is present and the RTSE determines it is necessary in consultation with State of DOT&PF Chief Bridge Engineer.
- 02 An LCV ONLY (R12-1102) supplemental plaque may also be used in conjunction with the R12-1101 regulatory sign for restrictions applying only to LCV load limits.

Section 2B.104 \$1000 FINE FOR LITTERING Sign (R16-106)

Support:

- 01 AS 46.06.100 states, “The penalties imposed for littering shall be posted along the public highways of the state, at visitor centers, at entrances to state parks and recreational areas, at public beaches, and other publicly owned public places the commissioner determines necessary to accomplish the purposes of this chapter. The state agency or municipality responsible for litter removal from a public place shall post the notice required by this section.”

Standard:

- 02 The \$1000 FINE FOR LITTERING (R16-106) sign shall also be posted near the state boundary on each primary and secondary highway.

Section 2B.105 No Shooting Signs (R16-104, R16-105)

Option:

- 01 When used, the NO SHOOTING FROM ROADWAY (R16-104) or NO SHOOTING WITHIN 1/4 MILE OF THE ROADWAY (R16-105) sign may be posted adjacent to the roadway where shooting is likely to occur.

Section 2B.106 Chains Required Signs (R12-104 through R12-108)

Standard:

- 01 Signs requiring the use of chains shall not be used except where required by conditions and ordered by the commissioner. Ice or snow must be such that chains are necessary to prevent traffic congestion and crashes. Do not install the signs until the commissioner or the commissioner's designated representative certifies by means of an order (similar to a speed zone order) that vehicles without chains are not permitted to use the roadway.
- 02 The CHAINS REQUIRED ON ALL VEHICLES (R12-105) sign shall be installed where chains are required before a vehicle may proceed.
- 03 Install an END CHAIN AREA (R12-107) sign at the end of the designated roadway section.

Option:

- 04 The CHAINS REQUIRED AHEAD (R12-104) sign may be installed in advance of a location where chains may be installed and in advance of a road segment where chains use is required. Locate the sign at a distance in advance of the installation point as indicated in Section 2C.05, Table 2C-4, Condition B of the MUTCD and 0 mph as the speed at condition of concern. Greater distances may be advisable where ice and snow conditions on the roadway require longer stopping distances.
- 05 The INSTALL CHAINS HERE (Arrow) (R12-106) sign may be used to indicate a wide shoulder, pullout, rest area, or other parking area where a motorist may pull off the road to turn around or to install chains.
- 06 The STUDS OR CHAINS REQUIRED NEXT XX MILES (R12-108) may be installed as an alternative, or in addition, to R12-105.

Section 2B.107 ALL VEHICLES STOP AT CUSTOMS Sign (R13-103)

Guidance:

- 01 The ALL VEHICLES STOP AT CUSTOMS (R13-103) sign should be installed between a D8-102 and a D8-103 sign in accordance with Section 2S.05. The R13-103 sign should be in place only when the Customs Station is in operation. It should be removed or covered at all other times. It should be installed 4,000 feet in advance of the Customs Station or at the beginning of the deceleration lane, whichever distance is greater.

Section 2B.108 NO FISHING FROM BRIDGE Sign (R16-108)

Option:

- 01 When used, the NO FISHING FROM BRIDGE (R16-108) sign may be posted adjacent to the roadway prior to or on a bridge where fishing from the bridge creates the potential for vehicle pedestrian conflicts, where such fishing-related conflicts are documented to have occurred, or in consultation with another agency with authority over fishing activities.

Section 2B.109 NO DUMPING Sign (R16-109)

Option:

01 When used, the NO DUMPING (R16-109) sign may be posted adjacent to the roadway where illegal dumping of waste is documented to have occurred, or in consultation with another agency.

CHAPTER 2C. WARNING SIGNS AND OBJECT MARKERS

Section 2C.02 Design of Warning Signs

[\[Delete signs W16-12p, W25-1, and W25-2 from Table 2C-1.\]](#)

Standard:

- 01 Except as provided in Paragraph 2 of this Section or unless specifically designated otherwise, all warning signs shall be diamond-shaped (square with one diagonal vertical) with a black legend and border on a yellow background. Warning signs shall be designed in accordance with the sizes, shapes, colors, and legends contained in the “Standard Highway Signs” publication (see Section 1A.05).

Option:

- 02 A warning sign that is larger than the size shown in the Oversized column in Table 2C-1 for that particular sign may be diamond-shaped or may be rectangular or square in shape.

Support:

- 03 The use of a shape other than diamond-shaped is typical for overhead installations.
- 04 Section 2A.05 contains information on allowable methods to accommodate a diamond-shaped warning sign where the lateral space available in which to install a diamond-shaped warning sign is constrained, such as in urban locations, when mounting on a narrow median barrier or adjacent to a retaining wall, including the display of the standard legend in a vertically oriented rectangle.
- 05 The use of LEDs in the border and legend of warning signs is described in Section 2A.12.

Option:

- 06 Except for symbols on warning signs, minor modifications may be made to the design provided that the essential appearance characteristics are met. Modifications may be made to the symbols shown on combined horizontal alignment/intersection signs (see Section 2C.09) and intersection warning signs (see Section 2C.41) in order to approximate the geometric configuration of the intersecting roadway(s).
- 07 Word message warning signs other than those provided in this Manual may be developed and installed by State and local highway agencies for conditions otherwise not addressed by standard signs (see Section 2A.04).

- 08 ~~Warning signs regarding conditions associated with pedestrians, bicyclists, and playgrounds and their related plaques may have a black legend and border on a yellow or fluorescent yellow-green background.~~

Standard:

- 08A Warning signs regarding conditions associated with pedestrians, bicyclists, and playgrounds and their related plaques shall have a black legend and border on a yellow background except for warning signs in designated school areas.
- 08B Warning signs regarding conditions associated with pedestrians, bicyclists, and playgrounds and their related plaques shall have a black legend and fluorescent yellow-green background within school areas.

Standard:

- 09 Warning signs regarding conditions associated with school buses and schools and their related supplemental plaques shall have a black legend and border on a fluorescent yellow-green background (see Section 7B.01).

Option:

- 10 Consistent with the provisions of Section 4S.03, a Warning Beacon may be used in combination with a standard warning sign.

Section 2C.17 ROAD NARROWS Sign (W5-1)

Guidance:

- 01 *Except as provided in Paragraph 2 of this Section, a ROAD NARROWS (W5-1) sign (see Figure 2C-6) should be used in advance of a transition on two-lane roads where the pavement width is reduced abruptly to a width such that vehicles traveling in opposite directions cannot simultaneously travel through the narrow portion of the roadway without reducing speed.*

Standard:

- 01A The ROAD NARROWS (W5-1) sign shall only be used to indicate a change in width of paved travel lane, not the shoulders. See Section 2C.29 for the SHOULDER NARROWS (W5-100) sign.

Option:

- 02 The ROAD NARROWS (W5-1) sign may be omitted on low-volume local streets that have speed limits of 30 mph or less.
- 03 Additional emphasis may be provided by the use of object markers and delineators (see Sections 2C.70 through 2C.73 and Chapter 3G). The Advisory Speed (W13-1P) plaque (see Figure 2C-1 and Section 2C.59) may be used to indicate the recommended speed.

Section 2C.22 Freeway or Expressway Ends Signs (W19 Series)

Option:

- 01 A FREEWAY ENDS XX MILES (W19-1) sign or a FREEWAY ENDS (W19-3) sign (see Figure 2C-6) may be used in advance of the end of a freeway.
- 02 An EXPRESSWAY ENDS XX MILES (W19-2) sign or an EXPRESSWAY ENDS (W19-4) sign (see Figure 2C-6) may be used in advance of the end of an expressway.
- 03 The rectangular W19-1 and W19-2 signs may be post-mounted or may be mounted overhead for increased emphasis.

Guidance:

- 04 *If the reason that the freeway is ending is that the next portion of the freeway is not yet constructed and as a result all traffic must use an exit ramp to leave the freeway, an ALL TRAFFIC MUST EXIT (W19-5) sign (see Figure 2C-6) should be used in addition to the Freeway Ends signs in advance of the downstream end of the freeway.*
- 04A If used, the W19-1 and W19-2 signs should be installed in advance of the first access where through traffic may encounter cross-traffic. The W19-1 sign should not ordinarily be used at transitions from freeways to expressways (multi-lane divided roadway with access control and at-grade intersections).

Section 2C.24 DEAD END, NO OUTLET, and ROAD ENDS Signs and NO TURN AROUND Plaque (W14-1, W14-1a, W14-2, W14-2a, W14-200P, W8-26, and W8-26a)

Option:

- 01 The DEAD END (W14-1) sign (see Figure 2C-6) may be used at the entrance to a single road or street that terminates without intersecting another street. The NO OUTLET (W14-2) sign (see Figure 2C-6) may be used at the entrance to a road or road network from which there is no other exit.
- 02 DEAD END (W14-1a) or NO OUTLET (W14-2a) signs (see Figure 2C-6) may be used in combination with Street Name (D3-1) signs (see Section 2D.45) to warn turning traffic that the cross street ends in the direction indicated by the arrow.
- 03 At locations where the cross street does not have a name, a W14-1a or W14-2a sign may be used alone in place of a street name sign.

03A The NO TURN AROUND (W14-200P) plaque may be used beneath the DEAD END (W14-1) or NO OUTLET (W14-2) signs to warn road users of limited space for turning around at the end of the road.

Guidance:

- 04 *When the W14-1 or W14-2 sign is used, the sign should be posted as near as practicable to the entry point or at a sufficient advance distance to permit the road user to avoid the dead end or no outlet condition by turning at the nearest intersecting street.*

Standard:

- 05 **The DEAD END (W14-1a) or NO OUTLET (W14-2a) sign shall not be used instead of the W14-1 or W14-2 signs where traffic can proceed straight through the intersection into the dead end street or no outlet area.**

Option:

- 06 The ROAD ENDS XX FT (W8-26) or STREET ENDS XX FT (W8-26a) sign (see Figure 2C-11) may be used on the approach to the end of a conventional road or street where the terminus is not apparent.

Support:

- 07 Information about the use of Type 4 object markers to mark the end of the road or street is contained in Section 2C.73.

Standard:

- 08 **The W8-26 and W8-26a signs shall not be used in place of a W14-1 or W14-2 sign at the entrance to such a road or street.**

Support:

- 09 Section 2C.22 contains information on signs for use on the approach to the end of a freeway or expressway.

Section 2C.25 Low Clearance Signs (W12-2, W12-2a, ~~and W12-2b,~~ and W12-200)

Support:

- 00A LOW CLEARANCE (W12-2, W12-2a, and W12-200) signs are located on and in advance of low-clearance structures and indicate the clear height from the surface of the traveled way to the lowest point of the structure directly above.

Standard:

- 01 ~~The Low Clearance Advance (W12-2) sign (see Figure 2C-6) shall be used to warn road users of vertical clearances less than 14 feet 6 inches, or vertical clearances less than 12 inches above the statutory maximum vehicle height, whichever is greater.~~
- 01A Low Clearance signs shall be installed in accordance with Table 2C-101.
- 01B Structure-mounted Low Clearance signs shall either be the W12-2a or W12-200.

Table 2C-101. Low Clearance Sign Requirements

<u>Minimum Clearance</u>	<u>Sign on Structure (W12-2a or W12-200)</u>	<u>Advance W12-2 signs</u>	
		<u>At Advance Warning Distance</u>	<u>At 1st Upstream Intersection</u>
<u>17' or less</u>	<u>Required</u>	<u>--</u>	<u>--</u>
<u>16' or less</u>	<u>Required</u>	<u>Recommended</u>	<u>--</u>
<u>14'6" or less</u>	<u>Required</u>	<u>Required</u>	<u>Recommended</u>

Guidance:

- 02 ~~The actual clearance should be displayed on the Low Clearance (W12-2, W12-2a, and W12-2b) sign to the nearest 1 inch not exceeding the actual clearance. However, in areas that experience changes in temperature causing frost action, a reduction, not exceeding 3 inches, should be used for this condition.~~
- 02A The clearance displayed on the Low Clearance sign should be determined by subtracting 3 inches from the minimum measured clearance rounded down to the nearest inch.
- 02B W12-2 signs to be installed at the "Advance Warning Distance" should be located at the distance in advance of the low-clearance structure indicated in Section 2C.05, Table 2C-4, Condition A of the MUTCD.
- 02C W12-2 signs to be installed at the "1st Upstream Intersection" should be located at the distance indicated in Section 2C.05, Table 2C-4, Condition B and 0 mph as the speed at condition of concern in advance of the last intersection where an alternate route may be taken. Additional signs should be installed beyond this intersection to identify the roadway with the clearance restriction.
- 02D When used, the distance indicated on the "X" MILE AHEAD (W12-100) distance plate should be the mileage (to the closest 1/4 mile) between the sign and the clearance restriction.
- 03 ~~Clearances should be evaluated periodically to determine if additional low clearance signing is necessary, particularly when resurfacing operations have occurred, on routes onto which over-height vehicles are normally directed under the permit process, and structures that are susceptible to catastrophic failure when struck by overheight vehicles.~~
- 04 ~~The W12-2 sign with a supplemental distance plaque should also be placed at the nearest intersecting road or wide point in the road at which a vehicle can detour or turn around.~~
- 05 ~~Where there is a need to warn of a low clearance on an intersecting road or off a freeway or expressway exit, a rectangular warning sign with an appropriate word legend should be used rather than a W12-2 or W12-200 sign.~~

Option:

- 06 The Low Clearance Overhead (W12-2a or W12-2b) sign (see Figure 2C-6) may be installed on the structure to supplement the advance warning sign.

07 In cases where physical conditions on a structure limit the width such that the W12-2a or W12-2b signs are physically unable to fit, a W12-2 sign may be installed overhead on the structure or post-mounted in front of the structure, in addition to the required W12-2 sign at the advance location.

Guidance:

08 ~~In the case of an arch, or other structure under which the clearance varies greatly, two or more Low Clearance Overhead (W12-2a or 12-2b) signs should be installed on the structure itself to give information as to the clearances over the low clearance portions of the roadway.~~

Standard:

09 **If used, the Low Clearance Overhead (W12-2b) sign shall be placed over a lane or shoulder to indicate the portion of the structure with low clearance if the posted clearance does not apply to the entire structure.**

Guidance:

10 *The clearance shown on the Low Clearance Advance sign should match the clearance on the W12-2a or W12-2b sign or, if there are multiple W12-2b signs, should match the lowest clearance.*

Section 2C.29 Shoulder Signs (W5-100, W8-4, W8-9, W8-17, W8-23, and W8-25)

Option:

01 The SOFT SHOULDER (W8-4) sign (see Figure 2C-7) may be used to warn of a soft shoulder condition.

02 The LOW SHOULDER (W8-9) sign (see Figure 2C-7) may be used to warn of a shoulder condition where there is an elevation difference of 3 inches or less between the shoulder and the travel lane.

02A The SHOULDER NARROWS (W5-100) sign may be used to indicate a reduction in shoulder width.

Guidance:

03 *The Shoulder Drop Off (W8-17) sign (see Figure 2C-7) should be used where an unprotected shoulder drop-off, adjacent to the travel lane, exceeds 3 inches in depth for a significant continuous length along the roadway, based on engineering judgment.*

Option:

04 A SHOULDER DROP-OFF (W8-17P) supplement plaque (see Figure 2C-7) may be mounted below the W8-17 sign.

05 The NO SHOULDER (W8-23) sign (see Figure 2C-7) may be used to warn road users that a shoulder does not exist along a portion of the roadway.

06 The SHOULDER ENDS (W8-25) sign (see Figure 2C-7) may be used to warn road users that a shoulder is ending.

Guidance:

07 *Additional shoulder signs should be placed at appropriate intervals along the road where the condition continually exists.*

Section 2C.33 NO TRAFFIC SIGNS Sign (W18-1) and PRIMITIVE ROAD NO WARNING Sign (W16-113)

Option:

- 01 The NO TRAFFIC SIGNS (W18-1) sign (see Figure 2C-6) may be used only on low-volume rural roads to advise road users that no signs are installed along the distance of the road. The signs may be installed at the point where road users would enter the low volume road or where, based on engineering judgment, the road user might need this information.
- 02 A W7-3aP (see Figure 2C-5), W16-2P (see Figure 2C-16), or W16-9P (see Figure 2C-16) supplemental plaque with the legend NEXT XX MILES, XX FEET, or AHEAD may be installed below the W18-1 sign when appropriate.

Option:

- 02A The PRIMITIVE ROAD NO WARNING SIGNS sign (W16-113) may be used on low-volume roads with the following characteristics:

- A. AADT of less than 25, and
- B. Soil or gravel surface.

- 02B In addition to installing this sign at the beginning of the no-warning sign area, additional signs may be installed at intermediate points within the area.

Standard:

- 02C The Advisory Distance Plaque (W7-3aP) shall be installed below the W16-113 sign.

Section 2C.35 Advance Traffic Control Signs (W3-1, W3-2, W3-3, and W3-4)

Standard:

- 01 **The Stop Ahead (W3-1), Yield Ahead (W3-2), and Signal Ahead (W3-3) Advance Traffic Control signs (see Figure 2C-8) shall be installed on an approach to a primary traffic control device that is not visible for a sufficient distance to permit the road user to respond to the device (see Table 2C-3). The visibility criteria for a traffic control signal shall be based on having a continuous view of at least two signal faces for the distance specified in Table 4D-2.**

Guidance:

- 02 *Where intermittent obstructions occur, engineering judgment should determine the treatment to be implemented.*

Support:

- 03 Figure 2A-4 shows examples of the typical placement of an Advance Traffic Control sign.
- 04 Permanent obstructions causing the limited visibility might include roadway alignment or structures. Intermittent obstructions might include foliage or parked vehicles.

Option:

- 05 An Advance Traffic Control sign may be used for additional emphasis of the primary traffic control device, even when the visibility distance to the device is satisfactory.

Support:

- 06 Section 2C.65 contains information about the use of an advance street name plaque to identify an intersecting road.

Option:

- 07 A BE PREPARED TO STOP (W3-4) sign (see Figure 2C-8) may be used to warn of stopped traffic caused by a traffic control signal.

08 A Warning Beacon (see Section 4S.03) or yellow LEDs within the border of the sign may be used with an Advance Traffic Control or BE PREPARED TO STOP sign.

Standard:

09 **When a BE PREPARED TO STOP sign is used in advance of a traffic control signal, it shall be used in addition to a Signal Ahead sign and shall be placed downstream from the Signal Ahead sign.**

Guidance:

10 *When a Warning Beacon is interconnected with a traffic control signal or queue detection system, the BE PREPARED TO STOP sign should be supplemented with a WHEN FLASHING (W16-13P) plaque (see Figure 2C-16).*

Support:

11 Section 2C.45 contains information regarding the use of a NO MERGE AREA (W4-5aP) supplemental plaque in conjunction with a Yield Ahead sign.

[11A See Section 4S.06 Active Advance Warning Flashers.](#)

Section 2C.41 Intersection Warning Signs (W2-1 through W2-8)

[\[Delete sign W16-12p from Table 2C-1 and Figure 2C-10.\]](#)

Option:

01 A Cross Road (W2-1), Side Road (W2-2, W2-3, or W2-3a), T-Intersection (W2-4), or Y-Intersection (W2-5) sign (see Figure 2C-10) may be used in advance of an intersection to indicate the presence of an intersection and the possibility of turning or entering traffic.

02 The Circular Intersection (W2-6) sign (see Figure 2C-10) may be installed in advance of a circular intersection (see Figures 2B-21 through 2B-23).

Guidance:

03 *If an approach to a circular intersection has a statutory or posted speed limit of 40 mph or higher, the Circular Intersection (W2-6) sign should be installed in advance of the circular intersection.*

Option:

04 An educational plaque (see Figure 2C-10) with a legend such as ~~TRAFFIC CIRCLE (W16-12P)~~ or ROUNDABOUT (W16-12aP) may be mounted below a Circular Intersection sign.

Support:

05 Section 2C.65 contains information about the use of an advance street name plaque to identify an intersecting road.

Guidance:

06 *The Intersection Warning sign should illustrate and depict the general configuration of the intersecting roadway, such as a cross road, side road, T-intersection, or Y-intersection.*

07 *Intersection Warning signs, other than the Circular Intersection (W2-6) sign, the T-intersection (W2-4) sign, and the Grade Crossing and Intersection Advance Warning (W10-2, W10-3, W10-4, W10-11, and W10-12) signs (see Figure 8B-4) should not be used on approaches controlled by STOP signs, YIELD signs, or signals.*

08 *If an Intersection Warning sign is used where the side roads are not opposite of each other, the Offset Side Roads (W2-7) sign (see Figure 2C-10) should be used instead of the Cross Road sign.*

09 *If an Intersection Warning sign is used where two closely-spaced side roads are on the same side of the highway, the Double Side Roads (W2-8) sign (see Figure 2C-10) should be used instead of the Side Road sign.*

10 *No more than two side roads should be depicted on the same side of the highway on a W2-7 or W2-8 sign, and no more than three side roads should be depicted on a W2-7 or W2-8 sign.*

Option:

11 *When at least one side road is shown, the stem of an additional side road representing a significantly lower relative volume may be depicted using a line that is two-thirds the width of the through road based on engineering judgment.*

Support:

12 *Figure 2A-4 shows examples of the typical placement of an Intersection Warning sign.*

Section 2C.44 Traffic Signal Oncoming Extended Green Signs (W25-1 and W25-2)

[\[Delete signs W25-1 and W25-2 from Table 2C-1 and Figure 2C-10.\]](#)

[\[Delete the entirety of Section 2C.44 and replace with the following.\]](#)

Standard:

01A [The W25-1 and W25-2 signs shall not be used in Alaska.](#)

Section 2C.45 Merge Signs and Plaque (W4-1, W4-5, and W4-5aP)

Option:

01 *A Merge (W4-1) sign (see Figure 2C-11) may be used to warn road users on the major roadway that merging movements might be encountered in advance of a point where lanes from two separate roadways converge as a single traffic lane and no turning conflict occurs.*

02 *A Merge sign may also be installed on the side of the entering roadway to warn road users on the entering roadway of the merge condition.*

Guidance:

03 *The Merge sign should be installed on the side of the major roadway where merging traffic will be encountered and in such a position as to not obstruct the road user's view of entering traffic.*

04 *When a Merge sign is installed on a major roadway, the symbol should be oriented right or left as appropriate to depict the side from which the merge occurs, with the arrow representing the major roadway and the curved stem representing the entering roadway (see Figure 2C-11)*

05 *When a Merge sign is installed on an entering roadway that curves before merging with the major roadway, such as a ramp with a curving horizontal alignment as it approaches the major roadway, the Entering Roadway Merge (W4-5) sign (see Figure 2C-11) should be used to better portray the actual geometric conditions to road users on the entering roadway.*

06 *Where two roadways of approximately equal importance converge and merging movements are required, a Merge sign should be placed on each roadway.*

07 *The Merge sign should not be used where two roadways converge and merging movements are not required.*

Standard:

- 08 The Merge sign shall not be used in place of a Lane Ends (W4-2) sign (see Section 2C.47) where lanes of traffic moving on a single roadway must merge because of a reduction in the actual or usable pavement width.

08A When installed at merging entrance ramps, the W4-1 sign shall be installed 100 feet in advance of the beginning of the paved gore preceding the merge. If there is insufficient width at this point to install the sign with appropriate clearance from pavement edges, it should be moved farther upstream until the desired width is obtained.

Option:

- 09 An Entering Roadway Merge (W4-5) sign with a NO MERGE AREA (W4-5aP) supplemental plaque (see Figure 2C-11) mounted below it may be used to warn road users on an entering roadway that they will encounter an abrupt merging situation without an acceleration lane at the downstream end of the ramp.
- 10 A Merge (W4-1) sign with a NO MERGE AREA (W4-5aP) supplemental plaque mounted below it may be used to warn road users on the major roadway that traffic on an entering roadway will encounter an abrupt merging situation without an acceleration lane at the downstream end of the ramp.
- 11 For a yield-controlled channelized right-turn movement onto a roadway without an acceleration lane, a NO MERGE AREA (W4-5aP) supplemental plaque may be mounted below a Yield Ahead (W3-2) sign and/or below a YIELD (R1-2) sign when engineering judgment indicates that road users would expect an acceleration lane to be present.

Support:

- 12 Examples of the use of Merge (W4-1) signs are shown in Drawing A in Figure 2C-12.

Section 2C.46 Added Lane Signs (W4-3 and W4-6)*Guidance:*

- 01 *The Added Lane (W4-3) sign (see Figure 2C-11) should be installed in advance of a point where two roadways converge and merging movements are not required. When possible, the Added Lane sign should be placed such that it is visible from both roadways; if this is not possible, an Added Lane sign should be placed on the side of each roadway.*

01A When installed at added-lane entrance ramps, the W4-3 sign should be installed 100 feet in advance of the beginning of the paved gore preceding the lane-add. If there is insufficient width at this point to install the sign with appropriate clearance from pavement edges, it should be moved farther upstream until the desired width is obtained.

- 02 *When an Added Lane (W4-3) sign is installed on a major roadway, the symbol should be oriented right or left as appropriate to depict the side from which the entering roadway converges, with the straight arrow representing the major roadway and the curved arrow representing the entering roadway. The sign should be located on the side of the major roadway from which the entering roadway converges.*

- 03 *When an Added Lane sign is to be installed on a roadway that curves before converging with another roadway that has a tangent alignment at the point of convergence, the Entering Roadway Added Lane (W4-6) sign (see Figure 2C-11) should be used to better portray the actual geometric conditions to road users on the curving roadway.*

Support:

- 04 Examples of the use of Added Lane (W4-3) and Entering Roadway Added Lane (W4-6) signs are shown in Drawing B in Figure 2C-12.

Section 2C.51 Two-Way Traffic Sign (W6-3)*Guidance:*

- 01 *A Two-Way Traffic (W6-3) sign (see Figure 2C-11) should be used to warn road users of a transition from a multi-lane divided section of roadway to a two-lane, two-way section of roadway.*
- 02 *A Two-Way Traffic (W6-3) sign with an AHEAD (W16-9P) plaque (see Figure 2C-16) should be used to warn road users of a transition from a one-way street to a two-lane, two-way section of roadway (see Figure 2B-18).*

Option:

- 03 The Two-Way Traffic sign may be used at intervals along a two-lane, two-way roadway and may be used to supplement the Divided Highway (Road) Ends (W6-2) sign discussed in Section 2C.21.

Support:

- 04 Section 6H.17 contains information on a Narrow Two-Way Traffic (W6-4) sign for use in temporary traffic control situations.

Option:

- 04A If edge line markings are placed without centerline markings, the Two-Way (W6-3) sign may be used where road users could perceive that they are on a one-way roadway when, in fact, they are on a two-lane, two-way highway.

Section 2C.54 Vehicular Traffic Warning Signs (W8-6, W11-1, W11-5, W11-8, W11-10, W11-11, W11-12P, W11-14, W11-15, ~~and~~ W11-15a, and W11-100)

[Revise the statement after the * in Figure 2C-14 of the MUTCD to “* A fluorescent yellow-green background color may be used for this sign or plaque within a school area.”]

Option:

- 01 Vehicular Traffic Warning (W8-6, W11-1, W11-5, W11-8, W11-10, W11-11, W11-12P, W11-14, W11-15, and W11-15a) signs (see Figure 2C-14) may be used to alert road users to locations where unexpected entries into the roadway by trucks, bicycles, farm vehicles, emergency vehicles, golf carts, horse-drawn vehicles, or other vehicles might occur. The TRUCK CROSSING (W8-6) word message sign may be used as an alternate to the Truck (W11-10) symbol sign.
- 01A CAUTION SNOW REMOVAL EQUIPMENT ON ROAD (W11-100) sign may be used to alert road users where snow removal activities may be underway over extended segments of roadway.

Support:

- 02 These locations might be relatively confined or might occur randomly over a segment of roadway.

Guidance:

- 03 *Vehicular Traffic Warning signs should be used only at locations where the road user’s sight distance is restricted, or the condition, activity, or entering traffic would be unexpected.*
- 04 *If the condition or activity is seasonal or temporary, the Vehicular Traffic Warning sign should be removed or covered when the condition or activity does not exist.*

Option:

- 05 The Trail Crossing (W11-15) sign may be used where both bicyclists and pedestrians might be crossing the roadway, such as at an intersection with a shared-use path. A TRAIL X-ING (W11-15P) supplemental plaque (see Figure 2C-14) may be mounted below the W11-15 sign. The TRAIL

CROSSING (W11-15a) sign may be used to warn of shared-use path crossings where pedestrians, bicyclists, and other user groups might be crossing the roadway.

- 06 The W11-1, W11-15, and W11-15a signs and their related supplemental plaques may have a fluorescent yellow-green background with a black legend and border [only within designated school zones](#).

Section 2C.55 Non-Vehicular Warning Signs (W11-2, W11-3, W11-4, W11-6, W11-7, W11-9, ~~and~~ W11-16 through W11-22, W11-104, W11-105, W11-107, and W11-108)

Option:

- 01 Non-Vehicular Warning (W11-2, W11-3, W11-4, W11-6, W11-7, W11-9, ~~and~~ W11-16 through W11-22, [W11-104, W11-105, W11-107, and W11-108](#)) signs (see Figure 2C-15) may be used to alert road users in advance of locations where unexpected entries into the roadway might occur or where shared use of the roadway by pedestrians, animals, or equestrians might occur.

Support:

- 02 These conflicts might be relatively confined, or might occur randomly over a segment of roadway.

Guidance:

- 03 *If used in advance of a pedestrian, snowmobile, or equestrian crossing, the W11-2, W11-6, W11-7, ~~and~~ W11-9, [and W11-108](#) signs should be supplemented with plaques (see Figure 2C-16 and Section 2C.61) with the legend AHEAD or XX FEET to inform road users that they are approaching a point where crossing activity might occur.*

Standard:

- 04 **If a post-mounted W11-2, W11-6, W11-7, ~~or~~ W11-9, [or W11-108](#) sign is placed at the location of the crossing point where pedestrians, snowmobilers, ~~or~~ equestrians, [or dog team](#) might be crossing the roadway, a diagonal downward-pointing arrow (W16-7P) plaque (see Figure 2C-16 and Section 2C.63) shall be mounted below the sign. If the W11-2, W11-6, W11-7, ~~or~~ W11-9, [or W11-108](#) sign is mounted overhead, the W16-7P plaque shall not be used.**
- 05 **A Non-Vehicular Warning sign assembly shall not be installed on an approach controlled by a STOP or a YIELD sign, except as provided in Paragraphs 6 and 7 of this Section.**

Option:

- 06 The Non-Vehicular Warning sign assembly may be installed on an approach to a circular intersection controlled by a YIELD sign where the crosswalk is at least 20 feet in advance of the yield point at the entrance to a circulatory roadway.
- 07 At a signalized or stop-controlled intersection the Non-Vehicular Warning sign assembly may be installed on an approach to a channelized right turn lane controlled by a YIELD sign where the crosswalk is at least 20 feet in advance of the yield point.
- 08 A Pedestrian Crossing (W11-2) sign may be placed overhead or may be post-mounted with a diagonal downward-pointing arrow (W16-7P) plaque at the crosswalk location where Yield Here To [\(Stop Here For\)](#) Pedestrians signs (see Section 2B.19) have been installed in advance of the crosswalk.

Standard:

- 09 **If a W11-2 sign has been post-mounted at the crosswalk location where a Yield Here To [\(Stop Here For\)](#) Pedestrians sign is used on the approach, the Yield Here To [\(Stop Here For\)](#) Pedestrians sign shall not be placed on the same post as the W11-2 sign.**

Option:

- 10 An advance Pedestrian Crossing (W11-2) sign with an AHEAD or a distance supplemental plaque may be used in conjunction with a Yield Here To ~~(Stop Here For)~~ Pedestrians sign on the approach to the same crosswalk.
- 11 The crossing location identified by a W11-2, W11-6, W11-7, or W11-9 sign may be defined with crosswalk markings (see Chapter 3C).
- 12 The W11-2 and W11-9 signs and their related supplemental plaques may have a fluorescent yellow-green background with a black legend and border [only within designated school zones](#).

Guidance:

- 13 *When a fluorescent yellow-green background is used, a systematic approach featuring one background color within a zone or area should be used. The mixing of standard yellow and fluorescent yellow-green backgrounds within a selected site area should be avoided.*

Option:

- 14 A Warning Beacon (see Section 4S.03) may be used with any Non-Vehicular Warning sign to indicate specific periods when the condition or activity is present or is likely to be present, or to provide enhanced sign conspicuity.
- 15 A supplemental WHEN FLASHING (W16-13P) plaque (see Figure 2C-16) may be used with any Non-Vehicular Warning sign that is supplemented with a Warning Beacon to indicate specific periods when the condition or activity is present or is likely to be present.

Section 2C.56 Playground Sign (W15-1)

Option:

- 01 The Playground (W15-1) sign (see Figure 2C-15) may be used to give advance warning of a designated children's playground that is located adjacent to the road.
- 02 The Playground sign may have a fluorescent yellow-green background with a black legend and border [only within designated school zones](#).

Guidance:

- 03 *If the access to the playground area requires a roadway crossing, the application of crosswalk pavement markings (see Chapter 3C) and a Non-Vehicular Warning sign (see Section 2C.55) should be considered.*

Section 2C.59 Advisory Speed Plaque (W13-1P) and Confirmation Advisory Speed Plaque (W13-1aP)

Option:

- 01 The Advisory Speed (W13-1P) plaque (see Figure 2C-1) may be used to supplement an advance warning sign to indicate the advisory speed for a condition.
- 02 The Confirmation Advisory Speed (W13-1aP) plaque (see Figure 2C-1) may be used to supplement a One-Direction Large Arrow (W1-6) sign on the outside of a turn or curve in line with and at approximately a right angle to approaching traffic.

Standard:

- 03 **The use of the Advisory Speed and Confirmation Advisory Speed plaques for horizontal curves shall be in accordance with Section 2C.06 and Table 2C-6. The speed differential in Table 2C-6 shall be the difference between the advisory speed for the horizontal curve and the posted speed limit, statutory speed limit, or the 85th percentile speed on the approach to the curve. The**

Advisory Speed plaque shall also be used where an engineering study indicates a need to advise road users of the advisory speed for other roadway conditions.

04 The speed displayed on the Advisory Speed and Confirmation Advisory Speed plaques shall be a multiple of 5 mph.

05 Except in emergencies or when the condition is temporary and the advisory speed is no greater than 10 mph below the posted speed and warranting conditions are present, an Advisory Speed or Confirmation Advisory Speed plaque shall not be installed until the advisory speed has been determined by an engineering study.

06 The Advisory Speed plaque shall only be used to supplement an advance warning sign. The Advisory Speed plaque or the Confirmation Advisory Speed plaque shall not be installed as a separate sign installation.

Guidance:

07 *The Advisory Speed plaque, if used with a sign that is also supplemented with another plaque, such as an Advance Street Name plaque (see Section 2C.65), should be mounted immediately below the primary warning sign with any other plaque mounted below the Advisory Speed plaque.*

Standard:

08 The Confirmation Advisory Speed plaque shall only be used to supplement a One-Direction Large Arrow (W1-6) sign (see Section 2C.10) or an Exit Gore (E5-1 series) (see Section 2E.26) sign and shall not be installed as a separate sign installation.

09 The advisory speed shall be determined by an engineering study that follows established engineering practices.

Standard:

09A The speed shown on the plaque shall not be in excess of the posted speed limit.

Guidance:

10 *The advisory speed should be determined based on free-flowing traffic conditions.*

11 *Because changes in conditions, such as roadway geometrics, surface characteristics, or sight distance, might affect the advisory speed, each location should be evaluated periodically or when conditions change.*

Support:

12 Among the established engineering practices that are appropriate for the determination of the recommended advisory speed for a horizontal curve are the following:

- A. Compass method
- B. Safety based method
- C. Accelerometer method
- D. Design equation method
- E. Ball bank method using the following criteria:
 1. 16 degrees of ball bank for speeds of 20 mph or less
 2. 14 degrees of ball bank for speeds of 25 to 30 mph
 3. 12 degrees of ball bank for speeds of 35 mph and higher.

13 The 16, 14, and 12 degrees of ball-bank criteria are comparable to the current AASHTO horizontal curve design guidance. Research has shown that drivers often exceed existing posted advisory curve speeds by 7 to 10 mph.

Section 2C.61 Distance Plaques (W16-2 Series, W16-3 Series, W16-4P and W7-3aP)

Option:

- 01 The Distance Ahead (W16-2 series and W16-3 series) plaques (see Figure 2C-16) may be used to inform the road user of the distance to the condition indicated by the warning sign.
- 02 The Next Distance (W7-3aP and W16-4P) plaques (see Figures 2C-5 and 2C-16) may be used to inform road users of the length of roadway over which the condition indicated by the warning sign exists.

Standard:

- 02A The Advisory Distance Plaque, NEXT “X” MILES (W7-3a) sign shall only be installed in conjunction with warning signs where conditions are similar throughout the indicated roadway section. This sign is not a substitute for signs warning of any abrupt change of the roadway character.
- 02B When used, advisory distance plaques shall be installed on the same post directly below the primary warning sign.

Section 2C.71 Object Markers for Obstructions within the Roadway

Standard:

- 01 **Obstructions within the roadway shall be marked with a Type 1 or Type 3 object marker. In addition to markers on the face of the obstruction, warning of approach to the obstruction shall be given by appropriate pavement markings (see Section 3B.13).**

Guidance:

- 01A Type 1 Object Markers (OM-1) should be mounted directly below each R4-7 and R4-8 sign on the lead end of a median.

Option:

- 02 To provide additional emphasis, a Type 1 or Type 3 object marker may be installed at or near the approach end of a median island.
- 03 To provide additional emphasis, large surfaces such as bridge piers may be painted with diagonal stripes, 12 inches or greater in width, similar in design to the Type 3 object marker.
- 03A Type 1 Object Markers (OM-1) may be mounted directly below W1-6 and W1-7 Large Arrow signs and W12-1 Double Arrow signs.
- 03B Where the median is less than 5 feet wide, a Type 2 or multiple, stacked Type 2 object markers may be installed.

Standard:

- 04 **The alternating black and retroreflective yellow stripes (OM3-L, OM3-R) shall be sloped down at an angle of 45 degrees toward the side on which traffic is to pass the obstruction. If traffic can pass to either side of the obstruction, the alternating black and retroreflective yellow stripes (OM3-C) shall form chevrons that point upwards.**

Option:

- 05 Appropriate signs (see Sections 2B.40 and 2C.23) directing traffic to one or both sides of the obstruction may be used instead of the object marker.

Section 2C.72 Object Markers for Obstructions Adjacent to the Roadway

Standard:

- 05 **Type 1 and Type 4 object markers shall not be used to mark obstructions adjacent to the roadway.**

Guidance:

- 06 *Standard warning signs in this Chapter should also be used where applicable.*
- 06A *Type 3 Object markers (OM-3) should be installed at bridges when any of the following conditions exist:*
- A. *Total road width (shoulders plus traveled way) on the bridge is narrower than the total road width of the approaching roadway.*
 - B. *Total two-way road width is less than 18 feet.*
 - C. *No guardrail is attached to the bridge end.*
- 06B *When used, object markers should be installed on a separate post adjacent to the nearest guardrail post to bridge abutments when there is an approach guardrail. When there is no approach guardrail, they should be mounted on the end of the bridge rail or on a separate post.*

[The following are new sections. There are no corresponding sections in the MUTCD.]

Section 2C.101 LOAD LIMIT WARNING Sign (W12-101)

Standard:

- 01 **The LOAD LIMIT WARNING (W12-101) sign shall be used to indicate the presence of a bridge with a restricted load-carrying capacity as determined by an engineering investigation. LOAD LIMIT WARNING (W12-101) sign shall be used only in conjunction with a W12-100 distance accessory plate indicating the distance from the sign to the condition of concern. The W12-101 sign shall be installed as indicated in Section 2C.04, Table 2C-3, Condition A of the MUTCD in advance of an intersection where a driver may make a decision to take an alternate route or where a large tractor/semi-trailer can turn off the highway. WEIGHT LIMIT (R12 Series) signs shall be installed at the bridge before this sign is installed.**

Option:

- 02 **An LCV ONLY (W12-102) warning plaque may also be used in conjunction with the W12-101 warning sign and W12-100 distance plaque for restrictions applying only to LCV load limits.**

Section 2C.102 End Signs (W14-100 and W14-102)

Support:

- 01 **The END (W14-100) sign is used in the head-on position at the end of a public road.**

Standard:

- 02 **The END-OF-ROAD (OM-4) marker shall be mounted below the W14-100 sign.**
- 03 **The END MAINTENANCE 1500 FT (variable distance) (W14-102) sign shall be installed in conjunction with the NO ROAD MAINTENANCE (R11-100) sign or STATE MAINTENANCE ENDS (I-181) sign to warn of the approach of a road section that will not be maintained. Install 500 to 1500 feet in advance of the R11-100 sign with the appropriate distance in the legend.**

Option:

- 04 **A second W14-101 sign with the appropriate distance may be installed between the initial W14-101 sign and the W14-100 sign when additional emphasis is needed.**

Section 2C.103 SLIDE AREA Signs (W16-100 and W16-101)

Support:

01 A slide area is defined as any section of roadway where rocks, snow (avalanches), or other natural debris may be expected to encroach on the roadway and create a condition that requires caution on the part of the motorist.

Guidance:

02 The SLIDE AREA (W16-100) sign should be installed an appropriate distance in advance of the beginning of a known slide area using Section 2C.04, Table 2C-3, Condition B of the MUTCD and 0 mph as the speed at condition of concern. The END SLIDE AREA (W16-101) sign should be installed on the right in the vicinity of the end of a slide area only where W16-100 signs have been installed at the beginning of the slide area. The SLIDE series signs should be removed or covered if the slide condition ceases to exist.

Section 2C.104 WATCH FOR ICE (W16-102)

Option:

01 The WATCH FOR ICE (W16-102) sign may be used to alert a motorist driving on ice-free pavement of an isolated condition that is not readily apparent. The sign is not intended to define a general, overall road condition. See also Section 2C. 32 of the MUTCD.

Section 2C.105 WATER OVER ROADWAY Sign (W16-103)

Standard:

01 When used, the WATER OVER ROADWAY (W16-103) sign shall be installed an appropriate distance in advance of the flooded section of roadway using Section 2C.04, Table 2C-3, of the MUTCD with Condition B and 0 mph as the speed at condition of concern.

Option:

02 The sign may be used to warn of temporary flooding or a low spot where the roadway is normally under water.

Standard:

03 When used to warn of temporary flooding, the signs shall be covered or removed when flooding ceases for more than 48 hours.

Section 2C.106 Avalanche Area Signs (W16-110 through W16-112)

Support:

01 An avalanche area is defined as any section of road where major snow slides (avalanches) may be expected to encroach on the roadway.

Standard:

02 The AVALANCHE AREA (W16-110) sign shall be installed an appropriate distance in advance of the avalanche area, using Section 2C.04, Table 2C-3, Condition B of the MUTCD and 0 mph as the speed at condition of concern. The W16-110 sign shall always be followed by an END AVALANCHE AREA (W16-111) sign. The signs shall be removed or covered after the avalanche danger has abated.

Option:

- 03 The AVALANCHE AREA NEXT X MILES DO NOT STOP (W6-112) sign may be used for additional emphasis.

Section 2C.107 WIND AREA Sign (W16-104)

Guidance:

- 01 WIND AREA (W16-104) sign should be used to indicate locations where winds regularly reach velocities that substantially affect the driving task. The signs should be removed or covered during those seasons of the year when high winds are unlikely.

[Section 2C.108 ROCKS (W16-105) and Rocks Symbol (W16-116) Signs are deleted because these signs are eliminated from the ASDS. See Section 2C.30 of the ATM for guidance on the use of the FALLEN ROCKS (W8-14) sign.]

Section 2C.108 ROAD CLOSED AHEAD (W14-103) and BRIDGE CLOSED AHEAD (W14-104) Signs

Standard:

- 01 The ROAD CLOSED AHEAD (W14-103) and BRIDGE CLOSED AHEAD (W14-104) signs shall be installed using Section 2C.04, Table 2C-3, Condition B of the MUTCD and 0 mph as the speed at condition of concern, in advance of an intersection where a driver may take an alternate route. The Advisory Distance Plate (W12-100) shall be used in conjunction with the W14-103 or W14-104 signs.

Guidance:

- 02 Additional signs should be installed beyond this intersection to identify the roadway with the closure.

Section 2C.109 LOW FLYING AIRCRAFT Sign (W16-114)

Option:

- 01 The LOW FLYING AIRCRAFT (W16-114) sign may be used in those areas where low-flying aircraft are encountered, such as roadways near the end of an airfield.

Section 2C.110 AIRCRAFT CROSSING Sign (W16-106)

Guidance:

- 01 The AIRCRAFT CROSSING (W16-106) sign should be used in those areas where taxiing aircraft cross roadways.

Section 2C.111 JET BLAST AREA Signs (W16-108 and W16-109)

Guidance:

- 01 The JET BLAST AREA (W16-108) sign should be used in advance of a section of roadway which is subject to high winds and the possibility of flying debris from aircraft exhausts. Use Section 2C.04, Table 2C-4, of the MUTCD and Condition B and 0 MPH as the speed at the condition of concern. This sign should be used in conjunction with NO STOPPING OR STANDING (R7S-) signs posted from boundary to boundary of the jet blast area.

Option:

- 02 The END JET BLAST AREA (W16-109) sign may be used where the limits of exposure are not immediately obvious.

Section 2C.112 SLOW MOVING VEHICLES Sign (W7-100)

Option:

- 01 The SLOW MOVING VEHICLES (W7-100) sign may be used on roadways where vehicles moving substantially slower than the established speed limit are common.

Section 2C.113 Winter Road Condition Advisory Signs (W14-105 and W14-106)

Option:

- 01 The TRAVEL BEYOND THIS POINT NOT RECOMMENDED (W14-105) sign may be used at the point of closure during winter road closures.

Guidance:

- 02 The TRAVEL BEYOND THIS POINT NOT RECOMMENDED (W14-105) sign should not be used alone. It should be used as a supplement to other signs notifying motorists that the road is not maintained beyond that point.

Option:

- 03 The WINTER WARNING (W14-106) sign may be used on local roads not maintained by the highway agency with jurisdiction and where steep road segments exist or where deep snow or ice may accumulate.

Guidance:

- 04 The WINTER WARNING (W14-106) sign should be installed at the entrance to the local road system or in a location in advance of the conditions requiring the sign.

