

**CONTRA COSTA COUNTY
DEPARTMENT OF CONSERVATION &
DEVELOPMENT**


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TO: California Traffic Control Devices Committee (CTCDC)
CTCDC Subcommittee on School Zones
c/o Chris Engelmann, PE, TE, CTCDC – Executive Secretary

COPY: Tyler Munzing, 12th Senate District
Kiana Valentine, California State Association of Counties
Mark Watts, Consultant to Contra Costa County

FROM:  John Cunningham, Contra Costa County – Principal Transportation Planner

DATE: February 18, 2016

SUBJECT: *Senate Bill 632 (Cannella) Prima facie speed limits: schools*
Background and Response to Comments/Questions from the 2/9/16 CTCDC
School Zone Subcommittee Conference Call, and Responses to the 2/27/15
Senate Analysis on SB 632

Summary

This memo is a follow-up to the February 9th conference call with the School Zone Subcommittee of the CTCDC regarding the subject legislation. There were some questions and observations during the call that am responding to in this memo. In addition, I am providing a response to the 2/27/15 analysis on the bill by Erin Riches.

Please refer to my February 4th memo (attached) for the general background on the goals of the bill. That memo also responds to questions from the January 29th conference call.

To expand on the previously provided background and clarify some possible misunderstandings of the bill that I observed during the conference call, please consider:

- SB 632 is not intended to be an incremental fix to minor issue in the code. The intent is to be transformational. The bill will assist in the effort to reverse the decline of children walking and cycling to school. As established in the February 4th memo, SB 632 targets the largest unaddressed barrier in this effort, which is children being prevented from using active modes for the trip to/from school because of driver behavior or speeding.
- While the bill is meant to target the specific school trip-related speeding problem, it also addresses a much broader speeding problem as established by several advocacy organizations referenced in the February 4th memo. These organizations include American Automobile Association (AAA) for Traffic Safety. Furthermore, the solution represented by the bill is consistent with the recommendations to solving the problem put forward by the AAA Foundation, which is to address the problem in small, targeted areas with public support.

2/9/16 Subcommittee Conference Call Follow Up/Responses:

Comment: Debate regarding the size of the school zone.

Response: The existing school zone distances and statutes recognize that students need some additional safety and protection. There is physiological and epidemiological evidence to support this need as established in the February 4th memo. As a CTCDC member pointed out, there was no engineering or analysis when the original prescriptive distances in the statutes were established. That said, we now have the opportunity to objectively develop those distances.

In developing an objective recommendation I would encourage the Committee to consider:

- The 500', 1000' distances in the code are arbitrary. There is no argument for the extra protection afforded by the school zone to end after these distances.
- In addition to the aforementioned physiological and epidemiological evidence, I believe it is also self-evident that the protection is needed from origin to destination (OD).
- The 1320' proposal being discussed by the Committee has some data supporting it. However, relative to the need for protection during the entire OD trip, dropping the protection after 1320' is still arbitrary.
- The OD routes are best established by the local jurisdiction. The flexibility found in SB 632 reflects this.

Comment: Concerns with extending the school zone to such a distance that it is no longer associated with a school.

Response: I agree with the concern and encourage the Committee to recommend to the legislature that the school zone be decoupled from schools and establish a “neighborhood zone” or “slow zone”. This would be consistent with policies in other jurisdictions¹ and would allow the zones to be extended to other areas with similar needs such as around parks, senior centers, etc.

Comment: The real solution to speeding is enforcement (automated safety/speed enforcement or cameras), we shouldn't focus on signage until adequate enforcement is present. (paraphrased)

Response: Currently, the school zones are inadequate as previously discussed. In order for enforcement to be effective, the school zone statutes need to be reformed.

¹ New York City, United Kingdom, Austria (kilometers per hour)



There is no single solution that is going to gain the desired effect, which is to increase safety and the walk/bike rate of children traveling to/from school. Any single solution or tool can be taken in isolation and characterized as “not solving the problem” and discounted. With that approach, each and every tool could be disregarded. A diversity of tools needs to be made available.

It is not defensible to withhold an improved tool, expanded school zones in this case, in the hope that some other tool is developed. The Committee has the authority and responsibility to improve the statutes. I believe it should make full use of that opportunity even if the improvement may be small or ultimately overshadowed by some future solution.

Comment: Concerns with affording local public works departments too much flexibility in determining the size of the zone.

Response: Originally the Committee was in agreement that affording local jurisdictions flexibility to determine the size of the zone was a positive characteristic of the bill. However, during the February 9th conference call, some Committee members expressed concern with affording local jurisdictions “too much flexibility”. I believe some justification or explanation for this concern should be provided.

If there is concern that the statutory changes would be used inappropriately, to blanket an entire city for example, an easily implemented and reasonable restriction would be to limit the use of the zone to a schools attendance boundary.

