

# Learn it. Do it. Live it!

## SPEED REDUCTION IN THE ZONE



### WHY ZONE IN ON SPEED REDUCTION?

Speeding is a serious issue that plays a major role in the risk of serious injury and pedestrian fatality in a crash.

Speeding, both real and perceived, prevents more students from walking and bicycling to school. In fact, 63 percent of parents surveyed in spring 2016 cited the speed of traffic near school as the top reason for not allowing their students to walk or bike to school.\*

Like any other element of a SRTS program, speeding should be addressed from multiple angles. The recommendations in this guide are organized around the 5 E's to complement, support and reinforce each other for best results.

\* SRTS Parent Survey administered at 33 schools.

#### ZONE IN, NOT OUT

Zone In, Not Out is a package of resources that can help make school zones safer for all travelers, especially children. The idea for the program was part of an in-person training for Virginia Safe Routes to School local coordinators in the winter 2015. Charged with the task of coming up with a comprehensive approach to school zone safety with branding, messaging, materials, the local SRTS coordinators worked in small groups to develop an outline of the program.



The materials are available for download on the Virginia SRTS program website. The Zone In, Not Out logo can be customized with a school name. The materials offer both 'how to' information and resources for school communities to access for expanded or more in-depth information.



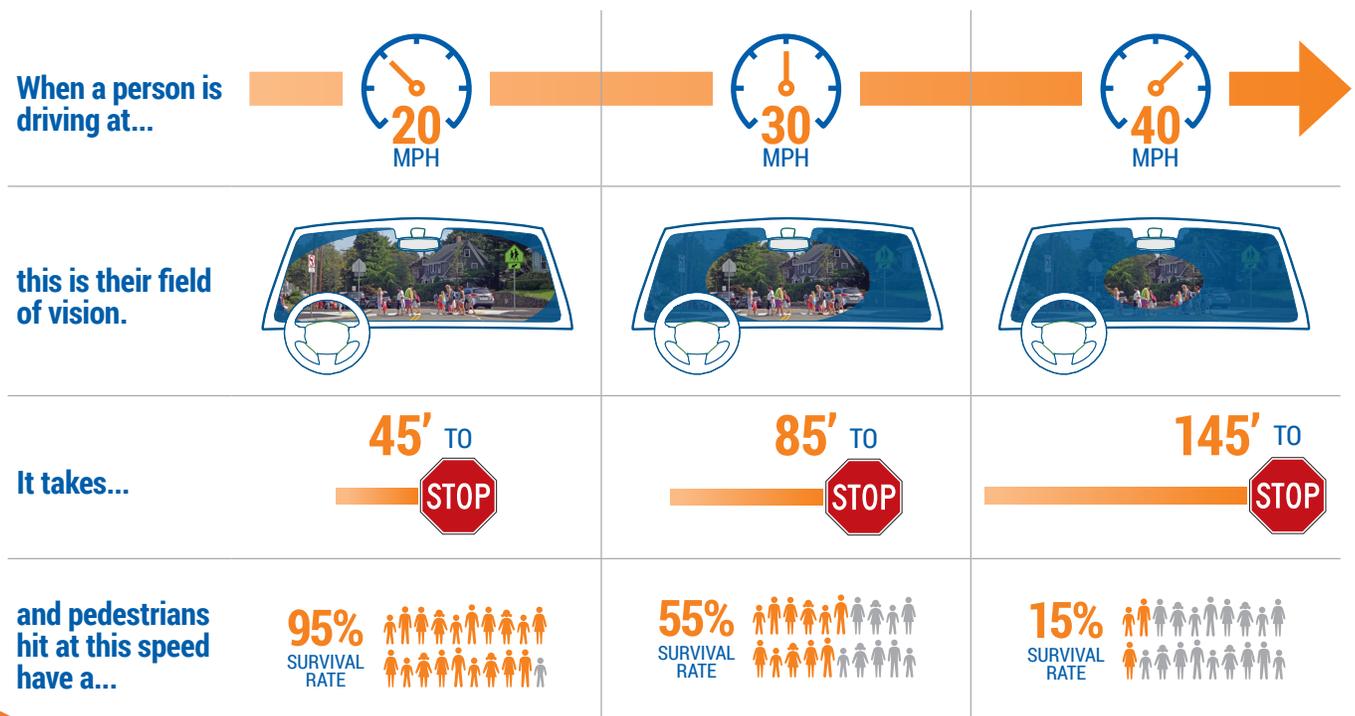
## EDUCATION

Sharing basic information about laws in schools zones, how higher speeds affect a driver's attention to pedestrians and the benefits of slower speeds on all travelers can open the door to more serious conversations about speed reduction.