Section 2C.114 HIDDEN DRIVEWAY Sign (W7-102)

Option:

- 01 A HIDDEN DRIVEWAY (W7-102) sign may be used in advance of a driveway when sight distance is restricted by a hill or roadside sight obstruction.
- 02 A HIDDEN DRIVEWAY (W7-102) sign may be supplemented by an Advisory Speed (W13-1P) plaque indicating the recommended speed based on available sight distance. It may also be supplemented with AHEAD (W16-9P), 500 FT (W16-2P), or NEXT XX MILES (W7-3aP) plaques.
- 03 HIDDEN DRIVEWAY (W7-102) signs may be installed when available sight distance, measured in accordance with Figure 2C-101, Sight Distance Measurement for HIDDEN DRIVEWAY (W7-102) signs, is less than or equal to the values given in AASHTO Policy of Geometric Design of Highways and Streets (7th Edition) Table 7-1 (or more recent publication if available).

Guidance:

- 04 HIDDEN DRIVEWAY (W7-102) signs should not be used on residential or low-volume streets where the majority of the traffic is local to the area and driveways are expected.
- 05 Every effort should be made to obtain minimum sight distance before installing these signs.

Section 2C.115 THRU TRAFFIC MERGE LEFT (RIGHT) Sign (W4-100)

Option:

- 01 The THRU TRAFFIC MERGE LEFT (RIGHT) sign (W4-100) may be used on controlled access facilities to inform motorists that the outside or inside lane is being dropped at the next exit and through traffic must merge into the adjacent lane. It may also be used to help traffic avoid congestion at on-ramp entrances or other choke points.

Guidance:

- 02 The W4-100 sign should not be used to warn of lane reductions.

Section 2C.116 DOG TEAM CROSSING Sign (W11-108)

Option:

- 01 This sign may be used at a trail crossing location where dog teams cross regularly.

Guidance:

- 02 If used, the DOG TEAM CROSSING sign should be installed in advance of the trail crossing using Section 2C.04, Table 2C-4, Condition B of the MUTCD and 0 mph as the speed at the condition of concern.

Section 2C.117 MOOSE CRASH AREA Sign (W16-115)

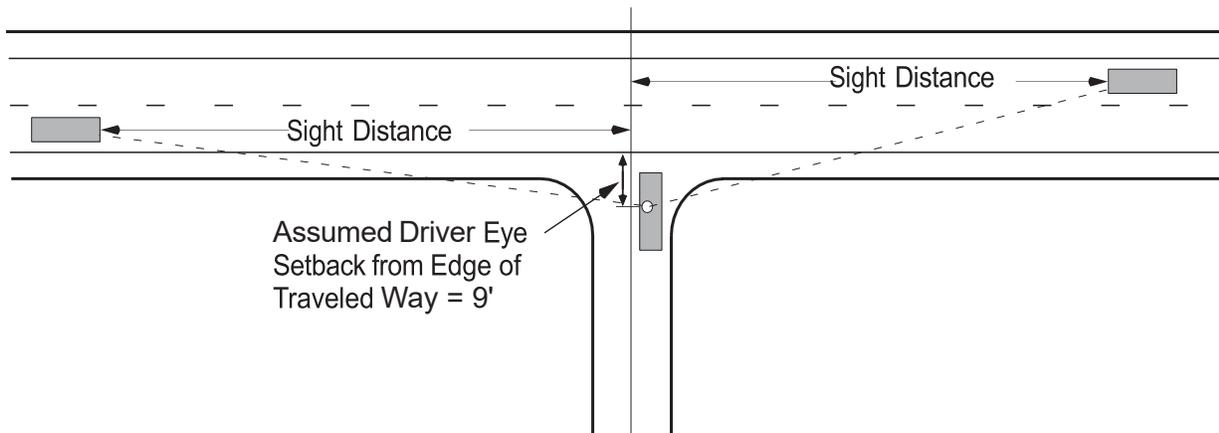
Option:

- 01 The MOOSE CRASH AREA (W16-115) signs may be installed in areas of high Moose-Vehicle Crashes (MVC). W16-115 signs may be installed on one or more routes in an area where moose population and traffic volumes contribute to high incidence of MVC.

Guidance:

- 02 MOOSE CRASH AREA (W16-115) signs should only be installed on road segments in the top 5% for MVC in the state as ranked by DOT&PF Traffic and Safety staff or in consultation with the Alaska Department of Fish and Game.
- 03 The number posted on W16-115 signs should be the same on all such signs in a high MVC area.

Figure 2C-101. Sight Distance Measurement for HIDDEN DRIVEWAY Signs



CHAPTER 2D. GUIDE SIGNS—CONVENTIONAL ROADS

Section 2D.05 Size of Lettering

Support:

- 01 Sign legibility is a direct function of letter size and spacing. Legibility distance has to be sufficient to give road users enough time to read and comprehend the sign. Under optimum conditions, a guide sign message can be read and understood in a brief glance. The legibility distance takes into account factors such as inattention, blocking of view by other vehicles, unfavorable weather, inferior eyesight, or other causes for delayed or slow reading. Where conditions permit, repetition of guide information on successive signs gives the road user more than one opportunity to obtain the information needed.

Standard:

- 02 **Design layouts for conventional road guide signs showing interline spacing, edge spacing, and other specification details shall be as shown in the “Standard Highway Signs” publication (see Section 1A.05).**
- 03 **Except as otherwise provided in this Manual, the principal legend on post-mounted guide signs shall be in letters and numerals at least 6 inches in height for all upper-case letters, or a combination of 6 inches in height for upper-case letters and 4.5 inches in nominal loop height (see Section 2D.04) for lower-case letters. ~~On low volume roads with speeds of 25 mph or less, and on urban streets with speeds of 25 mph or less~~ On roads with speeds of 25 mph or less at a stop condition, the principal legend on post-mounted guide signs shall be in letters at least 4 inches in height for all upper-case letters, or a combination of 4 inches in height for upper-case letters and 3 inches in nominal loop height for lower-case letters.**
- 04 **Except as otherwise provided in this Manual, the principal legend on overhead guide signs shall be in letters and numerals at least 6 inches in height for all upper-case letters, or a combination of 6 inches in height for upper-case letters and 4.5 inches in nominal loop height (see Section 2D.04) for lower-case letters.**

Guidance:

- 05 *Lettering sizes should be consistent on any particular class of highway.*
- 06 *The minimum lettering and numeral sizes provided in this Manual (see Table 2D-2) should be exceeded where conditions indicate a need for greater legibility.*

Section 2D.09 Numbered Highway Systems

Support:

- 01 The purpose of numbering and signing highway systems is to identify routes and facilitate travel.
- 02 The Interstate and United States (U.S.) highway systems are numbered by the American Association of State Highway and Transportation Officials (AASHTO) upon recommendations of the State highway organizations because the respective States own these systems. State and county road systems are numbered by the appropriate authorities.
- 03 The basic policy for numbering the Interstate and U.S. highway systems is contained in the following Purpose and Policy statements published by AASHTO:
- A. “Establishment and Development of United States Numbered Highways,” and
 - B. “Establishment of a Marking System of the Routes Comprising the National System of Interstate and Defense Highways.”

Guidance:

- 04 *The principles of these policies should be followed in establishing the highway systems described in Paragraph 3 of this Section and any other systems, with effective coordination between adjacent jurisdictions. Care should be taken to avoid the use of numbers or other designations that have been assigned to Interstate, U.S., or State routes in the same geographic area. Overlapping numbered routes should be kept to a minimum.*

Standard:

- 05 **Route systems shall be given preference in this order: Interstate, United States, State, and county. The preference shall be given by installing the highest-priority route number on the top or the left of the sign, except as provided in Paragraph 6 of this Section.**

05A **The route numbers shown in Figure 2D-100 shall be used on route markers.**

Support:

05B Table 2D-100 provides a description of the numbered routes in Figure 2D-100.

Standard:

- 06 **Interstate route numbering shall be approved by the FHWA.**

Option:

- 07 The prioritization of route systems may be modified when a different prioritization would better accommodate the expectancy of the road user and provide more effective direction, such as for separate decision points for routes that are encountered in a particular order.

Support:

- 08 Section 2D.56 contains information regarding the signing of unnumbered highways to enhance route guidance and facilitate travel.

Section 2D.11 Design of Route Signs

Standard:

- 01 **The design of standard route signs shall conform to the designs provided in the Standard Highway Signs” publication (see Section 1A.05). The design of other route signs shall be established by the authority having jurisdiction and shall be in general conformance with the designs provided in the “Standard Highway Signs” publication.**

- 02 **Interstate Route (M1-1 and M1-1a) signs (see Figure 2D-4) shall be used on all Interstate routes and in connection with Route Sign assemblies on intersecting highways.**

- 03 **Except as otherwise provided in this Manual, a 24 x 24-inch minimum sign size shall be used for Interstate route numbers with one or two digits, and a 30 x 24-inch minimum sign size shall be used for Interstate route numbers having three digits.**

Option:

- 04 When the Interstate Route Sign is used in a Route Sign assembly (see Section 2D.29), the M1-1a sign, containing the State name in white upper-case letters on a blue background as detailed in the “Standard Highway Signs” publication (see Section 1A.05), may be used in place of the M1-1 sign.

Standard:

- 05 **Use of the M1-1a sign shall be limited to Route Sign assemblies.**

- 06 **Off-Interstate Business Route (M1-2 and M1-3) signs (see Figure 2D-4) shall consist of a cutout shield displaying the number of the connecting Interstate route and the words BUSINESS and either LOOP (when the route rejoins the same Interstate route) or SPUR (when the route leaves the corresponding Interstate route and does not rejoin) in upper-case letters. The legend**

and border shall be white on a green background, and the shield shall be the same shape and dimensions as the Interstate Route sign. In no instance shall the word INTERSTATE appear on the Off-Interstate Business Route sign.

Option:

- 07 The Off-Interstate Business Route sign may be used on a major highway that is not a part of the Interstate system, but one that serves the business area of a city from an interchange on the system.

Standard:

- 08 U.S. Route signs (see Figure 2D-4) shall consist of black numerals on a white shield surrounded by a rectangular black background without a border. This sign shall be used on all U.S. routes and in connection with Route Sign assemblies on intersecting highways.

- 09 A 24 x 24-inch minimum sign size shall be used for U.S. route numbers with one or two digits, and a 30 x 24-inch minimum sign size shall be used for U.S. route numbers having three digits.

- 10 ~~State Route signs shall be designed by the individual State highway agencies.~~

- 10A Route Markers for all Numbered State Highways shall be M1-5 signs as shown in the ASDS.

Figure 2D-100. Alaska Numbered Routes

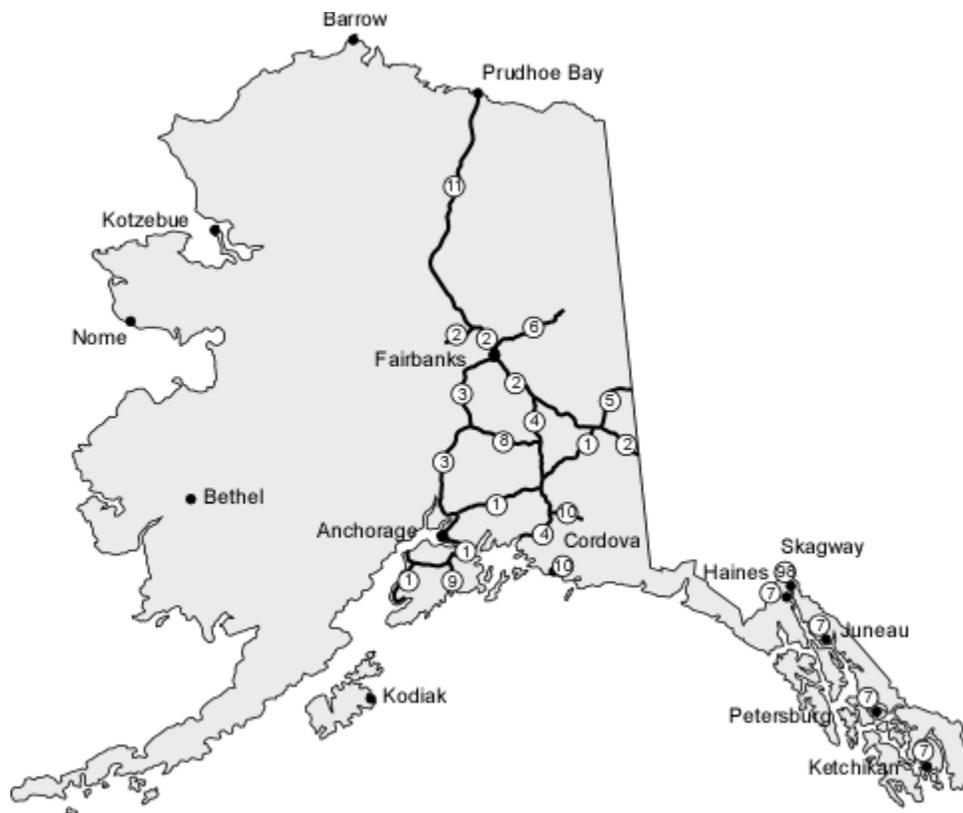


Table 2D-100. Description of Numbered Routes Shown on Figure 2D-100

Route Number	Route Description and Termini Intermediate Junctions, Destinations	Cardinal Direction
AK-1	Homer to Tok, via:	N – S
	Sterling HWY, Homer to Seward HWY JCT	
	Seward HWY, Sterling HWY JCT to Anchorage	
	Glenn HWY, Anchorage to Glennallen	
	Richardson HWY, Glennallen to Tok Cutoff HWY JCT	
	Tok Cutoff, Richardson HWY JCT to Tok	
AK-2	Canadian Border to Manley Hot Springs, via:	E – W
	Alaska HWY, Canadian Border to Delta Junction	
	Richardson HWY, Delta Junction to Fairbanks	
	Steese HWY, Fairbanks to Elliott HWY JCT	
	Elliott HWY, Fox to Manley Hot Springs	
AK-3	Wasilla to Fairbanks, via:	N – S
	George Parks HWY, Glenn HWY JCT to Richardson HWY JCT	
AK-4	Valdez to Delta Junction via Richardson HWY	N – S
AK-5	Tetlin Junction to Canadian Border via:	N - S
	Taylor HWY, Alaska HWY JCT to Top of the World HWY JCT	
	Top of the World HWY, Taylor HWY JCT to Canadian Border	
AK-6	Elliott/Steese JCT to Circle via Steese HWY	E – W
AK-7	Major highways in Southeast, including:	N – S
	South Tongass HWY, North Tongass HWY (Ketchikan)	
	Nordic Drive, Mitkof HWY (Petersburg)	
	Glacier HWY, Egan Drive (Juneau)	
	Haines HWY, Haines to Canadian Border	
AK-8	Denali HWY, Cantwell to Paxson	E – W
AK-9	Seward HWY, Seward to Sterling HWY JCT	N – S
AK-10	Copper River HWY, Cordova to Richardson/Edgerton HWY	E – W
	Copper River HWY, Cordova to end	
	Edgerton HWY, Richardson HWY JCT to Copper River Spur JCT McCarthy Road	
AK-11	Elliott/Dalton JCT to Deadhorse via James Dalton HWY	N – S
AK-98	Skagway to Canadian Border via Klondike HWY	N – S

11 **The legend on State Route signs shall conform to the Standard Alphabets contained in the “Standard Highway Signs” publication (see Section 1A.05).**

Guidance:

12 *State Route signs (see Figure 2D-4) should be rectangular and should be approximately the same size as the U.S. Route sign. State Route signs should also be similar to the U.S. Route sign by containing approximately the same size black numerals on a white area surrounded by a rectangular black background without a border, and should be devoid of complex graphics. The shape of the white*

area should be circular in the absence of any determination to the contrary by the individual State concerned.

- 13 Where U.S. or State Route signs are used as components of guide signs, only the distinctive shape of the shield itself and the route numerals within should be used. The rectangular background upon which the distinctive shape of the shield is mounted, such as the black area around the outside of the shields on the M1-4 and standard M1-5 signs, should not be included on the guide sign. Where U.S. or State Route signs are used as components of other signs of non-contrasting background colors, the rectangular background should be used so that recognition of the distinctive shape of the shield can be maintained.

Support:

- 13A [Section 2D.16 Alternative Route Auxiliary Plaques \(M4-1P through M4-4P\) provides guidance for signing alternative routes from a numbered State Route, such as ALTERNATE, BY-PASS, BUSINESS, or TRUCK.](#)

Standard:

- 14 If county road authorities elect to establish and identify a special system of important county roads, a statewide policy for such signing shall be established that includes a uniform numbering system to uniquely identify each route. The County Route (M1-6) sign (see Figure 2D-4) shall consist of a pentagon shape with a yellow county name and route number and border on a blue background. County Route signs shall be a minimum size of 24 x 24 inches.

- 15 If a jurisdiction uses letters instead of numbers to identify routes, all references to numbered routes in this Chapter shall be interpreted to also include lettered routes.

Guidance:

- 16 If used with other route signs in common assemblies, the County Route sign should be of a size compatible with that of the other route signs.

Standard:

- 17 The design of the National Forest Route (M1-7) sign (see Figure 2D-4) shall be as detailed in the “Standard Highway Signs” publication (see Section 1A.05). Route signs for other park and forest roads shall be designed with an appropriate level of distinctiveness and adequate legibility, but in general compliance with the design principles for route signs and of a size compatible with other route signs used in common assemblies.

Section 2D.35 Destination and Distance Signs

Support:

- 01 In addition to guidance by route numbers, it is desirable to supply the road user information concerning destinations that can be reached by way of numbered or unnumbered routes. This is done by means of Destination signs and Distance signs.

Option:

- 02 Route shields and cardinal directions may be included in the Destination sign with the destinations and arrows.

Guidance:

- 03 If Route shields and cardinal directions are included on a Destination sign, the height of the route shields should be at least two times the height of the upper-case letters of the principal legend and not less than 18 inches, and the letter height of cardinal directions should be at least the minimum letter height specified for these signs.

- 04 *If used, destination names on low-volume rural roads should be as specific and descriptive as possible. Destinations such as campgrounds, ranger stations, and recreational areas should be clearly indicated so that they are not interpreted to be communities or locations with road user services.*

Standard:

- 04A The control and intermediate destinations in Table 2D-101 shall be used for destination and distance signs.

Option:

- 04B In addition to control and intermediate destinations, hamlets and unincorporated communities may be shown on destination signs on state roads when allowed by the agency with road jurisdiction.

Section 2D.36 Destination Signs (D1 Series)

Guidance:

- 00A Destination signs should only be used where they will provide a significant service to motorists.

Support:

- 00B In addition to guidance by route markers, it is necessary to direct traffic to communities and other destinations on the route and on other roads intersecting the state route.
- 00C It is not feasible to place signs along highways listing all possible destinations that can be reached from the highway. Normally, a single community, facility, or other feature readily identifiable from a road map can be used to direct motorists to other destinations on the same route. Correlate destination signs with features readily identifiable on conventional service station tourist maps.

Guidance:

- 00D The following criteria should be met before a directional sign can be considered. However, they are not warrants and do not guarantee placement of signs. On state highways, it is the responsibility of the RTSE to consider other factors such as interference with higher-priority signing and other destinations that now or in the future will compete for sign space.

- 00E Signs can direct to the following places, consistent with the foregoing discussion:

- A. Incorporated cities
- B. Unincorporated cities
- C. Major parks or mountains
- D. Lakes and mountain passes in areas where there are no other places of greater importance
- E. Rivers, valleys, and other geographical points if they identify areas, and
- F. Sports arenas, fairgrounds, and other public or private attractions that are major driver attractions

- 00F Consider the following information when deciding whether to sign the following types of destinations:

- A. Military installations, churches, city parks, public buildings, businesses, subdivisions, clubs, shopping centers, courthouses, zoos, museums, and other local places normally will not be signed. Signing can be considered for a non-qualifying facility that is the principal destination from the interchange or crossroad, and which cannot be identified with a road or community. To qualify, such a facility should be located where there is no qualifying destination sign and motorists could not reasonably be expected to find their destination without signs, even with the aid of a map.

- B. Sign dams, reservoirs, mountain peaks, and other geographical features only when necessary to indicate direction or to identify areas, or if they are the principal destination served by a crossroad and cannot be identified with a road name or community.
- C. Airports that have regularly scheduled commercial air travel and mail pickup, or airports that are owned and operated by political subdivisions, can be signed from conventional highways and expressways. On freeways, sign only to those airports that have regularly scheduled air carrier and mail service, or where there is an off-ramp that serves the airport as either the only or the principal destination. Use AIRPORT (I3-5) or RG-260 signs unless there are two or more airports with significant traffic within a municipality.

Table 2D-101. Destination Control Cities for Alaska Guide Signs

Road Segment	Route Number(s)	Control Destinations	Intermediate Destinations
Sterling Highway, Homer to Soldotna	1	Homer, Anchorage	Soldotna, Kenai
Sterling Highway, Soldotna to Seward HWY JCT	1	Homer, Anchorage, Seward	Soldotna, Kenai
Seward Highway, Seward to Sterling HWY JCT	9	Seward, Homer, Anchorage	Kenai Fjords NATL Park
Seward Highway, Sterling HWY JCT to Anchorage	1	Homer, Seward, Anchorage	Girdwood, Whittier Access, Hope Road
Glenn Highway, Anchorage to Parks/Glenn JCT	1	Anchorage, Fairbanks, Tok	Eagle River
Parks Highway, Parks/Glenn JCT to Fairbanks	3	Anchorage, Fairbanks	Wasilla, Cantwell, Denali NATL Park, Healy, Nenana
Glenn Highway, Parks/Glenn JCT to Glennallen	1	Anchorage, Valdez, Tok	Palmer, Glennallen
Tok Cutoff Highway, Richardson HWY JCT to Tok	1	Anchorage, Tok	
Richardson Highway, Valdez to Glennallen	4	Valdez, Fairbanks, Anchorage	Edgerton HWY, Glennallen
Richardson Highway, Glennallen to Tok Cutoff HWY JCT	4, 1	Valdez, Fairbanks, Anchorage	Glennallen, Tok Cutoff HWY
Richardson Highway, Tok Cutoff HWY JCT to Delta Junction	4	Valdez, Fairbanks, Anchorage	Tok Cutoff HWY, Denali HWY, Delta Junction
Alaska Highway, Canadian Border to Tok	2	Canadian Border, Fairbanks, Anchorage	Taylor HWY, Tok
Alaska Highway, Tok to Delta Junction	2	Tok, Fairbanks	Delta Junction
Alaska Highway, Delta Junction to Fairbanks	2	Tok, Fairbanks, Anchorage	Eielson AFB, North Pole
Steese/Elliot/Dalton, Fairbanks to Deadhorse	2, 11	Fairbanks, Deadhorse	Fox, Livengood, Coldfoot

Standard:

- 01 **Except on approaches to interchanges (see Section 2D.49), the Destination (D1-1 through D1-3, [D1-100](#), and [D1-101](#)) signs (see Figure 2D-9), if used, shall be a horizontal rectangle displaying the name of a city, town, village, or other traffic generator, and a directional arrow.**

Option:

- 02 The distance (see Section 2D.43) to the place named may also be displayed on the Destination (D1-1a through D1-3a, [D1-200](#), and [D1-201](#)) signs (see Figure 2D-9). If several destinations are to be displayed at a single point, the several names may be placed on a single sign with an arrow (and the distance, if desired) for each name. If more than one destination lies in the same direction, a single arrow may be used for such a group of destinations.

Section 2D.44 Location of Distance Signs**Support:**

- 04 Figures 2D-7 and 2D-8 show typical placements of Distance signs.

Guidance:

- 04A Signing in advance of major intersections on a State-numbered route in rural areas should consist of a non-mileage destination (D1-1, D1-2, D1-3, D1-100, or D1-101) sign, located up to 1,200 feet in advance of the intersection. Provide appropriate clearances from directional assemblies (see 2D.32) and advance warning signs (Sections 2C-36 and 2C-46).
- 04B A D1 series sign should be followed with a Distance Sign (D2-1, D2-2, D2-3, D2-200, or D2-201) beyond the intersection (see Section 2D.41 and 2D.42).
- 04C On minor state highways that are not through routes with an ADT of 500 or less, only the mileage destination sign D1-1a, D1-2a, or D1-3a should be used.

Option:

- 04D A MILEAGE DESTINATION sign (D1-1a, D1-2a, or D1-3a) may be located either on the near-right quadrant of the intersection (adjacent to the R1-1 STOP sign), head-on at the intersection, or 200 feet in advance of it.
- 04E Either mileage or non-mileage destination signs may be used as needed on channelized intersections.
- 04F Because the Destination sign is of lesser importance than the Junction, Advance Route Turn, or Directional assemblies, the Destination sign may be eliminated when sign spacing is critical.

Section 2D.45 Street Name Signs (D3-1, ~~and D3-1a~~, and D3-100)**Support:**

- 01 Street Name signs at intersections and along roadways provide road users with important navigation information. Section 2H.10 contains information about signs used to identify the names of grade-separated streets, railways, bikeways, or other transportation facilities.

Guidance:

- 02 Street Name (D3-1 or D3-1a) signs (see Figure 2D-14) or D3-100 signs should be installed in urban areas at all street intersections regardless of other route signs that might be present and should be installed in rural areas to identify important roads that are not otherwise signed.
- 02A Overhead Street Name (D3-1 or D3-1a) signs should be installed at all signalized intersections that are not on expressways and major arterials to indicate the location and name of roadways. They

should be installed overhead and to the far right-hand side of the intersection on traffic signal poles or mast arms. When mounted on the mast arm, they should be horizontal.

03 *To minimize wrong-way movements onto freeway or expressway exit ramps, Street Name signs should not be used at the intersection of a freeway or expressway exit ramp with the crossroad to display the name of the freeway or expressway to traffic on the crossroad.*

Option:

04 For streets that are part of a U.S., State, or county numbered route, a D3-1a or D3-100 Street Name sign (see Figure 2D-14) that incorporates a route shield may be used to assist road users who might not otherwise be able to associate the name of the street with the route number.

Standard:

05 **The lettering for names of streets and highways on Street Name signs shall be composed of a combination of lower-case letters with initial upper-case letters (see Section 2A.08).**

Guidance:

06 *The determination of letter heights to be used on Street Name signs should be based on, but not limited to, the following considerations:*

A. Use of Advance Street Name signs (see Section 2D.46);

B. Number of lanes on the intersection approach;

C. Length of turn lanes;

D. Distance the Street Name sign is located across the intersection (if a sign is not provided on the near side of the intersection).

07 *Letter heights on street name signs should be as shown in Table 2D-6.*

Option:

08 For two-lane local roadways with speed limits of 25 mph or less, the lettering on post-mounted Street Name signs may be composed of initial upper-case letters at least 4 inches in height and lower-case letters at least 3 inches in nominal loop height.

Support:

09 The recommended minimum letter heights for Street Name signs are summarized in Table 2D-6. The speed limits specified and the recommended minimum letter heights provided in this Section apply to the roadway that each Street Name sign faces rather than to the street that has its name displayed on the Street Name sign. The letter heights specified in Table 2D-6 are the initial upper-case letter of a mixed-case legend.

10 A minimum upper-case letter height of 12 inches with a lower-case nominal loop height of 9 inches is recommended for all overhead Street Name signs regardless of posted speed limit as Street Name signs generally require greater legibility distances for road users to properly react.

Option:

10A Smaller letters (8" upper-case/6" lower-case, but no smaller than 6" upper-case/4.5" lower-case) may be used to maintain signs when existing mast arms are not strong enough to support signs with larger lettering

Option:

11 Each Street Name sign in a sign assembly may use different letter heights determined by the speed limit of the street that each sign faces.

12 The letter height of the street name descriptor (such as St, Ave, or Rd), the directional legend (such as NW), or any other supplemental legend (such as block or house numbers) on the D3-1, ~~and~~ D3-1a, and D3-100 signs may be smaller than that of the street name itself.

Guidance:

13 *The letter height of the street name descriptor, the directional legend, or any other supplemental legend on the D3-1 and D3-1a signs should be at least two-thirds of the letter height of the street name itself, but not less than 3 inches for the initial upper-case letters and not less than 2.25 inches for the nominal loop height of the lower-case letters.*

14 *Conventional abbreviations (see Section 1D.08) should be used except for the street name itself. Acceptable abbreviations for street name descriptors such as “Ave” for Avenue and “Blvd” for Boulevard should be as provided in Table 2D-3 (see Section 2D.07). The street name descriptors that are provided in Table 2D-4 should not be abbreviated (see Section 2D.07).*

Option:

15 Block or house numbers may be displayed as a supplemental legend on a Street Name sign to aid emergency responders and road users in locating addresses.

Guidance:

16 *If block or house numbers are displayed on a Street Name sign where only a single Street Name sign is provided for the crossroad, the block or house numbers for the left and right blocks should be positioned at the left and right sides of the sign, respectively.*

17 *If block or house numbers are displayed on a Street Name sign where two Street Name signs are provided for the crossroad, such as on diagonally opposite corners of an intersection, each Street Name sign should display only the block or house numbers associated with that block of the crossroad.*

Option:

18 A pictograph (see definition in Section 1C.02) representing the municipality, in accordance with the provisions of Section 2A.04, may be used on a D3-1 sign. For street networks under the primary jurisdiction of another governmental-approved entity, such as within a college or university campus, within a military base, or within a transportation facility (such as an airport or port), a pictograph representing that entity in accordance with the provisions of Section 2A.04 may be used on a D3-1 sign within the jurisdictional boundaries of that entity.

Standard:

19 **Pictographs shall not be displayed on D3-1a or Advance Street Name (D3-2) signs (see Section 2D.46).**

20 **If a pictograph is used on a D3-1 sign, the height and width of the pictograph shall not exceed the upper-case letter height of the principal legend of the sign.**

Guidance:

21 *The pictograph should be positioned to the left of the street name.*

22 *Pictographs should not be used on a D3-1 sign that contains directional arrows.*

Standard:

23 **The Street Name sign shall be retroreflective or illuminated in accordance with the provisions of Section 2A.21.**

Option:

24 The border may be omitted from a post-mounted Street Name sign.

Guidance:

25 *The decision to omit the border from a post-mounted Street Name sign should be based on such factors as the visual complexity of the environment and the degree of conspicuity needed to provide for adequate recognition of the sign by the road user.*

Option:

- 26 An alternative background color (see Paragraph 28 of this Section) other than the standard guide sign color of green may be used for Street Name (D3-1, ~~D3-1a~~, or D3-100) signs where the highway agency determines this is necessary to assist road users in determining jurisdictional authority for roads.

Standard:

- 27 **Alternative background colors shall not be used for Advance Street Name (D3-2) signs (see Section 2D.46).**
- 28 **The only acceptable alternative background colors for Street Name (D3-1, ~~D3-1a~~, or D3-100) signs shall be blue, brown, or white. Regardless of whether green, blue, or brown is used as the background color for Street Name (D3-1, ~~D3-1a~~, or D3-100) signs, the legend (and border, if used) shall be white. For Street Name signs that use a white background, the legend (and border, if used) shall be black.**

Guidance:

- 29 *An alternative background color for Street Name signs, if used, should be applied to the Street Name (D3-1, ~~D3-1a~~, or D3-100) signs on all roadways under the jurisdiction of a particular highway agency.*

Section 2D.46 Advance Street Name Signs (D3-2 Series, D3-200, and D3-201)**Support:**

- 01 Advance Street Name (D3-2, D3-200, and D3-201) signs (see Figure 2D-10) identify a downstream intersection. Although this is often the next intersection, it could also be several intersections away in cases where the next signalized intersection is referenced.

Standard:

- 02 **Advance Street Name (D3-2, D3-200, and D3-201) signs, if used, shall supplement rather than be used instead of the Street Name (D3-1 or D3-1a) signs at the intersection.**

Option:

- 03 Advance Street Name (D3-2, D3-200, and D3-201) signs may be installed in advance of signalized or unsignalized intersections to provide road users with advance information to identify the name(s) of the next intersecting street to prepare for crossing traffic and to facilitate timely deceleration and/or lane changing in preparation for a turn.

Guidance:

- 04 *On arterial highways in rural areas, Advance Street Name signs should be used in advance of all signalized intersections and in advance of all intersections with mandatory turn lanes.*
- 05 *In urban areas, Advance Street Name signs should be used in advance of all signalized intersections on major arterial streets, except where signalized intersections are so closely spaced that advance placement of the signs is impracticable.*
- 05A *Advance Street Name (D3-2, D3-200, or D3-201) signs should be installed on major arterials and expressways in advance of major intersections. They should be installed at least 300 to 600 feet in advance of the intersection on rural roads and one-half block in advance of major intersections in urban areas, where the 300- to 600-foot distance cannot be met.*
- 06 *The heights of the letters on Advance Street Name signs should comply with the provisions of Section 2D.05.*

Section 2D.47 Parking Area Guide Sign (D4-1)

Option:

- 01 The Parking Area (D4-1) guide sign (see Figure 2D-14) may be used to show the direction to a nearby public parking area or parking facility.

Standard:

- 02 **The smaller size of 18 x 15 inches for the Parking Area guide sign shall be limited to minor, low-speed streets.**

02A The PARKING AREA (D4-1) guide sign shall not be used on rural routes.

Guidance:

- 03 *If used, the Parking Area guide sign should be installed on major thoroughfares at the nearest point of access to the parking facility and where it can advise drivers of a place to park. The sign should not be used more than four blocks from the parking area.*

Section 2D.51 WEIGH STATION Signing (D8 Series)

Option:

- 05 Where State law requires trucks of a certain weight to enter the Weigh Station, a Weigh Station (R13-1) regulatory sign (see Section 2B.65) may be located following the Advance Weigh Station Ahead sign (see Figure 2D-23).

05A WEIGH STATION RIGHT LANE (D8-100) signs may be installed before the Exit Direction sign (D8-2) to provide additional lane selection information to motorists.

- 06 Where only commercial vehicle inspections are conducted in the inspection area, the WEIGH STATION legend of the D8 series signs may be replaced with the alternate legend, COMMERCIAL VEHICLE INSPECTION.

Guidance:

- 07 *The Weigh Station Advance Direction (D8-2) Sign or the Weigh Station Advance (D8-1) sign should display, either on the sign or on a supplemental plaque or sign panel, the changeable legend OPEN or CLOSED.*

Option:

07A The OPEN / CLOSED plaque (D8-101) may be installed below the Exit Direction sign (D8-2) or the Advance sign (D8-1) on approach to the Weigh Station.

Standard:

- 08 **When the WEIGH STATION legend of the D8 series signs is replaced with the COMMERCIAL VEHICLE INSPECTION legend, as provided in Paragraph 6 of this Section, the WEIGH STATION legend of the R13-1 sign shall likewise be replaced with the alternate legend.**

Section 2D.55 Community Wayfinding Signs

Standard:

- 04 **The use of community wayfinding guide signs shall be limited to conventional roads. Community wayfinding guide signs shall not be installed on freeway or expressway mainlines or ramps. Direction to community wayfinding destinations from a freeway or expressway shall be limited to the use of a Supplemental guide sign (see Section 2E.51) on the mainline and a Destination sign (see Section 2D.36) on the ramp to direct road users to the area or areas within**

which community wayfinding guide signs are used. The individual wayfinding destinations shall not be displayed on the Supplemental guide and Destination signs except where the destinations are in accordance with the State or agency policy on Supplemental guide signs.

05 Community wayfinding guide signs shall not be used to provide direction to primary destinations or highway routes or streets. Destination or other guide signs shall be used for this purpose as described elsewhere in this Chapter and shall have priority over any community wayfinding sign in placement, prominence, and conspicuity.

05A Community wayfinding guide signs shall not be used to provide direction to airports, schools, military installations, subdivisions, places of worship, or destinations that qualify for General Service Signs (see Chapter 2I), Tourist-Oriented Directional Signs (see Chapter 2K), or Recreational and Cultural Interest Area Signs (see Chapter 2M).

05B A permit shall be obtained from the regional DOT&PF right-of-way office before placing a community wayfinding sign within state highway right-of-way.

05C Under the permit review process, the RTSE shall consider elements of sign design as they relate to signing requirements in the ATM. Allowable destinations signed from a state route shall be at the discretion of DOT&PF.

06 Because regulatory, warning, and other guide signs have a higher priority, community wayfinding guide signs shall not be installed where adequate spacing cannot be provided between the community wayfinding guide sign and other higher-priority signs. Community wayfinding guide signs shall not be installed in a position where they would obscure the road users' view of other traffic control devices.

07 Community wayfinding guide signs shall not be mounted overhead.

Guidance:

08 *If used, a community wayfinding guide sign system should be established on a local municipal or equivalent jurisdictional level or for an urbanized area of adjoining municipalities or equivalent that form an identifiable geographic entity that is conducive to a cohesive and continuous system of signs. Community wayfinding guide signs should not be used on a regional or statewide basis where infrequent or sparse placement does not contribute to a continuous or coordinated system of signing that is readily identifiable as such to the road user. In such cases, Destination or other guide signs detailed in this Chapter should be used to direct road users to an identifiable area in which the type of eligible destination described in Paragraph 1 of this Section is located.*

09 *When a system of community wayfinding guide signs is being considered, the system of existing guide signs should be evaluated for applicability and general compliance with the provisions of this Manual to ensure road user directional guidance is adequately being addressed.*

Support:

10 The specific provisions of this Section regarding the design of community wayfinding sign legends apply to vehicular community wayfinding signs and do not apply to those signs that are intended only to provide information or direction to pedestrians or other users of a sidewalk or roadside area.

Standard:

10A Pedestrian wayfinding signs shall:

A. Not contain advertising or sponsorship messages,

B. Be located where the signs or sign supports do not reduce pathway clear space to less than that required by the Americans with Disabilities Act (ADA), and

C. Comply with all other ADA requirements including visual characters on signs.

Support:

10B [Technical detail for visual characters on signs can be found in Section 703.5 of “ADA Standards for Transportation Facilities” as adopted by the United States Department of Transportation \(USDOT\) on November 29, 2006.](#)

Guidance:

- 11 *Because pedestrian wayfinding signs typically use smaller legends that are inadequately sized for viewing by vehicular traffic and because they can provide direction to pedestrians that might conflict with that appropriate for vehicular traffic, wayfinding signs designed for and intended to provide direction to pedestrians or other users of a sidewalk or other roadside area should be located to minimize their conspicuity to vehicular traffic. Such signs should be located as far as practicable from the street, such as at the far edge of the sidewalk. Where locating such signs farther from the roadway is impracticable, the pedestrian wayfinding signs should have their conspicuity to vehicular traffic minimized by employing one or a combination of the following methods:*
- A. *Locating signs away from intersections where high-priority traffic control devices are present.*
 - B. *Facing the pedestrian message toward the sidewalk and away from the street.*
 - C. *Cantilevering the sign over the sidewalk if the pedestrian wayfinding sign is mounted at a height consistent with vehicular traffic signs, removing the pedestrian wayfinding signs from the line of sight in a sequence of vehicular signs.*
- 12 *To further minimize their conspicuity to vehicular traffic during nighttime conditions, pedestrian wayfinding signs should not be retroreflective.*

Support:

- 13 Color coding is sometimes used on community wayfinding guide signs to help road users distinguish between multiple potentially confusing traffic generator destinations located in different neighborhoods or subareas within a community or area.

Option:

- 14 At the boundaries of the geographical area within which community wayfinding guide signing is used, an informational guide sign may be posted to inform road users about the presence of wayfinding signing and to identify the meanings of the various codes or pictographs that are being used.

Standard:

- 15 **These informational guide signs shall have a white legend and border on a green background and shall have a design similar to that illustrated in Figure 2D-1 and shall be consistent with the basic design principles for guide signs. These informational guide signs shall not be installed on freeway or expressway mainlines or ramps.**
- 16 **The color coding or a pictograph of the identification markers of the community wayfinding guide signing system shall be included on the informational guide sign posted at the boundary of the community wayfinding guide signing area. The color coding or pictographs shall apply to a specific, identifiable neighborhood or geographical subarea within the overall area covered by the community wayfinding guide signing. Color coding or pictographs shall not be used to distinguish between different types of destinations that are within the same designated neighborhood or subarea. The color coding shall be accomplished by the use of different colored square or rectangular panels on the face of the informational guide sign, each positioned to the left of the neighborhood or named geographic area to which the color-coding panel applies. The height of the colored square or rectangular panels shall not exceed 2 times the height of the upper-case letters of the principal legend on the sign.**

Option:

17 The different colored square or rectangular panels may include either a black or a white (whichever provides the better contrast with the color of the panel) letter, numeral, or other appropriate designation to identify the destination.

18 Except for the informational guide sign posted at the boundary of the wayfinding guide sign area, community wayfinding guide signs may use background colors other than green in order to provide a color identification for the wayfinding destinations by geographical area within the overall wayfinding guide signing system. Color-coded community wayfinding guide signs may be used with or without the boundary informational guide sign displaying corresponding color-coding panels described in Paragraphs 13 through 16 of the Section. Except as provided in Paragraph 19 of this Section, in addition to the colors that are approved in this Manual for use on official traffic control signs (see Section 2A.06), other background colors may also be used for the color coding of community wayfinding guide signs.

Standard:

19 **The standard colors of red, orange, yellow, purple, r the fluorescent versions thereof, fluorescent yellow-green, and fluorescent pink shall not be used as background colors for community wayfinding guide signs, in order to minimize possible confusion with critical, higher-priority regulatory and warning sign color meanings readily understood by road users.**

20 **The minimum contrast value of legend color to background color for community wayfinding guide signs shall be at least 0.70 (or 70%).**

21 **All messages, borders, legends, and backgrounds of community wayfinding guide signs and any identification markers shall be retroreflective (see Sections 2A.21 and 2A.22).**

22 **Community wayfinding guide signs, exclusive of any identification marker used, shall be rectangular in shape.**

Guidance:

23 *Simplicity and uniformity in design, position, and application as described in Section 2A.04 are important and should be incorporated into the community wayfinding guide sign design and location plans for the area.*

24 *Community wayfinding guide signs should be limited to three destinations per sign (see Section 2D.06).*

25 *Abbreviations (see Section 1D.08) should be kept to a minimum, and should include only those that are commonly recognized and understood.*

26 *Horizontal lines of a color that contrasts with the sign background color should be used to separate groups of destinations by direction from each other.*

Support:

27 The basic requirement for all highway signs, including community wayfinding signs, is that they be legible to those for whom they are intended and that they be understandable in time to permit a proper response. Section 2A.04 contains additional information on the design of signs, including desirable attributes of effective designs.

Guidance:

28 *Word messages should be as brief as practical and the lettering should be large enough to provide the necessary legibility distance.*

Standard:

29 **The minimum specific ratio of letter height to legibility distance shall comply with the provisions of Section 2A.08. The size of lettering used for destination and directional legends on**

community wayfinding signs shall comply with the provisions of minimum letter heights as provided in Section 2D.05.

30 **Interline and edge spacing shall comply with the provisions of Section 2D.05.**

31 **Except as provided in Paragraph 34 of this Section, the lettering style used for destination and directional legends on community wayfinding guide signs shall comply with the provisions of Section 2D.04.**

32 **The lettering for destinations on community wayfinding guide signs shall be a combination of lower-case letters with initial upper-case letters (see Section 2D.04). All other word messages on community wayfinding guide signs shall be in all upper-case letters.**

Guidance:

33 *Except as provided in Paragraphs 34 and 35 of this Section, letters, numerals, and other characters should be composed of the Standard Alphabets as detailed in the “Standard Highway Signs” publication (see Section 1C.05).*

Option:

34 A lettering style other than the Standard Alphabets provided in the “Standard Highway Signs” publication (see Section 1C.05) may be used on community wayfinding guide signs if an engineering study determines that the legibility and recognition of values for the chosen lettering style meet or exceed the values for the Standard Alphabets for the same legend height and stroke width.

Standard:

35 **If a lettering style other than the Standard Alphabets is used, the alternative lettering style shall be conventional in form. The letters, numerals, and other characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.**

36 **In accordance with Section 2A.04, except for signs that are designed and located with the intent to be viewed only by pedestrians, bicyclists stopped out of the flow of traffic, or occupants of parked vehicles, Internet and e-mail addresses, including domain names and uniform resource locators (URL), and scanning graphics for the purpose of obtaining information (see Section 2A.04), shall not be displayed on any community wayfinding guide sign or sign assembly.**

37 **The arrow location and priority order of destinations shall follow the provisions described in Sections 2D.08 and 2D.36. Arrows shall be of the designs provided in Section 2D.08.**

Option:

38 Pictographs (see definition in Section 1C.02) may be used on community wayfinding guide signs.

Standard:

39 **If a pictograph is used, its height shall not exceed 2 times the height of the upper-case letters of the principal legend on the sign.**

40 **Except for pictographs, symbols that are not approved in this Manual for use on guide signs shall not be used on community wayfinding guide signs.**

41 **Business names, business logos, commercial graphics, or other forms of advertising (see Section 1D.07) shall not be used on community wayfinding guide signs or sign assemblies.**

Section 2D.57 National Scenic Byway Sign and Plaque (M10-1 and M10-1aP)

Standard:

07 **When a National Scenic Byways sign is installed on a National Scenic Byway or an All-American Road, the design shown for the M10-1 sign or M10-1aP plaque in Figure 2D-33 shall**

be used. Use of this design shall be limited to routes that have been designated as a National Scenic Byway or All-American Road by the U.S. Secretary of Transportation.

08 If used, the M10-1 sign or M10-1aP plaque shall be placed such that the highway route signs have primary visibility for the road user.

09 The M10-1 sign or the M10-1aP plaque shall not be installed as sign panels on a guide sign or as part of a guide sign assembly.

Guidance:

09A When a road is both an Alaska Scenic Byway and a National Scenic Byway, AMERICA'S BYWAYS (M10-1) signs should be installed below each Alaska Scenic Byway sign (I-170 and I-171) on the same post.

Standard:

09B The installation of either Alaska or National Scenic Byway signs on state highways shall require approval from the DOT&PF Alaska Scenic Byway coordinator.

Support:

09C Alaska Scenic Byways signs (I-170 and I-171) may only be installed on officially designated Alaska Scenic Byways. When possible, exact sites for signs will be specified. Direct questions to the DOT&PF. A list of the officially designated Alaska Scenic Byways routes can be obtained from the Scenic Byway coordinator.

Guidance:

09D The Scenic Byway with legend (I-171) sign should be installed at both ends of each designated road segment facing entering traffic and on major side road approaches to the segment. The number of these signs required per byway is two plus the number of major side road approaches.

09E The Scenic Byway without legend (I-170) sign should be installed along the Scenic Byway at a spacing of approximately 15 miles. Desirably, they would be installed in advance of a scenic view in a location where they will not block that view. Putting the signs where they have a backdrop of trees, rock, or an embankment is preferable to putting them where they will be silhouetted by an open view.

09F The Scenic Byways signs should be installed at least 300 feet away from existing signs and should never block another sign from view. The signs should be located 500 to 1,000 feet away from the last sign going away from an intersecting roadway.

[The following is a new section. There is no corresponding section in the MUTCD.]

Section 2D.100 Community Service Sign (D9-204 and D9-206)

Option:

01 Community Service (D9-204 and D9-206) signs may be installed to provide direction to communities and to identify services available there. They are a single-sign alternative to multiple business-identifying (D9-205 TODS, LG-series LOGO, or general service D9 series) signs.

