



Memorandum

TO: HONORABLE MAYOR AND
CITY COUNCIL

FROM: Hans F. Larsen

SUBJECT: 15 MPH SCHOOL ZONE
PILOT PROGRAM

DATE: October 24, 2011

Approved

Date

11/4/11

RECOMMENDATION

Approval of a framework for a 15 mph school zone pilot program at three school zones to evaluate the effectiveness of enhancing school access safety, to be accomplished with existing resources allocated for school area safety.

OUTCOME

This action will enable staff to conduct a pilot program to evaluate the effectiveness and community acceptance of a 15 mph speed limit in school zones at three different schools located in San José. Understanding the effectiveness of this relatively new State authorized tool will enhance staff's ability to provide City Council with more effective future recommendations on allocating limited resources for various traffic safety investments.

BACKGROUND

At the August 31, 2011, Rules and Open Government Committee meeting, Councilmember Oliverio submitted a recommendation that streets in school zones be reduced to 15 mph at San José public and private schools bordered by two lane residential roads that have a current 25 mph posted speed limit utilizing provisions outlined in AB 321 that became effective in 2008. Earlier in the summer, the City and County of San Francisco announced that they would be lowering the speed limit on a citywide basis adjacent to about 200 schools. At this meeting, staff was directed to review the proposal for potential 15 mph school zones with school Superintendents through the Schools/City Collaborative process, and return to Council with policy options and an analysis of how 15 mph school zones could be implemented within the City's available resources.

Local Streets and School Zone Speed Limits

The California Vehicle Code (CVC), together with the California Manual on Uniform Traffic Control Devices (CA MUTCD), provide direction to local and state agencies on the

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establishment of posted speed limits for a variety of roadways in the State. Generally, unless a *prima facie* speed limit has been identified in the CVC, agencies are required to conduct an engineering and traffic survey to justify the posted speed limit.

For example, the CVC provides for a *prima facie* speed limit of 25 mph on local streets, and when approaching or passing school zones (up to 500 feet from the school grounds), without the need for an engineering and traffic survey. On streets with regular posted speed limits of 30 mph and above, the 25 mph *prima facie* school zone speed limit is only in effect when children are present, which is generally when children are going to, or leaving the school grounds in the morning or afternoon, or during the lunch recess period. For schools that are adjacent to a local street, the 25 mph *prima facie* speed limit is in effect all the time.

Assembly Bill 321

AB 321 became effective January 2008 to allow local jurisdictions to extend the 25 mph *prima facie* speed limit (up to 1,000 feet from the school grounds), or to establish a 15 mph speed limit in school zones (up to 500 feet from the school grounds), under certain criteria. Specifically, the reduced or extended school zone speed limit is only applicable on local streets in a residential district that have a maximum of two traffic lanes, and a maximum posted speed limit of 30 mph immediately prior to and after the school zone; and must be established for both directions of travel. Based on the requirements in the CVC and the CA MUTCD, when determining the need to lower or extend the school zone speed limit, the provisions of CVC Section 627 that justify the speed limit must be documented in an engineering study. Similar to the reduced 25 mph school zone speed limit on higher speed streets, a 15 mph school zone speed limit would only be in effect when children are present. Since adoption of AB 321, only a few cities in the State have elected to implement 15 mph school zones, and staff is not aware if any of these cities has analyzed the traffic safety benefits of the lowered school zone speed limits.

Dana Avenue 15 MPH School Zone

On August 10, 2010, the Council approved a 15 mph school zone speed limit on Dana Avenue between Hester Avenue and Naglee Avenue due to an unusual condition that was created on Dana Avenue when a school building that housed 16 classrooms and the Trace Elementary library was destroyed by fire. During an approximate two year period while replacement facilities are under construction, Trace Elementary classrooms have been located on both sides of Dana Avenue. During this time period, students may be crossing Dana Avenue throughout the school day at times not regularly anticipated by motorists. This is a significant unusual condition that would not readily be apparent to motorists as they travel on Dana Avenue, especially those unfamiliar with the neighborhood. This unusual condition was documented in the engineering study completed for Dana Avenue to justify the lowered speed limit. Over the past year, the signs have been favorably received by the school community, however, given the significant congestion present on Dana Avenue during drop-off and pick-up periods, the impact of the lowered speed limit as a speed reduction tool is difficult to assess.

Traffic Calming Program Budget Impacts

As a result of necessary budget balancing over the past several years, there have been significant resource reductions to the Citywide Traffic Calming Program and associated services. The engineering team in the Department of Transportation (DOT) that supported the Traffic Calming Program was reduced 45% with the FY10-11 Adopted Budget. As a result, the remaining staff is only able to focus on core safety studies and those mandated by State law. In addition, capital funding for comprehensive traffic calming solutions, such as speed bumps, median islands, and dynamic message signs has been completely eliminated; and due to the reduced staffing levels, there is no capacity to conduct the studies and community outreach required by the Traffic Calming Policy to support the installation of comprehensive measures.