Comment: What should the recommendation be regarding When Children Are Present (WCP) signage?

Response: I believe a critical question the Committee must answer in developing a recommendation is, when is it acceptable or safe to assume children are **not** present?

The ambiguities and weaknesses of the WCP signage are numerous and have been discussed at length so I won’t repeat them here. I believe the answer to the question to be, only during very limited times is it safe to make that assumption. That answer suggests that the WCP signage should be replaced by hourly restrictions.

These restrictions would best be established by local jurisdictions which is consistent with the current language in the bill regarding the definition of the size of the zone.

Response to the 2/27/15 Analysis

Comment: *The author states that existing law, which authorizes speed limit reductions within 500 to 1,000 feet of a school, does not reflect actual pedestrian or bicycle access or use patterns and is inconsistent with the state’s Health in All Policies initiative.*

Response: The observation is correct². In addition, the changes in the bill are supportive of numerous other statewide policies and efforts including the Active Transportation Program, Safe Routes to School, and greenhouse gas reduction efforts.

Comment: *24/7 school zones? ...overlapping school zones....*

Response: The proposal to replace WCP signage with hourly restrictions responds to the comment regarding 24/7 school zones.

The author is correct, overlapping zones may occur. I believe this to be a defensible scenario so long as it is based on an engineering and traffic survey and the aforementioned proposal of limiting the zone to school attendance boundaries is put in place.

Comment: *Changing behavior or punishing it?*

Response: The flaws with the 85th percentile method of setting speed are too numerous to address in this memo. However, one particular weakness of the method is particularly acute in school zone. That weakness is that drivers self-select speed based primarily on their (the driver's) comfort level. This comfort level does not reflect the comfort or safety of more vulnerable road users sharing the road space with automobiles.

Comment: The author quoting testimony during a joint Senate/Assembly hearing entitled, "Setting Speed Limits in California": *Speed limits that are set arbitrarily low would make violators out of the majority of drivers and may cause drivers to disregard the limit altogether.*

Responses: As previously established, the speed zone is not "arbitrary". Rather, there is a demonstrable, physiologically sound need to reduce the speeds in the school zones.

Disregarding the speed limit is a violation. The existence of a violation, or increase in violations, does not justify removing a statute or preventing the implementation of an expanded statute. It speaks to a need for additional enforcement resources. That issue is not being discussed by the Committee. Consistent with the language in the bill, local jurisdictions are best equipped to determine if more enforcement is needed or if an expanded school zone is warranted.

Internal Copies:

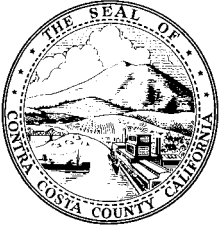
John Kopchik, Director – Department of Conservation and Development
Maureen Toms, Deputy Director – Department of Conservation and Development
Steve Kowalewski, Deputy Director – Public Works Department

Attachments

2/4/16 Memo From John Cunningham to the CTCDC Subcommittee Re: SB632

File: Transportation > Legislation > 2016 > slow zone
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2 Health in All Policies Task Force: *Report to the Strategic Growth Council: Health in All Policies Recommendations: Promote Healthy Communities: Active Transportation: 1.A3. Incorporate safety considerations of all roadway users into programs, policies, and community designs.*



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COPY: Tyler Munzing, 12th Senate District
Kiana Valentine, California State Association of Counties
Mark Watts, Consultant to Contra Costa County

FROM:  John Cunningham, Contra Costa County – Principal Transportation Planner

DATE: February 4, 2016

SUBJECT: *Senate Bill 632 (Cannella) Prima facie speed limits: schools*
Background and Response to Comments/Questions from the 1/29/16 CTCDC
School Zone Subcommittee Conference Call

Summary

The memo is a follow up to the January 29th conference call with the School Zone Subcommittee of the CTCDC regarding the subject legislation. During the call, there were questions regarding the need for SB 632 and requests for data or other evidence supporting the bill. This memo responds to these questions and requests.

I provide some background on the goals of the bill below, which will answer some of these questions and should assist the Sub-Committee in understanding the context of the bill. Direct responses to specific questions are provided after the goals.

The bill has three goals as follows:

Goal 1) Safety: The bill is intended to increase safety in school zones where it is probable that automobiles will share the road with other, active modes. The increase in safety associated with lowered vehicle speeds, and the need for this increase in safety, is supported by studies and epidemiological data¹.

