

CHAPTER 7B. SIGNS

Section 7B.01 Size of School Signs

Standard:

- 01 **Except as provided in Section 2A.11, the sizes of signs and plaques to be used on conventional roadways in school areas shall be as shown in Table 7B-1.**
- 02 **The sizes in the Conventional Road column shall be used unless engineering judgment determines that a minimum or oversized sign size would be more appropriate.**
- 03 **The sizes in the Minimum column shall be used only where traffic volumes are low and speeds are 30 mph or lower, as determined by engineering judgment.**
- 04 **The sizes in the Oversized column shall be used on expressways.**

Guidance:

- 05 *The sizes in the Oversized column should be used on roadways that have four or more lanes with posted speed limits of 40 mph or higher.*

Option:

- 06 The sizes in the Oversized column may also be used at other locations that require increased emphasis, improved recognition, or increased legibility.
- 07 Signs and plaques larger than those shown in Table 7B-1 may be used (see Section 2A.11).

Table 7B-1. School Area Sign and Plaque Sizes

Sign	Sign Designation	Section	Conventional Road	Minimum	Oversized
School	S1-1	7B.08	36 x 36	30 x 30	48 x 48
School Bus Stop Ahead	S3-1	7B.13	36 x 36	30 x 30	48 x 48
School Bus Turn Ahead	S3-2	7B.14	36 x 36	30 x 30	48 x 48
Reduced School Speed Limit Ahead	S4-5, S4-5a	7B.16	36 x 36	30 x 30	48 x 48
School Speed Limit XX When Flashing	S5-1	7B.15	24 x 48	—	36 x 72
End School Zone	S5-2	7B.09	24 x 30	—	36 x 48
End School Speed Limit	S5-3	7B.15	24 x 30	—	36 x 48
In-Street Ped Crossing	R1-6, R1-6a, R1-6b, R1-6c	7B.11, 7B.12	12 x 36	—	—
Speed Limit (School Use)	R2-1	7B.15	24 x 30	—	36 x 48
Begin Higher Fines Zone	R2-10	7B.10	24 x 30	—	36 x 48
End Higher Fines Zone	R2-11	7B.10	24 x 30	—	36 x 48
Watch for School Bus	S3-Y3	7B.13	36 x 36	30 x 30	48 x 48
Stop When School Bus Stops	SR5-Y1	7B.13	24 x 24	24 x 24	24 x 24
All Lanes Stop When School Bus Stops	SR5-Y2	7B.13	36 x 36	36 x 36	36 x 36

Plaque	Sign Designation	Section	Conventional Road	Minimum	Oversized
X:XX to X:XX AM X:XX to X:XX PM	S4-1P	7B.15	24 x 10	—	36 x 18
When Children Are Present	S4-2P	7B.15	24 x 10	—	36 x 18
School	S4-3P	7B.09, 7B.15	24 x 8	—	36 x 12
When Flashing	S4-4P	7B.15	24 x 10	—	36 x 18
Mon-Fri	S4-6P	7B.15	24 x 10	—	36 x 18
All Year	S4-7P	7B.09	24 x 12	—	30 x 18
School Days Only	S4-Y8P	7B.15	24 x 10	-	36 x 18
Fines Higher	R2-6P	7B.10	24 x 18	—	36 x 24
XX Feet	W16-2P	7B.08	24 x 18	—	30 x 24
XX Ft	W16-2aP	7B.08	24 x 12	—	30 x 18
Turn Arrow	W16-5P	7B.08, 7B.09, 7B.11	24 x 12	—	30 x 18
Advance Turn Arrow	W16-6P	7B.08, 7B.09, 7B.11	24 x 12	—	30 x 18
Diagonal Arrow	W16-7P	7B.12	24 x 12	—	30 x 18
Diagonal Arrow (optional size)	W16-7P	7B.12	21 x 15	—	—
Ahead	W16-9P	7B.11	24 x 12	—	30 x 18

- Note: 1. Larger sizes may be used when appropriate
 2. Dimensions are shown in inches and are shown as width x height
 3. Minimum sign sizes for multi-lane conventional roads shall be as shown in the Conventional Road column

Section 7B.02 Illumination and Reflectorization**Standard:**

- 01 The signs used for school area traffic control shall be retroreflectorized or illuminated.

Section 7B.03 Position of Signs**Support:**

- 01 Sections 2A.16 and 2A.17 contain provisions regarding the placements and locations of signs.
02 Section 2A.19 contains provisions regarding the lateral offsets of signs.

Option:

- 03 In-roadway signs for school traffic control areas may be used consistent with the requirements of Sections 2B.12, 7B.11, and 7B.12.

Section 7B.04 Height of Signs**Support:**

- 01 Section 2A.18 contains provisions regarding the mounting height of signs.

Section 7B.05 Installation of Signs**Support:**

- 01 Section 2A.16 contains provisions regarding the installation of signs.

Section 7B.06 Lettering**Support:**

- 01 The “Standard Highway Signs and Markings” book (see Section 1A.11) contains information regarding sign lettering.

Section 7B.07 Sign Color for School Warning Signs**Standard:**

- 01 School warning signs, including the “SCHOOL” portion of the School Speed Limit (S5-1) sign and including any supplemental plaques used in association with these warning signs, shall have a fluorescent yellow-green background with a black legend and border unless otherwise provided in this Manual for a specific sign.

