

AGENDA
CALIFORNIA TRAFFIC CONTROL DEVICES COMMITTEE (CTCDC)
January 21, 2010 Meeting
4050 Taylor Street, San Diego, CA 92110
Starting Time 9:00 A.M.

Organization Items

- 1 Introduction**
- 2 Approval of Minutes (September 24, 2009 Meetings)**
- 3 Membership (Election of the Chairman and Vice Chairman)**
- 4 Public Comments**

At this time, members of the public may comment on any item not appearing on the agenda. Matters presented under this item cannot be discussed or acted upon by the Committee at this time. For items appearing on the agenda, the public is invited to make comments at the time the item is considered by the Committee. Any person addressing the Committee will be limited to a maximum of five (5) minutes so that all interested parties have an opportunity to speak. When addressing Committee, please state your name, address, and business or organization you are representing for the record.

Agenda Items

5 Public Hearing

Prior to adopting rules and regulations prescribing uniform standards and specifications for all official traffic control devices placed pursuant to Section 21400 of the California Vehicle Code (CVC), the Department of Transportation is required to consult with local agencies and hold public hearings.

Page #s

- | | | |
|-------|---|---|
| 08-18 | Proposal to adopt “NO IDLING COMMERCIAL VEHICLES & SCHOOL BUSES” Sign
(Requested by Air Resource Board-Item moved from Tabled Item to Action items) | (Continued)
(Henley) 6-21 |
| 09-23 | Proposal to Adopt NO PARKING signs during School days to CA MUTCD Section 2B.39 (Requested by San Bernardino CO.) | (Continued)
(Babico) 22-24 |
| 10-1 | Proposal to Revise CA MUTCD Section 4D 105(CA) and Table 4D-109 CA MUTCD
(Requested by City of Vacaville and Orange CO. Traffic Authority) | (Introduction)
(Knowles) 25-25 |
| 10-2 | Proposal to amend existing typical applications and adopt new TA’s for accommodating bicyclists in TTC zones and to Revise CA MUTCD Sections 6D.101(CA) and 6G.05 and added a new Table 6H-1(CA). | (Introduction)
(Henley) 26-48 |

6 Request for Experimentation

- | | | |
|------|---|--|
| 10-3 | Experiment with Second Train Warning Sign “Additional Train May Approach” with a Symbol Sign (Submitted by City of Riverside) | (Introduction)
(Fisher) 49-64 |
| 10-4 | Experiment with Bicycle Box at the Signalized Intersection (Submitted by Caltrans District 5) | (Introduction)
(Henley) 65-76 |

7 Discussion Items

10-5 When Children are Present (School Sign) (Introduction)
(Henley) [77-78](#)

10-6 Proposal to Restructure the CTCDC (Introduction)
(Henley) [79](#)

8. Information on CA MUTCD Training[80](#)**9 Information Items**

10-7 MUTCD 2009 (Introduction)
(Henley) [80](#)

10 Tabled Item

08-22 Proposal to amend CA MUTCD Section 10C.15 & 10C.23
(Item Deferred for the Future Meeting) (Continued)
[Item will be removed from the agenda.](#) (Wong) [80](#)

06-7 MUTCD 2003 Revision No. 1 (Pharmacy Signing)
(Proposed to Adopt Pharmacy Signing in CA) (Continued)
[Item will be removed from the agenda.](#) (Henley) [80](#)

11 Next Meeting**12 Adjourn**

ITEM UNDER EXPERIMENTATION

- 04-9 Request to Experiment with “Watch The Road” Sign (Bahadori)
(Proposed by the Los Angeles DOT)
Status: the project has been cancelled due to a discontinuation of funding and that it can be closed out.
- 06-2 Experiment with Colored Bike Lane (Banks/Wong)
(Proposed by the City of San Francisco)
Status: Experiment with Colored Bike Lane: This project was stalled because of the citywide injunction on all bicycle improvements for the past three years. This injunction was partially lifted last Wednesday (11/25/09) and the colored bike lane experiment was one of the projects approved to go forward.
- The revised preliminary schedule is as follows:
Winter 2009/2010 - Issue RFP and Hire Consultant
Spring 2010 - Collect Before Data
Summer 2010 - Install Variable
Fall 2010 - Collect After Data
Winter 2010/2011 - Analyze Data and Prepare Final Report
- 06-5 Clear The Way Signage (Drive Damaged Vehicle to Shoulder) (Whiteford)
(Proposed by the CHP and MTA)
Status: MTA still wrapping up the survey data for the final information report. MTA would like to present their final report during the Jan 2010 meeting, but it may fall to the meeting after that.
- 07-7 Experimentation by Implementation of Two New School Site Loading Signs (Wong)
Status - The City is conducting the after-study right now. They have 2 of the 15 zones evaluated so far.
- 07-19 Wildlife Corridor Signage (Babico)
(Proposed by the County of San Bernardino)
Status: In the process to Request approval from the FHWA
- 08-7 Request for Experimentation with new Warning Sign for Bicyclists (Wong)
(Proposed by the City/Co of San Francisco)
Status: Experiment with new Warning Signs for Bicyclists: The bicycle warning sign is still being evaluated, in conjunction with other improvements at the Market/Octavia intersection, all designed to decrease the incidence of illegally right turning vehicles vs. bicycle collisions. In granting permission for this experiment the committee took particular note of the sign's limited application to this single, unique location in San Francisco, with an acknowledgement that it was not likely to have broader statewide application. Consequently, our "experiment" and the associated observation/evaluation of its efficacy remains open-ended
- 08-20 Request to Experimentation with Flashing Yellow Arrow for Permissive (Mansourian)
Right Turn Movement
Status: See under “Status Report – Ongoing Experiments” on the following website:
<http://www.dot.ca.gov/hq/traffops/signtech/newtech/index.htm>

- 08-21 Proposal to Experiment with Regulatory Sign “BIKES IN LANE” with Bicycle Symbol (Originally submitted as “Bike May Use Full Lane”) (Henley)
Status: Caltrans District 5 still looking for funding for the human factors study. The signs have been well received and there are no negative issues to report at this time. State collision data is not yet available, however, collision data obtained from the City of Santa Cruz up to 09/01/09, shows that there have been 3 bike related collisions since the signs went up, 5 in the year previous, and 7 in the year prior to that.
- 09-9 Request to Experiment with Steady Red Stop Line Light (Requested by the City of Los Angeles) (Fisher)
Status: Metro has secured limited funding to proceed with experiment at two, instead of five intersections proposed in the original application. One is at metro Orange Line crossing at Woodman Avenue and the other is at Metro Blue Line crossing at Los Angeles Street. The construction is expected to start in December 2009 and finish by February 2010. Metro is currently collecting “before project” data and will start collecting “after project” data beginning April 2010.
- 09-13 Experiment Request for the USAGE OF “HOV” IN LIEU OF “CARPOOL” Signage Related to the Los Angeles EXPRESS LANES (Henley)
Status: The project is in planning stage
- 09-14 Experiment request for the Usage of “TRANSIT LANE” in lieu of “CARPOOL” Signage (Henley)
Status: The project is in planning stage
- 09-21 Request for Permission to Experiment with Separated/Protected Bikeway on the Left Side of Two One-Way Streets in the City of Long Beach (Rte 9-112E) (Fisher)
Status: See under “Status Report – Ongoing Experiments” on the following website:
<http://www.dot.ca.gov/hq/traffops/signtech/newtech/index.htm>

Pending Items for Caltrans Action

07-1 Proposal to revise the sizes for the Supplemental School Plaques (S4-3, W16-7p and W16-9p)

08-18 Proposal to adopt “NO IDLING COMMERCIAL VEHICLES & SCHOOL BUSES” Sign

Recommendation:

California Air Resources Board request that the Committee recommend adoption of the “**NO IDLING COMMERCIAL VEHICLES & SCHOOL BUSES” Sign**

Agency Making Request: California Air Resources Board

Sponsor: Caltrans

Background:



Linda S. Adams
Secretary for
Environmental Protection

Air Resources Board

Mary D. Nichols, Chairman
1001 I Street • P.O. Box 2815
Sacramento, California 95812 • www.arb.ca.gov



Arnold Schwarzenegger
Governor

California Traffic Control Devices Committee

January 21, 2009

SUBJECT: REQUEST FOR "NO IDLING" SIGNS PLACED AT STATE PROPERTIES

Dear Committee Members:

The Air Resources Board (ARB) is responsible for the protection of air quality in California. Over its 40 year plus history, the ARB has adopted regulations that have significantly reduced pollution from mobile and stationary sources such as dry cleaners, refineries, power plants, locomotives, off-road vehicles and equipment, passenger cars and diesel powered trucks and buses. As a result of these regulations, air quality in California has improved significantly as evidenced by tremendous reductions in peak ozone (smog) levels. Despite these improvements, approximately 90 percent of Californians live in regions that have unhealthy air quality.

To help further protect California residents from respiratory and cardiovascular diseases, especially in children and the elderly, ARB adopted regulations to prohibit idling of commercial vehicles, school buses and off-road equipment. AB 233 of 2007 added Section 43011.5 to the Health and Safety Code which calls for education and outreach to increase public awareness of diesel regulations, including idling regulations.

The ARB needs your assistance to develop signs that prohibit idling. These signs need to be strategically placed at state owned properties. These properties include highway roadside rest stops operated by CalTrans; State parks such as Hearst Castle; the State Capitol; California Highway Patrol Commercial Vehicle Inspection Facilities and Platform Scales; the campuses of the University of California, California State Universities and Community Colleges and any other properties owned by the State.

Attached is a proposal for "No Idling" signage for your review and approval. If you have any questions, please contact me at (916) 322-8325 or at noconor@arb.ca.gov.

Sincerely,

Nancy O'Connor, Manager
Manager, Heavy Duty Diesel Enforcement Section

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.

California Environmental Protection Agency

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PROPOSAL FOR THE DEVELOPMENT OF SIGNS TO PROHIBIT THE IDLING OF HEAVY DUTY VEHICLES

BACKGROUND

The California Air Resources Board (ARB) is responsible for the protection of air quality in California. California is the only state in the nation that the United States Environmental Protection Agency has given authority to implement its own mobile air quality programs, and utilizing this authority has proven to be an exciting, and at times difficult, undertaking for ARB.

Since 1968, the ARB has adopted stringent vehicular exhaust standards to reduce harmful exhaust gases and particulates from diesel and gasoline powered sources. Today's cars spew out 99 percent fewer criteria pollutants such as nitrogen oxides, hydrocarbons, carbon monoxide, and lead than a car from the late 1960s. New vehicle diesel engines are now required to reduce particulates and oxides of nitrogen, and In-use vehicle diesel engines are being equipped with oxidation catalysts and diesel particulate filters (retrofit devices) to reduce particulates. In the future, ARB standards will render the diesel engine to be a smokeless and odorless device, and will enable ARB to meet the challenge of reducing greenhouse gas emissions presented by California's landmark climate change legislation.

In spite of the great steps taken to improve air quality in California, the State still faces a severe air pollution problem. Exhaust gases and small particles emitted from almost 30 million gasoline and diesel powered cars, trucks and buses are constantly pumped into California's air, where they chemically react with other gases and form additional harmful substances. California's air pollution problem is compounded by the California air basins (flatlands surrounded by mountains), which retain these gases in populated areas and dramatically aggravate the issues of pollution and its effects on human health.

Diesel gases and particulates cause great harm to the respiratory and cardiovascular systems of California's residents, and small children and the elderly are especially susceptible to the detrimental effects of poor air quality. Since 1989, the ARB has conducted in depth scientific and epidemiological studies on the effects of pollution on human and animal health. These studies were discussed by the Scientific Review Panel, a panel composed of independent scientists that review studies for scientific accuracy and consequentially, in 1998, ARB identified diesel exhaust as a toxic air contaminant due to its link to cancer risk. Diesel exhaust is also linked to cardiovascular and cardiopulmonary diseases. In 2000, ARB issued a Diesel Risk Reduction Plan (DRRP), calling for the reduction of the public's exposure to diesel exhaust by 75 percent by 2010 and 85 percent by 2020.

The Diesel Risk Reduction plan is intended to reduce diesel exhaust exposure through the adoption of Toxic Air Contaminant Control Measures. Additionally, more recent legislation has added to ARB's ability to battle the effects of diesel exhaust on public health. Through the adoption of AB 233, ARB has been granted authority to increase commercial vehicle idling penalties; place DMV registration holds on vehicles with outstanding ARB violations; regulate off-road sources in addition to on-road sources, and to publish the legislative report regarding ARB's strategic plan to enforce diesel emission programs. Additionally, AB 233 establishes an education and outreach component to increase public awareness, including signage related to diesel vehicle idling.

PROPOSAL

The ARB proposes that the California Traffic Control Devices Committee assist in the design and approval of signs to increase awareness of California's diesel vehicle idling regulations, and to prohibit idling of school busses and commercial vehicles.

The signs would be drafted according to the following criteria:

- Appropriate language to limit idling;
- Specific regulatory notation
- Sized to be consistent with existing roadside signs (e.g. "No Parking" signs).
- In multiple languages

Placement Locations

- California Highway Patrol Inspection Facilities and Platform Scales;
- Caltrans owned and operated highway rest stops;
- State parks and the State Capitol building;
- Campuses of the University of California, California State Universities and Community Colleges
- State-owned buildings and facilities with loading docks.
- Freeway on-ramps and off-ramps.

JUSTIFICATION

Diesel exhaust particulates range in size from 10 microns to 2.5 microns and less. That is smaller than roughly 1/5 of the diameter of a human hair. In contrast, dust particles from other sources are often large enough to be easily expelled from the airways by cilia, tiny hairs that work to expel foreign substances from the lung. The extremely small diesel particulates are easily lodged in between the cilia and can cause carcinogenic and mutagenic effects in the human respiratory and cardiovascular systems. Children are more vulnerable than adults to air pollutants because they have higher inhalation rates, narrower airways, and less mature immune systems. The elderly are also extremely susceptible to these effects.

One of the more immediate solutions to reduce human exposure to diesel toxic air contaminants is to turn off the diesel engines that power school buses, and on and off-road commercial vehicles as soon as possible. In recent years, the California Code of Regulations has been modified to include regulations designed to limit unnecessary idling of commercial vehicles. Section 2480 (Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools) became effective in 2003, and Section 2485 (Airborne Toxic Control Measure to Limit Diesel fueled Commercial Motor Vehicle Idling) effective in 2005, prohibited the idling of commercial vehicles. Additionally, in 2008, Section 2449 (Regulation for In-Use Off-Road diesel vehicles) prohibits the idling of diesel powered construction and mining vehicles.

Operators of vehicles, wherever they are domiciled, need to be informed of these regulations, thus, the staff of the Air Resources Board recommends that the California Traffic Control Devices Committee develop and promote the distribution of "No Idling" signs at appropriate locations within State owned properties.

The proposed sign is shown on the following page.

The following policy statement will be incorporated into the Section 2B.39 Parking, Standing and Stopping Signs (R7 and R8 Series):

Option:

The NO IDLING DIESEL VEHICLES sign may be used on State owned properties to prohibit idling of commercial vehicles and school buses that are equipped with a diesel engine for duration greater than 5 minutes (refer to CCR Title 13, 2480 and 2485).

Standard:

If used, the NO IDLING DIESEL VEHICLES sign shall be placed within 100 feet of restricted areas.

Support:

The state owned properties where this sign can be placed include rest stops operated by Caltrans, State parks, the State Capital, the California Highway Patrol Commercial Vehicle Inspection Facilities and Platform Scales, the Campuses of Universities and Colleges owned by the State of California, and any other State owned properties.

DRAFT

24"x24" Sign with 4.5" and 2.5" Lettering



1.500" Radius, 0.625" Border, 0.375" Indent, Black on White;
 "NO IDLING" B 50% spacing; "COMMERCIAL" B; "VEHICLES &" B; "SCHOOL BUSES" B 70% spacing;

Attachments: The CCR Title 13, 2485 & 2480**Section 2485. Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.**

(a) Purpose. The purpose of this airborne toxic control measure is to reduce public exposure to diesel particulate matter and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles.

(b) Applicability. This section applies to diesel-fueled commercial motor vehicles that operate in the State of California with gross vehicular weight ratings of greater than 10,000 pounds that are or must be licensed for operation on highways. This specifically includes:

(1) California-based vehicles; and

(2) Non-California-based vehicles.

(c) Requirements.

On or after February 1, 2005, the driver of any vehicle subject to this section:

(1) shall not idle the vehicle's primary diesel engine for greater than 5.0 minutes at any location, except as noted in Subsection (d); and

(2) shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5.0 minutes at any location when within 100 feet of a restricted area, except as noted in Subsection (d).

(d) Exceptions.

