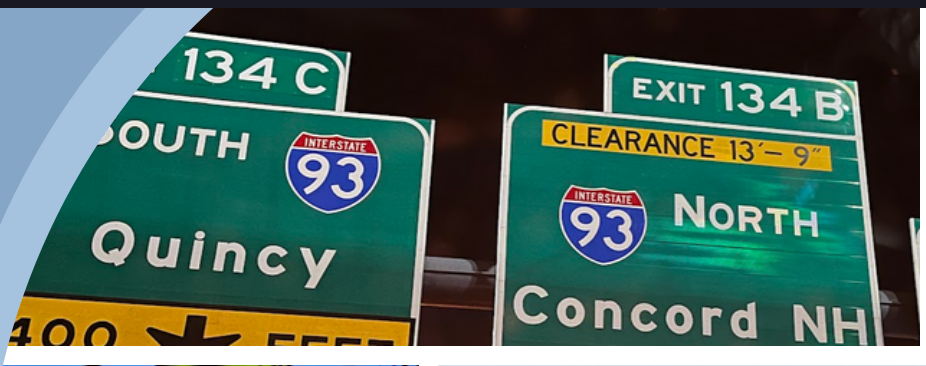
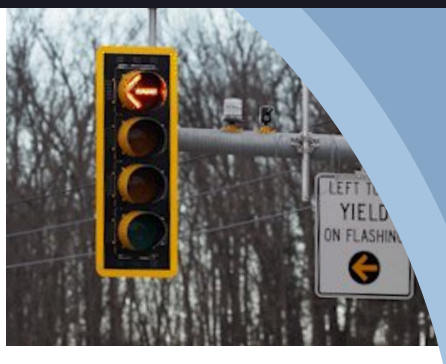
The Massachusetts Amendments to the 2009 Manual on Uniform Traffic Control Devices

for Streets and Highways

November 2022





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massDOT
Massachusetts Department of Transportation
Highway Division

MASSACHUSETTS AMENDMENTS TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

INTRODUCTION

Section I.1: Background

01 The Massachusetts Amendments to the *Manual on Uniform Traffic Control Devices for Streets and Highways* (MUTCD) has been correlated with and conforms, as closely as Massachusetts laws and conditions will allow, to the standards adopted by the Federal Highway Administrator as a National Standard for application on all Classes of Highways.

02 Modifications that were deemed necessary to cover local requirements and to incorporate in these official standards the most recent traffic engineering recommendations of MassDOT have been made and are hereby presented as Amendments and addenda in the manual as the OFFICIAL STANDARDS OF THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION, HIGHWAY DIVISION (MassDOT), as authorized by Chapter 85, Section 2 of the General Laws.

Section I.2: How to Use This Document

01 All Standards, Guidance, Options, Support, Tables, Figures, and References found in FHWA's MUTCD shall be considered official unless specifically amended in this document in one of the following ways:

A. An existing Section, Paragraph, Table, or Figure from the FHWA MUTCD has been *deleted*. Where this occurs the applicable section name will be shown in this document and the portion(s) of it to be removed will be listed. The deleted portion(s) are no longer applicable to traffic control devices in Massachusetts.
B. A new Section, Paragraph, Table, or Figure has been *inserted*. Where this occurs the applicable section name will be shown in this document and the new portion will be inserted in the appropriate place based upon its Section or Paragraph number (e.g. Section 7A.05 in this document follows Section 7A.04 in the FHWA MUTCD; Paragraph 10A of Section 2B.40 of this document follows Paragraph 10 and precedes Paragraph 11 of Section 2B.40 in the FHWA MUTCD; Paragraphs 00A and 00B of Section 2B.11 of this document precede Paragraph 01 of Section 2B.11 in the FHWA MUTCD; etc.).

02 Appendix A of this document contains a description of all the changes from the 2012 Edition.

PART 1
GENERAL

CHAPTER 1A. GENERAL

Section 1A.08 Authority for Placement of Traffic Control Devices

Insert the following paragraphs:

Support:

09A MGL Ch. 85, Sec. 2 mandates that the Department "erect and maintain on state highways and ways leading thereto and therefrom, and on all main highways between cities and towns such direction signs, warning signs or lights, curb, street or other traffic markings, mechanical traffic signal systems, traffic devices, or parking meters as it may deem necessary for promoting the public safety and convenience… The department may, from time to time, make, alter, rescind or add to rules and regulations relative to such signs, lights, signal systems, traffic devices, parking meters and markings."

09B Additionally, the statute provides that "any rule, regulation, order, ordinance or by-law of a city or town hereafter made or promulgated relative to or in connection with the erection or maintenance of signs, traffic control signals, traffic devices, school zones, parking meters or markings on any way within its control shall take effect without department approval provided such signs, traffic control signals, traffic devices, parking meters, school zones or markings in conformance with the Department 's current manual on uniform traffic control devices and the department's sample regulation for a standard municipal traffic code; provided, however, that such rule, regulation, order, ordinance or by-law shall not take effect until approved in writing by the department, or be effective after such approval is revoked, if made or promulgated relative to or in connection with the following:

(1) any way at its intersection or junction with a state highway;
(2) any project which is or was federally aided, in whole or in part;
(3) any traffic signal or flasher in any city of town which does not employ a registered professional engineer in the commonwealth to design, redesign or change the timing and sequence of signal or flasher;
(4) any sign excluding heavy commercial vehicles;
(5) any school zone establishment or signing in relation to which the city or town intends to seek reimbursement from the commonwealth;
(6) any one-way street sign which would prohibit the free flow of two-way traffic between adjoining cities or towns on a through way or main way, as determined by the department, or any one-way street signs which would not be placed at an intersection of public ways;
(7) any rule, regulation, order, ordinance or by-law of a city or town which when made or promulgated would exclude motor vehicle travel on any existing way which connects one city or town with another;
(8) Notwithstanding the foregoing, speed control signs may be established only in accordance with the provisions of section eighteen of chapter ninety."

Section 1A.13 Definitions of Headings, Words, and Phrases in this Manual

Insert the following definitions to the list found in Paragraph 03:

260. Department – The Highway Division of the Massachusetts Department of Transportation.
261. State Highway – Streets and highways under the care and control of the Highway Division of the Massachusetts Department of Transportation.

Section 1A.14 Meanings of Acronyms and Abbreviations in this Manual

Insert the following acronyms and abbreviations, and their respective definitions, to the list found in Paragraph 01:

44. CMR – Code of Massachusetts Regulations
45. HCVE – Heavy Commercial Vehicle Exclusion
46. MAAB – Massachusetts Architectural Access Board
47. MGL – Massachusetts General Laws

Insert the following sections:

Section 1A.16 Traffic Control Device Permits Issued by the Department

Standard

01 **To avoid unnecessary investigation and clerical labor, blanket permits are issued to all cities and towns having approved traffic regulations to cover the following subjects:**

A. Warning Signs
B. Standard School Signs
C. Pavement Markings
D. Regulatory Signs
E. Parking Meters

02 **The following items shall require a specific permit in each instance:**

A. Areas involving Traffic Control Agreements
B. School Zones funded by the Department or on State Highway
C. Traffic Control Signals (unless community employs a MA Registered P.E.)
D. Traffic Beacons (unless community employs a MA Registered P.E.)
E. One-Way Streets between adjoining communities
F. Any way at an intersection or junction with State Highway
G. Exclusion of Heavy Commercial Vehicles

Section 1A.17 Regulations for Parking, One-Way Streets, and Turning Movements

Support:

01 On streets that are under the care and control of a municipality, said streets or portions thereof where parking is to be prohibited, restricted, or otherwise regulated are matters generally left for the determination of the local rulemaking body. This also applies to one-way streets and turning movement restrictions. The Department does not usually investigate these proposals although traffic engineering advice is available on request.

Standard:

02 **In order for a municipality to legally enforce a parking restriction, one-way street, or turning movement, it shall:**

A. Adopt the regulation.
B. Advertise the regulation.
C. Post signs that conform to the MUTCD and Massachusetts Amendments.

03 **If the regulation to be affected is authorized by a special legislative enabling Act, acceptance of the Act shall be the first requirement.**

Section 1A.18 Regulations for Towing on City and Town Ways

Support:

01 MGL Ch. 40, Sec. 22D authorizes cities and towns to "remove…any vehicle parked or standing on any part of any way under the control of the municipality in such a manner as to obstruct any curb ramp designed for use by handicapped persons as means of egress to a street or public way, or to occupy or obstruct any parking space reserved for a vehicle used by a disabled veteran or handicapped person whose vehicle bears the distinguishing license plate, or displays the special parking identification plate authorized by section two of chapter ninety, or bears the official identification of a handicapped person issued by any other state, or any Canadian Province, or to impede in any way the removal or plowing of snow or ice or in violation of any rule or regulation which prohibits the parking or standing of all vehicles on such ways or portions thereof at such time."

Standard:

02 **In order for a municipality to legally tow vehicles parked or standing in violation of a regulation, it shall:**

- **A. Accept MGL Ch. 40, Sec. 22D.**
- **B. Adopt the regulation.**
- **C. Advertise the regulation.**
- **D. Post signs that conform to the MUTCD and Massachusetts Amendments.**

Section 1A.19 Through Ways

Support:

01 MGL Ch. 89, Sec. 9 authorizes the Department to designate any state highway or part thereof as a through way. It further authorizes any city or town to designate any way or part thereof as a through way. For such designation to be effective, the statute requires the erection of suitable signs or signals to be erected "in accordance with the requirements of the Department."

02 The application of the through way rule is intended to ensure the facility, right-of-way and safety of traffic flow upon arterial highways. This is accomplished by giving to the operator of a vehicle upon such highway a provisional right of way over vehicles entering from intersecting ways. It is also intended to protect the operator of a vehicle on the minor way upon entering a major artery, the importance and potential hazard of which they may not be aware, without first making a cautionary stop.

03 It should be noted that at no place in the statute is permission given, directly or by implication, for speed on through ways in excess of those limits provided by law or special regulation. Increased facility of flow upon protected ways is to be obtained by reduction in interruption rather than by increased operating speed.

Guidance:

04 *One or more of the following warrants should be met to establish a through way:*

- *A. The way proposed for protection should carry a much larger volume of traffic than do the ways intersecting it. This volume should be of such density that under normal conditions it will carry a relatively constant flow of vehicles.*
- *B. The way proposed for protection should carry traffic movements which have relatively fast and constant free-flow speed. At intersections in congested districts where there is slow movement of all traffic the rule is not needed and if used, would cause unnecessary congestion and delay. At intersections in such districts, the respective rights of drivers, because of the slow movement,*

should be accommodated by the use of the right-of-way rule; or, if conditions necessitate, by use of stop and go control.

C. *Except under special conditions, the proposed way should not closely parallel another way to which the rule is applied. The necessity for frequent stops by cross traffic results in irritation and disobedience, unless the protection is obviously demanded by conditions.*

D. *The character of the proposed way should be such as to warrant application of the stop rule upon at least 80% of the intersecting way.*

PART 2
SIGNS

CHAPTER 2A. GENERAL

Section 2A.06 Design of Signs

Delete Paragraph 14.

Insert the following paragraph:

Standard:

14A **Except as provided in Paragraphs 16 and 16A, and except for the Carpool Information (D12-2) sign (see Section 2I.11), Internet addresses and e-mail addresses, including domain names and uniform resource locators (URL), shall not be displayed on any sign, supplemental plaque, sign panel (including logo sign panels on Specific Service signs), or changeable message sign.**

Insert the following paragraph:

Option:

16A Internet addresses may be used on signs, with prior Department approval, in the following instances:

A. On portable changeable message sign (PCMS) panels or temporary static signs provided to advise drivers of a web site for a specific construction project (i.e. “pave93.com”).
B. On informational signs (i.e. “EZ-Pass Customer Service www.mass.gov/ezpassma”) located in service plazas, rest areas, park and ride lots, and/or other off-roadway locations, provided the signs are not visible to mainline traffic.
C. On changeable message sign (CMS) panels to identify official government web sites (i.e. “www.mbta.com”) as part of an official transportation or public safety related message.

Section 2A.13 Word Messages

Insert the following paragraph:

Standard:

09A **All sign lettering styles shall conform to FHWA’s “Standard Highway Signs and Markings” book.**

CHAPTER 2B. REGULATORY SIGNS, BARRICADES, AND GATES

Section 2B.03 Size of Regulatory Signs

Insert Table MA-2B-1 (Regulatory Sign and Plaque Sizes, MA Standard).