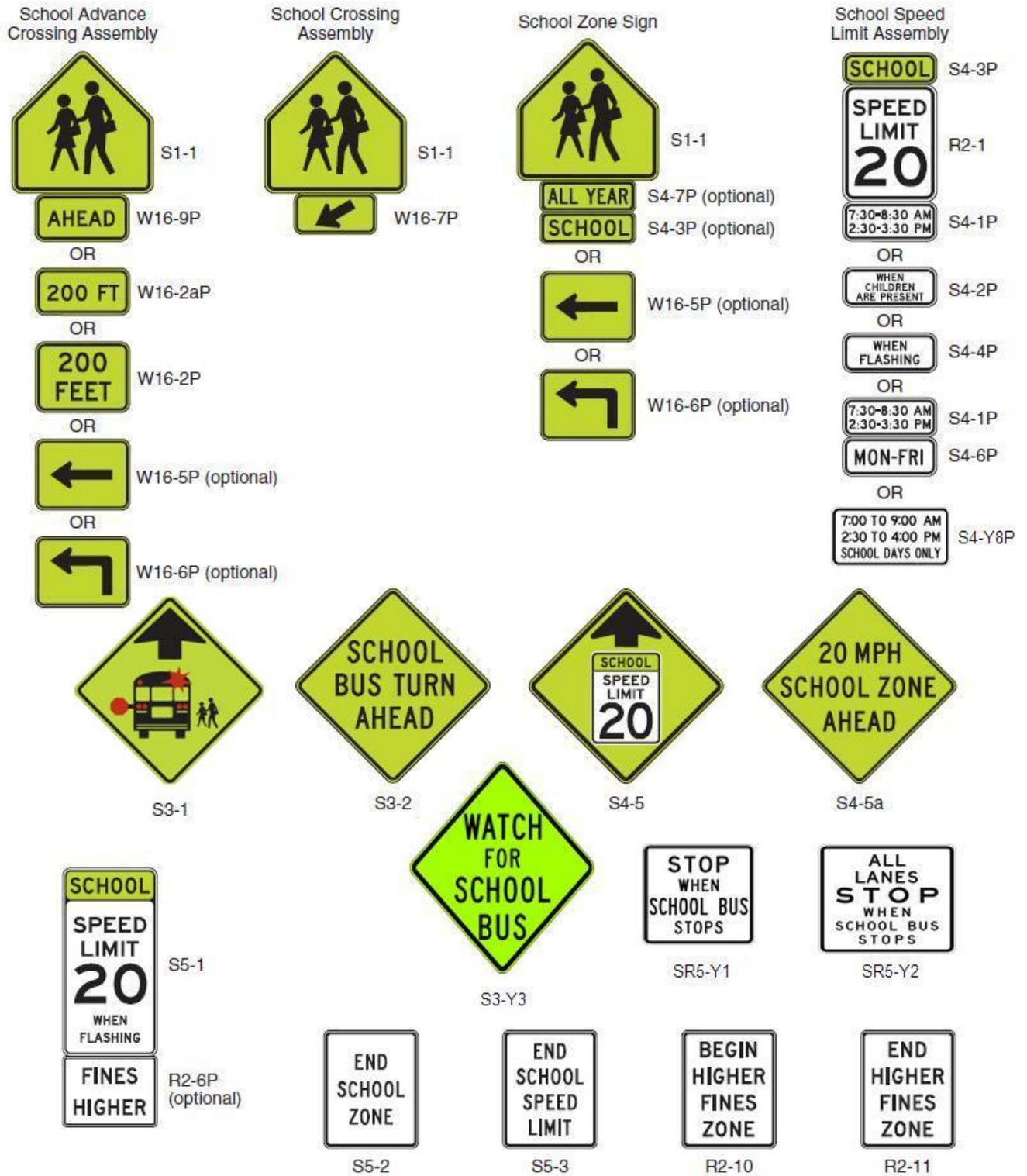
Section 7B.08 School Sign (S1-1) and Plaques**Support:**

- 01 Many state and local jurisdictions find it beneficial to advise road users that they are approaching a school that is adjacent to a highway, where additional care is needed, even though no school crossing is involved and the speed limit remains unchanged. Additionally, some jurisdictions designate school zones that have a unique legal standing in that fines for speeding or other traffic violations within designated school zones are increased or special enforcement techniques such as photo radar systems are used. It is important and sometimes legally necessary to mark the beginning and end points of these designated school zones so that the road user is given proper notice.
- 02 The School (S1-1) sign (see Figure 7B-1) has the following four applications:
- A. School Area – the S1-1 sign can be used to warn road users that they are approaching a school area that might include school buildings or grounds, a school crossing, or school related activity adjacent to the highway.
 - B. School Zone – the S1-1 sign can be used to identify the location of the beginning of a designated school zone (see Section 7B.09).
 - C. School Advance Crossing – if combined with an AHEAD (W16-9P) plaque or an XX FEET (W16-2P or W16-2aP) plaque to comprise the School Advance Crossing assembly, the S1-1 sign can be used to warn road users that they are approaching a crossing where schoolchildren cross the roadway (see Section 7B.11).
 - D. School Crossing – if combined with a diagonal downward pointing arrow (W16-7P) plaque to comprise the School Crossing assembly, the S1-1 sign can be used to warn approaching road users of the location of a crossing where schoolchildren cross the roadway (see Section 7B.12).

Option:

- 03 If a school area is located on a cross street in close proximity to the intersection, a School (S1-1) sign with a supplemental arrow (W16-5P or W16-6P) plaque may be installed on each approach of the street or highway to warn road users making a turn onto the cross street that they will encounter a school area soon after making the turn.