Subsection (c) does not apply for the period or periods during which

(1) a bus is idling for

(A) up to 10.0 minutes prior to passenger boarding, or

(B) when passengers are onboard;

(2) idling of the primary diesel engine is necessary to power a heater, air conditioner, or any ancillary equipment during sleeping or resting in a sleeper berth. This provision does not apply when operating within 100 feet of a restricted area;

(3) idling when the vehicle must remain motionless due to traffic conditions, an official traffic control device, or an official traffic control signal over which the driver has

no control, or at the direction of a peace officer, or operating a diesel-fueled APS at the direction of a peace officer;

- (4) idling when the vehicle is queuing that at all times is beyond 100 feet from any restricted area;
- (5) idling of the primary engine or operating a diesel-fueled APS when forced to remain motionless due to immediate adverse weather conditions affecting the safe operation of the vehicle or due to mechanical difficulties over which the driver has no control;
- (6) idling to verify that the vehicle is in safe operating condition as required by law and that all equipment is in good working order, either as part of a daily vehicle inspection or as otherwise needed, provided that such engine idling is mandatory for such verification;
 - (7) idling of the primary engine or operating a diesel-fueled APS is mandatory for testing, servicing, repairing, or diagnostic purposes;
 - (8) idling when positioning or providing a power source for equipment or operations, other than transporting passengers or propulsion, which involve a power take off or equivalent mechanism and is powered by the primary engine for:
 - (A) controlling cargo temperature, operating a lift, crane, pump, drill, hoist, mixer (such as a ready mix concrete truck), or other auxiliary equipment;
 - (B) providing mechanical extension to perform work functions for which the vehicle was designed and where substitute alternate means to idling are not reasonably available; or
 - (C) collection of solid waste or recyclable material by an entity authorized by contract, license, or permit by a school or local government;
- (9) idling of the primary engine or operating a diesel-fueled APS when operating defrosters, heaters, air conditioners, or other equipment solely to prevent a safety or health emergency;
- (10) idling of the primary engine or operating a diesel-fueled APS by authorized emergency vehicles while in the course of providing services for which the vehicle is designed;
- (11) idling of military tactical vehicles during periods of training; and
- (12) idling when operating equipment such as a wheelchair or people assist lift as prescribed by the Americans with Disabilities Act;

(e) Relationship to Other Law.

Nothing in this section allows idling in violation of other applicable law, including, but not limited to:

- (1) California Vehicle Code Section 22515;
- (2) Title 13, Section 2480, California Code of Regulations;
- (3) California Health and Safety Code Section 40720; or
- (4) any applicable ordinance, rule, or requirement as stringent as, or more stringent than, this section.

(f) Enforcement. This section may be enforced by the Air Resources Board; peace officers as defined in California Penal Code, title 3, chapter 4.5, Sections 830 et seq. and their respective law enforcement agencies' authorized representatives; and air pollution control or air quality management districts.

(g) Penalties. For violations of subsection (c)(1) or (c)(2), the driver of a subject vehicle is subject to a minimum civil penalty of 100 dollars and to criminal penalties as specified in the Health and Safety Code and the Vehicle Code.

(h) Definitions.

The following definitions apply to this section:

- (1) "Authorized emergency vehicle" is as defined in Vehicle Code Section 165.
- (2) "Auxiliary power system" or "APS" means any device that provides electrical, mechanical, or thermal energy to the primary diesel engine, truck cab, or sleeper berth as an alternative to idling the primary diesel engine.
- (3) "Bus" means any vehicle defined in Title 13, California Code of Regulations, Section 2480, subsections (h) (13)-(16), inclusive or as defined in the Vehicle Code Section 233.
- (4) "Commercial Motor Vehicle" means any vehicle or combination of vehicles defined in Vehicle Code Section 15210(b) and any other motor truck or bus with a gross vehicle weight rating of 10,001 pounds or more, except the following:
 - (A) a zero emission vehicle; or
 - (B) a pickup truck as defined in Vehicle Code Section 471.

- (5) "Driver" is as defined in Vehicle Code Section 305.
- (6) "Gross vehicle weight rating" is as defined in Vehicle Code Section 350.
- (7) "Highway" is as defined in Vehicle Code Section 360.
- (8) "Idling" means the vehicle engine is running at any location while the vehicle is stationary.
- (9) "Motor truck" or "motortruck" means a motor vehicle designed, used, or maintained primarily for the transportation of property.
 - (10) "Official traffic control device" is as defined in Vehicle Code Section 440.
 - (11) "Official traffic control signal" is as defined in Vehicle Code Section 445.
 - (12) "Owner" is as defined in Vehicle Code Section 460.
- (13) "Primary diesel engine" means the diesel-fueled engine used for vehicle propulsion.
- (14) "Queuing" means (A) through (C)
 - (A) the intermittent starting and stopping of a vehicle;
 - (B) while the driver, in the normal course of doing business, is waiting to perform work or a service; and
 - (C) when shutting the vehicle engine off would impede the progress of the queue and is not practicable.
 - (D) Queuing does not include the time a driver may wait motionless in line in anticipation of the start of a workday or opening of a location where work or a service will be performed.
- (15) "Restricted area" means any real property zoned for individual or multifamily housing units that has one or more of such units on it.
- (16) "Safety or health emergency" means:
 - (A) a sudden, urgent, or usually unforeseen, occurrence; or
 - (B) a foreseeable occurrence relative to a medical or physiological condition.
- (17) "Sleeper berth" is as defined in Title 13, California Code of Regulations, Section 1265.
- (18) "Vehicle" is as defined in the Vehicle Code Section 670.

Authority: Sections 39600, 39601, 39614(b)(6)(A), 39658, 39667, 43000.5(d), 43013(b), 43013(h), 43018(b), and 43018(c), Health and Safety Code; and Western Oil & Gas Assn. v. Orange County Air Pollution Control Dist. (1975) [14 Cal.3d.411].

Reference: Sections 39002, 39003, 39027, 39500, 39600, 39650, 39655, 39656, 39657, 39658, 39659, 39662, 39665, 39674, 39675, 42400, 42400.1, 42400.2, 42400.3, 42402, 42402.1, 42402.2, 42402.3, 42403.5, 42410, 43013, 43018, Health and Safety Code; Sections 305, 336, 350, 440, 445, 545, 546, 642, 680, 21400, 22452, 22515, 27153, 40001, 40001(b)(5), Vehicle Code; and Sections 1201, 1900, 1962, 2480, Title 13, California Code of Regulations

§ 2480. Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools.

(a) Purpose. This airborne toxic control measure seeks to reduce public exposure, especially school age children's exposure, to diesel exhaust particulate matter and other toxic air contaminants by limiting unnecessary idling of specified vehicular sources.

(b) Applicability. Except as provided in subsection (d), this section applies to the operation of every school bus, transit bus, school pupil activity bus, youth bus, general public paratransit vehicle, and other commercial motor vehicle as defined in subsection (h).

(c) Idling Control Measure.

(1) A driver of a school bus, school pupil activity bus, youth bus, or general public paratransit vehicle:

(A) must turn off the bus or vehicle engine upon stopping at a school or within 100 feet of a school, and must not turn the bus or vehicle engine on more than 30 seconds before beginning to depart from a school or from within 100 feet of a school; and

(B) must not cause or allow a bus or vehicle to idle at any location greater than 100 feet from a school for:

(i) more than five consecutive minutes; or

(ii) a period or periods aggregating more than five minutes in any one hour.

(2) A driver of a transit bus or of a commercial motor vehicle not identified in (c)(1):

(A) must turn off the bus or vehicle engine upon stopping at a school and must not turn the bus or vehicle engine on more than 30 seconds before beginning to depart from a school; and

(B) must not cause or allow a bus or vehicle to idle at any location within 100 feet of, but not at, a school for:

(i) more than five consecutive minutes; or

(ii) a period or periods aggregating more than five minutes in any one hour.

(3) A motor carrier of a school bus, school pupil activity bus, youth bus, or general public paratransit vehicle must ensure that:

(A) the bus or vehicle driver, upon employment and at least once per year thereafter, is informed of the requirements in (c)(1), and of the consequences, under this section and the motor carrier's terms of employment, of not complying with those requirements;

(B) all complaints of non-compliance with, and enforcement actions related to, the requirements of (c)(1) are reviewed and remedial action is taken as necessary; and

(C) records of (3)(A) and (B) are kept for at least three years and made available or accessible to enforcement personnel as defined in subsection (g) within three business days of their request.

(4) A motor carrier of a transit bus or of a commercial motor vehicle not identified in (c)(1) must ensure that:

(A) the bus or vehicle driver, upon employment and at least once per year thereafter, is informed of the requirements in (c)(2), and of the consequences, under this section and the motor carrier's terms of employment, of not complying with those requirements;

(B) all complaints of non-compliance with, and enforcement actions related to, the requirements of (c)(2) are reviewed and remedial action is taken as necessary; and

(C) records of (4)(A) and (B) are kept for at least three years and made available or accessible to enforcement personnel as defined in subsection (g) within three business days of their request.

(d) Exemptions

This section does not apply for the period or periods during which:

(1) idling is necessary while stopped:

(A) for an official traffic control device;

(B) for an official traffic control signal;

(C) for traffic conditions over which the driver has no control, including, but not limited to: stopped in a line of traffic; or

(D) at the direction of a peace officer;

(2) idling is necessary to ascertain that the school bus, transit bus, school pupil activity bus, youth bus, general public paratransit vehicle, or other commercial motor vehicle is in safe operating condition and equipped as required by all provisions of law, and all equipment is in good working order, either as part of the driver's daily vehicle inspection, or as otherwise needed;

(3) idling is necessary for testing, servicing, repairing, or diagnostic purposes;

(4) idling is necessary, for a period not to exceed three to five minutes (as per the recommendation of the manufacturer), to cool down a turbo-charged diesel engine before turning the engine off;

(5) idling is necessary to accomplish work for which the vehicle was designed, other than transporting passengers, for example:

(A) collection of solid waste or recyclable material by an entity authorized by contract, license, or permit by a school or local government;

(B) controlling cargo temperature; or

(C) operating a lift, crane, pump, drill, hoist, mixer, or other auxiliary equipment other than a heater or air conditioner;

(6) idling is necessary to operate:

(A) a lift or other piece of equipment designed to ensure safe loading, unloading, or transport of persons with one or more disabilities; or

(B) a heater or an air conditioner of a bus or vehicle that has, or will have, one or more children with exceptional needs aboard;

(7) idling is necessary to operate defrosters, heaters, air conditioners, or other equipment to ensure the safety or health of the driver or passengers, or as otherwise required by federal or State motor carrier safety regulations; or

(8) idling is necessary solely to recharge a battery or other energy storage unit of a hybrid electric bus or vehicle.

(e) Relationship to Other Law

Nothing in this section allows idling in excess of other applicable law, including, but not limited to:

(1) Title 13 California Code of Regulations Section 1226;

(2) Vehicle Code Section 22515; or

(3) any local ordinance or requirement as stringent as, or more stringent than, this section.

(f) Penalties

(1) For each violation of subsection (c)(1), a driver of a school bus, school pupil activity bus, youth bus, or general public paratransit vehicle is subject to a minimum civil penalty of 100 dollars and to criminal penalties to the maximum extent provided by law.

(2) For each violation of subsection (c)(2), a driver of a transit bus or other commercial motor vehicle is subject to a minimum civil penalty of 100 dollars and to criminal penalties to the maximum extent provided by law.

(3) For each violation of subsection (c)(3), a motor carrier of a school bus, school pupil activity bus, youth bus, or general public paratransit vehicle is subject to a minimum civil penalty of 100 dollars and to criminal penalties to the maximum extent provided by law.

(4) For each violation of subsection (c)(4), a motor carrier of a transit bus or other commercial motor vehicle is subject to a minimum civil penalty of 100 dollars and to criminal penalties to the maximum extent provided by law.

(g) Enforcement. This section may be enforced by the Air Resources Board, peace officers as defined in California Penal Code, title 3, chapter 4.5, Sections 830 et seq. and their respective law enforcement agencies' authorized representatives, and air pollution control or air quality management districts.

(h) Definitions.

The following terms are defined for the purposes of this section:

(1) Children With Exceptional Needs. "Children with exceptional needs" means children meeting eligibility criteria described in Education Code Section 56026.

(2) Commercial Motor Vehicle. "Commercial Motor Vehicle" means any vehicle or combination of vehicles defined in Vehicle Code Section 15210(b) and any other motor truck with a gross vehicle weight rating of 10,001 pounds or more, with the following exceptions:

(A) a zero emission vehicle; or

(B) a pickup truck defined in Vehicle Code Section 471.

(3) Driver. "Driver" means any person who drives or is in actual physical control of a vehicle.

(4) General Public Paratransit Vehicle. "General public paratransit vehicle" means any motor vehicle defined in Vehicle Code Section 336, other than a zero emission general public paratransit vehicle, that is transporting school pupils at or below the 12th grade level to or from public or private schools or public or private school activities.

(5) Gross Vehicle Weight Rating. "Gross vehicle weight rating" means the weight specified by the manufacturer as the loaded weight of a single vehicle.

(6) Hybrid Electric Bus or Vehicle. "Hybrid electric bus or vehicle" means any school bus, transit bus, school pupil activity bus, youth bus, general public paratransit vehicle, or other commercial motor vehicle equipped with at least the following two sources of motive energy on board:

(A) an electric drive motor that must be used to partially or fully drive the bus or vehicle wheels; and

(B) one of the following:

(i) an internal combustion engine;

(ii) a turbine; or

(iii) a fuel cell.

(7) Idling. "Idling" means the engine is running while the bus or vehicle is stationary.

(8) Motor Carrier. "Motor carrier" means the registered owner, lessee, licensee, school district superintendent, or bailee of any school bus, transit bus, school pupil activity bus, youth bus, general public paratransit vehicle, or other commercial motor vehicle who operates or directs the operation of any such bus or vehicle on either a for-hire or not-for-hire basis.

(9) Motor Truck. "Motor truck" or "motortruck" means a motor vehicle designed, used, or maintained primarily for the transportation of property.

(10) Official Traffic Control Device. "Official traffic control device" means any sign, signal, marking or device, consistent with Section 21400 of the Vehicle Code, placed or erected by authority of a public body or official having jurisdiction, for the purpose of regulating, warning, or guiding traffic, but does not include islands, curbs, traffic barriers, speed humps, speed bumps, or other roadway design features.

(11) Official Traffic Control Signal. "Official traffic control signal" means any device, whether manually, electrically, or mechanically operated, by which traffic is alternately directed to stop and proceed and which is erected by authority of a public body or official having jurisdiction.

(12) School. "School" means any public or private school used for the purposes of education and instruction of more than 12 school pupils at or below the 12th grade level, but does not include any private school in which education and instruction is primarily conducted in private homes. The term includes any building or structure, playground, athletic field, or other area of school property. The term excludes unimproved school property.

(13) School Bus. "School bus" means any school bus defined in Vehicle Code Section 545, except a zero emission school bus.

(14) School Pupil Activity Bus. "School pupil activity bus" means any bus defined in Section 546 of the Vehicle Code, except a zero emission school pupil activity bus.

(15) Transit Bus. "Transit bus" means any bus defined in Vehicle Code Section 642, except a zero emission transit bus.

(16) Youth Bus. "Youth bus" means any bus defined in Vehicle Code Section 680, except a zero emission youth bus.

(17) Zero Emission School Bus, Transit Bus, School Pupil Activity Bus, Youth Bus, General Public Paratransit Vehicle, or Other Commercial Motor Vehicle. A "zero emission school bus, transit bus, school pupil activity bus, youth bus, general public paratransit vehicle, or other commercial motor vehicle" means any bus or vehicle certified to zero-emission standards.

<General Materials (GM) - References, Annotations, or Tables>

Note: Authority cited: Sections 39600, 39601, 39658, 39667 and 39674, Health and Safety Code; and Western Oil & Gas Assn. v. Orange County Air Pollution Control Dist. (1975) [14 Cal.3d.411]. Reference: Sections 39002, 39003, 39027, 39500, 39600, 39650, 39655, 39656, 39657, 39658, 39659, 39662, 39665, 39674, 39675 and 42403.5, Health and Safety Code; and Section 27153, Vehicle Code.

09-23 Proposal to adopt NO PARKING signs during School days to CA MUTCD Section 2B.39

Proposal to add no parking signs during school days to CA MUTCD Section 2B.39 “**PARKING, STANDING, AND STOPPING**”

Recommendation: Add “No Parking 7-8 a.m. and 2-3 p.m. During School Days”

Agency Making Request/Sponsor: San Bernardino County

Background:

There is a need to limit the parking hours on residential side where the school building is on the opposite side of the road. Figure 2B-16(CA) sheets 1 and 2 shows R30 (CA), R31(CA), R32B(CA), R31(S)(CA) signs as described on page 2B-43 limited hours during the week days. Therefore, we need signs to specifically be on school days ONLY,

Since some schools are closed for summer vacation and other holidays, it is required to allow residents to parking during the days other than the school days therefore, it is necessary to specify the no parking on the hours during school days.

Proposal:

Amended Section 2B.39 Parking, Standing, and Stopping Signs (R7 and R8 Series), Pages 2B-41 and 42 (DRAFT) as follows:

Option:

~~Limited time parking restrictions may be initiated by local authorities and approved by the Department. Parking prohibitions between certain hours may also be initiated by local authorities.~~

Option: (revised)

Limited time parking restrictions may be initiated by local authorities. Parking prohibitions between certain hours may also be initiated by local authorities. Parking prohibitions between certain hours and months of the year when school in session may also be initiated by local authorities.

