

# **SCHOOL ZONE TRAFFIC SAFETY EVALUATION**



COLORADO DEPARTMENT OF TRANSPORTATION  
SAFETY AND TRAFFIC ENGINEERING BRANCH

2005

**IN COOPERATION WITH:**

**AAA COLORADO  
COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT  
COLORADO DEPARTMENT OF EDUCATION  
DENVER OSTEOPATHIC FOUNDATION  
DRIVE SMART  
PTA COLORADO**

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## **INTRODUCTION**

### **PURPOSE:**

Your responses to the following Checklist will assist the Colorado Department of Transportation Regional and Headquarters Traffic Engineering staff with their determination of those traffic control measures that are necessary to provide for the safe movement of school age pedestrians within the school zone. These questions deal with a broad range of issues that relate to the overall traffic safety situation at your school.

One of the most pressing and controversial problems that parents, transportation engineers, law enforcement agencies and school administrators are faced with concerns the safety of children on their way to and from school. This topic always produces great concern for parents and administrators due to the potentially severe consequences of a vehicle/child pedestrian accident. The primary question facing these agencies and individuals is how the school transportation safety issue can be best handled with maximum safety effectiveness.

School zone safety is a function of many different factors. Frequently when this matter is examined the only issues evaluated are the streets and highways immediately around the school in question. As this checklist is completed it will become obvious that many other items are involved in school zone safety.

### **SAFETY FACTORS:**

There are a number of factors affecting the overall transportation safety situation for a school. These factors include physical setting, school population characteristics, transportation, education, and law enforcement. Each of these items can have a dramatic affect on the safety of a child on his or her way to school and the manner in which that city or county and the school district should handle a particular school's situation.

Following receipt of this checklist the Department of Transportation will, if necessary, validate issues and concerns expressed through field investigation and a Traffic Engineering Study. The determination of whether a reduction in basic speed limit is warranted for the school will be based upon the degree of exposure of school age pedestrians to traffic and the nature of that traffic. Other factors include but are not limited to the age of the school children who must cross the highway and the frequency and number of children exposed to traffic. The presence of a school along a state highway or city street does not always expose children to traffic.

Furthermore, a speed reduction within the school zone to simply accommodate entering and exiting vehicles from the school is not appropriate.

### **MISCONCEPTIONS:**

Past thinking was that once a child had reached the school grounds he or she was safe and did not need to worry about vehicular traffic. Many of today's school grounds are not safe havens for young pedestrians. Confusion created by a complicated combination of driveways and sidewalks has become common in the typical layout for school grounds of today.

### **MISCONCEPTIONS (Cont'd):**

Arrival and departure practices at some schools consist of parents dropping off or picking up students at the same time school buses are attempting to use the same driveways. The situation can be further complicated by school age pedestrians and young bicycle riders attempting to navigate through this setting using the same driveways. This type of layout requires young children to maneuver through a maze of parked and moving cars while at the same time watch for buses that may also be moving.

### **SCHOOL ZONE SAFETY EVALUATION:**

#### **GETTING STARTED WITH THE CHECKLIST:**

In all likelihood, more than one person will need to be contacted to assist with providing answers to the questions on the Checklist. School administrators, local government officials and law enforcement agency representatives with responsibility for the school area in question should be asked to provide answers related to their disciplines. Do not attempt to provide answers to sections of the Checklist that fall within the purview of another. It is the responsibility of the governmental representative signing this document to assure that there are no inaccurate or misleading responses provided in this Checklist.

Certain terminology used in the checklist may not be familiar to the persons preparing the response. An attached glossary of terms is provided to assist and provide a basis for understanding and response.

#### **SAFETY ASSESSMENT TOOL:**

This checklist can be helpful as an indicator of the overall safety condition within the school area and can be used by any concerned individual or group to do a community school safety assessment on their own. Normally, there are many ways to improve the school safety scene. The Checklist is set up to help focus on safety deficiencies.