¹**Increase in Safety:** The connection between vehicle speed and likelihood of injury or death is well established:

U.S. Department of Transportation, National Highway Traffic Safety Administration 2014 Literature Review on Vehicle Travel Speeds and Pedestrian Injuries: "Results indicated that higher vehicle speeds are strongly associated with both a greater likelihood of pedestrian crash occurrence and more serious resulting pedestrian injury. It was estimated that only 5 percent of pedestrians would die when struck by a vehicle traveling at 20 miles per hour or less. This compares with fatality rates of 40, 80, and nearly 100 percent for striking speeds of 30, 40, and 50 mph or more respectively."

Ten Strategies for Keeping Children Safe on the Road" 2015 World Health Organization

Goal 2) Reverse the Decline of Children to Walking/Biking to School²: In addition to safety, the bill is intended to increase the number of K-12 student-age children using active transportation modes for the home/school/home trip.

Driver behavior (or speeding) is one of the two most commonly cited issues for children being discouraged from traveling to/from school using active modes³. The other reason is proximity related issues, more simply put: the distance between home and school is too great.

The subject legislation addresses driver behavior/speeding issues. The proximity issue is already being actively addressed by other efforts at the state, regional, and local level. These efforts are driven largely by state greenhouse gas related legislation⁴ and state school siting reform efforts⁵.

Goal 3) Address known issues in the vehicle code and the Manual on Uniform Traffic Control Devices relative to “When Children Are Present” (WCP) signage: While no action was taken, the discussion at the CTCDC’s February 19, 2014 meeting suggests the WCP policies are problematic. I won’t quote the minutes back to the Committee, but the following are suggested/known issues with the signage, some of which are consistent with the CTCDCs discussion:

“...children have a delay from the moment they make their decision to the moment they begin to act on their decision, which can be dangerous for them during normal riding conditions and emergency situations.” “Bicycle Safety Education for Children from a Developmental and Learning Perspective” “Younger children are limited by their physical, cognitive and social development, making them more vulnerable in road traffic than adults. Because of their small stature, it can be difficult for children to see surrounding traffic and for drivers and others to see them. In addition if they are involved in a road traffic crash, their softer heads make them more susceptible to serious head injury than adults. Younger children may have difficulties interpreting various sights and sounds, which may impact on their judgement regarding the proximity, speed and direction of moving vehicles.”

2 “How Children Get to School: School Travel Patterns From 1969 to 2009” National Center for Safe Routes to School: In 1969, 48 percent of K-8th grade students usually walked or bicycled to school. By 2009, only 13 percent of K-8th grade students usually walked or bicycled to school.

3 The two most common reasons for children not being allowed to use active modes are “proximity” and “traffic safety”:
U.S. Centers for Disease Control and Prevention. “Barriers to Children Walking to or from School” United States 2004, Morbidity and Mortality Weekly Report September 30, 2005 Available at: www.cdc.gov/mmwr/preview/mmwrhtml/mm5438a2.htm
- AND -
Chaufan, C, Yeh J, Fox, P. *The Safe Routes to School Program in California: An Update.* American Journal of Public Health
<http://ajph.aphapublications.org/doi/pdf/10.2105/AJPH.2012.300703>
- AND -

CCTA SR2S Master Plan 2011: Existing Conditions: Data Summary: “By far, improving traffic congestion and speeding around schools was the number one improvement that administrators believe would do the most to encourage walking and biking to school. This was also consistent among all four regional planning areas, where it ranked first or second. Being accompanied by a parent was the only other condition that ranked in the top five in all four regions.”

4 The “Priority Development Area” concept came out of AB32/SB375 and includes compact development as a core component.

5 2012 - California’s K-12 Educational Infrastructure Investments: Leveraging the State’s Role for Quality School Facilities in Sustainable Communities, Report to the CA Dept. of Education by UC Berkeley Center for Cities & Schools, and 2011 - Schools of the Future Report, Tom Torlakson/State Superintendent of Public Instruction

- WCP signage unduly grants discretion to motorists as to when to adhere to a posted/reduced speed limit and complicates law enforcements ability to enforce a lower speed limit.
- Schools are used for sports, community gatherings and other activities not tied to school hours or year making WCP more difficult to interpret and anticipate.
- Safety should not depend on the effectiveness of a motorist in identifying children, who may or may not be visible, and who may not have physiological characteristics enabling them to act in a rational or predictable manner (as evidenced in footnote¹ and⁶).
- It may be beneficial for the Committee to consider the following question; when, in a residential area or school area, is it safe to assume children are NOT present?

To clarify, the original intent of the bill was to replace the WCP signage with appropriate hourly restrictions, not wholesale elimination.

Note on Goals: Goal 1 and Goal 2 are related. Decisions by school administrators and parents to discourage children from walking/biking to school are an intuitive reaction to the danger established by the epidemiological data.

1/29/16 Subcommittee Conference Call Follow Up/Responses:

Comment: The one quarter mile (1,320') expansion of the prescriptive size of the zone is "arbitrary". Some evidence or engineering should be provided to establish a nexus.