Standard:

~~— Before time limit parking regulations are approved in rural areas, assurance shall be obtained from the enforcement agency that the regulation will be actively enforced.~~

Standard: (revised)

Local authority shall by ordinance or resolution prohibits or restricts the stopping, parking, or standing of vehicles between certain hours of the day, or upon the request of the school governing body the local agency shall prohibits or restricts the stopping, parking, or standing of vehicles between certain hours of the day and months of the year when school is in session per CVC 21373.

Proposed New Signs:

RED ON WHITE
12" x 18"
LINE 1 - 2 1/2" SERIES B
LINE 2,3&4 - 2" SERIES C
LINE 5&6 - 1 1/2" SERIES B

RED ON WHITE
12" x 18"
LINE 1 - 2 1/2" SERIES B
LINE 2,3&4 - 2" SERIES C
LINE 5&6 - 1 1/2" SERIES B

RED ON WHITE
12" x 18"
LINE 1 - 2 1/2" SERIES B
LINE 2,3&4 - 2 1/4" SERIES C
LINE 5 - 1 3/4" SERIES B

RED ON WHITE
12" x 18"
LINE 1 - 2 1/2" SERIES B
LINE 2,3&4 - 2 1/4" SERIES C
LINE 5 - 1 3/4" SERIES B

DEPARTMENT OF PUBLIC WORKS

FLOOD CONTROL • SOLID WASTE MGMT • SURVEYOR • TRANSPORTATION

COUNTY OF SAN BERNARDINO
PUBLIC AND SUPPORT
SERVICES GROUP825 East Third Street • San Bernardino, CA 92415-0835 • (909) 387-8104
Fax (909) 387-8130GRANVILLE M. "BOW" BOWMAN, P.E., P.L.S.
Director of Public Works

September 2, 2009

Devinder Singh
Senior Transportation Engineer
Executive Secretary, CTCDC
1120 N Street, MS36
Sacramento, CA 95814**RE: REQUEST TO PLACE ON THE CTCDC AGENDA REVIEW OF PROPOSED NO PARKING SIGN IN THE SCHOOL ZONE**

Dear Mr. Singh:

The County of San Bernardino has situations where a School is on one side of the road and home owners on the other side. The on street parking is of the paramount issue yet to be resolved during the hours and days which school is in session. The parking restriction on the school side can be established by installing an R30 (CA) or R30A (CA) sign which reads: "NO PARKING 7 to 9 AM, 4 to 6 PM MONDAY to FRIDAY". However, on the residential side we would like to limit the duration of no parking by specifying the day's school is in session, thus allowing the home owners full parking on the street on days other than school days. Attached are 4 proposed signs for approval.

It is highly appreciated that this item can be place on the upcoming CTCDC meeting's agenda. Thank you for your help in this matter.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jacob Y. Babico".

JACOB Y. BABICO, P.E.
Chief Traffic Division

Attachment as noted

JYB/sr

Cc: Reading File

10-1 Proposal to Revise CA MUTCD Section 4D.105(CA) and CA MUTCD Table 4D-109, Bicycle/Motorcycle Detection

Recommendation:

The City of Vacaville and Orange County Transportation Authority (OCTA) request that the Committee recommend adoption of the amended **Section 4D.105(CA) and CA MUTCD Table 4D-109, Bicycle/Motorcycle Detection as shown on “Item 10-1, Attachment A”**.

Agency Making Request: The City of Vacaville & OCTA

Sponsor: Jeff Knowles, League of California Cities

Proposal & Background:

The proposal and background information about this item is attached as an **“Item 10-1 - Attachment A & Item 10-1 - Attachment B”**.

Pages 3 through to 6 of the “Attachment A” shows proposed CA MUTCD deletions as strike-outs, and additions in **Green Italicized Underlined** text. Page 5 shows recommended replacement Table 4D-109(CA) and page 6 is a proposed new Table 4D-109B(CA).

10-02 Proposal to amend existing typical applications and adopt new typical applications for accommodating bicyclists in TTC zones and to Revise CA MUTCD Sections 6D.101(CA) and 6G.05 and added a new Table 6H-1(CA).

Recommendation:

Caltrans request that the Committee recommend adoption of the amended typical applications as well as new typical applications for accommodating bicyclists in TTC zones into the California MUTCD.

Agency Making Request/Sponsor: Caltrans

Background:

California's Strategic Highway Safety Plan, or SHSP, is a statewide, comprehensive, data-driven plan that provides a coordinated framework for reducing fatalities and serious injuries on California's public roads. The SHSP establishes statewide goals, objectives, and strategies to address California's safety needs. The SHSP identifies 152 key actions in 16 Challenge Areas to meet these needs.

See the attached SHSP Fact Sheet for more details.

This proposal is a result of two of these 152 specific key actions. Representatives on the statewide SHSP Challenge Areas 13 (Improve Bicycling Safety) and 14 (Enhance Work Zone Safety) teams have extensively discussed the topic and developed this proposal over several meetings throughout this year. Following are the specific SHSP identified actions pursuant to which this recommendation is being made:

- 13.6 - Provide improved guidance and standards in the CAMUTCD for safely accommodating bicyclists in work zones.
- 14.12 - Encourage present efforts to improve access and detours for bicyclists and pedestrians near work zones.

Following are some excerpts pertaining to these recommendations that were specifically identified in the Safety Needs Action Plan (SNAP) for Challenge Area 13 & 14 and key actions 13.6 & 14.12:

“Develop more detailed plans to accommodate bicyclists in work zones.”

“Additional designs needed to better address bicyclists in work zones.”

“By improving the designs of traffic control in work areas to accommodate pedestrians and bicycles, non-compliance for these two groups will be reduced and correspondingly so will their risk of injury.”

“The CA MUTCD currently has standards and guidance to accommodate pedestrians. It can be anticipated that any typical applications developed to accommodate bicycles should not be as expensive to implement as those for pedestrians.”

“Standards and guidance for pedestrians exists but needs to be applied in the field. More work is needed to provide the same level of detail for bicycles.”

“Work with FHWA, Caltrans, Challenge Area 14 and the National Committee on Uniform Traffic Control Devices, Bicycle Technical Committee to improve the Manual of Uniform Traffic Control Devices (MUTCD), Part 6, Temporary Traffic Control, to provide improved guidance and standards by incorporating bicycle travel considerations in all situations where bicycle travel is permitted.”

“The California MUTCD emphasizes the importance of accommodating bicyclists and pedestrian in work zones but does not provide sufficient guidance on bicycles. Implementation of this strategy will provide better tools.”

This proposal has also been reviewed by the California Bicycle Advisory Committee (CBAC) at their October and December meetings and reflects their comments and suggestions. At the December 3, 2009 meeting of the CBAC, the committee reviewed the finalized proposal and recommended approval and support for placing it on the CTCDC agenda.

Proposal:

The existing California MUTCD policy is shown below in black text (National MUTCD) and blue text (CA MUTCD additions/edits), while amendments/additions per this proposal are shown in red text.

The following existing Typical Applications are being amended per this proposal:

- Notes & Figure 6H-15 - Work in Center of Road with Low Traffic Volumes
- Notes & Figure 6H-30 - Interior Lane Closure on Multi-lane Street
- Notes & Figure 6H-32(CA) - Half Road Closure on Multi-lane, High-Speed Highway
- Notes & Figure 6H-36(CA) – Lane Shift on Freeway

Following are new typical applications that are being added to the CA MUTCD per this proposal:

- Notes & Figure 6H-101(CA) - Shoulder Closure on Urban (Low Speed) locations to accommodate bicyclists
- Notes & Figure 6H-102(CA) – Lane Closure on Freeway, Expressway, Rural and Urban (High Speed) locations to accommodate bicyclists
- Notes & Figure 6H-103(CA) – Detour for One Travel Direction on Bike Lane Roadway Closure
- Notes & Figure 6H-104(CA) - Right Lane Closure on Bike Lane at Far Side of Intersection

In addition, changes are being proposed to existing Sections 6D.101(CA) and 6G.05 and a new Table 6H-1(CA) is being added.

[Section 6D.101\(CA\) Bicycle Considerations](#)

Support:

There are several considerations in planning for bicyclists in TTC zones on highways and streets:

- A travel route that replicates the most desirable characteristics of a wide paved shoulder or bikeway through or around the traffic control zone is desirable for bicyclists.
- If the traffic control zone interrupts the continuity of an existing bikeway system, signs directing bicyclists through or around the zone and back to the bikeway is desirable.

- Unless a separate bike path through or around the traffic control zone is provided, adequate roadway lane width to allow bicyclists and motor vehicles to travel side by side through or around the zone is desirable.
- Bicyclists should not be led into direct conflicts with mainline traffic, work site vehicles, workers or equipment moving through or around the traffic control zone.

Figures 6H-15(CA), 6H-30(CA), 6H-32(CA), 6H-36(CA), 6H-101(CA), 6H-102(CA), 6H-103(CA), and 6H-104(CA) show typical TTC device usage and techniques for bicycle movement through TTC zones.

Section 6G.05 Work Affecting Pedestrian and Bicycle Facilities

Support:

It is not uncommon, particularly in urban areas, that road work and the associated TTC will affect existing pedestrian or bicycle facilities. It is essential that the needs of all road users, including pedestrians with disabilities, are considered in TTC zones.

In addition to specific provisions identified in Sections 6G.06, 6G.07, 6G.08, 6G.10, 6G.11, 6G.12, and 6G.13, there are a number of provisions that might be applicable for all of the types of activities identified in this Chapter.

Guidance:

Where pedestrian or bicycle usage is high, the typical applications should be modified by giving particular attention to the provisions set forth in Chapters 6D and 6G, Section 6F.68, and in other Sections of Part 6 related to accessibility and detectability provisions in TTC zones.

Pedestrians should be separated from the worksite by appropriate devices that maintain the accessibility and detectability for pedestrians with disabilities.

Bicyclists and pedestrians should not be exposed to unprotected excavations, open utility access, overhanging equipment, or other such conditions.

Except for short duration and mobile operations, when a highway shoulder is occupied, a SHOULDER WORK sign should be placed in advance of the activity area. When work is performed on a paved shoulder 2.4 m (8 ft) or more in width, channelizing devices should be placed on a taper having a length that conforms to the requirements of a shoulder taper. Signs should be placed such that they do not narrow any existing pedestrian passages to less than 1200 mm (48 in).

Except for short duration and mobile operations, when a highway shoulder is occupied, and bicyclists have to share travel ways with vehicular traffic, a combination of Bicycle crossing (W11-1) and SHARE THE ROAD (W16-1) plaque should be placed in advance of the activity area. When work is performed on a paved shoulder 2.4 m (8 ft) or more in width, channelizing devices should be placed on a taper having a length that conforms to the requirements of a shoulder taper. Signs should be placed such that they do not block the bicycle path and they do not narrow any existing pedestrian passages to less than 1200 mm (48 in).

Pedestrian detours should be avoided since pedestrians rarely observe them and the cost of providing accessibility and detectability might outweigh the cost of maintaining a continuous route. Whenever possible, work should be done in a manner that does not create a need to detour pedestrians from existing routes or crossings.

Standard:

Where pedestrian **and/or bicycle** routes are closed, alternate pedestrian **and/or bicycle** routes shall be provided.

When existing pedestrian facilities are disrupted, closed, or relocated in a TTC zone, the temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility.

Table 6H-1. Index to Typical Applications (Sheet 2 of 2)

Typical Application Description	Typical Application Number
Work Within the Traveled Way of Multi-lane, Nonaccess Controlled Highways (see Section 6G.12)	
Interior Lane Closure on Multi-lane Street	TA-30
Lane Closure on Street with Uneven Directional Volumes	TA-31
Half Road Closure on Multi-lane, High-Speed Highway	TA-32
Lane Closure on Divided Highway	TA-33
Lane Closure with Temporary Traffic Barrier	TA-34
Mobile Operation on Multi-lane Road	TA-35
Work Within the Traveled Way of Expressways and Freeways (see Section 6G.14)	
Lane Shift on Freeway	TA-36
Double Lane Closure on Freeway	TA-37
Interior Lane Closure on Freeway	TA-38
Median Crossover on Freeway	TA-39
Median Crossover for Entrance Ramp	TA-40
Median Crossover for Exit Ramp	TA-41
Work in Vicinity of Exit Ramp	TA-42
Partial Exit Ramp Closure	TA-43
Work in Vicinity of Entrance Ramp	TA-44
Temporary Reversible Lane Using Movable Barriers	TA-45
Work in the Vicinity of Highway-Rail Grade Crossings (see Section 6G.19)	
Work in Vicinity of Highway-Rail Grade Crossing	TA-46

Table 6H-1(CA). Index to Typical Applications

Typical Application Description	Typical Application Number
Work affecting Pedestrian and Bicycle Facilities (see Section 6G.05)	
Shoulder Closure on Urban (Low Speed) Locations to Accommodate Bicyclists	TA-101(CA)
Lane Closure on Freeway, Expressway, Rural and Urban (High Speed) Locations to Accommodate Bicyclists	TA-102(CA)
Detour for One Travel Direction on Bike Lane Roadway Closure	TA-103(CA)
Right Lane Closure on Bike Lane at Far Side of Intersection	TA-104(CA)

Notes for Figure 6H-15 – Typical Application 15**Work in Center of Road with Low Traffic Volumes****Guidance:**

1. The lanes on either side of the center work space should have a minimum width of 3 m (10 ft) as measured from the near edge of the channelizing devices to the edge of pavement or the outside edge of paved shoulder.
2. Workers in the roadway should wear high-visibility safety apparel as described in Section 6D.03.

Option:

3. Flashing warning lights and/or flags may be used to call attention to the advance warning signs.
4. If the closure continues overnight, warning lights may be used on the channelizing devices.
5. A lane width of 2.7 m (9 ft) may be used for short-term stationary work on low-volume, low-speed roadways when motor vehicle traffic does not include longer and wider heavy commercial vehicles.

Standard:

Note 5 is not applicable for State highways. Note #1 shall be used instead for State highways.

Option:

6. A work vehicle displaying high-intensity rotating, flashing, oscillating, or strobe lights may be used instead of the channelizing devices forming the tapers or the high-level warning devices.
7. Vehicle hazard warning signals may be used to supplement high-intensity rotating, flashing, oscillating, or strobe lights.

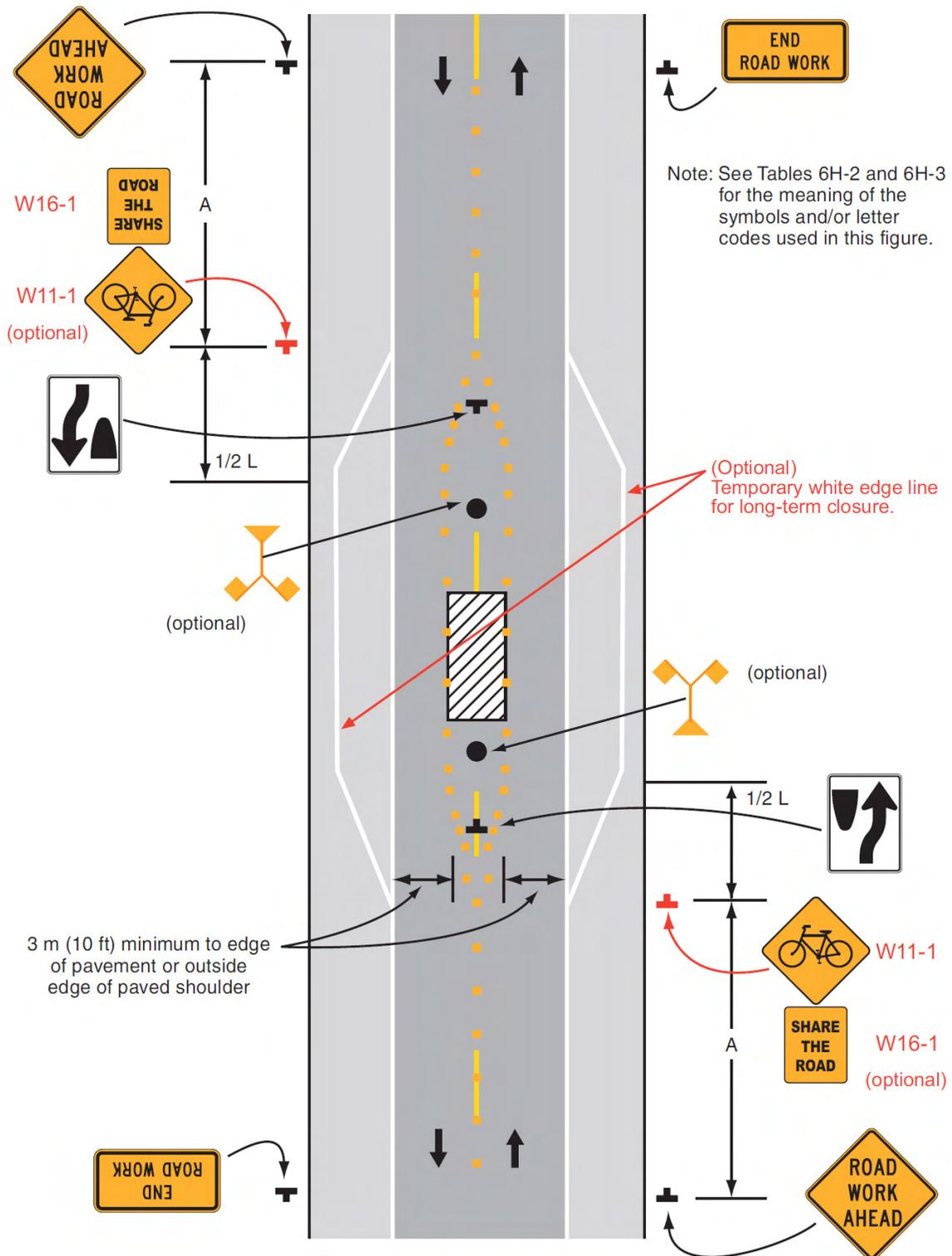
Standard:

8. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.