Keep in mind that speed limit reductions for school areas, if warranted, are based upon the exposure of school age pedestrians to traffic and the age of those children as well as the nature of the traffic (i.e., volume, roadway width, pedestrian crosswalks, percentage of trucks, etc.). The speed limit within the school zone will be determined by a traffic engineering study.

## **SAFETY CATEGORIES:**

School safety zones are complex, therefore the Checklist is divided into five categories:

- (1) School Population Characteristics,
- (2) Transportation Issues,
- (3) Physical Setting,
- (4) Education Issues, and
- (5) Law Enforcement

The five areas may overlap and be reliant upon other aspects contained in another section. The School Population Characteristics section asks for basic information about the students, staff, parents and others connected with the school. How students are transported to and from school is addressed in the section on Transportation Issues. The Physical Setting section asks questions which will define the physical characteristics of a school zone. Most questions in this area are measurable and self explanatory. Education Issues relates to how students receive safety information and other learning concerns. Finally, the Law Enforcement portion identifies the current role and exposure of police in and around the school grounds. After the completion of all five sections, you should have a better understanding of your individual school's safety needs.

## **CHECKLIST CONTACT INFORMATION INSTRUCTIONS:**

The Checklist Contact Information portion of the Checklist must be completed and accompany your Checklist when it is submitted. It provides the opportunity to explain any additional circumstances specific to the school in question. Furthermore, it documents the authenticity of the Checklist and provides the authorized city/county officials' signatures.

Please present the completed Checklist with the Contact form to your municipal or county official(s) for processing, approval, signature and mailing. Do not send these documents directly to the Department of Transportation. Before the documents can be processed by CDOT the Contact portion of the form must be signed by the appropriate city or county official(s) authorized to request an official traffic engineering study. It is their responsibility to then forward the documents on to the Department of Transportation Region Traffic Engineer.

Checklist documents received by the Department of Transportation lacking the official governmental signatures will be returned to the appropriate city or county for approval and processing.

## **SCHOOL ZONE SAFETY CHECKLIST:**

### **SCHOOL POPULATION CHARACTERISTICS:**

1. Type of School: High School  Junior/Middle School  Elementary
2. Is the school on a standard nine month schedule (versus year-round school \*)?  
 Yes  No
3. How many students are currently enrolled in the school? \_\_\_\_\_
4. Closed campus\*?  Yes  No
5. Does the school have an “on-site management or cooperative decision making team\*”?  Yes  No

### **TRANSPORTATION ISSUES:**

6. Is there a “walking and/or biking school route map/plan\*”?  Yes  No
7. Is the “school route map/plan\*” up to date?  Yes  No
8. Does the school have a policy on how students can/must be transported?  
 Yes  No
9. The number of children that normally walk or bike to school. \_\_\_\_\_
10. What portion of those walking/biking to school must cross the state highway in question? \_\_\_\_\_
11. Is large truck traffic limited on the highway in question?  Yes  No
12. Is large truck traffic limited on adjacent streets?  Yes  No

### **PHYSICAL SETTING:**

13. Is the school located in a residential area?  Yes  No
14. Does the school zone current have signing and pavement markings?  
 Yes  No
15. Do you feel the school zone signing and pavement markings are in good condition?  Yes  No

\* Indicates a term that is defined in the Glossary on Page 12

**PHYSICAL SETTING (Cont'd):**

16. Do pedestrian crosswalks currently exist?  Yes  No
17. Are there sidewalks along the designated route to the school?  Yes  No
18. Is there a designated child drop-off\* area separate from the school bus drop-off\* area?  Yes  No
19. Is there a traffic control plan for school buses and parent's vehicles?  Yes  No
20. Parking situation.
- a.) Is diagonal parking\* prohibited near the school?  Yes  No
- b.) Is diagonal parking\* prohibited on school grounds?  Yes  No
- c.) Is it difficult to see pedestrians in the crosswalk?  Yes  No
21. Does the municipality / county have a traffic engineer?  Yes  No
22. (Note: If you answered yes to question 21, skip this question.)  
If the municipality / county does not have a traffic engineer, who is the person responsible for traffic engineering decisions?
- Chief of Police  Sheriff  Other \_\_\_\_\_
- \_\_\_\_\_
- (Name and Title)
23. Are children directed to designated crossing locations by secured fencing\*?  Yes  No
24. Is the school playground protected with secured fencing\*?  Yes  No
25. Is the campus completely contained on one side of the highway with no need for students to cross the highway during the school day?  Yes  No
26. Are there multiple schools on the same grounds?  Yes  No  
(If you answered Yes to this question, all Principals must approve the request for a Traffic Engineering Study.)