Figure 7B-1. School Area Signs



Section 7B.09 School Zone Sign (S1-1) and Plaques (S4-3P, S4-7P) and END SCHOOL ZONE Sign (S5-2)

Standard:

01 **If a school zone has been designated under State or local statute, a School (S1-1) sign (see Figure 7B-1) shall be installed to identify the beginning point(s) of the designated school zone (see Figure 7B-2).**

Option:

02 A School Zone (S1-1) sign may be supplemented with a SCHOOL (S4-3P) plaque (see Figure 7B-1).

03 A School Zone (S1-1) sign may be supplemented with an ALL YEAR (S4-7P) plaque (see Figure 7B-1) if the school operates on a 12-month schedule.

04 The downstream end of a designated school zone may be identified with an END SCHOOL ZONE (S5-2) sign (see Figures 7B-1 and 7B-2).

05 If a school zone is located on a cross street in close proximity to the intersection, a School Zone (S1-1) sign with a supplemental arrow (W16-5P or W16-6P) plaque may be installed on each approach of the street or highway to warn road users making a turn onto the cross street that they will encounter a school zone soon after making the turn.

Section 7B.10 Higher Fines Zone Signs (R2-10, R2-11) and Plaques

Standard:

01 **Where increased fines are imposed for traffic violations within a designated school zone, a BEGIN HIGHER FINES ZONE (R2-10) sign (see Figure 7B-1) or a FINES HIGHER (R2-6P), FINES DOUBLE (R2-6aP), or \$XX FINE (R2-6bP) plaque (see Figure 2B-3) shall be installed as a supplement to the School Zone (S1-1) sign to identify the beginning point of the higher fines zone (see Figures 7B-2 and 7B-3).**

Option:

02 Where appropriate, one of the following plaques may be mounted below the sign that identifies the beginning point of the higher fines zone:

- A. An S4-1P plaque (see Figure 7B-1) specifying the times that the higher fines are in effect,
- B. A WHEN CHILDREN ARE PRESENT (S4-2P) plaque (see Figure 7B-1), or
- C. A WHEN FLASHING (S4-4P) plaque (see Figure 7B-1) if used in conjunction with a yellow flashing beacon.

Standard:

03 **Where a BEGIN HIGHER FINES ZONE (R2-10) sign or a FINES HIGHER (R2-6P) plaque supplementing a School Zone (S1-1) sign is posted to notify road users of increased fines for traffic violations, an END HIGHER FINES ZONE (R2-11) sign (see Figure 7B-1) or an END SCHOOL ZONE (S5-2) sign shall be installed at the downstream end of the zone to notify road users of the termination of the increased fines zone (see Figures 7B-2 and 7B-3).**

Section 7B.11 School Advance Crossing Assembly

Standard:

01 **The School Advance Crossing assembly (see Figure 7B-1) shall consist of a School (S1-1) sign supplemented with an AHEAD (W16-9P) plaque or an XX FEET (W16-2P or W16-2aP) plaque.**

02 **Except as provided in Paragraph 3, a School Advance Crossing assembly shall be used in advance (see Table 2C-4 for advance placement guidelines) of the first School Crossing assembly (see Section 7B.12) that is encountered in each direction as traffic approaches a school crosswalk (see Figure 7B-4).**

Option:

03 The School Advance Crossing assembly may be omitted (see Figure 7B-5) where a School Zone (S1-1) sign (see Section 7B .09) is installed to identify the beginning of a school zone in advance of the School Crossing assembly.

04 If a school crosswalk is located on a cross street in close proximity to an intersection, a School Advance Crossing assembly with a supplemental arrow (W16-5P or W16-6P) plaque may be installed on each approach of the street or highway to warn road users making a turn onto the cross street that they will encounter a school crosswalk soon after making the turn.

05 A 12-inch reduced size in-street School (S1-1) sign (see Figure 7B-6), installed in compliance with the mounting height and special mounting support requirements for In-Street Pedestrian Crossing (R1-6 or R1-6a) signs (see Section 2B.12), may be used in advance of a school crossing to supplement the post-mounted school warning signs. A 12 x 6-inch reduced size AHEAD (W16-9P) plaque may be mounted below the reduced size in-street School (S1-1) sign.

Figure 7B-2. Example of Signing for a Higher Fines School Zone without a School Crossing