Table MA-2B-1. Regulatory Sign and Plaque Sizes, MA Standard

Sign or Plaque	Sign Designation	Section	Conventional Road		Express -way	Free- way	Mini- mum	Over- sized
			Single Lane	Multi- Lane				
End Speed Zone	MA-R2-7	2B.13	24 x 30	30 x 36	–	–	18 x 24	–
Authorized Travel In Breakdown Lane	MA-R4-19	2B.36	–	–	126 x 120	126 x 120	–	–
Travel Prohibited In This Lane	MA-R4-20	2B.36	–	–	48 x 48	48 x 48	–	–
Except [days] [times] (plaque)	MA-R4-20aP	2B.36	–	–	30 x 48	30 x 48	–	–
Except [days] [2 times] (plaque)	MA-R4-20bP	2B.36	–	–	30 x 48	30 x 48	–	–
End Breakdown Lane Travel	MA-R4-21	2B.36	–	–	90 x 60	90 x 60	–	–
Travel Prohibited in Breakdown Lane	MA-R4-22	2B.36	–	–	36 x 48	48 x 60	–	–
Left Lane Trucks Prohibited	MA-R5-2-LL	2B.39	–	–	36 x 48	48 x 60	–	–
Left 2 Lanes Trucks Prohibited	MA-R5-2-L2L	2B.39	–	–	36 x 54	48 x 72	–	–
Trucks Prohibited In Lane (overhead)	MA-R5-2-OH	2B.39	–	–	36 x 54	48 x 66	–	–
Pedestrians, Bicycles & Horses Prohibited	MA-R9-15	2B.39	24 x 24	24 x 24	30 x 30	30 x 30	–	–

Section 2B.04 Right-of-Way at Intersections

Delete Paragraph 05.

Insert the following paragraphs:

Standard:

05A **YIELD or STOP signs shall not be used for speed control.**

Support:

05B YIELD or STOP signs are intended to assign right-of-way at intersections in order to reduce the potential for collisions. They are ineffective as long-term traffic calming devices and may increase crash rates if installed inappropriately.

Section 2B.09 YIELD Sign Applications

Insert the following paragraphs:

Standard:

04A **A YIELD (R1-2) sign shall be provided at entrance ramps onto freeways and expressways where minimum acceleration lengths for entrance terminals, per Section 10.9.6 of AASHTO's *A Policy on Geometric Design of Highways and Streets*, have not been met.**

04B **A YIELD (R1-2) sign shall be provided at entrance ramps onto freeways and expressways where shoulder "breakdown lane" travel is permitted during certain hours.**

Guidance:

04C *A YIELD (R1-2) sign should not be used on entrance ramps onto freeways and expressways where the ramp enters as an added lane and does not have to yield the right-of-way.*

Option:

04D At cloverleaf interchanges and other areas where on- and off-ramps are closely spaced, a YIELD (R1-2) sign may be used to assign right-of-way to mainline traffic.

Support:

04E Section 2C.41 contains information regarding the use of added lane warning signs.

Section 2B.11 Yield Here To Pedestrians Signs and Stop Here For Pedestrians Signs (R1-5 Series)

Insert the following paragraphs:

Standard:

00A **R1-5b and R1-5c signs shall not be used.**

Support:

00B The legal requirements stated in MGL Ch. 89, Sec. 11 require vehicle operators to yield to pedestrians.

Standard:

03A **R1-5 Series signs shall not be used on single-lane approaches to crosswalks.**

Support:

03B The purpose of providing advanced yield lines and R1-5 series signs is to limit the potential for a dual threat type crash where a vehicle yielding to a crossing pedestrian blocks the view of the pedestrian from a vehicle traveling in the same direction in an adjacent lane. This condition does not exist where there is only a single approach lane.

Section 2B.12 In-Street and Overhead Pedestrian Crossing Signs (R1-6, R1-6a, R1-9, and R1-9a)

Insert the following paragraphs:

Standard:

00A **R1-6a and R1-9a signs shall not be used.**

Support:

00B The legal requirements stated in MGL Ch. 89, Sec. 11 require vehicle operators to yield to pedestrians.

Standard:

01A **In-Street and Overhead Pedestrian Crossing (R1-6 and R1-9) signs shall include the "STATE LAW" legend.**

01B **A fluorescent yellow-green background shall be used instead of a yellow background on In-Street and Overhead Pedestrian Crossing (R1-6 and R1-9) signs.**

Section 2B.13 Speed Limit Sign (R2-1)

Insert the following paragraphs:

Standard:

00A **Except as provided in Paragraph 00B below, the Speed Limit (R2-1) sign shall not be used unless a Special Speed Regulation has been established for that section of the street or highway.**

Option:

00B Speed Limit (R2-1) signs may be used on the Metropolitan Highway System, the Tobin Bridge, the Massachusetts Turnpike, and parkways under the care and control of the Department of Conservation and Recreation without establishment of a Special Speed Regulation if speed limits on those facilities are governed by sections of the CMR.

Support:

00C Certain Metropolitan Highway System highways , the Tobin Bridge, the Massachusetts Turnpike, and parkways under the care and control of the Department of Conservation and Recreation have speed limits governed by sections of the CMR. These highways and parkways are exempt from requiring Special Speed Regulations.

00D Work Zone Speed Limits established using the Department's procedures allow for the temporary posting of Speed Limit (R2-1) signs with a Work Zone (G20-5aP) plaque.

Support:

00E Information on how to enact a Special Speed Regulation may be found in the Department's *Procedures for Speed Zoning on State Highways and Municipal Roads*.

Insert Figure MA-2B-3 (Speed Limit and Photo Enforcement Signs and Plaques, MA Standard).

Figure MA-2B-3. Speed Limit and Photo Enforcement Signs and Plaques, MA Standard

MA-R2-7

Insert the following paragraphs:

Guidance:

04A *Where the beginning of a speed zone is at, or just before, an intersection, the Speed Limit (R2-1) sign should be placed downstream from the intersection.*

04B *Additional Speed Limit (R2-1) signs should be placed at suitable intervals throughout a speed zone. The additional signs should be suitably placed to remind motorists on the highway, as well as inform motorists entering the highway, of the speed limit. Signs should be placed beyond, rather than immediately in advance of, intersections or locations where reduced speed may be necessary.*

04C *If a Speed Zone Regulation terminates and the street or highway returns to a statutory speed limit, an END SPEED ZONE (MA-R2-7) sign (see Figure MA-2B-3) should be used.*

Option:

04D If a Speed Zone Regulation terminates at the terminal point of a street or highway, the END SPEED ZONE (MA-R2-7) sign may be omitted.

Section 2B.15 Night Speed Limit Plaque (R2-3P)

Delete this section. Massachusetts General Laws do not allow for changing speed limits by day/night.

Section 2B.17 Higher Fines Signs and Plaque (R2-6P, R2-10, and R2-11)

Delete this section. The use of higher fines signage is restricted to work zone applications. Refer to Section 6F.12 for additional information.

Section 2B.19 Intersection Lane Control Signs (R3-5 through R3-8)

Delete Paragraph 09.

Insert the following paragraph:

Standard:

09A **At roundabouts and other circular intersections, Intersection Lane Control (R3-5, R3-6, and R3-8 series) signs shall have fish-hook arrows as depicted in Figure 2B-5(B) and shall include the "center island" marking for the leftmost lane on multi-lane approaches.**

Section 2B.20 Mandatory Movement Lane Control Signs (R3-5, R3-5a, R3-7, and R3-20)

Insert the following paragraphs:

Standard:

00A **Alternate legends, such as LEFT LANE FOR LEFT TURN, shall not be used as a substitute for a Mandatory Movement Lane Control (R3-7) sign.**

Guidance:

06A *The use of Mandatory Movement Lane Control (R3-7) signs should be limited to Dropped Lane conditions as defined in Section 1A.13. Where this occurs, the sign should be installed no less than 500 feet from the intersection.*

Option:

06B Under certain geometric conditions that may create driver confusion, a single Mandatory Movement Lane Control (R3-7) sign may be placed at the upstream end of the full-width turn bay. If the turn bay exceeds 500 feet in length, a second sign may be placed near the midpoint of the full-width turn bay.

Support:

06C The use of duplicate and/or redundant regulatory signs on an approach may lead to sign clutter and reduce the effectiveness of other traffic control devices.

06D See paragraph 21 of Section 3B.20 regarding installation of two lane use arrow markings, one at or near the upstream end of the full-width turn lane, and one an appropriate distance upstream from the stop line or intersection.

Section 2B.22 Advance Intersection Lane Control Signs (R3-8 Series)

Insert the following paragraphs:

Option:

02A Where constraints on sign width exist, the word message ONLY may be omitted.

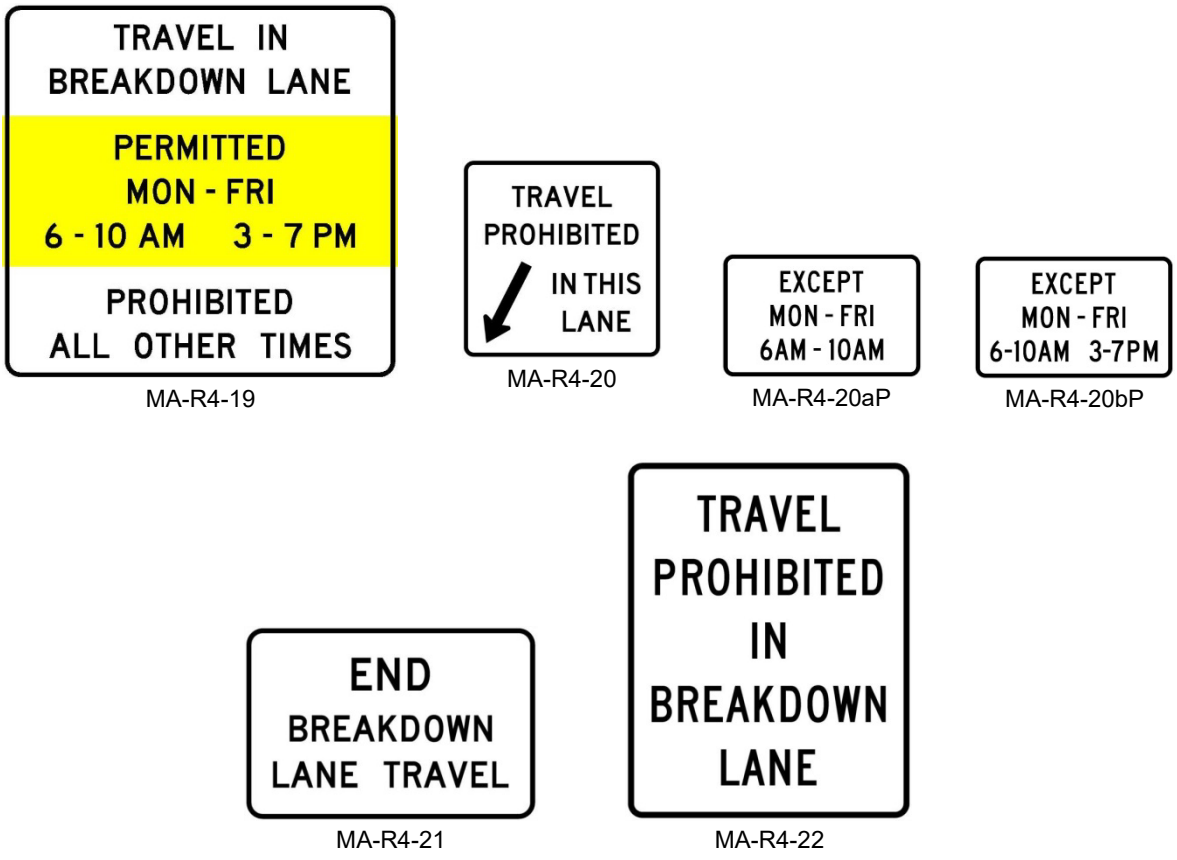
Section 2B.23 RIGHT (LEFT) LANE MUST EXIT Sign (R3-33)

Delete Paragraph 01.

Section 2B.36 DO NOT DRIVE ON SHOULDER Sign (R4-17) and DO NOT PASS ON SHOULDER Sign (R4-18)

Insert Figure MA-2B-10 (Passing, Keep Right, and Slow Traffic Signs, MA Standard).