Guidance:

9. All advance warning signs should be placed so that the path for bicycles is not blocked while maintaining visibility for road users.
10. For long-term duration projects and/or if the roadway width is inadequate for allowing bicyclists and motor vehicles to travel side by side, the Bicycle Crossing (W11-1) sign and the SHARE THE ROAD (W16-1) plaque should be used to advise motorists of the presence of bicyclists in the travel way lanes.
11. For long-term duration projects, the temporary white edge line should be used on the shoulder to indicate the use of a portion of the shoulder as a traveled way lane.

Figure 6H-15. Work in Center of Road with Low Traffic Volumes (TA-15)



Typical Application 15

Notes for Figure 6H-30 – Typical Application 30**Interior Lane Closure on Multi-lane Street**

Guidance:

1. This information applies to low-speed, low-volume urban streets. Where speed or volume is higher, additional signing such as LEFT LANE CLOSED XX ~~m~~(FT) should be used between the signs shown.

Option:

2. The closure of the adjacent interior lane in the opposing direction may not be necessary, depending upon the activity being performed and the work space needed for the operation.
3. Shadow vehicles with a truck-mounted attenuator may be used.

Guidance:

4. When a highway-rail grade crossing exists within or upstream of the transition area and it is anticipated that backups resulting from the lane closure might extend through the highway-rail grade crossing, the TTC zone should be extended so that the transition area precedes the highway-rail grade crossing.
5. Early coordination with the railroad company should occur before work starts.

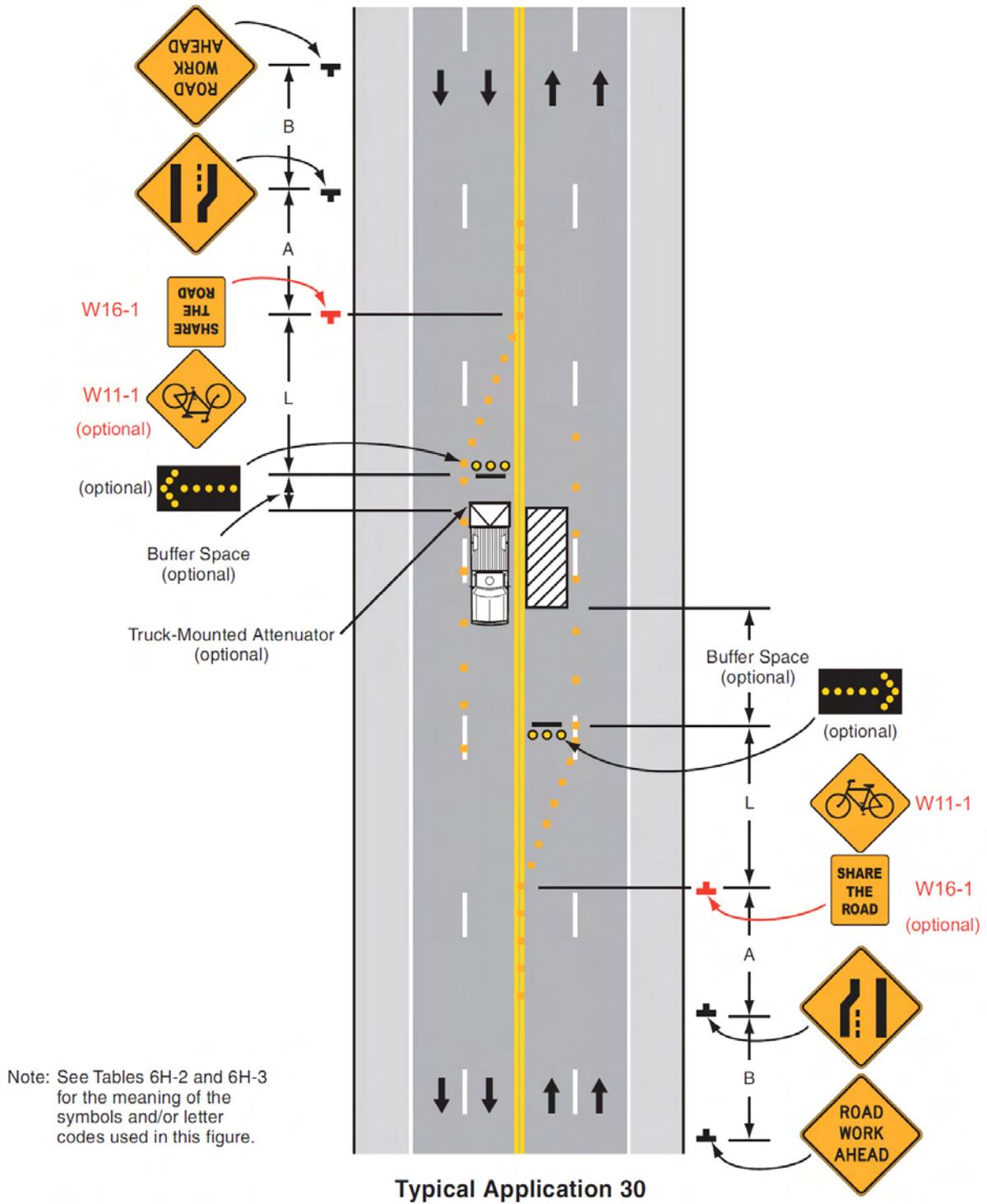
Option:

6. The RIGHT (LEFT) LANE(S) CLOSED (W20-5) sign may be used instead of the Lane Reduction (W4-2) sign.

Guidance:

7. For long-term duration projects and/or if the roadway width is inadequate for allowing bicyclists and motor vehicles to travel side by side, the Bicycle Crossing (W11-1) sign and the SHARE THE ROAD (W16-1) plaque should be used to advise motorists of the presence of bicyclists in the travel way lanes.
8. All advance warning signs should be placed so that the path for bicycles is not blocked, while maintaining visibility for road users.
9. If bicyclists are able to use the shoulder throughout the TTC zone, SHARE THE ROAD (W16-1) plaque should be omitted and only the Bicycle Crossing (W11-1) sign should be used.

Figure 6H-30. Interior Lane Closure on Multi-lane Street (TA-30)



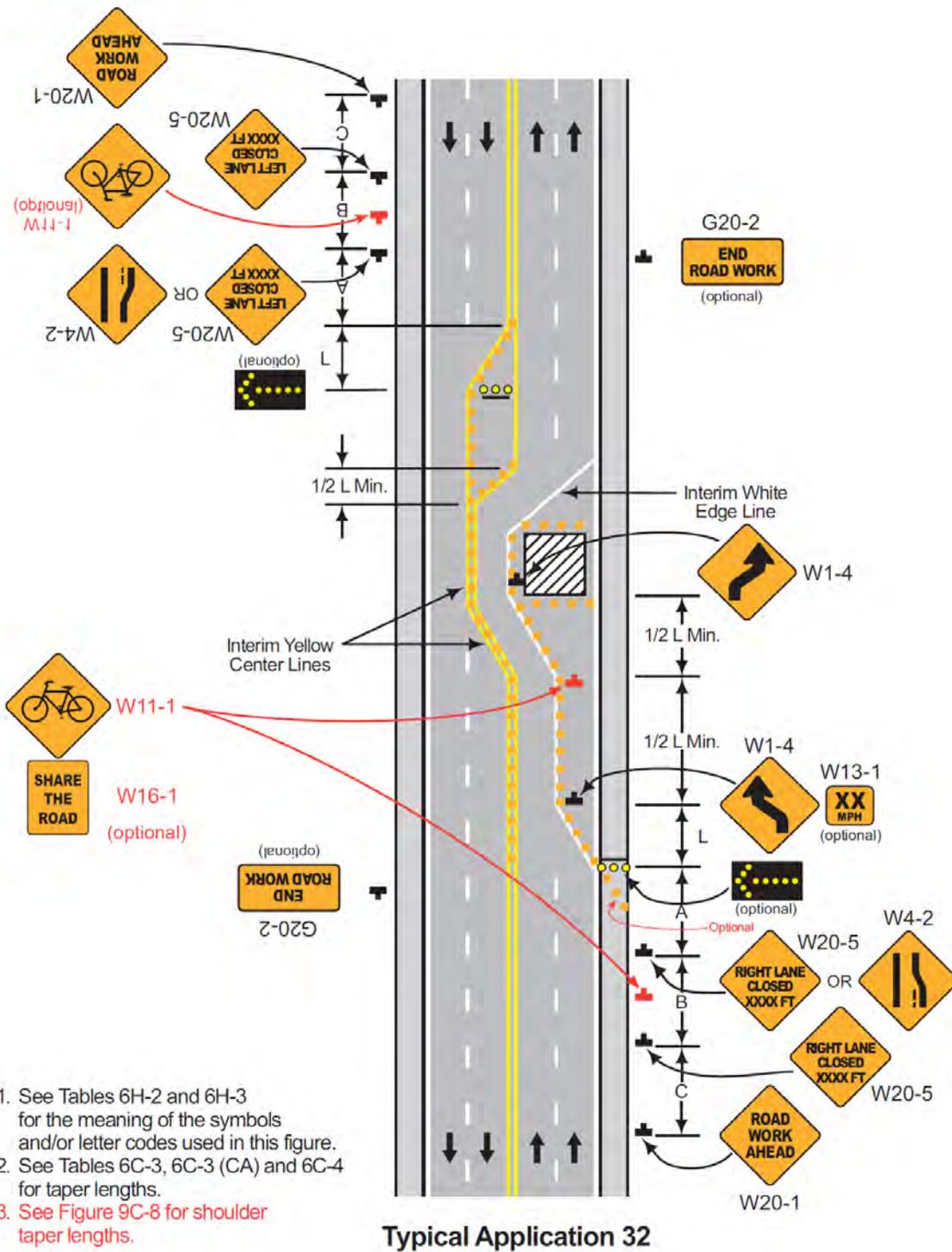
Notes for Figure 6H-32(CA)—Typical Application 32**Half Road Closure on Multi-lane, High-Speed Highway****Standard:**

- 1. Pavement markings no longer applicable shall be removed or obliterated as soon as practical. Except for intermediate-term and short-term situations, temporary markings shall be provided to clearly delineate the temporary travel path. For short-term and intermediate-term situations where it is not feasible to remove and restore pavement markings, channelization shall be made dominant by using a very close device spacing.**

Guidance:

2. When paved shoulders having a width of 2.4 m (8 ft) or more are closed, channelizing devices should be used to close the shoulder in advance of the merging taper to direct vehicular and bicycle traffic to remain within the traveled way.
3. Where channelizing devices are used instead of pavement markings, the maximum spacing should be 0.1 S meters where S is the speed in km/h (0.5 S feet where S is the speed in mph). The spacing of channelizing devices should not exceed the maximum distances shown in Table 6F-102(CA). Refer to Section 6F.58 for spacing of channelizing devices.
4. If the tangent distance along the temporary diversion is more than 180 m (600 ft), a Reverse Curve sign, left first, should be used instead of the Double Reverse Curve sign, and a second Reverse Curve sign, right first, should be placed in advance of the second reverse curve back to the original alignment.
Option:
5. Warning lights may be used to supplement channelizing devices at night.
Guidance:
6. When a highway-rail grade crossing exists within or upstream of the merging taper and it is anticipated that backups resulting from the lane closure might extend through the highway-rail grade crossing, the TTC zone should be extended so that the merging taper precedes the highway-rail grade crossing.
7. When a highway-rail grade crossing exists within the activity area, provisions should be made to provide road users operating on the left side of the normal centerline with comparable warning devices as supplied for road users operating on the right side of the normal centerline.
8. When a highway-rail grade crossing exists within the activity area, early coordination with the railroad company should occur before work starts.
Option:
9. When a highway-rail grade crossing exists within the activity area, a flagger may be used at the highway-rail grade crossing to minimize the probability that vehicles are stopped within 4.6 m (15 ft) of the highway-rail grade crossing, measured from both sides of the outside rails.
10. A truck-mounted attenuator may be used on the work vehicle and/or the shadow vehicle.
Guidance:
11. On State highways a spacing of 3 m (10 ft) should be used for taper and tangent sections.
12. All advance warning signs should be placed so that the path for bicycles is not blocked, while maintaining visibility for road users.
13. If bicyclists are using the shoulder, SHARE THE ROAD (W16-1) plaque should be omitted and only the Bicycle Crossing (W11-1) sign should be used.
 14. The speeds used for the shoulder taper calculations should be of bicyclists in the project vicinity or if a special event such as a bike race, the expected speed of bicyclists approaching the TTC zone.
 15. If bicyclists are sharing the traveled way lanes with motorists, speed reduction countermeasures should be used to reduce traffic speeds in the TTC zone. Refer to Sections 6C.01 and 6D.03.
 16. For long-term duration projects and/or if the roadway width is inadequate for allowing bicyclists and motor vehicles to travel side by side, the Bicycle Crossing (W11-1) sign and the SHARE THE ROAD (W16-1) plaque should be used to advise motorists of the presence of bicyclists in the travel way lanes.

Figure 6H-32 (CA). Half Road Closure on Multilane, High-Speed Highway (TA-32)



Notes for Figure 6H-36—Typical Application 36**Lane Shift on Freeway****Guidance:**

1. The lane shift should be used when the work space extends into either the right or left lane of a divided highway and it is not practical, for capacity reasons, to reduce the number of available lanes.
2. When a lane shift is accomplished by using (1) geometry that meets the design speed at which the permanent highway was designed, (2) full normal cross-section (full lane width and full shoulders), and (3) complete pavement markings, then only the initial general work-zone warning sign is required.
3. When the conditions in Note 2 are not met, the information shown in the typical application should be employed and all the following notes apply.

Standard:

4. **Where temporary traffic barriers are installed, the ends of the barrier shall be treated in accordance with the provisions of Section 6F.81.**
5. **A warning sign shall be used to show the changed alignment.**

Guidance:

6. Where the shifted section is longer than 180 m (600 ft), one set of Reverse Curve signs should be used to show the initial shift and a second set should be used to show the return to the normal alignment. If the tangent distance along the temporary diversion is less than 180 m (600 ft), the Double Reverse Curve sign should be used instead of the first Reverse Curve sign. The second Reverse Curve sign should be omitted. [Use the Reverse Curve \(W1-4\) signs for both locations instead of the Double Reverse Curve \(W24-1\) sign.](#)
7. If a STAY IN LANE sign is used, then solid white lane lines should be used.

Standard:

8. **The minimum width of the shoulder lane shall be 3 m (10 ft).**
9. **For long-term stationary work, existing conflicting pavement markings shall be removed and temporary markings shall be installed before traffic patterns are changed.**

Option:

10. For short-term stationary work, lanes may be delineated by channelizing devices or removable pavement markings instead of temporary pavement markings.
11. ~~Three Lane Reverse Curve signs may be used in place of the Reverse Curve signs.~~ **ALL LANES THRU** supplemental plaques may be used to emphasize the point that all lanes shift and no lanes are closed. [Use the Reverse Curve \(W1-4\) signs instead of the Reverse Curve \(W1-4a & W1-4b\) signs which show the number of lanes or ALL LANES THRU Plaque.](#)
12. If the shoulder cannot adequately accommodate trucks, trucks may be directed to use the travel lanes.
13. The barrier shown in this typical application is one method that may be used to close a lane for a longterm project.

Guidance:

14. The use of a barrier should be based on engineering judgment.

Option:

15. Type C Steady-Burn warning lights may be placed on channelizing devices and the barrier parallel to the edge of pavement for nighttime lane closures.

