

# Co Rd 11 / JCP

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## Signage – School Speed Zone

Carver Elementary School PIM Meeting July 13, 2017



# Traffic Control for School Areas

□ The safety of children on public streets near schools is the responsibility of parents, school officials, and road authorities.

## School Zone Speed Limits

### SCHOOL ZONE SPEED LIMITS

Ensuring the safety of children on public streets near schools is the responsibility of parents, school officials and road authorities. Parents must provide basic training and supervision in order to develop safe behavior and serve as role models. School officials must support and encourage educational safety programs and methods for walking or biking students. Road authorities must provide a safe environment on the street by using proven traffic control methodologies that will minimize the crash probability.

### THE LAW

Each road authority may establish school zone speed limits on roads under their jurisdiction. In order to provide an objective, uniform and safe environment for walking and biking students, Minnesota law requires a traffic investigation as prescribed by the Commissioner of Transportation prior to establishing a school zone speed limit.

The school zone is legally defined as that section of road which abuts the school grounds, or where there is an established school crossing with advance school signs that define the area. If a reduced school speed limit is warranted:

- It shall not be more than 30 MPH below the establish speed limit
- The school speed limit shall not be lower than 15 MPH
- All signs erected must be in conformance to the Minnesota Manual on Uniform Traffic Control Devices. Any speeding violations of a school zone speed limit are subject to a double fine.

### SCHOOL AGE PEDESTRIAN CRASHES

While safety is emphasized near schools, pedestrian crash experience requires a broader look. A Minnesota study revealed that 88 percent of school age pedestrian crashes occurred more than one block from school. Similar studies in Idaho showed only 13 percent of school age pedestrian crashes occurred in a school zone but 31 percent occurred on the trip to school. Other states have confirmed similar results. The statistics point out that location is NOT the predominant factor, suggesting that safety education for pedestrians has the greatest potential for improvement since they can use it at all locations.

Further insights can be gathered from analysis of circumstances contributing to school age crashes.

- Most crashes occurred when the child dashed from behind parked cars
- Many crashes occur at mid-block locations
- Kindergarten through third grade pedestrians had considerable difficulty understanding traffic control devices.

In realization of these facts it is apparent that school age child safety is not a singular issue of speed limits. Real improvements in safety require a comprehensive study of the school trip and each environment must be specifically addressed.

### THE TRAFFIC INVESTIGATION

Mn/DOT developed the booklet "A Guide to Establishing Speed Limits in School Zones" that is a comprehensive safety outlook and is the prescribed method as required by MS 169.14. Three distinct components are addressed-

- The School Route Plan
- Hazard Identification
- Education.

The main objective of the **School Route Plan** is to establish walking routes that minimize the number of streets crossed and to maximize the safety of approved crossings used by children on the entire trip to school.

**Hazard Identification** addresses nine issues using the school route plan and evaluates each street for what is present as well as what can be changed to enhance the safety of the planned routes.

### A quick summary:

- 1) Roadway geometry- crossing narrower roads in straight sections with good sight distance increases the safety to pedestrians.
- 2) Traffic volume- low volume roads are safer to cross. High volume roads will require adult crossing guards for maximum safety.
- 3) Pedestrian volumes- number of pedestrians can determine signal timing or necessitate additional traffic control.
- 4) Parking- parking should be banned in the immediate area of any school crossing.
- 5) Traffic Control Devices- these should be reviewed to verify they are operating correctly and signs are not hidden by vegetation.
- 6) Sidewalks - children walking in the street is dangerous. Continuous sidewalks that do not intermittently disappear and force children into the road are the best.
- 7) Fencing- strategically placed fencing can change walking patterns and prevent dangerous mid-block crossing. At playgrounds, it prevents errant kick-balls from rolling into the street and causing children to chase them from between parked cars.
- 8) Crash History - crash investigation can reveal locations where remedial measures may not be working and pedestrians should be routed away from these areas.
- 9) Speed zones- if all other measures have been addressed and a reduced speed is still required to safely navigate the school zone, then a school zone speed limit should be considered. Trained engineering personnel should design speed limits based on the limiting criteria and arbitrary blanket values should be avoided.