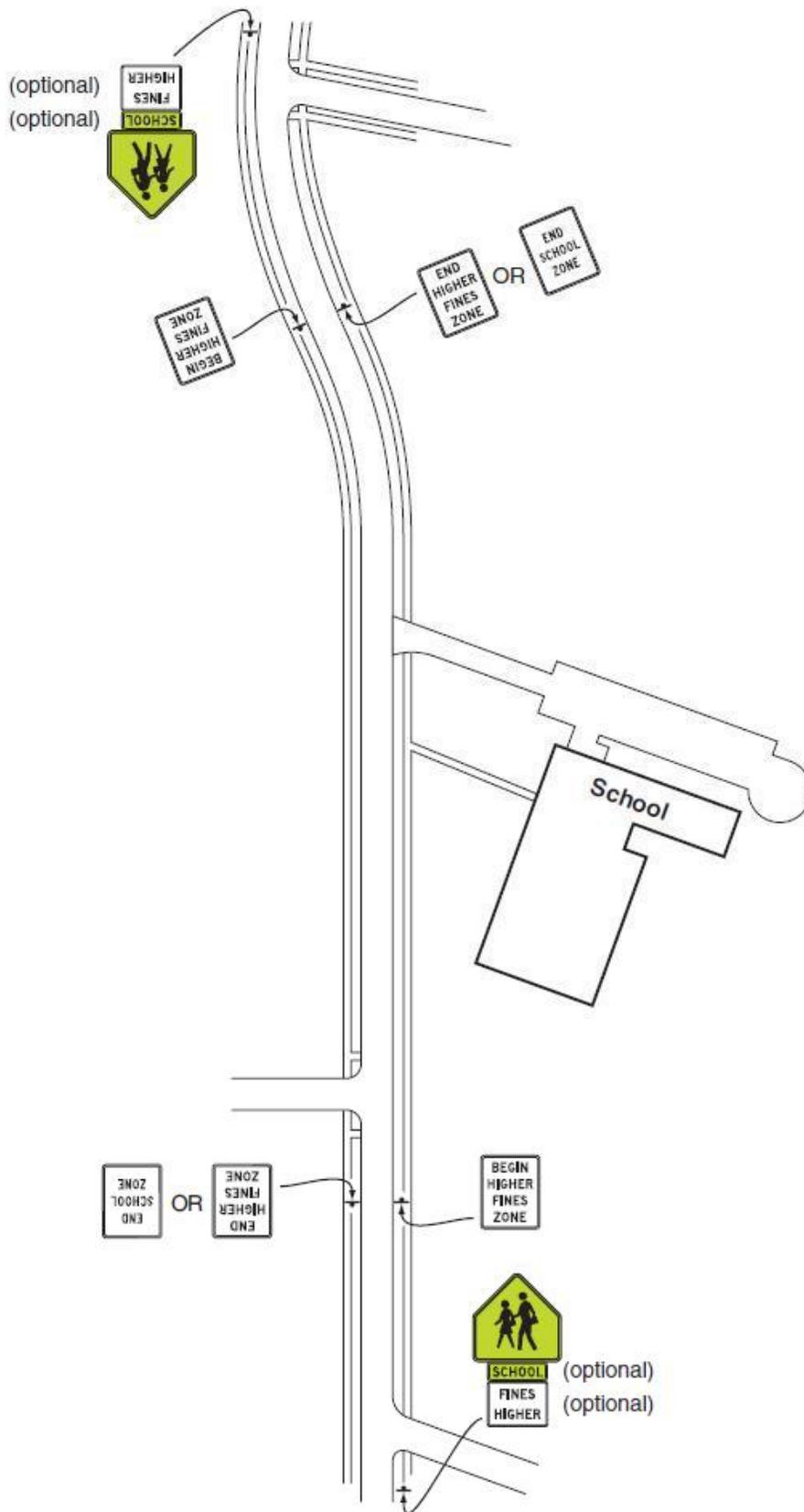


Figure 7B-3. Example of Signing for a Higher Fines School Zone with a School Speed Limit