**EDUCATION ISSUES:**

27. Does the school have an adult crossing guard\* program?  Yes  No
28. Is there a training program for crossing guards\*?  Yes  No

\* Indicates a term that is defined in the Glossary on Page 12

**EDUCATION ISSUES (Cont'd):**

29. Is there a school safety patrol\*?  Yes  No

If so, what grades? \_\_\_\_\_

Number of participating students? \_\_\_\_\_

30. Who administers the crossing guard\* program?

School  PTA  Municipality  County  Other

31. Does the school have a safety education program that:

Addresses pedestrian behavior?  Yes  No

Addresses bicycle safety?  Yes  No

Addresses seat belt usage?  Yes  No

**LAW ENFORCEMENT:**

32. What is the posted speed limit on the state highway in question? \_\_\_\_\_

33. Is there good compliance with existing speed limits?  Yes  No

34. What law enforcement agency is responsible for this school zone? (e.g. State Patrol, Sheriff's office, City police)? \_\_\_\_\_

How often does the responsible law enforcement agency patrol the area during the school day? (Average number of patrols per day.) \_\_\_\_\_

- Indicates a term that is defined in the Glossary on Page 12

**CHECKLIST CONTACT INFORMATION:**

(Please type or print all information except signature)

<b>SCHOOL DISTRICT NAME AND NUMBER</b>	
<b>NAME OF SCHOOL (#1)**</b>	<b>NAME OF SCHOOL (#2)**</b>
<b>ADDRESS**</b>	<b>ADDRESS**</b>
<b>PHONE NUMBER**</b>	<b>PHONE NUMBER**</b>
<b>EMAIL**</b>	<b>EMAIL**</b>
<b>PRINCIPAL'S NAME**</b>	<b>PRINCIPAL'S NAME**</b>
<b>(School Authority) SIGNATURE**</b>	<b>(School Authority) SIGNATURE**</b>

**NAME OF PERSON PREPARING THE CHECKLIST:**

<b>ORGANIZATION NAME (IF APPLICABLE)</b>
<b>PHONE NUMBER</b>
<b>EMAIL</b>

\*\*If there are Multiple Schools on the same Grounds.



## **CDOT REGIONAL TRAFFIC ENGINEERS:**

Once the Checklist has been completed and approved by the municipality or county, it should be sent to the Colorado Department of Transportation, Regional Traffic Engineer for your area.

The CDOT Regional Map, on page 10, can be helpful in determining which CDOT Engineering Region contact is appropriate for you. The municipality or county representative should direct the Checklist mailing to the Traffic Engineering Office within the appropriate Region.