Standard:

02 Where Community Service signs are installed, existing TODS and LOGO signs shall be removed.

03 Community Service signs shall not contain logos that are included on nearby General Service Signs.

04 A Community Service sign shall not be installed unless there is an accepted community organization that will recommend which of the services available will be represented by icons on the sign.

Support:

05 Community boundaries may be marked with Community Service (D9-204 or D9-206) signs, General Service (D9-18 or similar) signs, WELCOME TO (I-101) signs, or with a landscaped sign outlined in plants, etc. On state highways, a beautification permit is required to do the latter.

Guidance:

06 Community Service signs should not be installed for:

A. Small communities with two or fewer businesses that offer food, gas, or lodging, or would qualify for tourist Oriented Directional (D9-204) signs, or

B. First-class cities or other large communities that offer so many services that the icons on the Community Service sign would not adequately represent them.

07 Icons for police, emergency services, or hospitals should not be shown on Community Service signs. Where signing for these purposes is needed, separate signs should be used.

CHAPTER 2E. GUIDE SIGNS—FREEWAYS AND EXPRESSWAYS

Section 2E.07 Designation of Destinations

Standard:

- 01 The direction of a freeway and the major destinations or control cities ([see Sections 2D.09, 2D.35, and 2D.36](#)) along it shall be clearly identified through the use of appropriate destination legends (~~[see Section 2D.35](#)~~). Successive freeway guide signs shall provide continuity in destination names and consistency with available map information. At any decision point, a given destination shall be indicated by way of only one route (see Figure 2E-1).

CHAPTER 2H. GENERAL INFORMATION SIGNS

Section 2H.01 Scope

Standard:

- 08 Promotional descriptive messages that are not relevant to navigation and orientation, such as “Scenic” or “Historic,” shall not be included in the legends of General Information signs, except as otherwise provided in this Chapter or in cases in which these terms are part of an official name, such as for a Scenic Byway or Historic District.
- 09 Except for State Welcome signs (see Section 2H.07), Acknowledgment signs (see Section 2H.13), and Alternative Fuels Corridor signs (see Section 2H.14), General Information signs shall have white legends and borders on green rectangular-shaped backgrounds.

Section 2H.11 Reference Location Signs (~~D10-1 through D10-3~~ D10-101 through D10-104 and D10-201 through D10-204) and Intermediate Reference Location Signs (~~D10-1a through D10-3a~~ D10-101A through D10-104A and D10-201A through D10-204A)

Support:

- 00A In the ATMS, “Reference Location Signs and Intermediate Reference Location Signs” (as the MUTCD refers to them) are called “Milepost (D10-101 through D10-104 and D10-201 through D10-204) and Intermediate Milepost Signs (D10-101A through D10-104A and D10-201A through D10-204A).”
- 01 There are two types of reference location signs:
- Reference Location (~~D10-1 through D10-3~~ D10-101 through D10-104 and D10-201 through D10-204) signs (see Figure 2H-5) show an integer distance point along a highway, and
 - Intermediate Reference Location (~~D10-1a through D10-3a~~ D10-101A through D10-104A and D10-201A through D10-204A) signs (see Figure 2H-6) show the same information as Reference Location signs, but they also show a tenth-of-a-mile decimal so that they can be installed between integer distance points along a highway.

Standard:

- 02 Except when Enhanced Reference Location signs (see Section 2H.12) are used instead, Reference Location (~~D10-1 through D10-3~~ D10-101 through D10-104 and D10-201 through D10-204) signs shall be placed on all expressway facilities that are located on a route where there is reference location sign continuity and on all freeway facilities to assist road users in estimating their progress, to provide a means for identifying the location of emergency incidents and traffic crashes, and to aid in highway maintenance and servicing.

Option:

- 03 Reference Location (~~D10-1 through D10-3~~ D10-101 through D10-104 and D10-201 through D10-204) signs may be installed along any section of a highway route or ramp to assist road users in estimating their progress, to provide a means for identifying the location of emergency incidents and traffic crashes, and to aid in highway maintenance and servicing.
- 04 To augment the Reference Location sign system, Intermediate Reference Location (~~D10-1a through D10-3a~~ D10-101A through D10-104A and D10-201A through D10-204A) signs, which show the tenth of a mile with a decimal point, may be installed at one tenth of a mile, two tenths of a mile, or one-half mile intervals.

Standard:

- 05 When Intermediate Reference Location (~~D10-1a through D10-3a~~D10-101A through D10-104A and D10-201A through D10-204A) signs are used to augment the reference location sign system, the reference location sign at the integer mile point shall display a decimal point and a zero numeral.
- 06 Reference Location and Intermediate Reference Location signs shall have a minimum mounting height of 4 feet, measured vertically from the bottom of the sign to the elevation of the near edge of the roadway, and shall not be governed by the mounting height requirements prescribed in Section 2A.15.
- 06A The design details for reference location and intermediate reference location signs shall be as shown in the ASDS.
- 07 The distance numbering shall be continuous for each route within a State, except where overlaps occur (see Section 2E.22). Where routes overlap, reference location sign continuity shall be established for only one of the routes. If one of the overlapping routes is an Interstate route, that route shall be selected for continuity of distance numbering.
- 07A Where two routes become the same roadway, only the reference location or intermediate reference location signs for the lower number state route shall be installed. However, when the routes again diverge, the mileage for the higher numbered route shall resume as if it had continued through the combined section.
- 08 The route selected for continuity of distance numbering shall also have continuity in interchange exit numbering (see Section 2E.22).

Guidance:

- 09 *On a route without continuity of distance numbering, the first reference location sign beyond the overlap should indicate the total distance traveled on the route (including on the portion that did not have continuity of distance numbering) so that road users will have a means of correlating their travel distance between reference location signs with that shown on their odometer.*

Standard:

- 10 For divided highways, the distance measurement shall be made on the northbound and eastbound roadways. The reference location signs for southbound or westbound roadways shall be set at locations directly opposite the reference location signs for the northbound or eastbound roadways.
- 11 Zero distance shall begin at the south and west State lines, or at the south and west terminus points where routes begin within a State.
- 12 Except as provided in Paragraph 13 of this Section, reference location signs shall be installed on the right-hand side of the roadway.
- 12A When reference location and intermediate reference location signs are already in place and the reference does not match the requirements of Paragraph 12 and 13, they shall have the reference location or intermediate reference location signs located on the right side of the road in the direction of increasing route mileage. For divided highways, the distance measurement shall be made on the roadway segment in the direction of increasing mileage. The reference location or intermediate reference location signs for the opposite direction shall be placed directly opposite the reference location.
- 12B On two-lane conventional roadways, reference location and intermediate reference location signs shall be installed on one side of the roadway only and shall be installed back-to-back with one legend visible from each direction of travel. Reference location and intermediate reference location signs shall be placed 15 to 30 feet from the edge of traveled way.

Option:

13 Where conditions limit or restrict the use of reference location signs on the right-hand side of the roadway, they may be installed in the median. On two-lane conventional roadways, reference location signs may be installed on one side of the roadway only and may be installed back-to-back. Reference location signs may be placed up to 30 feet from the edge of the pavement.

14 If a reference location sign cannot be installed in the correct location, it may be moved in either direction as much as 50 feet.

Guidance:

15 *If a reference location sign cannot be placed within 50 feet of the correct location, it should be omitted.*

Support:

15A Because reference location and intermediate reference location signs are used as permanent location references on Alaska highways for residences, businesses, and topographical features, they are not ordinarily changed when a road segment is reconstructed or realigned and therefore do not necessarily correspond to actual mileage along a route.

Guidance:

15B When a road is realigned in a manner that either shortens or lengthens the road, reference location signs' locations should be interpolated between existing reference location signs on either side of the realigned segment. Reference location and intermediate reference location signs before or beyond the realigned section should not be adjusted to reflect the change in route mileage.

Section 2H.12 Enhanced Reference Location Signs (D10-4) and Intermediate Enhanced Reference Location Signs (D10-5)

[Delete the entirety of Section 2H.12]

Section 2H.13 Acknowledgment Signs and Plaques (I20 Series)

Standard:

00A Except as described in Paragraphs 00B, 00C, and 00D, Acknowledgement Signs shall not be used in Alaska.

00B Adopt-a-Highway (D14-100) signs on state roads shall be installed and maintained in accordance with DOT&PF Policy and Procedure 07.05.010.

00C Adopt-a-Bike Path (D14-101) signs on state pathways shall be installed and maintained in accordance with pertinent parts of DOT&PF Policy and Procedure 07.05.010.

00D Adopt-a-Stream (D14-102) signs on state pathways shall be installed and maintained in accordance with pertinent parts of DOT&PF Policy and Procedure 07.05.010.

[The following is a new section. There is no corresponding section in the MUTCD.]

Section 2H.100 Miscellaneous Signs

Option:

01 The ENTERING ALASKA TIME ZONE sign (I-182) may be installed at highway border crossings facing traffic entering Alaska.

02 The REPORT EVERY DANGEROUS DRIVER IMMEDIATELY (REDDI) sign (I-191) and the REDDI 911 sign (I-192) may be used in a Safety Zone (corridor) as established under the Safety Zone Signing section of Section 2B.17.

Guidance:

03 REDDI signs (I-191) should be installed at the beginning of a Safety corridor following the BEGIN HIGHWAY SAFETY ZONE sign (R16-112). REDDI 911 signs (I-192) should be installed within the Safety corridor at intervals of approximately 10 miles.

Option:

04 REDDI 911 signs may also be installed after intersections that introduce significant traffic into the Safety corridor.

05 The REPORT EVERY DANGEROUS DRIVER IMMEDIATELY (REDDI) sign (I-191) may be installed on roadways that are not Safety corridors where, relative to the surrounding area, local law enforcement can demonstrate either:

- A. a high number of dangerous driving reports are received by dispatch, or
- B. a high number of citations for dangerous driving behaviors are issued.

Support:

06 Consider implementing a community outreach campaign when REDDI signs (I-191 and I-192) are introduced into a new area.

Option:

07 Maintenance Station signs (I-183) may be installed off the shoulder of the highway, oriented parallel to the travelled way, or along a driveway leading to the entrance of a state maintenance station.

08 Purple Heart Trail (I-210, I-211) signs may be installed at locations on the Alaska Highway and Richardson Highway between the border with Canada and Fairbanks, as follows: large Purple Heart Trail signs (I-210) may be installed upon entering Alaska from Canada on the Alaska Highway, departing Fairbanks on the Richardson, and departing Tok and Delta Junction in either direction; small Purple Heart Trail signs (I-211) may be installed approximately at midway in both directions between Alaska Border and Tok, between Tok and Delta Junction, and between Delta Junction and Fairbanks.

09 Political Boundary (I-220, I-221, I-222, I-223, and I-224) signs may be installed near the boundary limits of boroughs, cities, and towns.

Guidance:

10 Information signs that inform pass elevation (I-231) should be used at the highest road elevation of a named pass.

CHAPTER 2I. GENERAL SERVICE SIGNS

Section 2I.02 General Service Signs for Conventional Roads

Support:

- 01 ~~On conventional roads, commercial services such as gas, food, and lodging generally are within sight and are available to the road user at reasonably frequent intervals along the route. Consequently, on this class of road there usually is no need for special signs calling attention to these services. Moreover, General Service signing is usually not needed in urban areas except for hospitals, law enforcement assistance, tourist information centers, and camping.~~
- 01A Due to the sparse settlement of rural Alaska, it can be advantageous to place motorist service signs on conventional roads. General Service signing is usually not required in urban areas except for hospitals, law enforcement assistance, tourist information centers, and camping. General Service signs are installed for the benefit of the motorist, not to promote businesses.
- 01B Other signs for businesses are listed in Table 2A-101.

Option:

- 02 ~~General Service signs (see Figure 2I-1) may be used on conventional roads where such services are infrequent and are found only on an intersecting highway or crossroad.~~

Standard:

- 03 **All General Service signs and supplemental sign panels shall have a white legend and border on a blue background.**
- 03A General Service (D9 series) signs (see Figure 2I-1 of the MUTCD) shall be installed only when the particular service is available within 1 mile of the intersection and the facility or a sign for the facility is not visible to the approaching motorist until they are within 800 feet of the turn off to the facility. An exception to the visibility requirement can be made for hospitals and Emergency Medical Service facilities.
- 03B The sign(s) shall be covered or removed when the service is no longer available, such as at a seasonal facility.
- 03C The particular services shall also meet all of the requirements listed below for that service.
- A. A camping area (D9-3 series, D9-4 series, or D9-100 sign) is typically located adjacent to a lake, creek, or river in an area with scenic, historic, or recreational interest such as a trailhead. It may include a firewood stock, shelters, a developed water supply, and sanitary dump facilities for campers or trailers. It must include a parking area, picnic tables, litter disposal facilities, toilets, and locations where campers may be parked and/or tents erected.
 - B. A parking area (D9-105 sign) is generally more modest than a rest area and does not include toilets. It may include picnic tables and must include litter disposal facilities and at least a 1,600-square-foot area separate from the highway for vehicles to park. The typical truck turnout created by widening the roadway is not considered a parking area since it is not separate from the roadway.
 - C. A scenic viewpoint (D9-102 sign) is a turnout or parking area with a particularly attractive view of an identified feature.
 - D. A food service facility (D9-8 sign) is a café, snack bar, or restaurant permitted by the Alaska Department of Environmental Conservation. At a minimum, it must provide hot food and beverages and modern sanitation facilities and be open for business to the public at least 16 hours per day, seven days a week. Public telephones are desirable.

- E. Telephones (D9-1 series signs) qualify if they are readily accessible to the public for all types of calls 24 hours per day, seven days per week. EMERGENCY 911 Telephone (D9-110 sign) shall only be used if the phone autodial an emergency responder dispatcher.
- F. Gas Stations (D9-7, D9-11 signs) may be identified if the facility sells both motor oil and gasoline in commercial quantities from pumps licensed by the DOT&PF Division of Measurement Standards and Commercial Vehicle Enforcement, at least 16 hours per day, seven days a week. The availability of diesel fuel, tires, electrical service, restrooms, an automobile hoist, and qualified service technician shall be considered in the case of competing facilities.
- G. Lodging (D9-9 sign) must consist of at least beds and bedding in a permanent, allweather, heated building equipped with toilet and bathing facilities for at least 10 hours per night throughout the week. The facility should have at least six rooms available for guests.
- H. A hospital (D9-2 sign) is a permanent medical facility that serves the public with 24-hour emergency medical service and has a licensed physician readily available. The Pharmacy (D9-20 or D9-20a plaque) signs shall not be used in Alaska.

Option:

- 03D HOSPITAL (D9-2) signs and EMERGENCY MEDICAL SERVICE (D9-13) symbol signs may be installed within urban areas. Mark each turn from the adjacent major or through highway to the emergency service entrance to the facility with additional signs and appropriate directional arrows and/or distance plaques.
- 03E CAMPING (D9-3 series, D9-4 series) and the RV PARK (D9-100), the SANITARY DUMP (D9-12), PUBLIC DUMPSTER (D9-230), and TOURIST INFORMATION (D9-10) signs may be used in urban areas but should be kept to a minimum.
- 03F The D9 series signs may be supplemented with Arrow and/or Distance plaques on conventional highways and expressways in advance of the turn to the facility to aid the motorist.

Support:

- 03G Consider using 1 MILE (D9-306) as well as 1500 FT (D9-308) plaques mounted below the Camping (D9-3 series, D9-4 series, and D9-100) signs to allow motorists additional time to make the decision to use these facilities.

Guidance:

- 04 *General Service signs should be installed at a suitable distance in advance of the turn-off point or intersecting highway.*
- 05 *States that elect to provide General Service signing should establish a statewide policy or warrant for its use, and criteria for the availability of services. Local jurisdictions electing to use such signing should follow State policy for the sake of uniformity.*

Option:

- 06 Individual States may sign for whatever alternative fuels are available at appropriate locations.

Standard:

- 07 **To be eligible for an EV Charging General Service sign on a conventional road, the EV chargers provided shall meet the criteria for Direct Current Fast Chargers provided in 23 CFR 680.106 and be in continuous operation at least 16 hours per day, 7 days per week.**
- 08 **General Service signs, if used at intersections, shall be accompanied by a directional message.**

Option:

- 09 The Advance Turn (M5 series) or Directional Arrow (M6 series) auxiliary plaques (see Figure 2I-1) with white arrows on blue backgrounds may be used with General Service symbol signs to create a General Service directional assembly.
- 10 The General Service sign legends may be either symbols or word messages.

Standard:

- 11 **Symbols and word message General Service legends shall not be intermixed on the same sign.**
- 12 ~~The Pharmacy (D9-20) sign shall only be used to indicate the availability of a pharmacy that is open, with a State-licensed pharmacist present and on duty, 24 hours per day, 7 days per week, and that is located within 3 miles of an interchange on the Federal-aid system. The D9-20 sign shall have a 24 HR (D9-20aP) plaque mounted below it.~~
- 13 **Use of the Hospital (D9-2) sign or the HOSPITAL (D9-13aP) plaque (see Figure 2I-1) shall be limited to facilities that operate 24 hours per day, 7 days per week.**

Option:

- 14 The Emergency Medical Services (D9-13) sign (see Figure 2I-1 and Paragraph 20 of this Section) may be used for facilities that provide emergency medical care but do not operate on a full-time basis.

Support:

- 15 Formats for displaying different combinations of these services are described in Section 2I.03.

Guidance:

- 15A The NEXT SERVICES XX MILES (D9-17P) sign should be used only when next services are 50 miles or farther away.

Option:

- 16 ~~If the distance to the next point at which services are available is 10 miles or more, a Next Services Advance (D9-17P) plaque (see Figure 2I-2) may be installed below the General Service sign.~~
- 17 The International Symbol of Accessibility (D9-6) sign (see Figure 2I-1) may be used beneath General Service signs where paved ramps and rest room facilities accessible to, and usable by, persons with disabilities are provided.

Guidance:

- 18 *When the D9-6 sign is used in accordance with Paragraph 16 of this Section, and van-accessible parking is available at the facility, a VAN ACCESSIBLE (D9-6P) plaque (see Figure 2I-1) should be mounted below the D9-6 sign.*

Option:

- 19 The Recreational Vehicle Sanitary Station (D9-12) sign (see Figure 2I-1) may be used as needed to indicate the availability of facilities designed for the use of dumping wastes from recreational vehicle holding tanks.
- 20 The Litter Container (D9-4) sign (see Figure 2I-1) may be placed in advance of roadside turn-outs or rest areas, unless it distracts the driver's attention from other more important regulatory, warning, or directional signs.
- 21 The Emergency Medical Services (D9-13) symbol sign (see Figure 2I-1) may be used to identify medical service facilities that have been included in the Emergency Medical Services system under a signing policy developed by the State and/or local highway agency.

Standard:

- 22 ~~The Emergency Medical Services symbol sign shall not be used to identify services other than qualified hospitals, ambulance stations, and qualified free-standing emergency medical treatment centers. If used, the Emergency Medical Services symbol sign shall be supplemented by a sign or plaque, as provided in Paragraph 22 of this Section, identifying the type of service provided.~~

- 22A An Emergency Medical Service (Staff-of-Life) (D9-13) sign facility must be staffed by emergency medical technicians certified by the Emergency Services Section, Alaska Department of Health and Social Services, and must be readily accessible and manned 24 hours a day. The signed location should be the dispatch point for the Emergency Medical Services, not necessarily the garage for the ambulance. The Emergency Medical Services symbol shall be supplemented by a sign identifying the type of service provided.

Option:

- 23 The Emergency Medical Services symbol sign may be used above the HOSPITAL (D9-13aP) plaque or above a plaque with the legend AMBULANCE STATION (D9-13bP), EMERGENCY MEDICAL CARE (D9-13cP), or TRAUMA CENTER (D9-13dP). The Emergency Medical Services symbol sign may also be used to supplement Telephone (D9-1), Channel 9 Monitored (D12-3) (see Figure 2I-8), or POLICE (D9-14) signs.

Standard:

- 24 **The legend EMERGENCY MEDICAL CARE shall not be used for services other than qualified free-standing emergency medical treatment centers.**

Guidance:

- 25 *Each State should develop a policy for the implementation of the Emergency Medical Services symbol sign.*

- 26 *The State should consider the following guidelines in the preparation of its policy:*

A. AMBULANCE

1. *24-hour service, 7 days per week.*
2. *Staffed by two State-certified persons trained at least to the basic level.*
3. *Vehicular communications with a hospital emergency department.*
4. *Operator should have successfully completed an emergency-vehicle operator training course.*

B. HOSPITAL

1. *24-hour service, 7 days per week.*
2. *Emergency department facilities with a physician (or emergency care nurse on duty within the emergency department with a physician on call) trained in emergency medical procedures on duty.*
3. *Licensed or approved for definitive medical care by an appropriate State authority.*
4. *Equipped for radio voice communications with ambulances and other hospitals.*

C. Channel 9 Monitored

1. *Provided by either professional or volunteer monitors.*
2. *Available 24 hours per day, 7 days per week.*
3. *The service should be endorsed, sponsored, or controlled by an appropriate government authority to guarantee the level of monitoring.*

Standard:

26A On state highways, DAY MEDICAL CLINIC signs (D9-207) shall be installed by permit only. The applicant shall pay all material and installation costs. To be eligible for a permit, a medical clinic shall:

- A. Be on the approved Alaska medical clinic list maintained by Health Planning and Systems Development section of the Alaska Department of Health and Social Services;**
- B. Be located at least 10 miles (travel distance) away from any hospital;**
- C. Have at least one mid-level practitioner or physician on duty during all business hours;**
- D. Be open during regular hours and at least 30 hours per week;**
- E. Be within 5 miles of the highway on which the sign is placed;**
- F. Not be visible to motorists before they are within 1,250 feet of the driveway or road leading to the clinic;**
- G. Have no advertising signs that are either:**
 - 1. Visible to motorists before they are within 1,250 feet of the driveway or road leading to the clinic or**
 - 2. Illegal;**
- H. Agree to post and maintain accurate business hours on the sign.**

26B No business names or icons shall be shown on the signs.

26C For safety reasons, these signs must display correct business hours. Change, remove, or cover signs immediately when hours become inaccurate. Medical clinics are responsible for ensuring the accuracy of posted business hours.

Option:

26D Time change revisions may be made by fastening a plate made of the same material as the original sign over the hours and days shown on the original sign.

Standard:

26E Day Medical Clinic signs (D9-207) shall not be placed on a freeway or expressway, on an on-ramp or off-ramp of a freeway or expressway, or at a location where a majority of traffic exits the highway at the driveway or intersecting road.

26F Day Medical Clinic signs (D9-207) shall not be posted if it will be confused with other “Day Medical Clinic” signage in the same area.

Guidance:

26G When placed on state highways, Day Medical Clinic Signs (D9-207) should be located at the intersection of the road leading to the clinic and the nearest state highway with a classification of collector or arterial.

Support:

26H The purpose of Day Medical Clinic signs is to guide motorists to the nearest appropriate location for unplanned medical treatment, especially where distances are great and delay in treatment can impact favorable outcomes. Such signing is not intended to guide motorists with planned medical events or to educate target groups on the availability of treatment from non-hospital providers. Day Medical Clinic signs direct motorists to the intersecting side street or driveway leading to the clinic, not from arterial to arterial or highway to highway.

26I The location of the applicant’s clinic or the location of the driveway or intersection road is not within the urban portion of an organized borough that exceeds 2,500 residents, or first-class and second-class cities.

Option:

26J Wayfinding signs may be required at turning points after leaving the main road.

Guidance:

26K No more than one D9-207 sign should be posted in each direction on the main roadway, and no more than one additional D9-207 sign should be used to post a turn from the secondary roadway.

Support:

26L Multiple turns from the secondary roadway are not recommended as a motorist service for first aid. More than one turn from the secondary roadway is not recommended for highway signage. In those cases, the clinic will instead have to rely upon business advertising for customers.

Section 2I.03 General Service Signs for Freeways and Expressways

[Delete signs D9-20 and D9-20a from Table 2I-1 and Figure 2I-1.]

Support:

01 General Service (D9-18 series) signs (see Figure 2I-3) are generally not appropriate at major interchanges (see definition in Section 2E.11) and in urban areas.

Standard:

02 **General Service signs shall have a white legend and border on a blue background. Letter and numeral sizes shall comply with the minimum requirements of Tables 2E-2 through 2E-5. All approved symbols shall be permitted as alternatives to word messages, but symbols and word service messages shall not be intermixed on the same sign. If the services are not visible from the ramp of a single-exit interchange, the service signing shall be repeated in smaller size at the intersection of the exit ramp and the crossroad. Such service signs shall use arrows to indicate the direction to the services.**

02A The Pharmacy (D9-20 or D9-20a plaque) signs shall not be used in Alaska.

Guidance:

03 *Where General Service signs are used along routes with exit numbering, the General Service sign should include the exit number within the sign face as shown in Figure 2I-3.*

04 *Distance to services should be displayed on General Service signs along the exit ramp where distances are more than 1 mile from the ramp intersection with the crossroad.*

05 *General Service signing should only be provided at locations where the road user can return to the freeway or expressway and continue in the same direction of travel.*

06 *Only services that fulfill the needs of the road user should be displayed on General Service signs. If State or local agencies elect to provide General Service signing, there should be a statewide policy for such signing and criteria for the eligibility and availability of the various types of services. The criteria should consider the following:*

A. Gas, diesel, and/or alternative fuels, except for electric vehicle (EV) charging, if all of the following are available:

- 1. Vehicle services such as gas, oil, and water;*
- 2. Modern sanitary facilities and drinking water; and*
- 3. Continuous operations at least 16 hours per day, 7 days per week.*

B. Food if all of the following are available:

- 1. Licensing or approval, where required;*
- 2. Continuous operation to serve at least two meals per day, at least 6 days per week; and*

3. Modern sanitary facilities.
- C. Lodging if all of the following are available:
 1. Licensing or approval, where required;
 2. Adequate sleeping accommodations; and
 3. Modern sanitary facilities.
- D. Public telephone if continuous operation, 7 days per week is available.
- E. Hospital if continuous emergency care capability, with a physician on duty 24 hours per day, 7 days per week is available. A physician on duty would include the following criteria and should be signed in accordance with the priority as follows:
 1. Physician on duty within the emergency department;
 2. Registered nurse on duty within the emergency department, with a physician in the hospital on call; or
 3. Registered nurse on duty within the emergency department, with a physician on call from office or home.
- ~~F. 24 Hour Pharmacy if a pharmacy is open, with a State licensed pharmacist present and on duty, 24 hours per day, 7 days per week and is located within 3 miles of an interchange on the Federal-aid system.~~
- G. Camping if all of the following are available:
 1. Licensing or approval, where required;
 2. Adequate parking accommodations; and
 3. Modern sanitary facilities and drinking water.

Standard:

- 07 **To be eligible for an EV Charging General Service sign on freeways and expressways, the EV chargers provided shall meet the criteria for Direct Current Fast Chargers provided in 23 CFR 680.106 and be in continuous operation at least 16 hours per day, 7 days per week.**

Support:

- 08 Motorist expectations for facilities providing alternative fuels, such as EV Charging, compressed natural gas, liquefied natural gas, liquefied petroleum gas, and hydrogen, vary considerably and alternative fuel vehicles might have different needs than conventional fuel vehicles.

Guidance:

- 09 *The policy criteria for alternative fuel vehicles should take into account the needs, convenience, and safety of alternative fuel vehicle users (see Section 2H.14).*

Standard:

- 10 **For any service that is operated on a seasonal basis only, the General Service signs shall be removed or covered during periods when the service is not available.**
- 11 **The General Service signs shall be mounted in an effective location, between the Advance Guide sign and the Exit Direction sign, in advance of the exit leading to the available services.**

Guidance:

- 11A The NEXT SERVICES XX MILES (D9-17P) sign should be used only when the next services are 50 miles or farther away.

Option:

- 12 If the distance to the next point where services are available is greater than 10 miles, a Next Services Advance (D9-17P) plaque (see Figure 2I-2) may be installed below the Exit Direction sign.

Standard:

13 **Signs for services shall comply with the format for General Service signs (see Section 2I.02) and as provided in this Manual. No more than six general road user services shall be displayed on one sign, which includes any appended supplemental signs or plaques. General Service signs shall display the legends for one or more of the following services: Food, Gas, EV Charging, Lodging, Camping, Phone, Hospital, ~~24-Hour Pharmacy~~, or Tourist Information.**

14 **The qualified services available shall be displayed at specific locations on the sign.**

Guidance:

15 *To provide for future services that might become available, the sign space normally reserved for a given service symbol or word should be left blank when that service is not present.*

16 *The standard display of word messages should be FOOD and PHONE in that order on the top line, and GAS and LODGING on the second line. If used, HOSPITAL, ~~24-HOUR PHARMACY~~, and CAMPING should be on separate lines (see Figure 2I-3).*

Option:

17 Signing for EV Charging, DIESEL, LP-GAS, or other alternative fuel services may be substituted for any of the general services or appended to such signs. The International Symbol of Accessibility (D9-6) sign (see Figure 2I-1) may be used for facilities that qualify.

Guidance:

18 *When symbols are used for the road user services, they should be displayed as follows:*

A. Six services:

1. *Top row—GAS, FOOD, and LODGING*
2. *Bottom row—PHONE, HOSPITAL, and CAMPING*

B. Four services:

1. *Top row—GAS and FOOD*
2. *Bottom row—LODGING and PHONE*

C. Three services:

1. *Top row—GAS, FOOD, and LODGING*

Option:

19 Substitutions of other services for any of the services described in Paragraph 18 of this Section may be made by placing the substitution in the lower right (four or six services) or extreme right (three services) portion of the sign. An action message or an interchange number may be used for symbol signs in the same manner as they are used for word message signs. The Diesel Fuel (D9-11) symbol or the LP-GAS (D9-11e) symbol may be substituted for the symbol representing fuel or appended to such assemblies. The Tourist Information (D9-10) ~~or the 24-Hour Pharmacy (D9-20 and D9-20aP) symbol~~ may be substituted on any of the configurations provided in Paragraph 18 of this Section.

20 At rural interchange areas where limited road user services are available and where it is unlikely that additional services will be provided within the near future, a Rural Interchange General Services (D9-18dP, D9-18eP, or D9-18fP) plaque displaying one to three services (words or symbols) may be mounted below a post-mounted Interchange Advance guide sign.

Section 2I.04 Interstate Oasis Signing (D5-12 Series)

[\[Delete the entirety of Section 2I.04, including Figure 2I-4, and replace with the following.\]](#)

Standard:

00A **Interstate Oasis Signing shall not be used in Alaska. The entirety of MUTCD section 2I.04 is not applicable to Alaska.**

Section 2I.05 Rest Area and Other Roadside Area Signs (D5-1 through D5-11 Series)**Standard:**

01 **Rest Area signs (see Figure 2I-5) shall have a retroreflective white legend and border on a blue background.**

02 **Signs that include the legend REST AREA shall be used only where parking, [picnic tables](#), [litter disposal](#), and restroom facilities are available.**

Guidance:

03 *A roadside area that does not contain restroom facilities should be signed to indicate the major road user service that is provided. For example, the sign legends for an area with only parking should use the words PARKING AREA (D5-9 series) instead of REST AREA. The sign legends for an area with only picnic tables and parking should use words such as PICNIC AREA, ROADSIDE TABLE, or ROADSIDE PARK (D5-10 series) instead of REST AREA.*

04 *Rest areas that have tourist information and welcome centers should be signed as provided in Section 2I.08.*

05 *Scenic area signing should be consistent with that provided for rest areas, except that the legends should use words such as SCENIC AREA, SCENIC VIEW, or SCENIC OVERLOOK (D5-11 series) instead of REST AREA.*

06 *If a rest area or other roadside area is provided on a conventional road, a D5-1 and/or D5-1a sign should be installed in advance of the rest area or other roadside area to permit the driver to reduce speed in preparation for leaving the highway. A D5-5 sign (or a D5-2 sign if an exit ramp is provided) should be installed at the turn-off point where the driver needs to leave the highway to access the rest area or other roadside area.*

07 *If a rest area or other roadside area is provided on a freeway or expressway, a D5-1 sign should be placed 1 mile and/or 2 miles in advance of the rest area.*

Standard:

08 **A D5-2a sign shall be placed at the rest area or other roadside area exit gore.**

Option:

09 *A D5-1a sign may be placed between the D5-1 sign and the exit gore on a freeway or expressway. A second D5-1 sign may be used in place of the D5-1a sign with a distance to the nearest ½ or ¼ mile displayed as a fraction rather than a decimal for distances of less than 1 mile.*

10 *To provide the road user with information on the location of succeeding rest areas, a Next Rest Area (D5-6) sign (see Figure 2I-5) may be installed independently or as a supplemental sign mounted below one of the REST AREA advance guide signs.*

10A **Scenic areas may be marked by the SCENIC VIEW Symbol (D9-102) sign. Follow the guidelines for D9 series signs in Section 2I.02.**

Section 2I.08 Tourist Information and Welcome Center Signs (D5-7 Series and D5-8)

Option:

- 06 As an alternative to the supplemental TOURIST INFO CENTER legend, the Tourist Information (D9-10) sign (see Figure 2I-1) may be appended beneath the REST AREA advance guide sign.
- 07 The name of the State or local jurisdiction may appear on the Advance Guide and Exit Direction tourist information/welcome center signs if the jurisdiction controls the operation of the tourist information or welcome center and the center meets the operating criteria set forth in this Manual and is consistent with State policies.

Standard:

07A **TOURIST INFORMATION CENTER (I-200) signs may be installed when the applicant meets the following criteria:**

- A. **There shall be a minimum of 10 off-street parking spaces provided.**
- B. **The tourist information center shall be located adjacent to the highway.**
- C. **The tourist information center shall have information about the surrounding region as well as the area near the center.**

07B **Applicants for these signs shall submit an official designation as a Tourist Information Center from the local city or borough government and letter of concurrence from the local Chamber of Commerce to the appropriate City or RTSE. Applicants shall not fabricate or install signs until approval from the City or Regional Traffic Engineer is obtained.**

07C **Visitor/ information centers shall be located within the community or region they serve. Only one center should be designated for communities located along a single major through route. Multiple visitor centers may be designated for larger communities with a network of several major through routes. These should be limited to no more than one for each entry point to the community.**

07D **The name of the operating agency, community, group, or enterprise shall not appear in the legend of the sign.**

07E **The operating agency shall purchase and install the original signs.**

Guidance:

- 08 *For tourist information centers that are located off the freeway or expressway facility, additional signing criteria should be as follows:*
- A. *Each State should adopt a policy establishing the maximum distance that a tourist information center can be located from the interchange in order to be included on official signs.*
 - B. *The location of signing should be in accordance with requirements pertaining to General Service signing (see Section 2I.03).*
 - C. *Signing along the crossroad should be installed to guide the road user from the interchange to the tourist information center and back to the interchange.*

Option:

- 09 As an alternative, the Tourist Information (D9-10) sign (see Figure 2I-1) may be appended to the guide signs for the exit that provides access to the tourist information center. As a second alternative, the Tourist Information sign may be combined with General Service signing.

09A **TOURIST INFO KIOSK (I-201) signs may be installed near the driveway leading to a tourist information kiosk.**

09B TOURIST INFO CENTER (I-200) sign or the TOURIST INFO KIOSK (I-201) sign may be installed in combination with Direction Arrow Auxiliary (M6-1P, M6-2P, or M6-3P) signs as advance signs to the community's designated information center.

CHAPTER 2J. SPECIFIC SERVICE SIGNS

Section 2J.01 Eligibility

Standard:

01 **Specific Service signs shall be defined as guide signs that provide road users with business identification and directional information for eligible services. ~~Eligible service categories shall be limited to gas, food, lodging, camping, attractions, and electric vehicle (EV) charging.~~**

01A **Specific Service signs shall only be used for motorist services in Alaska. They shall not be used for attractions or for pharmacies. They shall only be installed on freeways and expressways.**

Guidance:

02 *The use of Specific Service signs should be limited to areas primarily rural in character with adequate space for all signs to be properly accommodated.*

Support:

03 When services at an interchange are abundant, this is an indication that the character of the area is no longer primarily rural and General Service signs would be more appropriate.

Option:

04 ~~Where an engineering study determines a need, Specific Service signs may be used on any class of highway, including freeways, expressways, and conventional roads.~~

Guidance:

05 *Specific Service signs should not be installed at an interchange where the road user cannot conveniently reenter the freeway or expressway and continue in the same direction of travel.*

Standard:

06 **Eligible service facilities shall comply with laws concerning the provisions of public accommodations without regard to race, religion, color, age, sex, or national origin, and laws concerning the licensing and approval of service facilities.**

07 ~~The attraction services shall include only facilities that have the primary purpose of providing amusement, historical, cultural, or leisure activities to the public.~~

Guidance:

08 *Except as provided in Paragraph 9 of this Section, distances to eligible services should not exceed 3 miles in any direction.*

Option:

09 ~~If, within the 3-mile limit, facilities for the services being considered are not available or choose not to participate in the program, the limit of eligibility may be extended in 3-mile increments until one or more facilities for the services being considered chooses to participate, or until 15 miles is reached, whichever comes first.~~

Standard:

10 **If State or local agencies elect to provide Specific Service signing, there shall be a statewide policy for such signing and criteria for the eligibility and availability of the various types of services.**

Guidance:

11 *The criteria for the statewide policy should consider the following:*

A. *To qualify for a GAS business identification sign panel, a business should have:*

1. *Vehicle services including gasoline, oil, and water;*
 2. *Continuous operation at least 16 hours per day, 7 days per week for freeways and expressways, and continuous operation at least 12 hours per day, 7 days per week for conventional roads; and*
 3. *Modern sanitary facilities and drinking water.*
- B. *To qualify for a FOOD business identification sign panel, a business should have:*
1. *Licensing or approval, where required;*
 2. *Continuous operations to serve at least 2 meals per day, at least 6 days per week; and*
 3. *Modern sanitary facilities.*
- C. *To qualify for a LODGING business identification sign panel, a business should have:*
1. *Licensing or approval, where required;*
 2. *Adequate sleeping accommodations; and*
 3. *Modern sanitary facilities.*
- D. *To qualify for a CAMPING business identification sign panel, a business should have:*
1. *Licensing or approval, where required;*
 2. *Adequate parking accommodations; and*
 3. *Modern sanitary facilities and drinking water.*
- ~~E. *To qualify for an ATTRACTION business identification sign panel, a facility should have:*~~
- ~~1. *Regional significance, in compliance with the provisions of Paragraph 7 of this Section; and*~~
 - ~~2. *Adequate parking accommodations.*~~

Standard:

- 12 **To be eligible for an Electric Vehicle (EV) CHARGING business identification sign panel, the EV chargers provided shall meet the criteria for Direct Current Fast Chargers provided in 23 CFR 680.106 and be in continuous operation at least 16 hours per day, 7 days per week.**

Option:

- 13 Business identification sign panels for a proprietary electric vehicle charging service may be included on an EV Charging Specific Service sign if it meets the eligibility criteria in Paragraph 12 of this Section.

Support:

- 14 Section 2J.12 contains additional information on criteria for the statewide policy regarding signing.
- 15 ~~Section 2I.04 contains information regarding the Interstate Oasis program.~~

Section 2J.02 Application

Support:

- 01 Examples of Specific Service signs are shown in Figure 2J-1.
- 02 Examples of sign locations are shown in Figure 2J-2.

Standard:

- 03 ~~The number of Specific Service signs along an approach to an interchange or intersection, regardless of the number of service types displayed, shall be limited to a maximum of four. Except as provided in Paragraph 4 of this Section, in the direction of traffic flow, successive~~

~~Specific Service signs shall be for attraction, camping, lodging, food, EV charging, and gas services, in that order.~~

03A Specific Service (LOGO) signs shall be permitted and installed in accordance with 17 AAC 60.101 through 17 AAC 60.120 and 17 AAC 60.905 through AAC 60.995.

Option:

04 When spacing does not allow EV Charging Specific Service signs to be located as described in Paragraph 3 of this Section, then the EV Charging Specific Service signs may be located anywhere within the successive Specific Service sign order where adequate spacing between signs allows.

Guidance:

05 *The Specific Service signs should be located to take advantage of natural terrain, to have the least impact on the scenic environment, and to avoid visual conflict with other signs within the highway right-of-way.*

06 *Where a service type is displayed on two signs, the signs for that service should follow one another in succession.*

Standard:

07 **A Specific Service sign shall display the word message GAS, EV CHARGING, FOOD, LODGING, ~~or~~ CAMPING, ~~or~~ ATTRACTION, an appropriate directional legend such as the word message EXIT XX, NEXT RIGHT, SECOND RIGHT, or directional arrows, and the related business identification sign panels. Distances to eligible facilities shall not be displayed on the Specific Service signs on the approach to an interchange.**

Section 2J.03 Logos and Business Identification Sign Panels

Standard:

01 **A business identification sign panel legend shall be either an identification trademark or a word message of the business's name. Each logo or word message shall be placed on a separate business identification sign panel that shall be attached to the Specific Service sign. Logos or trademarks used alone for a business identification sign panel shall be reproduced in the colors and general shape consistent with customary use, and any integral legend shall be in proportionate size. A logo that resembles an official traffic control device shall not be used.**

02 **Scanning graphics that are visible to the road user from the roadway for the purpose of obtaining information shall not be displayed on business identification sign panels, including on any logo displayed thereupon.**

Guidance:

03 *The logo or trademark used on a business identification sign panel should be consistent with the on-premise business identification signs at the location of the business that are visible from the roadway.*

04 *A word message business identification sign panel that does not use a logo or trademark should have a blue background with a white legend and border.*

Support:

05 Section 2J.05 contains information regarding the minimum letter heights for business identification sign panels.

Option:

06 A portion of a business identification sign panel may be used to display a supplemental message horizontally along the bottom of the business identification sign panel, provided that the message

displays essential motorist information consistent with the service category type and related to the operation of the business (see Figure 2J-4).

Standard:

07 **All supplemental messages shall be displayed within the business identification sign panel and shall have letters and numerals that comply with the minimum height requirements shown in Table 2J-1. Supplemental messages promoting the availability of products, amenities, or services that are not directly related to the service category and/or those not available to non-patrons of the primary service provided for the service category, such as car wash, automated teller machines, Internet, lottery, or swimming pool, shall not be displayed on business identification sign panels.**

08 **Messages related to the promotion or availability of business identification sign panel space shall not be displayed on Specific Service signs.**

09 **To be eligible for an EV CHARGING supplemental message on a business identification sign panel, the business shall:**

A. Offer electric vehicle charging to the general public without purchasing the primary service (gas, food, lodging, camping, or attraction, as appropriate); and

B. For the service categories of gas, food, and attraction, provide EV chargers meeting the criteria for Direct Current Fast Chargers (DCFC) provided in 23 CFR 680.106; or

C. For the service categories of camping and lodging, provide EV chargers meeting the criteria for DCFCs provided in 23 CFR 680.106 and/or AC Level 2 Charging.

Option:

10 A Supplemental message identifying an alternative fuel available may be added only to the business identification sign panels on the GAS Specific Services sign for gasoline facilities that provide the specified alternative fuel in addition to gasoline.

11 The Supplemental message EV CHARGING may be added to a business identification sign panel for the service categories of gas, food, lodging, or camping in accordance with the criteria in Paragraph 9 of this Section.

Guidance:

12 *A business identification sign panel should not display more than one supplemental message.*

13 *The supplemental message should be displayed in a black legend on a yellow background for that portion of the business identification sign panel.*

14 *State or local agencies that elect to allow supplemental messages on business identification sign panels should develop a statewide policy for such messages.*

Support:

15 Typical supplemental messages might include DIESEL, LP-GAS, EV CHARGING, 24 HOURS, CLOSED SUNDAY, and RV ACCESS.

Guidance:

16 *If a State or local agency elects to display the designation of businesses as providing on-premise accommodations for recreational vehicles with the RV ACCESS supplemental message, there should be a statewide policy for such designation and criteria for qualifying businesses. The criteria should include such site conditions as access between the public roadway and the site, on-premise geometry, and parking.*

Option:

- 17 ~~If a business designated as an Interstate Oasis (see Section 2I.04) has a business identification sign panel on the Food and/or Gas Specific Service signs, the word OASIS may be displayed on the bottom portion of the business identification sign panel for that business.~~

Standard:

- 18 **A business identification sign panel shall not display the identification logo/trademark or name of more than one business. A business identification sign panel shall not display more than one name or identification logo/trademark for the same business. Slogans, such as marketing slogans associated with the business, shall not be displayed on business identification sign panels or the Specific Service sign itself.**

18A **Specific Service (LOGO) signs shall be placed in accordance with 17 AAC 60.115.**

Section 2J.04 Number and Size of Signs and Business Identification Sign Panels (LG-F1x2, LG-F3x1, LG-F3x2, LG-R1x2, LG-R1x3, LG-FP, and LG-FP2)

Guidance:

- 01 *Sign sizes should be determined by the amount and height of legend and the number and size of business identification sign panels attached to the sign. All business identification sign panels on a sign should be the same size.*

Standard:

- 02 **Each Specific Service sign or sign assembly shall be limited to no more than six business identification sign panels.**

Option:

- 03 Where more than six businesses of a specific service type are eligible for business identification sign panels at the same interchange, additional business identification sign panels of that same specific service type may also be displayed in accordance with the provisions of Paragraph 4 of this Section. The additional business identification sign panels may be displayed either by placing more than one specific service type on the same sign (see Paragraph 13 of Section 2J.02) or by using a second Specific Service sign of that specific service type if the additional sign can be added without exceeding the limit of four Specific Service signs at an interchange or intersection approach (see Paragraph 3 of Section 2J.02).

03A **Logo Sign Panels LG-F1x2, LG-F3x1, LG-F3x2, LG-R1x2, and LG-R1x3 and directional plaques LG-FP and LG-FP2 may be used as alternatives to Logo Sign Panels illustrated in MUTCD Figure 2J-1 Examples of Specific Service Signs.**

Section 2J.12 Signing Policy

[Delete the entirety of Section 2J.12 and replace with it the following.]

Standard:

- 01 **Specific Service (LOGO) signs shall be permitted and installed in accordance with 17 AAC 60.101 through 17 AAC 60.120 and 17 AAC 60.905 through AAC 60.995.**

CHAPTER 2K. TOURIST-ORIENTED DIRECTIONAL SIGNS

Section 2K.06 Sign Locations

Standard:

00A When placed on state highways, Tourist-Oriented Directional (D9-205) signs (TODS) shall be located at the intersection of the non-State highway, the state highway with a classification of local, or the driveway leading to the attraction and the nearest state highway with a classification of collector or arterial.