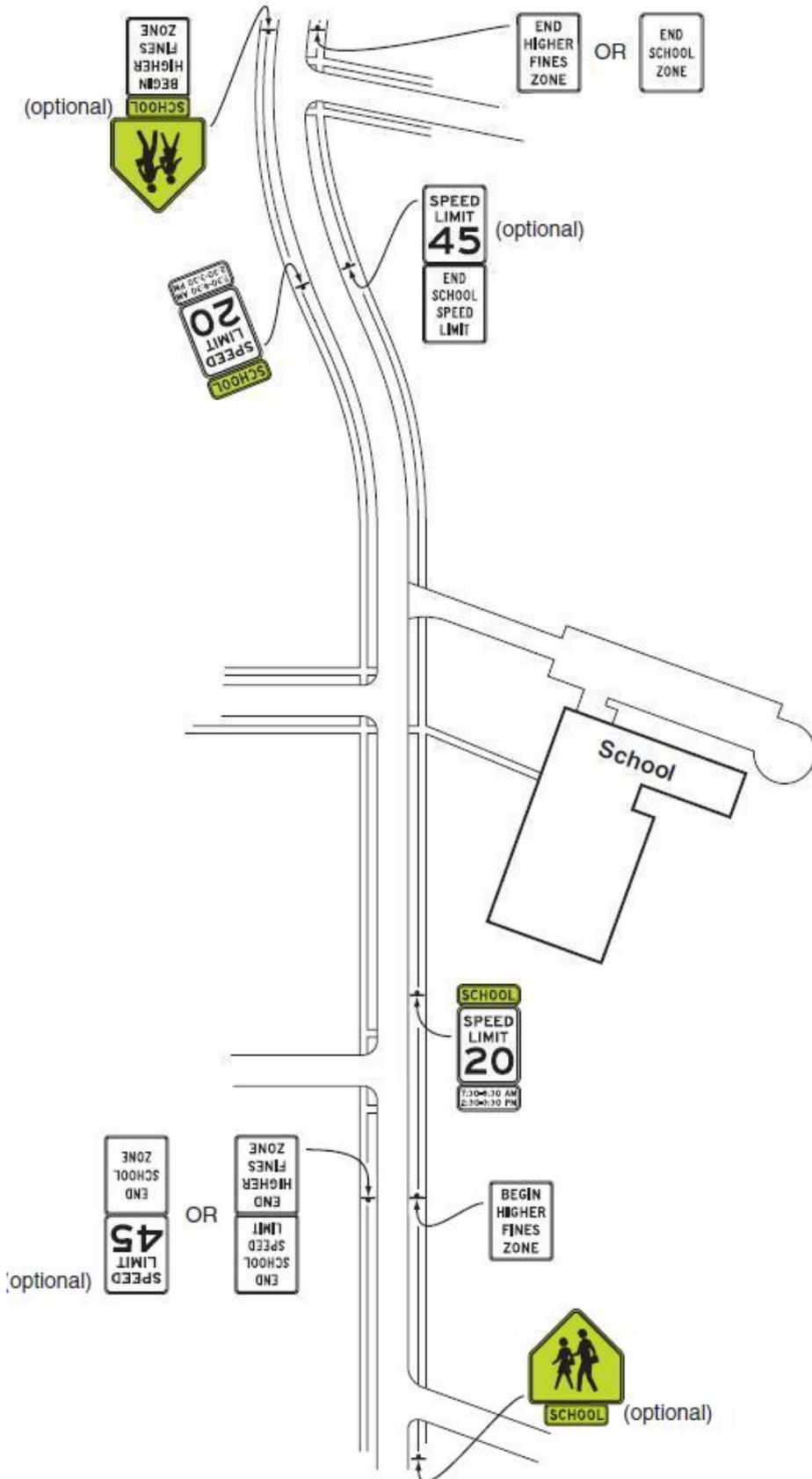


Figure 7B-4. Example of Signing for a School Crossing Outside of a School Zone

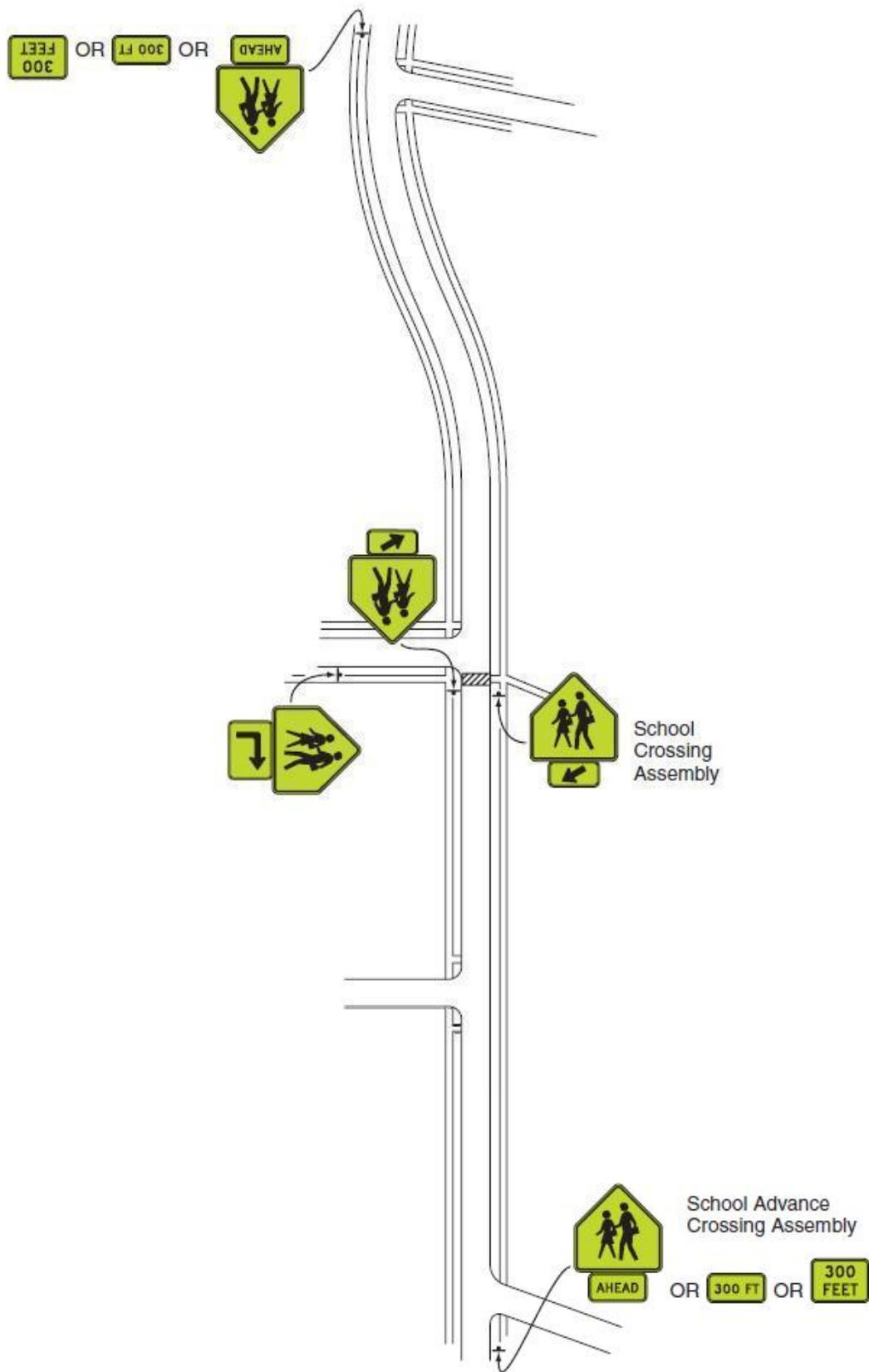


Figure 7B-5. Example of Signing for a School Zone with a School Speed Limit and a School Crossing

