

**North Carolina Department of Transportation
Division of Highways
Transportation Mobility and Safety Division**

**STANDARD PRACTICE
for
ESTABLISHING A SCHOOL SPEED ZONE ON A STATE SYSTEM STREET OR
HIGHWAY IN NORTH CAROLINA**

A. TOPIC OWNER

[Traffic Safety Unit](#)

B. PURPOSE

This practice provides guidance and uniformity on how and when speed limit reductions are established for a school speed zone. This practice is not intended for use in removal of existing signs; however, when a new project is established for the North Carolina highway system, or when the existing speed zone is in need of reevaluation, or when existing signs are in need of replacement, repair or maintenance, conformance with this practice is required.

C. OVERVIEW

These guidelines below provide the criteria to be used to reduce the regulatory speed limit on state-maintained streets and highways in order to establish a school speed zone for public, private, and parochial schools for K-12th grades. It is standard practice to allow and/or install regulatory signs for a school speed zone only if the requesting facility meets all the criteria and guidelines herein. If approved, signs shall be designed, located and erected according to the standards of the [Manual on Uniform Traffic Control Devices \(MUTCD\)](#), the [North Carolina Supplement to the MUTCD](#), the [North Carolina Roadway Standard Drawings](#) and the standards and criteria herein.

D. GUIDELINES

1. The Department of Transportation may, upon the basis of a traffic engineering and safety investigation, reduce the regulatory speed limit on state-maintained streets and highways in order to establish a school speed zone for public, private, and parochial schools for K-12th grades.
2. Highways designated as part of the Interstate System or other fully controlled access highways do not qualify for speed limit reductions under this Standard Practice and therefore shall not have posted school speed zones. School speed zones should not normally be considered on partially controlled access highways except where there is a special need based on a traffic engineering and safety investigation. An example would be when the school is located so close to the major roadway (off of a SR or city street) that the flow of traffic on the major roadway is impeded during the peak school times.

3. No school speed zones will be considered until a formal signed letter from the individual school principal or other official of the school system is received by the Department of Transportation. The official signed letter should be addressed to the appropriate Division Engineer and should include the following documentation:

- A. Number of students (K-12)
- B. Approximate number of student pedestrians and bicyclists
- C. Approximate number of student drivers and/or car riders
- D. Number of buses and ridership
- E. Number of staff members (teachers, administration, and support staff)
- F. Beginning and dismissal times at the school
- G. Beginning and dismissal times of before and after school programs
- H. A list of extracurricular events and their typical schedule
- I. Whether or not the school routinely uses a crossing guard on state system roadways
- J. A description of the school's student loading plan

4. The requesting school shall have a minimum enrollment of at least 200 students (K-12) and include some student pedestrians or student bicyclists using adjacent state system roadways before a school speed zone will be considered.

GUIDANCE: Regardless of the number of student pedestrians or bicyclists, if any of the following conditions are present, a reduced school speed zone may be considered:

- A. Recurrent excessive queuing onto the subject route during the school's beginning and/or dismissal times that has been determined as non-correctable through on-campus traffic patterns and/or student loading operations.
- B. Poor intersection visibility and/or decision sight distance at school entrance(s).
- C. Crash rate for the subject route is higher than the statewide critical crash rate for similar type routes.
- D. The presence of unsignalized and unguarded pedestrian crosswalks adjacent to the school.

GUIDANCE: Preschools, Child Development Centers and other daycare type facilities are not eligible for school speed zones and school pavement markings are not allowed in advance of these type facilities.

5. The school speed limit so established should not be ordained more than 10 mph below the posted or statutory non-school speed limit unless the traffic engineering and safety investigation determines there are unsafe conditions adjacent to the school greater than those normally present in school areas. Per [G.S. §20-141.1](#), the school speed limit shall not be less than 20 mph.