Guidance:

01 *If used, the intersection approach signs should be located at least 200 feet but no more than 800 feet in advance of the intersection. Sign assemblies should be spaced at least 200 feet apart and at least 200 feet from other traffic control devices. To avoid motorist confusion, driveway or road intersections that do not lead to the attraction should not be located between the sign and the intended turn for the motorist.*

02 *If used, advance signs should be located approximately ½ mile from the intersection with 500 feet between these sign assemblies. In the direction of travel, the order of advance sign placement should be to show the destinations to the left first, then destinations to the right, and last, the destinations straight ahead (see Figure 2K-2).*

03 *Position, height, and lateral offset of sign assemblies should be governed by Chapter 2A except as permitted in this Section.*

Option:

04 *Tourist-oriented directional signs may be placed farther from the edge of the road than other traffic control signs.*

Standard:

05 **The location of other traffic control devices shall take precedence over the location of tourist-oriented directional signs.**

Section 2K.07 State Policy

Standard:

01 **To be eligible for tourist-oriented directional signing, facilities shall comply with applicable State and Federal laws concerning the provisions of public accommodations without regard to race, religion, color, age, sex, or national origin, and with laws concerning the licensing and approval of service facilities. ~~Each State that elects to use tourist-oriented directional signs shall adopt a policy that complies with these provisions.~~**

01A TODS (D9-205) shall be permitted and installed in accordance with 17 AAC 60.001 through 17 AAC 60.020 and 17 AAC 60.905 through AAC 60.995.

Guidance:

02 *The State policy should include:*

A. ~~A definition of tourist-oriented business, service, and activity facilities.~~

B. ~~Eligibility criteria for signs for facilities.~~

C. ~~Provision for covering signs during off seasons for facilities operated on a seasonal basis.~~

D. ~~Provisions for signs to facilities that are not located on the crossroad when such facilities are eligible for signs.~~

~~E. A definition of the immediate area in compliance with the provisions of Paragraph 2 of Section 2K.01.~~

~~F. Maximum distances to eligible facilities. The maximum distance should be 5 miles.~~

~~G. Provision for information centers (plazas) when the number of eligible sign applicants exceeds the maximum permissible number of sign panel installations.~~

~~H. Provision for limiting the number of signs when there are more applicants than the maximum number of signs permitted.~~

~~I. Criteria for use at intersections on expressways.~~

~~J. Provisions for controlling or excluding those businesses which have illegal signs as defined by the Highway Beautification Act of 1965 (23 U.S.C. 131).~~

~~K. Provisions for States to charge fees to cover the cost of signs through a permit system.~~

~~L. A definition of the conditions under which the time of operation is displayed.~~

~~M. Provisions for determining if advance signs will be permitted, and the circumstances under which they will be installed.~~

02A TODS should not be allowed for businesses whose primary purpose is to sell alcohol, such as bars and liquor stores.

Option:

02B Trailblazing signs may be installed between TODS and the attraction at intersections where a turn is required. Trailblazing signs on state roads require approval of the RTSE.

Standard:

02C If used, trailblazing signs shall be General Service Plates (D9-1 to D9-15, D9-100 to D9-106) or signs of the same color (white symbol on blue background) with different icons. The icon on the signs shall be the same as the icon on the TODS. Use appropriate arrow and distance plaques.

CHAPTER 2M. RECREATIONAL AND CULTURAL INTEREST AREA SIGNS

Section 2M.02 Application of Recreation and Cultural Interest Area Signs

Support:

- 01 Provisions for signing recreational or cultural interest areas are subdivided into two different types of signs: (1) symbol signs and (2) destination guide signs.

Standard:

01A Recreational and Cultural Interest Area (RCIA) signs shall be permitted and installed in accordance with 17 AAC 60.201 through 17 AAC 60.215 and 17 AAC 60.905 through 17 AAC 60.995.

01B Logos shall only be shown on RCIA signs when all of the following conditions are met:

- A. When the logo represents a public agency.
- B. When the logo is installed on a sign in a rural area.
- C. When logos are recognizable and meaningful to motorists as demonstrated by:
 1. Inclusion of the logo in an Alaska or U.S. outreach campaign, or
 2. Relation of the logo to other programs of use to motorists, such as parking pass programs or guide map symbols, or
 3. Sufficient numbers of logos on signs around the state to become familiar to motorists.

01C Logos shall not be used solely for the purpose of agency promotion and advertising.

01D RCIA signs shall only be installed downstream (on the attraction side of) the nearest city or major junction and shall not be installed more than 50 miles from the attraction. When they are installed near the attraction or the road leading to the attraction, RCIA signs shall be located not more than 1,250 feet in advance of the attraction or the road leading to the attraction. On state roads, DOT&PF alone shall determine whether RCIA signs shall be installed in advance or near the attraction or road leading to the attraction.

01E When placed on state highways, RCIA signs shall be located at the intersection of the non-state highway, the state highway with a classification of local, or the driveway leading to the attraction and the nearest state highway with a classification of collector or arterial.

01F When RCIA signs need to be limited due to space restrictions, public Recreational/Cultural attractions shall receive signs before private Recreational/Cultural attractions.

Guidance:

- 02 *Highway agencies providing recreational and cultural interest area signing should establish a policy with signing criteria for the eligibility of the various types of services, accommodations, and facilities. These signs should not be used where they might be confused with other traffic control signs.*

Section 2M.04 General Design Requirements for Recreation and Cultural Interest Area Symbol Guide Signs

Standard:

- 01 When a General Information symbol contained in Chapter 2H (see Figure 2H-1) is used in conjunction with recreational and cultural interest area signing on roadways outside a recreational and cultural interest area facility, the legend and background color of the General Information symbol sign shall be as prescribed in Chapter 2H.

02 **When a General Service symbol contained in Chapter 2I (see Figure 2I-1) is used in conjunction with recreational and cultural interest area signing on roadways outside a recreational and cultural interest area facility, the legend and background color of the General Service symbol sign shall be as prescribed in Chapter 2I.**

Option:

03 For roadways inside a recreational and cultural interest area, General Information symbol signs and General Service symbol signs may have a white legend on a brown background (see Figures 2H-1 and 2I-1).

Standard:

04 **Except as provided in Section 2M.09, recreational and cultural interest area symbol guide signs shall be square or rectangular in shape and shall have a white symbol or message and white border on a brown background. The symbols shall be grouped into the following usage and series categories:**

- A. General Applications,
- B. Accommodations,
- C. Services,
- D. Land Recreation,
- E. Water Recreation, and
- F. Winter Recreation.

04A No more than four RS Series symbol signs shall be attached beneath Supplemental Guide signs (Section 2M.09), D7-1, D7-2, D7-100, and D7-102 signs. No more than one RS Series symbol sign shall be attached beneath a D7-105 sign.

04B If used as an allowable symbol sign attached beneath D7-1, D7-2, D7-100, D7-102, or D7-105 signs, the Wildlife Viewing (RS-076) symbol sign shall be installed in accordance with Section 2S.03.

Support:

05 Table 2M-1 contains a listing of the symbols within each series category. Use RCIA symbols (RA, RG, RL, RM, RS, RW series) listed in the ASDS.

Option:

06 Mirror images of symbols may be used where the reverse image will better convey the message (see Section 2A.09).

06A The Wild and Scenic River (RS-WSR) symbol may be used as one of the allowed symbol signs attached beneath Supplemental Guide (Section 2M.09) signs D7-1, D7-2, D7-100, D7-102, or D7-105 if the signing location is related to a river segment in the current listing of the River Mileage Classifications for Components of National Wild And Scenic Rivers System as published by the Interagency Wild and Scenic Rivers Coordinating Council. The WSR symbol may be reproduced in color and in original proportions on a brown plate with a white border meeting the dimensional requirements for the road classification. The symbol may be truncated in the vertical dimension, or the vertical height fitted within the dimensions of the symbol plate.

Section 2M.10 Memorial or Dedication Signing

Support:

01 Legislative bodies will occasionally adopt an act or resolution memorializing or dedicating a highway, bridge, or other component of the highway. In Alaska, these are codified at AS Title 35.

Chapter 40. Names of Public Works. Buildings named as public works are typically signed on the building or outside the clear zone rather than on the highway system.

02 Named highways (see Section 2D.56) are officially designated and shown on official maps and serve the purpose of providing route guidance, primarily on unnumbered highways, and property addresses. A highway designated as a memorial or dedication is not considered to be a named highway for the purposes of highway signing or road user navigation and orientation.

03 Section 2A.20 contains information regarding excessive use of signs. Because memorial or dedication names are not official highway names, memorial and dedication signing is not essential to providing navigational guidance.

Guidance:

04 *Such memorial or dedication names should not appear on or along a highway, or be placed on bridges or other highway components. If a route, bridge, or highway component is officially designated as a memorial or dedication, and if notification of the memorial or dedication is to be made on the highway right-of-way, such notification should consist of installing a memorial or dedication marker in a rest area, scenic overlook, recreational area, or other appropriate location where parking is provided with the signing inconspicuously located relative to vehicle operations along the highway.*

05 *Memorial, ~~or~~ dedication signs ~~should have a white legend and border on a brown background.~~ signs naming public works should have a white legend and border on a brown background if the name identified in the legislation includes the word “memorial.” All others should have a white legend and border on a blue background. On all such signs, the design should be simple and dignified, devoid of any appearance of advertising, and in general compliance with other signing.*

06 *The lettering for the name of the person or entity being recognized should be composed of a combination of lower-case letters with initial upper-case letters.*

Standard:

07 **Where such memorial or dedication signs are installed on the highway mainline because the provisions of Paragraph 4 of this Section cannot be met, (1) memorial or dedication names shall not appear on directional guide signs, (2) memorial or dedication signs shall not interfere with the placement of any other traffic control devices, and (3) memorial or dedication signs shall not compromise the safety or efficiency of traffic flow. The memorial or dedication signing shall be limited to one sign at an appropriate location in each route direction, each as an independent post-mounted sign installation. The legend displayed shall include the exact name identified in the legislation.**

08 **Memorial or dedication signs shall be rectangular in shape. The legend displayed on memorial or dedication signs shall be limited to the name of the person or entity being recognized and a simple message preceding the name, such as “Dedicated to.” Additional legend, such as biographical information, shall not be displayed on memorial or dedication signs. Decorative or graphical elements, pictographs, logos, or symbols shall not be displayed on memorial or dedication signs. All letters and numerals displayed on memorial or dedication signs shall be as provided in the “Standard Highway Signs” publication (see Section 1A.05). The route number or officially mapped name of the highway shall not be displayed on the memorial or dedication sign.**

09 **Memorial or dedication signs shall not imply that a highway has been officially renamed.**

10 **Memorial or dedication names shall not appear on supplemental signs or on any other information sign on or along the highway or its intersecting routes.**

Guidance:

- 11 *Freeways and expressways should not be signed as memorial or dedicated highways.*
- 12 *When used, memorial or dedication signs should be located in accordance with the provisions for excessive use of signs (see Section 2A.20).*

Support:

- 13 Paragraph 36 of Section 2D.45 contains provisions regarding the use of memorial or dedication signing in conjunction with Street Name signs.

CHAPTER 2N. EMERGENCY MANAGEMENT SIGNING

Section 2N.03 Evacuation Route Signs (EM1 Series)

Standard:

00A Evacuation route signs (EM1 Series) shall be installed on state highways only after an RTSE has approved an evacuation route plan done by the Alaska Department of Military and Veterans Affairs, Division of Homeland Security and Emergency Management, formerly the Alaska Division of Emergency Services. The plan must be done in accordance with the procedure transmitted in a memo from Robert E. Heavilin, ADES Director, to Michael Downing of the DOT&PF on March 16, 1998.

Guidance:

00B Communities desiring tsunami evacuation route signs should submit their requests to the Alaska Department of Military and Veterans Affairs, Division of Homeland Security and Emergency Management, formerly the Alaska Division of Emergency Services.

[The following is a new chapter. There is no corresponding chapter in the MUTCD.]

CHAPTER 2S. SPECIAL SIGNS

Section 2S.01 Highway Fatality Memorial Signs (I-160 through I-163)

Support:

01 Highway Fatality Memorial Signs memorialize victims of fatal highway accidents as described under 17 AAC 08.

Standard:

02 When a memorial sign is requested by the public and approved under 17 AAC 08, the sign and plaque legends shall conform to Table 2S-100.

Table 2S-100. Highway Fatality Memorial Signs

Conditions	Sign	Deceased Person Being Memorialized	Plate
Alcohol alleged to be involved	PLEASE DON'T DRINK AND DRIVE (I-160)	Not at fault	In Memory Of (I-162)
		Driver at fault in crash	Sponsored By (I-163)
No alleged alcohol involvement, deceased wearing seat belt	PLEASE DRIVE SAFELY (I-161)	Not at fault	In Memory Of (I-162)

03 If both IN MEMORY OF . . . (I-162) and SPONSORED BY . . . (I-163) plaques are requested at a crash site, each sign shall be installed on separate sign installations as described in 17 AAC 08.050.

04 On I-162 plaques, “IN MEMORY OF” shall be followed by the name of the deceased. On I-163 plaques, “SPONSORED BY” shall be followed by the name of the family, family members, or friends who requested the memorial sign.

05 Year of installation stickers shall be placed on the back of each sign.

06 Before installation on state highways, the DOT&PF regional office right-of-way chief or designee shall approve the signs as conforming to the Highway Fatality Memorial Sign Program. Applicants for the signs shall comply with program requirements.

Section 2S.02 State Maintenance Begins/Ends Signs (I-180 and I-181)

Option:

01 The STATE MAINTENANCE BEGINS (I-180) sign may be installed at the point on the roadway where maintenance becomes the responsibility of the DOT&PF.

02 The STATE MAINTENANCE ENDS (I-181) signs may be installed at the point on the roadway where maintenance becomes the responsibility of another agency or private party.

Standard:

03 The I-180 and I-181 signs shall be installed on the right at the maintenance area boundary.

Section 2S.03 Wildlife Viewing Sign (RS-076)

Option:

01 The Wildlife Viewing (RS-076) sign may be used to direct motorists to wildlife viewing sites identified in Alaska Department of Fish and Game Wildlife Viewing Program publications. These guides include The Alaska Wildlife Viewing Guide (statewide), Anchorage Wildlife Viewing Hotspots, The Fairbanks Area Wildlife Viewing Guide, Alaska's Kenai Peninsula Wildlife View Trail Guide, Alaska's South Coastal Wildlife Viewing Guide, and Alaska's Inside Passage Wildlife Viewing Guide (marine/ferry-based) with related individual community brochures. Other guides may be added. An educational plaque may be installed beneath the symbol sign based on engineering judgment.

Standard:

02 On state highways, the RTSE shall approve identified wildlife viewing sites before they are signed.

03 The signs shall not be mounted on the same post as regulatory or warning signs.

Guidance:

04 The Wildlife Viewing signs should follow the guidelines for D9 series signs. See Section 2I.02.

Option:

05 The Wildlife Viewing signs may be installed on the same post as guide, recreational, general service, and similar signs.

Section 2S.04 Speedometer Check Station Signs (I-140, I-141B, I-141E and I-142)

Option:

01 Where appropriate, a measured distance (third order accuracy) may be signed on a generally straight roadway section to allow motorists to check odometer accuracy.

Guidance:

02 The measure section should be at least 5 miles in length. The SPEEDOMETER CHECK STATION AHEAD (I-140) sign should be located 1,500 feet in advance of the BEGIN CHECK MILE 0 sign (I-141B). The MILE 1 through MILE 4 (I-142) signs should be located at the 1- through 4-mile marks, followed by the END CHECK MILE 5 (I-141E) sign.

Section 2S.05 Customs Station Signing (D8-102, D8-103, D8-104, and R13-103)

Support:

01 The general concept for Customs Station signing is similar to Weigh Station signing (see Section 2B.60).

Standard:

02 CUSTOMS (D8-102 through D8-104 and R13-103) signs shall take precedence over all service and information signing. The following four signs shall be installed in sequence toward the facility on all classes of highways:

- A. CUSTOMS 1 MILE (D8-102)
- B. ALL VEHICLES STOP AT CUSTOMS (R13-103)
- C. CUSTOMS 1000 FT OPEN/CLOSED (D8-103)
- D. CUSTOMS (Arrow) D8-104R or L

Section 2S.06 FIRE HYDRANT Sign (M12-100)

Option:

- 01 The FIRE HYDRANT (M12-100) sign may be installed on state roads under permit from the regional office of the DOT&PF when the local government has determined a fire hydrant is hard to see. A number sequence as designated by the local fire department may be included on the sign.

Section 2S.08 Game Management Unit/Subsistence Hunt Area Signs

Option:

- 01 ENTERING GAME MANAGEMENT UNIT (I-225) signs and LEAVING GAME MANAGEMENT UNIT (I-226) signs may be used to mark the boundaries of game management units.
- 02 ENTERING FEDERAL SUBSISTENCE HUNT AREA (I-227) signs and LEAVING FEDERAL SUBSISTENCE HUNT AREA (I-228) signs may be used to mark the boundaries of federal subsistence hunt areas.
- 03 ENTERING/LEAVING CLEARWATER CREEK CONTROLLED USE AREA (I-229) signs and ENTERING/LEAVING PAXSON CLOSED AREA (I-230) signs may be used to mark boundaries of the Clearwater Creek Controlled Use Area and Paxson Closed Area, respectively, along the Denali Highway.

Standard:

- 04 **DOT&PF Recreational and Cultural permits (17 AAC 60.201 through 17 AAC 60.215 and 17 AAC 60.905 through AAC 60.995) shall be required for Game Management Unit and Subsistence Hunt Area signs prior to installation. The applicant shall be responsible for installing and maintaining the signs.**
- 05 **Game Management Unit and Subsistence Hunt Area signs shall not be posted:**
- A. Where road contact with the game management unit or subsistence area is less than 10 continuous miles, or**
 - B. To mark areas smaller than game management sub-units or subsistence hunt areas, or**
 - C. To mark dates, allowable weapon types, sex of game animals, and similar details regarding hunting within game management units or subsistence hunt areas, or**
 - D. Where the road does not intersect the game management unit or subsistence area, or**
 - E. To mark Special Management Areas including, but not limited to, closed areas, controlled use areas, management areas or refuges, sanctuaries, or habitat areas.**
- 06 **This type of signing shall not be applicable to invasive species control programs, fire district or fire station boundaries, or other similar non-hunt areas.**

Support:

- 07 Signs I-229 and I-230 are intended only for installation on the Denali Highway. Alaska Department of Fish & Game Division of Wildlife Conservation considers this route unique in Alaska due to large numbers of hunters using the Denali Highway to access primitive areas during peak hunting periods, stating that identification of the boundaries is “essential to managing potential violations, hunter traffic congestion, and in some cases hunter conflicts.” DOT&PF and ADF&G are in agreement (letter agreement July 25, 2013) that signs like these will be necessary only on the Denali Highway.
- 08 Because of the large number of year-round users in subsistence hunt areas and game units in the aggregate, each individual subsistence hunt area or game unit is considered to satisfy the requirements of 17 AAC 60.205(2). Hunting area boundaries are destinations for many of Alaska’s road users such

that hunting area boundaries are consistent with other recreational and cultural interest area locations. Conversely, boundaries of areas closed to hunting are not permissible for signing because such areas are not destinations for hunters.

- 09 Game Management Units (GMUs) are defined as numbered areas subdividing the State as established by Alaska Department of Fish and Game. Game Management sub-units, commonly referred to on ADF&G maps and materials as “Units,” are subdivisions of GMUs and are denoted with a number and letter designation. Special Management Areas are smaller, generally contained within a GMU or Unit.
- 10 For the purposes of this section, GMUs are hunt areas in Alaska with boundaries described using landmarks and topographical features such as rivers or streams and their drainages, and natural or manmade features. Knowledge of boundary locations is the responsibility of the hunter. Agencies with responsibility for hunting and for game and land management are responsible for dissemination of information regarding hunt area landmarks and all information relating to hunting closures or openings.
- 11 Highway signing informs road users of the intersection of the highway with a hunt area boundary and is not a substitute for hunter knowledge of the hunt area. Conditions on placement minimize potential for motorist confusion and proliferation of signs where boundaries may be in close proximity. Such restrictions are consistent with the purpose of traffic control devices as identified in 1A.01 of the MUTCD which is “to notify road users [of information] needed for the uniform and efficient operation of...the traffic stream...” and with the placement limitation for Recreational and Cultural Interest Area signs according to 17 AAC 60.205 and 17 AAC 60.905 through AAC 60.995. Intersection of the road with a Game Management Unit or Federal Subsistence Hunt Area includes the case where the road defines the boundary of the Game Management Unit or Federal Subsistence Hunt Area.
- 12 DOT&PF encourages agencies to consider alternatives to highway signing for conveying needed information. Suggested alternatives include placement of signs outside of the highway right-of-way and oriented parallel to the traveled way and coordinating with DOT&PF for locating informational kiosks in pull-outs and parking areas.

Section 2S.09 School Destination Signs

Support:

- 01 School Destination (I-102) signs are not ordinarily needed by people who attend school every day or by the public who regularly go to and from the school. Instead, the intent of a School Destination Sign is to serve an unfamiliar motorist.

Standard:

- 02 **If used, School Destination (I-102) signs shall meet all of the following criteria regarding school size and location:**
- A. The school serves 10 or more students;**
 - B. The school is registered with the Alaska Department of Education & Early Development;**
 - C. The school has regularly scheduled and frequent after school events and activities; and**
 - D. The school building, onsite property, and direct access on property is not readily visible from the roadway or is not able to be made readily visible through vegetation clearing.**
- 03 **In addition, if used, School Destination (I-102) signs shall meet one or more of the following criteria regarding public utility:**
- A. After school events and activities are attended by motorists with students from other public schools;**

- B. After school events and activities are commonly open to the public in the local area and visitors from around the state;
- C. The school serves as a publicly designated community meeting hall or community council site;
- D. The school serves as a voting or public polling station; or
- E. The school is officially designated as a civil emergency shelter.

Part 3 | Markings

CHAPTER 3B. PAVEMENT AND CURB MARKINGS

Section 3B.03 No-Passing Zone Pavement Markings

Standard:

- 01 **No-passing zones shall be marked by either the one-direction no-passing zone pavement markings or the two-direction no-passing zone pavement markings described in Section 3B.01 and shown in Figures 3B-1 and 3B-3.**
- 02 **No-passing zones shall be used on:**
 - A. **Two-way roads at lane-reduction transitions (see Section 3B.12),**
 - B. **Approaches to obstructions that must be passed on the right (see Section 3B.13),**
 - C. **Approaches to grade crossings (see Section 8C.02), and**
 - D. **Approaches to crosswalks.**
- 03 **On two-way, two-lane or three-lane roadways where center line markings are installed, no-passing zones shall be established at vertical and horizontal curves and other locations where an engineering study indicates that passing must be prohibited because of inadequate sight distances or other special conditions.**
- 04 **On roadways with center line markings, no-passing zone markings shall be used at horizontal or vertical curves where the passing sight distance is less than the minimum shown in [Table 3B-1 \(also shown in Table 3B-100\)](#) for the 85th-percentile speed or the speed limit.**

[Remove Table 3B-1 and replace with Table 3B-100]

04A Passing zones for one direction of traffic shall be no shorter than the distances shown in Table 3B-100 at the 85th-percentile speed (when speed data is available), or the posted or statutory speed limit, whichever is higher.

Support:

- 05 The passing sight distance on a vertical curve is the distance at which an object 3.5 feet above the pavement surface can be seen from a point 3.5 feet above the pavement (see Figure 3B-4). Similarly, the passing sight distance on a horizontal curve is the distance measured along the center line (or right-hand lane line of a three-lane roadway) between two points 3.5 feet above the pavement on a line tangent to the

Table 3B-100. Minimum Distances for Marking No-Passing and Passing Lanes

Speed (mph)	Minimum Passing Sight Distance and Minimum Length of Passing Zone (ft)	Minimum No-Passing Zone on Stopped Approaches to Intersections (ft)
15	500	110
20	500	145
25	500	185
30	500	220
35	550	255
40	600	295
45	700	330
50	800	365
55	900	405
60	1,000	440
65	1,100	480
70	1,200	515

embankment or other obstruction that cuts off the view on the inside of the curve (see Figure 3B-4).

- 06 The upstream end of a no-passing zone at point “a” in Figure 3B-4 is that point where the sight distance first becomes less than that specified in Table 3B-1. The downstream end of the no-passing zone at point “b” in Figure 3B-4 is that point at which the sight distance again becomes greater than the minimum specified.

Guidance:

- 07 ~~*Where the distance between successive no-passing zones is less than 400 feet, no-passing zone markings should connect the zones.*~~

Support:

- 08 No-passing zone signs (see Sections 2B.36, 2B.37, and 2C.53) are sometimes used to emphasize the existence and extent of a no-passing zone.

Standard:

- 09 **On three-lane roadways where the direction of travel in the center lane transitions from one direction to the other, a no-passing buffer zone, consisting of a flush median island (see Section 3J.03) at least 50 feet in length, shall be provided in the center lane as shown in Figure 3B-5. A lane-reduction transition (see Section 3B.12) shall be provided approaching each end of the buffer zone.**

Option:

- 09A A one-way no-passing zone may be placed on any approach to an intersection.

Guidance:

- 09B If used, no-passing zone markings should be placed on stopped approaches to intersections to prohibit passing for the last 5 seconds of travel distance at the 85th-percentile speed (when speed data is available), or the posted or statutory speed limit if a speed limit is not posted. See Table 3B-100.

Section 3B.05 Pavement Markings for Two-Way Left-Turn Lanes

Standard:

- 04 **A single-direction lane-use arrow shall not be used in a lane bordered on both sides by yellow two-way left-turn lane longitudinal markings.**

Guidance:

- 05 *Signs should be used in conjunction with the two-way left-turn markings (see Section 2B.32).*

- 06 ~~*Two-way left-turn lane markings should not extend to intersections (see definition in Section 1C.02).*~~

- 06A Two-way left-turn lane markings should be broken at intersections controlled by a traffic signal or with roads classified as arterials.

Option:

- 07 Two-way left-turn lanes may be transitioned to mandatory left-turn lanes as shown in Figure 3B-7 or painted median islands where they approach an intersection.

- 07A Two-way left-turn lanes may be broken at intersections (see definition in Section 1C.02) based on engineering judgement.

Support:

- 08 Section 8A.06 contains guidance information for discontinuing a two-way left-turn lane in the immediate vicinity of a highway-rail or highway-LRT grade crossing.

Section 3B.09 Edge Line Pavement Markings

Standard:

- 01 If used, edge line pavement markings shall delineate the right or left edges of a roadway.
- 02 Except as provided in Section 3E.04, right edge line pavement markings, if used, shall consist of a normal width solid white line to delineate the right-hand edge of the roadway.
- 03 If used on the roadways of divided highways or one-way streets, or on any ramp in the direction of travel, left edge line pavement markings shall consist of a normal width solid yellow line to delineate the left-hand edge of a roadway or to indicate driving or passing restrictions left of these markings, except as provided in Section 3E.04.

Support:

- 04 Edge line markings provide visual references to guide road users during adverse weather and visibility conditions.

04A [Section 2C.51 contains provisions for the use of the Two-Way \(W6-3\) sign when edge line markings are placed without centerline markings.](#)

Section 3B.10 Warrants for Use of Edge Lines

Standard:

- 01 Edge line markings shall be placed on paved streets or highways with the following characteristics:
- A. Freeways,
 - B. Expressways, and
 - C. Rural arterials with a traveled way of 20 feet or more in width and an ADT of 6,000 vehicles per day or greater.

Guidance:

- 02 Edge line markings should be placed on paved streets or highways with the following characteristics:
- A. Rural arterials and collectors with a traveled way of 20 feet or more in width and an ADT of 3,000 vehicles per day or greater.
 - B. On other paved streets and highways where an engineering study indicates a need for edge line markings.

02A [Edge line markings should be used on all paved portions of Alaska Numbered Routes as shown in Figure 2D-100 and Table 2D-100.](#)

- 03 Edge line markings should not be placed where an engineering study or engineering judgment indicates that providing them is likely to decrease safety for all road users.

Option:

- 04 Edge line markings may be placed on streets and highways with or without center line markings.
- 05 Edge line markings may be excluded, based on engineering judgment, for reasons such as if the traveled way edges are delineated by curbs, parking, or other markings.
- 06 If a bicycle lane is marked on the outside portion of the traveled way, the edge line that would mark the outside edge of the bicycle lane may be omitted.
- 07 Edge line markings may be used where edge delineation is desirable to minimize unnecessary driving on paved shoulders or on refuge areas that have lesser structural pavement strength than the adjacent roadway.

[The following is a new section. There are no corresponding sections in the MUTCD.]

Section 3B.100 Markings for Climbing and Passing Lanes

Support:

01 See Figure 2B-100 for the pavement marking layout for climbing and passing lanes.

CHAPTER 3C. CROSSWALK MARKINGS

Section 3C.02 Application of Crosswalk Markings

Guidance:

- 01 *At locations controlled by traffic control signals ladder crosswalk markings should be installed.*

Option:

- 02 *Crosswalk markings may be omitted if engineering judgment indicates they are not needed to direct pedestrians to the proper crossing path(s).*

Guidance:

- 03 *On approaches controlled by STOP or YIELD signs, crosswalk markings should be installed where engineering judgment indicates they are needed to direct pedestrians to the proper crossing path(s).*

- 04 *At uncontrolled approaches, an engineering study should be performed before a marked crosswalk is installed. The following criteria should be considered:*

- A. Total number of approach lanes,*
- B. The presence of a median,*
- C. The distance from adjacent signalized intersections or other controlled crossings,*
- D. Projected pedestrian and bicyclist volumes,*
- E. Pedestrian and bicyclist paths of travel,*
- F. Pedestrian ages and abilities,*
- G. Pedestrian and bicyclist delays,*
- H. Location or frequency of public transit stops,*
- I. Average daily traffic (ADT),*
- J. Speed limit or the 85th-percentile speed,*
- K. The horizontal and vertical geometry of the crossing location,*
- L. The possible consolidation of multiple crossing points,*
- M. The availability of street lighting, and*
- N. Other appropriate factors.*

Standard:

- 05 **Crosswalk markings shall be provided at legally established crosswalks at non-intersection locations.**

Guidance:

- 06 ~~*The installation of other traffic control devices and other measures designed to reduce traffic speeds, shorten crossing distances, enhance driver awareness of the crossing, and/or provide active warning of pedestrian presence, should be considered in addition to a new marked crosswalk and signs across an uncontrolled roadway where any of the following conditions exist:*~~

- ~~*A. The roadway has four or more lanes of travel without a raised median or pedestrian refuge island and an ADT of 12,000 vehicles per day or greater; or*~~
- ~~*B. The roadway has four or more lanes of travel with a raised median or pedestrian refuge island and an ADT of 15,000 vehicles per day or greater; or*~~
- ~~*C. The posted speed limit is 40 mph or greater; or*~~
- ~~*D. A crash study reveals that multiple-threat crashes are the predominant crash type on a multi-lane approach; or*~~

E. When adequate visibility cannot be provided by parking prohibitions.

06A Crosswalks at uncontrolled approaches or midblock locations should only be installed in locations meeting the criteria identified in Table 3C-101.

Option:

06B Crosswalks may be installed as part of traffic calming features (such as raised crosswalks or RRFB treatments) at uncontrolled approaches or as part of traffic calming or traffic control features at midblock locations at locations where volume and speed are in category M and N in Table 3C-101.

Table 3C-101. Crosswalk Marking on Uncontrolled Approaches or at Midblock Locations

No of Lanes	Raised Median?	Vehicle ADT <9,000				Vehicle ADT >9,000 to 12000				Vehicle ADT >12,000 to 15,000			Vehicle ADT >15,000		
		Speed Limit (MPH)													
-	-	≤30	35	40	>45	≤30	35	40	>45	≤30	35	>40	≤30	35	>40
2	No	C	C	M	N	C	C	M	N	C	C	N	C	M	N
3	No	C	C	M	N	C	M	M	N	M	M	N	M	N	N
>4	Yes	C	C	M	N	C	M	N	N	M	M	N	N	N	N
>4	No	C	M	N	N	M	M	N	N	N	N	N	N	N	N



Candidate sites for marked crosswalks. Before marking a crosswalk, the site should be studied to ensure it is suitable. The study can include a review of pedestrian volumes, available gaps, sight distance (see Note 1), vehicle mix, pedestrian mix, distance to adjacent crossings (see Note 2), etc. Crosswalks should not be installed at locations with fewer than 20 pedestrian crossings per peak hour (or 15 for elderly and/or child pedestrians).



Marginal candidate sites for marked crosswalks: Pedestrian accident risk may increase if crosswalks are marked. If pedestrian improvements are necessary, other options should be explored before marking crosswalks.



Crosswalks should not be installed at these locations.

Notes:

1. Marked crosswalks should not be installed on uncontrolled approaches or at midblock locations where visibility distance of pedestrians or the crosswalk would be less than the “Stopping Sight Distance for Design” given in the latest version of the AASHTO A Policy on Geometric Design of Highways and Streets. Desirably, crosswalks would only be installed where there is sufficient sight distance to allow pedestrians to cross the road without conflicting with vehicles continuing at the 85th-percentile speed, assuming the pedestrian starts walking at the moment the vehicle comes into sight. Pedestrian crossing time should be computed in accordance with the procedure for determining adequate gaps given in the ITE Traffic Engineering Handbook.

2. Crosswalks should not be installed on uncontrolled approaches or at midblock locations where they will encourage pedestrians to divert from nearby signalized or grade-separated pedestrian crossings.

Source: FHWA-RD-01-075 *Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations, 2002*

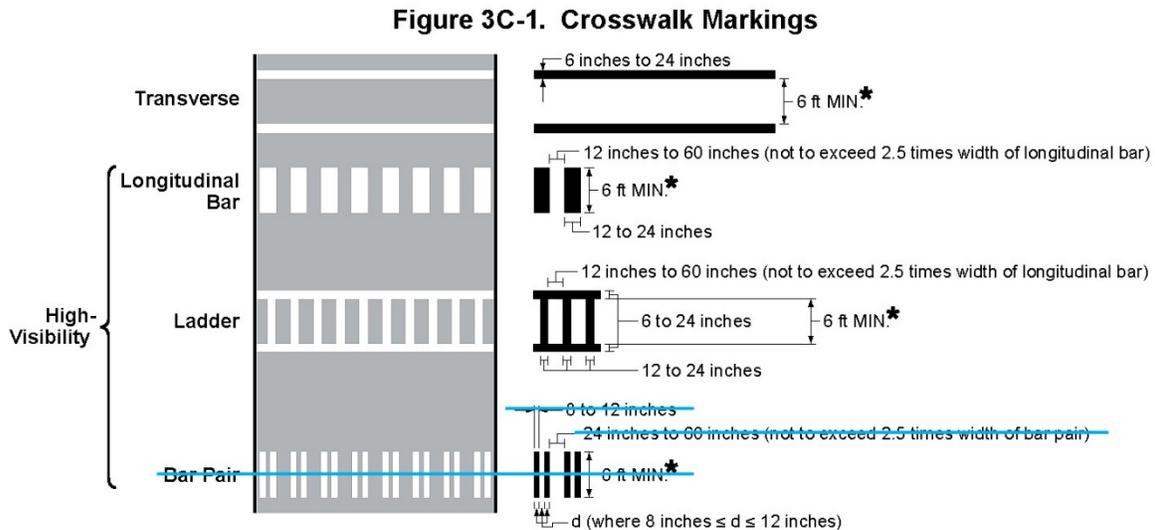
Support:

07 Chapter 4J contains information on pedestrian hybrid beacons.

08 Chapter 4L contains information on rectangular rapid flashing beacons.

- 09 Section 4S.03 contains information regarding Warning Beacons to provide active warning of a pedestrian's presence.
- 10 Section 4U.02 contains information regarding In-Roadway Warning Lights at crosswalks.
- 11 Chapter 7C contains information on school crosswalks.
- 12 Chapter 7D contains information regarding school crossing supervision.
- 13 Section 9E.13 contains information on crosswalk markings for shared-use path crossings.

[Revise Figure 3C-1 of the MUTCD by removing Bar Pair.]



* Minimum crosswalk width shall be 8 feet where the posted speed limit is 40 mph or greater at a non-intersection crosswalk.

Section 3C.05 High-Visibility Crosswalks

Option:

- 01 High-visibility crosswalk markings may be used where additional conspicuity is desired for a crosswalk over transverse line crosswalk markings.

Support:

- 02 High-visibility crosswalk markings include the longitudinal bar, ladder, and bar pair designs (see Figure 3C-1).
- 03 High-visibility crosswalk markings can provide benefits to crosswalk operations including:
 - A. Providing greater detection distances for the approaching motorist.
 - B. Emphasizing a crosswalk where substantial numbers of pedestrians cross without any other traffic control device.
 - C. Emphasizing a crosswalk at an uncontrolled approach.
 - D. Emphasizing the location where a high number of conflicts between turning motorists and users of the crosswalk are expected.
 - E. Improving visibility of the crosswalk location for otherwise difficult-to-detect pedestrians or other non-motorized users of the crosswalk.
 - F. Emphasizing a school crossing.

Standard:

- 04 The minimum number of individual longitudinal elements to establish a high-visibility crosswalk shall be three. ~~For the bar pair crosswalk design (see Section 3C.08), a coupling set of two longitudinal bars shall be considered to be one individual longitudinal element.~~

Section 3C.08 Bar Pair Crosswalks

[Delete the entirety of Section 3C.08 and replace with the following.]

Standard:

- 01A Bar Pair Crosswalks shall not be used in Alaska.

CHAPTER 3G. DELINEATORS

Section 3G.03 Application

Standard:

01 The color of delineators shall comply with the color of edge lines stipulated in Sections 3A.03 and 3B.09.

02 A series of single delineators shall be provided on the right-hand side of freeways and expressways and on at least one side of interchange ramps, except when either Condition A or Condition B is met, as follows:

A. On tangent sections of freeways and expressways when both of the following conditions are met:

1. Raised pavement markers are used continuously on lane lines throughout all curves and on all tangents to supplement pavement markings, and
2. Roadside delineators are used to lead into all curves, or

B. On sections of roadways where continuous lighting is in operation between interchanges.

02A Delineators shall be installed in accordance with Table 3G-100.

Option:

02B Delineators may also be used for applications not covered by the table, including safety emphasis areas. See Chapter 3G of the MUTCD for additional information on the application of delineators.

Guidance:

02C When used, snow pole delineators should be constructed in accordance with Figure 3G-100 and Figure 3G-101.

Option:

02D Snow poles may be installed in three layout patterns: opposite, one-sided, or staggered.

- A. Opposite Layout: poles are placed on both shoulders across from each other.
- B. One-sided Layout: poles are placed on one shoulder.
- C. Staggered Layout: poles are placed on alternate shoulders.

Option:

03 Delineators may be provided on other classes of roads.

04 A series of single delineators may be provided on the left-hand side of roadways.

05 Chevron Alignment (W1-8) signs may be used instead of or in addition to standard delineators, as provided in Section 2C.08.

Standard:

06 **Delineators on the left-hand side of a two-way roadway shall be white (see Figure 3G-1).**

Guidance:

07 *A series of single delineators should be provided on the outside of curves on interchange ramps.*

08 *Where median crossovers are provided for official or emergency use on divided highways and where these crossovers are to be marked with pavement markings, a double yellow delineator should be placed on the left-hand side of the through roadway on the far side of the crossover for each roadway.*

09 *Double or vertically-elongated delineators should be installed at approximately 100-foot intervals along acceleration and deceleration lanes.*

10 *A series of delineators should be used wherever guardrail or other longitudinal barriers are present along a roadway or ramp.*

Option:

11 Red delineators may be used on the reverse side of any delineator where it would be viewed by a road user traveling in the wrong direction on that particular ramp or roadway.

Guidance:

12 *Except as provided in Paragraph 13 of Section 3B.12, delineators of the appropriate color should be used to indicate a lane-reduction transition where either an outside or inside lane merges into an adjacent lane.*

13 *When used for lane-reduction transitions, the delineators should be installed adjacent to the lane or lanes reduced for the full length of the transition and should be so placed and spaced to show the reduction (see Section 3B.12 and Figure 3B-14).*

14 *On a highway with continuous delineation on either or both sides, delineators should be carried through transitions.*

Standard:

15 **When used on a truck escape ramp, delineators shall be red.**

Guidance:

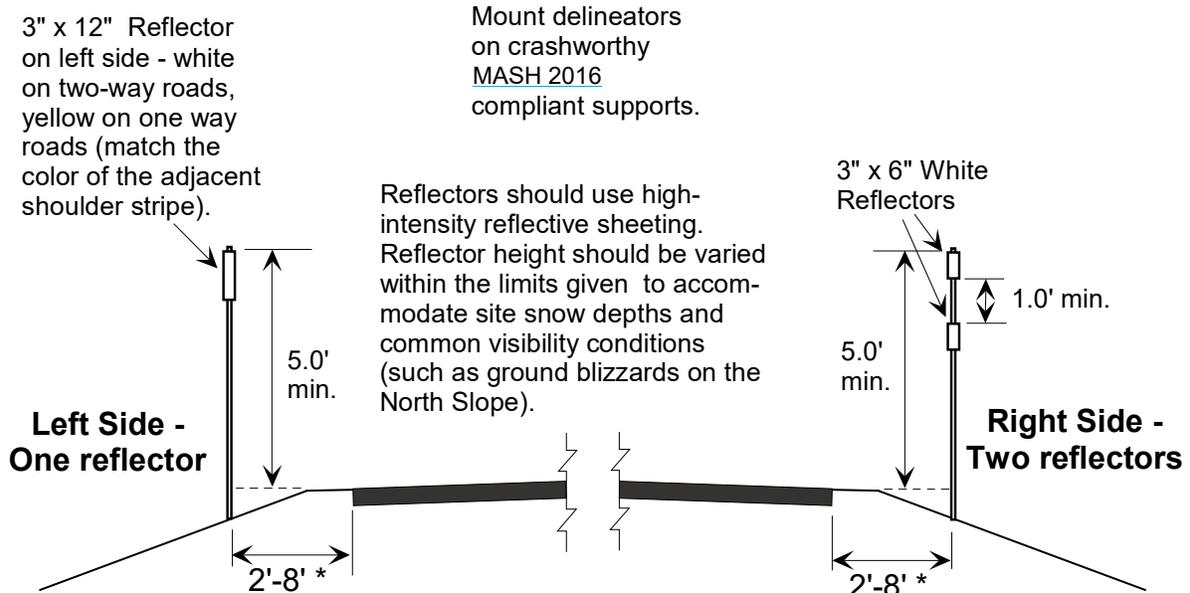
16 *Red delineators should be placed on both sides of truck escape ramps.*

[\[Add new Table 3G-100 and Figures 3G-100 and 3G-101\]](#)

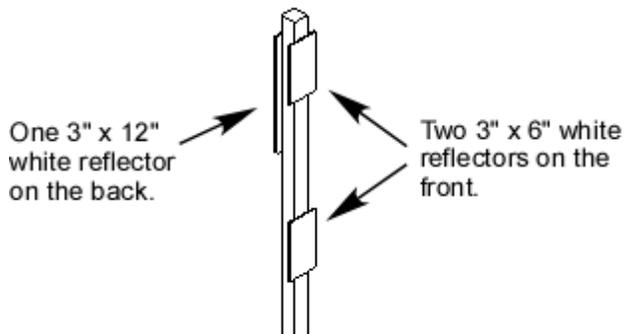
Table 3G-100. Delineator Application

Application	Required/ Optional	Delineator Type	Spacing		Offset from Edge of Pvmt	Post Material	Notes
			Tangent	Curves <40 MPH			
Right side of Freeways and Expressways, and one side of interchange ramps	Required except when exempting conditions of MUTCD Section 3G.03 are met	See MUTCD Section 3G.02	See MUTCD Section 3G.04	See MUTCD Section 3G.04	8'	Crash-worthy support (MASH 2016)	Red reflectors should be placed on the back of delineators on one-way roads.
Along acceleration or deceleration lanes and at median cross-overs	Optional	See MUTCD Section 3G.02 (double height reflector)	See MUTCD Section 3G.04	See MUTCD Section 3G.04	2' – 8'	Crash-worthy support (MASH 2016)	Delineators provide better guidance to motorists when they are placed close (2') to the edge of pavement.
Areas with poor winter visibility	Optional	Shoulder snow pole (see Figure 3G-100)	200' max.	100' max.	2' – 8'	Crash-worthy support (MASH 2016)	However, offsets nearer 8' make road maintenance easier. Maintenance workers should be consulted when determining delineator offsets.
Areas with poor winter visibility and extremely heavy snow accumulations	Optional	Overhead snow pole (see Figure 3G- 101)	200' max.	100' max.	12'	Steel pipe, concrete foundation, breakaway base	
Guardrail End Terminals (GETs)	Required on State Highways	Terminal Marker Posts	On every GET	On every GET	At GET	Two flexible delineators, one at each end of GET	Each delineator should have at least a 3" x 6" area of reflective sheeting with color matching edge line.

Figure 3G-100. Shoulder Snow Pole

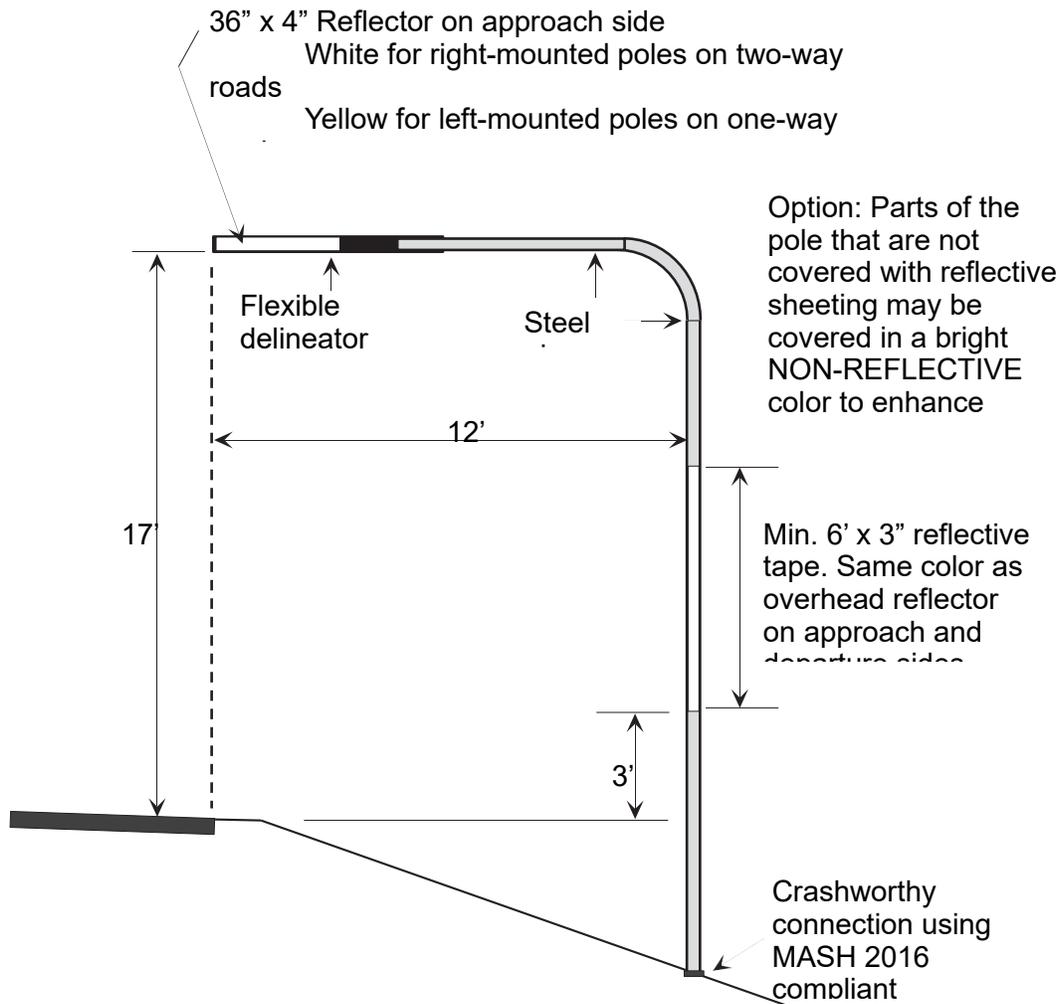


* Delineators provide better guidance to motorists when they are placed close (2') to the edge of pavement. However, offsets nearer 8' makes road maintenance easier. Maintenance workers should be consulted when determining delineator offsets.