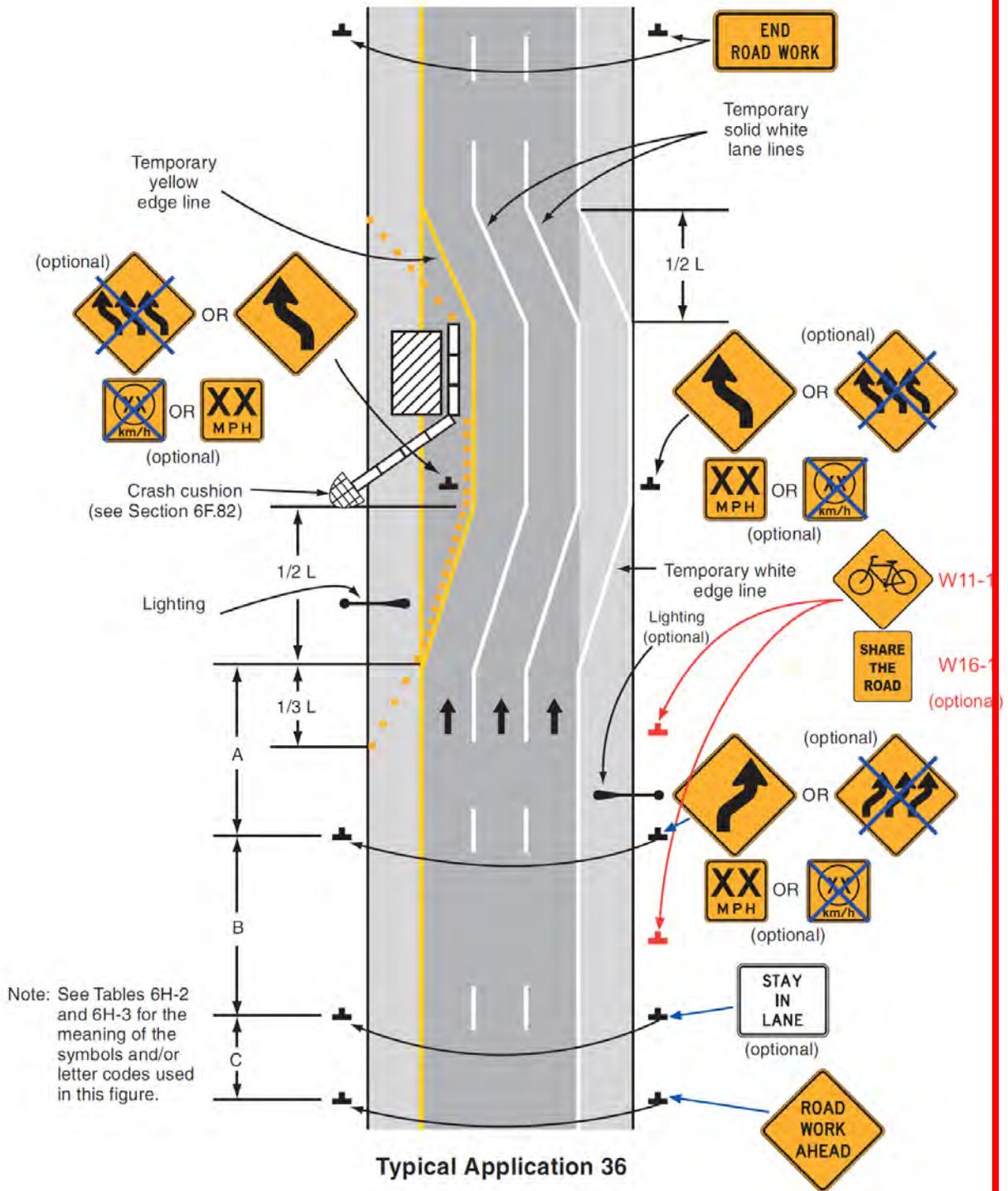
[16. Detail 11 \(see Figure 3A-102\(CA\)\) may be used instead of the temporary solid white lane line, which is shown in Figure 6H-36.](#)

Guidance:

17. [For long-term duration projects and/or if the roadway width is inadequate for allowing bicyclists and motor vehicles to travel side by side, the Bicycle Crossing \(W11-1\) sign and the SHARE THE ROAD \(W16-1\) plaque should be used to advise motorists of the presence of bicyclists in the travel way lanes.](#)
18. [All advance warning signs should be placed so that the path for bicycles is not blocked, while maintaining visibility for road users.](#)

19. If bicyclists are sharing the traveled way lanes with motorists, speed reduction countermeasures should be used to reduce traffic speeds in the TTC zone. Refer to Sections 6C.01 and 6D.03.
20. If bicyclists are sharing the traveled way lanes with motorists, the outside shoulder should be widened to allow bicyclists and motor vehicles to travel side by side through the TTC zone.
21. If traffic volumes make it feasible, the two left lanes should be merged into one lane to avoid using the shoulder as a traveled way lane and allowing continued use for emergency purposes and bicycle travel.
22. For long-term duration projects, a separate path should be considered for bicyclists.

Figure 6H-36. Lane Shift on Freeway (TA-36)



Notes for Figure 6H-101CA) – Typical Application 101(CA)**Shoulder Closure on Urban (Low Speed) locations to accommodate bicyclists**

Guidance:

1. SHOULDER CLOSED signs should be used on limited-access roadways where there is no opportunity for disabled vehicles to pull off the roadway.
2. If drivers cannot see a pull-off area beyond the closed shoulder, information regarding the length of the shoulder closure should be provided in feet or miles, as appropriate.
3. The use of a temporary traffic barrier should be based on engineering judgment.

Standard:

- 4. Where temporary traffic barriers are installed, the ends of the barrier shall be treated in accordance with the provisions of Section 6F.81.**

Option:

5. The barrier shown in this typical application is an example of one method that may be used to close a shoulder of a long-term project.
6. The warning lights shown on the barrier may be used.

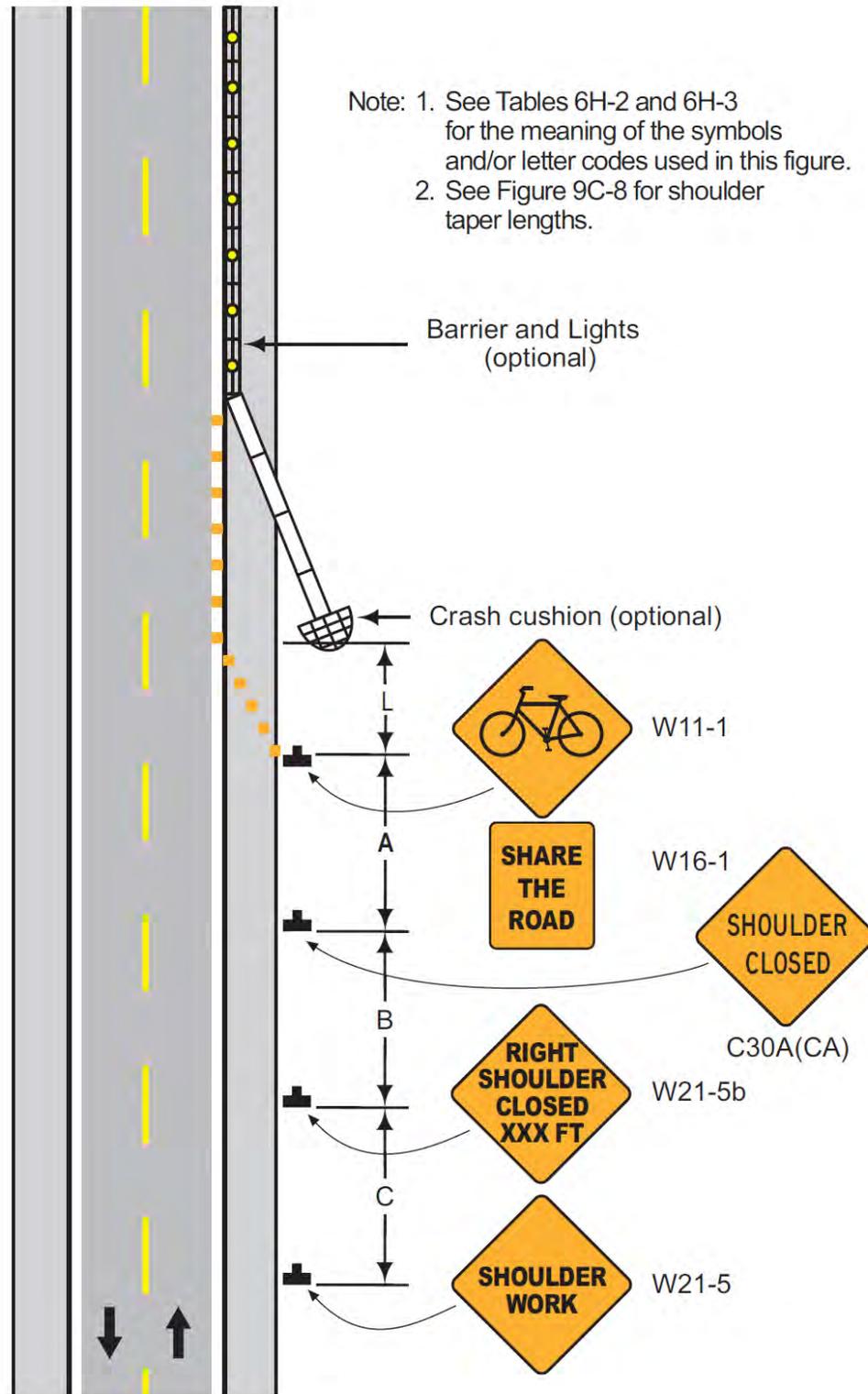
Standard:

- 7. The minimum offset from the upstream end of the barrier to the edge of the traveled way shall be at least 4.6 m (15 ft) unless shielded by a crash cushion.**

Guidance:

8. This typical application should only be used where posted speed is 25 mph or less. For applications on roadway with a posted speed of 30 mph or more use typical application TA-102(CA).
9. All advance warning signs should be placed so that the path for bicycles is not blocked, while maintaining visibility for road users.
10. Adequate roadway lane width should be provided to allow bicyclists and motor vehicles to travel side by side through the TTC zone.
11. The speeds used for the shoulder taper calculations should be of bicyclists in the project vicinity or if a special event such as a bike race, the expected speed of bicyclists approaching the TTC zone.

Figure 6H-101 (CA). Shoulder Closure on Urban (Low Speed) locations to accommodate bicyclists (TA-101 (CA))



Notes for Figure 6H-102(CA) – Typical Application 102(CA)**Lane Closure on Freeway, Expressway, Rural and Urban (High Speed) locations to accommodate bicyclists**

Guidance:

1. SHOULDER CLOSED signs should be used on limited-access highways where there is no opportunity for disabled vehicles to pull off the roadway.
2. If drivers cannot see a pull-off area beyond the closed shoulder, information regarding the length of the shoulder closure should be provided in feet or miles, as appropriate.
3. The use of a temporary traffic barrier should be based on engineering judgment.

Standard:

- 4. Where temporary traffic barriers are installed, the ends of the barrier shall be treated in accordance with the provisions of Section 6F.81.**

Option:

5. The barrier shown in this typical application is an example of one method that may be used to close a shoulder of a long-term project.
6. The warning lights shown on the barrier may be used.

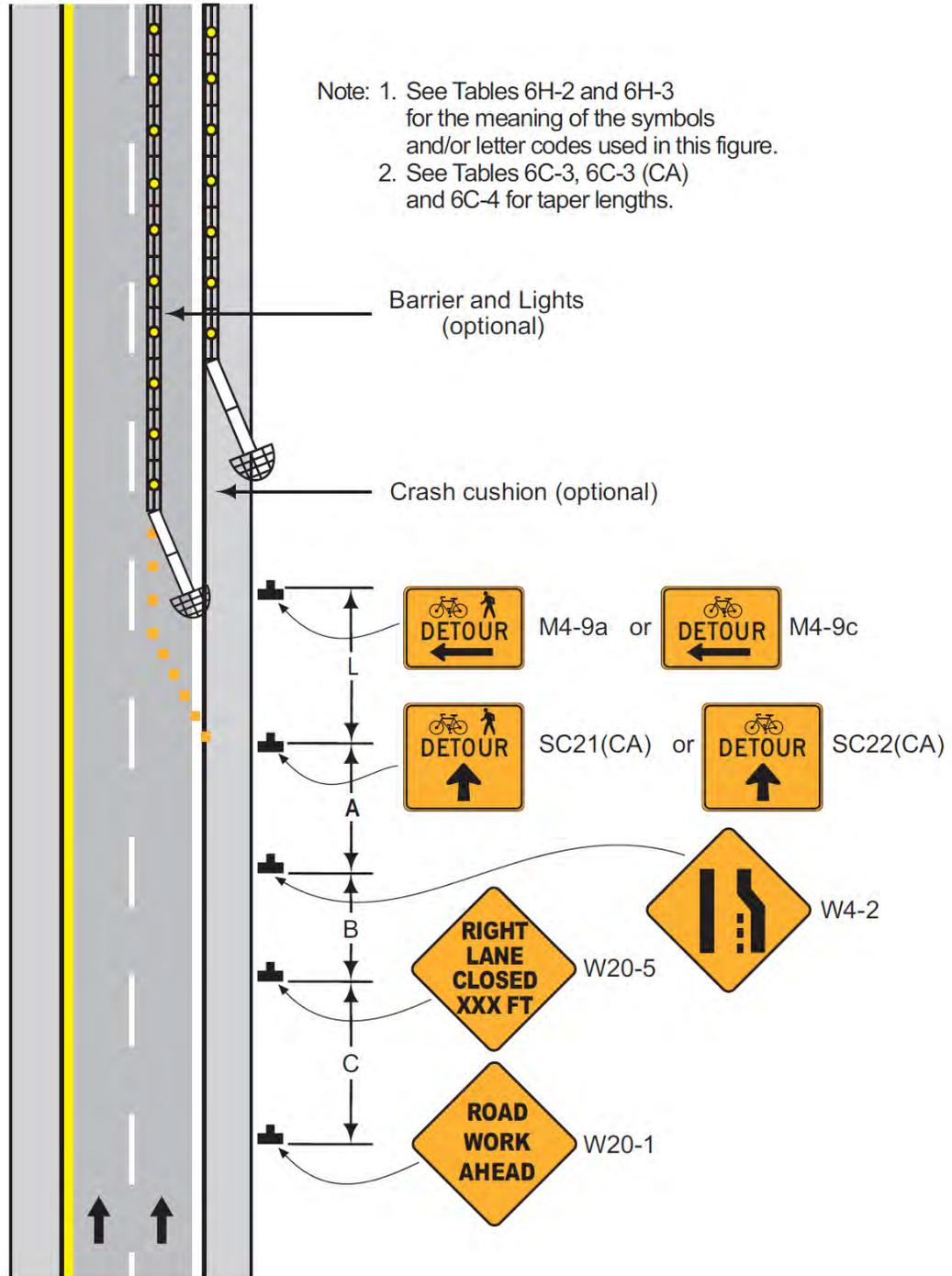
Standard:

- 7. The minimum offset from the upstream end of the barrier to the edge of the traveled way shall be at least 4.6 m (15 ft) unless shielded by a crash cushion.**

Guidance:

8. All advance warning signs should be placed so that the path for bicycles is not blocked, while maintaining visibility for road users.
9. The width of the existing pedestrian facility should be provided for the temporary facility, if practical. When it is not possible to maintain a minimum width of 60 in. throughout the entire length of the pedestrian pathway, a 60 x 60 in. passing space should be provided at least every 200 ft. to allow individuals in wheelchairs to pass.

Figure 6H-102 (CA). Lane Closure on Freeway, Expressway, Rural and Urban (High Speed) locations to accommodate bicyclists (TA-102 (CA))



Notes for Figure 6H-103(CA)—Typical Application 103(CA)**Detour for One Travel Direction on Bike Lane Roadway Closure**

Guidance:

1. This plan should be used for streets without posted route numbers.
2. On multi-lane streets, Detour signs with an Advance Turn Arrow should be used in advance of a turn.

Option:

3. The STREET CLOSED legend may be used in place of ROAD CLOSED.
4. Additional DO NOT ENTER signs may be used at intersections with intervening streets.
5. Warning lights may be used on Type III Barricades.
6. Detour signs may be located on the far side of intersections.
7. A Street Name sign may be mounted with the Detour sign. The Street Name sign may be either white on green or black on orange.

Standard:

- 8. When used, the Street Name sign shall be placed above the Detour sign.**

Guidance:

9. The DETOUR (M4-8) sign should be placed on tangent sections at intervals not to exceed 1300 ft and at major intersections.

Option:

10. In urban areas, the M4-8 signs may be placed at every intersection.

Guidance:

11. When the detour is applicable to bicyclists and not pedestrians, the Bicycle Detour (M4-9c) sign should be used instead of the Pedestrian/Bicycle Detour (M4-9a) sign.
12. All advance warning signs should be placed so that the path for bicycles is not blocked, while maintaining visibility for road users.

Option:

13. For long-term duration projects, the shared roadway bicycle marking may be used along detours with on-street parking and inadequate lane width.

Notes for Figure 6H-104(CA)—Typical Application 104(CA)**Right Lane Closure on Bike Lane at Far Side of Intersection**

Guidance:

1. If the work space extends across a crosswalk, the crosswalk should be closed using the information and devices shown in Figure 6H-29.

Option:

2. The normal procedure is to close on the near side of the intersection any lane that is not carried through the intersection. However, when this results in the closure of a right lane having significant right turning movements, then the right lane may be restricted to right turns only, as shown. This procedure increases the through capacity by eliminating right turns from the open through lane.
3. For intersection approaches reduced to a single lane, left-turning movements may be prohibited to maintain capacity for through vehicular traffic.
4. Flashing warning lights and/or flags may be used to call attention to the advance warning signs.
5. Where the turning radius is large, it may be possible to create a right-turn island using channelizing devices or pavement markings.