Traffic safety in school zones continues to be a core DOT service. For example, in FY10-11, DOT staff evaluated traffic concerns at 56 schools, with about half of the schools (30) requiring a significant level of staff analysis, including observations during both morning and afternoon drop-off periods and discussions with school personnel regarding potential options to address the concerns. Solutions implemented to enhance school zone traffic safety included new or modified bus zones, passenger loading zones, crosswalks, prohibited parking areas, and turn prohibitions. Other services that also continue to be provided are those related to pedestrian safety, disabled parking, intersection safety, proactive crash analysis, and State mandated studies.

ANALYSIS

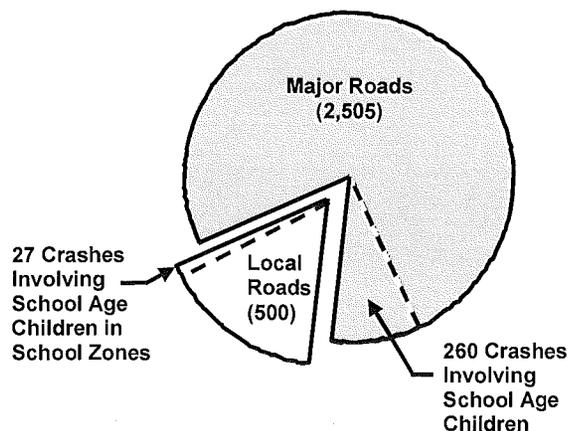
San José Safety Record and Data

San José is one of the safest big cities in the nation for traffic operations, with an injury crash rate about half the national average. Unfortunately, some of these crashes do involve pedestrians and bicyclists; with a majority of these occurring on major roadways. For example, over a five year period between 2006 and 2010, 83% of the approximate 3,000 injury crashes involving pedestrian and bicyclists of all ages occurred on major roadways.

With regard to crashes involving school age children, during this same five year period there were 260 injury crashes on major roadways (about 50 per year). There were 27 (about 5 per year) that occurred during school hours on local 25 mph roads in a school zone.

There were a total of 60 crashes that resulted in a fatality during this five year period (about 12 per year); with 95% occurring on major roads, including one involving a school age child during the school day.

**Location of Pedestrian/Bicycle Injury Crashes
2006 – 2010 (3,005 Total)**



School Superintendent Input

At the October 12, 2011, Schools/City Collaborative meeting, a potential 15 mph School Zone Pilot Program was discussed with the Superintendents. Many Superintendents expressed that speeding was not a significant issue at schools located on neighborhood streets that would be eligible for the reduced speed limit. According to the Superintendents, the primary traffic condition present at schools located within residential neighborhoods is congestion, along with inappropriate driver behavior such as illegal u-turns and illegal parking. The Superintendents did express a concern about speeds on higher volume, multi-lane streets that would not qualify for a 15 mph school zone under State law. If the City did proceed with a pilot program, the participating schools and districts would be able to assist with outreach efforts, such as distributing information to parents regarding the lowered speed limit. Due to their own fiscal challenges, the schools are not in a position to assist with the funding of any pilot.

CVC and CA MUTCD Guidelines

CVC Section 627 requires the consideration of all of the following to establish a posted speed limit that provides for radar enforcement: prevailing speeds (85th percentile speeds), accident records, and highway, traffic, and roadside conditions not readily apparent to the driver. Consideration may also be given to residential density, and the safety of pedestrians and bicyclists. With regards to establishing a 15 mph or 25 mph extended school zone speed limit, prevailing speeds are not required to be the basis for the reduced or extended speed limit.

Individual states in the country must either follow the Federal MUTCD or adopt similar guidelines that are in substantial compliance with Federal guidelines. The State of California has patterned the CA MUTCD after the Federal guidelines and is currently in the process of updating the State guidelines to incorporate changes in the most current version of the Federal MUTCD. As in past revisions, the State Department of Transportation (Caltrans) uses this opportunity to make other relevant changes to incorporate policies and laws adopted since the prior revision and to modify existing guidelines, if needed, to provide clarity to local agencies. One of the sections being revised in the CA MUTCD is the section that provides guidance on reduced speeds in school zones, including potential changes/clarity on when the reduced speed limits can be implemented and modified guidelines for the required engineering study. It is anticipated that the updated CA MUTCD will be adopted by Caltrans in early 2012. It is noted that the most recent draft of changes to the CA MUTCD continues to require that an engineering study be conducted and that all of the reasons justifying the reduced 15 mph or 25 mph extended speed limit in a school zone be documented.