GUIDANCE: At least two of the following conditions should be present on the subject route before setting a school speed limit more than 10 mph below the posted non-school speed limit:

- A. Recurrent excessive queuing onto the subject route during the school's beginning and/or dismissal times that has been determined as non-correctable through on-campus traffic patterns and/or student loading operations.
 - B. Poor intersection visibility and/or decision sight distance at school entrance(s).
 - C. Crash rate for the subject route is higher than the statewide critical crash rate for similar type routes.
 - D. Non-school speed limit is set at 55 mph or higher.
 - E. The presence of unsignalized and unguarded pedestrian crosswalks adjacent to the school.
6. The reduced speed zone should begin either at a point 200 ft from the crosswalk adjacent to the school, or at a point 100 ft minimum – 500 ft maximum from the school property line, based on whichever is encountered first as traffic approaches the school. See layouts and guidance in RSD 910.20 and the current [MUTCD](#).

GUIDANCE: The engineer should consider the location of school entrances/exits and existing vehicle queuing on the subject route when setting the limits of the school speed zone.

7. Restrictive school speed limits should **NOT** normally be established along highways without bordering (adjacent/abutting) school property or along highways that have bordering school property but have no school access points and minimal or no pedestrian activity. That is unless a traffic engineering and safety investigation shows there are unsafe conditions on the subject route that could be significantly reduced by the implementation of a lower school speed limit.

GUIDANCE: The engineer should verify that at least one of the following conditions is present before establishing a school speed zone along a highway without bordering school property or along highways that have bordering school property but have no school access points and minimal pedestrian activity:

- A. Recurrent significant queuing caused by school traffic is present on the subject route during the arrival and/or dismissal times of the school that has been determined as non-correctable through on-campus traffic patterns and/or student loading operations.
- B. There is a significant crash history on the subject route during the arrival and/or dismissal times at the school.
- C. There is a large percentage of school traffic using a stop sign controlled intersection leading to the school that has safety and/or capacity concerns.

8. The times for the school speed limit should be determined by the investigating engineer and should only be in effect during the hour surrounding the time of each beginning and ending school schedule or bell. Typically, the school speed zone should only be in effect during the hour “30 minutes before to 30 minutes after school begins and ends” unless the investigating engineer determines a different time period is appropriate. If the school requests a different time period, documentation showing clear justification for changing or extending the time from the “30 minutes before to 30 minutes after school begins and ends” should be provided.

GUIDANCE: The engineer should verify that at least one of the following conditions is present before extending the “30 minutes before to 30 minutes after school begins and ends” guideline:

- A. The school has a significant number of students participating in before and/or after school programs.
- B. The school has a significant number of extracurricular events that generates a large volume of traffic on the subject route.
- C. The school generates a significant amount of pedestrian or vehicular traffic outside of the “30 minutes before to 30 minutes after” time frame.

The Department will only install and maintain school flashers if a “traffic and engineering investigation conducted by the Department of Transportation shows that there are hazardous conditions present adjacent to a school greater than those normally present in school areas, and that these conditions can be alleviated by the use of school flashers” in accordance with [NCAC 19A:02B.0232](#). See [TEPPL Topic S-11](#) for guidance on school zone flashers.

9. The presence (or construction) of roadway improvements (ex. turn lanes) or other traffic control devices (i.e. traffic signals) may mitigate the need for a school speed zone.
10. The school or school system should be encouraged to implement on site/off site or operational improvements recommended by the NCDOT engineering investigation prior to establishing a school speed zone.

ADDITIONAL GUIDANCE: If the requesting school does not meet the specified enrollment criteria for a school speed zone but is a smaller, well established school (in operation two or more calendar years) with an enrollment of at least 100 students, the school may request School Advance Warning signs (S1-1). The Department’s investigating engineer will make the determination if school advance warning signs (with or without advisory speed plaques mounted under the signs) are warranted based on the [MUTCD](#) and engineering judgment.

Sign designs shall conform to Department standards for sign and letter size, design layout and sheeting type and color.

NCDOT reserves the right to request documentation from the school or school system at any time to confirm that the facility continues to meet requirements. NCDOT reserves the right to revise or remove school speed zone ordinances and revise or remove signs based on current conditions and if necessary when roadway improvements or changes in the roadway cross section or configuration necessitates a new investigation.