**REGION 1**    18500 East Colfax Avenue  
Aurora, Colorado    80011  
(303) 757-9122; fax (303) 343-0596

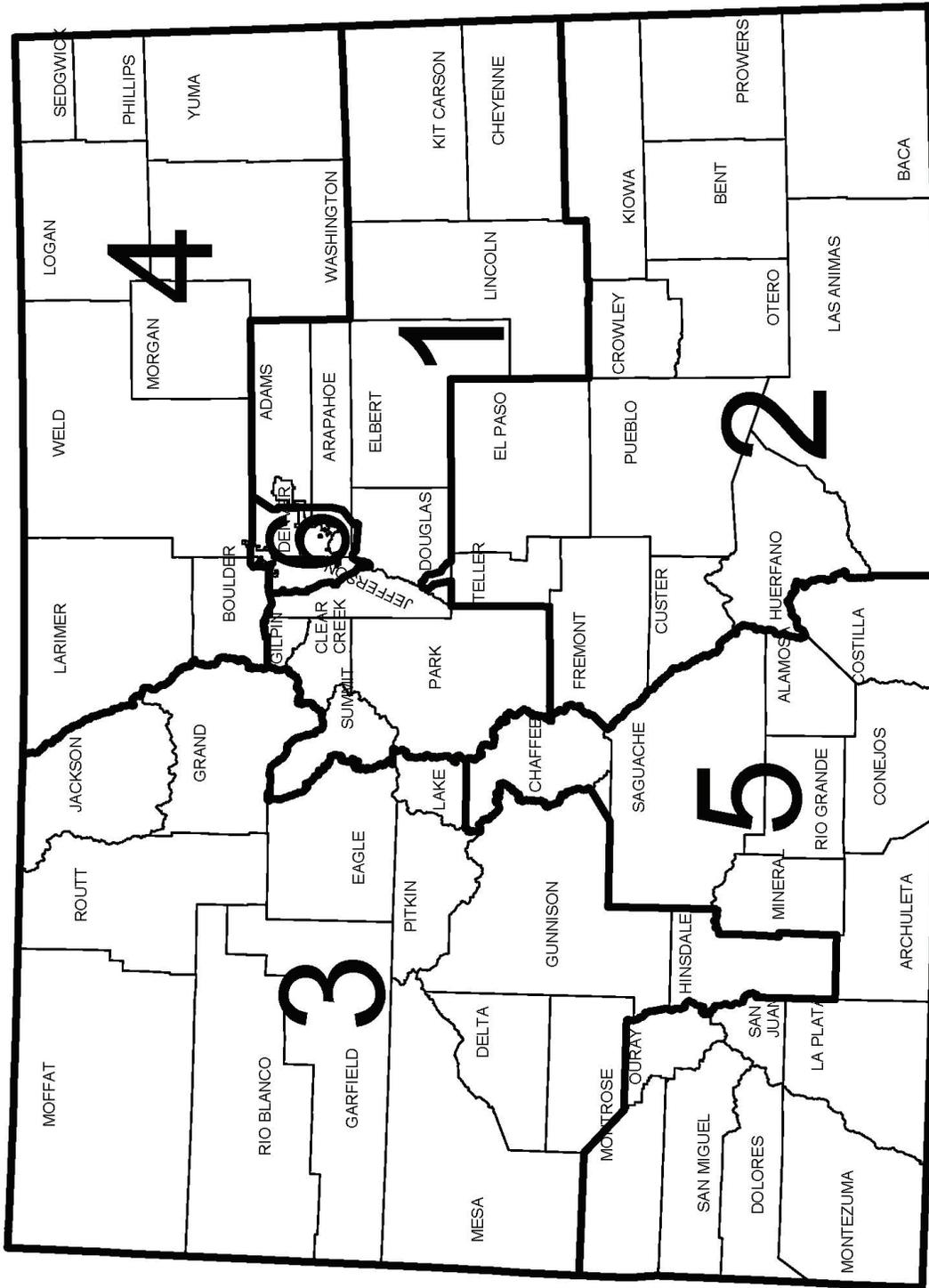
**REGION 2**    905 Erie Avenue  
P.O. Box 536  
Pueblo, Colorado    81002  
(719) 546-5411; fax (719) 546-5414

**REGION 3**    222 South Sixth St. Room 100  
Grand Junction, Colorado    81501-2769  
(970) 248-7230; fax (970) 248-7254