Existing School Zone Signage

In FY07-08, DOT received a \$790,000 Safe Route to School (SRTS) grant to evaluate and upgrade a variety of school zone signs at K-8 schools in San José to current CA MUTCD standards. This was a multi-year effort that was completed in FY09-10. The grant provided for a review of existing signs at all schools, and the addition of new signs strategically placed to enhance the visibility and awareness of crosswalks and school zones. Implementing a reduced school zone speed limit will require replacing, and possibly relocating, some of the recently installed signs to comply with CA MUTCD criteria for school zone speed signage. For example,

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similar to a reduced 25 mph school zone on higher speed streets, the CA MUTCD requires a specific sequencing of signs be installed in advance of, and after, the reduced speed zone. In locating any new speed zone signs, every effort will be made to minimize relocation of existing signs. In addition to upgrading all static signs to current State standards, the grant is providing for the upgrade of about 28 of the existing radar speed display signs which are no longer functioning. This phase of the grant project is about 50% complete.

15 MPH School Zone Implementation

At a minimum, there are approximately 190 schools in San José that are potentially eligible for the reduced school zone speed limit (two lane residential roadways with a maximum speed limit of 30 mph). The majority of these schools (180) are on roads currently posted at 25 mph. If all eligible roads bordering these schools were to be considered, there is an average of two frontage roads per school that would be involved. It is important to note that the total number of eligible schools is anticipated to be substantially higher as staff was not able to account for all privately operated schools and pre-schools.

Conducting a pilot program at three schools would enable staff to evaluate the effectiveness of a 15 mph speed limit with regards to changing driver behavior, especially with regards to driving slower, encouraging more walking and biking to school, and ultimately improving safety in school zones. Criteria for selecting schools for inclusion in the pilot are proposed to include:

- Strong school/parent commitment to encourage slower driving,
- Strong school/parent commitment to increase walking/biking to school, and
- Unusual or unique conditions present at the school.

Unusual or unique conditions would include one or more of the following: uncontrolled crosswalks (especially midblock), a long distance between traffic controls or other unique roadway conditions, multiple schools on a street, high volume of pedestrian and bicycle activity, presence of school safety patrol, and crash history.

If a pilot program is approved, staff will immediately begin outreach efforts with School Superintendents and Council Offices to solicit interest for candidate schools through the end of 2011. Schools will be requested to submit a written letter of interest in the pilot program, including information on their school's current level of biking and walking, the support that will be provided to encourage parents and school personnel to drive slower and to encourage more children to walk/bike to school, and unique characteristics of their school zone that make them a good candidate for the pilot. Staff will initially review each letter of interest and the location of the school to determine if each interested school is eligible for the reduced 15 mph speed limit under State law. If there are more than three interested schools that are eligible, locations will be prioritized based on the extent and severity of any unusual conditions present at each candidate school, and the level of school/parent commitment and support that will be provided relative to the pilot program. After completion of the required engineering studies for each of the selected three schools, staff will return to Council with the necessary resolution actions to implement the reduced 15 mph speed limits at the selected schools.

It is important to note that the Traffic Enforcement Unit of the Police Department does not have the resources to support the 15 mph school zone pilot on a recurring basis. It is envisioned

though that they could include each of the schools in one of their Operation Safe Passage efforts during the first year. In the absence of regular enforcement, it is unlikely that the 15 mph signs by themselves will have a significant impact on reducing speeds. Radar speed display signs provide a means to aid motorists in self-regulating their speed by providing instant feedback when a motorist is going too fast. Installing a pair of these signs at each school would cost \$20,000 per school. If the pilot program is approved, DOT proposes to evaluate the effectiveness of radar speed display signs along with the 15 mph speed limit signs at one of the pilot schools, temporarily using two of the signs acquired through the above mentioned SRTS grant project for the pilot program. This temporary use will limit the added cost to the pilot study associated with evaluating the benefits of using speed radar signs to an approximate \$6,000 cost to install the signs.

Staff Recommends a Three School Pilot Program

Staff has the capacity to conduct a pilot program at three schools with existing resources in DOT. The estimated cost for this pilot is \$27,000 for all three schools, including the costs for temporary use of radar speed display signs at one of the schools. A pilot with three schools is adequate in size to enable DOT engineering staff to evaluate the effectiveness of the 15 mph school zone as a traffic safety tool. Included in this effort would be completing the required engineering study at each school, design layout and installation of signs, coordinating outreach efforts with the schools, and analysis of the effectiveness of the reduced speed limit. The effectiveness of the 15 mph school zone as a school access safety tool will be primarily assessed by collecting and reviewing speed data, reviewing any crashes that may have occurred, conducting observations during drop-off and pick-up periods, and obtaining input from the participating schools. The majority of the pilot study could be completed in FY 11-12 with follow-up evaluation occurring in spring 2012 and reporting to Council on the pilot program results in the summer of 2012.