Figure MA-2B-10. Passing, Keep Right, and Slow Traffic Signs, MA Standard



Insert the following paragraphs:

Standard:

00A **Where peak hour travel in breakdown lane is legally permissible during certain hours of the day, an Authorized Travel in Breakdown Lane (MA-R4-19) sign (see Figure MA-2B-10) shall be installed downstream of every interchange.**

00B **The Authorized Travel in Breakdown Lane sign shall include the days and times when travel in the breakdown lane is legally permissible.**

Guidance:

00C *A No Trucks (R5-2) sign should be mounted below the Authorized Travel in Breakdown Lane sign.*

00D *A Travel Prohibited in This Lane (MA-R4-20) sign with a MA-R4-20aP or MA-R4-20bP plaque (see Figure MA-2B-10) should be placed at the downstream end of any emergency pull-off area adjacent to a breakdown lane where travel is legally permissible during certain hours of the day.*

Option:

00E The Travel Prohibited in This Lane sign with MA-R4-20aP or MA-R4-20bP plaque may be installed at regular intervals where breakdown lane travel is legally permissible during certain hours of the day.

Guidance:

00F *An Emergency Stopping Only (R8-7) sign (see Figure 2B-25) should be placed at the midpoint of any emergency pull-off area adjacent to a breakdown lane where travel is legally permissible during certain hours of the day.*

Standard:

00G **An END BREAKDOWN LANE TRAVEL (MA-R4-21) sign (see Figure MA-2B-10) shall be installed upstream of the last exit prior to the end of a section of breakdown lane where travel is legally permissible during certain hours of the day.**

Option:

00H A TRAVEL PROHIBITED IN BREAKDOWN LANE (MA-R4-22) sign (see Figure MA-R4-22) may be installed where illegal travel in breakdown lanes has been observed or may be expected.

Support:

00I Section 2C.31 contains additional warning signs that may be used where travel in a breakdown lane is legally permissible during certain hours of the day.

Section 2B.39 Selective Exclusion Signs

Insert Figure MA-2B-11 (Selective Exclusion Signs, MA Standard).

Figure MA-2B-11. Selective Exclusion Signs, MA Standard

MA-R5-LL MA-R5-2-L2L MA-R5-2-OH MA-R9-15

Delete Paragraph 06.

Insert the following paragraphs:

Standard:

06A **At ramps to limited access highways where travel is restricted to motor vehicles, only, a PEDESTRIANS, BICYCLES, HORSES PROHIBITED (MA-R9-15) sign shall be used.**

Guidance:

06B *The PEDESTRIANS, BICYCLES AND HORSES PROHIBITED (MA-R9-15) sign should be installed in a location where it is clearly visible to any non-motorized vehicle attempting to enter the limited access facility from a street intersecting the exit ramp.*

Delete Paragraph 09.

Insert the following paragraphs:

Standard:

09A **Unless otherwise permitted by special regulations, on highways with three lanes in the same direction, a LEFT LANE TRUCKS PROHIBITED (MA-R5-2-LL) sign (see Figure MA-2B-11) shall be placed at regular intervals but shall not be placed within 2 miles of a left exit or major split.**

09B **Unless otherwise permitted by special regulations, on highways with four lanes in the same direction, a LEFT 2 LANES TRUCKS PROHIBITED (MA-R5-2-L2L) sign (see Figure MA-2B-11) shall be placed at regular intervals but shall not be placed within 2 miles of a left exit or major split.**

Option:

09C Where possible, a TRUCKS PROHIBITED IN LANE (OVERHEAD) (MA-R5-2-OH) signs (see Figure MA-2B-11) may be mounted overhead as a substitute for the ground-mounted MA-R5-2-LL or MA-R5-2-L2L sign.

Support:

09D MGL Ch. 89, Sec. 4C restricts heavy commercial vehicles, except buses, traveling on highways with more than one passing lane in the same direction to the rightmost lane for travel and the adjacent lane for passing.

Section 2B.40 ONE WAY Signs (R6-1, R6-2)

Insert the following paragraph:

Guidance:

10A *R6-2 signs should be used at locations where one-way streets depart from intersections. R6-1 signs should be used in all other conditions.*

Section 2B.41 Wrong-Way Traffic Control at Interchange Ramps

Insert the following paragraphs:

Guidance:

02A *At least one WRONG WAY sign should be placed on each the left and right side of exit ramps at partial cloverleaf, diamond, and other interchange designs that may be subject to wrong way entries. Where physical constraints prevent the installation of WRONG WAY signs on both sides of the ramp, additional enhanced devices such as pavement markers or delineators with red retroreflective material facing wrong way traffic should be used.*

Option:

02B A strip of red, retroreflective material may be added to the sign support(s) facing potential wrong way traffic to enhance conspicuity.

Delete Paragraph 06.

Insert the following paragraph:

Guidance:

06A *Where there are no parked cars, pedestrian activity or other obstructions such as snow or vegetation, DO NOT ENTER and WRONG WAY sign assemblies that are located along the exit ramp facing a road user who is traveling in the wrong direction should be installed at a mounting height of 3 feet, measured vertically from the bottom of the sign to the elevation of the near edge of the pavement.*

Section 2B.52 Traffic Signal Pedestrian and Bicycle Actuation Signs (R10-1 through R10-4, and R10-24 through R10-26)

Delete Paragraph 06.

Insert the following paragraphs:

Guidance:

06A *Where countdown pedestrian signals have been provided, the R10-3e sign should be used. Where non-countdown pedestrian signals have been provided, the R10-3b sign should be used..*

Option:

06B The R10-3i and R10-3f signs may be substituted for the R10-3e or R10-3b signs, respectively, if the pushbutton locations cannot meet the location guidelines stated in Section 4E.08 and it is determined that the additional information will be beneficial to pedestrians. The R10-3d sign may be substituted for the R10-3b sign in order to inform pedestrians that the pedestrian clearance time is sufficient only for the pedestrian to cross to the median at locations where pedestrians cross in two stages using a median refuge island.

Standard:

06C **Where pushbutton-actuated Rectangular Rapid Flashing Beacons or pedestrian crossing warning beacons have been installed, the R10-25 sign shall be used.**

Section 2B.53 Traffic Signal Signs (R10-5 through R10-30)

Insert the following paragraph:

Standard:

08A **A fluorescent yellow-green background shall be used instead of a yellow background on R10-15 and R10-23 signs.**

08B **R10-15 signs shall only be used at signalized intersections.**

Section 2B.54 No Turn on Red Signs (R10-11 Series, R10-17a, and R10-30)

Insert the following paragraphs:

Standard:

01A **Where a right turn on red (or a left turn on red from a one-way street to a one-way street) is to be prohibited and a RED ARROW signal indication is displayed, a NO TURN ON RED (R10-11a, R10-11b) word message sign shall be used.**

Support:

01B Massachusetts General Law allows vehicles facing a red arrow indication to turn on red. If the intent is to prohibit turns on red, supplemental signage is required.

Section 2B.59 Weight Limit Signs (R12-1 through R12-5)

Insert the following paragraphs:

Standard:

00A **Weight Limit Signs (R12-1 through R12-5) shall not be used to indicate a heavy commercial vehicle exclusion (HCVE).**

Standard:

08A **To restrict heavy commercial vehicles from a specific roadway, a request for a heavy commercial vehicle exclusion (HCVE) shall be reviewed and approved by the Department.**

Support:

08B Massachusetts General Law prohibits municipalities from promulgating any rules that would exclude heavy commercial vehicles from any way without receiving approval from the Department.

Option:

08C One or more of the following criteria may be sufficient justification for truck exclusion:

A. A volume of heavy commercial vehicles, usually in the range of 5% to 8% of the total traffic, reduces the utilization of the facility and is cause for a substantial reduction in capacity or safety.
B. The condition of the pavement structure of the route to be excluded indicates that further repeated heavy wheel loads will result in severe deterioration of the roadway, subject to Department review.

C. In certain instances where land use is primarily residential in nature and a municipality has requested exclusion only during hours of darkness, a nighttime exclusion may be granted.

Standard:

08D **Prior to considering an HCVE, a suitable alternate route must be available and must have an effective width and pavement structure which can safely accommodate the additional truck traffic.**

08E **The alternate route shall meet one of the following conditions:**

A. The alternate route lies wholly within the community submitting the application.
B. The alternate route lies partially in an adjacent community, but only on State Highway in the adjacent community.
C. The alternate route lines wholly or partially in an adjacent community, but the adjacent community has provided written acceptance of the proposal.

08F **The decision to exclude heavy commercial vehicles shall be based on an engineering study. The engineering study shall be submitted by the municipality to the Department, and shall include the following data:**

A. A 24-hour continuous count of all vehicles using the subject street. The count shall be broken into 30-minute intervals showing:
  1. Commercial vehicles with a carrying capacity over 2½ tons.
  2. All other vehicles.
B. A map of the area, with the excluded street marked in red, the alternate route in green
C. The physical characteristics of excluded and alternate streets in question, i.e, length, width, type and condition of surface and sidewalk.
D. The types of buildings or property abutting street (residential dwellings, businesses, educational, playgrounds, etc.).
E. The zoning of street (residential, industrial, etc.).
F. The proximity of probable alternate route to the proposed excluded route and the additional distance to be traveled using the alternate route.
G. The types of traffic control existing on street.
H. The hours during which the proposed exclusion is to be in effect.
I. A written statement from the municipality as to the need for the exclusion and an acknowledgement of acceptance of the responsibility for installation and maintenance of appropriate signage and enforcement.

Option:

08G If the exclusion is requested for only twelve hours, a 12-hour count may be substituted for a 24-hour count.

Standard:

08H **Numbered routes shall not be eligible for heavy commercial vehicle exclusions per Board of Commissioners, November 22, 1995.**

08I **Exclusions shall not apply to heavy commercial vehicles going to or coming from places upon the specific roadway for the purpose of making deliveries of goods, materials, or merchandise to or similar collections from abutting land or buildings or adjacent roadways to which access cannot otherwise be gained; or to vehicles used in connection with the construction, maintenance and repair of said streets or public utilities therein; or to Federal, State, Municipal or public service corporation owned vehicles; or to registered farm vehicles.**

Section 2B.60 Weigh Station Signs

Insert the following paragraph:

Standard:

00A **TRUCKS OVER XX TONS MUST ENTER WEIGH STATION NEXT RIGHT (R13-1) signs shall consist of a white legend on a black background.**

CHAPTER 2C. WARNING SIGNS AND OBJECT MARKERS

Section 2C.04 Size of Warning Signs

Insert Table MA-2C-2 (Warning Sign and Plaque Sizes, MA Standard).

Table MA-2C-2. Warning Sign and Plaque Sizes, MA Standard

Sign or Plaque	Sign Designation	Section	Conventional Road		Express-way	Free-way	Mini-mum	Over-sized
			Single Lane	Multi-Lane				
Reduced Salt Area	MA-W8-13a	2C.35	30 x 30	36 x 36	36 x 36	48 x 48	–	–
End Reduced Salt	MA-W8-13b	2C.35	30 x 30	36 x 36	36 x 36	48 x 48	–	–
Plows Use Caution	MA-W8-13c	2C.35	30 x 30	36 x 36	36 x 36	36 x 36	–	–
Caution Breakdown Lane Travel Permitted	MA-W8-26	2C.31	–	–	48 x 60	48 x 60	–	–
Breakdown Lane in Use	MA-W8-27	2C.31	–	–	36 x 36	36 x 36	–	48 x 48
[days] [times] (2 lines, plaque)	MA-W8-27aP	2C.31	–	–	24 x 18	24 x 18	–	30 x 24
[days] [times] [times] (3 lines, plaque)	MA-W8-27bP	2C.31	–	–	24 x 24	24 x 24	–	30 x 30
Emergency Pull-Off	MA-W8-28	2C.31	–	–	42 x 24	42 x 24	–	–
This Lane Exit Only	MA-W9-8	2C.43	–	36 x 48	48 x 60	54 x 72	–	–
On Roadway	MA-W16-19P	2C.60	24 x 18	24 x 18	–	–	–	30 x 24
Freeway Ends XX Miles	MA-W19-1a	2C.24	–	–	–	84 x 60	–	–
Expressway Ends XX Miles	MA-W19-2a	2C.24	–	–	108 x 60	–	–	–
Type 1 Object Marker	OM1-1	2C.63	24 x 24	24 x 24	36 x 36	36 x 36	18 x 18	–

Section 2C.24 Freeway or Expressway Ends Signs (W19 Series)

Insert Figure MA-2C-5 (Miscellaneous Warning Signs, MA Standard).