In Virginia, the posted speed limit for school zones is generally 25 miles per hour. Section 46.2-873 of the Virginia State Code allows the maximum speed limit in school zones in residential areas to be decreased to 15 MPH through a two-step process. 1) The school division passes a resolution asking that the speed limit be reduced, and 2) the local government enacts an ordinance establishing the new speed limit. Drivers caught speeding in school zones may have their licenses suspended for up to 6 months.

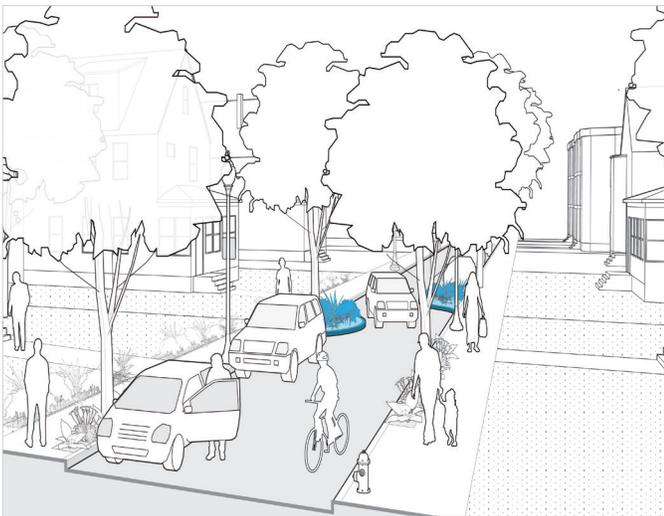
Other key information to share includes the following:

- **Motorists can see more when they drive more slowly.** The figure below shows the effects of speed on a motorist's field of vision. This means that when traveling in a school zone, a person driving at 30 MPH is unlikely to see sidewalks or pedestrians walking along the roadway where there are no sidewalks.
- **Slower speeds mean fewer serious injuries and deaths.** When a vehicle traveling 20 MPH hits a pedestrian, the pedestrian survival rate is 95 percent, at 30 MPH, the pedestrian survival rate decreases to 55 percent, and at 40 MPH, the pedestrian survival rate is only 15 percent. Slower speeds also mean that a driver can stop more quickly, reducing the likelihood of hitting and injuring a pedestrian.
- **When motorists drive more slowly, there is a greater sense of safety, particularly for vulnerable road users.** These users may feel more comfortable that motorists will be able to see them and stop when bicyclists and pedestrians have the right of way.



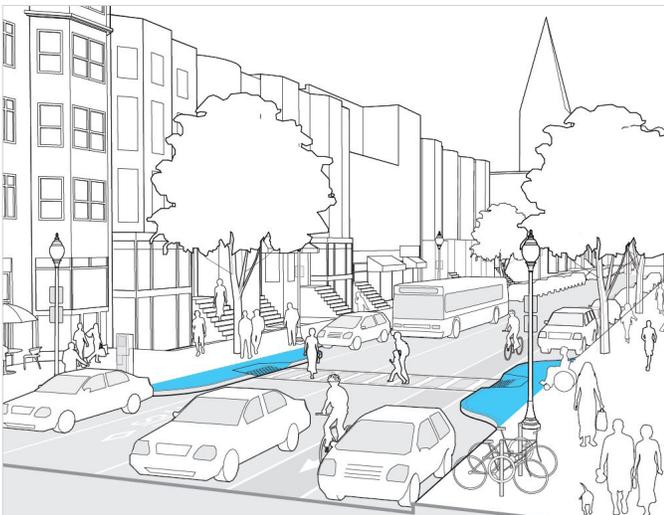
Often the immediate reaction to reduce speeding is to install speed bumps or 4-way stop signs at every intersection. These methods may reduce speeds in the immediate vicinity, but also have unintended consequences such as increased noise levels from stopping and starting, increased speeds between them, and even perhaps motorists expressing their frustration through the way they drive in the area.

A better approach to speed reduction is letting the streets 'do the talking' through designs and retrofits that use a variety of traffic calming measures to say 'slow down.' While certain measures alter the configuration of a roadway, others change how people psychologically perceive and respond to a street. Consider the following tools to encourage motorists to drive at slower speeds. All are designed to create friction which slows overall motor vehicle speeds.



### Chicanes

Chicanes slow drivers by alternating parking or curb extensions along the corridor. They can increase the amount of public space available on a corridor and can be activated using benches, bicycle parking, and other elements that support active transportation.