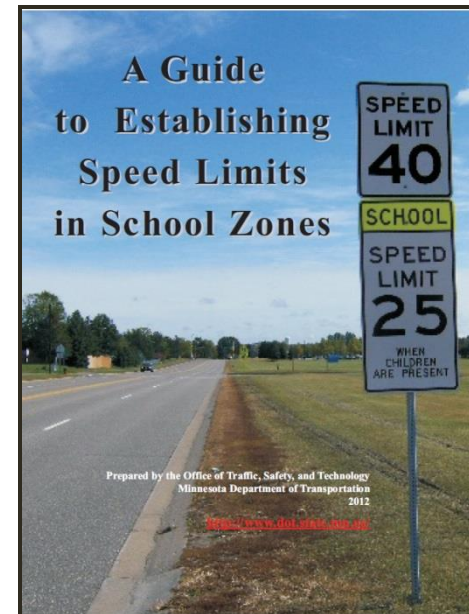
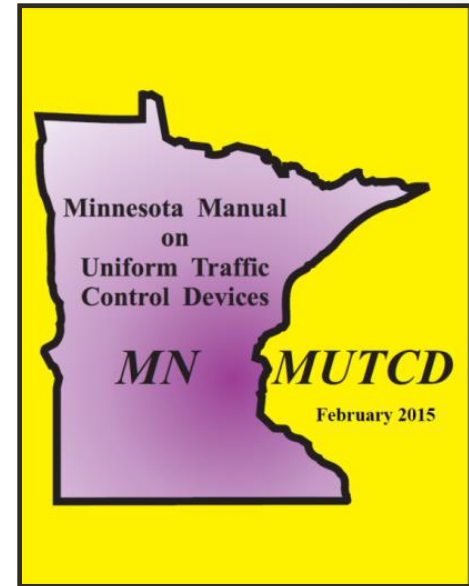
As noted before, **education** is the most important. All the best efforts of engineering and planning will be lost if the pedestrian is unaware of the safe routes and safe practices. Children are rarely involved in crashes while crossing properly. Education is not the singular responsibility of one group or person, it requires a partnership and commitment from all.

# Traffic Control for School Areas

## □ The Law:

-- Mn Statutes Sect.  
**169.14**

-- “Local authorities  
may establish a school  
speed limit...after an  
engineering and traffic  
investigation...”