Figure MA-2C-5. Miscellaneous Warning Signs, MA Standard

MA-W19-1a

MA-W19-2a

Insert the following paragraph:

Option:

03A Where constraints on sign width exist, the FREEWAY ENDS XX MILES (W19-1) sign or EXPRESSWAY ENDS XX MILES (W19-2) sign may be substituted with W19-1a or W19-2a signs, respectively.

Section 2C.31 Shoulder Signs (W8-4, W8-9, W8-17, W8-23, and W8-25)

Insert Figure MA-2C-6 (Roadway and Weather Condition and Advance Traffic Control Signs and Plaques, MA Standard).

Figure MA-2C-5. Miscellaneous Warning Signs, MA Standard

MA-W8-13a

MA-W8-13b

MA-W8-13c

MA-W8-26

MA-W8-27

MA-W8-27aP

MA-W8-27bP

MA-W8-28

Insert the following paragraphs:

Standard:

09A **Where travel in breakdown lane is allowed during certain hours of the day, a CAUTION BREAKDOWN LANE TRAVEL PERMITTED (MA-W8-26) sign (see Figure MA-2C-6) shall be installed on every on-ramp within the limits of breakdown lane travel.**

Option:

09B Where space constrains exist, a BREAKDOWN LANE IN USE (MA-W8-27) sign (see Figure MA-2C-6) with appropriate Days and Times (MA-W8-27aP or MA-W8-27bP) plaque may be substituted.

Guidance:

09C *Where an emergency pull-off area has been constructed to mitigate the lack of a full-time or part-time shoulder, an Emergency Pull-Off (MA-W8-28) sign (see Figure MA-2C-8) should be placed near its upstream end.*

Section 2C.35 Weather Condition Signs (W8-18, W8-19, W8-21, and W8-22)

Insert the following paragraphs:

Option:

05A The REDUCED SALT AREA (MA-W8-13a) sign (see Figure MA-2C-6) may be used to warn road users that a section of highway may be more susceptible to icy conditions due to salt application restrictions.

Standard:

05B **If used, a REDUCED SALT AREA sign shall be followed by an END REDUCED SALT (MA-W8-13b) sign (see Figure MA-2C-6) where the salt application restriction ends.**

Option:

05C The PLOWS USE CAUTION (MA-W8-13c) sign (see Figure MA-2C-6) may be used to warn snowplow operators that they are in the vicinity of an overpass.

Section 2C.38 Reduced Speed Limit Ahead Signs (W3-5, W3-5a)

Insert the following paragraph:

Standard:

03A **The W3-5a sign shall not be used.**

Section 2C.43 RIGHT (LEFT) LANE EXIT ONLY AHEAD Sign (W9-7)

Insert Figure MA-2C-8 (Merging and Passing Signs and Plaques, MA Standard).

Figure MA-2C-8. Miscellaneous Warning Signs, MA Standard

MA-W9-8

Delete Paragraphs 01, 02, 03, and 04.

Insert the following paragraphs:

Guidance:

01A *The THIS LANE EXIT ONLY (MA-W9-8) sign (see Figure MA-2C-8) should be used to provide advance warning to road users that traffic in the right-hand (left-hand) lane of a roadway that is approaching a grade-separated interchange will be required to depart the roadway on an exit ramp at the next interchange.*

01B *An MA-W9-8 sign should be installed upstream from the first overhead guide sign that contains an EXIT ONLY sign panel.*

01C *An MA-W9-8 sign should be installed adjacent to the upstream end of a wide dotted white lane line that is used to indicate a lane drop. See Section 3B.04, paragraphs 13-14 for information on lane drop markings.*

Section 2C.46 Intersection Warning Signs (W2-1 through W2-8)

Insert the following paragraph:

Standard:

04A **If an Advisory Speed (W13-1P) plaque is provided with a Circular Intersection (W2-6) sign, educational plaques (W16-17p or W16-12p) shall be omitted.**

Section 2C.49 Vehicular Traffic Warning Signs (W8-6, W11-1, W11-5, W11-5a, W11-8, W11-10, W11-11, W11-12P, W11-14, W11-15, and W11-15a)

Delete Paragraph 06.

Insert the following paragraphs:

Standard:

06A **The W11-15 and W11-15P signs shall have a fluorescent yellow-green background.**

06B **The W11-15a sign shall not be used.**

Delete Paragraph 07.

Insert the following paragraph:

Option:

07A Supplemental plaques (see Section 2C.53) with legends such as AHEAD, XX FEET, NEXT XX MILES, or ON ROADWAY may be mounted below Vehicular Traffic Warning signs to provide advance notice to road users of unexpected entries.

Section 2C.50 Non-Vehicular Warning Signs (W11-2, W11-3, W11-4, W11-6, W11-7, W11-9, and W11-16 through W11-22)

Insert the following paragraphs:

Guidance:

02A *Non-Vehicular Warning signs should not be used in the following conditions:*

A. In advance of crossings where traffic is controlled by traffic control signals or pedestrian hybrid beacons;
B. Where traffic on the approach is controlled by a STOP sign, YIELD sign (with exception to approaches to circular intersections), or flashing red signal at the crossing location; or
C. On the same approach with an Intersection Warning sign.

02B *The Wildlife Warning (W11-3, W11-6, W11-21) signs should be used only after wildlife crossing locations or roadway sections have been carefully identified and there is repeated evidence, such as wildlife-related crashes, that motorist warning is necessary.*

02C *The diagonal downward pointing arrow (W16-7P) plaque should not be used with Wildlife Warning signs, or with other signs in this series where road crossing locations are unpredictable.*

Section 2C.60 SHARE THE ROAD Plaque (W16-1P)

Insert Figure MA-2C-12 (Supplemental Warning Plaques, MA Standard).

Figure MA-2C-12. Supplemental Warning Plaques, MA Standard

MA-W16-19P

Delete Paragraphs 01 and 02.

Insert the following paragraphs:

Standard:

01A **A SHARE THE ROAD (W16-1P) plaque shall not be used.**

Option:

01B In situations where there is a need to warn drivers to watch for other slower forms of transportation traveling along the highway, such as bicycles, golf carts, horse-drawn vehicles, or farm machinery, an ON ROADWAY (MA-W16-19P) plaque (see Figure MA-2C-12) may be used.

Section 2C.64 Object Markers for Obstructions Within the Roadway

Insert the following paragraphs:

Standard:

01A **OM1-1 markers shall only be used where traffic can pass on either side of a physical gore, raised median, or other obstruction.**

Guidance:

01B *OM1-1 markers should be used to supplement another sign, such as an Exit Gore (E5-1) sign. If no other signs are needed and traffic can pass on either side of the obstruction, a Double Arrow (W12-1) sign should be used (see Section 2C.25).*

Standard:

01C **OM1-2 and OM1-3 markers shall not be used.**

CHAPTER 2D. GUIDE SIGNS FOR CONVENTIONAL ROADS

Section 2D.04 Size of Signs

Insert Table MA-2D-1 (Conventional Road Guide Sign Sizes, MA Standard).

Table MA-2D-1. Conventional Road Guide Sign Sizes, MA Standard

Sign	Sign Designation	Section	Conventional Road	Minimum	Oversized
State Route Number (1 or 2 digits)	MA-M1-5	2D.11	24 x 24	24 x 24	36 x 36
State Route Number (3 digits)	MA-M1-5a	2D.11	30 x 24	30 x 24	45 x 36

Delete Paragraph 01.

Insert the following paragraphs:

Support:

00A Destination signs may vary in size depending upon the number of destinations included in the legend, the number of characters in the destination(s), the presence of route shields (or lack thereof), and other factors. Refer to the *MassDOT Standard Sign* book for more information on the dimensions, spacing, and design of these sign types.

Standard:

01A **Except as provided in Section 2A.11, the sizes of conventional road guide signs that have standardized designs shall be as shown in Tables 2D-1 and MA-2D-1 and the *MassDOT Standard Signs* book.**

Section 2D.11 Design of Route Signs

Insert Figure MA-2D-3 (Route Signs, MA Standard).

Figure MA-2D-3. Route Signs, MA Standard

MA-M1-5

Delete Paragraphs 11, 13, 14, 15, 16, and 17.

Insert the following paragraph:

Standard:

11A **Massachusetts State Route Number (MA-M1-5 and MA-M1-5a) signs shall conform to Table MA-2D-1 and Figure MA-2D-3. Massachusetts State Route Number (MA-M1-5 and MA-M1-5a) signs shall always include a border and inset, whether mounted independently or on guide signs.**

Section 2D.37 Destination Signs (D1 Series)

Insert the following paragraphs:

Guidance:

04A *Typical guide signs for use on secondary state highways should be as follows:*

A. A MA-D1-5-series sign for the major movement at an intersection; and
B. A MA-D1-4-series sign for the minor movement at an intersection.

Support:

04B The purpose of MA-D1-5- and MA-D1-4-series signs is to display the cardinal direction (i.e. North), route sign, destination(s), and action message (or directional arrow) on a single sign panel.

Option:

04C Where MA-D1-5- and MA-D1-4-series signs are to be mounted on the same support and the dimensions of the MA-D1-5-series sign requires the use of an extruded aluminum substrate, a single MA-D1-7-series sign that replaces both signs may be considered.

Guidance:

04D *Except as provided in Section 2D.38, MA-D1-5-, MA-D1-4-, and/or MA-D1-7-series guide signs should be used at all intersections between non limited-access numbered routes and at the ends of exit ramps from limited-access highways where a single ramp intersects with both directions of the secondary route, road, or street.*

Standard:

04E **MA-D1-5-, MA-D1-4-, and MA-D1-7-series signs used at the ends of exit ramps from limited-access highways shall display the same destinations used on the Advance Guide Signs.**

Option:

04F An additional destination, matching a destination provided on a supplemental guide sign on the limited-access highway, may be included on MA-D1-5-, MA-D1-4-, or MA-D1-7-series signs used at the ends of exit ramps.

Standard:

04G **Route signs shall be used for all intersecting numbered routes on MA-D1-5-, MA-D1-4-, and MA-D1-7-series signs.**

Guidance:

04H *Route signs should be used for all trailblazer information on MA-D1-5-, MA-D1-4-, and MA-D1-7-series signs.*

Option:

04I Legend (i.e. TO ROUTE 202), may be substituted for trailblazer information to conserve space, where needed.

Guidance:

04J *Except as noted Paragraph 09B in Section 2D.45, where two or more numbered routes overlap on the same highway, MA-D1-5-series signs should display all route signs and one destination for each numbered route.*

Option:

04K Where spacing, sight distance, lateral clearance, and/or other right-of-way restrictions exist, Route Sign Assemblies, Advance Route Turn Assemblies, Directional Assemblies, and Destination Signs, per Sections 2D.29, 2D.31, 2D.32, and 2D.37, respectively, may be substituted.

Standard:

04L **Distances to destinations shall not be placed on MA-D1-5-, MA-D1-4-, and MA-D1-7-series signs.**

Option:

04M Advance MA-D1-5-, MA-D1-4-, or MA-D1-7-series signs may use alternative directional legends such as KEEP RIGHT, 2ND LEFT, NEXT RIGHT, etc. to provide guidance to the location of the point of turn.

Section 2D.38 Destination Signs at Circular Intersections

Insert the following paragraphs:

Support:

11A Refer to the *MassDOT Standard Signs* book for additional details on design standards for MA-D1-3-series and MA-D1-7 (Cir Int) signs.

Section 2D.40 Location of Destination Signs

Insert the following paragraphs:

Guidance:

01A *Point-of-turn MA-D1-5-, MA-D1-4-, and MA-D1-7-series signs should be placed on the near right corner of the intersection approach.*

Option:

01B Point-of-turn MA-D1-5-, MA-D1-4-, or MA-D1-7-series signs may may be placed on the far right corner of the intersection approach or far side of the minor street approach to a T-intersection if site constraints inhibit placement on the near right corner.

Guidance:

01C *Advance MA-D1-5-, MA-D1-4-, and MA-D1-7-series signs should be placed a minimum distance of 400 feet in advance of the intersection.*

Option:

01D Actual placement of Advance MA-D1-5-, MA-D1-4-, or MA-D1-7-series signs and Advance Entrance Direction signs may be dependent upon field conditions, particularly in urban and residential areas.

Insert the following paragraph:

Guidance:

03A *A Junction assembly should be placed a minimum of 100 feet, but typically no more than 150 feet, in advance of a MA-D1-5-, MA-D1-4-, and MA-D1-7-series sign.*

Section 2D.43 Street Name Signs (D3-1 or D3-1a)

Delete Paragraphs 07, 08, and 15.