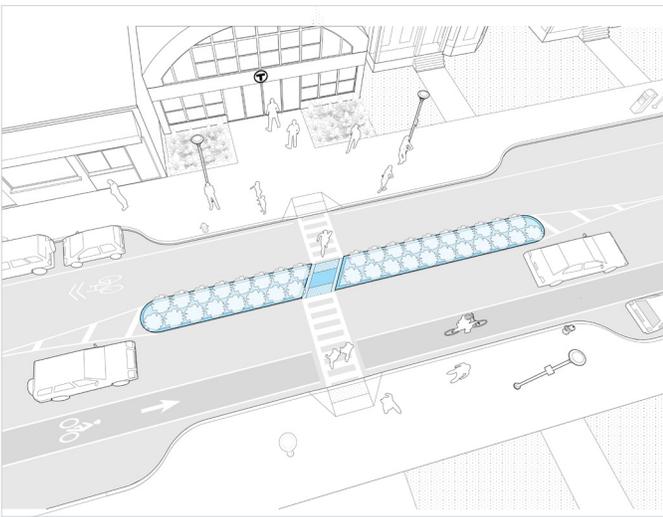
### Curb Extensions

Curb extensions visually and physically narrow the roadway, creating safer and shorter crossings for pedestrians while increasing the available space for street furniture, benches, plantings, and street trees. They may be implemented on all types of streets, large and small.



### Lane widths

The Institute of Traffic Engineers recommends travel lane widths of 10 to 11 feet in walkable areas. These lanes are designed for speeds between 25 and 30 MPH. Narrow travel lanes also create more space for other street elements, including parking, bike lanes or buffers between the travel lanes and the sidewalk.



### Medians

Medians create a pinchpoint for traffic in the center of the roadway by narrowing the travel lane at that point. Using medians strategically at crosswalks also helps pedestrians by dividing the crosswalk into two segments with a refuge in the middle.



### Street Trees

Trees narrow a driver's visual field and create rhythm along the street. In the summer, street trees provide shade and create a more pleasant environment for pedestrians.



## Temporary traffic calming

Some schools use temporary traffic calming during arrival and dismissal. These techniques include using traffic cones or other portable items to slow motorists, narrow lanes, and generally calm all traffic modes. Other changes such as limiting parking or non-school traffic along a block or two adjacent to the school campus are more intensive, and would likely require approval.

Helping a community or local government to see the benefits of and agree to make permanent changes can be effective, too. Using low cost, widely available materials like duct tape, traffic cones, planters and colored chalk, communities can demonstrate better walking and bicycling infrastructure. These demonstrations, often called 'pop-up events' work well combined with other events such as a Walk or Bike to School Day, a school carnival or neighborhood festival.

These demonstrations can change how people view and use the street space and may lead to permanent changes. Trailnet has produced *Slow Your Street: A How-To Guide for Pop-Up Traffic Calming* full of ideas and resources to help get you started. You can download the resource here: <http://bit.ly/1rh6LPj>



*Temporary traffic calming demonstrations*

## ENCOURAGEMENT

There are various ways to encourage drivers to slow down in your neighborhood. The best way is to model good behavior and encourage others to do the same. Read about examples from other communities below.

### Yard Signs

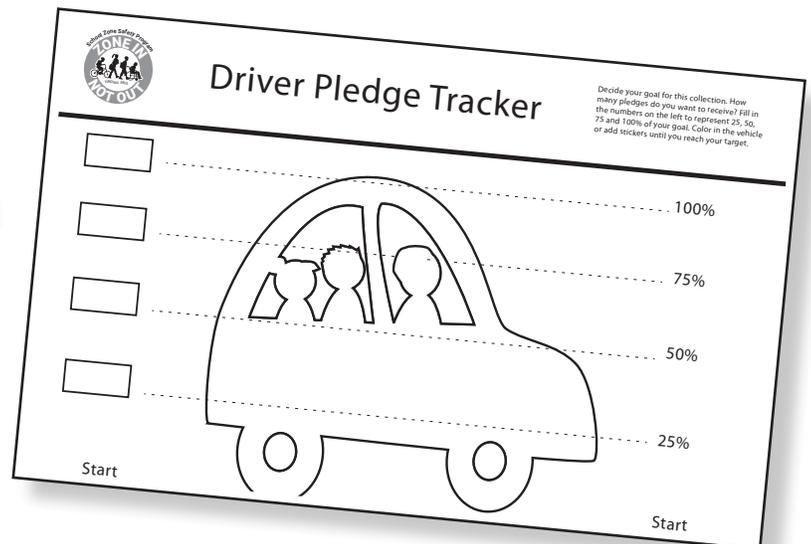
Show your support for slower speeds by posting a friendly reminder sign in your front yard, and encourage others to do the same. Remember to follow the advice you offer to others by driving slowly in residential neighborhoods and be prepared to stop for pedestrians and bicyclists crossing the street.