**REGION 4**    1420 2<sup>nd</sup> Street  
Greeley, Colorado    80631  
(970) 350-2121; fax (970) 350-2198

**REGION 5**    3803 North Main Ave., Suite 100  
Durango, Colorado    81301  
(970) 385-8360; fax (970) 385-8361

**REGION 6**    2000 South Holly Street  
Denver, Colorado    80222  
(303) 757-9511; fax (303) 757-9907



CDOT Transportation Regions

**COMMITTEE PARTICIPANTS AND EDUCATIONAL RESOURCES:**

<b>AAA Colorado, Inc</b>	<b>Drive Smart Evergreen – Conifer</b>
<b>Driver Education / Traffic Safety</b>	<b>27902 Meadow Dr.</b>
<b>4100 East Arkansas Ave.</b>	<b>Evergreen, Colorado 80439</b>
<b>Denver, Colorado 80222</b>	<b>(303) 674-9683</b>
<b>(303) 753-8800</b>	
	<b>Federal Highway Administration</b>
<b>Children’s Hospital</b>	<b>Safety and Traffic Operations</b>
<b>1056 East 19<sup>th</sup> Avenue</b>	<b>12300 West Dakota Avenue, Suite 180</b>
<b>Denver, Colorado 80218</b>	<b>Lakewood, Colorado 80228</b>
<b>(303) 861-8888</b>	<b>(720) 963-3000; Fax (720) 963- 3001</b>
<b>Colorado Department of Public Health and Environment</b>	<b>Mesa County Health Department</b>
<b>Headstrong Coalition</b>	<b>Health Education</b>
<b>4300 Cherry Creek Drive South</b>	<b>510 29 1/2 Rd.</b>
<b>Denver, Colorado 80222</b>	<b>Grand Junction, Colorado 81506</b>
	<b>(970) 254-4109</b>
<b>Colorado Department of Public Health and Environment</b>	
<b>Injury Prevention</b>	<b>National Highway Transportation Safety Administration</b>
<b>4300 Cherry Creek Drive South, PSD-A4</b>	<b>Safety Program Specialist</b>
<b>Denver, Colorado 80246</b>	<b>12300 West Dakota Avenue, Suite 140</b>
<b>(303) 692-2590</b>	<b>Lakewood, Colorado 80228</b>
	<b>(720) 963-3100; Fax (720) 963-3124</b>
<b>Colorado Head Injury Foundation</b>	
<b>5601 South Broadway</b>	<b>State Farm Insurance</b>
<b>Littleton, Colorado 80121</b>	<b>1555 Promontory Cr</b>
	<b>Greeley, Colorado 80634-0002</b>
<b>Colorado Department of Transportation</b>	<b>(970) 395-5000</b>
<b>Safety and Traffic Engineering Branch</b>	
<b>4201 East Arkansas Ave.</b>	<b>Denver Osteopathic Foundation</b>
<b>Denver, Colorado 80222</b>	<b>2055 South Oneida St.</b>
<b>(303) 512-5134; Fax: (303) 757-9219</b>	<b>Denver, Colorado 80224, (303) 996-1140</b>
<b>Colorado Department of Education</b>	<b>Colorado Stand</b>
<b>School Transportation</b>	<b>Colorado State University Cooperative Extension</b>
<b>201 East Colfax Ave.</b>	<b>130 Aylesworth Hall, NW</b>
<b>Denver, CO 80203</b>	<b>Fort Collins, Colorado 80523</b>
<b>(303) 866-6850, Fax: (303) 866-6663</b>	
	<b>Colorado Parent Teacher Association</b>
	<b>7859 West 38<sup>th</sup> Ave</b>
	<b>Wheatridge, CO 80033, (303) 420-7820</b>

## **GLOSSARY:**

**Authorized speed limit:** speed limit that is legally established and authorized by the Colorado Department of Transportation for that portion of state highway in question. It is the responsibility of CDOT to make sure that the legally authorized speed limit agrees with the posted limit.

**Closed campus:** school policy that prohibits students from leaving school grounds during the day for lunch breaks or when they do not have classes; e.g. can they visit a convenience store across the street during breaks or lunch thus increasing their exposure to traffic.

**Crossing guard:** any person eighteen years of age or older who instructs, directs, and controls the members of the student body in crossing the streets and highways at or near the school. Controls traffic when authorized.