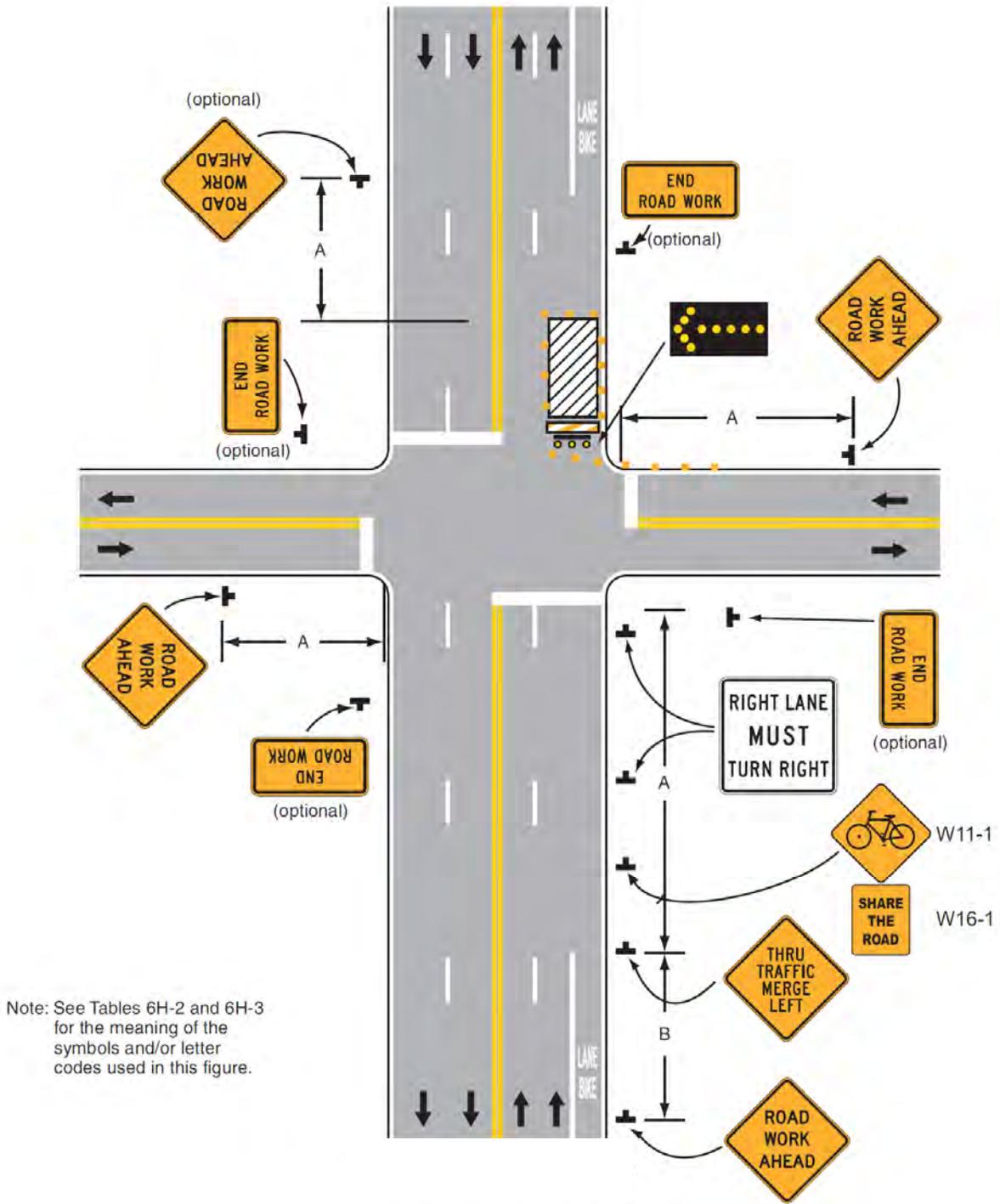
Guidance:

6. All advance warning signs should be placed so that the path for bicycles is not blocked, while maintaining visibility for road users.
7. For long-term duration projects, consideration should be given to installing signs in an overhead location.

Option:

8. A high-level warning device (flag tree) may supplement the advance warning signs. Refer to Section 6F.57.

Figure 6H-104(CA). Right Lane Closure on Bike Lane at Far Side of Intersection (TA-104 (CA))



Attachments:

The SHSP Fact Sheet is attached for more information, background and web link.



Fact Sheet



What is the SHSP?

California's Strategic Highway Safety Plan, or SHSP, is a statewide, comprehensive, data-driven plan that provides a coordinated framework for reducing fatalities and serious injuries on California's public roads. The SHSP establishes statewide goals, objectives, and strategies to address California's safety needs. The SHSP identifies 152 key actions in 16 Challenge Areas to meet these needs.

Why is it Needed?

Each year, Californians travel hundreds of billions of miles on public roadways. Although an overwhelming majority of these trips end without incident, many result in fatalities and serious injuries. In 2007 alone, there were 3,967 fatalities and 266,687 injuries on California roadways. Each "number" represents a precious life and loved one.

The 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) established a new Highway Safety Improvement Program for the purpose of achieving a significant reduction in traffic fatalities and serious injuries on public roads. As required under SAFETEA-LU, the California Department of Transportation led the effort to develop California's SHSP to identify key safety needs of the State, and strategies that address these needs. California's SHSP was approved by the Secretary, Business, Transportation and Housing Agency September 26, 2006.

The SHSP is California's response to the challenge of improving traffic safety and saving lives. It contains a list of actions that will address California's most pressing safety issues.

What is the Focus?

The SHSP targets public and private transportation resources in the areas where the greatest gains can be made to save lives, prevent roadway related injuries, and improve safety in the following Challenge Areas (CA):

- CA 1: Reduce Impaired Driving Related Fatalities
- CA 2: Reduce the Occurrence and Consequence of Leaving the Roadway and Head-on Collisions
- CA 3: Ensure Drivers are Properly Licensed
- CA 4: Increase Use of Safety Belts and Child Safety Seats
- CA 5: Improve Driver Decisions about Rights of Way and Turning
- CA 6: Reduce Young Driver Fatalities
- CA 7: Improve Intersection and Interchange Safety for Roadway Users
- CA 8: Make Walking and Street Crossing Safer
- CA 9: Improve Safety for Older Roadway Users
- CA 10: Reduce Speeding and Aggressive Driving
- CA 11: Improve Commercial Vehicle Safety
- CA 12: Improve Motorcycle Safety
- CA 13: Improve Bicycling Safety
- CA 14: Enhance Work Zone Safety
- CA 15: Improve Post Crash Survivability
- CA 16: Improve Safety Data Collection, Access, and Analysis



Department of
Motor Vehicles



Department
of Alcoholic
Beverage Control



Department of
Public Health



Emergency Medical
Services Authority

Who is Involved?



California State Association of Counties

Over 300 safety stakeholders representing 80 different public and private agencies and organizations are working together to move this plan forward. Under the direction of the SHSP Executive Leadership, and the 13-member Steering Committee, Challenge Area Teams have analyzed data and identified and prioritized 152 actions to be implemented.

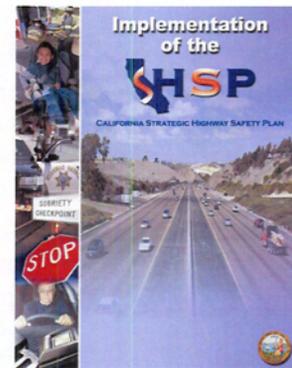
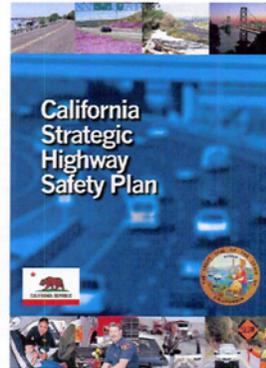
The plan includes the most effective behavioral and infrastructure strategies, countermeasures, and actions from the 4Es of safety, engineering, enforcement, education, and emergency services.



League of California Cities



County Engineers Association of California



This multi-disciplinary approach focuses on three critical elements in transportation safety, roadway, roadway user and the vehicle. By addressing these elements in a comprehensive way, California the most populous State can lead the nation in improving traffic safety. This plan affects every California resident, whether they drive, ride a motorcycle or a bicycle, or walk.

Next Steps?

The next step is implementation of the 152 actions. Included in the implementation phase will be monitoring and evaluation of the actions to:

- Measure progress towards the fatality and injury reduction goals laid out in the SHSP;
- Track implementation of the 152 SHSP actions;
- Provide information to the safety stakeholders on successes and challenges in improving traffic safety on California’s public roads.

As part of the continuous improvement process, the SHSP will be periodically evaluated and revised. The revision will be based on a statewide data-driven approach. Statewide goals, objectives, and strategies will be re-established as needed to address California’s ongoing safety needs.



American Traffic Safety Services Association



California Police Chiefs

Regional Transportation Planning Agencies

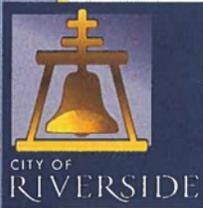
For more information, please visit the SHSP web site: <http://www.dot.ca.gov/SHSP/>

10-3 Experiment with Second Train Warning Sign “Additional Train May Approach” with a Symbol Sign

Recommendation: The City of Riverside request authorization to conduct an experiment with second train warning sign **“Additional Train May Approach” with a Symbol Sign**

Agency Making Request: City of Riverside

Sponsor: John Fisher, League of California Cities



Public Works
Department

October 28, 2009

Mr. John E. Fisher, P.E.
Assistant General Manager
City of Los Angeles DOT
100 S. Main Street, Room 1008
Los Angeles, CA 90012
Tel: (213) 972-8424

SUBJECT: Second Train Warning Sign – Riverside, CA – CTCDC Agenda Item Sponsorship

Dear Mr. Fisher:

Thank you very much for the opportunity to respond to your e-mail correspondence received on October 27, 2009 requesting additional information to the City or Riverside's sign experimentation request. The City feels very strongly that this experimental sign, comprised of a warning sign symbol and word message is warranted to educate and alert pedestrians and bicyclists that trains may approach from both directions. The City's initial survey indicates that pedestrians would easily comprehend and comply with the sign and thus improve compliance to the railroad signal indications. The sign is anticipated to be a catalyst or resource to help improve pedestrian safety at rail crossings with multiple tracks. The City has obtained FHWA approval to conduct the experiment and we hope that you too would support such project and would sponsor this item at the next CTCDC meeting scheduled for January, 2010.

To better help you evaluate the City's request, the following responses, shown in blue, address your questions:

1. Define the problem that the proposed sign is intended to resolve.

The inherent problem at rail crossing with multiple tracks is that pedestrians/bicyclists may be aware of the first train approaching/crossing the tracks but may not expect a second train to approach in the opposite direction. It is even more critical when the first train crossing is on the near tracks (approaching from the left) and the second train approaching is on the far tracks (approaching from the right), which in some instances the train on the near tracks can obstruct pedestrians from seeing the train on the far tracks. Anyone that enters the tracks before the rail gates go up thinking it may be safe to do so may not realize the inherent danger of

doing so. The proposed sign is an effort to educate and warn pedestrians and bicyclists to look both ways and to be aware that trains may approach from either direction while the railroad gates are down.

2. Indicate how the proposed sign will correct the problem and discuss any other alternatives, either existing traffic control devices or railroad controls that were considered but deemed ineffective.

The proposed sign will correct the problem by providing a sign symbol and message that educates and warns pedestrians of the possibility of two trains arriving at the rail tracks at any given time. In addition, the sign reinforces to pedestrians not to enter the crossing while the gate arms are down. The City did consider other alternatives including existing MUTCD signs, pedestrian gates, and dynamic message signs, similar to the ones installed in the City of Los Angeles. The City did not find any appropriate MUTCD sign that conveyed the message of a second train approaching and the pedestrian gates and dynamic message signs were not feasible.

3. Discuss how the effectiveness of the proposed sign will be determined – opinion or actual data.

As part of the experimental phase, the City will collect accident data and “near misses” observed or reported. The City’s traffic management center (TMC) has direct video feeds to most rail crossings and TMC assigned personnel will be instructed to frequently monitor these video feeds to note compliance to the sign and railroad devices. There are many factors that contribute to pedestrian/train near misses or fatalities and the City will work closely with schools and the general public to gather survey information and determine if school age children and the general public fully understand the sign. This information will be used to determine the effectiveness of the sign in reducing conflicts between trains and pedestrians.

4. Discuss how additional data will be collected during the experiment phase.

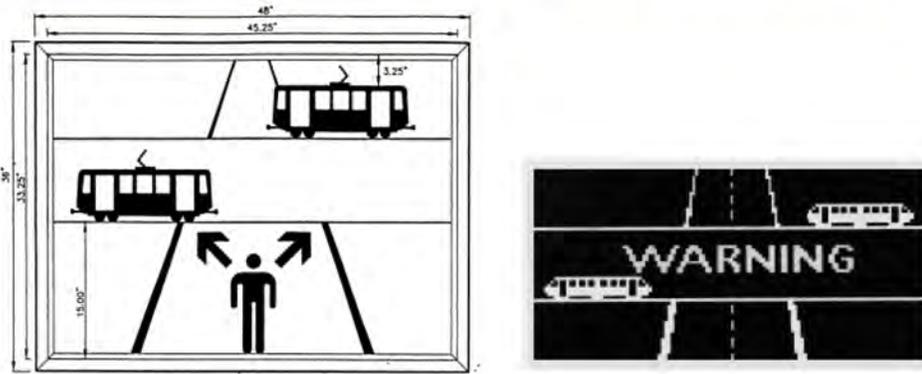
Additional data will be collected in several manners including:

1. TMC observation – Keeping a daily log of pedestrian compliance to the signs and railroad warning devices and noting pedestrian/train near misses
2. Semi-Annual Surveys – The City will conduct surveys of school age children and the general public to determine the sign’s effectiveness and its comprehension
3. Monthly “Mayor Night Out” Events – Public Works interacts with residents on a monthly basis during events intended to share City information and address resident concerns. Such events would be used to educate residents on the experimental sign and gather information on the sign’s effectiveness

FHWA has requested that the City provide semi-annual reports documenting the sign’s effectiveness during the 2-year experimental phase. If so desired, the City would also provide this same report to the CTCDC.

- Has the City considered an activated, electronic symbol Train Coming with pedestrian gates instead of a static sign?

The City did consider a dynamic, activated, electronic symbol “Train Coming” with pedestrian gates instead of a static signs, similar to the following:



Unfortunately the above applications were not feasible, initial estimates and research concluded that the above would cost approximately \$75,000 per location.

The static signs are negligible in cost and the sign symbol and word message convey a similar message as the above. In addition, the sign would be a warning sign, black on yellow, and thus would capture the pedestrian/bicyclist attention when approaching a rail crossing. The static sign provides a feasible approach to improving safety at rail crossings with multiple tracks.

- What are the existing controls?

Most of the rail crossings are located at midblocks. The crossings include CPUC Standard No. 9’s, which include rail gates and flashers similar to the following:



7. Clarify which sign is going to be tested.

The following is the proposed sign to be tested:



The sign would be 24"x24" and would be installed so it would not interfere or obstruct vehicular sight distance.

In addition to the above, the City met with BNSF, Union Pacific, and the CPUC to collectively review the sign design, placement, size, and the maintenance of the signs. Some of the comments provided by railroad and CPUC personnel include:

- Ensure the sign size is similar to sign sizes shown in MUTCD's Chapter 9, Traffic Controls for Bicycle Facilities – The City proposes a sign size of 24"x24" which is within acceptable size range
- The City will maintain the signs
- One sign per approach will be installed
- Sign will be installed within City right-of-way – if City determines sign needs to be closer to the train tracks and within railroad right-of-way the City will coordinate with the railroad to obtain an encroachment permit
- The signs will meet MUTCD lateral and height clearance guidelines
- Railroad and City personnel preferred the word "Additional" instead of "Second", "Another", or "Multiple" in the message: "Additional Trains May Approach" since many tracks have a high volume of trains

Per the meeting, BNSF, Union Pacific, and the CPUC fully support the sign and its installation. The railroads and CPUC feel there needs to be a standardized warning sign throughout the State/Country that informs pedestrians and bicyclists of the potential

arrival of additional trains at crossings with multiple tracks. The City shared initial survey data with the railroads and CPUC which indicate the proposed sign would be well received and understood by the general public. Like FHWA, the rail companies and CPUC believe that during the experimentation phase additional studies/reports would be required to further analyze the sign impacts and its comprehension.

In summary, the City hopes that FHWA's approval to conduct the experiment, the City's survey and the coordination with the CPUC, BNSF, and Union Pacific demonstrates a collective effort to provide a sign that would be well received by the general public and supported by the rail agencies. Please use this letter as a formal request to conduct an experiment and as a request for your support to present this item at the next CTCDC meeting scheduled for January, 2010.

Should you have any questions regarding this letter or these requests, please feel free to contact me at 951-826-5148 or ghernandez@riversideca.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Gilbert Hernandez", with a stylized flourish at the end.