Typical right-shoulder Installation on a two-lane, two-way road.

Figure 3G-101. Overhead Snow Pole



* Where installed 4 feet or more behind the near edge of the nearest guardrail post and where it is not possible for a vehicle to penetrate guardrail end terminal and strike the

Part 4 | Highway Traffic Signals

CHAPTER 4A. GENERAL

Section 4A.06 Meaning of Pedestrian Signal Indications

Standard:

- 01 Pedestrian signal indications shall have the following meanings:
- A. A flashing WALKING PERSON (symbolizing WALK) signal indication has no meaning and shall not be used.
 - B. Pedestrians facing a steady WALKING PERSON (symbolizing WALK) signal indication shall be permitted to start to cross the roadway in the direction of the signal indication, possibly in conflict with turning vehicles. Pedestrians shall yield the right-of-way to vehicles lawfully within the intersection at the time that the WALKING PERSON (symbolizing WALK) signal indication is first shown.
 - C. Pedestrians facing a flashing UPRAISED HAND (symbolizing DONT WALK) signal indication shall not start to cross the roadway in the direction of the signal indication. Any pedestrian who has already started to cross the roadway on a steady WALKING PERSON (symbolizing WALK) signal indication shall continue to proceed to the far side of the traveled way of the street or highway, unless otherwise directed by a traffic control device to proceed only to the median of a divided highway or only to some other island or pedestrian refuge area (see Section 3C.12).
 - D. Pedestrians facing a steady UPRAISED HAND (symbolizing DONT WALK) signal indication shall not enter the roadway in the direction of the signal indication.

01A At all locations with a pedestrian signal indication, an R10-3e or R10-3i sign or sticker shall be installed on each pole immediately above the push buttons. These signs or stickers need not be retro-reflective.

Section 4A.10 Responsibility for Operation and Maintenance

Guidance:

- 01 *Prior to installing any highway traffic signal, the responsibility for the maintenance of the signal and all of the appurtenances, hardware, software, and the timing plan(s) should be clearly established by the responsible agency.*
- 02 *To this end the agency should:*
- A. *Keep every controller assembly in effective operation in accordance with its predetermined timing schedule; check the operation of the controller assembly frequently enough to verify that it is operating in accordance with the predetermined timing schedule; and establish a policy to maintain a record of all timing changes and that only authorized persons are permitted to make timing changes;*
 - B. *Clean the optical system of the signal sections and replace the light sources as frequently as experience proves necessary;*
 - C. *Clean and service equipment and other appurtenances as frequently as experience proves necessary;*

- D. ~~Provide for~~ Consider alternate operation of the traffic control signal during a period of failure, using flashing mode or manual control, or manual traffic direction by proper authorities as might be required by traffic volumes or congestion, or by erecting other traffic control devices;
- E. Have properly skilled maintenance personnel available without undue delay for all signal malfunctions and signal indication failures;
- F. Provide spare equipment to minimize the interruption of highway traffic signal operation as a result of equipment failure;
- G. Provide for the availability of properly skilled maintenance personnel for the repair of all components; ~~and~~
- H. Maintain the appearance of the signal displays and equipment; ~~and~~
- I. Keep a signal record in each signal cabinet along with a phasing schematic and wiring diagram. The signal record or log should contain the following:
 - 1. Current or intersection-specific default signal timing, kept in printed form or in non-volatile electronic memory in the signal cabinet. When the signal controller is connected to a central computer that can upload and download timings, the signal timing can be stored at the central computer.
 - 2. Date and time of changes or maintenance operations.
 - 3. Initials of person changing timing or performing maintenance.
 - 4. Type of maintenance operation and characteristics of equipment failure or faulty operation evident before repair.

CHAPTER 4D. DESIGN FEATURES OF TRAFFIC CONTROL SIGNALS

Section 4D.05 Number of Signal Faces on an Approach

Standard:

- 01 The signal faces for each approach to an intersection or a midblock location shall be provided as follows:
- A. If a signalized motor vehicle through movement exists on an approach, a minimum of two primary signal faces shall be provided for the through movement. Except for single lane approaches, if a signalized through movement does not exist on an approach, a minimum of two primary signal faces shall be provided for the signalized turning movement that is considered to be the major movement from the approach (also see Section 4F.16). One of the primary signal faces for the through movement shall be a side-mounted or post-mounted signal face on the far side of the cross street and to the right of traffic approaching the signal (far-right position). The side-mounted or post-mounted signal face shall be supplemented by the number of overhead through signal faces as shown in Table 4D-100. All primary signal faces shall be located on the far side of the intersection. On a one-way street that is three or more lanes wide, an additional post-mounted signal face shall be installed on the far-left side of the intersection.
 - B. The primary signal face for a protected left-turn phase shall be located:
 - 1. Overhead approximately over the center of a single left-turn lane.
 - 2. Overhead approximately over the extension of the lane line between dual left-turn lanes.

The shared signal face for a protected/permissive left-turn phase shall be located:

 - 1. Overhead approximately over the lane line separating the turn lane from the adjacent through lane where an exclusive turn lane is provided.
 - 2. Overhead approximately over the center of the left-most lane or approximately over the lane line separating the left-most two lanes where an exclusive turn lane is not provided.

The primary signal face for a protected/permissive left-turn signal indication displaying a flashing YELLOW ARROW shall be located overhead approximately over the center of the left-turn lane.

See Sections 4F.02 through 4F.08 for left-turn (and U-turn to the left) signal faces.
 - C. The primary signal face for a right-turn movement with exclusive right-turn phasing that overlaps the through-traffic phase shall be side-mounted on the far-right side.
See Sections 4F.09 through 4F.14 for right-turn (and U-turn to the right) signal faces.

Option:

- 02 Where a movement (or a certain lane or lanes) at the intersection never conflicts with any other signalized vehicular or pedestrian movement, a continuously-displayed single-section GREEN ARROW signal indication may be used to inform road users that the movement is free-flow and does not need to stop.
- 02A In urban centers and other locations where the far-right position signal would be obscured or outside the cone of vision as shown in Figures 4D-2 of the MUTCD, an overhead signal face may be substituted.

02B If the mast arm of an existing signal installation is not long enough to permit installation of a signal face displaying a flashing YELLOW ARROW over the center of the left-turn lane, the signal face may be located within an extension of the lane lines and as close to the center as possible.

Support:

- 03 In some circumstances where the through movement never conflicts with any other signalized vehicular or pedestrian movement at the intersection, such as at T-intersections with appropriate geometrics and/or pavement markings and signing, an engineering study might determine that the through movement (or certain lanes of the through movement) can be free-flow and not signalized.

Guidance:

- 04 *If two or more left-turn lanes are provided for a separately-controlled left-turn movement, or if a left-turn movement represents the major movement from an approach, two or more primary left-turn signal faces should be provided.*
- 05 *If two or more right-turn lanes are provided for a separately-controlled right-turn movement, or if a right turn movement represents the major movement from an approach, two or more primary right-turn signal faces should be provided.*

05A A supplemental far-side left-turn signal face should be provided where there is protected or protected/permissive left-turn phasing. The signal face should consist of a three-section signal face (all arrows) for a protected-only left turn, a four-section signal face for a protected/permissive left-turn movement with a flashing left-turn YELLOW ARROW, or a five-section vertically arranged signal face for other protected/permissive left-turn phasing.

Support:

- 06 Locating primary signal faces overhead on the far side of the intersection has been shown to provide safer operation by reducing intersection entries late in the yellow interval and by reducing red signal violations, as compared to post-mounting signal faces at the roadside or locating signal faces overhead within the intersection on a diagonally-oriented mast arm or span wire. On approaches with two or more lanes for the through movement, one signal face per through lane, centered over each through lane, has also been shown to provide safer operation.

Guidance:

- 07 *If the posted or statutory speed limit or the 85th-percentile speed on an approach to a signalized location is 45 mph or higher, signal faces should be provided as follows for all new or reconstructed signal installations (see Figure 4D-1):*
- A. The minimum number and location of primary (non-supplemental) signal faces for through traffic should be provided in accordance with Table 4D-1.*
 - B. If the number of overhead primary signal faces for through traffic is equal to the number of through lanes on an approach, one overhead signal face should be located approximately over the center of each through lane.*
 - C. Except for shared left-turn and right-turn signal faces, any primary signal face required by Sections 4F.02 through 4F.16 for a mandatory turn lane should be located overhead approximately over the center of each mandatory turn lane.*
 - D. All primary signal faces should be located on the far side of the intersection.*
 - E. In addition to the primary signal faces, one or more supplemental pole-mounted or overhead signal faces should be considered to provide added visibility for approaching traffic that is traveling behind large vehicles.*
 - F. All signal faces should have backplates.*

08 *This layout of signal faces should also be considered for any major urban or suburban arterial street with four or more lanes and for other approaches with speeds of less than 45 mph.*

[Replace Table 4D-1 of the MUTCD as shown in this ATMS.]

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

<u>Number of Through Lanes on the Approach</u>	<u>Total Number of Primary Through Signal Faces for the Approach*</u>	<u>Minimum Number of Overhead-Mounted Primary Through Signal Faces for the Approach</u>
<u>1</u>	<u>2</u>	<u>1</u>
<u>2</u>	<u>3</u>	<u>2</u>
<u>3</u>	<u>4</u>	<u>3</u>
<u>4 or more</u>	<u>5 or more</u>	<u>4</u>

Notes:

* A minimum of two through signal faces is always required (see Section 4D.05). These recommended numbers of through signal faces may be exceeded. Also, see cone of vision requirements otherwise indicated in Section 4D.07.

Section 4D.09 Mounting Height of Signal Faces**Standard:**

- 01 **The bottom of the signal housing and any related attachments to a vehicular signal face located over any portion of a highway that can be used by a motor vehicles shall be at least ~~15~~ 17.5 feet above the pavement.**
- 02 **The bottom of the signal housing (including brackets) of a vehicular signal face that is vertically arranged or horizontally arranged and not located over a roadway:**
- A. **Shall be a minimum of ~~8~~ 10 feet above the sidewalk or, if there is no sidewalk, above the pavement grade at the center of roadway.**
 - B. **Shall be a minimum of ~~4.5~~ 7 feet above the median island grade of a center median island if located on the near side of the intersection.**

Guidance:

- 03 *The top of the signal housing of a vehicular signal face located over any portion of a highway that can be used by motor vehicles should not be more than 25.6 feet above the pavement.*
- 04 *For viewing distances between 40 and 53 feet from the stop line, the maximum mounting height to the top of the signal housing of a vehicular signal face located over any portion of a highway that can be used by motor vehicles should be as shown in Figure 4D-3.*
- 05 *The bottom of the signal housing (including brackets) of a vehicular signal face that is vertically arranged and not located over a roadway:*
- A. *Should be a maximum of 19 feet above the sidewalk or, if there is no sidewalk, above the pavement grade at the center of the roadway.*
 - B. *Should be a maximum of 19 feet above the median island grade of a center median island if located on the near side of the intersection.*
- 06 *The bottom of the signal housing (including brackets) of a vehicular signal face that is horizontally arranged and not located over a roadway:*
- A. *Should be a maximum of 22 feet above the sidewalk or, if there is no sidewalk, above the pavement grade at the center of the roadway.*
 - B. *Should be a maximum of 22 feet above the median island grade of a center median island if located on the near side of the intersection.*

Section 4D.11 Temporary and Portable Traffic Control Signals

Support:

- 01 A temporary traffic control signal is generally installed using methods that minimize the costs of installation, relocation, and/or removal. Typical temporary traffic control signals are for specific purposes, such as for one-lane, two-way facilities in temporary traffic control zones (see Chapter 4O), for a haul-road intersection, or for access to a site that will have a permanent access point developed at another location in the near future. Portable traffic signals are temporary traffic signals.
- 02 Because a portable traffic control signals is considered to be a type of temporary traffic control signal, the provisions for temporary traffic control signals are also applicable to portable traffic control signals.

Standard:

- 03 **Advance signing shall be used when employing a temporary traffic control signal.**
- 04 **A temporary traffic control signal shall:**
- A. Meet the physical display and operational requirements of a conventional traffic control signal;**
 - B. Be removed when no longer needed; and**
 - C. Except as provided in Paragraph 5 of this Section, be placed in the flashing mode during periods when it is not desirable to operate the signal in the steady mode, or the signal heads shall be covered, turned, or taken down to indicate that the signal is not in operation.**

Option:

- 05 If the temporary traffic control signal is capable of being operated in a semi-actuated mode, such that green signal indications are continually shown to major-street traffic except when responding to a minor-street approach vehicle call, it may be operated in a semi-actuated mode instead of being placed in a flashing mode.

Guidance:

- 06 *A temporary traffic control signal should be used only if engineering judgment indicated that installing the signal will improve the overall safety and/or operation of the location.*
- 06A *A temporary traffic control signal should not be used if the roadway users cannot visibly see the opposing direction of travel's temporary signal structure.*
- 07 *The use of temporary traffic control signals by a work crew on a regular basis in their work area should be subject to the approval of the jurisdiction having authority over the roadway.*
- 08 *A temporary traffic control signal should not operate longer than 30 days unless associated with a longer-term temporary traffic control zone project.*
- 09 *Section 6L.01 contains information about the use of temporary traffic control signals in temporary traffic control zones.*

CHAPTER 4E. TRAFFIC CONTROL SIGNAL INDICATIONS

Section 4E.04 Positions of Signal Indications within a Vertical Signal Face

[\[Note: Portions of this Section are omitted from the ATMS for brevity.\]](#)

Standard:

- 03 The relative positions of signal sections in a vertically-arranged signal face, from top to bottom, shall be as follows:

CIRCULAR RED

Steady **and/or flashing** left-turn RED ARROW

Steady **and/or flashing** right-turn RED ARROW

CIRCULAR YELLOW

CIRCULAR GREEN

Straight-through GREEN ARROW

Steady left-turn YELLOW ARROW

Flashing left-turn YELLOW ARROW

Left-turn GREEN ARROW

Steady right-turn YELLOW ARROW

Flashing right-turn YELLOW ARROW

Right-turn GREEN ARROW

Section 4E.05 Positions of Signal Indications within a Horizontal Signal Face

[\[Note: Portions of this Section are omitted from the ATMS for brevity.\]](#)

Standard:

- 03 The relative positions of signal sections in a horizontally-arranged signal face, from left to right, shall be as follows:

CIRCULAR RED

Steady **and/or flashing** left-turn RED ARROW

Steady **and/or flashing** right-turn RED ARROW

CIRCULAR YELLOW

CIRCULAR GREEN

Straight-through GREEN ARROW

Steady left-turn YELLOW ARROW

Flashing left-turn YELLOW ARROW

Left-turn GREEN ARROW

Steady right-turn YELLOW ARROW

Flashing right-turn YELLOW ARROW

Right-turn GREEN ARROW

CHAPTER 4F. STEADY (STOP-AND-GO) OPERATION OF TRAFFIC CONTROL SIGNALS

Section 4F.01 Application of Steady and Flashing Signal Indications during Steady (Stop-and-Go) Operations

[Note: Portions of this Section are omitted from the ATMS for brevity.]

Standard:

~~E. A flashing RED ARROW signal indication shall be displayed as part of a steady (stop-and-go) mode of operation only when it is intended to permit traffic, after coming to a full stop, to cautiously enter the intersection to make a turn in the direction indicated by the arrow after yielding to pedestrians, if any, and/or to opposing traffic, if any.~~

Section 4F.02 Signal Indications for Left-Turn Movements – General

Support:

- 01 In Sections 4F.03 through 4F.08, provisions applicable to left-turn movements and left-turn lanes are also applicable to signal indications for U-turns to the left that are provided at locations where left turns are prohibited or not geometrically possible.
- 02 Left-turning traffic is controlled by one of four modes as follows:
 - A. Permissive Only Mode—turns made on a CIRCULAR GREEN signal indication ~~or a flashing left-turn YELLOW ARROW signal indication~~, ~~or a flashing left turn RED ARROW signal indication~~ after yielding to pedestrians, if any, and/or opposing traffic, if any.
 - B. Protected Only Mode—turns made only when a left-turn GREEN ARROW signal indication is displayed.
 - C. Protected/Permissive Mode—both modes can occur on an approach during the same cycle.
 - D. Variable Left-Turn Mode—the operating mode changes among the protected only mode and/or the protected/permissive mode and/or the permissive only mode during different periods of the day or as traffic conditions change.

Option:

- 03 In areas having a high percentage of older drivers, special consideration may be given to the use of protected only mode left-turn phasing, when appropriate.

Standard:

- 04 **During a permissive left-turn movement, the signal faces for through traffic on the opposing approach shall simultaneously display green or steady yellow signal indications. If pedestrians crossing the lane or lanes used by the permissive left-turn movement to depart the intersection are controlled by pedestrian signal heads, the signal indications displayed by those pedestrian signal heads shall not be limited to any particular display during the permissive left-turn movement.**
- 05 **During a protected left-turn movement, the signal faces for through traffic on the opposing approach shall simultaneously display steady CIRCULAR RED signal indications. During a protected left-turn movement, a GREEN ARROW or a YELLOW ARROW signal indication shall not simultaneously be displayed to right-turning traffic on the opposing approach, except where a separate departure lane is available for each left-turn and right-turn lane with moving traffic and pavement markings or raised channelization clearly indicate which departure lane to**

use (see Item H.1 in Paragraph 3 in Section 4F.01). If pedestrians crossing the lane or lanes used by the protected left-turn movement to depart the intersection are controlled by pedestrian signal heads, the pedestrian signal heads shall display a steady UPRAISED HAND (symbolizing DONT WALK) signal indication during the protected left-turn movement.

06 If a combined left-turn/through lane exists on an approach, a left-turn GREEN ARROW or left-turn YELLOW ARROW signal indication ~~or a flashing left-turn RED ARROW signal indication~~ shall not be displayed to the approach simultaneously with a CIRCULAR RED signal indication for the through movement, and a left-turn RED ARROW signal indication shall not be displayed to the approach simultaneously with a CIRCULAR GREEN or CIRCULAR YELLOW signal indication for the through movement.

07 A yellow change interval for the left-turn movement shall not be displayed when the status of the left-turn operation is changing from permissive to protected within any given signal sequence.

08 If the operating mode changes among the protected only mode and/or the protected/permissive mode and/or the permissive only mode during different periods of the day or as traffic conditions change, the requirements in Sections 4F.03 through 4F.08 that are appropriate to that mode of operation shall be met, subject to the following:

A. The CIRCULAR GREEN and CIRCULAR YELLOW signal indications shall not be displayed when operating in the protected only mode.

B. The left-turn GREEN ARROW and left-turn YELLOW ARROW signal indications shall not be displayed when operating in the permissive only mode.

Option:

09 When variable left-turn mode phasing is used for an approach that has a combined left-turn/straight-through lane and a flashing yellow arrow is used as the permissive turn display, a five-section shared left-turn signal face containing both circular and arrow indications may be used in combination with one or more separate left-turn signal faces for the mandatory left-turn lane(s), if any are present, on the same approach. The steady left-turn YELLOW ARROW signal indication and the flashing left-turn YELLOW ARROW signal indication may be displayed in the same section of the five-section shared left-turn signal face.

10 Additional static signs or changeable message signs may be used to meet the requirements for the variable left- turn mode or to inform drivers that left-turn green arrows will not be available during certain times of the day.

Support:

11 Sections 4F.03 through 4F.08 describe the use of the following two types of signal faces for controlling left-turn movements:

A. Shared signal face – This type of signal face controls both the left-turn movement and the adjacent movement (usually the through movement) and can serve as one of the two required primary signal faces for the adjacent movement. A shared signal face always displays the same color of circular indication that is displayed by the signal face or faces for the adjacent movement. If a shared signal face that provides protected/permissive mode left turns is mounted overhead for an approach that includes a mandatory left-turn lane, it is usually positioned over or slightly to the right of the extension of the lane line separating the left-turn lane from the adjacent lane. If a shared signal face that provides protected/permissive mode left turns is mounted overhead for an approach that does not include a mandatory left-turn lane, it is usually positioned over the center of the combined left-turn/straight-through lane.

- B. Separate left-turn signal face – This type of signal face controls only the left-turn movement and cannot serve as one of the two required primary signal faces for the adjacent movement (usually the through movement) because it displays signal indications that are applicable only to the left-turn movement. This type of signal face is used only for an approach that has a mandatory left-turn lane(s). If a separate left-turn signal face is mounted overhead at the intersection, it is positioned over the extension of the mandatory left-turn lane. In a separate left-turn signal face, a flashing left-turn YELLOW ARROW signal indication ~~or a flashing left-turn RED ARROW signal indication~~ is used to control permissive left-turn movements.
- 12 Section 4D.07 contains provisions regarding the lateral positioning of signal faces that control left-turn movements.
- 13 It is not necessary that the same mode of left-turn operation or same type of left-turn signal face be used on every approach to a signalized location. Selecting different modes and types of left-turn signal faces for the various approaches to the same signalized location is acceptable.

Standard:

13A If a single exclusive left-turn lane is provided on an approach and operated in either permissive only left-turn mode or protected/permissive left-turn mode, the left-turn movement shall be controlled by a flashing left-turn YELLOW ARROW. This standard applies to:

- A. All new traffic signal installations.**
- B. Existing traffic signal installations where new left-turn signal faces are installed.**

13B A flashing left-turn YELLOW ARROW shall not be terminated before the CIRCULAR GREEN indication for the opposing through movement is terminated.

Guidance:

13C At least two signal faces should be provided for a left-turn movement controlled by a flashing left-turn YELLOW ARROW indication.

Option:

13D Existing shared signal faces for permissive-only or protected/permissive mode left-turn movements may be replaced by a new shared signal face.

13E Permissive-only mode left-turn movements on minor side streets may be controlled by a shared signal face displaying a CIRCULAR GREEN signal indication.

13F A shared signal face for permissive-only or protected/permissive mode left-turn movements may be used for existing signal installations under the following conditions:

- A. The existing signal mast arm is not long enough to position a signal face over the extension of the left-turn lane or engineering judgment indicates installation somewhere other than the center of the left-turn lane would cause driver confusion.*
- B. The existing signal controller equipment is not compatible with flashing left-turn YELLOW ARROW operation.*
- C. The signal pole assembly or foundation is not capable of supporting the load that would result from positioning a signal face over the extension of the left-turn lane.*

Guidance:

13G Where the existing signal mast arm, signal pole assembly, pole foundation, or signal controller equipment does not permit the use of flashing left-turn YELLOW ARROW operation, replacement of the limiting components should be considered.

Option:

- 14 A signal face that is shared by left-turning and right-turning traffic may be provided for a combined left-turn/ right-turn lane on an approach that has no through traffic (see Section 4F.16).

Section 4F.04 Signal Indications for Permissive Only Mode Left-Turn Movements in a Separate Signal Face

Standard:

- 01 A separate left-turn signal face shall be used for an approach that does not include a mandatory left-turn lane
- 02 If a separate left-turn signal face is being operated in a permissive only left-turn mode, a CIRCULAR GREEN signal indication shall not be used in that face.
- 03 If a separate left-turn signal face is being operated in a permissive only left-turn mode and a flashing left-turn YELLOW ARROW signal indication is provided, it shall meet the following requirements (see Figure 4F-2):
- A. It shall be capable of displaying the following signal indications: steady left-turn RED ARROW, steady left-turn YELLOW ARROW, and flashing left-turn YELLOW ARROW. Only one of the three indications shall be displayed at any given time.
 - B. During the permissive left-turn movement, a flashing left-turn YELLOW ARROW signal indication shall be displayed.
 - C. A steady left-turn YELLOW ARROW signal indication shall be displayed following the flashing left-turn YELLOW ARROW signal indication.
 - D. It shall be permitted to display a flashing left-turn YELLOW ARROW signal indication for a permissive left-turn movement while the signal faces for the adjacent through movement display steady CIRCULAR RED signal indications and the opposing left-turn signal faces display left-turn GREEN ARROW signal indications for a protected left-turn movement.
 - E. During steady mode (stop-and-go) operation, the signal section that displays the steady left-turn YELLOW ARROW signal indication during change intervals shall not be used to display the flashing left-turn YELLOW ARROW signal indication for permissive left turn unless a bimodal signal section capable of altering between the display of a steady YELLOW ARROW and a flashing YELLOW ARROW signal indication is used to operate variable left-turn mode phasing.
 - F. During flashing mode operation (see Section 4G.01), the display of a flashing left-turn YELLOW ARROW signal indication shall be only from the signal section that displays a steady left-turn YELLOW ARROW signal indication during steady mode (stop-and-go) operation.
 - G. If the permissive only mode is not the only left-turn mode used for the approach, the signal face shall be the same separate left-turn signal face with a flashing YELLOW ARROW signal indication that is used for the protected/permissive mode (see Section 4F.08) except that the left-turn GREEN ARROW signal indication shall not be displayed when operating in the permissive only mode.

Option:

- 04 A separate left turn signal face with a flashing left turn RED ARROW signal indication during the permissive left turn movement may be used for unusual geometric conditions, such as wide medians

with offset left turn lanes, but only when an engineering study determines that each and every vehicle must successively come to a full stop before making a permissive left turn.

Standard:

- 05 ~~If a separated left turn signal face is being operated in a permissive only left turn mode and a flashing left turn RED ARROW signal indication is provided, it shall meet the following requirements (see Figure 4F-3):~~
- ~~A. It shall be capable of displaying the following signal indications: steady or flashing left turn RED ARROW, steady left turn YELLOW ARROW, and left turn GREEN ARROW. Only one of the three indications shall be displayed at any given time. The GREEN ARROW indication is required in order to provide a three section signal face, but shall not be displayed during the permissive only mode.~~
 - ~~B. During the permissive left turn movement, a flashing left turn RED ARROW signal indication shall be displayed, thus indicating that each and every vehicle must successively come to a full stop before making a permissive left turn.~~
 - ~~C. A steady left turn YELLOW ARROW signal indication shall be displayed following the flashing left turn RED ARROW signal indication.~~
 - ~~D. It shall be permitted to display a flashing left turn RED ARROW signal indication for a permissive left turn movement while the signal faces for the adjacent through movement display steady CIRCULAR RED signal indications and the opposing left turn signal faces display left turn GREEN ARROW signal indication for a protected left turn movement.~~
 - ~~E. A supplementary sign shall not be required. If used, it shall be LEFT TURN YIELD ON FLASHING RED ARROW AFTER STOP (R10-27) sign (see Section 2B.59).~~

Option:

- 06 ~~The requirements of Item A in Paragraph 5 of this Section may be met by a vertically arranged signal face with a horizontal cluster of two left turn RED ARROW signal indications, the left most of which displays a steady indication and the right most of which displays a flashing indication (see Figure 4F-3).~~

Section 4F.06 Signal Indications for Protected Only Mode Left-Turn Movements in a Separate Signal Face

[Note: Portions of this Section are omitted from the ATMS for brevity.]

Standard:

- 01 A separate left-turn signal face shall not be used for an approach that does not include a mandatory left-turn lane.
- 02 If a separate left-turn signal face is provided for a protected only mode left turn, it shall meet the following requirements (see Figure 4F-5):
- A. It shall be capable of displaying, the following signal indications: steady left-turn RED ARROW, steady left-turn YELLOW ARROW, and left-turn GREEN ARROW. Only one of the three indications shall be displayed at any given time.
 - B. During the protected left-turn movement, a left-turn GREEN ARROW signal indication shall be displayed.
 - C. A steady left-turn YELLOW ARROW signal indication shall be displayed following the left-turn GREEN ARROW signal indication.

- D. If the protected only mode is not the only left-turn mode used for the approach, the signal face shall be the same separate left-turn signal face that is used for the protected/permissive mode (see Section 4F.08 and Figures 4F-3 and 4F-7) except that the flashing left-turn YELLOW ARROW ~~or flashing left-turn RED ARROW~~ signal indication shall not be displayed when operating in the protected only mode.

Section 4F.07 Signal Indications for Protected/Permissive Mode Left-Turn Movements in a Shared Signal Face

Standard:

- 01 If a shared signal face is provided for a protected/permissive mode left turn, it shall meet the following requirements (see Figure 4F-6):
- A. It shall be capable of displaying the following signal indications: steady CIRCULAR RED, steady CIRCULAR YELLOW, CIRCULAR green, steady left-turn YELLOW ARROW, and left-turn GREEN ARROW. Only one of the three circular indications shall be displayed at any given time. Only one of the two arrow indications shall be displayed at any given time. If the left-turn GREEN ARROW signal indication and the CIRCULAR GREEN signal indication(s) for the adjacent through movement are always terminated together, the steady left-turn YELLOW ARROW signal indication shall not be required.
 - B. During the protected left-turn movement, the shared signal face shall simultaneously display a left- turn GREEN ARROW signal indication and a circular signal indication that is the same color as the signal indication for the adjacent through lane on the same approach as the protected left turn.
 - C. A steady left-turn YELLOW ARROW signal indication shall be displayed following the left-turn GREEN ARROW signal indication, unless the left-turn GREEN ARROW signal indication and the CIRCULAR GREEN signal indication(s) for the adjacent through movement are being terminated together. When the left-turn GREEN ARROW and CIRCULAR GREEN signal indications are being terminated together, the required display following the left-turn GREEN ARROW signal indication shall be either the display of a CIRCULAR YELLOW signal indication alone or the simultaneous display of the CIRCULAR YELLOW and left-turn YELLOW ARROW signal indications.
 - D. During the permissive left-turn movement, the shared signal face shall display only a CIRCULAR GREEN signal indication.
 - E. A protected/permissive shared signal face, regardless of where it is positioned and regardless of how many adjacent through signal faces are provided, shall always simultaneously display the same color of circular indication that the adjacent through signal face or faces display.
 - F. A supplementary sign shall not be required. If used, it shall be a LEFT TURN YIELD ON GREEN (symbolic circular green) (R10-12) sign (see Section 2B.59) or Left Turn ONLY ON GREEN (symbolic circular green) (R10-100) sign.

Section 4F.08 Signal Indications for Protected/Permissive Mode Left-Turn Movements in a Separate Signal Face

Standard:

- 01 A separate left-turn signal face shall not be used for an approach that does not include a mandatory left-turn lane.
- 02 If a separate left-turn signal face is being operated in a protected/permissive left-turn mode, a CIRCULAR GREEN signal indication shall not be used in that face.
- 03 If a separate left-turn signal face is being operated in a protected/permissive left-turn mode and a flashing left-turn yellow arrow signal indication is provided, it shall meet the following requirements (see Figure 4F-7):
- A. It shall be capable of displaying the following signal indications: steady left-turn RED ARROW, steady left-turn YELLOW ARROW, flashing left-turn YELLOW ARROW, and left-turn GREEN ARROW. Only one of the four indications shall be displayed at any given time.
 - B. During the protected left-turn movement, a left-turn GREEN ARROW signal indication shall be displayed.
 - C. A steady left-turn YELLOW ARROW signal indication shall be displayed following the left-turn GREEN ARROW signal indication. It shall ~~be permitted to~~ display a steady left-turn RED ARROW signal indication immediately following the steady left-turn YELLOW ARROW signal indication to provide a red clearance interval. The duration of the steady left-turn RED ARROW signal indication shall be at least 2 seconds.
 - D. During the permissive left-turn movement, a flashing left-turn YELLOW ARROW signal indication shall be displayed.
 - E. A steady left-turn YELLOW ARROW signal indication shall be displayed following the flashing left-turn YELLOW ARROW signal indication if the permissive left-turn movement is being terminated and the separate left-turn signal face will subsequently display a steady left-turn RED ARROW indication.
 - F. It shall be permitted to display a flashing left-turn YELLOW ARROW signal indication for a permissive left-turn movement while the signal faces for the adjacent through movement display steady CIRCULAR RED signal indications and the opposing left-turn signal faces display left-turn GREEN ARROW signal indications for a protected left-turn movement.
 - G. When a permissive left-turn movement is changing to a protected left-turn movement, a left-turn GREEN ARROW signal indication shall be displayed immediately upon the termination of the flashing left-turn YELLOW ARROW signal indication. A steady left-turn YELLOW ARROW signal indication shall not be displayed between the display of the flashing left-turn YELLOW ARROW signal indication and the display of the steady left-turn GREEN ARROW signal indication.
 - H. The display shall be either:
 - 1. A four-section signal face with the steady left-turn YELLOW ARROW signal indication being displayed in a different section than the flashing left-turn YELLOW ARROW signal indication, or
 - 2. A three-section signal face with the steady left-turn YELLOW ARROW signal indication and the flashing left-turn YELLOW ARROW signal indication being displayed in the same bimodal signal section.

- I. During steady mode (stop-and-go) operation where a four-section signal face is used, the signal section that displays the steady left-turn YELLOW ARROW signal indication during change intervals shall not be used to display the flashing left-turn YELLOW ARROW signal indication for permissive left turns.
- J. During flashing mode operation (see Chapter 4G) where a four-section signal face is used, the display of a flashing left-turn YELLOW ARROW signal indication shall be only from the signal section that displays a steady left-turn YELLOW ARROW signal indication during steady mode (stop-and-go) operation.

Option:

- 04 A bimodal signal section (capable of displaying a GREEN ARROW for the protected left-turn movement and a flashing YELLOW ARROW for the permissive left-turn movement) along with a steady left-turn YELLOW ARROW signal indication and a steady left-turn RED ARROW signal indication may be used for a separate left-turn signal face and may be considered to be a four-section signal face that is compliant with Item H.1 of Paragraph 3 of this Section.
- 05 ~~A separate left turn signal face with a flashing left turn RED ARROW signal indication during the permissive left turn movement may be used for unusual geometric conditions, such as wide medians with offset left turn lanes, but only when an engineering study determines that each and every vehicle must successively come to a full stop before making a permissive left turn.~~

Standard:

- 06 ~~If a separate left turn signal face is being operated in a protected/permissive left turn mode and a flashing left turn RED ARROW signal indication is provided, it shall meet the following requirements (see Figure 4F-3):~~
 - ~~A. It shall be capable of displaying the following signal indications: steady or flashing left turn RED ARROW, steady left turn YELLOW ARROW, and left turn GREEN ARROW. Only one of the three indications shall be displayed at any given time.~~
 - ~~B. During the protected left turn movement, a left turn GREEN ARROW signal indication shall be displayed.~~
 - ~~C. A steady left turn YELLOW ARROW signal indication shall be displayed following the left turn GREEN ARROW signal indication.~~
 - ~~D. During the permissive left turn movement, a flashing left turn RED ARROW signal indication shall be displayed.~~
 - ~~E. A steady left turn YELLOW ARROW signal indication shall be displayed following the flashing left turn RED ARROW signal indication if the permissive left turn movement is being terminated and the separate left turn signal face will subsequently display a steady left turn RED ARROW indication.~~
 - ~~F. When a permissive left turn movement is changing to a protected left turn movement, a left turn GREEN ARROW signal indication shall be displayed immediately upon the termination of the flashing left turn RED ARROW signal indication. A steady left turn YELLOW ARROW signal indication shall not be displayed between the display of the flashing left turn RED ARROW signal indication and the display of the steady left turn GREEN ARROW signal indication.~~
 - ~~G. It shall be permitted to display a flashing left turn RED ARROW signal indication for a permissive left turn movement while the signal faces for the adjacent through movement display steady CIRCULAR RED signal indications and the opposing left turn signal faces display left turn GREEN ARROW signal indications for a protected left turn movement.~~

~~H. A supplementary sign shall not be required. If used, it shall be a LEFT TURN YIELD ON FLASHING RED ARROW AFTER STOP (R10-27) sign (see Figure 2B-27).~~

Option:

- 07 ~~The requirements of Item A in Paragraph 6 may be met by a vertically arranged signal face with a horizontal cluster of two left turn RED ARROW signal indications, the left most of which displays a steady indication and the right most of which displays a flashing indication (see Figure 4F-3).~~

Section 4F.09 Signal Indications for Right-Turn Movements – General

Support:

- 01 In Sections 4F.10 through 4F.15, provisions applicable to right-turn movements and right-turn lanes are also applicable to signal indications for U-turns to the right that are provided at locations where right turns are prohibited or not geometrically possible.
- 02 Right-turning traffic is controlled by one of four modes as follows:
- A. Permissive Only Mode—turns made on a CIRCULAR GREEN signal indication ~~or a flashing right-turn YELLOW ARROW signal indication, or a flashing right turn RED ARROW signal indication~~ after yielding to pedestrians, if any.
 - B. Protected Only Mode—turns made only when a right-turn GREEN ARROW signal indication is displayed.
 - C. Protected/Permissive Mode—both modes occur on an approach during the same cycle.
 - D. Variable Right-Turn Mode—the operating mode changes among the protected only mode and/or the protected/permissive mode and/or the permissive only mode during different periods of the day or as traffic conditions change.

Standard:

- 03 **During a permissive right-turn movement, the signal faces, if any, that exclusively control U-turn traffic that conflicts with the permissive right-turn movement (see Item H.1 in Paragraph 3 in Section 4F.01) shall simultaneously display steady U-turn RED ARROW signal indications. If pedestrians crossing the lane or lanes used by the permissive right-turn movement to depart the intersection are controlled by pedestrian signal heads, the signal indications displayed by those pedestrian signal heads shall not be limited to any particular display during the permissive right-turn movement.**
- 04 **During a protected right-turn movement, a GREEN ARROW or a YELLOW ARROW signal indication shall not simultaneously be displayed to left-turning traffic on the opposing approach, except where a separate departure lane is available for each left-turn and right-turn lane with moving traffic and pavement markings or raised channelization clearly indicate which departure lane to use (see Item H.1 in Paragraph 3 in Section 4F.01). Signal faces, if any, that exclusively control U-turn traffic that conflicts with the protected right-turn movement shall simultaneously display steady RED ARROW signal indications. If pedestrians crossing the lane or lanes used by the protected right-turn movement to depart the intersection are controlled by pedestrian signal heads, the pedestrian signal heads shall display a steady UPRAISED HAND (symbolizing DONT WALK) signal indication during the protected right-turn movement.**
- 05 **If a combined right-turn/through lane exists on an approach, a right-turn GREEN ARROW or right-turn YELLOW ARROW signal indication ~~or a flashing right turn RED ARROW signal indication~~ shall not be displayed to the approach simultaneously with a CIRCULAR RED signal indication for the through movement, and a right-turn RED ARROW signal indication shall not be displayed to the approach simultaneously with a CIRCULAR GREEN or CIRCULAR YELLOW signal indication for the through movement.**
- 06 **If the operating mode changes among the protected only mode and/or the protected/permissive mode and/or the permissive only mode during different periods of the day or as traffic conditions change, the requirements in Sections 4F.10 through 4F.15 that are appropriate to that mode of operation shall be met, subject to the following:**
- A. **The CIRCULAR GREEN and CIRCULAR YELLOW signal indications shall not be displayed when operating in the protected only mode.**

B. The right-turn GREEN ARROW and right-turn YELLOW ARROW signal indications shall not be displayed when operating in the permissive only mode.

Option:

07 When variable right-turn mode phasing is used for an approach that has a combined right-turn/straight-through lane and a flashing yellow arrow is used as the permissive turn display, a five-section shared right-turn signal face containing both circular and arrow indications may be used in combination with one or more separate right-turn signal faces for the mandatory right-turn lane(s), if any are present, on the same approach. The steady right-turn YELLOW ARROW signal indication and the flashing right-turn YELLOW ARROW signal indication may be displayed in the same section of the five-section shared right-turn signal face.

08 Additional static signs or changeable message signs may be used to meet the requirements for the variable right-turn mode or to inform drivers that right-turn green arrows will not be available during certain times of the day.

Support:

09 Sections 4F.10 through 4F.15 describe the use of the following two types of signal faces for controlling right-turn movements:

A. Shared signal face – This type of signal face controls both the right-turn movement and the adjacent movement (usually the through movement) and can serve as one of the two required primary signal faces for the adjacent movement. A shared signal face always displays the same color of circular indication that is displayed by the signal face or faces for the adjacent movement.

B. Separate right-turn signal face – This type of signal face controls only the right-turn movement and cannot serve as one of the two required primary signal faces for the adjacent movement (usually the through movement) because it displays signal indications that are applicable only to the right-turn movement. If a separate right-turn signal face is mounted overhead at the intersection, it is positioned over the extension of the mandatory right-turn lane. In a separate right-turn signal face, a flashing right-turn YELLOW ARROW signal indication ~~or a flashing right-turn RED ARROW signal indication~~ is used to control permissive right-turn movements.

10 Section 4D.07 contains provisions regarding the lateral positioning of signal faces that control right-turn movements.

11 It is not necessary that the same mode of right-turn operation or same type of right-turn signal face be used on every approach to a signalized location. Selecting different modes and types of right-turn signal faces for the various approaches to the same signalized location is acceptable.

Option:

12 A signal face that is shared by left-turning and right-turning traffic may be provided for a combined left-turn/ right-turn lane on an approach that has no through traffic (see Section 4F.16).

Section 4F.10 Signal Indications for Permissive Only Mode Right-Turn Movements in a Shared Signal Face

[\[Delete the entirety of Section 4F.10.\]](#)

Section 4F.11 Signal Indications for Permissive Only Mode Right-Turn Movements in a Separate Signal Face

Standard:

- 01 A separate right-turn signal face shall not be used for an approach that does not include a mandatory right-turn lane.
- 02 If a separate right-turn signal face is being operated in a permissive only right-turn mode, a CIRCULAR GREEN signal indication shall not be used in that face.
- 03 If a separate right-turn signal face is being operated in a permissive only right-turn mode and a flashing right-turn yellow arrow signal indication is provided, it shall meet the following requirements (see Figure 4F-9):
 - A. It shall be capable of displaying one of the following sets of signal indications:
 1. Steady right-turn RED ARROW, steady right-turn YELLOW ARROW, and flashing right-turn YELLOW ARROW. Only one of the three indications shall be displayed at any given time.
 2. Steady CIRCULAR RED, steady right-turn YELLOW ARROW, and flashing right-turn YELLOW ARROW. Only one of the three indications shall be displayed at any given time. If the CIRCULAR RED signal indication is sometimes displayed when the signal faces for the adjacent through lane(s) are not displaying a CIRCULAR RED signal indication, a RIGHT TURN SIGNAL (R10-10R) sign (see Section 2B.59) shall be used unless the CIRCULAR RED signal indication in the separate right-turn signal face is shielded, hooded, louvered, positioned, or designed such that it is not readily visible to drivers in the through lane(s).
 - B. During the permissive right-turn movement, a flashing right-turn YELLOW ARROW signal indication shall be displayed.
 - C. A steady right-turn YELLOW ARROW signal indication shall be displayed following the flashing right-turn YELLOW ARROW signal indication.
 - D. When the separate right-turn signal face is providing a message to stop and remain stopped, a steady right-turn RED ARROW signal indication shall be displayed if it is intended that right turns on red not be permitted (except when a traffic control device is in place permitting a turn on a steady RED ARROW signal indication) or a steady CIRCULAR RED signal indication shall be displayed if it is intended that right turns on red be permitted.
 - E. It shall be permitted to display a flashing right-turn YELLOW ARROW signal indication for a permissive right-turn movement while the signal faces for the adjacent through movement display steady CIRCULAR RED signal indications.
 - F. During steady mode (stop-and-go) operation, the signal section that displays the steady right- turn YELLOW ARROW signal indication during change intervals shall not be used to display the flashing right-turn YELLOW ARROW signal indication for permissive right turns unless a bimodal signal section capable of alternating between the display of a

steady YELLOW ARROW and a flashing YELLOW ARROW signal indication is used during variable right-turn mode operation.

- G. During flashing mode operation (see Chapter 4G), the display of a flashing right-turn YELLOW ARROW signal indication shall be only from the signal section that displays a steady right-turn YELLOW ARROW signal indication during steady mode (stop-and-go) operation.
- H. If the permissive only mode is not the only right-turn mode used for the approach, the signal face shall be the same separate right-turn signal face with a flashing YELLOW ARROW signal indication that is used for the protected/permissive mode (see Section 4F.15) except that the right- turn GREEN ARROW signal indication shall not be displayed when operating in the permissive only mode.

Option:

- 04 ~~When an engineering study determines that each and every vehicle must successively come to a full stop before making a permissive right turn, a separate right turn signal face with a flashing right-turn RED ARROW signal indication during the permissive right turn movement may be used.~~

Standard:

- 05 ~~If a separate right turn signal face is being operated in a permissive only right turn mode and a flashing right turn RED arrow signal indication is provided, it shall meet the following requirements (see Figure 4F-10):~~
- ~~A. It shall be capable of displaying one of the following sets of signal indications:~~
- ~~1. Steady or flashing right turn RED ARROW, steady right turn YELLOW ARROW, and right turn GREEN ARROW. Only one of the three indications shall be displayed at any given time. The GREEN ARROW indication is required in order to provide a three-section signal face, but shall not be displayed during the permissive only mode.~~
 - ~~2. Steady CIRCULAR RED on the left and steady right turn RED ARROW on the right of the top position, steady right turn YELLOW ARROW in the middle position, and right turn GREEN ARROW in the bottom position. Only one of the four indications shall be displayed at any given time. The GREEN ARROW indication is required in order to provide three vertical positions, but shall not be displayed during the permissive only mode. If the CIRCULAR RED signal indication is sometimes displayed when the signal faces for the adjacent through lane(s) are not displaying a CIRCULAR RED signal indication, a RIGHT TURN SIGNAL (R10-10R) sign (see Section 2B.59) shall be used unless the CIRCULAR RED signal indication in the separate right turn signal face is shielded, hooded, louvered, positioned, or designed such that it is not readily visible to drivers in the through lane(s).~~
- ~~B. During the permissive right turn movement, a flashing right turn RED ARROW signal indication shall be displayed, thus indicating that each and every vehicle must successively come to a full stop before making a permissive right turn.~~
- ~~C. A steady right turn YELLOW ARROW signal indication shall be displayed following the flashing right turn RED ARROW signal indication.~~
- ~~D. When the separate right turn signal face is providing a message to stop and remain stopped, a steady right turn RED ARROW signal indication shall be displayed if it is intended that right turns on red not be permitted (except when a traffic control device is in place permitting a turn on a steady RED ARROW signal indication) or a steady CIRCULAR RED signal indication shall be displayed if it is intended that right turns on red be permitted.~~

~~E. The display of a flashing right-turn RED ARROW signal indication for a permissive right-turn movement while the signal faces for the adjacent through movement display steady CIRCULAR RED signal indications and the opposing left-turn signal faces display left-turn GREEN ARROW signal indications for a protected left-turn movement shall be permitted.~~

~~F. A supplementary sign shall not be required. If used, it shall be a RIGHT TURN YIELD ON FLASHING RED ARROW AFTER STOP (R10-27) sign (see Section 2B.59).~~

Option:

- 06 The requirements of Item A.1 in Paragraph 5 of this Section may be met by a vertically arranged signal face with a horizontal cluster of two right-turn RED ARROW signal indications, the left-most of which displays a steady indication and the right-most of which displays a flashing indication (see Figure 4F-10).