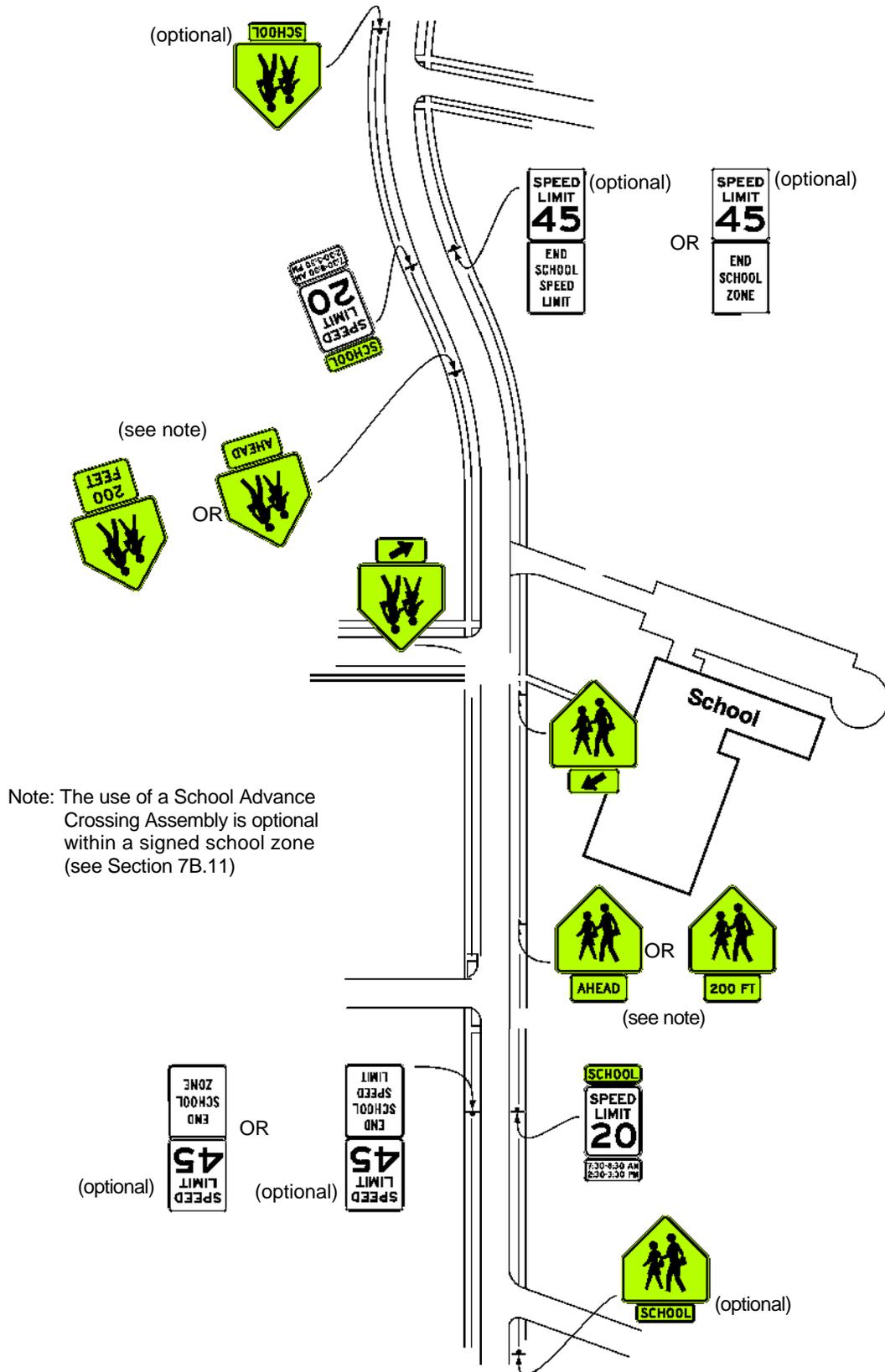
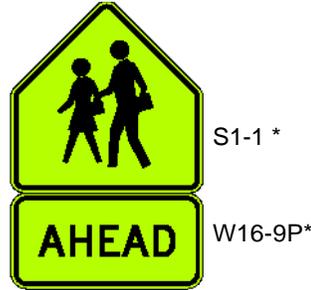


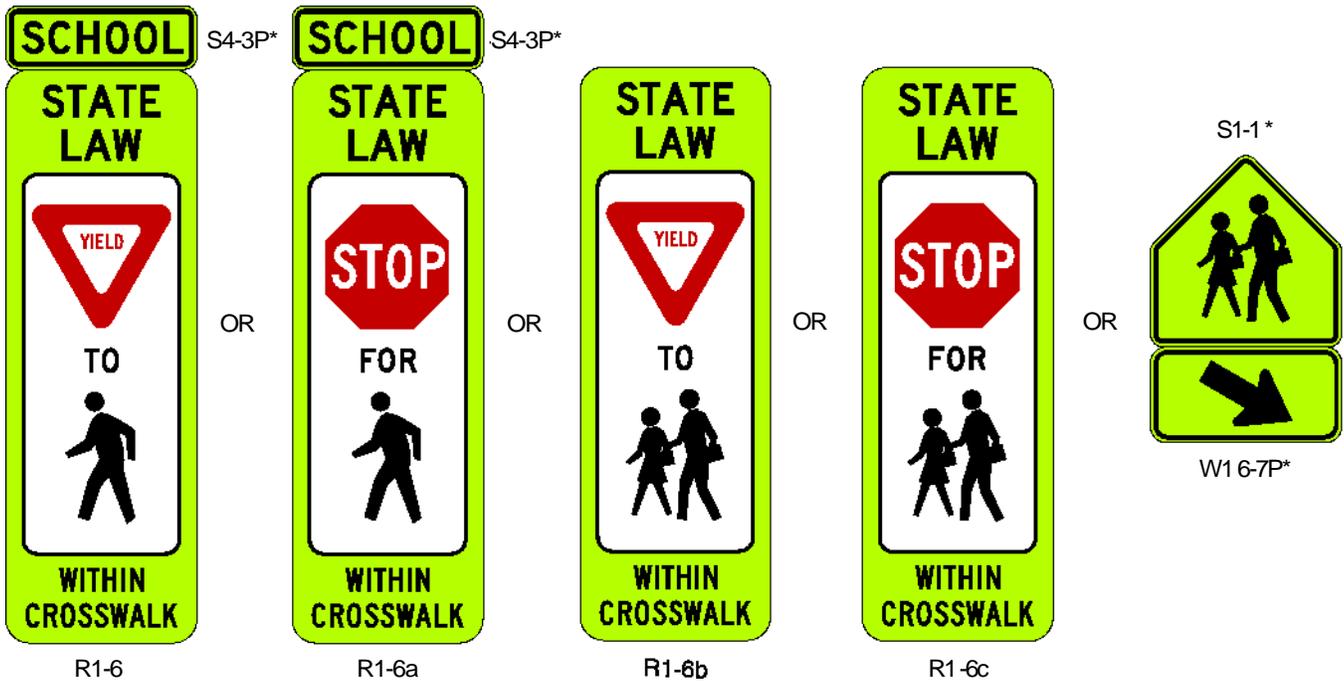
Figure 7B-6. In-Street Signs in School Areas