Gilbert Hernandez
Senior Engineer, Traffic

cc. File, Chrono, Tom Boyd



U.S. Department
of Transportation
**Federal Highway
Administration**

1200 New Jersey Avenue, SE
Washington, D.C. 20590

October 14, 2009

In Reply Refer To: HOTO-1

Gilbert Hernandez, P.E., T.E.
Senior Traffic Engineer
Public Works Department
City of Riverside
3900 Main Street
Riverside, CA 92522

Dear Mr. Hernandez:

Thank you for your September 22 letter transmitting a request to experiment with a symbol sign that warns pedestrians to look for additional (second) trains at multi-track grade crossings.

We have reviewed your request. Your request for experimentation is approved, and we look forward to receiving your semiannual progress reports and your final evaluation report at the end of the study period. For recordkeeping purposes, we have assigned the following official experimentation number and title: "8-83 (E) – Symbol Sign Warning Pedestrians to Look for Second Trains – Riverside, CA." Please refer to this number in future correspondence.

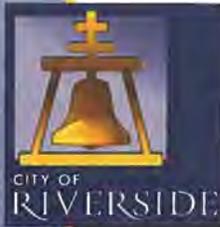
Thank you for your interest in improving the safety of pedestrians at multi-track grade crossings through the use of these experimental signs.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Hari Kalla".

Hari Kalla
Acting Director, Office of Transportation
Operations





Public Works
Department

September 22, 2009

Federal Highway Administration
1200 New Jersey, S.E.
HOTO-1
Washington, DC 20590

SUBJECT: Request for Experiment Response Letter – Railroad Signs for Pedestrians at Railroad Crossings with two or more tracks

Thank you very much for the opportunity to address and respond to the comments provided on September 9, 2009 by FHWA's Mr. Bruce Friedman, Transportation Specialist, MUTCD Team. In short, the comments were:

- Depict the trains and tracks symbol in a perspective view – simplify the train graphics to facilitate sign comprehension
- Ensure the graphic depicts the approaching train on the far tracks to inform the observer to look in both directions and make him/her aware of the potential arrival of an additional train
- Omit the “Trains May Approach From Both Directions” plaque. Determine if a different and simpler word message can be incorporated in order for the sign to stand alone (no need of a word message plaque to accompany the sign symbol)
- Share the proposed sign with Burlington Northern Santa Fe (BNSF), Union Pacific, and the California Public Utilities Commission (CPUC) to receive initial feedback/approval
- Have the City conduct a survey of the general public including school age children to ensure the City's proposed sign is well understood and received
- Resubmit the finding to FHWA for sign experimentation consideration/approval

The City reviewed the comments and revised the railroad sign to simplify the graphic and improve symbol comprehension. In addition, the City designed four varying signs and generated survey questions to determine which sign was better understood and received by the general public. The City surveyed (results attached) one-hundred residents including adults, middle, high school, and college students and concluded that most surveyed believe the proposed sign, see below, would be an effective means to improve safety at crossings with multiple tracks .



Proposed Sign

Some of the key survey findings include:

- 40% of all surveyed said they have entered a grade crossing when the bells and flasher were on – of those 63% believed it was safe to cross or did not see a train approaching
- 92% percent stated they understand the proposed sign
- 80% of those surveyed preferred the symbol and word message – of those 78% preferred the diamond shaped sign
- 91% of those surveyed believe the sign will greatly or to some extent improve safety at a crossing

In addition, the City met with BNSF, Union Pacific, and the CPUC to collectively review the sign design, placement, size, and the maintenance of the signs. Some of the comments provided by railroad and CPUC personnel include:

- Ensure the sign size is similar to sign sizes shown in MUTCD's Chapter 9, Traffic Controls for Bicycle Facilities – The City proposes a sign size of 24"x24" which is within acceptable size range
- The City will maintain the signs
- One sign per approach will be installed
- Sign will be installed within City right-of-way – if City determines sign needs to be closer to the train tracks and within railroad right-of-way the City will coordinate with the railroad to obtain an encroachment permit
- The signs will meet MUTCD lateral and height clearance guidelines
- Railroad and City personnel preferred the word "Additional" instead of "Second", "Another", or "Multiple" in the message: "Additional Trains May Approach" since many tracks have a high volume of trains

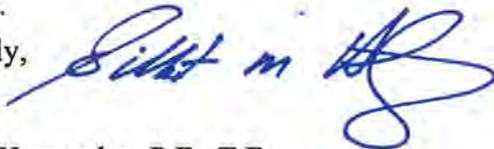
Per the meeting, BNSF, Union Pacific, and the CPUC fully support the sign and its installation. The railroads and CPUC feel there needs to be a standardized warning sign throughout the State/Country that informs pedestrians and bicyclists of the potential arrival of additional trains at crossings with multiple tracks. The City shared initial survey data with the railroads and CPUC which indicate the proposed sign would be well

received and understood by the general public. Like FHWA, the rail companies and CPUC believe that during the experimentation phase additional studies/reports would be required to further analyze the sign impacts and its comprehension.

The City of Riverside continues to strive to incorporate FHWA's comments in order to implement a practical, simple, and effective sign that will improve safety at rail crossings with multiple tracks. The City hopes that FHWA finds favor in proposed sign and endorses it for experimentation.

Thank you for your time and if you have any questions, comments or suggestions, please contact Mr. Steve Libring, City Traffic Engineer, at 951-826-5368, or myself at 951-826-5148.

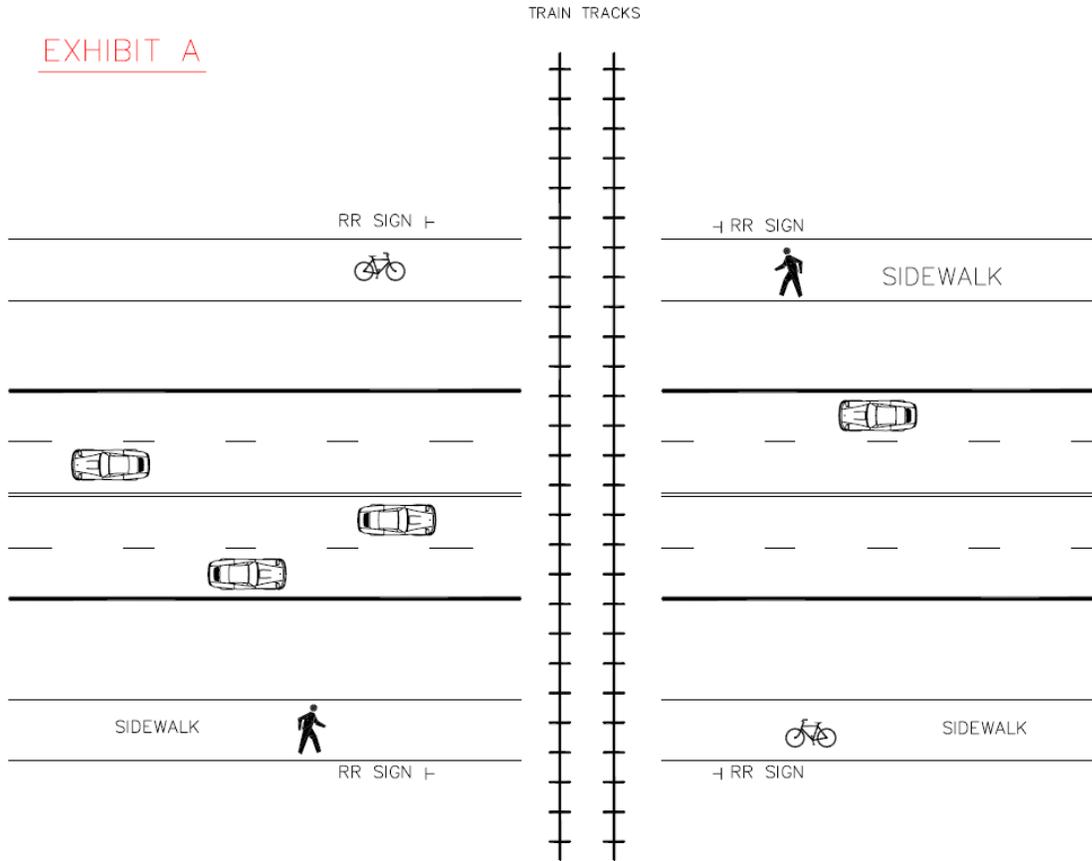
Sincerely,

A handwritten signature in blue ink, appearing to read "Gilbert Hernandez", written in a cursive style.

Gilbert Hernandez, P.E., T.E.
Senior Traffic Engineer

cc. File, Chrono, Siobhan Foster, Tom Boyd, Steve Libring

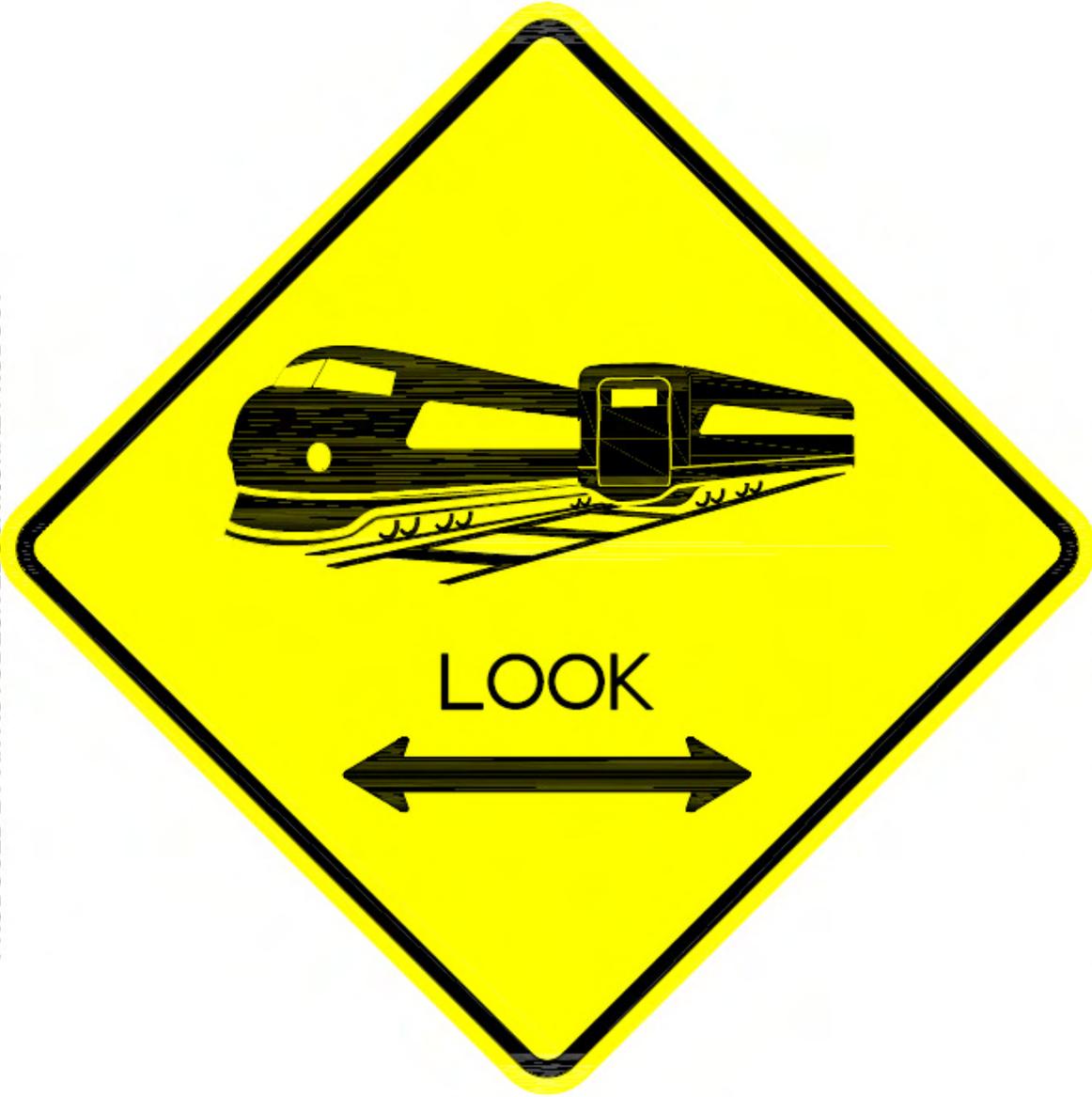
EXHIBIT A



STEP 1: DESCRIBE TRAIN TRACKS, PROPOSED SIGN LOCATION, AND INFORM PERSON THAT SIGN IS FOR PEDESTRIAN/BICYCLIST USE

STEP 2: SHOW SIGN #1 (DIAMOND SHAPE WITH LOOK AND ARROW SYMBOL) AND HAVE PERSON DESCRIBE ITS MEANING

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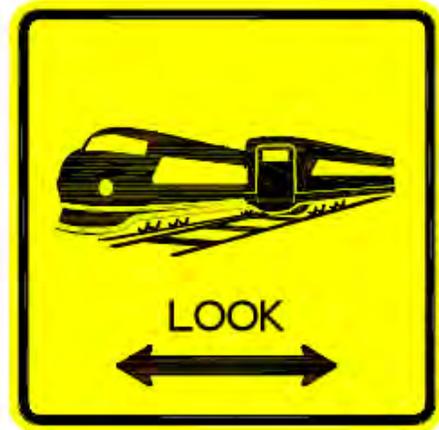
SIGN #1

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PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT



SIGN #1



SIGN #2

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SIGN #3



SIGN #4

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City of Riverside - Experimental Railroad Sign Survey

Date: 14 September 2009

Question 1 Have you ever entered a grade crossing when the bells and flashers were on?

Yes 40
No 60

Question 1a What are your reasons for Doing So?

a I thought it was safe
b I was in a hurry
c Refused to Answer
d Other

Number of Respondents / %

17
15
8 (No Train Coming)

Question 2 See 2nd Sheet

Show Exhibit A and follow Steps 1 & 2

Question 3 Does the Sign Remind you to Stop and look both ways before crossing the tracks?

Yes 83
No 17

Question 4 See 2nd Sheet

Show Signs #3 and #4

Question 5 Does Either Sign Remind you to Stop and look both ways before crossing the tracks?

Yes 92
No 8

Question 6 Which Sign do you think should be most effective?

a Sign 1 (Diamond, Symbol, Look + Arrow)
b Sign 2 (Rectangular, Symbol, Look + Arrow)
c Sign 3 (Diamond, Symbol, Look + Arrow, "Additional Trains May Approach")
d Sign 4 (Rectangular, Symbol, Look + Arrow, "Additional Trains May Approach")
e Cannot Read Text Signs
f Don't Know
g Refused To Answer

Number of Respondents / %

18
2
62 (Proposed Sign)
18

Question 7 To what extent do you think one of these signs will improve safety at a crossing?

a Great Extent
b Some Extent
c Not at All
d Don't Know
e Refused to Answer

Number of Respondents / %

32
59
2
7

Question 8 What is Your Age Group

a 16 or Younger
b 17 to 29 Years
c 30 to 64 Years
d 65 or Older
e Refused to Answer

Number of Respondents / %

24
54
19
1
2

Question 9 To which of the following racial or ethnic groups do you feel you most belong?