Section 4F.13 Signal Indications for Protected Only Mode Right-Turn Movements in a Separate Signal Face

Standard:

- 01 A separate right-turn signal face shall not be used for an approach that does not include a mandatory right-turn lane.
- 02 If a separate right-turn signal face is provided for a protected only mode right turn, it shall meet the following requirements (see Figure 4F-12):
- A. It shall be capable of displaying one of the following sets of signal indications:
 1. Steady right-turn RED ARROW, steady right-turn YELLOW ARROW, and right-turn GREEN ARROW. Only one of the three indications shall be displayed at any given time.
 2. Steady CIRCULAR RED, steady right-turn YELLOW ARROW, and right-turn GREEN ARROW. Only one of three indications shall be displayed at any given time. If the CIRCULAR RED signal indication is sometimes displayed when the signal faces for the adjacent through lane(s) are not displaying a CIRCULAR RED signal indication, a RIGHT TURN SIGNAL (R10-10R) sign (see Section 2B.59) shall be used unless the CIRCULAR RED signal indication is shielded, hooded, louvered, positioned, or designed such that it is not readily visible to drivers in the through lane(s).
 - B. During the protected right-turn movement, a right-turn GREEN ARROW signal indication shall be displayed.
 - C. A steady right-turn YELLOW ARROW signal indication shall be displayed following the right-turn GREEN ARROW signal indication.
 - D. When the separate signal face is providing a message to stop and remain stopped, a steady right turn RED ARROW signal indication shall be displayed if it is intended that right turns on red not be permitted (~~except when a traffic control device is in place permitting a turn on a steady RED ARROW signal indication~~) or a steady CIRCULAR RED signal indication shall be displayed if it is intended that right turns on red be permitted.
 - E. If the protected only mode is not the only right-turn mode used for the approach, the signal face shall be the same separate right-turn signal face that is used for the protected/permissive mode (see Section 4F.15) except that a flashing right-turn YELLOW

~~ARROW or flashing right-turn RED ARROW~~ signal indication shall not be displayed when operating in the protected only mode.

Section 4F.15 Signal Indications for Protected/Permissive Mode Right-Turn Movements in a Separated Signal Face

Standard:

- 01 A separate right-turn signal face shall not be used for an approach that does not include a mandatory right-turn lane.
- 02 If a separate right-turn signal face is being operated in a protected/permissive right-turn mode, a CIRCULAR GREEN signal indication shall not be used in that face.
- 03 If a separate right-turn signal face is being operated in a protected/permissive right-turn mode and a flashing right-turn yellow arrow signal indication is provided, it shall meet the following requirements (see Figure 4F-14):
- A. It shall be capable of displaying one of the following sets of signal indications:
 1. Steady right-turn RED ARROW, steady right-turn YELLOW ARROW, flashing right-turn YELLOW ARROW, and right-turn GREEN ARROW. Only one of the four indications shall be displayed at any given time.
 2. Steady CIRCULAR RED, steady right-turn YELLOW ARROW, flashing right-turn YELLOW ARROW, and right-turn GREEN ARROW. Only one of the four indications shall be displayed at any given time. If the CIRCULAR RED signal indication is sometimes displayed when the signal faces for the adjacent through lane(s) are not displaying a CIRCULAR RED signal indication, a RIGHT TURN SIGNAL (R10-10R) sign (see Section 2B.59) shall be used unless the CIRCULAR RED signal indication in the separate right-turn signal face is shielded, hooded, louvered, positioned, or designed such that it is not readily visible to drivers in the through lane(s).
 - B. During the protected right-turn movement, a right-turn GREEN ARROW signal indication shall be displayed.
 - C. A steady right-turn YELLOW ARROW signal indication shall be displayed following the right- turn GREEN ARROW signal indication. It shall be permitted to display a steady right-turn RED ARROW signal indication immediately following the steady right-turn YELLOW ARROW signal indication to provide a red clearance interval.
 - D. During the permissive right-turn movement, a flashing right-turn YELLOW ARROW signal indication shall be displayed.
 - E. A steady right-turn YELLOW ARROW signal indication shall be displayed following the flashing right-turn YELLOW ARROW signal indication if the permissive right-turn movement is being terminated and the separate right-turn signal face will subsequently display a steady red indication.
 - F. When a permissive right-turn movement is changing to a protected right-turn movement:
 1. If a permissive left-turn movement from the opposing approach is being terminated simultaneously with the termination of the permissive right-turn movement, a steady right- turn YELLOW ARROW signal indication shall be displayed following the flashing right-turn YELLOW ARROW signal indication. To provide a red clearance interval, it shall be permitted to display a steady right-turn RED ARROW signal indication immediately following the steady right-turn YELLOW ARROW signal indication.

2. If a permissive left-turn movement from the opposing approach that is being terminated simultaneously with the termination of the permissive right-turn movement is not present, a right-turn GREEN ARROW signal indication shall be displayed immediately upon the termination of the flashing right-turn YELLOW ARROW signal indication. In this situation, a steady right-turn YELLOW ARROW signal indication shall not be displayed between the display of the flashing right-turn YELLOW ARROW signal indication and the display of the steady right-turn GREEN ARROW signal indication.
- G. When the separate right-turn signal face is providing a message to stop and remain stopped, a steady right-turn RED ARROW signal indication shall be displayed if it is intended that right turns on red not be permitted (except when a traffic control device is in place permitting a turn on a steady RED ARROW signal indication) or a steady CIRCULAR RED signal indication shall be displayed if it is intended that right turns on red be permitted.
- H. It shall be permitted to display a flashing right-turn YELLOW ARROW signal indication for a permissive right-turn movement while the signal faces for the adjacent through movement display steady CIRCULAR RED signal indications.
- I. The display shall be either:
 1. A four-section signal face with the steady right-turn YELLOW ARROW signal indication being displayed in a different section than the flashing right-turn YELLOW ARROW signal indication, or
 2. A three-section signal face with the steady right-turn YELLOW ARROW signal indication and the flashing right-turn YELLOW ARROW signal indication being displayed in the same bimodal signal section.
- J. During steady mode (stop-and-go) operation where a four-section signal face is used, the signal section that displays the steady right-turn YELLOW ARROW signal indication during change intervals shall not be used to display the flashing right-turn YELLOW ARROW signal indication for permissive right turns.
- K. During flashing mode operation (see Chapter 4G) where a four-section signal face is used, the display of a flashing right-turn YELLOW ARROW signal indication shall be only from the signal section that displays a steady right-turn YELLOW ARROW signal indication during steady mode (stop-and-go) operation.

Option:

- 04 ~~A bimodal signal section (capable of displaying a GREEN ARROW for the protected right turn movement and a flashing YELLOW ARROW for the permissive right turn movement) along with a steady right turn YELLOW ARROW signal indication and a steady right turn RED ARROW signal indication may be used for a separate right turn signal face and may be considered to be a four-section signal face that is compliant with Item I.1 of Paragraph 3 of this Section.~~
- 05 ~~When an engineering study determines that each and every vehicle must successively come to a full stop before making a permissive right turn, a separate signal face that has a flashing right turn RED ARROW signal indication during the permissive right turn movement may be used.~~

Standard:

- 06 ~~If a separate right turn signal face is being operated in a protected/permissive right turn mode and a flashing right turn RED arrow signal indication is provided, it shall meet the following requirements (see Figure 4F-10):~~
 - A. ~~It shall be capable of displaying one of the following sets of signal indications:~~

- ~~1. Steady or flashing right turn RED ARROW, steady right turn YELLOW ARROW, and right turn GREEN ARROW. Only one of the three indications shall be displayed at any given time.~~
- ~~2. Steady CIRCULAR RED on the left and steady or flashing right turn RED ARROW on the right of the top position, steady right turn YELLOW ARROW in the middle position, and right turn GREEN ARROW in the bottom position. Only one of the four indications shall be displayed at any given time. If the CIRCULAR RED signal indication is sometimes displayed when the signal faces for the adjacent through lane(s) are not displaying a CIRCULAR RED signal indication, a RIGHT TURN SIGNAL (R10-10R) sign (see Section 2B.59) shall be used unless the CIRCULAR RED signal indication in the separate right turn signal face is shielded, hooded, louvered, positioned, or designed such that it is not readily visible to drivers in the through lane(s).~~
 - ~~A. During the protected right turn movement, a right turn GREEN ARROW signal indication shall be displayed.~~
 - ~~B. A steady right turn YELLOW ARROW signal indication shall be displayed following the right turn GREEN ARROW signal indication.~~
 - ~~C. During the permissive right turn movement, the separate right turn signal face shall display a flashing right turn RED ARROW signal indication.~~
 - ~~D. A steady right turn YELLOW ARROW signal indication shall be displayed following the flashing right turn RED ARROW signal indication if the permissive right turn movement is being terminated and the separate right turn signal face will subsequently display a steady red indication.~~
 - ~~E. When a permissive right turn movement is changing to a protected right turn movement, a right turn GREEN ARROW signal indication shall be displayed immediately upon the termination of the flashing right turn RED ARROW signal indication. A steady right turn YELLOW ARROW signal indication shall not be displayed between the display of the flashing right turn RED ARROW signal indication and the display of the steady right turn GREEN ARROW signal indication.~~
 - ~~F. When the separate right turn signal face is providing a message to stop and remain stopped, a steady right turn RED ARROW signal indication shall be displayed if it is intended that right turns on red not be permitted (except when a traffic control device is in place permitting a turn on a steady RED ARROW signal indication) or a steady CIRCULAR RED signal indication shall be displayed if it is intended that right turns on red be permitted.~~
 - ~~G. It shall be permitted to display a flashing right turn RED ARROW signal indication for a permissive right turn movement while the signal faces for the adjacent through movement display steady CIRCULAR RED signal indications and the opposing left turn signal faces display left turn GREEN ARROW signal indications for a protected left turn movement.~~
 - ~~H. A supplementary sign shall not be required. If used, it shall be a RIGHT TURN YIELD ON FLASHING RED ARROW AFTER STOP (R10-27) sign (see Section 2B.59).~~

Option:

- 07 The requirements of Item A.1 in Paragraph 6 of this Section may be met by a vertically arranged signal face with a horizontal cluster of two right turn RED ARROW signal indications, the left most

of which displays a steady indication and the right-most of which displays a flashing indication (see Figure 4F-10).

CHAPTER 4J. PEDESTRIAN HYBRID BEACONS

Section 4J.01 Application of Pedestrian Hybrid Beacons

Support:

- 01 A pedestrian hybrid beacon is a special type of hybrid beacon used to warn and control traffic at an unsignalized location to assist pedestrians in crossing a street or highway at a marked crosswalk.

Option:

- 02 A pedestrian hybrid beacon may be considered for installation to facilitate pedestrian crossings at a location that does not meet traffic signal warrants (see Chapter 4C), or at a location that meets traffic signal warrants under Sections 4C.05 and/or 4C.06 but a decision is made to not install a traffic control signal.

Standard:

- 03 **If used, pedestrian hybrid beacons shall be used in conjunction with signs and pavement markings (See Section 4J.02) to warn and control traffic at locations where pedestrians enter or cross a street or highway. A pedestrian hybrid beacon shall only be installed at a marked crosswalk.**

Guidance:

- 04 *If one of the signal warrants of Chapter 4C is met and a traffic control signal is justified by an engineering study, and if a decision is made to install a traffic control signal, it should be installed based upon the provisions of Chapters 4D and 4E.*
- 05 *If a traffic control signal is not justified under the signal warrants of Chapter 4C and if gaps in traffic are not adequate to permit pedestrians to cross, or if the speed for vehicles approaching on the major street is too high to permit pedestrians to cross, or if pedestrian delay is excessive, the need for a pedestrian hybrid beacon should be considered on the basis of an engineering study that considers major-street volumes, speeds, widths, and gaps in conjunction with pedestrian volumes, walking speeds, and delay.*
- 06 *For a major street where the posted or statutory speed limit or the 85th-percentile speed is 35 mph or less, the need for a pedestrian hybrid beacon should be considered if the engineering study finds that the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding total of all pedestrians crossing the major street for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4J-1 for the length of the crosswalk.*
- 07 *For a major street where the posted or statutory speed limit or the 85th-percentile speed exceeds 35 mph, the need for a pedestrian hybrid beacon should be considered if the engineering study finds that the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding total of all pedestrians crossing the major street for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4J-2 for the length of the crosswalk.*
- 07A *Meeting or exceeding minimum pedestrian volume guidelines indicated in Figure 4J-1 or Figure 4J-2 at a proposed location should not be the sole criterion used for installing a pedestrian hybrid beacon.*
- 08 *For crosswalks that have lengths other than the four that are specifically shown in Figures 4J-1 and 4J-2, the values should be interpolated between the curves.*

Support:

08A Pedestrian hybrid beacons are best used on higher volume multiple lane approaches and roads where other methods have not provided adequate improvement in pedestrian crossing opportunities or safety. Lower-cost treatments can be employed at most locations with low to moderate volumes and/or shorter crossing distances to alert motorists of the presence of pedestrians, slow traffic, shorten the crossing distance, or create adequate gaps for crossing.

Options:

- 09 The criteria for the pedestrian volume crossing the major street shown in Figures 4J-1 and 4J-2 may be reduced as much as 50 percent if the 15th percentile crossing speed of pedestrians is less than 3.5 feet per second.
- 10 Where there is a divided street having a median of sufficient width for pedestrians to wait, the criteria for the major-street traffic volume shown in Figures 4J-1 and 4J-2 may be applied separately to each direction of vehicular traffic.

Section 4J.02 Design of Pedestrian Hybrid Beacons**Standard:**

- 01 **Except as otherwise provided in this Section, a pedestrian hybrid beacon shall meet the provisions of Chapters 4D through 4G, 4I, and 4J.**
- 02 **A pedestrian hybrid beacon face shall consist of three signal sections, with a CIRCULAR YELLOW signal indication centered below two horizontally aligned CIRCULAR RED signal indications (see Figure 4J-3).**
- 03 **When an engineering study finds that installation of a pedestrian hybrid beacon is justified, then:**
- A. At least two pedestrian hybrid beacon faces shall be installed for each approach of the major street;**
 - B. A stop line shall be installed for each approach to the crosswalk;**
 - C. A pedestrian signal head complying with the provisions set forth in Chapter 4E shall be installed at each end of the marked crosswalk;**
 - D. The pedestrian hybrid beacon shall be pedestrian actuated; and**
 - E. If the pedestrian hybrid beacon is installed at or immediately adjacent to an intersection with a minor street, a STOP sign shall be installed for each minor-street approach.**

Guidance:

- 04 *When an engineering study finds that installation of a pedestrian hybrid beacon is justified, then:*
- A. Parking and other sight obstructions should be evaluated and prohibited for at least 100 feet in advance of and at least 20 feet beyond the marked crosswalk, or site accommodations should be made through curb extensions or other techniques to provide adequate sight distance if necessary; and*
 - B. If installed within a signal system, the pedestrian hybrid beacon should be coordinated.*
- 05 *On approaches having posted or statutory speed limits or 85th-percentile speeds in excess of 35 mph and on approaches having traffic or operating conditions that would tend to obscure visibility of roadside hybrid beacon face locations, both of the minimum of two pedestrian hybrid beacon faces should be installed over the roadway.*
- 06 *On multi-lane approaches having a posted or statutory speed limits or 85th-percentile speeds of 35 mph or less, either a pedestrian hybrid beacon face should be installed on each side of the*

approach (if a median of sufficient width exists) or at least one of the pedestrian hybrid beacon faces should be installed over the roadway.

- 07 *A pedestrian hybrid beacon should comply with the signal face location provisions described in Sections 4D.05 through 4D.10.*

Option:

- 08 A CROSSWALK-STOP ON RED (symbolic circular red) (R10-23) or a STOP ON STEADY RED-YIELD ON FLASHING RED AFTER STOP (R10-23a) sign (see Section 2B.59) may be installed facing each major street approach.

- 09 A W11-2 Pedestrian S1-1 (School), or W11-15 (Trail) crossing warning sign with an AHEAD (W16-9P) supplemental plaque may be placed in advance of a pedestrian hybrid beacon. A Warning Beacon may be installed to supplement the W11-2, S1-1, or W11-15 sign.

- 10 Backplate (see Section 4D.06) may be used with pedestrian hybrid beacons.

Support:

- 11 Accessible pedestrian signals (see Chapter 4K) where a pedestrian hybrid beacon is used provide information in non-visual formats (such as audible tones and/or speech messages, and vibrating surfaces) so that a pedestrian with vision disabilities can know when to cross the street.

Guidance:

- 12 *If a Warning Beacon supplements a W11-2 sign in advance of a pedestrian hybrid beacon, it should be programmed to flash only when the pedestrian hybrid beacon is not in the dark mode.*

Standard:

- 13 **If a Warning Beacon is installed to supplement the W11-2 sign, the design and location of the warning beacon shall comply with the provisions of Sections 4S.01 and 4S.03.**

- 14 **Bicycle signal faces (see Chapter 4H) shall not be used at a pedestrian hybrid beacon.**

CHAPTER 4S. FLASHING BEACONS

[The following is a new section. There is no corresponding section in the MUTCD.]

Section 4S.06 Application of Active Advance Warning Flashers

Support:

01 Active Advance Warning Flashers (AAWFs) are a special type of highway traffic signal installed in advance of conventional traffic signals to provide advance notice of the onset of the yellow indication.

Option:

02 AAWFs may be installed where sight distance to the conventional traffic signal indications meet or exceed standards and posted speed on the approach is 55 mph or higher and one or more of the following conditions exist:

- A. At the first signalized intersection after 10 or more miles of uninterrupted highway.
- B. Intersection spaced at least one mile from another signalized intersection.
- C. On state highways as required by the RTSE.

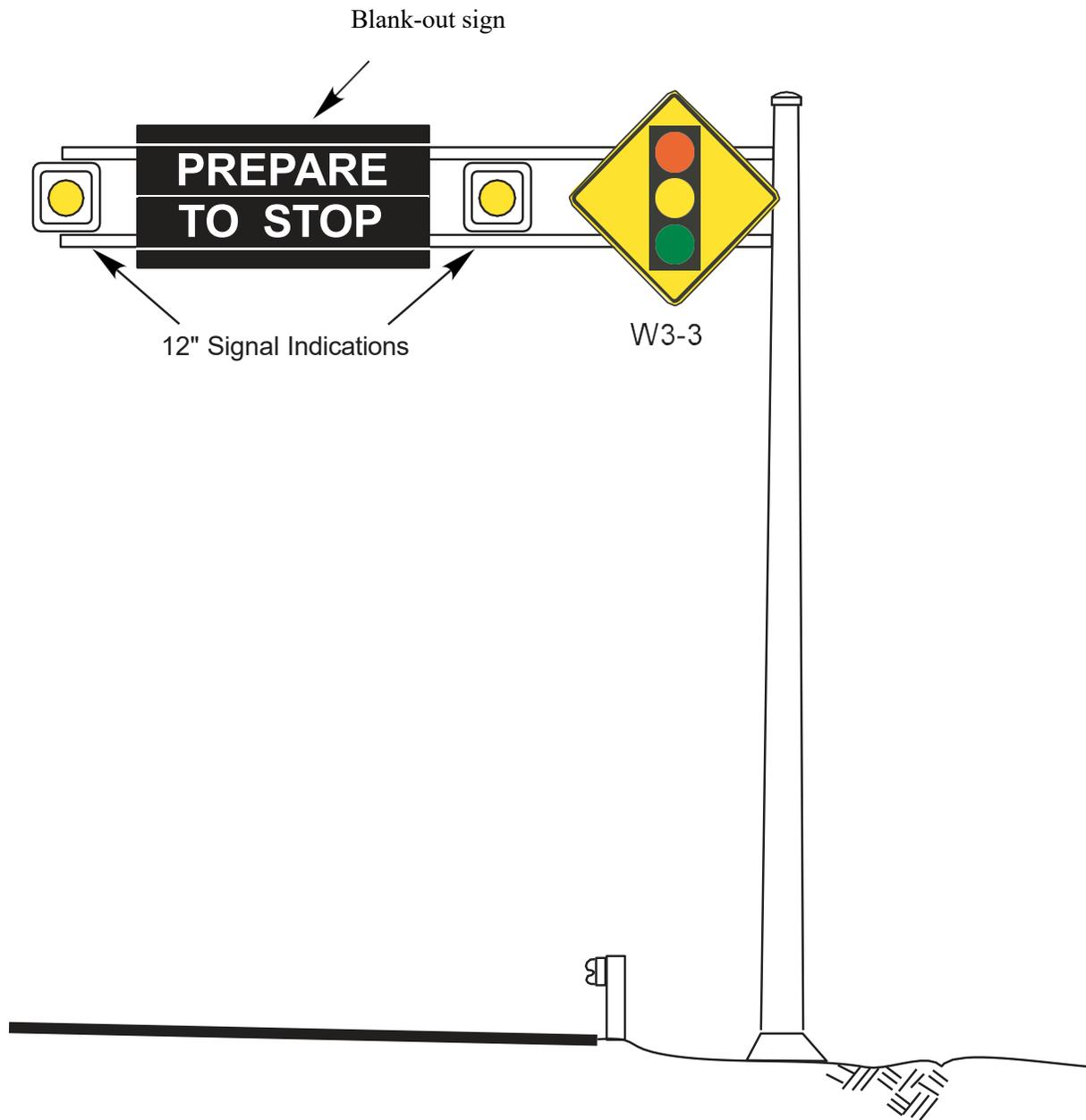
Section 4S.07 Design of Active Advance Warning Flashers

Guidance:

01 AAWFs should be installed approximately 500 feet in advance of the stop bar or as determined by an engineering analysis and be easily visible from all lanes on the approach.

02 Figure 4S-100 shows the AAWF configuration.

Figure 4S-100. Active Advance Warning Flasher



Part 5 | Traffic Control Device Considerations for Automated Vehicles

[\[This part, and all its sections, is accepted, in its entirety, as written in the MUTCD.\]](#)

Part 6 | Temporary Traffic Control

CHAPTER 6A. GENERAL

Section 6A.01 General

Support:

01 Whenever the acronym “TTC” is used in Part 6, it refers to “temporary traffic control.”

Standard:

02 **The needs and control of all road users (motorists, bicyclists, and pedestrians within the highway, or on a site roadway open to public travel (see definition in Section 1C.02), including persons with disabilities) through a TTC zone shall be an essential part of highway construction, utility work, maintenance operations, and the management of traffic incidents.**

Support:

03 When the normal function of the roadway, or a site roadway open to public travel, is suspended, TTC planning provides for continuity of the movement of motor vehicle, bicycle, and pedestrian traffic (including accessible passage); transit operations; and access (and accessibility) to property and utilities.

04 The primary function of TTC is to facilitate movement of road users through or around TTC zones while protecting road users, workers, responders to traffic incidents, and equipment.

05 Of equal importance to the public traveling through the TTC zone is the safety of workers performing the many varied tasks within the workspace. TTC zones present constantly changing conditions that are unexpected by the road user. This creates an even higher degree of vulnerability for the workers and incident management responders on or near the roadway (see Section 6C.04). At the same time, the TTC zone provides for the efficient completion of whatever activity interrupted the normal use of the roadway.

06 Consideration for road user safety, worker and responder safety, and the efficiency of road user flow is an integral element of every TTC zone, from planning through completion. A concurrent objective of the TTC is the efficient construction and maintenance of the highway and the efficient resolution of traffic incidents.

07 No one set of TTC devices can satisfy all conditions for a given project or incident. At the same time, defining details that would be adequate to cover all applications is impractical. Instead, Part 6 displays typical applications that depict common applications of TTC devices. The TTC selected for each situation depends on the type of highway, road user conditions, the duration of operation, physical constraints, and the nearness of the work space or incident management activity to road users.

08 The TTC needs on low-volume and special purpose roads will sometimes be minimal, especially for shorter-term durations and for lower-speed roads. The use of maintenance vehicle warning flashers, a limited number of signs, or a single flagger could be adequate for these situations.

09 Improved road user performance might be realized through a well-prepared public relations effort that covers the nature of the work, the time and duration of its execution, the anticipated effects upon road users, and possible alternate routes and modes of travel. Such programs have been found to result in a significant reduction in the number of road users traveling through the TTC zone, which reduces the possible number of conflicts.

10 Operational improvements might be realized by using intelligent transportation systems (ITS) in work zones. The use in work zones of ITS technology, such as portable camera systems, highway advisory radio, variable speed limits, ramp metering, traveler information, merge guidance, warning systems for vehicles exiting the work space, and queue detection information, is aimed at increasing safety for both workers and road users and helping to ensure a more efficient traffic flow. The use in work zones of ITS technologies has been found to be effective in providing traffic monitoring and management, data collection, and traveler information.

Standard:

11 **TTC plans and devices shall be the responsibility of the public body or official or the owners of site roadways open to public travel having jurisdiction for guiding road users.**

Guidance:

12 *There should be adequate statutory authority for the implementation and enforcement of needed road user regulations, parking controls, speed zoning, and the management of traffic incidents. Such statutes should provide sufficient flexibility in the application of TTC to meet the needs of changing conditions in the TTC zone.*

Support:

13 The provisions of Part 6 apply to both rural and urban areas. A rural highway is normally characterized by lower volumes, higher speeds, fewer turning conflicts, and less conflict with pedestrians or other vulnerable road users. An urban street is typically characterized by relatively low speeds, wide ranges of road user volumes, narrower roadway lanes, frequent intersections and driveways, significant vulnerable road user activity, and more businesses and houses.

14 The determination as to whether a particular facility at a particular time of day can be considered to be a high-volume roadway or can be considered to be a low-volume roadway is made by the public agency or official having jurisdiction.

15 Special plans preparation and coordination with transit, other highway agencies, law enforcement and other emergency units, utilities, schools, trucking associations, and railroad companies might be needed to reduce unexpected and unusual road user operation situations.

15A [TTC plans may need to use operational speeds instead of posted speeds to configure the TTC zones with the appropriate traffic control devices.](#)

CHAPTER 6B. TEMPORARY TRAFFIC CONTROL ELEMENTS

Section 6B.01 Temporary Traffic Control Plans

Guidance

- 17 *Reduced speed zoning (lowering the regulatory speed limit) should be avoided as much as practical because drivers will reduce their speeds only if they clearly perceive a need to do so.*
- 18 *If reduced speed limits are used, they should be used only in the specific portion of the TTC zone where conditions or restrictive features are present. However, frequent changes in the speed limit should be avoided. A TTC plan should be designed so that vehicles can travel through the TTC zone with a speed limit reduction of no more than 10 mph.*
- 19 *A reduction of more than 10 mph in the speed limit should be used only when required by restrictive features in the TTC zone. Where restrictive features justify a speed reduction of more than 10 mph, additional driver notification should be provided. The speed limit should be stepped down in advance of the location requiring the lowest speed, and additional TTC warning devices should be used.*

Standard:

- 19A If used, reduced speed zoning shall be conducted in accordance with DOT&PF Policy and Procedure 05.05.020, Establishment of Speed Limits and Zones.

Support:

- 20 Research has demonstrated that large reductions in the speed limit, such as a 30-mph reduction, increase speed variance and the potential for crashes. Smaller reductions in the speed limit of up to 10 mph cause smaller changes in speed variance and lessen the potential for increased crashes. A reduction in the regulatory speed limit of only up to 10 mph from the normal speed limit has been shown to be more effective.

[\[Delete Table 6B-1 of the MUTCD and replace with Table 6B-1 as shown in this ATMS.\]](#)

Table 6B-1. Recommended Advance Warning Sign Minimum Spacing

Road Type	Distance Between Signs**		
	A	B	C
Urban (low speed)*	100 feet	100 feet	100 feet
Urban (high speed)*	350 feet	350 feet	350 feet
Rural	500 feet	500 feet	500 feet
Expressway / Freeway	1,000 feet	1,500 feet	2,640 feet

* [Speed category to be determined by the highway agency or owner of site roadways open to public travel. In this table, low speed is defined as a posted speed of 40 mph or less, and high speed is defined as a posted speed of 45 mph or greater.](#)

** The column headings A, B, and C are the dimensions shown in Figures 6H-1 through 6H-46. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The "first sign" is the sign in a three-sign series that is closest to the TTC zone. The "third sign" is the sign that is furthest upstream from the TTC zone.)

- 21 Chapter 6P contains typical applications (TAs) of TTC zones that are organized according to duration, location, type of work, and highway type. Table 6P-1 is an index of these typical

applications. These typical applications include the use of various TTC methods, but do not include a layout for every conceivable work situation.

- 22 Decisions regarding the selection of the most appropriate typical application to use as a guide for a specific TTC zone require an understanding of each situation. Although there are many ways of categorizing TTC zone applications, the typical applications illustrated in Chapter 6P are characterized by work duration, work location, work type, and highway type.

Guidance:

- 23 *Typical applications should be altered, when necessary, to fit the conditions of a particular TTC zone.*

CHAPTER 6C. PEDESTRIAN AND WORKER SAFETY

Section 6C.01 Pedestrian and Worker Safety - General

Standard:

- 01 The various TTC provisions for pedestrian and worker safety set forth in Part 6 shall be applied by knowledgeable (for example, trained and/or certified) persons after appropriate evaluation and engineering judgment.

Section 6C.02 Pedestrian Considerations

Support:

- 01 A wide range of pedestrians might be affected by TTC zones, including the young, elderly, and people with disabilities such as hearing, vision, or mobility. Pedestrians need a clearly delineated and usable travel path. Considerations for pedestrians with disabilities are addressed in Section 6C.03.

Guidance:

- 02 *Prior to closing a sidewalk or other pedestrian facility, the maintaining agency should advise users of the future closure.*

Standard:

- 03 **If the TTC zone affects the movement of pedestrians, adequate pedestrian access and walkways shall be provided.**

Option:

- 04 If establishing or maintaining an alternate pedestrian route is not feasible during the project, an alternate means of providing for pedestrians may be used, such as adding free bus service around the project or assigning someone the responsibility to assist pedestrians with disabilities through the project limits.
- 05 If an existing pedestrian route is impacted by a short-duration or a short-term stationary work zone that is attended with project personnel, establishing an alternate pedestrian route may not be necessary if the work can be stopped and pedestrians can navigate the work zone. Pedestrians may be delayed for a short period of time for project personnel to move equipment and material to facilitate passage. Work zone personnel may also provide assistance to pedestrians as necessary.

Standard:

- 05A **If used, the work zone personnel providing assistance to pedestrians shall be dedicated to this function.**

Support:

- 06 Pedestrians are reluctant to retrace their steps to a prior intersection for a crossing or to add distance or out-of- the-way travel to a destination.

Guidance:

- 07 *The following three items should be considered when planning for pedestrians in TTC zones:*
- A. *Pedestrians should not be led into conflicts with vehicles, equipment, and operations.*
 - B. *Pedestrians should not be led into conflicts with vehicles moving through or around the worksite.*
 - C. *Pedestrians should be provided with a convenient and accessible path that replicates as nearly as practical the most desirable characteristics of the existing sidewalk(s) or footpath(s).*

08 *A pedestrian route should not be severed and/or moved for non-construction activities such as parking for vehicles and equipment.*

09 *TTC zones should be designed to minimize conflicts between vehicular and pedestrian movements. Consideration should be made to separate pedestrian movements from both worksite activity and vehicular traffic. Unless an acceptable route that does not involve crossing the roadway can be provided, pedestrians should be appropriately directed with advance signing that encourages them to cross to the opposite side of the roadway. In urban and suburban areas with high vehicular traffic volumes, these signs should be placed at intersections (rather than midblock locations) so that pedestrians are not confronted with midblock worksites that will induce them to attempt skirting the worksite or making a midblock crossing.*

Support:

10 Figures 6P-28 and 6P-29 show typical TTC device usage and techniques for pedestrian movement through work zones.

Guidance:

11 *To accommodate the needs of pedestrians, including those with disabilities, the following considerations should be addressed when temporary pedestrian pathways in TTC zones are designed or modified:*

- A. Provisions for continuity of accessible paths for pedestrians should be incorporated into the TTC plan.*
- B. Access to transit stops should be maintained.*
 - 1. A smooth, continuous hard surface should be provided throughout the entire length of the temporary pedestrian facility. There should be no curbs or abrupt changes in grade or terrain that could cause tripping or be a barrier to pedestrians with disabilities. The geometry and alignment of the facility should meet the applicable requirements of the "U.S. Department of Justice 2010 ADA Standards for Accessible Design, September 15, 2010, 28 CFR 35 and 36, Americans with Disabilities Act of 1990."*
 - 2. The width of the existing pedestrian facility should be provided for the temporary facility if practical. Traffic control devices and other construction materials and features should not intrude into the usable width of the sidewalk, temporary pathway, or other pedestrian facility. When it is not possible to maintain a minimum width of 60 inches throughout the entire length of the pedestrian pathway, a 60 x 60-inch passing space should be provided at least every 200 feet to allow individuals in wheelchairs to pass.*
 - 3. Blocked routes, alternate crossings, and sign and signal information should be communicated to pedestrians with vision disabilities by providing devices such as audible information devices or barriers and channelizing devices that are detectable to the pedestrians traveling with the aid of a long cane or who have vision disabilities.*
 - 4. When channelization is used to delineate a pedestrian pathway, a continuous detectable edging should be provided throughout the length of the facility such that pedestrians using a long cane can follow it. These detectable edgings should comply with the provisions of Section 6M.04.*
 - 5. Signs and other devices mounted lower than 7 feet above the temporary pedestrian pathway should not project more than 4 inches into accessible pedestrian facilities.*

Support:

12 Where pedestrians in TTC zones are routed on temporary pedestrian pathways, providing information in non- visual formats (such as accessible pedestrian signals with audible tones and/or speech messages, and vibrotactile surfaces) aids pedestrians with vision disabilities so they can

navigate the temporary pathway. Section 6C.03 contains additional information on accessibility considerations in TTC zones. Section 4K.01 contains information on accessible pedestrian signals.

Option:

- 13 Whenever it is feasible, the worksite may be closed off from pedestrian intrusion if doing so is determined to be preferable to channelizing pedestrians along the site with TTC devices.

Guidance:

- 14 *Fencing should not create sight distance restrictions for road users. Fences should not be constructed of materials that would be hazardous if impacted by vehicles. Wooden railing, fencing, and similar systems placed immediately adjacent to motor vehicle traffic should not be used as substitutes for crashworthy temporary traffic barriers.*
- 15 *Ballast for TTC devices should be kept to the minimum amount needed and should be mounted low to prevent penetration of the vehicle windshield.*
- 16 *Movement by work vehicles and equipment across designated pedestrian paths should be minimized and, when necessary, should be controlled by flaggers or other TTC. Staging or stopping of work vehicles or equipment along the side of pedestrian paths should be avoided, since it encourages movement of workers, equipment, and materials across the pedestrian path.*
- 17 *Access to the work space by workers and equipment across pedestrian walkways should be minimized because the access often creates unacceptable changes in grade, and rough or muddy terrain, and pedestrians will tend to avoid these areas by attempting non-intersection crossings where no curb ramps are available.*

Option:

- 18 A canopied walkway may be used to protect pedestrians from falling debris, and to provide a covered passage for pedestrians.

Guidance:

- 19 *Covered walkways should be sturdily constructed and adequately lighted for nighttime use.*
- 20 *When pedestrian and vehicle paths are rerouted to a closer proximity to each other, consideration should be given to separating them by a temporary traffic barrier.*
- 21 *If a temporary traffic barrier is used to shield pedestrians, it should be designed to accommodate site conditions.*

Support:

- 22 Depending on the possible vehicular speed and angle of impact, temporary traffic barriers might deflect upon impact by an errant vehicle. Guidance for locating and designing temporary traffic barriers can be found in Chapter 9 of the “Roadside Design Guide,” 4th Edition, 2011, AASHTO.

Standard:

- 23 **Normal vertical curbing shall not be used as a substitute for temporary traffic barriers when temporary traffic barriers are needed.**

Option:

- 24 Temporary traffic barriers or longitudinal channelizing devices may be used to discourage pedestrians from unauthorized movements into the work space. They may also be used to inhibit conflicts with vehicular traffic by minimizing the possibility of midblock crossings.

Support:

- 25 A major concern for pedestrians is building construction encroaching onto the contiguous sidewalks, which forces pedestrians off the curb into direct conflict with moving vehicles.

Guidance:

- 26 *If a significant potential exists for vehicle incursions into the pedestrian path, pedestrians should be rerouted or temporary traffic barriers should be installed.*

Support:

- 27 *TTC devices, temporary traffic barriers, and wood or chain link fencing with a continuous detectable edging can satisfactorily delineate a pedestrian path.*

Guidance:

- 28 *Tape, rope, or plastic chain strung between devices should not be used as a control for pedestrian movements because they are not detectable and are therefore not accessible to and usable by individuals with disabilities.*

- 29 *In general, pedestrian routes should be preserved in urban and commercial suburban areas. Alternative routing should be discouraged.*

- 30 *The highway agency in charge of the TTC zone should regularly inspect the activity area so that effective pedestrian TTC is maintained.*

CHAPTER 6D. FLAGGER CONTROL

Section 6D.01 Qualifications for Flaggers

Guidance:

- 01 *Because flaggers are responsible for public safety and make the greatest number of contacts with the public of all highway workers, they should be trained in proper traffic control practices and public contact techniques. Flaggers should be able to satisfactorily demonstrate the following abilities:*
- A. *Ability to receive and communicate specific instructions clearly, firmly, and courteously;*
 - B. *Ability to move and maneuver quickly in order to avoid danger from errant vehicles;*
 - C. *Ability to control signaling devices (such as paddles and flags) in order to provide clear and positive guidance to drivers approaching a TTC zone in frequently changing situations;*
 - D. *Ability to understand and apply proper traffic control practices, sometimes in stressful or emergency situations; and*
 - E. *Ability to recognize dangerous traffic situations and warn workers in sufficient time to avoid injury.*

Standard:

- 01A **On state highways, flaggers shall be certified in accordance with the current edition of the Standard Specifications for Highway Construction, Section 643: Traffic Maintenance.**

Section 6D.02 STOP/SLOW Paddle for Hand-Signaling

Guidance:

- 01 *The STOP/SLOW paddle (see Figure 6D-1 and Table 6G-1) should be the primary and preferred hand-signaling device because the STOP/SLOW paddle gives road users more positive guidance than red flags.*

Standard:

- 02 **The STOP/SLOW paddle (R1-1 and W20-8) shall have an octagonal shape on a rigid handle. When used at night, the STOP/SLOW paddle shall be retroreflectorized.**
- 02A **STOP/SLOW paddles (W23-100) shall be at least 18 inches wide with letters 6 inches high for local roads with speed limits less than or equal to 25 mph and shall be 24 inches wide with letters 8 inches high for all other roads.**

Option

- 03 *A STOP/STOP or a SLOW/SLOW paddle may be used in certain situations (see Section 6D.05), provided the device meets the size and shape requirements for the STOP/SLOW paddle.*

Guidance:

- 04 *The STOP/SLOW paddle should be fabricated from light semi-rigid material.*

Support:

- 05 *The optimum method of displaying a STOP or SLOW message is to place the STOP/SLOW paddle on a rigid staff that is tall enough that when the end of the staff is resting on the ground, the message is high enough to be seen by approaching or stopped traffic.*

Option:

- 06 *The STOP/SLOW paddle may be modified to improve conspicuity by incorporating either white or red flashing lights on the STOP face, and either white or yellow flashing lights on the SLOW face. The flashing lights may be arranged in any of the following patterns:*

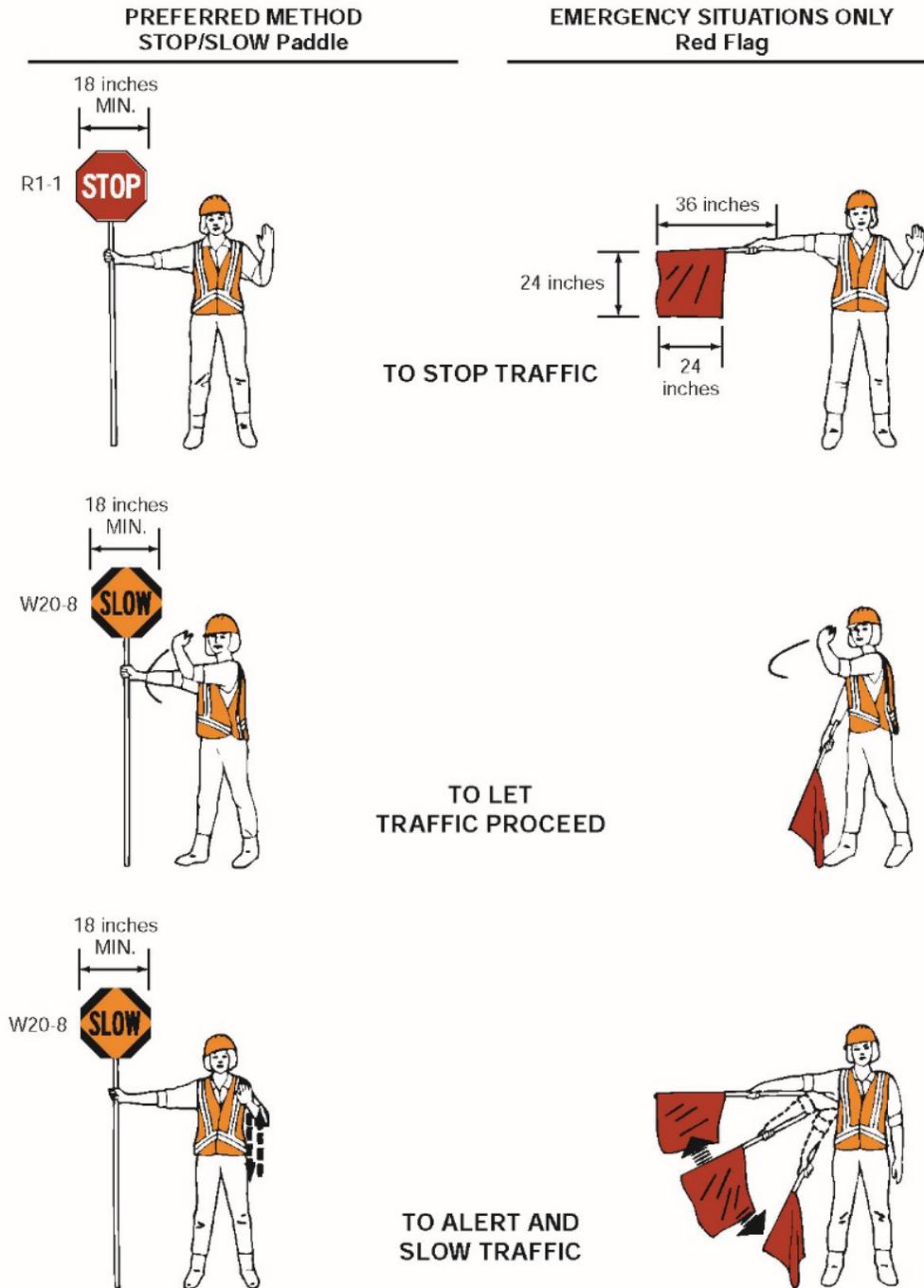
1. Two white or red lights, one centered vertically above and one centered vertically below the STOP legend; and/or two white or yellow lights, one centered vertically above and one centered vertically below the SLOW legend;
2. Two white or red lights, one centered horizontally on each side of the STOP legend; and/or two white or yellow lights, one centered horizontally on each side of the SLOW legend;
3. One white or red light centered below the STOP legend; and/or one white or yellow light centered below the SLOW legend;
4. A series of eight or more small white or red lights no larger than $\frac{1}{4}$ inch in diameter along the outer edge of the paddle, arranged in an octagonal pattern at the eight corners of the border of the STOP face; and/ or a series of eight or more small white or yellow lights no larger than $\frac{1}{4}$ inch in diameter along the outer edge of the paddle, arranged in a diamond pattern along the border of the SLOW face; or
5. A series of white lights forming the shapes of the letters in the legend.

Standard:

- 07 **If flashing lights are used on the STOP face of the paddle, their colors shall be all white or all red. If flashing lights are used on the SLOW face of the paddle, their colors shall be all white or all yellow.**
- 08 **If more than eight flashing lights are used, the lights shall be arranged such that they clearly convey the octagonal shape of the STOP face of the paddle and/or the diamond shape of the SLOW face of the paddle.**
- 09 **If flashing lights are used on the STOP/SLOW paddle, the flash rate shall be at least 50, but not more than 60, flashes per minute.**

[Revise Figure 6D-1 of the MUTCD by adding the additional note that is under the figure.]

Figure 6D-1. Use of Hand-Signaling Devices by Flaggers



Note: *STOP/SLOW paddles (W23-100) shall be at least 18 inches wide with letters 6 inches high for local roads with speed limits less than or equal to 25 mph and shall be 24 inches wide with letters 8 inches high for all other roads.

Section 6D.05 Flagger Procedures

Support:

- 01 The use of paddles and flags by flaggers is illustrated in Figure 6D-1.

Standard:

- 02 **Flaggers shall use a STOP/SLOW paddle, ~~or a flag, or an Automated Flagger Assistance Device (AFAD) (see Sections 6L.02 through 6L.04)~~ to control road users approaching a TTC zone. The use of hand movements alone without a paddle, ~~or flag, or AFAD~~ to control road users shall be prohibited when controlling traffic in a one-lane two-way operation except when the control is provided by emergency responders at incident scenes as described in Section 6O.01 or provided by uniformed law enforcement officers.**

- 03 **The following methods of signaling with a paddle shall be used:**

- A. **To stop road users, the flagger shall face road users and aim the STOP paddle face toward road users in a stationary position with the arm extended horizontally away from the body. The free arm shall be held with the palm of the hand above shoulder level toward approaching traffic.**
- B. **To direct stopped road users to proceed, the flagger shall face road users with the SLOW paddle face aimed toward road users in a stationary position with the arm extended horizontally away from the body. The flagger shall motion with the free hand for road users to proceed.**
- C. **To alert or slow traffic, the flagger shall face road users with the SLOW paddle face aimed toward**
- D. **road users in a stationary position with the arm extended horizontally away from the body.**

Option:

- 04 To further alert or slow traffic, the flagger holding the SLOW paddle face toward road users may motion up and down with the free hand, palm down.