A - In advance of the school crossing



* Reduced size signs:
 S1-1 12 x 12 inches
 S4-3P 12 x 4 inches
 W16-7P 12 x 6 inches
 W16-9P 12 x 6 inches

B - At the school crossing



Notes:

1. The use of the STATE LAW legend is optional on the R1-6 series signs (see Section 7B.12).
2. The use of the SCHOOL plaque above the R1-6 and R1-6a signs is optional.

Section 7B.12 School Crossing Assembly

Standard:

- 01 **If used, the School Crossing assembly (see Figure 7B-1) shall be installed at the school crossing (see Figures 7B-4 and 7B-5), or as close to it as possible, and shall consist of a School (S1-1) sign supplemented with a diagonal downward pointing arrow (W16-7P) plaque to show the location of the crossing.**
 - 02 **The School Crossing assembly shall not be used at crossings other than those adjacent to schools and those on established school pedestrian routes.**
 - 03 **The School Crossing assembly shall not be installed on approaches controlled by a STOP or YIELD sign.**
- Option:**
- 04 **The In-Street Pedestrian Crossing (R1-6 or R1-6a) sign (see Section 2B.12 and Figure 7B-6) or the In-Street School children Crossing (R1-6b or R1-6c) sign (see Figure 7B-6) may be used at unsignalized school crossings. If used at a school crossing, a 12 x 4-inch SCHOOL (S4-3P) plaque (see Figure 7B-6) may be mounted above the sign. The STATE LAW legend on the R1-6 series signs may be omitted.**

05 The Overhead Pedestrian Crossing (R1-9 or R1-9a) sign (see Section 2B.12 and Figure 2B-2) may be modified to replace the standard pedestrian symbol with the standard schoolchildren symbol and may be used at unsignalized school crossings. The STATE LAW legend on the R1-9 series signs may be omitted.

06 A 12-inch reduced size in-street School (S1-1) sign (see Figure 7B-6) may be used at an unsignalized school crossing instead of the In-Street Pedestrian Crossing (R1-6 or R1-6a) or the In-Street Schoolchildren Crossing (R1-6b or R1-6c) sign. A 12 x 6-inch reduced size diagonal downward pointing arrow (W16-7P) plaque may be mounted below the reduced size in-street School (S1-1) sign.

Standard:

07 **If an In-Street Pedestrian Crossing sign, an In-Street Schoolchildren Crossing sign, or a reduced size in-street School (S1-1) sign is placed in the roadway, the sign support shall comply with the mounting height and special mounting support requirements for In-Street Pedestrian Crossing (R1-6 or R1-6a) signs (see Section 2B.12).**

08 **The In-Street Pedestrian Crossing sign, the In-Street Schoolchildren Crossing sign, the Overhead Pedestrian Crossing sign, and the reduced size in-street School (S1-1) sign shall not be used at signalized locations.**

Section 7B.13 School Bus Stop Ahead Sign (S3-1)

Guidance:

01 *The School Bus Stop Ahead (S3-1) sign (see Figure 7B-1) should be installed in advance of locations where a school bus, when stopped to pick up or discharge passengers, is not visible to road users for an adequate distance and where there is no opportunity to relocate the school bus stop to provide adequate sight distance.*

Option:

02 The WATCH FOR SCHOOL BUS (S3-Y3) sign (see Figure 7B-1) may be installed if the bus stops at individual residences to pick up or discharge passengers, rather than at a single location where numerous passengers are picked up or discharged.

Support:

03 It is not intended that that these signs be used everywhere a school bus stops to pick up or discharge passengers but for use only where terrain and roadway features limit the approach sight distance and where there is no opportunity to relocate the stop to another location with adequate visibility. The need for these signs should be determined by a field investigation and engineering judgment.

Option:

04 The STOP WHEN SCHOOL BUS STOPS (SR5-Y1) sign may be used at a location where motorists have been observed to regularly ignore the extended arm signal device displayed on a stopped school bus.

05 The ALL LANES STOP WHEN SCHOOL BUS STOPS (SR5-Y2) sign may be used on a non-divided highway at a location where motorists heading in the opposite direction of a stopped school bus have been observed to regularly ignore the extended arm signal device when displayed.