Insert Table MA-2D-2 (Recommended Minimum MA-D3-1 Sign Sizes and Letter Heights, MA Standard).

Table MA-2D-2. Recommended Minimum MA-D3-1 Sign Sizes and Letter Heights, MA Standard

Type of Mounting	Speed Limit	Minimum Sign Height	Minimum Letter Height (Initial Upper-Case)	Minimum Letter Height (Lower-Case)	Minimum Letter Height (Supplementary Lettering)
Overhead (freeways and expressways)	All speed limits	24 inches	12 inches	9 inches	8 inches
Overhead (signalized intersections) or Post-mounted (12 ft or greater above roadway)	All speed limits	18 inches	8 inches	6 inches	5.33 inches
Post-mounted on multi-lane roadway (less than 12 ft above roadway)	45 mph or greater	18 inches	8 inches	6 inches	5.33 inches
Post-mounted on multi-lane roadway (less than 12 ft above roadway)	Less than 45 mph	12 inches	6 inches	4.5 inches	4 inches
Post-mounted on 2-lane roadway (less than 12 ft above roadway)	All speed limits	12 inches	6 inches	4.5 inches	4 inches
Bicycle facility (no motor vehicles allowed)	–	6 inches	3 inches	2.25 inches	2 inches

Insert the following paragraphs:

Guidance:

08A *The minimum sign heights and letter heights for Street Name (MA-D3-1) signs in Table MA-2D-2 should be used.*

Standard:

15A **Borders shall be provided on all street name signs.**

Guidance:

22A *Overhead Street Name signs should be used at all signalized intersections.*

Support:

25A Refer to the *MassDOT Standard Signs* book for additional details on design standards for MA-D3-1-series signs.

Section 2D.45 Signing on Conventional Roads on Approaches to Interchanges

Insert the following paragraphs:

Guidance:

09A *Entrance Direction and Advance Entrance Direction signs should display the same destinations.*

Standard:

09B **On signs for entrance ramps where Interstate 95 and State Route 128 overlap between Canton and Peabody, only the I-95 route sign and destinations shall be displayed.**

Insert the following paragraphs:

Option:

11A If standard Entrance Direction and/or Advance Entrance Direction signs cannot be used due to spacing, sight distance, width, or right of way restrictions, the use of a MA-D1-6 sign is an acceptable alternative.

Support:

11B Refer to the *MassDOT Standard Signs* book for additional details on design standards for MA-D1-6-series signs.

Guidance:

11C *Advance Entrance Direction signs should be placed a minimum distance of 600 feet in advance of the entrance ramp.*

11D *A Junction assembly should be placed a minimum of 100 feet, but typically no more than 150 feet in advance of an Advance Entrance Direction sign.*

CHAPTER 2E. GUIDE SIGNS FOR FREEWAYS AND EXPRESSWAYS

Section 2E.14 Size and Style of Letters and Signs

Insert Table MA-2E-1 (Freeway or Expressway Guide Sign and Plaque Sizes, MA Standard).

Table MA-2E-1. Freeway or Expressway Guide Sign and Plaque Sizes, MA Standard

Sign	Sign Designation	Section	Minimum Size
State Route Number (1 or 2 digits)	MA-M1-5	2E.27	36 x 36
State Route Number (3 digits)	MA-M1-5a	2E.27	45 x 36
Street Name	MA-D3-1	2D.43	Varies x 24

Delete Paragraph 01.

Insert the following paragraph:

Standard:

01A **Except as provided in Section 2A.11, the sizes of freeway and expressway guide signs that have standardized designs shall be as shown in Tables 2E-1 and MA-2E-1.**

Section 2E.15 Interline and Edge Spacing

Insert the following paragraph:

Standard:

01A **For overhead and large ground-mounted directional signs, the lateral spacing to the vertical borders shall be no less than three-fourths the upper-case letter height of that legend.**

Section 2E.17 Abbreviations

Insert the following paragraph:

Standard:

02A **Where compass direction texts (North, South, East, West) are abbreviated in destination names in sign legends (i.e. N. Attleboro), a period shall be used for emphasis.**

Section 2E.27 Route Signs and Trailblazer Assemblies

Insert the following paragraph:

Standard:

02A **Massachusetts State Route Number (MA-M1-5 and MA-M1-5a) signs shall always include a border and inset, whether mounted independently or on guide signs.**

Section 2E.28 Eisenhower Interstate System Signs (M1-10, M1-10a)

Insert the following paragraph:

Option:

01A If used, M1-10 signs may be installed with the first mainline reassurance route assembly provided on an Interstate route when entering Massachusetts from a bordering jurisdiction.

CHAPTER 2H. GENERAL INFORMATION SIGNS

Section 2H.01 Sizes of General Information Signs

Insert Table MA-2H-1 (General Information Sign Sizes, MA Standard).

Table MA-2H-1. General Information Sign Sizes, MA Standard

Sign	Sign Designation	Section	Conventional Road	Freeway or Expressway
Intermediate Reference Location	MA-D10-2b	2H.06	24 x 30	24 x 30
Enhanced Reference Location	MA-D10-4a	2H.06	18 x 36	24 x 48
Book Leaf Municipal Boundary	MA-I-2a	2H.04	60 x 48	–
State Highway Begins	MA-I-13	2H.04	24 x 30	–
State Highway Ends	MA-I-14	2H.04	24 x 30	–

Section 2H.02 General Information Signs (I Series)

Insert Figure MA-2H-1 (General Information and Miscellaneous Information Signs, MA Standard).

Figure MA-2H-1. General Information and Miscellaneous Information Signs, MA Standard

MA-I-13

MA-I-14

Section 2H.04 Miscellaneous Information Signs

Insert the following paragraphs:

Option:

00A The ENTERING Municipality (MA-I-2) sign (see Figure MA-2H-1) may be used on freeways and expressways to designate municipal boundaries.

Option:

00B The Book Leaf Municipal Boundary (MA-I-2a) sign (see Figure MA-2H-1) may be used on secondary highways to designate municipal boundaries.

Guidance:

00C *The Book Leaf Municipal Boundary (MA-I-2a) sign should utilize the incorporated date, as listed by the Secretary of the Commonwealth of Massachusetts, unless the municipality specifically requests the use of the established date.*

Option:

03A The State Highway Begins (MA-I-13) and State Highway Ends (MA-I-14) signs (see Figure MA-2H-1) may be used on secondary highways to designate the limits of the State Highway system.

Section 2H.05 Reference Location Signs (D10-1 through D10-3) and Intermediate Reference Location Signs (D10-1a through D10-3a)

Insert Figure MA-2H-3 (Intermediate Reference Location Signs, MA Standard).

Figure MA-2H-3. Intermediate Reference Location Signs, MA Standard

MA-D10-2b

Delete Paragraphs 01 to 11.

Insert the following paragraphs:

Guidance:

01A *Massachusetts Standard Intermediate Reference Location (MA-D10-2b) signs (see Figure MA-2H-3) should be placed at two-tenths of a mile (0.2) intervals on all numbered state highways to augment enhanced reference location sign systems (see Section 2H.06).*

Option:

01B Where space restraints exist, Intermediate Reference Location (D10-1a, D10-2a, D10-3a) signs (see Figure 2H-3) may be substituted for MA-D10-2b signs on secondary state highways.

01C For state highways that are within urban or town center areas and where right-of-way constraints, sign conspicuity, and/or other sign placement conflicts exist, Intermediate Reference Location (MA-D10-2b) signs may be placed at one-half (0.5) mile intervals.

Section 2H.06 Enhanced Reference Location Signs (D10-4, D10-5)

Insert Figure MA-2H-4 (Enhanced Reference Location Signs, MA Standard).

Figure MA-2H-4. Enhanced Reference Location Signs, MA Standard

MA-D10-4a

Delete Paragraphs 01 to 05.

Insert the following paragraph:

Standard:

01A **Enhanced Reference Location (MA-D10-4a) signs (see Figure MA-2H-4) shall be used on all State Highways.**

Section 2H.08 Acknowledgment Signs

Delete Paragraph 02.

Insert the following paragraphs:

Standard:

02A **Acknowledgement signs shall conform to the MassDOT *Supplemental Sign Policy*, latest edition.**

02B **Acknowledgement signs shall only be placed on secondary state highways.**

CHAPTER 2I. GENERAL INFORMATION SIGNS

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

Insert the following paragraphs:

Standard:

00A **General Service signs shall conform to the MassDOT *Supplemental Sign Policy*, latest edition.**

Support:

00B MGL Ch. 85, Sec. 2D provides MassDOT with the authority to establish the *Supplemental Sign Policy*.

Standard:

00C **24-Hour Pharmacy signs shall not be permitted.**

Section 2I.04 Interstate Oasis Signing

Delete entire section. The Interstate Oasis Signing program does not conform to the MassDOT *Supplemental Sign Policy*. Typical service sign installations on Massachusetts Interstates are for Specific Service signs and conform to Chapter 2J.

Section 2I.08 Tourist Information and Welcome Center Signs

Insert the following paragraph:

Standard:

01A **Privately operated Tourist Information Center signs shall conform to the MassDOT *Supplemental Sign Policy*, latest edition.**

CHAPTER 2J. SPECIFIC SERVICE SIGNS

Section 2J.01 Eligibility

Insert the following paragraphs:

Standard:

01A **Specific Service signs shall conform to the MassDOT *Supplemental Sign Policy*, latest edition.**

01B **24-Hour Pharmacy signs shall not be permitted.**

Section 2J.02 Application

Delete Paragraph 04.

Insert the following paragraph:

Standard:

04A **No service type shall appear on more than one sign for a given interchange.**

Delete Paragraph 06.

Section 2J.04 Number and Size of Signs and Logo Sign Panels

Delete Paragraphs 04 and 05. Section 2J.02 prohibits the usage of more than one sign per interchange for any single specific service type.

CHAPTER 2L. CHANGEABLE MESSAGE SIGNS

Section 2L.06 Installation of Permanent Changeable Message Signs

Insert the following paragraph:

Standard:

00A **Permanent changeable message sign panels and their support structures shall be installed with a minimum of 800 feet spacing from any adjacent major guide signs, and as far as practicable from all other regulatory and warning signs.**

CHAPTER 2M. RECREATIONAL AND CULTURAL INTEREST SIGNS

Section 2M.10 Memorial or Dedication Signing

Delete Paragraph 04.

Insert the following paragraphs:

Standard:

04A **Memorial signs installed on state highways shall consist of black legend on a white background.**

04B **Pictographs on Memorial signs shall be limited to the Massachusetts State Shield and/or other appropriate insignias or symbols as approved by MassDOT.**

PART 3
MARKINGS

CHAPTER 3A. GENERAL

Section 3A.06 Functions, Widths, and Patterns of Longitudinal Pavement Markings

Insert the following paragraphs:

Standard:

02A **Normal lines on all State Highways shall be 6 inches in width.**

Guidance:

02B *Normal lines on all National Highway System roads, and on any roadways with a speed limit of 45 miles per hour or greater, should be 6 inches in width.*

Standard:

02C **Wide lines on all State Highways shall be 12 inches in width.**

Guidance:

02D *Wide lines on all National Highway System roads, and on any roadways with a speed limit of 45 miles per hour or greater, should be 12 inches in width.*

CHAPTER 3B. PAVEMENT AND CURB MARKINGS

Section 3B.02 No-Passing Zone Pavement Markings and Warrants

Insert the following paragraphs:

Standard:

08A **Passing zones shall not be allowed within 200 feet approaching and 100 feet departing of any of the following:**

- **A. Traffic control signal or pedestrian hybrid beacon.**
- **B. Intersection with a public way that has a functional classification other than Local or a cluster of intersections that produce significant turning movements.**
- **C. Bus stop or marked crosswalk.**
- **D. Designated School Zone or school driveway.**
- **E. Hospital, Fire, or other driveway serving emergency services.**
- **F. Any other driveway for a significant traffic generator or cluster of driveways that would collectively generate significant traffic.**
- **G. Roundabout or other circular intersection.**
- **H. At-grade railroad crossing.**
- **I. Raised median or two-way left-turn lane.**

08B **The minimum length of a passing zone in any single direction shall be 800 feet.**

08C **Passing zones shall not be marked on roads with a posted or statutory speed limit of less than 45 mph.**

Section 3B.03 Other Yellow Longitudinal Pavement Markings

Insert the following paragraph:

Standard:

06A **The yellow crosshatch markings found within a continuous flush median shall be wide lines per Section 3A.06.**

Section 3B.04 White Lane Line Pavement Markings and Warrants

Delete Paragraphs 08 and 09.