# Standard – Typical School Zone Signage

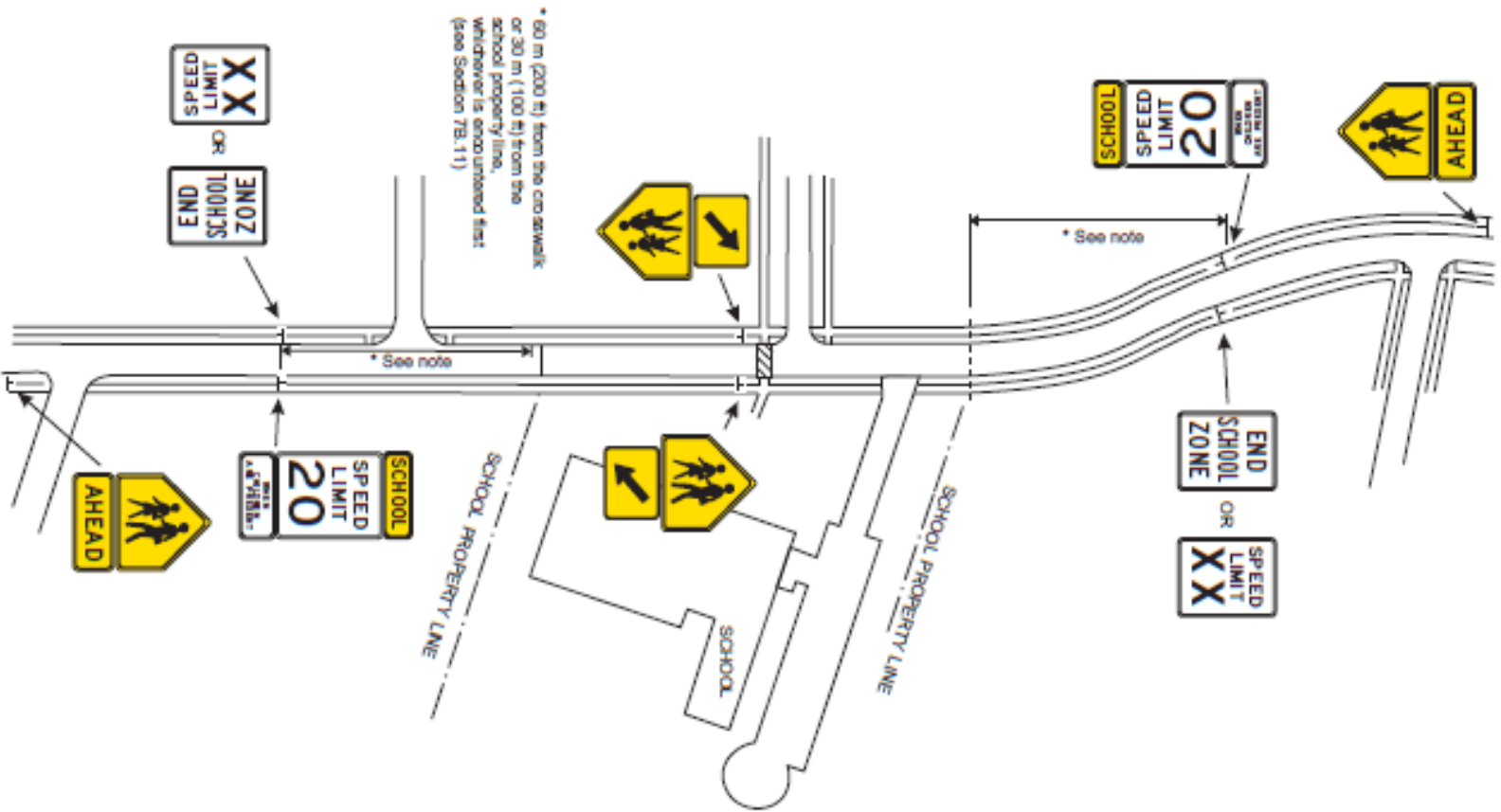


Figure 7B-3. Examples of Signing for School Area Traffic Control with School Speed Limits

# Co Rd 11 – Current Conditions

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- ❑ **Posted Speed Limit: 50 mph**
- ❑ **'A' Minor Arterial**
- ❑ **Traffic Signal at Ironwood**
- ❑ **Underpass at White Pine**

# Co Rd 11 – Proposed Conditions

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- ❑ **New School Zone Speed Limit: 40 mph**
- ❑ **Standard School Zone Signs**
- ❑ **Crossing Option: Traffic Signal at Ironwood with Adult Crossing Guards**
- ❑ **Crossing Option: Underpass at White Pine (from north ½ mile—10 min walk)**
- ❑ **Added Option: Radar Speed Limit Driver Feedback Sign**





# Co Rd 11 – Proposed Conditions

## BlinkerSign® Flashing LED Enhanced Radar Speed Limit Driver Feedback Signs

A TAPCO LED-enhanced BlinkerSign® advances the concept of driver feedback to a new level of effectiveness. At the core of each unit lies a LED Radar Driver Feedback Sign with two LED enhanced signface options to choose from:

- "SPEED LIMIT XX, YOUR SPEED" enhanced with six white LEDs around signface perimeter. The LEDs flash when the speed limit is exceeded.
- "SCHOOL, SPEED LIMIT XX WHEN FLASHING, YOUR SPEED" enhanced with six white LEDs around signface perimeter, and four amber LEDs surrounding "SCHOOL". An added programmable time clock allows scheduling for the amber LEDs (typically set to flash continually during times when school children are present or during school functions). The white LEDs flash when the speed limit is exceeded.

Both signface options increase the overall visibility to over one mile (line of sight). With the added benefit of solar power, this sign can be easily installed and deployed in minutes without the need for expensive trenching and electrical work – extremely effective, easy to set up and program.



Two options for BlinkerSign® Flashing LED signs with integrated Radar Driver Feedback signs