Be the first in your neighborhood to place a sign in your yard. Visit the Zone In, Not Out page on the the Virginia SRTS website for PDFs of these signs and printing instructions: [http://www.virginiadot.org/programs/srsm\\_srts\\_zone\\_in\\_not\\_out.asp](http://www.virginiadot.org/programs/srsm_srts_zone_in_not_out.asp) Or use signs from the Drive Like Your Kids Live Here website: <https://drivelikeyourkidslivehere.com/>

### Safe Driver Pledge

Encourage drivers to take the ZINO Safe Driver Pledge. The pledge can be distributed at schools, signed and returned to the schools to be displayed as a means of encouragement to other drivers. Pledge-signers promise to practice safe driving behaviors including refraining from mobile device use, stopping for pedestrians waiting to cross, and driving the speed limit, among others. Schools may distribute bumper stickers along with the pledge to spread the word about safe driving



## ENFORCEMENT

Enforcement is part of an overall strategy to affect speeds in the school zone for the long-term. Communities see better results when combining enforcement with engineering, education and encouragement strategies to address the issue.

### Speed feedback devices

Signs or trailers with speed feedback monitors can enhance enforcement efforts through public education and awareness. When using a speed feedback device, remember the following:

- Occasional enforcement is needed to supplement the speed-monitoring signs and trailers.
- Speed-monitoring devices are not a substitute for engineering measures.
- Trailers should not obstruct the pedestrian travelway or sightlines.

See the Pedestrian Safety Guide and Countermeasure Selection System for more information.

### Photo enforcement

Photo enforcement typically operates on set speed thresholds, only capturing images of vehicles moving at, or above the established threshold. Photo enforcement can be controversial. One way to make photo enforcement more acceptable is to designate the revenue for pedestrian and bicycle safety.

The City of Seattle, Washington has one of the most successful school zone photo enforcement programs in the country, with all of the revenues generated going back into infrastructure projects to improve the environment for walkers and bicyclists. More information is available on the City of Seattle, WA School Zone Camera Brochure [http://www.seattle.gov/transportation/docs/srts/SchoolZoneCameraBrochure\\_082015.pdf](http://www.seattle.gov/transportation/docs/srts/SchoolZoneCameraBrochure_082015.pdf)



*Speed feedback devices display a driver's current speed next to the posted speed limit for comparison*



*School zone signs in Seattle, WA alert drivers to the presence of traffic cameras*

## Police enforcement

Demands on a police department and the level of participation departments can offer varies from community to community. It is important to understand what the local police resources are, and the variety of ways police officers can contribute to a Safe Routes to School program in addition to issuing tickets. Officers can serve in the following ways:

- Teach safety issues to children, school officials, parents and the community.
- Evaluate local traffic concerns, observe problem areas and behaviors and provide input about safe routes.
- Provide an enforcement presence that discourages dangerous behaviors on and off the school campus. This may mean issuing warnings to drivers breaking traffic laws. Drivers who have made a minor error will often respond to a warning from an officer by being more careful. Drivers who continue to violate traffic laws need to be ticketed.
- Monitor crossing guards and make sure they are acting safely in the street and are not taking chances or over-stepping their duties as guards.
- Monitor students to ensure that they cross at safe locations and do not take unnecessary risks.

More information about involving law enforcement in a safe routes to school program is included in the Learn it. Do it. Live it! Working with Law Enforcement: [http://www.virginiadot.org/programs/resources/SRTS\\_2015/LDL\\_-\\_Law\\_Enforcement.pdf](http://www.virginiadot.org/programs/resources/SRTS_2015/LDL_-_Law_Enforcement.pdf)



## EVALUATION

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Data collection is important for understanding problems related to speeding, as well as evaluating the effectiveness of the interventions above. Traffic engineers and police officers examine many traffic and road conditions to determine a reasonable speed limit. These include number and type of crashes, speed of vehicles and number of cars, pedestrians, and bicycles. Also considered are physical conditions of the road such as sidewalks, hills, curves, lanes, driveways, intersections, roadway surfaces and traffic controls.

### Speed Studies

Enlist the help of local police or traffic engineers to conduct a speed study along the main route to school. Speed studies may be conducted with radars or pneumatic tube counters.

A speed study alone is unlikely to result in a lower posted speed limit. In Virginia, school zone speed limits are posted at 25 MPH, but may be reduced to 15 MPH if the local government enacts an ordinance to change the speed limit following a request from the school division.

### SOURCES

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Virginia State Code. *Title 46.2 Motor Vehicles*. <http://law.lis.virginia.gov/vacode/title46.2/>