EVALUATION AND FOLLOW UP

After completion of the required engineering studies, staff will return to Council in the early part of 2012 with the necessary resolution actions to implement the reduced speed limits at the selected schools. As highlighted above, the evaluation of the effectiveness of the 15 mph school zone as a school access safety tool will occur in the spring of 2012, with follow-up reporting to Council in the summer of 2012.

POLICY ALTERNATIVES

Alternative 1: Expand the Pilot Program to Ten Schools.

Pros: Expanding the pilot program to more than three schools would provide for a greater geographical implementation of the program across the City.

Cons: A larger pilot would impact existing services provided by both DOT engineering staff and maintenance sign staff, and would need to be completed in stages, with follow-up reporting to Council occurring in FY13-14. Even with this phased approach, the expanded pilot would

limit staff's ability to respond to other school requests. As stated previously, in FY10-11, DOT engineering staff completed about 30 comprehensive traffic studies at various schools based on public safety concerns raised by the schools or parents. An expanded pilot would reduce the number of other school studies staff could complete in FY11-12 and FY 12-13 to about 15-20 per year. The estimated cost for a ten school pilot is \$63,000, excluding the costs for radar speed display signs.

Reason for Not Recommending: A pilot program at three schools can be implemented with existing resources with minimal impact to other traffic safety services and maintenance programs supported by DOT staff, and will produce information to determine the effectiveness of 15 mph school zones as a traffic safety tool

Alternative 2: Implement 15 mph school zones Citywide.

Pros: This option would provide for consistent Citywide speed limit signage at San José schools located within residential neighborhoods.

Cons: This approach would significantly impact other traffic safety services provided by DOT, eliminating staff's ability to respond to all other school safety studies, along with some reductions to other traffic safety requests, while work orders are being prepared. The magnitude of this project would also impact services provided by DOT maintenance staff, requiring either installation of new signs on overtime or deferring installation of other safety signs, or replacement of damaged signs. Additional funding would also need to be identified to acquire the new signs, as the material costs alone for the new signs would exhaust DOT's non-personal annual budget for Citywide sign installations. Costs associated with determining placement of all required signs and sign installation would exceed \$445,000 for all 180 schools, assuming that all eligible frontages were included. Additionally, DOT staff's professional recommendation is that an engineering study be completed for each school site. Conducting the required engineering studies would add \$245,000 (about \$1,400 per school) to the Citywide approach. The combined cost of \$690,000 is based on the 180 potentially eligible public and private schools that were identified at this point in time. If implemented on a Citywide basis, the costs would increase as more privately operated schools were identified.

Reason for Not Recommending: The costs associated with implementing this program on a Citywide approach exceeds available City resources at this time, and given the unknowns about the effectiveness of a 15 mph school zone speed limit, this approach is not recommended. A pilot program at three schools is adequate to provide information regarding the effectiveness of a 15 mph school speed limit in school zones. A pilot program of this size could be implemented with existing resources, with minimal impact to other traffic safety services and maintenance programs provided by DOT staff.

PUBLIC OUTREACH/INTEREST

- Criterion 1:** Requires Council action on the use of public funds equal to \$1 million or greater; **(Required: Website Posting)**
- Criterion 2:** Adoption of a new or revised policy that may have implications for public health, safety, quality of life, or financial/economic vitality of the City. **(Required: E-mail and Website Posting)**
- Criterion 3:** Consideration of proposed changes to service delivery, programs, staffing that may have impacts to community services and have been identified by staff, Council or a Community group that requires special outreach. **(Required: E-mail, Website Posting, Community Meetings, Notice in appropriate newspapers)**

This memorandum will be posted on the City's website for the November 15, 2011 Council agenda. The proposed 15 mph school zone pilot program was discussed with School District Superintendents at the October 14, 2011, Schools/City Collaborative meeting. Reducing school zone speed limits to 15 mph was also discussed with the Bicycle Pedestrian Advisory Committee at their September 12, 2011, meeting.

COORDINATION

This memorandum has been coordinated with the Police Department, the City Attorney's Office, and the City Manager's Budget Office.

COST SUMMARY/IMPLICATIONS

The proposed pilot program at three schools will cost approximately \$27,000, and can be absorbed within DOT's existing budget.

CEQA

Exempt, File No. PP10-113.

/s/
HANS F. LARSEN
Director of Transportation

For questions, please contact Laura Wells, DOT Deputy Director at 408-975-3725.