Standard:

06 **The ALL LANES STOP WHEN SCHOOL BUS STOPS (SR5-Y2) sign shall not be used on a divided highway.**

Section 7B.14 SCHOOL BUS TURN AHEAD Sign (S3-2)

Option:

01 The SCHOOL BUS TURN AHEAD (S3-2) sign (see Figure 7B-1) may be installed in advance of locations where a school bus turns around on a roadway at a location not visible to approaching road users for a distance as determined by the "0" column under Condition B of Table 2C-4, and where there is no opportunity to relocate the school bus turn around to provide the distance provided in Table 2C-4.

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)

Standard:

01 **A School Speed Limit assembly (see Figure 7B-1) or a School Speed Limit (S5-1) sign (see Figure 7B-1) shall be used to indicate the speed limit where a reduced school speed limit zone has been established based upon an engineering study or where a reduced school speed limit is specified for such areas by statute. The School Speed Limit assembly or School Speed Limit sign shall be placed at or as near as practical to the point where the reduced school speed limit zone begins (see Figures 7B-3 and 7B-5).**

02 **If a reduced school speed limit zone has been established, a School (S1-1) sign shall be installed in advance (see Table 2C-4 for advance placement guidelines) of the first School Speed Limit sign assembly or S5-1 sign that is**

encountered in each direction as traffic approaches the reduced school speed limit zone (see Figures 7B-3 and 7B-5).

03 **Where increased fines are imposed for traffic violations within a reduced school speed limit zone, a FINES HIGHER (R2-6P), FINES DOUBLE (R2-6aP), or \$XX FINE (R2-6bP) plaque (see Figure 2B-3) shall be installed as a supplement to the reduced school speed limit sign to notify road users.**

04 **Except as provided in Paragraph 5, 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).**

Option:

05 If a reduced school speed limit zone ends at the same point as a higher fines zone, an END SCHOOL ZONE (S5-2) sign may be used instead of a combination of an END HIGHER FINES ZONE (R2-11) sign and an END SCHOOL SPEED LIMIT (S5-3) sign.

06 A standard Speed Limit sign showing the speed limit for the section of highway that is downstream from the authorized and posted reduced school speed limit zone may be mounted on the same post above the END SCHOOL SPEED LIMIT (S5-3) sign or the END SCHOOL ZONE (S5-2) sign.

Guidance:

07 *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; however, this 200-foot distance should be increased if the reduced school speed limit is 30 mph or higher*

Standard:

08 **The School Speed Limit assembly shall be either a fixed-message sign assembly or a changeable message sign.**

09 **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, S4-4P, S4-6P or S4-Y8P) indicating the specific periods of the day, days of the week or days of the year that the special school speed limit is in effect (see Figure 7B-1).**

Option:

10 Changeable message signs (see Chapter 2L and Section 6F.60) may be used to inform drivers of the school speed limit. If the sign is internally illuminated, it may have a white legend on a black background. Changeable message signs with flashing beacons may be used for situations where greater emphasis of the special school speed limit is needed.

Guidance:

11 *Even though it might not always be practical because of special features to make changeable message signs conform in all respects to the standards in this Manual for fixed-message signs, during the periods that the school speed limit is in effect, their basic shape, message, legend layout, and colors should comply with the standards for fixed-message signs.*

12 *A confirmation light or device to indicate that the speed limit message is in operation should be considered for inclusion on the back of the changeable message sign.*

Standard:

13 **Fluorescent yellow-green pixels shall be used when the “SCHOOL” message is displayed on a changeable message sign for a school speed limit.**

Option:

14 Changeable message signs may use blank-out messages or other methods in order to display the school speed limit only during the periods it applies.

15 Changeable message signs that display the speed of approaching drivers (see Section 2B.13) may be used in a school speed limit zone.

16 A Speed Limit Sign Beacon (see Section 4L.04) also may be used, with a WHEN FLASHING legend, to identify the periods that the school speed limit is in effect.

Section 7B.16 Reduced School Speed Limit Ahead Sign (S4-5, S4-5a)

Guidance:

01 *A Reduced School Speed Limit Ahead (S4-5, S4-5a) sign (see Figure 7B-1) should be used to inform road users of a reduced speed zone where the speed limit is being reduced by more than 10 mph, or where engineering judgment indicates that advance notice would be appropriate.*

Standard:

02 **If used, the Reduced School Speed Limit Ahead sign shall be followed by a School Speed Limit sign or a School Speed Limit assembly.**

- 03 **The speed limit displayed on the Reduced School Speed Limit Ahead sign shall be identical to the speed limit displayed on the subsequent School Speed Limit sign or School Speed Limit assembly.**

Section 7B.17 Parking and Stopping Signs (R7 and R8 Series)

Option:

- 01 Parking and stopping regulatory signs may be used to prevent parked or waiting vehicles from blocking pedestrians' views, and drivers' views of pedestrians, and to control vehicles as a part of the school traffic plan.
- Support:
- 02 Parking signs and other signs governing the stopping and standing of vehicles in school areas cover a wide variety of regulations. Typical examples of regulations are as follows:
- A. No Parking X:XX AM to X:XX PM School Days Only,
 - B. No Stopping X:XX AM to X:XX PM School Days Only,
 - C. XX Min Loading X:XX AM to X:XX PM School Days Only, and
 - D. No Standing X:XX AM to X:XX PM School Days Only.
- 03 Sections 2B.46, 2B.47, and 2B.48 contain information regarding the signing of parking regulations in school zone areas.