Response:

- I agree that the legislative proposal should be based on evidence and data. This memo provides a sample of data that establish the need. However, the *existing* figures in the statute (500'/1000') must also be subjected to the same evidenced-based test. This is consistent with the comment heard during the subcommittee meeting, paraphrased, "*...engineering wasn't used when the original statute and distances were established...*".
- As mentioned during the conference call, the "quarter mile" distance is commonly used in planning as the reasonable distance that people will walk to a destination. There is a body of evidence that supports the figure.⁷ It is reasonable to assume that the distance students would travel by bike is much greater than when walking. Given this, the 1320' distance in the subject bill could be viewed as a minimum figure.
- There was a comment that the quarter mile change in the statute could be too far reaching. I assume the comment is related to the cost or burden of expansive implementation. In writing for the County (as one of the original contributors in the drafting of the legislation), we share this

⁶ Zeedyk, M. S., Wallace, L., & Spry, L., "Stop, look, listen, and think? What young children really do when crossing the road," *Accident Analysis and Prevention*, 34:43-50 (2002).

⁷ 2010 *Beyond the Quarter Mile: Examining Travel Distances by Walking and Cycling*, Montréal, Canada McGill University School of Urban Planning
~and~

2011 "The Half-Mile Circle: Does It Best Represent Transit Station Catchments?" Erick Guerra, Robert Cervero, Daniel Tischler, Institute of Transportation Studies, University of California, Berkeley.

concern. A phased approach, rather than the potential need for expansive replacement or additional signage, may be more favorably received.

Some language that either 1) strikes the quarter-mile change, or 2) provides for a range of distances (as suggested during the conference call), or 3) has the new distance only apply to new school sites may be acceptable to the County so long as the ability to allow local jurisdictions the flexibility⁸ to expand the zone based on an Engineering and Traffic Survey remain in the bill.

Ownership of the language now resides with the sponsoring legislator(s); we are in a position of having to make that request to the sponsors. I realize this direction may be out of scope for the subcommittee, but wanted to suggest the alternate approach.

Comment: What is the need for the change represented by the statute, and what is the backup?

Response: In addition to the school specific examples found in the text and footnotes above, a more general need to control speeds is established in the documents summarized below:

Governor's Highway Safety Association (GHSA)

National Forum on Speeding (2005) - Excerpts:

- *On suburban and urban roads, only 32-52 percent of traffic obeys the speed limit and the 85th percentile speed exceeds the speed limit by almost 10 mph.*
- *Speeding is common, and on some roads almost universal. About 80 percent of all drivers in NHTSA's 2002 national survey reported they exceeded the posted speed limit on each type of road -interstate, non-interstate, multi-lane, two-lane, and city streets- within the past month, and about one-third reported this behavior on the day of the interview.*
- *Participants agreed that raising the priority of speeding is perhaps the most important step that can be taken.*

Survey of the States: Speeding and Aggressive Driving (2012) - Excerpts:

- *GHSA recognizes the major role speed and aggressive driving play as contributors to traffic death and injury.*
- *The public's attitude about speeding is enormously conflicted. A recent study has shown a large disconnect between the significant majority of the public who condemn speeding and the majority of drivers who admit to the behavior, making it a serious challenge to create a safety-conscious environment in which speed limits are respected and obeyed. Aggressive driving, which often involves speeding, is a great concern of motorists across the country.*
- *The action agenda included seven steps designed to...Set and achieve speed reduction goals, focusing on the reduction of extreme speeders and/or all travel speeds in high risk areas like **school** or work zones.*

⁸ There was agreement during the conference call that affording local jurisdictions flexibility was desirable.

American Automobile Association: Foundation for Traffic Safety:

“Improving Traffic Safety Culture in the United States - The Journey Forward” (2007) - Excerpts:

- *All roads have speed limits, but they are routinely ignored. Most drivers habitually speed.*
- *Speed limits traditionally are set at the 85th percentile travel speed: this means that speeding drivers may help raise speed limits even higher... The speeding culture can be changed by efforts at national, state, and local levels... implement speeding control programs in selected target areas with strong public support, again built on solid data.”*
- *Build programs on sound scientific principles rather than on intuition or political expediency.*
- *Start locally: municipalities and states can lead by implementing strategies to address their specific traffic safety problems.*

Comment: “kids don’t walk like they used to...it’s not happening anymore...fear of the public...”.

Response: The comment summarizes the very purpose of the bill. As detailed further above in this memo, **driver behavior/unsafe speeds is the largest unaddressed gap in the effort to get children using active modes for the home/school/home trip.**

“Fear of the public” or “stranger danger” are cited in surveys examining mode choice by students/parents/school administrators. However, this issue consistently ranks lower than proximity and unsafe speeds.

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