**Diagonal parking:** a parking layout where vehicles are parked at an angle on the street. Diagonal street parking has been responsible for 30% of all accidents within small communities. There are two primary causes that contribute to this statistic. Motorists backing out of a diagonal parking spot have extremely poor visibility; in some cases they may also be required to back out across the cross-walk as in the case of the parking stall nearest the cross-walk. There is limited “free space” available to vehicles. “Free space” is the separation distance between parked vehicles and the moving ones and is usually much less than with other parking designs.

**Drop-off and pick-up zone:** area for vehicles and school buses to drop off and pickup students. Ideally, vehicles and school buses should not be stopping in the street to load or unload students. There should be good sight distance, minimizing the risk of children “darting out” from between vehicles and diagonal parking should be discouraged.

**On-site management or decision making team:** a group typically comprised of faculty, parents, and community members who evaluate and make recommendations on the operation of individual school sites.

**Safety program:** classes or discussions that teach students safety practices relating to pedestrian behavior, such as the proper way to cross streets, use sidewalks, load and unload buses, avoid darting out from between parked cars, etc. This program also includes classes or discussions that teach students safe practices regarding bicycles and seat belts.

**School route map/plan:** diagram of the area surrounding the school marked to show the main routes students must use to walk or bike to school. See section 7A in the Manual on Traffic Control Devices. Consult with your local traffic engineer or chief of police.

**School safety patrol:** any students trained and delegated to control other students as they safely cross roadways.

**Secured fencing:** fencing designed to prevent children from easily passing through or around it. An excellent example would be 8 to 12 foot high chain link type fence.

**Year- round school:** the standard nine month instructional period is distributed throughout the year with regularly scheduled breaks or vacations interspersed.

## **COLORADO REVISED STATUTES AND REFERENCES:**

### **42-4-104. Adoption of traffic control manual.**

The department of transportation shall adopt a manual and specifications for a uniform system of traffic control devices consistent with the provisions of this article for use upon highways within this state. Such uniform system shall correlate with and insofar as possible conform to the system set forth in the most recent edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways" and other related standards issued or endorsed by the federal highway administrator.

### **42-4-105. Local traffic control devices.**

Local authorities in their respective jurisdictions shall place and maintain such traffic control devices upon highways under their jurisdiction as they may deem necessary to indicate and to carry out the provisions of this article or local traffic ordinances or to regulate, warn, or guide traffic, subject in the case of state highway to the provisions of sections 42-4-110 and 43-2-135 (1)(g), C.R.S. All such traffic control devices shall conform to the state manual and specifications for state wide uniformity as provided in section 42-4-104.

### **42-4-110. Provisions uniform throughout the state.**

(1) The provisions of this article shall be applicable and uniform throughout this state and in all political subdivisions and municipalities therein. Cities and counties and incorporated cities and towns shall regulate and enforce all traffic and parking restrictions on streets which are state highways as provided in section 43-2-135 (1)(g), C.R.S., and all local authorities may enact and enforce traffic regulations on other roads and streets within their respective jurisdictions. All such regulations shall be subject to the following conditions and limitations:

(e) Pursuant to section 43-2-135 (1)(g), C.R.S., no regulation of a local authority shall apply to or become effective for any streets which are state highways, including any part of the national system of interstate and defense highways, until such regulation has been presented to and approved in writing by the department of transportation; except that such regulations shall become effective on such streets sixty days after receipt for review by the department of transportation if not disapproved in writing by said department during that sixty-day period.

### **42-4-111. Powers of Local Authorities.**

(1) The provisions of this article shall not be deemed to prevent local authorities, with respect to streets and highways under their jurisdiction and within the reasonable exercise of the police power, except those streets and highways which are parts of the state highway system which are subject to the provisions of section 43-2-135 (1)(g), C.R.S., from:

(s) Regulating the movement of traffic at school crossings by official traffic control devices or by duly authorized school crossing guards, consistent with the provisions of this article;

## **COLORADO REVISED STATUTES AND REFERENCES (Cont'd):**

### **43-2-135. Division of authority over streets.**

(1) The jurisdiction, control, and duty of the state, cities, cities and counties, and incorporated towns with respect to streets which are a part of the state highway system is as follows:

(g) Cities, cities and counties, and incorporated towns shall regulate and enforce all traffic and parking restrictions on streets and highways but all regulations adopted after December 31, 1979, shall be approved in writing by the department of transportation before becoming effective on such streets;

### **42-4-615. School zones - increase in penalties for moving traffic violations.**

(1) Any person who commits a moving traffic violation in a school zone is subject to the increased penalties and surcharges imposed by section 42-4-1701 (4) (d).