Insert the following paragraphs:

Standard:

08A **On roadways with a speed limit of 45 miles per hour or greater, for exit ramps with a parallel deceleration lane, a normal width dotted white line shall be installed in the taper area upstream from the full-width deceleration lane as shown in Drawings A and C of Figure 3B-8.**

08B **On roadways with a speed limit of 45 miles per hour or greater, for an exit ramp with a tapered deceleration lane, a normal width dotted white line shall be installed from the theoretical gore through the taper area such that it meets the edge line at the upstream end of the taper as shown in Drawing B of Figure 3B-8.**

Delete Paragraphs 11 and 12.

Insert the following paragraphs:

Standard:

11A **On roadways with a speed limit of 45 miles per hour or greater, f or entrance ramps with a parallel acceleration lane, a normal width dotted white line shall be installed from the downstream end of the dotted white lane line to the downstream end of the acceleration taper, as shown in Drawing A of Figure 3B-9.**

11B **On roadways with a speed limit of 45 miles per hour or greater, for entrance ramps with a tapered acceleration lane, a normal width dotted white line shall be installed from the downstream end of the channelizing line adjacent to the through lane to the downstream end of the acceleration taper, as shown in Drawings B and C of Figure 3B-9.**

Guidance:

17A *If used, other lane drop markings such as lane-use arrows and ONLY word legends, should be placed at the start of the wide dotted lane line. On roadways with a speed limit of 45 miles per hour or greater, the lane-use arrows and ONLY word legends should be repeated at intervals of approximately 800 feet until the theoretical gore.*

Standard:

25A **At a full-width turn bay, a normal width dotted white line extension shall be used through the taper, as shown in Drawings A and B of Figure 3B-11.**

Section 3B.11 Raised Pavement Markers - General

Insert the following paragraphs:

Standard:

00A **Permanent pavement markers on State Highways shall be limited to recessed applications, only. Permanent raised pavement markers shall not be used.**

00B **The term "raised pavement markers" shall be apply to recessed applications in all other sections.**

Guidance:

11A *Raised pavement markers used to supplement dotted lane lines should use a value of N that is equal to the length of line segment plus one gap of the dotted lines used on the highway.*

Section 3B.14 Raised Pavement Markers Substituting for Pavement Markings

Delete this section. Raised pavement markers may not be used as a substitute for pavement markings.

Section 3B.15 Transverse Markings

Insert the following paragraph:

Guidance:

02A *On roadways with a speed limit of 45 miles per hours or greater, transverse linear markings (diagonal lines and chevrons) should be 24 inches in width. The transverse linear markings should be placed at an angle of 30 degrees relative to the direction of travel.*

Section 3B.16 Stop and Yield Lines

Insert the following paragraphs:

Guidance:

08A *On roadways with a speed limit of 45 miles per hours or greater, stop lines should be 24 inches in width.*

Guidance:

10A *At locations where a stop line or yield line are installed, all longitudinal lines (e.g. double yellow center lines, lane lines, edge lines) should terminate at the stop or yield line, and should not resume until after the far side of the intersection and/or crosswalk. If needed, single dotted white or yellow line extensions may be used.*

12A *Yield lines should not be used at a crosswalk that crosses an uncontrolled single-lane approach.*

Section 3B.18 Crosswalk Markings

Insert the following paragraphs:

Guidance:

13A *To enhance the conspicuity of the crosswalk markings, no other pavement markings should be placed within 4 feet of the outer edge of the transverse or longitudinal lines used in crosswalk markings.*

Standard:

13A **For marked crosswalks at midblock crossings, at Pedestrian Hybrid Beacons, at roundabouts, and at any location not controlled by a STOP sign, YIELD sign, or traffic control signal, the crosswalk shall use longitudinal lines per Paragraph 15.**

Option:

15B If an aesthetic treatment is used to supplement a crosswalk at a midblock crossing, a Pedestrian Hybrid Beacon, a roundabout, or any other location not controlled by a STOP sign, YIELD sign, or traffic control signal, the longitudinal lines may be omitted as long as the pair of transverse solid white lines are used to mark the crosswalk.

Standard:

15C **Aesthetic treatments used within crosswalk lines shall conform to Chapter 3G.**

Section 3B.20 Pavement Word, Symbol, and Arrow Markings

Insert the following paragraph:

Standard:

13A **Pavement markings simulating the Massachusetts State Route Shield shall mimic the design shown in Figure MA-2D-3. The State Route Shields shown in Figure 3B-25 shall not be used.**

CHAPTER 3C. ROUNDABOUT MARKINGS

Section 3C.04 Yield Lines for Roundabouts

Delete Paragraph 01.

Insert the following paragraph:

Standard:

01A **A yield line (see Section 3B.16) shall be used to indicate the point behind which vehicles are required to yield at the entrance to a roundabout (see Figure 3C-1).**

Section 3C.06 Word, Symbol, and Arrow Pavement Markings for Roundabouts

Delete Paragraph 06.

Insert the following paragraphs:

Standard:

06A **Lane use arrows for approaches to roundabouts shall conform to the Fish-hook arrows shown in Figure 3C-2B.**

06B **The oval symbolizing the center island shall be used with the lane use arrow for the leftmost lane on multilane approaches.**

PART 4
HIGHWAY TRAFFIC SIGNALS

CHAPTER 4B. TRAFFIC CONTROL SIGNALS – GENERAL

Section 4B.04 Alternatives to Traffic Control Signals

Insert the following paragraph:

Guidance:

02A *An Intersection Control Evaluation (ICE) should be performed prior to the consideration of the installation of any new traffic control signal.*

CHAPTER 4C. TRAFFIC CONTROL SIGNAL NEEDS STUDIES

Section 4C.01 Studies and Factors for Justifying Traffic Control Signals

Insert the following paragraph:

Guidance:

12A *Regardless of the traffic signal warrant(s) that are investigated, a minimum of eight hours of traffic count data should be collected as part of the engineering study of traffic conditions performed to justify the installation of a traffic control signal.*

12B *For the traffic signal warrants described in Section 4C.02 to Section 4C.10 that allow the option to use reduced volume thresholds when the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds a particular speed, the 85th-percentile speed should only be used in the absence of a regulatory posted speed.*

Section 4C.02 Warrant 1, Eight-Hour Vehicular Volume

Insert the following paragraphs:

Standard:

03A **Except as provided in Paragraphs 03B and 03C below, Warrant 1 shall be met prior to the consideration of the installation of any new traffic control signal on State Highway.**

Option:

03B If an intersection on State Highway meets the criteria for Warrant 7, per Section 4C.08, and an Intersection Control Evaluation shows that alternatives to a traffic control signal are not practical or do not provide the same benefit, then a traffic control signal may be considered.

03C Massachusetts has an approved request for Interim Approval for IA-19, Optional Use of an Alternate Signal Warrant 7. As long as the Interim Approval remains active, the methodology described in IA-19 is an acceptable substitute for Warrant 7.

CHAPTER 4D. TRAFFIC CONTROL SIGNAL FEATURES

Section 4D.06 Signal Indications – Design, Illumination, Color, and Shape

Insert the following paragraph:

Guidance:

06A *New or reconstructed signal installations should not use alternate display (bimodal, or dual-arrow signal section) of a GREEN ARROW and a YELLOW ARROW.*

Section 4D.07 Size of Vehicular Signal Indications

Delete Paragraph 03.

Insert the following paragraph:

Option:

03A Eight-inch circular signal indications may be used in new signal faces only for:

A. The green or flashing yellow signal indications in an emergency-vehicle traffic control signal (see Section 4G.02); and
B. The circular indications in a signal face installed for the sole purpose of controlling a bikeway or a bicycle movement.

Section 4D.11 Number of Signal Faces on an Approach

Insert the following paragraph:

Guidance:

06A *Overhead signal indications should be provided on any approach with three or more total lanes or any approach with two or more through lanes.*

Section 4D.12 Visibility, Aiming, and Shielding of Signal Faces

Insert the following paragraph:

Option:

12A If a supplemental signal indication is provided on an approach due to sight distance that is limited by horizontal alignment, it may be post-mounted on the near-left or near-right corners.

Section 4D.13 Lateral Positioning of Signal Faces

Insert the following paragraph:

Standard:

10A **On an approach with a protected left-turn movement, an overhead supplemental signal indication for the through movement shall not be placed to the left of the left-turn signal on the same overhead support, and a post-mounted supplemental signal indication for the through movement shall not be placed on the far-left or far-side median.**

Section 4D.20 Signal Indications for Protected/Permissive Mode Left-Turn Movements

Insert the following paragraph:

Standard:

00A **Where a mandatory left-turn lane exists and the signal operates with a protected/permissive mode for left turns on that approach, a shared signal face shall not be used. A separate left-turn signal face with a flashing left-turn yellow arrow signal face per Paragraph 03 of this section shall be provided.**

Section 4D.26 Yellow Change and Red Clearance Intervals

Delete Paragraph 07.

Insert the following paragraph:

Support:

07A Engineering practices for determining the duration of yellow change and red clearance intervals can be found in MassDOT's "Guidance on Calculating Clearance Intervals at Traffic Signals" (2013).

CHAPTER 4E. PEDESTRIAN CONTROL FEATURES

Section 4E.03 Application of Pedestrian Signal Heads

Insert the following paragraph:

Standard:

04A **Where pedestrian signal heads are provided, crosswalk markings shall be used to delineate crossings for pedestrians.**

Section 4E.08 Pedestrian Detectors

Delete Paragraph 05.

Insert the following paragraphs:

Standard:

05A **Pedestrian pushbuttons shall be placed in locations that comply with MAAB standards.**

Support:

05B 521 CMR 21.00 regulates the design of sidewalks, walkways, and curb cuts on streets and ways when they are constructed, reconstructed, or repaired.

PART 6

TEMPORARY TRAFFIC CONTROL

CHAPTER 6E. FLAGGER CONTROL

Section 6E.01 Qualifications for Flaggers

Insert the following paragraphs:

Support:

00A The Department has guidelines and promulgated regulations on the use of road flaggers and police details as authorized by the Executive Office of Transportation and Public Works and the Executive Office of Public Safety and Security through Chapter 86 of the Acts of 2008.

Standard:

00B **Flaggers used on public roadways in Massachusetts shall be certified by the Massachusetts Department of Transportation.**

Section 6E.02 High-Visibility Safety Apparel

Delete Paragraph 01.

Insert the following paragraph:

Standard:

01A **All flaggers performing work on public roadways in Massachusetts must, at a minimum, be equipped with the following equipment:**

1. **White hard hat with reflectorized tape;**
2. **Fluorescent yellow-green vest and pants conforming to ANSI 107 Class III;**
3. **Two-way radios;**
4. **STOP/SLOW paddles per Section 6E.03;**
5. **Weighted red flags per Section 6E.03 for emergency work; and**
6. **Air horn.**

CHAPTER 6F. TEMPORARY TRAFFIC CONTROL ZONE DEVICES

Section 6F.02 General Characteristics of Signs

Insert Table MA-6F-1 (Temporary Traffic Control Zone Sign and Plaque Sizes, MA Standard).