Standard:

- 05 **The following methods of signaling with a flag shall be used:**

- A. **To stop road users, the flagger shall face road users and extend the flag staff horizontally across the road users' lane in a stationary position so that the full area of the flag is visibly hanging below the staff. The free arm shall be held with the palm of the hand above shoulder level toward approaching traffic.**
- B. **To direct stopped road users to proceed, the flagger shall face road users with the flag and arm lowered from the view of the road users, and shall motion with the free hand for road users to proceed. Flags shall not be used to signal road users to proceed.**
- C. **To alert or slow traffic, the flagger shall face road users and slowly wave the flag in a sweeping motion of the extended arm from shoulder level to straight down without raising the arm above a horizontal position. The flagger shall keep the free hand down.**

Guidance:

- 06 *The flagger should stand either on the shoulder adjacent to the road user being controlled or in the closed lane prior to stopping road users. A flagger should only stand in the lane being used by moving road users after road users have stopped. The flagger should be clearly visible to the first approaching road user at all times. The flagger also should be visible to other road users. The flagger should be stationed sufficiently in advance of the workers to warn them (for example, with audible*

warning devices such as horns or whistles) of approaching danger by out-of-control vehicles. The flagger should stand alone, away from other workers, work vehicles, or equipment.

Option:

- 07 In certain conditions, it may be more appropriate for a flagger to use a STOP/STOP or a SLOW/SLOW paddle to convey the appropriate message to approaching road users and avoid confusing those that are approaching the operation from the opposing direction.

Section 6E.04 Pilot Car Method

Option:

- 01 A pilot car may be used to guide a queue of vehicles through the TTC zone or detour.

Guidance:

- 02 The pilot car should have the name of the contractor or contracting authority prominently displayed.

Standard:

- 03 The PILOT CAR FOLLOW ME (G20-4) sign (see Figure 6H-1) shall be mounted on the top or on the rear of the pilot vehicle (see Section 6H.37).
- 04 The pilot car operation shall be coordinated with flagging operations or other methods of control at each end of the one lane section of the work zone.

04A In accordance with an approved traffic control plan, the STOP FOLLOW PILOT CAR WHEN GOING YOUR WAY (R16-111) sign may be used without a flagger on minor side road approaches to the activity area during hours when pilot cars are operating.

- 05 ~~If an Automated Flagger Assistance Device (AFAD) (see Section 6L.02) is used in pilot car operations, the AFAD shall be operated by a flagger positioned near and within the line of sight of the AFAD. The AFAD shall not be left unattended at any time that the AFAD is being used.~~

Guidance:

- 06 If temporary traffic control signals are used in pilot car operations and long wait times will be encountered by road users, consideration should be given to using signs to notify drivers of the wait time and/or pilot car operation, based on engineering judgment.

Section 6F.02 Sign Placement

Guidance:

- 01 Signs should be located on the right-hand side of the roadway unless otherwise provided in this Manual.

Option:

- 02 Where special emphasis is needed, signs may be placed on both the left-hand and right-hand sides of the roadway. Signs mounted on portable supports may be placed within the roadway itself. Signs may also be mounted on or above barricades.

Support:

- 03 The provisions of this Section regarding mounting height apply unless otherwise provided for a particular sign elsewhere in this Manual.

Standard:

04 ~~The minimum height, measured vertically from the bottom of the sign to the elevation of the near edge of the pavement, of signs installed at the side of the road in rural areas shall be 5 feet (see Figure 6F-1).~~

04A Post-mounted signs installed at the side of the road in rural areas shall be mounted at a height of at least 7 feet, measured from the bottom of the sign to the near edge of the pavement (see revised Figure 6F-1).

05 The minimum height, measured vertically from the bottom of the sign to the top of the curb, or in the absence of curb, measured vertically from the bottom of the sign to the elevation of the near edge of the traveled way, of signs installed at the side of the road in business, commercial, or residential areas where parking or pedestrian movements are likely to occur, or where the view of the sign might be obstructed, shall be 7 feet (see Figure 6F-1).

06 The minimum height, measured vertically from the bottom of the sign to the sidewalk, of signs installed above sidewalks shall be 7 feet.

07 The bottom of a sign mounted on a barricade, or other portable support, shall be at least 1 foot above the traveled way.

Option:

08 The height to the bottom of a secondary sign mounted below another sign may be 1 foot less than the height provided in Paragraphs 4 through 6 of this Section.

Guidance:

09 *Neither portable nor permanent sign supports should be located on sidewalks, bicycle facilities, or areas designated for pedestrians or bicyclists.*

Option:

12 The R9-8 through R9-11a series, R11 series, W1-6 through W1-8 series, M4-10, ES-1, or other similar type signs (see Figures 6G-1, 6H-1, and 6I-1) may be used on portable sign supports that do not meet the minimum mounting heights provided in Part 2 for longer than 3 days.

Support:

13 Methods of mounting signs other than on posts are illustrated in Figure 6F-2.

Guidance:

14 *Signs mounted on Type 3 Barricades should not cover more than 50 percent of the top two rails or 33 percent of the total area of the three rails.*

Standard:

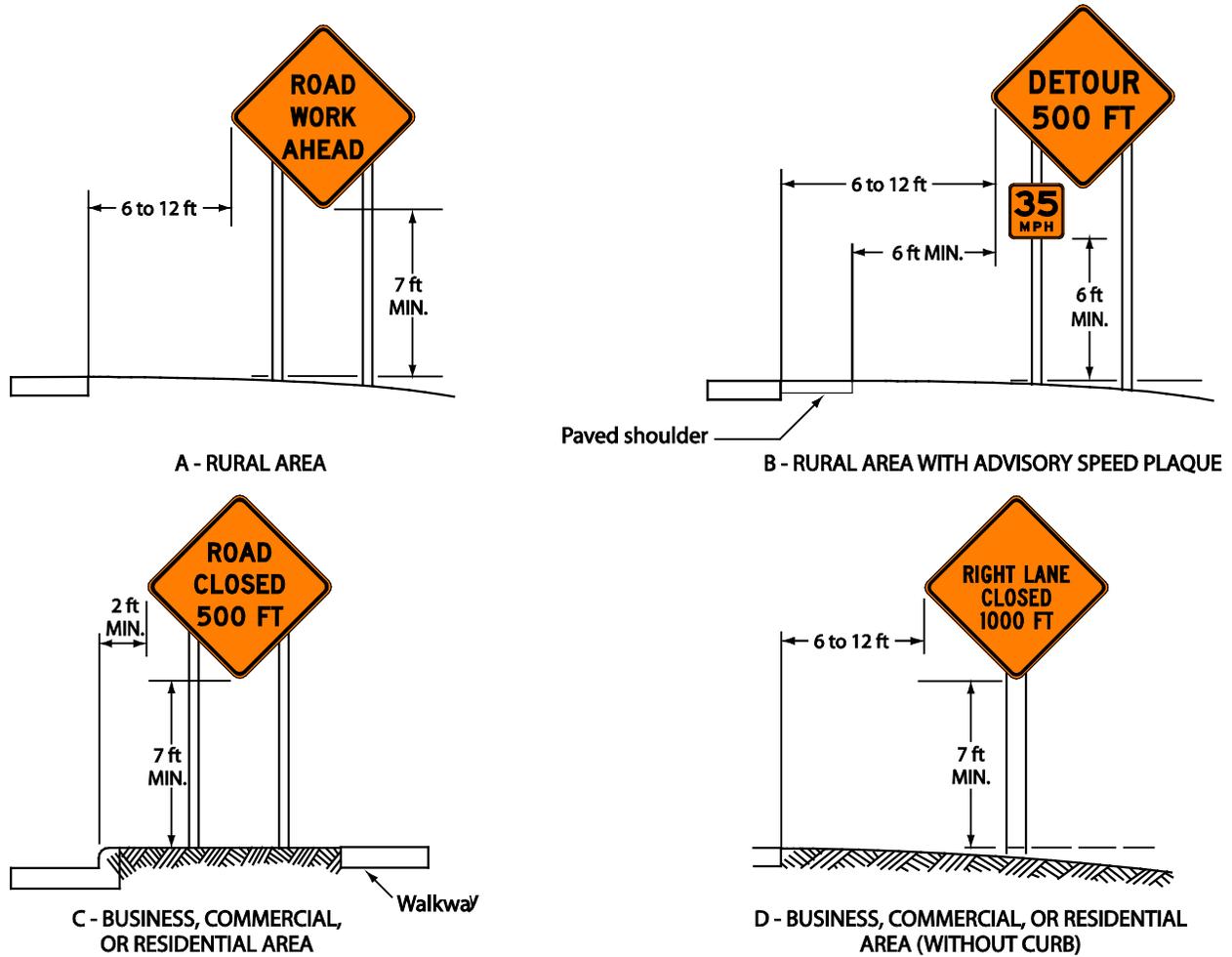
15 **Signs and sign supports used together shall be crashworthy (see Section 6A.04). Where large signs having an area exceeding 50 square feet are installed on multiple breakaway posts, the clearance from the ground to the bottom of the sign shall be at least 7 feet.**

Option:

16 For mobile operations, a sign may be mounted on a work vehicle, a shadow vehicle, or a trailer stationed in advance of the TTC zone or moving along with it.

[Delete Figure 6F-1 in the MUTCD and replace with this Figure 6F-1 in the ATMS.]

Figure 6F-1. Height and Lateral Location of Signs—Typical Installations



CHAPTER 6G. TTC ZONE REGULATORY SIGNS

[\[Revise Table 6G-1 of MUTCD as shown in this ATMS. The remainder of Table 6G-1 remains as shown in the MUTCD.\]](#)

Table 6G-1. Temporary Traffic Control Zone Sign and Plaque Sizes

Sign or Plaque	Sign Designation	Section	Conventional Road	Freeway or Expressway	Minimum
...					
STOP (on Stop/Slow Paddle)	R1-1	6D.02	48x48 24x24	—	18x18

[Section 6G.04 Road Closed Signs \(R11-2 Series\), Road Closed Avalanche Area Sign \(R11-101\), and Lane Closed Sign \(R11-102\)](#)

Guidance:

- 01 The ROAD CLOSED (R11-2) sign (see Figure 6G-1) [or ROAD CLOSED AVALANCHE AREA \(R11-101\)](#) should be used when the roadway is closed to all road users except contractors' equipment or officially authorized vehicles. The R11-2 sign [or R11-101](#) should be accompanied by appropriate warning and detour signing.

Option:

- 02 STREET CLOSED (R11-2a), [ROAD CLOSED AVALANCHE AREA \(R11-101\)](#), BRIDGE OUT (R11-2b), or PATH CLOSED (R11-2c) signs may be substituted for Road Closed signs where applicable.

Guidance:

- 03 Road Closed [or Road Closed Avalanche Area](#) signs should be installed at or near the center of the roadway on or above a Type 3 Barricade that closes the roadway (see Section 6K.07).

Standard:

- 04 Road Closed [or Road Closed Avalanche Area](#) signs shall not be used where road user flow is maintained through the TTC zone with a reduced number of lanes on the existing roadway or where the actual closure is some distance beyond the sign.

Option:

- 05A The LANE CLOSED (R11-102) sign may be posted on Type 3 barricades at cross street [intersections within a lane closure where one or more through lanes of a multi-lane roadway are closed.](#)

Section 6G.08 Work Zone and Higher Fines Signs and Plaques (R16-100, and R16-101)

Option:

- 01 A WORK ZONE (G20-5aP) plaque (see Figure 6G-1) may be mounted above a Speed Limit sign to emphasize that a reduced speed limit is in effect within a TTC zone. An END WORK ZONE SPEED LIMIT (R2-12) sign (see Figure 6G-1) may be installed at the downstream end of the reduced speed limit zone.

Guidance:

- 02 A BEGIN HIGHER FINES ZONE (R2-10) sign (see Figure 6G-1) should be installed at or near the beginning of a TTC zone where increased fines are imposed for traffic violations, and an END HIGHER FINES ZONE (R2-11) sign (see Figure 6G-1) should be installed at or near the downstream end of the TTC zone.

Option:

- 03 Alternate legends such as BEGIN (or END) DOUBLE FINES ZONE may also be used for the R2-10 and R2-11 signs.
- 04 A FINES HIGHER, FINES DOUBLE, or \$XX FINE plaque (see Section 2B.25 and Figure 6G-1) may be mounted below the Speed Limit sign if increased fines are imposed for traffic violations within the TTC zone.
- 05 Individual signs and plaques for work zone speed limits and higher fines may be combined into a single sign or may be displayed as an assembly of signs and plaques.

Support:

- 05A The WORK ZONE BEGIN DOUBLE TRAFFIC FINES (R16-100) and END DOUBLE TRAFFIC FINES (R16-101) signs legally establish the beginning and end of double fine zones. See 13 AAC 40.010 and 17 AAC 99.010. See Section 2B.17.

Standard:

- 05B On DOT&PF construction projects, the DOT&PF RTSE or the traffic control coordinator shall identify projects to receive double fine signs. On DOT&PF maintenance projects, the regional maintenance and operations chief shall make that decision. All decisions shall be made in accordance with the information given in this section.

Guidance:

- 05C Double fine signs should be posted in designated double fine zones in all road construction, repair, maintenance, or utility work areas except for the following:
- A. Mobile operations, such as striping, grading, brush cutting, etc.
 - B. Work on low-volume, low-speed roads.
 - C. Pilot car operations that extend the entire length of a project.
 - D. Work that will last less than 48 hours.

Option:

- 05D Double fine signs may be omitted when work zones are shorter than 1 mile.

Standard:

- 05E Within the previously described road work areas, roadway segments where one or more of the following conditions exist shall be designated double fine zones:
- A. Active work areas: Areas where road workers and/or machinery are presently working on or adjacent to a road.

B. Detours on new temporary roads built for that purpose; this does not include detours on existing streets.

C. Sections of paved roads where pavement has been removed.

D. Roads where unmatched asphalt lifts result in a vertical lip between lanes.

05F Double fine signs shall be used only in designated double fine zones. They shall be removed or covered when work ceases and conditions B through D of this Standard subsection 05E do not exist.

05G Double fine signs shall be confined to areas where the above conditions exist, with the following exceptions:

A. If the project is 2 miles or shorter in length.

B. When the above conditions exist at multiple locations separated by less than 2 miles, the locations and intervening segments shall be posted as a single double fine zone.

C. Where no law enforcement exists to enforce these zones.

Support:

05H “Work Zone Speed Limit Signs,” as used here, refer to SPEED LIMIT (R2-1) signs with a WORK ZONE (G20-5Ap) above and a FINES DOUBLE (R2-6Ap) plaques mounted below them.

Standard:

05I The speed limit shown on Work Zone Speed Limit signs shall be either the existing limit before work began or, if a work zone speed order has been approved in accordance with DOT&PF Procedure 05.05.020, a reduced limit.

05J Work Zone Speed Limit signs shall be posted at the beginning of every double fine zone, regardless of whether the speed limit has been reduced from the speed limit prior to implementation of temporary traffic control.

05K The END DOUBLE TRAFFIC FINES (R16-101) sign shall be posted at the end of every double fine zone.

05L The speed limit for the road beyond the construction zone shall be posted at the end of every double fine zone.

05M All existing regulatory speed limit signs within the double fines zone shall be supplemented with R2-6aP plaques.

05N When a double fine zone is longer than 2 miles, Work Zone Speed Limit signs shall be posted at spacings not greater than 2 miles within the double fines zone.

05O Signs shall be installed at major intersections within the double fine zones, using one of the following methods to warn entering drivers of double fines:

A. Install work zone speed limit signs on the main street on either side of the intersection.

B. Install WORK ZONE BEGIN DOUBLE TRAFFIC FINES (R16-100) signs with W1-7 Arrow Panels mounted below them on the side street(s). The use of this signing eliminates the need for ROAD WORK AHEAD (W20-100) signs.

Support:

05Q The use of the double fines zone signs is not intended to be a reason for diminishing the number of warning signs that would normally be required in the work zone.

05R Overuse of the double fine signs will diminish respect for, and effectiveness of, the signs. It will also result in needlessly increased fines for traffic citations.

Section 6G.10 SIDEWALK CLOSED Signs (R9-9, R9-10, R9-11, and R9-11a), R9-100, and R9-101)

Guidance:

- 01 *SIDEWALK CLOSED signs (see Figure 6G-1) should be used where pedestrian flow is restricted. Bicyclist/ Pedestrian Detour (M4-9a) signs or Pedestrian Detour (M4-9b) signs should be used where pedestrian flow is rerouted (see Section 6I.02).*
- 02 *The SIDEWALK CLOSED (R9-9) sign should be installed at the beginning of the closed sidewalk, at the intersections preceding the closed sidewalk, and elsewhere along the closed sidewalk as needed.*
- 03 *The SIDEWALK CLOSED, (ARROW) USE OTHER SIDE (R9-10) sign should be installed at the beginning of the restricted sidewalk when a parallel sidewalk exists on the other side of the roadway.*
- 04 *The SIDEWALK CLOSED AHEAD, (ARROW) CROSS HERE (R9-11) sign should be used to indicate to pedestrians that sidewalks beyond the sign are closed and to direct them to open crosswalks, sidewalks, or other travel paths.*
- 05 *The SIDEWALK CLOSED, (ARROW) CROSS HERE (R9-11a) sign should be installed just beyond the point to which pedestrians are being redirected.*

Support:

- 06 These signs are typically mounted on a detectable barricade to encourage compliance and to communicate with pedestrians that the sidewalk is closed. Printed signs are not useful to many pedestrians with vision disabilities. A barrier or barricade detectable by a person with a vision disability is sufficient to indicate that a sidewalk is closed. If the barrier is continuous with detectable channelizing devices for an alternate route, accessible signing might not be necessary.

Option:

- 06A The PEDESTRIAN (Arrow) (R9-100) sign may be used to direct pedestrians along pedestrian detour paths through or around work sites.
- 06B The Bicycle Pedestrian (Symbol) PATHWAY (R9-101) sign may be used to direct pedestrians and bicyclists to a pathway through or around work sites.

CHAPTER 6H. TTC ZONE WARNING SIGNS

Section 6H.15 Flagger Signs (W20-7 and W20-7a)

Guidance:

- 01 The Flagger (W20-7) sign (see Figure 6H-1) should be used in advance of any point where a flagger is stationed to control road users.

Option:

- 02 A distance legend may be displayed on a supplemental plaque below the Flagger sign. The sign may be used with appropriate legends or in conjunction with other warning signs, such as the BE PREPARED TO STOP (W3-4) sign (see Figure 6H-1).
- 03 The FLAGGER (W20-7a) word message sign with a distance legend may be substituted for the Flagger (W20-7) sign.

Standard:

- 03A **The Flagger sign shall be removed within 15 minutes if the flagging operations are suspended or have ended.**

Section 6H.27 UNEVEN LANES Sign (W8-11)

Guidance:

- 01 The UNEVEN LANES (W8-11) sign (see Figure 6H-1) should be used during operations that create greater than a 1-inch up to a 2-inch difference in elevation on a vertical or near-vertical edge between adjacent lanes that are open to travel.

Section 6H.32 Advisory Speed Plaque (W13-1P)

Option:

- 01 In combination with a warning sign, an Advisory Speed (W13-1P) plaque (see Figure 6H-1) may be used to indicate a recommended speed through the TTC zone.

Standard:

- 02 **The Advisory Speed plaque shall not be used in conjunction with any sign other than a warning sign, nor shall it be used alone. When used with orange TTC zone signs, this plaque shall have a black legend and border on an orange background. The plaque shall be at least 24 x 24 inches in size when used with a sign that is 36 x 36 inches or larger. Except in emergencies, an Advisory Speed plaque shall not be mounted until the recommended speed is determined by the highway agency.**

Support:

- 03 Warning signs with advisory speed plaques (see Section 2C.59) inform drivers of the recommended operating speed based on temporary conditions within a TTC zone. Examples include narrow lanes, temporary diversion (reverse curves), lane shifts, sight distance restrictions, rough road surface, bumps, low/no shoulder, workers on foot, work vehicles or equipment close to the open travel lane, or other conditions that indicate the need for reduced speed.
- 04 AASHTO and ITE design documents contain established engineering practices for the determination of the recommended advisory speeds for horizontal curves or locations with limited sight distance.

Section 6I.02 Detour Signs and Plaques (M4-8P, M4-8a, M4-8bP, M4-9, M4-9a, M4-9b, M4-9c, ~~M4-10~~, M4-100, and M4-103)

Standard:

- 01 **Each detour shall be adequately marked with standard temporary route signs and destination signs.**

Option:

- 02 Detour signs in TTC incident management situations may have a black legend and border on a fluorescent pink background.
- 03 The Detour Arrow (M4-10) ~~or M4-103~~ signs (see Figure 6I-1) may be used where a detour route has been established.
- 04 The DETOUR (M4-8P) plaque (see Figure 6I-1) may be mounted at the top of a route sign assembly to mark a temporary route that detours from a highway, bypasses a section closed by a TTC zone, and rejoins the highway beyond the TTC zone.

Guidance:

- 05 *The Detour Arrow (M4-10) ~~or M4-103~~ sign signs should normally be mounted just below the ROAD CLOSED (R11-2, R11-3a, or R11-4) sign. The Detour Arrow sign should include a horizontal arrow pointed to the right or left as required. to the right, or to the left, or straight up as required.*
- 06 *The DETOUR (M4-9) sign (see Figure 6I-1) should be used for unnumbered highways, for emergency situations, for periods of short durations, or where, over relatively short distances, road users are guided along the detour and back to the desired highway without route signs.*
- 07 *A Street Name sign should be placed above, or the street name should be incorporated into, a DETOUR (M4-9) sign to indicate the name of the street being detoured.*

Option:

- 08 The END DETOUR (M4-8a) sign or the END (M4-8bP) plaque (see Figure 6I-1) may be used to indicate that the detour has ended.

Guidance:

- 09 *When the END DETOUR sign is used on a numbered highway, the sign should be mounted above a route sign after the downstream end of the detour.*
- 10 *The Pedestrian/Bicyclist Detour (M4-9a) sign (see Figure 6I-1) should be used where a pedestrian/bicyclist detour route has been established because of the closing of a pedestrian/bicycle facility to through traffic.*

Standard:

- 11 **If used, the Pedestrian/Bicyclist Detour sign shall have an arrow pointing in the appropriate direction.**

Option:

- 12 The arrow on a Pedestrian/Bicyclist Detour sign may be on the sign face or on a supplemental plaque.
- 13 The Pedestrian Detour (M4-9b) sign or Bicyclist Detour (M4-9c) sign (see Figure 6I-1) may be used where a pedestrian or a bicyclist detour route (not both) has been established because of the closing of the pedestrian or bicycle detour route (not both) has been established because of the closing of the pedestrian or bicycle facility to through traffic.

Figure 6I-1. Exit Open and Closed and Detour Signs and Plaques



[Modify Figure 6I-1 in MUTCD adding DETOUR SIGN M4-103.]

M4-103



Section 6H.35 ROAD WORK NEXT XX MILES Sign (G20-1)

Guidance:

- 01 The ROAD WORK NEXT XX MILES (G20-1) sign (see Figure 6H-1) should be installed in advance of long-term stationary TTC zones that are more than 2 miles in length.

Option:

- 02 The ROAD WORK NEXT XX MILES sign may be mounted on a Type 3 Barricade. The sign may also be used for TTC zones of shorter length.

Standard:

- 03 The distance displayed on the ROAD WORK NEXT XX MILES sign shall be stated to the nearest whole mile.

Section 6K.04 Tubular Markers

Standard:

- 01 Tubular markers (see Figure 6K-1) shall be predominantly orange for TTC zone applications and shall be not less than 18 inches high and 2 inches wide facing road users. They shall be made of a material that can be struck without causing damage to the impacting vehicle.
- 02 Tubular markers shall be a minimum of 28 inches in height when they are used on freeways and other high-speed highways, on all highways during nighttime, or whenever more conspicuous guidance is needed.

03 For nighttime use, tubular markers shall be retroreflectorized. Retroreflectorization of tubular markers that have a height of less than 42 inches shall be provided by two 3-inch wide white bands placed a maximum of 2 inches from the top with a maximum of 6 inches between the bands. Retroreflectorization of tubular markers that have a height of 42 inches or more shall be provided by four 4-inch to 6-inch wide alternating orange and white stripes with the top stripe being orange.

03A Tubular markers shall be stabilized by affixing them to the pavement, by using weighted bases, or by using weights such as sandbag rings that can be dropped over the tubular markers and onto the base to provide added stability.

Guidance:

04 *Tubular markers have less visible area than other devices and should be used only where space restrictions do not allow for the use of other more visible devices.*

05 ~~*Tubular markers should be stabilized by affixing them to the pavement, by using weighted bases, or by using weights such as sandbag rings that can be dropped over the tubular markers and onto the base to provide added stability. Ballast for tubular markers should be kept to the minimum amount needed.*~~

Option:

06 Tubular markers may be used effectively to divide opposing lanes of road users, divide vehicular traffic lanes when two or more lanes of moving vehicular traffic are kept open in the same direction, and to delineate the edge of a pavement drop off where space limitations do not allow the use of larger devices.

Standard:

07 A tubular marker shall be attached to the pavement to display the minimum 2-inch width to the approaching road users.

Section 6L.02 Automated Flagger Assistance Devices – General

[Delete entirety of Section 6L.02 and replace with the following.]

Standard:

01A Automated Flagger Assistance Devices (AFADs) shall not be used in Alaska.

Section 6L.03 STOP/SLOW Automated Flagger Assistance Devices

[Delete entirety of Section 6L.03 and replace with the following.]

Support:

01A Per Section 6L.02, AFADs are not used in Alaska.

Section 6L.04 Red/Yellow Lens Automated Flagger Assistance Devices

[Delete entirety of Section 6L.04 and replace with the following.]

Support:

01A Per Section 6L.02, AFADs are not used in Alaska.

Section 6M.02 Positive Protection and Temporary Traffic Barriers

Support:

- 01 Temporary traffic barriers, including portable or movable barriers, are devices designed to help prevent penetration by vehicles while minimizing injuries to vehicle occupants, and to protect workers, bicyclists, and pedestrians.

Guidance:

- 02 *Except as otherwise required, at a minimum, longitudinal traffic barriers and/or other positive protection devices should be considered in work zone situations that place workers at increased risk from motorized traffic, and where positive protection devices offer the highest potential for improved safety for workers and road users.*

Support:

- 02 Considerations for positive protection include, but are not limited to, the following circumstances:
- A. Work zones that provide workers no means of escape from motorized traffic such as tunnels or bridges;
 - B. Long-term stationary work zones of two weeks or more resulting in substantial worker exposure to motorized traffic;
 - C. Projects with [anticipated preconstruction](#) operating speeds of 45 mph or greater, especially when combined with high traffic volumes;
 - D. Work operations that place workers, pedestrians, or bicyclists close to travel lanes open to traffic; and
 - E. Roadside hazards, such as drop-offs or unfinished bridge decks, that will remain in place overnight or longer.
- 04 Work zone setups vary depending on the nature of the positive protection used.
- 05 23 CFR Part 630.1108(a) contains additional requirements for certain projects.

Option:

- 06 Temporary traffic barriers may be used to separate two-way vehicular traffic.

Standard:

- 07 **Temporary traffic barriers shall be supplemented with standard delineation, pavement markings, or channelizing devices for improved daytime and nighttime visibility if they are used to channelize vehicular traffic. The delineation color shall match the applicable pavement marking color.**
- 08 **Temporary traffic barriers, including their end treatments, shall be crashworthy (see definition in Section 1C.02).**
- 09 **Short intermittent segments of temporary traffic barrier shall not be used because they nullify the containment and redirective capabilities of the temporary traffic barrier, increase the potential for serious injury both to vehicle occupants and pedestrians, and encourage the presence of blunt leading ends. Adjacent temporary traffic barrier segments shall be properly connected in order to provide the overall strength required for the temporary traffic barrier to perform properly.**

Option:

- 10 Steady-burn warning lights (see Section 6L.07) may be mounted on temporary traffic barrier installations.

Support:

- 11 Temporary traffic barrier includes portable concrete, portable steel, or movable barrier which can all be moved laterally and/or longitudinally when needed and/or from site to site. More specific information on the use of temporary traffic barriers is contained in Chapters 8 and 9 of “Roadside Design Guide,” 4th Edition, 2011, AASHTO.

Section 6N.18 Work during Nighttime Hours

Support:

- 01 Section 6A.05 contains additional information regarding considerations for conducting work operations during nighttime hours.

Guidance:

- 02 *Considering the safety issues inherent to night work, consideration should be given to enhancing traffic controls (see Section 6N.03) to provide added visibility and driver guidance, and increased protection for workers.*
- 03 *In addition to the enhancements listed in Section 6N.03, consideration should be given to providing additional lights and retroreflective markings to workers, work vehicles, and equipment.*

Option:

- 04 Where reduced traffic volumes at night make it feasible, the entire roadway may be closed by detouring traffic to alternate facilities, thus removing the traffic risk from the activity area.

Guidance:

- 05 *Consideration should be given to stationing uniformed law enforcement officers and lighted patrol cars at night work locations where there is a concern that high speeds or impaired drivers might result in undue risks for workers or other drivers.*

Standard:

- 06 **Except in emergencies, temporary lighting shall be provided at all flagger stations used during nighttime work.**

Support:

- 07 Desired illumination levels vary depending upon the nature of the task involved. An average horizontal luminance of 5 foot candles can be adequate for general activities. An average horizontal luminance of 10 foot candles can be adequate for activities around equipment. Tasks requiring high levels of precision and extreme care can require an average horizontal luminance of 20 foot candles.

- 07A [On state highways, use Standard Specifications Table 643-1 Project Locations Nighttime Illumination Exclusion.](#)

CHAPTER 6P. TYPICAL APPLICATIONS

Section 6P.01 Typical Applications

Revised Notes for Figure 6P-10—Typical Application 10 Lane Closure on a Two-Lane Road Using Flaggers

Option:

1. Positive protection devices may be used per Section 6M.02.
2. For low-volume situations with short TTC zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger, positioned to be visible to road users approaching from both directions, may be used (see Chapter 6D).
3. The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short-duration operations.
4. Flashing warning lights and/or flags may be used to call attention to the advance warning signs. A BE PREPARED TO STOP sign may be added to the sign series.
- ~~5. Automated Flagger Assistance Devices (see Section 6L.02) may be used in situations where there is only one lane of approaching traffic in the direction to be controlled.~~

Guidance:

6. *The buffer space should be extended so that the two-way traffic taper is placed before a horizontal (or crest vertical) curve to provide adequate sight distance for the flagger and a queue of stopped vehicles.*

Standard:

7. **At night, flagger stations shall be illuminated, except in emergencies.**

Guidance:

8. *When used, the BE PREPARED TO STOP sign should be located between the Flagger sign and the ONE LANE ROAD sign.*
9. *When a grade crossing exists within or upstream of the transition area and it is anticipated that queues resulting from the lane closure might extend through the grade crossing, the TTC zone should be extended so that the transition area precedes the grade crossing.*
10. *When a grade crossing equipped with active warning devices exists within the activity area, provisions should be made for keeping flaggers informed as to the activation status of these warning devices.*
11. *When a grade crossing exists within the activity area, drivers operating on the left-hand side of the normal center line should be provided with comparable warning devices as for drivers operating on the right-hand side of the normal center line.*
12. *Early coordination with the railroad company or transit agency should occur before work starts.*

Option:

13. A flagger or a uniformed law enforcement officer may be used at the grade crossing to minimize the probability that vehicles are stopped within 15 feet of the grade crossing, measured from both sides of the outside rails.

Revised Notes for Figure 6P-13—Typical Application 13
Temporary Road Closure

Support:

1. Conditions represented are a planned closure not exceeding 20 minutes during the daytime.

Standard:

2. **A flagger or uniformed law enforcement officer shall be used for this application. The flagger, if used for this application, shall follow the procedures provided in Sections 6D.05 and 6D.06.**

Guidance:

3. *The uniformed law enforcement officer, if used for this application, should follow the procedures provided in Sections 6D.05 and 6D.06.*

Option:

4. A BE PREPARED TO STOP sign may be added to the sign series.
5. Positive protection devices may be used per Section 6M.02.
- ~~6. Automated Flagger Assistance Devices (see Section 6L.02) may be used in situations where there is only one lane of approaching traffic in the direction to be controlled.~~

Guidance:

7. *When used, the BE PREPARED TO STOP sign should be located before the Flagger symbol sign.*

Revised Notes for Figure 6P-14—Typical Application 14
Haul Road Crossing

Guidance:

1. Floodlights should be used to illuminate haul road crossings where existing light is inadequate.
2. Where no-passing lines are not already in place, they should be added.

Standard:

3. The traffic control method selected shall be used in both directions.

Flagging Method

4. When a road used exclusively as a haul road is not in use, the haul road shall be closed with Type 3 Barricades and the Flagger symbol signs covered.
5. The flagger shall follow the procedures provided in Sections 6D.05 and 6D.06.
6. At night, flagger stations shall be illuminated, except in emergencies.

Signalized Method

7. When a road used exclusively as a haul road is not in use, the haul road shall be closed with Type 3 Barricades. The signals shall either:
 - a. Flash yellow on the main road and flash red on the haul road or be covered, and the Signal Ahead and STOP HERE ON RED signs shall be covered or hidden from view;
or
 - b. Display green on the main road and steady red on the haul road, but only if actuated signal operation is used such that green is always displayed to the main road except when a vehicle is detected on the haul road.
8. The temporary traffic control signals shall control both the highway and the haul road and shall meet the physical display and operational requirements of conventional traffic control signals as described in Part 4. Traffic control signal timing shall be established by authorized officials.
9. Stop lines shall be used on existing highways with temporary traffic control signals.
10. Existing conflicting pavements markings between the stop lines shall be removed. After the temporary traffic control signal is removed, the stop lines and other temporary pavement markings shall be removed and the permanent pavement markings restored.

~~Option:~~

~~**Flagging Method**~~

- ~~11. Automated Flagger Assistance Devices (see Section 6L.02) may be used in situations where there is only one lane of approaching traffic in the direction to be controlled.~~

Guidance:

Signalized Method

12. If actuated signal operation is used (see Item b in Note 7 above) and pedestrian facilities, such as sidewalks, are present in the area of the haul road crossing, then consideration should be given to providing pedestrian actuation capability at the temporary traffic control signal to accommodate any pedestrians who might be depending upon a pedestrian phase to cross the main road.

Revised Notes for Figure 6P-16—Typical Application 16
Surveying Along the Center Line of a Road with Low Traffic Volumes

Guidance:

1. *The lanes on either side of the center work space should have a minimum width of 10 feet as measured from the near edge of the channelizing devices to the edge of the pavement or the outside edge of the paved shoulder.*
2. *Cones should be placed 6 to 12 inches on either side of the center line.*
3. *A flagger should be used to warn workers who cannot watch road users.*

Standard:

4. **For surveying on the center line of a high-volume road, one lane shall be closed using the information illustrated in Figure 6P-10.**

Option:

5. A high-level warning device may be used to protect a surveying device, such as a target on a tripod.
6. Cones may be omitted for a cross-section survey.
7. ROAD WORK AHEAD signs may be used in place of the SURVEY CREW AHEAD signs.
8. Flags may be used to call attention to the advance warning signs.
9. If the work is along the shoulder, the flagger may be omitted.
10. For a survey along the edge of the road or along the shoulder, cones may be placed along the edge line.
11. A BE PREPARED TO STOP sign may be added to the sign series.
12. ~~Automated Flagger Assistance Devices (see Section 6L.02) may be used in situations where there is only one lane of approaching traffic in the direction to be controlled.~~

Guidance:

13. *When used, the BE PREPARED TO STOP sign should be located before the Flagger symbol sign.*

Revised Notes for Figure 6P-46—Typical Application 46
Work in the Vicinity of a Grade Crossing

Guidance:

1. *When grade crossings exist either within or in the vicinity of roadway work activities, extra care should be taken to minimize the probability of conditions being created, by lane restrictions, flagging, or other operations, where vehicles might be stopped within the grade crossing, considered as being 15 feet on either side of the closest and farthest rail.*

Standard:

2. **If the queuing of vehicles across active rail tracks cannot be avoided, a uniformed law enforcement officer or flagger shall be provided at the grade crossing to prevent vehicles from stopping within the grade crossing (as described in Note 1 above), even if automatic warning devices are in place.**

Guidance:

3. *Early coordination with the railroad company or transit agency should occur before work starts.*
4. *In the example depicted, the buffer space of the activity area should be extended upstream of the grade crossing (as shown) so that a queue created by the flagging operation will not extend across the grade crossing.*
5. *The DO NOT STOP ON TRACKS sign should be used on all approaches to a grade crossing within the limits of a TTC zone.*

Option:

6. Positive protection devices may be used per Section 6M.02.
7. Flashing warning lights and/or flags may be used to call attention to the advance warning signs.
8. A BE PREPARED TO STOP sign may be added to the sign series.
9. ~~Automated Flagger Assistance Devices (see Section 6L.02) may be used in situations where there is only one lane of approaching traffic in the direction to be controlled.~~

Guidance:

10. When used, the BE PREPARED TO STOP sign should be located before the Flagger symbol sign.

Standard:

11. **At night, flagger stations shall be illuminated, except in emergencies.**

Part 7 | Traffic Control for School Areas

CHAPTER 7A. GENERAL

Section 7A.01 Introduction

Support:

01 Part 7 sets forth basic principles and prescribes standards for the design, application, installation, and maintenance of all traffic control devices (including signs, signals, and markings) and other controls (including adult crossing guards) for the special pedestrian conditions in school areas.

01A [“School,” “school zone,” “school area,” and “school district” are defined in Section 1C.02.](#)

Section 7A.02 School Route Plans and School Crossings

Standard:

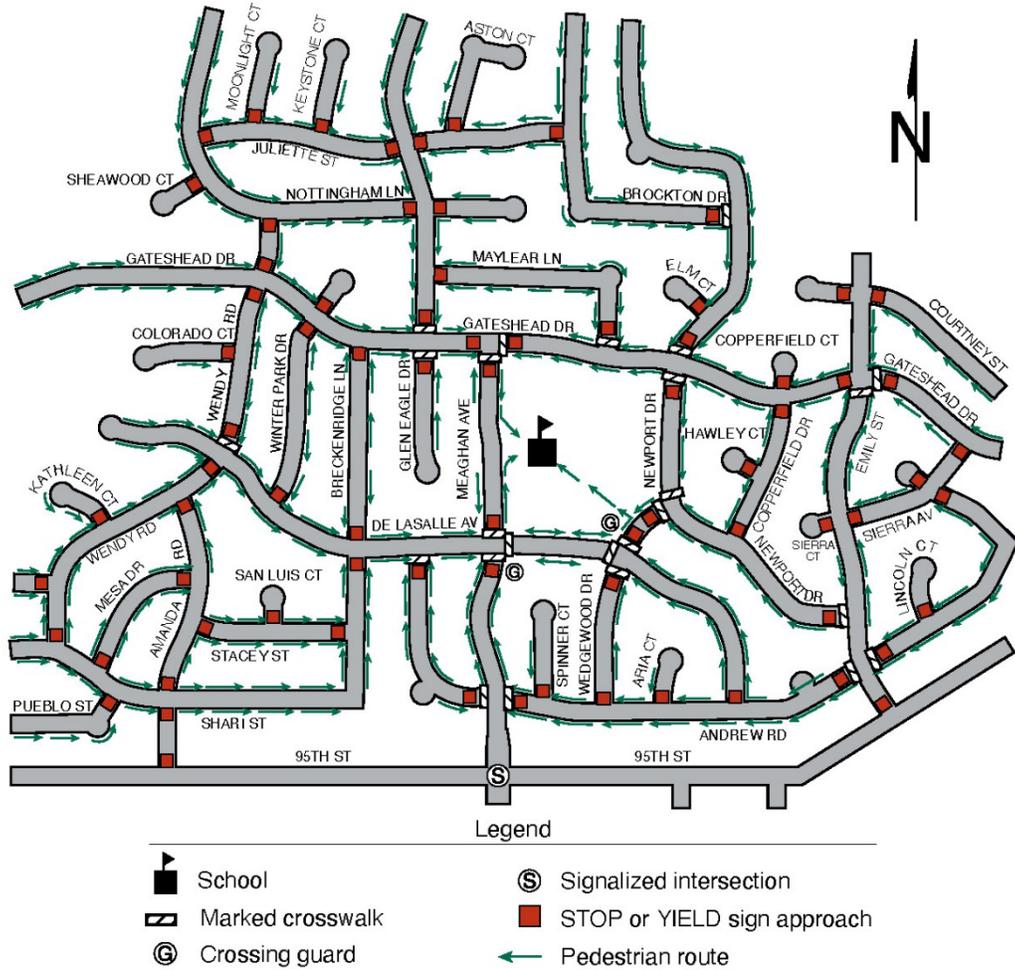
01A [A school route plan shall be approved by the highway authority in order for the RTSE or city traffic engineer to select the traffic control devices.](#)

Guidance:

01 *A school route plan for each school serving elementary to high school students should be prepared in order to develop uniformity in the use of school area traffic controls and to serve as the basis for a school traffic control plan for each school.*

02 *The school route plan, developed in a systematic manner by the school, law enforcement, and traffic officials responsible for school pedestrian safety, should consist of a map (see Figure 7A-1) showing streets, the school, existing traffic controls, established school walk routes, and established school crossings.*

Figure 7A-1. Example of School Route Plan Map



- 03 *Bicycle use as a mode of transportation, as applicable, should also be considered if students biking to and from school are not allowed to use the sidewalks along the pedestrian route.*
- 04 *Installation of school area traffic control devices and the The type(s) of school area traffic control devices used, either warning or regulatory, should be related to the volume and speed of vehicular traffic, street width, and the number and age of the students using the crossing rather than just the presence of school area boundaries.*
- 05 *School area traffic control devices should be included in a school traffic control plan.*

Support:

- 06 To establish a safer route to and from school for schoolchildren, the application of planning criterion for school walk routes might make it necessary for children to walk an indirect route to an established school crossing located where there is existing traffic control and to avoid the use of a direct crossing where there is no existing traffic control.

06A Planning of student transportation to and from school is primarily a responsibility of the local school district.

07 The frequency of gaps in the traffic stream that are sufficient for student crossing is different at each crossing location. When the delay between the occurrences of adequate gaps becomes excessive, students might become impatient and endanger themselves by attempting to cross the street during an inadequate gap. In these instances, the creation of sufficient gaps needs to be considered to accommodate the crossing demand.

Guidance:

08 *School walk routes should be planned to take advantage of existing traffic controls.*

09 *The following factors should be considered when determining the feasibility of requiring children to walk a longer distance to a crossing with existing traffic control:*

A. The availability of adequate sidewalks or other pedestrian walkways to and from the location with existing control,

B. The number of students using the crossing,

C. The age levels of the students using the crossing, and

D. The total extra walking distance.

09A *Before designated school zones are established, a team consisting of representatives of the local school district, local government, law enforcement agency, and the highway authority should convene to discuss student transportation issues, walking routes, reduced school speed limits, and designated road crossings for students. When a school route plan has been approved by the local school district and accepted by the highway authority, the RTSE or city traffic engineer will determine the appropriate traffic control needed.*

Support:

10 A School Crossing signal warrant is provided in Section 4C.06.

10A School Zone traffic control facilitates children crossing the highway or roadway as shown on the approved school route plan and highway authority designated school zones.

10B Planning of school sites is done using Department of Education and Early Development “Site Selection Criteria and Evaluation Handbook 2021.” Schools located within the Municipality of Anchorage (MOA) use the MOA School Area Traffic Safety Manual. Both documents aid in the development of safer school zones.

CHAPTER 7B. SIGNS

Section 7B.01 Design of School Signs

Standard:

- 01 Except as provided in Section 2A.07, the sizes of signs and plaques to be used on conventional roadways in school areas shall be as shown in Table 7B-1.
- 02 The sizes in the Oversized column in Table 7B-1 shall be used on expressways in school areas.

Guidance:

- 03 *The sizes in the Oversized column should be used on roadways that have four or more lanes with posted speed limits of 40 mph or higher.*
- 03A *The sizes in the Minimum column should be used only where the roadway is not multi-lane and speeds are 30 mph or lower, as determined by engineering judgment.*

Option:

- 04 Signs and plaques larger than those shown in Table 7B-1 may be used (see Section 2A.07).

Standard:

- 05 **School warning signs, including the “SCHOOL” portion of the School Speed Limit (S5-1) sign and including any supplemental plaques used in association with these warning signs, shall have a fluorescent yellow-green background with a black legend and border unless otherwise provided in this Manual for a specific sign.**
- 06 **The signs used for school area traffic control shall be retroreflective or illuminated.**
- 06A **All school warning signs and pedestrian and bicycle warning signs within a school area or school bus stop shall have fluorescent yellow-green backgrounds.**

Support:

- 07 Sections 2A.13 and 2A.14 contain provisions regarding the installation, placement, and location of signs.
- 08 Section 2A.15 contains provisions regarding the mounting heights of signs.
- 09 Section 2A.16 contains provisions regarding the lateral offsets of signs.
- 10 The “Standard Highway Signs” publication (see Section 1A.05) contains information regarding sign lettering.

Option:

- 11 In-roadway signs for school traffic control areas may be used consistent with the requirements of Sections 2B.20 and 7B.03.

Section 7B.02 School Area Signs and Plaques

Support:

- 01 Many state and local jurisdictions find it beneficial to advise road users that they are approaching a school that is adjacent to a highway, where additional care is needed, even though no school crossing is involved and the speed limit remains unchanged. Additionally, some jurisdictions designate school zones that have a unique legal standing in that fines for speeding or other traffic violations within designated school zones are increased or special enforcement techniques such as photo radar systems are used. It is important and sometimes legally necessary to mark the beginning and end points of these designated school zones so that the road user is given proper notice.

- 02 The School (S1-1) sign (see Figure 7B-1) has the following four applications:
- A. School Area – the S1-1 sign can be used to warn road users that they are approaching a school area that might include school buildings or grounds, a school crossing, or school related activity adjacent to the highway.
 - B. School Zone – the S1-1 sign can be used to identify the location of the beginning of a designated school zone.
 - C. School Advance Crossing – if combined with an AHEAD (W16-9P) plaque or an XX FEET (W16-2P or W16-2aP) plaque to comprise the School Advance Crossing assembly (see Figure 7B-1), the S1-1 sign can be used to warn road users that they are approaching a crossing where schoolchildren cross the roadway (see Section 7B.03).
 - D. School Crossing – if combined with a diagonal downward-pointing arrow (W16-7P) plaque to comprise the School Crossing assembly (see Figure 7B-1), the S1-1 sign can be used to warn approaching road users of the location of a crossing where schoolchildren cross the roadway (see Section 7B.03).