(2) For the purposes of this section, "school zone" means an area that is designated as a school zone and has appropriate signs posted indicating that the penalties and surcharges will be doubled. The state or local government having jurisdiction over the placement of traffic signs and traffic control devices in the school zone area shall designate when the area will be deemed to be a school zone for the purposes of this section. In making such designation, the state or local government shall consider when increased penalties are necessary to protect the safety of school children.

(3) This section does not apply if the penalty and surcharge for a violation has been doubled pursuant to section 42-4-614 because such violation also occurred within a highway maintenance, repair, or construction zone

### **42-4-1102. Altering of speed limits.**

(5) Whenever the department of transportation or local authorities, within their respective jurisdictions, determine upon the basis of a traffic investigation or survey that a reduced speed limit is warranted in a school or construction area or other place during certain hours or periods of the day when special or temporary hazards exist, the department or the concerned local authority may erect or display official signs of a type prescribed in the state traffic control manual giving notice of the appropriate speed limit for such conditions and stating the time or period the regulation is effective. When such signs are erected or displayed, the lawful speed limit at the particular time and place shall be that which is then indicated upon such signs; except that no such speed limit shall be less than twenty miles per hour on a state highway or other arterial street as defined in subsection (3) of this section nor less than fifteen miles per hour on any other road or street, nor shall any such reduced speed limit be made applicable at times when the special conditions for which it is imposed cease to exist. Such reduced speed limits on streets which are state highways shall be subject to the written approval of the department of transportation before becoming effective.

## **COLORADO REVISED STATUTES AND REFERENCES (Cont'd):**

### **13-21-115.6 Immunity from civil liability for school crossing guards and sponsors.**

(1) As used in this section:

(a) "School crossing guard" means any person eighteen years of age and older acting with or without compensation who supervises, directs, monitors, or otherwise assists school children at a street or intersection.

(b) "School crossing guard sponsor" means any governmental agency or subdivision, including but not limited to any county, city, city and county, town, or school district, and any individual, volunteer group, club, or nonprofit corporation that sponsors, organizes, or provides for school crossing guards.

(2) Any school crossing guard and any school crossing guard sponsor shall be immune from civil liability for an act or omission that results in damage or injury if the school crossing guard was acting within the scope of such person's official functions and duties as a school crossing guard unless the damage or injury was caused by a willful and wanton act or omission of the school crossing guard.

(3) Nothing in this section shall be construed to abrogate or limit the sovereign immunity granted to public entities pursuant to the "Colorado Governmental Immunity Act", article 10 of title 24, C.R.S.

### **42-4-615 School zones – increase in penalties for moving traffic violations.**

(1) Any person who commits a moving traffic violation in a school zone is subject to the increased penalties and surcharges imposed by section 42-4-1701 (4) (d).

(2) For the purposes of this section, "school zone" means an area that is designated as a school zone and has appropriate signs posted indicating that the penalties and surcharges will be doubled. The state or local government having jurisdiction over the placement of traffic signs and traffic control devices in the school one area shall designate when the area will be deemed to be a school zone for the purposes of this section. In making such designation, the state or local government shall consider when increased penalties are necessary to protect the safety of school children.

(3) This section does not apply if the penalty and surcharge for a violation has been doubled pursuant to section 42-4-614 because such violation also occurred within a highway maintenance, repair, or construction zone.

### **Manual on Uniform Traffic Control Devices (MUTCD).**

MUTCD 2003 Edition. Published by the Federal Highway Administration; Part VII – Traffic Controls for School Areas.