Table MA-6F-1. Temporary Traffic Control Zone Sign and Plaque Sizes, MA Standard

Sign	Sign Designation	Section	Conventional Road	Freeway or Expressway	Minimum
Exit Gore	MA-E5-1wz		-	48 x 48	-
Road Work Speeding Fines Doubled	MA-R2-10a		48 x 36	60 x 48	-
End Road Work Double Fines End	MA-R2-10e		36 x 48	48 x 60	-
Merge Left	MA-W4-2aL		36 x 36	48 x 48	-
Merge Right	MA-W4-2aR		36 x 36	48 x 48	-
Thru Traffic Merge Left	MA-W4-7L		36 x 36	48 x 48	-
Thru Traffic Merge Right	MA-W4-7R		36 x 36	48 x 48	-
Lanes Narrow Ahead	MA-W5-5		36 x 36	48 x 48	-
Lanes Split	MA-W9-4		36 x 36	48 x 48	-
Left Two Lanes Closed (with distance)	MA-W20-5bL		36 x 36	48 x 48	-
Right Two Lanes Closed (with distance)	MA-W20-5bR		36 x 36	48 x 48	-
Police Officer Ahead	MA-W20-7b		36 x 36	48 x 48	-
Emergency Scene Ahead	MA-W20-9		36 x 36	48 x 48	-
Exit Closed (with distance)	MA-W20-10		-	48 x 48	-
Bike Lane Closed Ahead	MA-W21-5c		36 x 36	-	24 x 24
Moving Operations Ahead	MA-W21-9		36 x 36	48 x 48	-
Lanes Shift Ahead	MA-W24-2		36 x 36	48 x 48	-
Median Crossover (with distance)	MA-W24-3		-	48 x 48	-
Rumble Strips Ahead	MA-W28-1		36 x 36	48 x 48	-
Squeeze Left	MA-W30-8L		36 x 36	48 x 48	-
Squeeze Right	MA-W30-8R		36 x 36	48 x 48	-

Insert the following paragraph:

Standard:

02A **The colors for regulatory signs shall follow the Standards for regulatory signs in Table 2A-5 and Chapter 2B. Warning signs in TTC zones shall have a black legend and border on a fluorescent orange background, with the following exceptions:**

- **A. The Grade Crossing Advance Warning (W10-1) sign, which shall have a black legend and border on a yellow background.**
- **B. Signs that are required or recommended in Parts 2 or 7 to have fluorescent yellow-green backgrounds.**
- **C. Route Signs (see Figure 2D-3) and Route Sign Auxiliaries (see Figure 2D-4).**
- **D. Signs that have colors specifically identified elsewhere in Chapter 6F.**

02B **Colors for guide signs shall follow the Standards in Table 2A-5 and Chapter 2D, except for guide signs as otherwise provided in Section 6F.55.**

Section 6F.12 Work Zone and Higher Fines Signs and Plaques

Insert the following paragraph:

Guidance:

06A *A ROAD WORK SPEEDING FINES DOUBLED (MA-R2-10a) sign (see Figure MA-6F-3) should be used for all temporary traffic control setups lasting 24 hours or longer.*

Section 6F.13 PEDESTRIAN CROSSWALK Sign (R9-8)

Insert the following paragraph:

Guidance:

02A *If a temporary crosswalk is established, it should be signed with a Pedestrian Crossing (W11-2) sign (see Figure 2C-11) and a diagonal downward pointing arrow (W16-7P) plaque (see Figure 2C-12) on fluorescent yellow-green backgrounds.*

Section 6F.22 Lane(s) Closed Signs (W20-5, W20-5a)

Delete Paragraph 02.

Insert the following paragraphs:

Standard:

02A **For a single lane closure, the Lane Closed (W20-5) sign (see Figure 6F-4) shall have the legend RIGHT (LEFT) LANE CLOSED, XX FEET, XX MILES, or AHEAD.**

02B **Where two or more adjacent lanes are closed, the Lane Closed (MA-W20-5b) sign (see Figure MA-6F-4) shall have the legend RIGHT (LEFT) XX LANES CLOSED, XX FEET, XX MILES or AHEAD.**

Section 6F.31 Flagger Signs (W20-7, W20-7a)

Insert the following paragraph:

Guidance:

01A *The Police Officer Ahead (MA-W20-7b) sign (see Figure MA-6F-4) should be used in advance of any point where a uniformed traffic officer is stationed to control road users.*

Section 6F.57 END ROAD WORK Sign (G20-2)

Insert the following paragraph:

Standard:

01A **If a ROAD WORK SPEEDING FINES DOUBLED (MA-R2-10a) sign is used, an END ROAD WORK DOUBLE FINES END (MA-R2-10e) sign (see Figure MA-6F-3) shall be placed after the downstream end of the termination area.**

Section 6F.61 Arrow Boards

Delete Paragraph 18.

Insert the following paragraphs:

Standard:

18A **For shoulder work, blocking the shoulder, or for roadside work near the shoulder, and arrow board shall be used only four corners Flashing Caution mode per the first option of Operating Mode 3 in Figure 6F-6.**

18B **For temporarily closing one lane on a two-lane, two-way roadway, an arrow board shall be used only in the caution mode.**

PART 7

TRAFFIC CONTROL FOR SCHOOL AREAS

CHAPTER 7A. GENERAL

Section 7A.01 Need for Standards

Insert the following paragraphs:

Standard:

11A **For the purpose of Part 7, school zones shall only be applicable to schools recognized by the Massachusetts Department of Elementary and Secondary Education, including all public, private, charter, vocational technical, and approved special education schools serving students in one or more grades between K and 12.**

Support:

12A The intent of establishing school zones is to provide increased protection for school children and their guardians walking and bicycling on roadways in the vicinity of schools. The establishment of school zones on roadways that are either not crossed by school children or expected to be used by children biking to school may reduce the effectiveness of school zones and school zone speed limits.

Standard:

13A **A school zone on State Highway shall be approved by the Department.**

Insert the following Section and subsequent paragraphs:

Section 7A.05: Warrants for Establishing a School Zone

Standard:

01 **For a school zone to be established, all the following conditions shall be met:**

- **A. The facility is a school (see Section 7A.01).**
- **B. Children walk or bicycle to or from the school and are expected to cross or enter the roadway where the school zone is proposed; or the school and related facilities (e.g., classrooms, cafeteria, gymnasium, playground, athletic fields, parking lots) are separated by the roadway and require the children to cross the roadway on foot to access the facilities.**
- **C. The school facility or municipality provides a plan showing the routes that students will use to walk and/or bike to the school and shows the limits of the proposed school zone.**
- **D. The municipality provides written documentation of their support and/or approval of the school zone.**

CHAPTER 7B. SIGNS

Section 7B.15 School Speed Limit Assembly (S4-1P, S4-2P, S4-3P, S4-4P, S4-6P, S5-1) and END SCHOOL SPEED LIMIT Sign (S5-3)

Insert the following paragraphs:

Support:

00A MGL Ch., 85 Sec. 2 provides the Department with the authority for establishing minimum criteria for school speed limits.

Standard:

00B **School Speed Limits shall be 20 mph.**

Support:

00C MGL Ch., 90 Sec. 17 defines speeding within a school zone as a "rate of speed exceeding twenty miles per hour."

Standard:

02A **There shall be no other Speed Limit (R2-1) signs placed between a School (S1-1) sign and a School Speed Limit Assembly.**

Delete Paragraphs 03, 04, 05, 06, 07, 08, and 09.

Insert the following paragraphs:

Standard:

04A **Except as provided in Paragraph 04B, 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 and 7B-5).**

04B **Where a reduced school speed limit zone is within the limits of a Special Speed Regulation, a Speed Limit (R2-1) sign, corresponding to the authorized speed limit, shall be placed just beyond the end limit of the reduced school zone speed limit, facing traffic that has passed the school property.**

Guidance:

07A *The beginning point of a reduced school speed limit zone should be at least 200 feet in advance of the school grounds, a school crossing, or other school related activities*

Standard:

07B **Where a reduced school speed limit zone is within the limits of a Special Speed Regulation, the beginning of the reduced school speed limit zone shall be not less than 850 feet in advance of the school grounds in rural areas and 500 feet or one block, whichever is less, in urban areas.**

Guidance:

07C *The maximum length of a reduced school speed limit zone should be ¼ mile or the total length of the school grounds frontage plus the advanced distances described in Paragraphs 07A and 07B, whichever is greater.*

Support:

07D The school zone length should be kept as short as possible while including the section of roadway in the vicinity of the school property that school children will be entering or crossing. The effectiveness of the school zone speed limit may be reduced the further it is located from the school.

Standard:

08A **The School Speed Limit assembly shall be either a fixed-message sign assembly or shall include two flashing yellow beacons (see Section 4L.04) with a WHEN FLASHING legend.**

Option:

08B If a reduced school speed limit zone is established upon a street or highway controlled by a Speed Regulation, as defined in MGL Ch. 90, Sec. 18, the School Speed Limit assembly may include a changeable message sign in lieu of the legend for the numerals.

Standard:

09A **The fixed-message 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 or S4-6P) indicating the specific periods of the day and/or days of the week that the school speed limit is in effect (see Figure 7B-1). If two flashing yellow beacons are included, the bottom plaque S4-4P shall be used.**

09B **The School Speed Limit shall only be in effect during days and times when school children would be entering or crossing the roadway on foot or on bicycle.**

Guidance:

09C *If used, the School Speed Limit hours of operation should be one of the following:*

A. Between a set of core hours, such as 7:00 AM to 4:00 PM, inclusive.
B. Two ranges of times within the core hours that coincide with typical arrival and dismissal periods, such as 7:00 AM to 9:00 AM and 2:00 PM to 4:00 PM.

09D *Terms that are vague or may be unfamiliar to all roadway users, such as "SCHOOL DAYS," "WHEN SCHOOL IS IN SESSION," or "WHEN CHILDREN ARE PRESENT," should not be used.*

Standard:

09E **Where an S4-1P plaque is used to show the hours of operation, a maximum of two ranges of time shall be used.**

09F *Where School Speed Limit hours of operation vary by day of the week, the School Speed Limit assembly should include a flashing yellow beacon and the S4-4P plaque to decrease driver confusion.*

Standard:

09G **Where flashing beacons are used to denote the School Speed Limit, the municipality shall keep written documentation of operating hours on file.**

Delete Paragraph 16.

CHAPTER 7C. MARKINGS

Section 7C.03 Pavement Word, Symbol, and Arrow Markings

Delete Paragraph 02.

Insert the following paragraphs:

Guidance:

02A *If the SCHOOL word marking is used on one-lane approaches, the letters should be 6 feet or more in height.*

02B *If the SCHOOL word marking is used on multi-lane approaches, the letters should be 10 feet or more in height.*

PART 9
TRAFFIC CONTROL FOR BICYCLE FACILITIES

CHAPTER 9B. SIGNS

Section 9B.02 Design of Bicycle Signs

Delete Paragraphs 01 and 02.

Insert the following paragraphs:

Standard:

01A **If the sign or plaque applies to motorists and bicyclists, then the size shall be as shown for conventional roads in Tables 2B-1, MA-2B-1, 2C-2, MA-2C-2, 2D-1, or MA-2D-1.**

02A **The minimum sign and plaque sizes for shared-use paths shall be those shown in Tables 9B-1 or MA-9B-1 and shall be used only for signs and plaques installed specifically for bicycle traffic applications. The minimum sign and plaque sizes for bicycle facilities shall not be used for signs or plaques that are placed in a location that would have any application to other vehicles.**

Insert Table MA-9B-1 (Bicycle Facility Sign and Plaque Minimum Sizes, MA Standard).

Table MA-9B-1. Bicycle Facility Sign and Plaque Minimum Sizes, MA Standard

Sign or Plaque	Sign Designation	Section	Shared-Use Path	Roadway
On Roadway (plaque)	MA-W16-19P	2C.60, 9B.19	–	24 x 18
Street Name	MA-D3-1	2D.43, 9B.20	varies x 6	see Table MA-2D-2

Section 9B.19 Other Bicycle Warning Signs

Insert Figure MA-9B-3 (Warning Signs and Plaques and Object Markers for Bicycle Facilities, MA Standard).

Figure MA-9B-3. Warning Signs and Plaques and Object Markers for Bicycle Facilities, MA Standard

MA-W16-19P

Delete Paragraph 02.

Insert the following paragraph:

Support:

02A In situations where there is a need to warn motorists to watch for bicyclists traveling along the highway, the ON ROADWAY (MA-W16-19P) plaque (see Figure MA-9B-3) may be used in conjunction with the W11-1 sign.

CHAPTER 9C. MARKINGS

Section 9C.07 Shared Lane Marking

Delete Paragraph 05.

Insert the following paragraph:

Guidance:

05A *If used on a street without on-street parking that has an outside travel lane that is less than 14 feet wide, the centers of the Shared Lane Markings should be centered in the travel lane.*

APPENDIX A: CHANGES FROM PREVIOUS MA AMENDMENTS TO THE MUTCD

Section	Title	Type	Description of Change
1A.08	Authority for Placement of Traffic Control Devices	Retain	Formerly Section 10A-1 of the 2012 Amendments.
1A.09	Engineering Study and Engineering Judgment	Delete	Language from 2012 Amendments removed.
1A.13	Definitions of Headings, Words, and Phrases in this Manual	New	New definitions added for clarity.
1A.14	Meanings of Acronyms and Abbreviations in this Manual	New	New acronyms added for clarity.
1A.16	Traffic Control Device Permits Issued by the Department	Retain	Formerly Section 10A-2 of the 2012 Amendments.
1A.17	Regulations for Parking, One-Way Streets, and Turning Movements	Modify	Formerly Section 10A-3 of 2012 Amendments. Subsection on Parking Meter Standards removed.
1A.18	Regulations for Towing on City and Town Ways	Retain	Formerly Section 10A-7 of the 2012 Amendments.
1A.19	Through Ways	Retain	Formerly Section 10A-5 of the 2012 Amendments.
2A.06	Design of Signs	Retain	Content unchanged. Reformatted as Standard and Option language.
2A.13	Word Messages	Retain	Formerly Section 2D.05 of the 2012 Amendments. Language expanded to prohibit usage of all non-standard lettering formats.
2B.03	Size of Regulatory Signs	New	Table showing dimensions of MA standard signs added.
2B.04	Right-of-Way at Intersections	Retain	Content from Section 10A-4 in 2012 Amendments moved to this section.
2B.09	YIELD Sign Applications	Modify	Content from 2012 Amendments retained and new content (Paragraphs 04A, 04D, 04E) added.
2B.11	Yield Here To Pedestrians Signs and Stop Here For Pedestrians Signs (R1-5 Series)	Modify	Content from 2012 Amendments retained and new content (Paragraphs 03A, 03B) added.