Option:

- 03 If a school area or school zone is located on a cross street in close proximity to the intersection, a School (S1-1) sign with a supplemental arrow (W16-5P or W16-6P) plaque (see Figure 7B-1) may be installed on each approach of the street or highway to warn road users making a turn onto the cross street that they will encounter a school area soon after making the turn.

Standard:

- 04 **If a school zone has been designated under State or local statute, a School (S1-1) sign (see Figure 7B-1) shall be installed (see Figure 7B-2).**

Support:

- 04A “School grounds” typically refer to school property. However, when school property frontage is lengthy, school grounds may be interpreted as the area where students frequently cross the road.

Option:

- 05 A School Zone (S1-1) sign may be supplemented with a SCHOOL (S4-3P) plaque (see Figure 7B-1).
- 06 A School Zone (S1-1) sign may be supplemented with an ALL YEAR (S4-7P) plaque (see Figure 7B-1) if the school operates on a 12-month schedule.
- 07 The downstream end of a designated school zone may be identified with an END SCHOOL ZONE (S5-2) sign (see Figures 7B-1 and 7B-2).

Table 7B-1. School Area Sign and Plaque Sizes

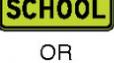
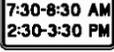
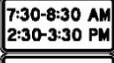
Sign	Sign Designation	Section	Conventional Road	Minimum	Oversized
School	S1-1	7B.02	36 x 36	30 x 30	48 x 48
School Bus Stop Ahead	S3-1	7B.04	36 x 36	30 x 30	48 x 48
School Bus Turn Ahead	S3-2	7B.04	36 x 36	30 x 30	48 x 48
Reduced School Speed Limit Ahead	S4-5, S4-5a	7B.05	36 x 36	30 x 30	48 x 48
School Speed Limit XX When Flashing	S5-1	7B.05	24 x 48	—	36 x 72
End School Zone	S5-2	7B.02	24 x 30	—	36 x 48
End School Speed Limit	S5-3	7B.05	24 x 30	—	36 x 48
Yield (Stop) Here for School Crossing	R1-5a, R1-5e	7B.03	36 x 36	—	—
In-Street Ped or School Crossing	R1-6, R1-6a, R1-6b, R1-6c	7B.03	12 x 36	—	—
Overhead School Crossing	R1-9b, R1-9c	7B.03	90 x 24	—	—
Speed Limit (School Use)	R2-1	7B.05	24 x 30	—	36 x 48
Begin Higher Fines Zone	R2-10	7B.06	24 x 30	—	36 x 48
End Higher Fines Zone	R2-11	7B.06	24 x 30	—	36 x 48

Plaque	Sign Designation	Section	Conventional Road	Minimum	Oversized
Time of Day X:XX to X:XX AM X:XX to X:XX PM	S4-1P	7B.06	24 x 12	—	36 x 18
When Children Are Present	S4-2P	7B.06	24 x 12	—	36 x 18
School	S4-3P	7B.02, 7B.05	24 x 9	—	36 x 12
When Flashing	S4-4P	7B.05, 7B.06	24 x 12	—	36 x 18
Days of Week Mon-Fri	S4-6P	7B.05	24 x 12	—	36 x 18
All Year	S4-7P	7B.02	24 x 12	—	30 x 18
Fines Higher	R2-6P	7B.06	24 x 18	—	36 x 24
Fines Double	R2-6aP	7B.06	24 x 18	—	36 x 24
\$XX Fine	R2-6bP	7B.06	24 x 18	—	36 x 24
XX Feet (2-line)	W16-2P	7B.02, 7B.03	24 x 18	—	30 x 24
XX Ft (1-line)	W16-2aP	7B.02, 7B.03	24 x 12	—	30 x 18
Directional Arrow	W16-5P	7B.02, 7B.03	21 x 15	—	30 x 21
Advance Turn Arrow	W16-6P	7B.02, 7B.03	21 x 15	—	30 x 21
Downward Diagonal Arrow	W16-7P	7B.02, 7B.03	21 x 15	—	30 x 21
Ahead	W16-9P	7B.02, 7B.03	24 x 12	—	30 x 18

- Notes: 1. Larger sizes may be used when appropriate
 2. Dimensions are shown in inches and are shown as width x height
 3. Minimum sign sizes for multi-lane conventional roads shall be as shown in the Conventional Road column

Figure 7B-1. Signs in School Areas and at School Crossings (Sheet 1 of 2)

A – School area signs

<p>School Advance Crossing Assembly</p>  <p>S1-1</p>  <p>W16-9P</p> <p>OR</p>  <p>W16-2aP</p> <p>OR</p>  <p>W16-2P</p> <p>OR</p>  <p>W16-5P (optional)</p> <p>OR</p>  <p>W16-6P (optional)</p>	<p>School Crossing Assembly</p>  <p>S1-1</p> <p>W16-7P</p>	<p>School Zone Sign</p>  <p>S1-1</p>  <p>S4-7P (optional)</p>  <p>S4-3P (optional)</p> <p>OR</p>  <p>W16-5P (optional)</p> <p>OR</p>  <p>W16-6P (optional)</p>	<p>School Speed Limit Assembly</p>  <p>S4-3P</p> <p>OR</p>  <p>R2-1</p>  <p>S4-1P</p> <p>OR</p>  <p>S4-2P</p> <p>OR</p>  <p>S4-4P *</p> <p>OR</p>  <p>S4-1P</p>  <p>S4-6P</p>	<p>School Speed Limit When Flashing Sign</p>  <p>S5-1 *</p>  <p>R2-6P (optional)</p> <p>OR</p>  <p>R2-6aP (optional)</p> <p>OR</p>  <p>R2-6bP (optional)</p>
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* If used, the assembly or sign with WHEN FLASHING legend shall be accompanied by a flashing yellow Speed Limit Sign Beacon (see Section 4S.04).

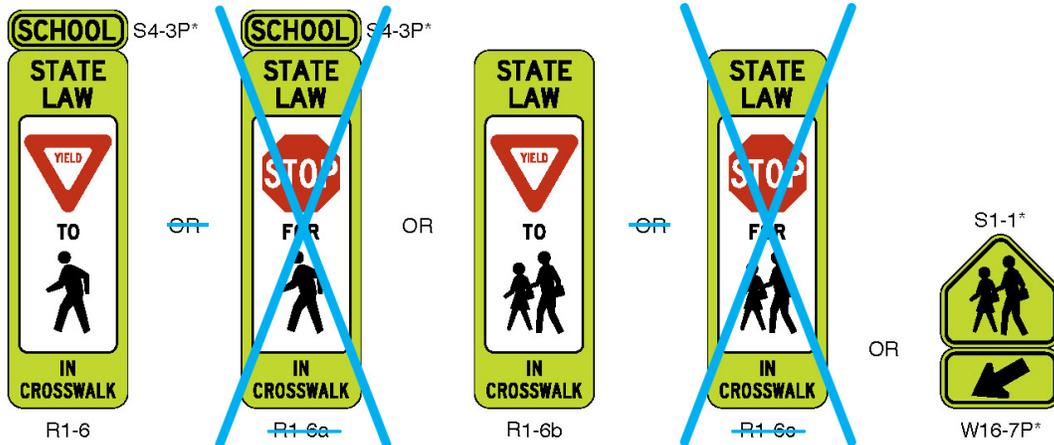
 <p>S3-1</p>	 <p>S3-2</p>	 <p>S4-5</p>	 <p>S4-5a</p>
 <p>S5-2</p>	 <p>S5-3</p>	 <p>R2-10</p>	 <p>R2-11</p>

Figure 7B-1. Signs in School Areas and at School Crossings (Sheet 2 of 2)

B – Signs in advance of the school crossing



C – In-street signs at the school crossing



D – Overhead signs at the school crossing



Notes:

1. The use of the STATE LAW legend is optional on the R1-6 series and R1-9 series signs (see Section 7B.03).
2. The use of the SCHOOL plaque above the R1-6 and ~~R1-6a~~ signs is optional.
3. Signs are shown in proportion to their designated sizes unless otherwise noted.

*Reduced size signs for in-street use (see Section 7B.03):

S1-1	12 x 12 inches
S4-3P	12 x 4 inches
W16-7P	12 x 6 inches
W16-9P	12 x 6 inches

Section 7B.03 School Crossing Signs

Standard:

01 The School Advance Crossing assembly (see Figure 7B-1) shall consist of a School (S1-1) sign supplemented with an AHEAD (W16-9P) plaque or an XX FEET (W16-2P or W16-2aP) plaque.

02 Except as provided in Paragraph 3 of this Section, a School Advance Crossing assembly shall be used in advance (see Table 2C-3 for advance placement guidelines) of the first School Crossing assembly that is encountered in each direction as traffic approaches a school crosswalk (see Figure 7B-3).

Option:

03 The School Advance Crossing assembly may be omitted (see Figure 7B-2) where a School Zone (S1-1) sign (see Section 7B.02) is installed to identify the beginning of a school zone in advance of the School Crossing assembly.

04 If a school crosswalk is located on a cross street in close proximity to an intersection, a School Advance Crossing assembly with a supplemental arrow (W16-5P or W16-6P) plaque may be installed on each approach of the street or highway to warn road users making a turn onto the cross street that they will encounter a school crosswalk soon after making the turn (see Figure 7B-3).

05 A 12-inch reduced size in-street School (S1-1) sign (see Figure 7B-1), installed in compliance with the mounting height and special mounting support requirements for an In-Street Pedestrian Crossing (R1-6 or R1-6a) sign (see Section 2B.20), may be used in advance of a school crossing to supplement the post-mounted school warning signs. A 12 x 6-inch reduced size AHEAD (W16-9P) plaque (see Figure 7B-1) may be mounted below the reduced size in-street School (S1-1) sign.

Standard:

06 If used, the School Crossing assembly (see Figure 7B-1) shall be installed at the school crossing (see Figures 7B-2 and 7B-3), or as close to it as possible, and shall consist of a School (S1-1) sign supplemented with a diagonal downward-pointing arrow (W16-7P) plaque (see Section 2C.63) to show the location of the crossing.

07 The School Crossing assembly shall not be used at crossings other than those adjacent to schools and those on established school pedestrian routes.

08 The School Crossing assembly shall not be installed on an approach controlled by a STOP or a YIELD sign except as provided in Paragraphs 9 and 10 of this Section.

Option:

09 The School Crossing assembly may be installed on an approach to a circular intersection controlled by a YIELD sign where the crosswalk is at least 20 feet in advance of the yield point at the entrance to a circulatory roadway.

10 At a signalized or stop-controlled intersection the School Crossing assembly may be installed on an approach to a channelized right turn lane controlled by a YIELD sign where the crosswalk is at least 20 feet in advance of the yield point.

11 A Yield Here To (~~Stop Here For~~) School Crossing (R1-5a ~~or R1-5e~~) sign (see Figure 7B-4) may be used, in accordance with the provisions of Section 2B.19, in advance of a marked crosswalk that crosses an uncontrolled multi-lane approach within school zones.

12 The In-Street Pedestrian Crossing (R1-6 ~~or R1-6a~~) sign (see Section 2B.20 and Figure 7B-1) or the In-Street School Crossing (R1-6b ~~or R1-6e~~) sign (see Figure 7B-1) may be used at school crossings on approaches that are not controlled by a traffic control signal, a pedestrian hybrid beacon, or emergency-vehicle hybrid beacon. If used at a school crossing, a 12 x 4-inch SCHOOL (S4-3P) plaque

(see Figure 7B-1) may be mounted above the sign. The STATE LAW legend on the R1-6 series signs may be omitted.

13 The In-Street Pedestrian Crossing (R1-6 ~~or R1-6a~~) sign or In-Street School Crossing (R1-6b ~~or R1-6e~~) sign may be used at intersections or midblock crossings with flashing beacons.

14 The Overhead School Crossing (R1-9b ~~or R1-9e~~) sign (see Figure 7B-1) may be used at school crossings on approaches that are not controlled by a traffic control signal, pedestrian hybrid beacon, or an emergency-vehicle hybrid beacon. The STATE LAW legend on the R1-9 series signs may be omitted.

Standard:

15 **When used at an uncontrolled crossing, the In-Street or Overhead Pedestrian Crossing sign shall be used only as a supplement to a School Crossing assembly with a diagonal downward-pointing arrow (W16-7P) plaque at the crosswalk location.**

Option:

16 A 12-inch reduced size in-street School (S1-1) sign (see Figure 7B-1) may be used instead of the In-Street Pedestrian Crossing (R1-6 ~~or R1-6a~~) or the In-Street School Crossing (R1-6b ~~or R1-6e~~) sign at a school crossing on approaches that are not controlled by a traffic control signal, pedestrian hybrid beacon, or an emergency-vehicle hybrid beacon. A 12 x 6-inch reduced size diagonal downward-pointing arrow (W16-7P) plaque (see Figure 7B-1) may be mounted below the reduced size in-street School (S1-1) sign.

Standard:

17 **If an In-Street Pedestrian Crossing sign, an In-Street School Crossing sign, or a reduced size in-street School (S1-1) sign is placed in the roadway, the sign support shall comply with the mounting height and special mounting support requirements for an In-Street Pedestrian Crossing (R1-6 ~~or R1-6a~~) sign (see Section 2B.20).**

18 **The In-Street Pedestrian Crossing sign, the In-Street School Crossing sign, the Overhead Pedestrian Crossing sign, and the reduced size in-street School (S1-1) sign shall not be used on approaches that are controlled by a traffic control signal, pedestrian hybrid beacon, or an emergency-vehicle hybrid beacon.**

Section 7B.04 School Bus Stop Signs

Guidance:

01 *The School Bus Stop Ahead (S3-1) sign (see Figure 7B-1) should be installed in advance of locations where [the top flashing lights of](#) a school bus, when stopped to pick up or discharge passengers, is not visible to road users for an adequate distance and where there is no opportunity to relocate the school bus stop to provide adequate sight distance*

Option:

02 The SCHOOL BUS TURN AHEAD (S3-2) sign (see Figure 7B-1) may be installed in advance of locations where a school bus turns around on a roadway at a location not visible to approaching road users for a distance as determined by the “0” column under Condition B of Table 2C-3, and where there is no opportunity to relocate the school bus turn around to provide the distance provided in Table 2C-3.

Guidance:

02A *[The School Bus Stop Ahead sign should be located at a location where the top flashing lights of a school bus are just visible, assuming a 3.5-foot driver eye height and 8.5-foot height to the top flashing lights of the school bus. Place signs using Section 2C.04 Placement of Warning Signs.](#)*

Section 7B.05 School Speed Limit Signs and Plaques

Standard:

- 01 A School Speed Limit assembly (see Figure 7B-1) or a School Speed Limit When Flashing (S5-1) sign (see Figure 7B-1) shall be used to indicate the speed limit where a reduced school speed limit zone has been established based upon an engineering study or where a reduced school speed limit is specified for such areas by statute. The School Speed Limit assembly or School Speed Limit When Flashing sign shall be placed at or as near as practicable to the point where the reduced school speed limit zone begins (see Figures 7B-2 and 7B-4).
- 02 If a reduced school speed limit zone has been established, a School (S1-1) sign shall be installed in advance (see Table 2C-3 for advance placement guidelines) of the first School Speed Limit sign assembly or S5-1 sign that is encountered in each direction as traffic approaches the reduced school speed limit zone (see Figures 7B-2 and 7B-4).
- 03 Except as provided in Paragraph 4 of this Section, the downstream end of an authorized and posted reduced school speed limit zone shall be identified with an END SCHOOL SPEED LIMIT (S5-3) sign (see Figures 7B-1, 7B-2, and 7B-4).

Option:

- 04 If a reduced school speed limit zone ends at the same point as a designated school zone (see Section 7B.02), an END SCHOOL ZONE (S5-2) sign may be used instead of an END SCHOOL SPEED LIMIT (S5-3) sign. A standard Speed Limit sign showing the speed limit for the section of highway that is downstream from the authorized and posted reduced school speed limit zone may be mounted on the same post above the END SCHOOL SPEED LIMIT (S5-3) sign or the END SCHOOL ZONE (S5-2) sign.

Guidance:

- 05 *The beginning point of a reduced school speed limit zone should be at least 200 feet in advance of the school grounds or a school crossing; however, this 200-foot distance should be increased if the reduced school speed limit is 30 mph or higher. The maximum beginning point of a reduced school speed limit zone should not be greater than 500 feet in advance of the school grounds or a school crossing.*
- 05B *The School Speed Limit (S5-1) sign should be supplemented by a Speed Limit Beacon consisting of three signal sections with a flashing CIRCULAR YELLOW signal indication of 8-inch diameter in each signal section. The signal sections should be mounted vertically directly above the S5-1 sign. The bottom two beacons should be illuminated alternatively and face oncoming traffic. The top flashing beacon should face the opposite direction to indicate when the beacon is in operation.*

Standard:

- 06 The School Speed Limit assembly shall be either a static sign assembly, a blank-out sign, or a changeable message sign (see Chapter 2L).
- 07 The static School Speed Limit assembly shall consist of a top plaque (S4-3P) with the legend SCHOOL, a Speed Limit (R2-1) sign, and a bottom plaque (S4-1P, S4-2P, S4-4P, or S4-6P) indicating the specific periods of the day and/or days of the week that the special school speed limit is in effect (see Figure 7B-1).
- 08 When a School Speed Limit When Flashing (S5-1) sign or a Speed Limit (R2-1) sign with a supplemental WHEN FLASHING (S4-4P) plaque is used, a Speed Limit Sign Beacon (see Section 4S.04) shall be used to identify the periods that the school speed limit is in effect.
- 09 Fluorescent yellow-green pixels shall be used when the “SCHOOL” message is displayed on a changeable message sign for a school speed limit.

Option:

10 Changeable message signs may use blank-out messages or other methods in order to display the school speed limit only during the periods it applies.

11 A Vehicle Speed Feedback (W13-20aP) plaque that displays the speed of approaching drivers (see Sections 2B.21 and 2C.13), that is part of a School Speed Limit assembly or a School Speed Limit When Flashing (S5-1) sign, may be used in a school speed limit zone.

Guidance:

12 *If used, the Vehicle Speed Feedback (W13-20aP) plaque should only be used during the time period when the school speed limit is in effect.*

13 *A Reduced School Speed Limit Ahead (S4-5 or S4-5a) sign (see Figure 7B-1) should be used to inform road users of a reduced speed zone where the speed limit is being reduced ~~by more than 10 mph~~ 20 mph or more, or where engineering judgment indicates that advance notice would be appropriate.*

Standard:

14 **If used, the Reduced School Speed Limit Ahead sign shall be followed by a School Speed Limit sign or a School Speed Limit assembly.**

15 **The speed limit displayed on the Reduced School Speed Limit Ahead sign shall be identical to the speed limit displayed on the subsequent School Speed Limit sign or School Speed Limit assembly.**

Section 7B.06 Higher Fines Zone Signs and Plaques in School Areas**Support:**

01 The signs and plaques used to inform road users of higher fines zones and their locations depend on whether the fines apply to all traffic violations or only to speeding violations. Their locations also depend on whether the higher fines zone begins and/or ends at the same point as the school zone or school speed limit zone. Figures 7B-4 and 7B-5 show examples of higher fines zones signing.

Standard:

02 **Where increased fines are imposed for traffic violations within a designated school zone:**

A. A BEGIN HIGHER FINES ZONE (R2-10) sign (see Figure 7B-1) or a FINES HIGHER (R2-6P), FINES DOUBLE (R2-6aP), or \$XX FINE (R2-6bP) plaque (see Figure 7B-1) shall be installed as a supplement to the School Zone (S1-1) sign to identify the beginning point of the higher fines zone (see Figures 7B-4 and 7B-5); and

B. An END HIGHER FINES ZONE (R2-11) sign (see Figure 7B-1) or an END SCHOOL ZONE (S5-2) sign (see Figure 7B-1) shall be installed at the downstream end of the zone to notify road users of the termination of the increased fines zone (see Figure 7B-5).

03 **If exceeding the speed limit is the only traffic violation that is subject to higher fines, a FINES HIGHER (R2-6P), FINES DOUBLE (R2-6aP), or \$XX FINE (R2-6bP) plaque shall be posted with the School Speed Limit (S5-1) sign and shall not be posted beneath the School Zone (S1-1) sign (see Section 7B.05).**

04 **If the portion of the roadway that is subject to higher fines does not begin at the location of the School Zone (S1-1) sign, a BEGIN HIGHER FINES ZONE (R2-10) sign shall be placed at the point where the higher fines begin (see Sheet 2 of Figure 7B-5).**

Option:

05 **If a BEGIN HIGHER FINES ZONE (R2-10) sign is used downstream of the School Zone (S1-1) sign, a FINES HIGHER (R2-6P), FINES DOUBLE (R2-6aP), or \$XX FINE (R2-6bP) plaque may also be placed beneath the School Zone (S1-1) sign.**

- 06 Where appropriate, one of the following plaques may be mounted below the sign that identifies the beginning point of the higher fines zone:
- A. A S4-1P plaque (see Figure 7B-1) specifying the times that the higher fines are in effect,
 - B. A WHEN CHILDREN ARE PRESENT (S4-2P) plaque (see Figure 7B-1), or
 - C. A WHEN FLASHING (S4-4P) plaque (see Figure 7B-1) if used in conjunction with a yellow flashing beacon.

Guidance:

- 07 *If other traffic violations in addition to exceeding the speed limit are subject to higher fines, then the duplicate FINES HIGHER (R2-6P), FINES DOUBLE (R2-6aP), or \$XX FINE (R2-6bP) plaque should be omitted from the School Speed Limit When Flashing (S5-1) sign (see Section 7B.05).*

Option:

- 08 If a higher fines zone ends at the same point as a reduced school speed limit zone, an END SCHOOL ZONE (S5-2) sign may be used instead of a combination of an END HIGHER FINES ZONE (R2-11) sign and an END SCHOOL SPEED LIMIT (S5-3) sign (see Figure 7B-5).
- 09 Where the higher fines zone is established by statute, the BEGIN HIGHER FINES ZONE (R2-10) sign, FINES HIGHER (R2-6P), FINES DOUBLE (R2-6aP), and \$XX FINE (R2-6bP) plaques may be omitted.

[\[The following is a new section. There is no corresponding section in the MUTCD.\]](#)

Section 7B.100 DRUG FREE SCHOOL ZONE Sign (S6-100)

Standard:

- 01 **AS 28.01.010(d) states, “The municipality shall post a sign indicating that the school is a drug-free school zone at each location in which it has installed a sign identifying the location of a school.” Accordingly, signs conveying this message shall be placed below, or near, all School Advance Warning (S1- 1) signs.**

Support:

- 02 **The posting of this sign is a municipal, not a state, responsibility.**

Option:

- 03 **The sign may be the S6-100 shown in the ASDS or another sign that conveys the required message.**

CHAPTER 7C. MARKINGS

Section 7C.01 Crosswalk Markings

Standard:

01A Crosswalk markings shall be placed at officially designated school crossings.

Guidance:

- 01 *Crosswalks should be marked at all intersections on established routes to a school where there is substantial conflict between motorists, bicyclists, and student movements; where students are encouraged to cross between intersections; where students would not otherwise recognize the proper place to cross; or where motorists or bicyclists might not expect students to cross (see Figure 7A-1).*
- 02 *An engineering study considering the factors described in Section 3C.02 should be performed before a marked crosswalk is installed at a location away from a traffic control signal or an approach controlled by a STOP or YIELD sign.*
- 03 *Because non-intersection school crossings are generally unexpected by the road user, warning signs (see Section 7B.03) should be installed for all marked school crosswalks at non-intersection locations. Adequate visibility of students by approaching motorists and of approaching motorists by students should be provided by parking prohibitions or other appropriate measures.*

Support:

- 04 Section 3C.03 contains provisions regarding the placement and design of crosswalks, and Section 3B.19 contains provisions regarding the placement and design of the stop lines and yield lines that are associated with them. Provisions regarding the curb markings that can be used to establish parking regulations on the approaches to crosswalks are contained in Section 3B.18.
- 04A Officially designated school crossings are the crosswalks included in an approved school route plan as described in Section 7A.02 School Route Plans and School Crossings.

CHAPTER 7D. CROSSING SUPERVISION

Section 7D.01 Adult Crossing Guards

Standard:

01A School districts shall be responsible for providing appropriate crossing supervision at crossings designated in the school routes plan.

Option:

01 Adult crossing guards may be used to provide gaps in traffic at school crossings where an engineering study has shown that adequate gaps need to be created, and where authorized by law.

Support:

02 Adult crossing guards can also add conspicuity at the crossing where children, who are typically smaller in stature, might not be as visible.

03 High standards for selection of adult crossing guards are essential because they are responsible for the safety of and the efficient crossing of the street by schoolchildren within and in the immediate vicinity of school crosswalks.

Guidance:

04 *Jurisdictions should have policies and procedures for the qualifications, selection, and training of adult crossing guards.*

Part 8 | Traffic Control for Railroad and Light Rail Transit Grade Crossings

CHAPTER 8A. GENERAL

Section 8A.03 Traffic Control Systems and Practices at Grade Crossings

Support:

- 01 Because of the large number of significant variables to be considered, no single standard system of traffic control devices is universally applicable for all grade crossings.

Standard:

- 02 **Before any new grade crossing traffic control system is installed or before modifications are made to an existing system, approval shall be obtained from the highway agency with jurisdiction, the regulatory agency with statutory authority (if applicable), and the railroad company and/or transit agency.**
- 03 **The Diagnostic Team members shall make a recommendation, documented in an engineering study (see Section 8A.05), on new grade crossing traffic control systems and on proposed changes to an existing grade crossing traffic control system. The Diagnostic Team recommendation shall be made based on the Diagnostic Team’s site visits, meetings, conference calls, or a combination of some or all of these methods.**
- 04 **Except as provided in Paragraph 7 of this Section, operational changes made to a grade crossing traffic control system shall be evaluated by a Diagnostic Team.**
- 05 **Among the types of changes at a grade crossing for which a Diagnostic Team shall conduct an engineering study are: additions, removals, or modifications of the lanes approaching or traversing the grade crossing; addition or removal of tracks; significant changes in the number or speed of trains; significant changes in the number or speed of vehicles; addition of vehicle access near the grade crossing; additions or modifications to sidewalks; additions or modifications to bicycle lanes, especially if a counter- flow bicycle lane is added on a one-way street; changes to roadway use, including conversion to or from one-way operation or reversible lanes; and the installation of or significant operational changes to traffic control signals that might affect the grade crossing.**

Option:

- 06 A Diagnostic Team may conduct an engineering study and make recommendations as part of the Quiet Zone establishment process (see Section 8A.11).
- 06A Consistent with the Alaska Policy on Railroad/Highway Crossings, other improvements that may be considered for enhancing crossing safety include:
- A. Improving sight distance to increase the visibility of the crossing and the train
 - B. Closing the crossing
 - C. Improving the approach alignment and/or grade of the roadway
 - D. Instituting and enforcing railroad and/or highway operating regulations
 - E. Improving the crossing surface
 - F. Illuminating the crossing

07 Where determined by the responsible public agency, the railroad company, and/or the transit agency, general maintenance activities or minor operational changes to the grade crossing traffic control system that do not have a negative impact on the overall operation of the traffic control system may be made without a review and determination by a Diagnostic Team.

Support:

08 Many other details of grade crossing traffic control systems that are not set forth in Part 8 are contained in publications such as the “2023 AREMA Communications and Signals Manual” published by the American Railway Engineering and Maintenance-of-Way Association (AREMA), the Third Edition of “Highway-Rail Crossing Handbook” published by the FHWA and the FRA, and the 2nd Edition of “Preemption of Traffic Signals Near Railroad Crossings” published by the Institute of Transportation Engineers (ITE).

08A [Procedures contained in Alaska’s Policy on Railroad/Highway Crossings provide additional requirements for railroad crossings in Alaska.](#)

CHAPTER 8B. SIGNS

Section 8B.02 Sizes of Grade Crossing Signs

Standard:

01 The minimum sizes of grade crossing signs shall be as shown in Table 8B-1.

Option:

02 Signs larger than those shown in Table 8B-1 may be used (see Section 2A.07).

[\[Revise Table 8B-1 of the MUTCD as shown in this ATMS. The remainder of Table 8B-1 remains as shown in the MUTCD.\]](#)

Table 8B-1. Grade Crossing Sign and Plaque Minimum Sizes

Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Minimum	Oversized
			Single Lane <55 mph	Multi-Lane Single lane 55 mph or greater			
Stop	R1-1	8B.04, 8B.05	30 x 30	36 x 36	36 x 36	30 x 30 x 30	48 x 48
Yield	R1-2	8B.04, 8B.05	30 x 30 x 30	36 x 36 x 36	48 x 48 x 48	30 x 30 x 30	48 x 48 x 48

Section 8B.03 Grade Crossing (Crossbuck) Sign (R15-1) and Number of Tracks Plaque (R15-2P) at Active and Passive Grade Crossings

Standard:

01 The Grade Crossing (R15-1) sign (see Figure 8B-1), commonly identified as the Crossbuck sign, shall be retroreflective white with the words RAILROAD CROSSING in black lettering, mounted as shown in Figure 8B-2.

Support:

02 In most States, the Crossbuck sign requires road users to yield the right-of-way to rail traffic at a grade crossing.

Standard:

03 As a minimum, one Crossbuck sign shall be used on each highway approach to every highway-rail grade crossing, alone or in combination with other traffic control devices.

04 As a minimum, one Crossbuck sign shall be used on each highway approach to every highway-LRT grade crossing where flashing-light signals or automatic gates are used, alone or in combination with other traffic control devices.

Option:

05 A Crossbuck sign may be used on a highway approach to a highway-LRT grade crossing where flashing-light signals or automatic gates are not used, alone or in combination with other traffic control devices.

Standard:

- 06 If there are two or more tracks at a grade crossing, the number of tracks shall be indicated on a supplemental Number of Tracks (R15-2P) plaque (see Figure 8B-1) of inverted T shape mounted below the Crossbuck sign in the manner shown in Figure 8B-2.
- 07 On each approach to a highway-rail grade crossing and, if used, on each approach to a highway- LRT grade crossing, the Crossbuck sign shall be installed on the right-hand side of the highway on each approach to the grade crossing. Where restricted sight distance or unfavorable highway geometry exists on an approach to a grade crossing, ~~or~~ where there is a one-way multi-lane approach, or a roadway that has a median, an additional Crossbuck sign shall be installed on the left hand side of the highway, possibly placed back-to-back with the Crossbuck sign for the opposite approach, or otherwise located so that two Crossbuck signs are displayed for that approach.
- 08 A strip of retroreflective white material not less than 2 inches in width shall be used on the back of each blade of each Crossbuck sign for the length of each blade at all passive grade crossings, except those where Crossbuck signs have been installed back-to-back or where double-faced Crossbuck signs have been installed.

Option:

- 09 A strip of retroreflective white material not less than 2 inches in width may be used on the back of each blade of each Crossbuck sign for the length of each blade at active grade crossings.

Section 8B.07 DO NOT STOP ON TRACKS Sign (R8-8)*Guidance:*

- 01 *If motor vehicle queues are likely to extend onto the tracks, a DO NOT STOP ON TRACKS (R8-8) sign (see Figure 8B-1) should be used.*
- 01A On divided highways and one-way streets, a second DO NOT STOP ON TRACKS sign should be placed on the near or far left-hand side of the highway-rail grade crossing to further improve visibility of the sign.

Support:

- 02 Locations where motor vehicles could queue onto the grade crossing include intersections where a STOP or YIELD sign is installed downstream of the grade crossing, where there is a downstream circular intersection, or where there is a pre-signal installed at the grade crossing.

Guidance:

- 03 *The R8-8 sign, if used, should be located on the right-hand side of the highway on either the near or far side of the grade crossing, depending upon which position provides better visibility to approaching drivers.*

Option:

- 04 DO NOT STOP ON TRACKS signs may be placed on both sides of the track.
- 05 On divided highways and one-way streets, a second DO NOT STOP ON TRACKS sign may be placed on the near or far left hand side of the highway at the grade crossing to further improve the visibility of the sign.

[The following is a new section. There is no corresponding section in the MUTCD.]

Section 8B.101 BUSES & HAZMAT VEHICLES USE RIGHT LANE Sign (R16-115)

Guidance:

01 If an extra lane has been provided for buses and hazmat vehicles to stop at railroad grade crossings, a BUSES & HAZMAT VEHICLES USE RIGHT LANE (R16-115) sign should be installed at the upstream end of the taper for the extra lane.

Support:

02 Certain vehicles, principally buses and vehicles transporting fuel or explosive substances, are required to stop before crossing a railroad grade (13 AAC 02.250). A bypass lane provides vehicles that are required to stop an opportunity to depart the through lanes before slowing and stopping at a railroad crossing, reducing the potential for severe rear-end crashes.

CHAPTER 8D. FLASHING-LIGHT SIGNALS, AUTOMATIC GATES, AND TRAFFIC CONTROL SIGNALS

Section 8D.02 Flashing-Light Signals

Support:

- 01 Section 8D.04 contains additional information regarding flashing-light signals at highway-LRT grade crossings in semi-exclusive and mixed-use alignments.

Standard:

- 02 **If used, the flashing-light signal assembly (shown in Figure 8D-1) on the side of the highway shall include a standard Crossbuck (R15-1) sign, and where there is more than one track, a supplemental Number of Tracks (R15-2P) plaque, all of which indicate to motorists, bicyclists, and pedestrians the location of a grade crossing.**

Guidance:

- 03 *The bottom of the Number of Tracks (R15-2P) plaque (when used) should be located as low as practicable above the flashing-light backgrounds. The Crossbuck (R15-1) sign should be located just above the Number of Tracks (R15-2P) plaque or, if no plaque is present, the bottom of the Crossbuck sign should be located as low as practicable above the flashing-light backgrounds.*

Support:

- 04 Additional information regarding sizes and clearances of components used on flashing-light signals can be found in Part 3 of the “2023 AREMA Communications and Signals Manual” published by the American Railway Engineering and Maintenance-of-Way Association (AREMA).

Option:

- 05 At highway-rail grade crossings, bells or other audible warning devices may be included in the assembly and may be operated in conjunction with the flashing-light signals to provide additional warning for pedestrians, bicyclists, and/or other non-motorized road users.

Standard:

- 06 **When indicating the approach or presence of rail traffic, the flashing-light signal shall display toward approaching highway traffic two red lights mounted in a horizontal line flashing alternately.**

- 07 **If used, flashing-light signals shall be placed to the right-hand side of approaching highway traffic on all highway approaches to a grade crossing. They shall be located laterally with respect to the highway in compliance with Figure 8D-1 except where such location would adversely affect signal visibility.**

- 08 **If used at a grade crossing with highway traffic in both directions, back-to-back flashing-light signals shall be placed on each side of the tracks. On multi-lane one-way streets and divided highways, flashing- light signals shall be placed on the approach side of the grade crossing on both sides of the roadway or shall be placed above the highway.**

- 09 **Each red signal unit in the flashing-light signal shall flash alternately. The number of flashes per minute for each lamp shall be 35 minimum and 65 maximum. Each lamp shall be illuminated for approximately the same length of time. The total time of illumination of each pair of lamps shall be the entire operating time.**

- 10 **Flashing-light units shall use ~~either 8-inch or~~ 12-inch nominal diameter lenses.**

Guidance:

- 11 ~~*In choosing between the 8-inch or 12-inch nominal diameter lenses for use in grade crossing flashing-light signals, consideration should be given to the principles stated in Section 4E.02.*~~
- 12 *If flashing-light signals are used, at least one pair of flashing lights should be provided for each approach lane of the roadway.*
- 13 *The center-to-center distance between the two red lights in a flashing-light unit should be approximately 30 inches.*
- 14 *The mounting height of the flashing-light units, measured from the center of the flashing-light unit housing to the elevation of the crown of the roadway, should be between 8 feet and 9 feet.*
- 15 *The top of the support pole foundation should be no more than 4 inches above the surface of the ground and should be at the same elevation as the crown of the roadway.*

Standard:

- 16 **Grade crossing flashing-light signals shall operate at a low voltage using storage batteries either as a primary or stand-by source of electrical energy. Provision shall be made to provide a source of energy for charging batteries.**

Option:

- 17 Additional flashing-light signals may be mounted on the same supporting post and directed toward vehicular traffic approaching the grade crossing from other than the principal highway route, such as where there are approaching routes on highways closely adjacent to and parallel to the track(s).

Guidance:

- 18 *Where the storage distance for vehicles approaching a grade crossing is less than a design vehicle length, the Diagnostic Team should consider providing additional flashing-light signals aligned toward the movement turning toward the grade crossing.*
- 19 *The Diagnostic Team should consider the use of additional flashing-light signals to provide supplemental warning to pedestrians, especially on one-way streets and divided highways.*

Standard:

- 20 **References to lenses in this Section shall not be used to limit flashing-light signal optical units to incandescent lamps within optical assemblies that include lenses.**

Support:

- 21 Research has resulted in flashing-light signal optical units that are not lenses, such as, but not limited to, light-emitting diode (LED) flashing-light signal modules.

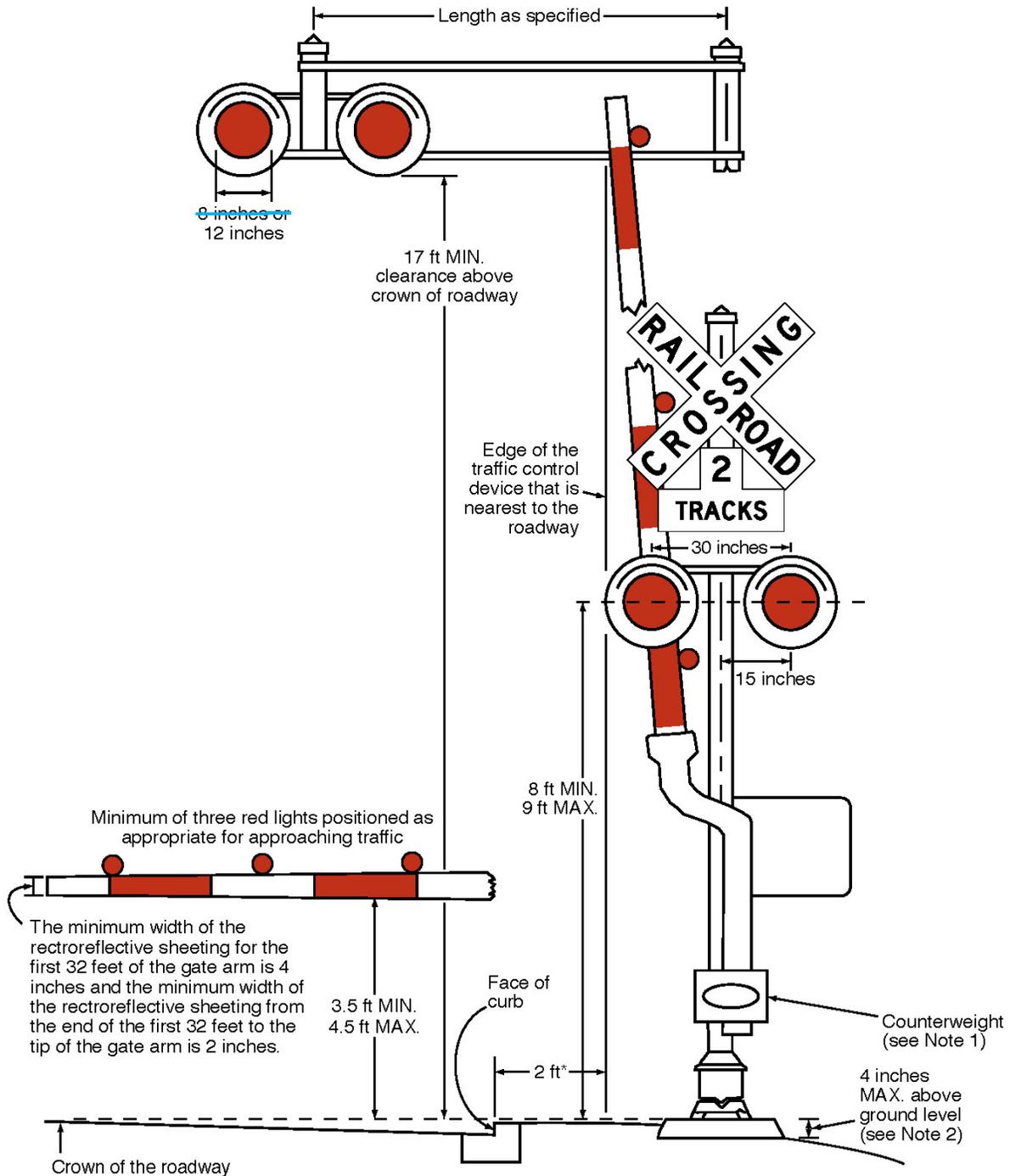
Option:

- 22 If a Diagnostic Team determines that it is appropriate, the flashing-light signals may be installed on overhead structures or cantilevered supports as shown in Figure 8D-1 where needed for additional emphasis, or for better visibility to approaching traffic, particularly on multi-lane approaches or highways with profile restrictions.
- 23 If it is determined by a Diagnostic Team that one flashing-light signal on the cantilever arm is not sufficiently visible to road users, one or more additional flashing-light signals may be mounted on the supporting post and/or on the cantilever arm.

Standard:

- 24 **Breakaway or frangible bases shall not be used on the supporting posts for overhead structures or cantilevered arms that support overhead flashing-light signals.**

Figure 8D-1. Composite Drawing of Active Traffic Control Devices for Grade Crossings Showing Clearances



*For locating this reference line on an approach that does not have a curb, see Section 8D.01.

Notes:

1. Where gates are located in the median, additional median width may be required to provide the minimum clearance for the counterweight supports.
2. The top of the signal foundation should be no more than 4 inches above the surface of the ground and should be at the same elevation as the crown of the roadway. Where site conditions would not allow this to be achieved, the shoulder side slope should be re-graded or the height of the signal post should be adjusted to meet the 17-foot vertical clearance requirement.

Part 9 | Traffic Control for Bicycle Facilities

CHAPTER 9B. REGULATORY SIGNS

Section 9B.08 Selective Exclusion Signs

Option:

- 01 Selective Exclusion signs (see Figure 9B-1) may be installed at the entrance to a roadway or facility to notify road or facility users that designated types of traffic are excluded from using the roadway or facility.

Support:

- 02 Typical exclusion messages include:

- A. No Bicycles (R5-6);
- B. No Pedestrians (R9-3);
- C. No Skaters (R9-13);
- D. No Equestrians (R9-14);
- E. No Snowmobiles (R9-15); and
- F. No All-Terrain Vehicles (R9-16).
- G. [No All-Purpose Vehicles \(R9-525\)](#)

Option:

- 03 Where bicyclists, pedestrians, and motor-driven cycles are all prohibited, the R5-10a word message sign (see Section 2B.45) may be used.

Section 9B.11 Bicycles Use Ped Signal

Option:

- 01 The Bicycles Use Ped Signal (R9-5) sign (see Figure 9B-1) may be used where the crossing of a street by bicyclists is controlled by pedestrian signal indications.
- 02 In order to remind drivers who are making turns to yield to or stop for pedestrians or bicyclists, a Turning Vehicles Yield to Pedestrians (R10-15) sign, ~~Turning Vehicles Stop for Pedestrians (R10-15a) sign (see Section 2B.59)~~, or Left Turn Yield to Bicycles (R10-12b) sign (see Section 9B.21) may be used.

Guidance:

- 03 *If used, the R9-5 sign should be installed in the vicinity of where bicyclists will be crossing the street.*

Section 9B.17 Signing for Bicycles on Freeways and Expressways

Standard:

- 01 The Bicycles Must Exit (R9-22) sign (see Figure 9B-1) shall be used in advance of a location where a freeway or expressway becomes prohibited to bicycle travel, and shall be placed in advance of the intersection or exit ramp prior to the prohibited segment of roadway (see Figure 9B-4).

01A The NO NON-MOTORIZED TRAFFIC (R5-7), the NO PEDESTRIANS, BICYCLES, MOTOR-DRIVEN CYCLES (R5-10a), or NO PEDESTRIANS OR BICYCLES (R5-10b) sign shall be used at a location where a freeway or expressway becomes prohibited to bicycle travel.

Option:

02 The Bicycles Must Exit sign may be used below a post-mounted Exit Direction sign.

Standard:

03 **If the Bicycles Must Exit sign is used, a No Bicycles (R5-6) sign (see Figure 9B-1) shall be placed downstream from the intersection or exit ramp departure point where the prohibited segment of freeway or expressway begins. The No Bicycles sign shall not be placed below the Exit Gore sign.**

Option:

04 The ON FREEWAY (R5-10dP) plaque (see Figure 9B-1) may be used with an appropriate Selective Exclusion sign to indicate a prohibition along ramps leading to an adjacent or parallel freeway.

Support:

05 Section 2B.45 contains information on regulatory signing for prohibiting bicycles from using particular roadways or facilities.

CHAPTER 9C. WARNING SIGNS AND OBJECT MARKERS

Section 9C.04 Bicycle Warning and Trail Crossing Signs (W11-1 and W11-5)

[\[Modify the first sentence of the note in Figure 9C-1 to read: “A fluorescent yellow-green background color shall be used for this sign or plaque only within designated school zones.”\]](#)

Support:

01 The Bicycle Warning (W11-1) sign (see Figure 9C-1) alerts the road user to unexpected entries into the roadway by bicyclists, and other crossing activities that might cause conflicts. These conflicts might be relatively confined, or might occur randomly over a segment of roadway.

02 Section 9C.06 contains information for Bicycle Cross Traffic Warning plaques that can be used below STOP signs on crossroads or driveways that intersect with bicycle facilities.

Option:

03 The Trail Crossing (W11-15) sign (see Figure 9C-1) may be used where both bicyclists and pedestrians might be crossing the roadway, such as at an intersection with a shared-use path. A TRAIL X-ING (W11-15P) supplemental plaque may be mounted below the W11-15 sign.

04 If used in advance of a trail crossing, a W11-15 or W11-15a sign should be supplemented with an AHEAD (W16-9P) or XX FEET (W16-2P or W16-2aP) plaque to inform road users that they are approaching a point where crossing activity might occur.

Guidance:

05 *If used in advance of a specific crossing point, the Bicycle Warning or Trail Crossing sign should be placed at a distance in advance of the crossing location that complies with Table 2C-3.*

Standard:

06 **Bicycle Warning and Trail Crossing signs, when used at the location of the crossing, shall be supplemented with a diagonal downward-pointing arrow (W16-7P) plaque to show the location of the crossing.**

Option:

07 A fluorescent yellow-green background color with a black legend and border may be used for Bicycle Warning and Trail Crossing signs and supplemental plaques [only within designated school zones](#).

Guidance:

08 *When the fluorescent yellow-green background color is used, a systematic approach featuring one background color within a zone or area should be used. The mixing of standard yellow and fluorescent yellow-green backgrounds within a zone or area should be avoided.*