Section	Title	Type	Description of Change
2B.12	In-Street and Overhead Pedestrian Crossing Signs (R1-6, R1-6a, R1-9, and R1-9a)	Retain	No change.
2B.13	Speed Limit Sign (R2-1)	New	New content added.
2B.15	Night Speed Limit Plaque (R2-3P)	New	Section has been deleted.
2B.17	Higher Fines Signs and Plaque (R2-6P, R2-10, and R2-11)	New	Section has been deleted.
2B.19	Intersection Lane Control Signs (R3-5 through R3-8)	Retain	No change.
2B.20	Mandatory Movement Lane Control Signs (R3-5, R3-5a, R3-7, and R3-20)	New	New content added.
2B.22	Advance Intersection Lane Control Signs (R3-8 Series)	New	New content added.
2B.23	RIGHT (LEFT) LANE MUST EXIT Sign (R3-33)	New	New content added.
2B.36	DO NOT DRIVE ON SHOULDER Sign (R4-17) and DO NOT PASS ON SHOULDER Sign (R4-18)	New	New content added.
2B.39	Selective Exclusion Signs	Modify	Content from 2012 Amendments retained and new content (Paragraphs 06B, 09A, 09B, 09C, 09D) added.
2B.40	ONE WAY Signs (R6-1, R6-2)	Retain	No change.
2B.41	Wrong-Way Traffic Control at Interchange Ramps	Modify	Guidance and Option statements added to original content from 2012 Amendments.
2B.52	Traffic Signal Pedestrian and Bicycle Actuation Signs (R10-1 through R10-4, and R10-24 through R10-26)	New	New content added.

Section	Title	Type	Description of Change
2B.53	Traffic Signal Signs (R10-5 through R10-30)	Modify	All content from the 2012 Amendments has been revised.
2B.54	No Turn on Red Signs (R10-11 Series, R10-17a, and R10-30)	Modify	Content from the 2012 Amendments has been moved to Section 2B.53 and new content has been added.
2B.59	Weight Limit Signs (R12-1 through R12-5)	Retain	Formerly Section 10A-9 of the 2012 Amendments.
2B.60	Weigh Station Signs	Retain	No change.
2C.04	Size of Warning Signs	New	New content added.
2C.07	Horizontal Alignment Signs (W1-1 through W1-5, W1-11, W1-15)	Delete	Language from 2012 Amendments removed.
2C.24	Freeway or Expressway Ends Signs (W19 Series)	Retain	No change.
2C.31	Shoulder Signs (W8-4, W8-9, W8-17, W8-23, and W8-25)	New	New content added.
2C.35	Weather Condition Signs (W8-18, W8-19, W8-21, and W8-22)	New	New content added.
2C.38	Reduced Speed Limit Ahead Signs (W3-5, W3-5a)	New	New content added.
2C.43	RIGHT (LEFT) LANE EXIT ONLY AHEAD Sign (W9-7)	Modify	Content from 2012 Amendments retained and new content (Paragraphs 01A, 01B, 01C) added.
2C.46	Intersection Warning Signs (W2-1 through W2-8)	Retain	No change.
2C.49	Vehicular Traffic Warning Signs (W8-6, W11-1, W11-5, W11-5a, W11-8, W11-10, W11-11, W11-12P, W11-14, W11-15, and W11-15a)	Modify	Content from 2012 Amendments retained and new content (Paragraphs 06B, 07A) added.
2C.50	Non-Vehicular Warning Signs (W11-2, W11-3, W11-4, W11-6, W11-7, W11-9, and W11-16 through W11-22)	New	New content added.

Section	Title	Type	Description of Change
2C.52	NEW TRAFFIC PATTERN AHEAD Sign (W23-2)	Delete	Language from 2012 Amendments removed.
2C.60	SHARE THE ROAD Plaque (W16-1P)	New	New content added.
2C.63	Object Marker Design and Placement Height	Delete	Language from 2012 Amendments moved to Section 2C.64.
2C.64	Object Markers for Obstructions Within the Roadway	New	New content added.
2D.04	Size of Signs	New	New content added.
2D.05	Lettering Style	Delete	Language from 2012 Amendments removed.
2D.11	Design of Route Signs	New	New content added.
2D.29	Route Sign Assemblies	Delete	Language from 2012 Amendments removed.
2D.37	Destination Signs	Modify	Section has been rewritten in its entirety.
2D.38	Destination Signs at Circular Intersections	New	New content added.
2D.40	Location of Destination Signs	New	New content added.
2D.43	Street Name Signs (D3-1 or D3-1a)	Modify	Content from 2012 Amendments retained and new content (Paragraphs 08A, 22A) added.
2D.45	Signing on Conventional Roads on Approaches to Interchanges	New	New content added.
2E.14	Size and Style of Letters and Signs	Modify	Content from 2012 Amendments moved to Section 2A.13. New table added.
2E.15	lnterline and Edge Spacing	Retain	No change.
2E.17	Abbreviations	Retain	No change.
2E.20	Signing for Option Lanes at Splits and Multi-Lane Exits	Delete	Language from 2012 Amendments removed.
2E.27	Route Signs and Trailblazer Assemblies	Retain	No change.
2E.28	Eisenhower Interstate System Signs (M1-10, M1-10a)	Retain	No change.

Section	Title	Type	Description of Change
2E.31	Interchange Exit Numbering	Delete	Language from 2012 Amendments removed.
2F.10	LAST EXIT BEFORE TOLL Warning Plaque (W16-16P)	Delete	Language from 2012 Amendments removed.
2F.18	ETC Program Information Signs	Delete	Language from 2012 Amendments removed.
2H.01	Sizes of General Information Signs	New	New content added.
2H.02	General Information Signs (I Series)	New	New content added.
2H.04	Miscellaneous Information Signs	Modify	Content from 2012 Amendments retained and new content (Paragraphs 00A, 00C, 03A) added.
2H.05	Reference Location Signs (D10-1 through D10-3) and Intermediate Reference Location Signs (D10-1a through D10-3a)	New	New content added.
2H.06	Enhanced Reference Location Signs (D10-4, D10-5)	Retain	No change.
2H.08	Acknowledgment Signs	New	New content added.
2I.03	General Service Signs for Freeways and Expressways	Retain	No change.
2I.04	Interstate Oasis Signing	Retain	No change.
2I.08	Tourist Information and Welcome Center Signs	New	New content added.
2J.01	Eligibility	New	New content added.
2J.02	Application	Retain	No change.
2J.04	Number and Size of Signs and Logo Sign Panels	Retain	No change.
2L.06	Installation of Permanent Changeable Message Signs	Retain	No change.
2M.10	Memorial or Dedication Signing	Retain	No change.

Section	Title	Type	Description of Change
3A.06	Functions, Widths, and Patterns of Longitudinal Pavement Markings	Modify	Content from 2012 Amendments retained and new content (Paragraphs 02B, 02D) added.
3B.02	No-Passing Zone Pavement Markings and Warrants	Modify	Content from 2012 Amendments moved to 3B.03 and new content added.
3B.03	Other Yellow Longitudinal Pavement Markings	New	Content moved from Section 3B.02 of the 2012 Amendments.
3B.04	White Lane Line Pavement Markings and Warrants	Modify	Content from 2012 Amendments retained and new content (Paragraphs 17A, 25A) added.
3B.10	Approach Markings for Obstructions	Delete	Language from 2012 Amendments removed.
3B.11	Raised Pavement Markers – General	New	New content added.
3B.14	Raised Pavement Markers Substituting for Pavement Markings	New	Section has been deleted.
3B.15	Transverse Markings	New	New content added.
3B.16	Stop and Yield Lines	Modify	All content from the 2012 Amendments has been revised.
3B.18	Crosswalk Markings	Modify	All content from the 2012 Amendments has been revised.
3C.04	Yield Lines for Roundabouts	New	New content added.
3C.06	Word, Symbol, and Arrow Pavement Markings for Roundabouts	Retain	No change.
4B.04	Alternatives to Traffic Control Signals	New	New content added.
4C.01	Studies and Factors for Justifying Traffic Control Signals	Modify	All content from the 2012 Amendments has been revised.
4C.02	Warrant 1, Eight-Hour Vehicular Volume	New	New content added.

Section	Title	Type	Description of Change
4D.06	Signal Indications – Design, Illumination, Color, and Shape	New	New content added.
4D.07	Size of Vehicular Signal Indications	Modify	All content from the 2012 Amendments has been revised.
4D.11	Number of Signal Faces on an Approach	New	New content added.
4D.12	Visibility, Aiming, and Shielding of Signal Faces	New	New content added.
4D.13	Lateral Positioning of Signal Faces	New	New content added.
4D.20	Signal Indications for Protected/Permissive Mode Left-Turn Movements	New	New content added.
4D.26	Yellow Change and Red Clearance Intervals	New	New content added.
4D.28	Flashing Operation of Traffic Control Signals – General	Delete	Language from 2012 Amendments removed.
4E.03	Application of Pedestrian Signal Heads	Modify	All content from the 2012 Amendments has been revised.
4E.08	Pedestrian Detectors	New	New content added.
6E.01	Qualifications for Flaggers	New	New content added.
6E.02	High-Visibility Safety Apparel	New	New content added.
6F.02	General Characteristics of Signs	New	New content added.
6F.12	Work Zone and Higher Fines Signs and Plaques	New	New content added.
6F.13	PEDESTRIAN CROSSWALK Sign (R9-8)	New	New content added.
6F.22	Lane(s) Closed Signs (W20-5, W20-5a)	Retain	No change.
6F.31	Flagger Signs (W20-7, W20-7a)	New	New content added.

Section	Title	Type	Description of Change
6F.57	END ROAD WORK Sign (G20-2)	Modify	All content from the 2012 Amendments has been revised.
6F.61	Arrow Boards	Retain	No change.
7A.01	Need for Standards	New	New content added.
7A.05	Warrants for Establishing a School Zone	New	This Section has been added.
7B.15	School Speed Limit Assembly (S4-1P, S4-2P, S4-3P, S4-4P, S4-6P, S5-1) and END SCHOOL SPEED LIMIT Sign (S5-3)	New	New content added.
7C.03	Pavement Word, Symbol, and Arrow Markings	New	Content moved from Section 7E-7 of the 2012 Amendments.
7E	Official Standards for School Zones	Delete	This Chapter of the 2012 Amendments has been deleted. Portions of it have been edited and adopted into pertinent sections of Chapters 7A, 7B, and 7C.
9B.02	Design of Bicycle Signs	New	New content added.
9C.07	Shared Lane Marking	New	New content added.
10A-6	Pedestrian Regulations	Delete	This section of the 2012 Amendments has been deleted.
10A-8	Speed Control	Delete	This section of the 2012 Amendments has been deleted.
Part 11	Rules and Regulations for Entrance to State Highway	Delete	This part of the 2012 Amendments has been deleted.
Part 12	Traffic Control Agreement (Sample)	Delete	This part of the 2012 Amendments has been deleted. It will exist as a standalone document that is not a part of the MA Amendments.
Appendix A	A Sample Regulation for A Standard Municipal Traffic Code	Delete	This part of the 2012 Amendments has been deleted. It will exist as a standalone document that is not a part of the MA Amendments.
Appendix B	Sample Pedestrian Regulation	Delete	This part of the 2012 Amendments has been deleted.
Appendix C	Sample Regulations	Delete	This part of the 2012 Amendments has been deleted. It will exist as a standalone document that is not a part of the MA Amendments.

Section	Title	Type	Description of Change
Appendix D	Pertinent Statutes	Delete	This part of the 2012 Amendments has been deleted.