a African American
b Asian
c Latino
d White
e Other

Number of Respondents / %

10
14
40
31
5

Male 55
Female 45

Survey English

Experimental Railroad Sign Survey

Number	Question #2	What Does this Sign #1 tell you?	Question #4	What Does Either Sign #3 or #4 tell you?
1	6th Grader / M	Watch for Trains Coming	6th Grader / M	Watch for Trains Coming Each Way
2	7th Grader / M	Look Both Directions	7th Grader / M	Look Both Directions - Same
3	7th Grader / M	Look for Trains	7th Grader / M	Look For Trains Each Side
4	8th Grader / M	Look Before You Cross Tracks	8th Grader / M	Look For Trains Both Ways
5	6th Grader / M	Look When Train is Coming	6th Grader / M	Look Twice for Trains
6	7th Grader / M	Look Before Crossing	7th Grader / M	Look for Trains
7	7th Grader / M	Look for Trains	7th Grader / M	Look Both Directions for Trains
8	6th Grader / M	Look Both Ways	6th Grader / M	Look For Trains
9	7th Grader / M	Look Both Ways	7th Grader / M	Look for Trains
10	7th Grader / M	Look to see if a train is coming	7th Grader / M	Look to see if a train is coming
11	8th Grader / M	Look both Ways Before Crossing	8th Grader / M	Look for Trains
12	8th Grader / F	Look Both Ways for Trains	8th Grader / M	Look Both Ways for Trains Before Going
13	8th Grader / M	Look both Ways Before Crossing	8th Grader / M	Look both ways before crossing
14	8th Grader / M	Look Both Ways for Trains	8th Grader / M	Look both ways for trains
15	7th Grader / M	Look Left & Right Before Crossing	7th Grader / M	Look Left & Right Before Crossing
16	7th Grader / F	Look for Trains	7th Grader / F	Look for Trains both sides
17	7th Grader / M	Look for Trains	7th Grader / M	Trains come from both ways
18	30-64/M	Watch for Trains	30-64/M	Watch for Additional Train
19	30-64/F	Trains going back and forth	30-64/F	Trains going back and forth
20	30-64/M	Look for Trains both Direction	30-64/M	Look for Trains both Direction
21	30-64/M	Trains Crossing	30-64/M	Trains Crossing
22	17-29/F	Trains Coming	17-29/F	Look for Trains from both Direction
23	30-64/F	Look for Trains Coming	30-64/F	Look for Trains Coming
24	Refused	Look Trains Coming	Refused	Look for Another Train
25	17-29/M	Look Trains at Crossing	17-29/M	Look for Another Trains
26	30-64/M	Watch out for Trains	30-64/M	More Trains
27	17-29/F	Look for Trains Coming	17-29/F	Look for Trains Coming - More Info w/ words
28	17-29/F	Look Not Stop	17-29/F	Look for more than 1 Train
29	17-29/M	Look both Ways, nothing says stop	17-29/M	Look for Multiple Trains
30	16 or Younger / M	Look Both Ways	16 or Younger / M	Specifies to Stop More
31	16 or Younger / M	Look for 2 Trains	16 or Younger / M	Look for 2 Trains
32	17-29 / F	Look for Train Both Ways	17-29 / F	Look for Multiple Trains
33	16 or Younger / F	Look Both Ways, does not specify to stop	16 or Younger / F	Look for multiple trains - not stop
34	16 or Younger / F	Look Both Ways, does not specify to stop	16 or Younger / F	Look for multiple trains - not stop
35	16 or Younger / F	Look for multiple xing trains both ways & stop	16 or Younger / F	There's a possibility of a 2nd Train Xing
36	17-29/M	Just Look for multiple xings	17-29/M	look for multiple trains coming
37	17-29/M	Look both ways for multiple trains coming	17-29/M	look both ways for multiple trains
38	16 or Younger / M	Stop look for 2 trains	16 or Younger / M	Same as 1 but clearer
39	17-29/M	Look both ways but not stop	17-29/M	Emphasizes the point more
40	17-29/F	Look both ways, nothing about stopping	17-29/M	Emphasizes the point more
41	17-29/F	Look both ways- does not emphasize to stop	17-29/F	Emphasizes the point more
42	17-29/F	Look both ways but do not stop	17-29/F	Sign Emphasizes more than just sign #1
43	17-29/F	Look both ways but do not stop	17-29/F	Emphasizes the point more
44	17-29/F	Look both ways	17-29/F	Emphasizes more
45	17-29/M	2 Trains Xing - not stop buy look both ways	17-29/M	Look both ways focus on multiple tracks
46	17-29/M	Trains Crossing and Look Both Ways	17-29/M	Trains Crossing and Look Both Ways
47	17-29/M	Trains will pass, not necessarily both ways	17-29/M	Diamond Shape Helps + Additional Information
48	17-29/M	Look Both Ways & Do Not Stop	17-29/M	Emphasizes the Point
49	17-29/M	Look Both Ways	17-29/M	Emphasized the Message Better
50	30-64/F	Look both Ways Before Crossing	30-64/F	Look both ways before crossing

Number	Question #2	What Does this Sign #1 tell you?	Question #4	What Does Either Sign #3 or #4 tell you?
51	17-29/M	Look for Trains	17-29/M	Look Both Ways
52	17-29/M	Look for Trains Both Ways	17-29/M	Look for Trains Both Ways
53	17-29/M	Look Both Ways	17-29/M	Look Both Ways
54	17-29/M	Look Both Directions	17-29/M	Look for Approaching Trains Both Ways
55	17-29/F	Look Both Ways	17-29/F	Look for Trains Both Ways
56	17-29/M	Look for Trains	17-29/M	Look Both Ways
57	17-29/F	Look both Ways for Trains	17-29/F	Look for Approaching Trains Both Ways
58	17-29/F	Look both Directions	17-29/F	Look both direction for two trains
59	17-29/F	Look for Trains both ways	17-29/F	Look for Trains both ways to approach
60	17-29/M	Look Both Ways	17-29/M	Look both ways for multiple trains to cross
61	30-64/M	Look Both Ways	30-64/M	Look both ways for trains
62	17-29/M	Look Both Ways	17-29/M	Look for trains both directions
63	17-29/F	Look both directions	17-29/F	Look for trains both directions
64	17-29/F	Look for Trains	17-29/F	Look for Trains both ways
65	17-29/M	Look both Directions	17-29/M	Look for multiple trains
66	17-29/M	Look both Ways Before Crossing	17-29/M	Look both Ways Before Crossing
67	17-29/F	Look both ways	17-29/F	Look for trains both ways
68	17-29/F	Look for trains both ways	17-29/F	Trains approach both ways
69	17-29/F	Look both ways	17-29/F	Look both ways for trains
70	17-29/M	Watch both ways for trains	17-29/M	Trains approach from both ways
71	17-29/F	Look both ways	17-29/F	Look before crossing both ways
72	17-29/M	Look before crossing	17-29/M	Look before crossing
73	17-29/F	Look both ways	17-29/F	Look both ways, multiple trains may cross
74	17-29/F	Look both directions before crossing	17-29/F	Multiple Trains may cross
75	17-29/F	Look for trains both ways	17-29/F	Look both ways for trains
76	17-29/F	Watch for Trains	17-29/F	Look both ways
77	17-29/F	Look both ways	17-29/F	Look both ways
78	17-29/M	Look For Train	17-29/M	Look Before Crossing
79	17-29/M	Look both ways	17-29/M	Look both ways
80	30-64/M	There are 2 trains coming in opposite direction and look both ways	30-64/M	There are 2 trains coming in opposite direction and look both ways
81	Refused	A train is coming	Refused	More than one train approaching
82	30-64/M	Look for Approaching Trains	30-64/M	Look for Multiple trains in either directions
83	30-64/F	Two Trains that could come at the same time	30-64/F	That additional trains may approach in either direction
84	17-29/F	Look both ways, that's it	17-29/F	More than 1 train may approach, look both ways, use caution & yield but no stop
85	30-64/F	Look both ways for trains coming in multiple directions	30-64/F	2 trains could come at same time, look both ways, yield, not stop
86	17-29/F	Train going both ways	17-29/F	same as the 1st sign
87	30-64/F	Train and look both ways	30-64/F	Same as first sign but emphasizes the point more
88	17-29/M	There's a railroad & look both ways	17-29/M	The same as #1 but 2 trains could approach
89	30-64/F	Look both ways	30-64/F	There could be 2 trains xing at the same time
90	17-29/M	There's a railroad crossing. Train either on the left or right.	17-29/M	More specific to multiple trains crossing @ 1 time
91	17-29/M	2 Trains Xing. Not Stop but look both ways	17-29/M	Look both ways & focus on multiple trains.
92	17-29/M	Two tracks. Look both ways. Two trains in either direction.	17-29/M	More obvious than the First because it states rather than one assumptions
93	17-29/M	There's a railroad & look both ways. Possible trains from either direction	17-29/M	Diagonal Shape catches more. More of a warning than #1. More Detailed.
94	16 or Younger/F	Trains may come - look both ways	16 or Younger/F	Trains may come - look both ways
95	30-64/F	Look both ways	30-64/F	Same as sign 1 but more direct - better
96	30-64/F	Look both ways as trains may approach	30-64/F	Look both ways as trains may approach - clearer
97	65 or older/M	Look both ways since multiple trains may approach	65 or older/M	Look both ways since multiple trains may approach
98	30-64/F	Carful Trains may approach from either direction	30-64/F	Look both ways as trains approach from either direction
99	17-29/M	Look both ways before crossing	17-29/M	Look both ways before crossing - better sign because it is more clearer
100	30-64/F	Look both ways at RR Crossing	30-64/F	Look both ways at RR Crossing - Better since it spells it out

10-4 Experiment with Bicycle Box at the Signalized Intersection

Recommendation: Caltrans District 5 request authorization to conduct an experiment with **Bicycle Box** at the Signalized Intersection

Agency Making Request: Caltrans District 5

Sponsor: Wayne Henley, Caltrans

DEPARTMENT OF TRANSPORTATION

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<http://www.dot.ca.gov/dist05/>



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December 1, 2009

Devinder Singh
Secretary, CTCDC
California Department of Transportation
1120 N Street
Sacramento, CA 95814

PROPOSAL FOR EXPERIMENTAL USE OF A BICYCLE BOX

The California Department of Transportation (Caltrans) requests permission to conduct an experiment involving the installation of a bicycle box.

1. PROBLEM STATEMENT

Route 227 (Madonna Road) is a four-lane, conventional highway in San Luis Obispo County (SLO). Madonna Road intersects with Higuera Street at this location. Right turns are accommodated with a fully separated, free-right-turn lane and are therefore not a factor in the experiment. However, at the intersection the #1 lane is a left-turn only, and the #2 lane is a shared-left and a through lane. A class II bicycle lane exists up to the intersection. Bicycles in the bike lane that are attempting to make a left turn do not know whether the car in the #2 lane is going to turn left, or going to proceed straight through the intersection.

2. PROPOSED SOLUTION

Caltrans wishes to participate in the experimentation of a bicycle box. The bicycle box will not use colored pavement or any non-standard signs, however the solution will require the use of two separate stop bars, one for vehicles, and a second one for bicycles. The experiment will also include a non-standard, Bicycle Stencil pavement legend, measuring 7' wide by 8' high.

The bike box will allow bicycles to move in front of the vehicles when the light is red, thus eliminating the potential conflict between vehicles proceeding straight through the intersection, and cyclist turning left.

The City of San Luis Obispo supports the project, as does the SLO Bicycle Coalition. The City of San Luis Obispo has offered to help educate motorists and bicyclists on the use of the bike box, through their public access television channel, as well as any

Devinder Singh
December 1, 2009
Page 2

other opportunities such as bicycle rallies and their annual Bicycle Rodeo (a joint effort with the SLO Police Department).

3. OBJECTIVE

The objective of the experiment will be to determine the effectiveness of the bicycle box, which will allow bicycles to move in front of the vehicles when the light is red and possibly eliminate the potential conflict between vehicles proceeding straight and cyclist turning left.

4. EXPERIMENT SCHEDULE

- | | |
|-------------------------|--------------------------------|
| • Installation | February 2010 |
| • Experimental Period | February 2010 to February 2011 |
| • Evaluation of Results | March 2011 |

Thank you for considering this request for a bicycle box. Caltrans is looking forward to receiving a response from the Committee. If you have any questions or need further information, please do not hesitate to call me at (805) 503-9374.

Sincerely,



Dario A. Senior, P.E.
Transportation Engineer

C: Thomas Schriber

Steve Price

Aileen Loe

Deb Larson

Paul McClintic

Julie Gonzalez

Colin Jones

Adam Fukushima

Peggy Mandeville, Transportation Planner, City of San Luis Obispo

Dan Rivoire, Executive Director, San Luis Obispo Bicycle Coalition

DEPARTMENT OF TRANSPORTATION

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PROPOSAL FOR EXPERIMENTAL USE OF A BICYCLE BOX**SCOPE**

The California Department of Transportation (Caltrans) proposes an experiment to install a bicycle box.

WORK PLAN**Installation**

The experimental bicycle box will be installed along Route 227 (Madonna Road) in San Luis Obispo county, in the westbound direction at the intersection of Madonna Road with Higuera Street.

Evaluation

Effectiveness and acceptance will be measured in accordance with the time period and evaluation procedures shown below.

Time Period

The schedule for testing is as follows:

- | | |
|-------------------------|--------------------------------|
| • Installation | February 2010 |
| • Experimental Period | February 2010 to February 2011 |
| • Evaluation of Results | March 2011 |

EVALUATION PROCEDURES

The Department requests that the Committee approve the preliminary evaluation plan outlined below. Other criteria and procedures may evolve during the evaluation period. Any additional methods of evaluation or changes in procedures will be discussed in the scheduled reports submitted to the project sponsor and the Committee.

1. Installation Documentation – to be prepared by the Department
2. The Caltrans Traffic Safety Division bicycle coordinator, as well as the Planning Division bicycle coordinator, will evaluate the effectiveness of the bike box, along with help from the San Luis Obispo Bicycle Coalition and the City of San Luis Obispo.

Devinder Singh
December 1, 2009
Page 2

ADMINISTRATION

Sponsoring Agency: CA Department of Transportation
Traffic Safety, District 5

Contact Information: Dario A. Senior, P.E.
Transportation Engineer
50 Higuera Street
San Luis Obispo, CA 93401
Tel: (805) 503-9374
Fax:(805) 542-4705

Installations: Caltrans Maintenance Crew



San Luis Obispo County Bicycle Coalition

PO Box 14860 • San Luis Obispo, CA 93406-4860

Dan Rivoire, Executive Director
Phone: 805-547-2055
Email: dan@slobikelane.org

November 20, 2009

Attn: Adam Fukushima, Transportation Planner
Caltrans District 5
50 Higuera Street
San Luis Obispo, CA 93401

Dear Mr. Fukushima,

The San Luis Obispo County Bicycle Coalition would like to state our support of the proposed *bike box* at the intersection of Madonna Road and South Higuera in San Luis Obispo.

Thank you for making public comment at our November board meeting. We are very excited that Caltrans is considering such an innovative project to provide safer access for cyclists traveling from southwest San Luis Obispo to the city core. The Bicycle Coalition is very concerned about safe and convenient corridors for bicycling throughout our County.

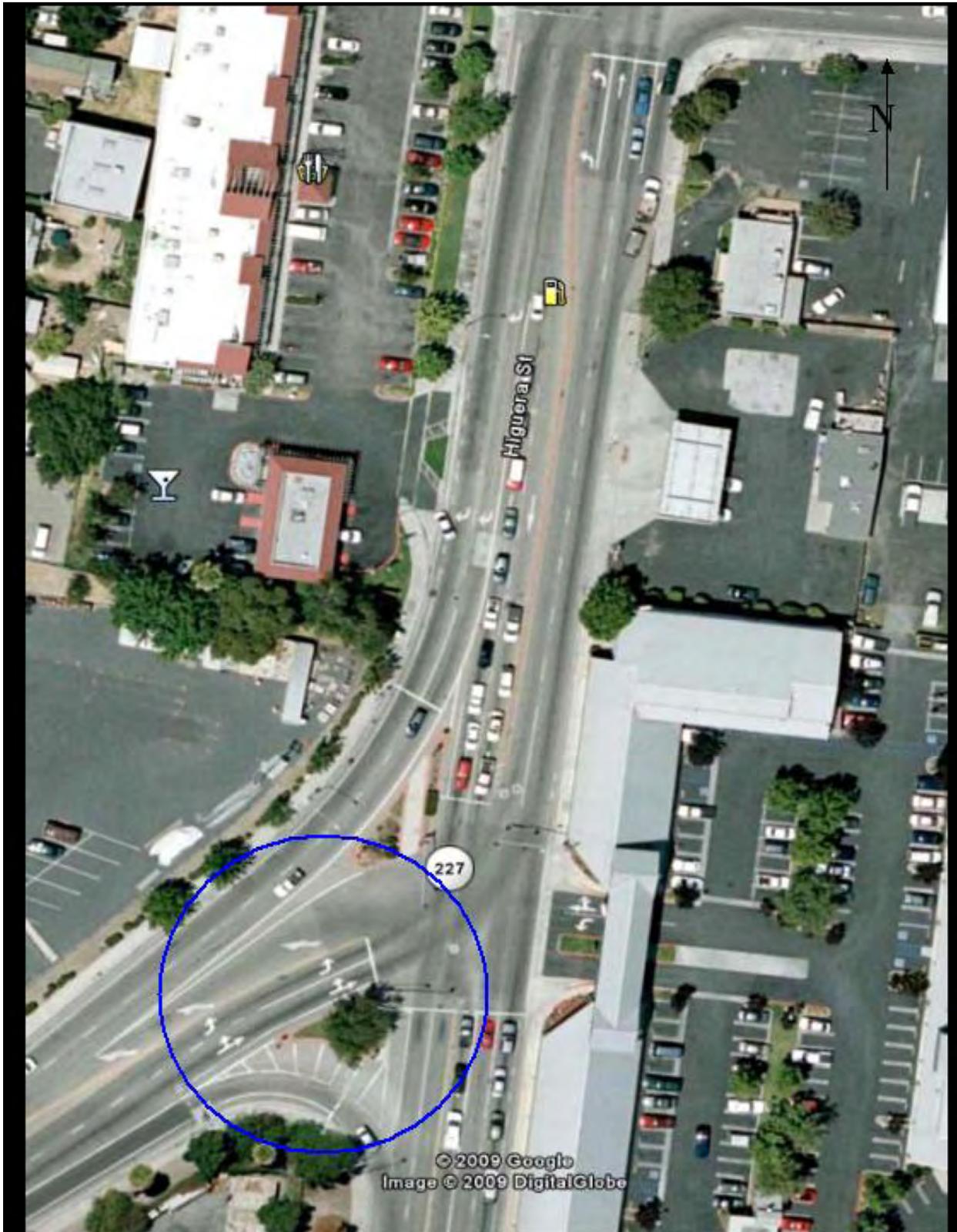
The proposed *bike box* effectively addresses the potential for collisions by inviting cyclists to take a more prominent lane position through the intersection. Cyclists taking a central lane position through the intersection will be more visible, predictable, and consequently far safer.

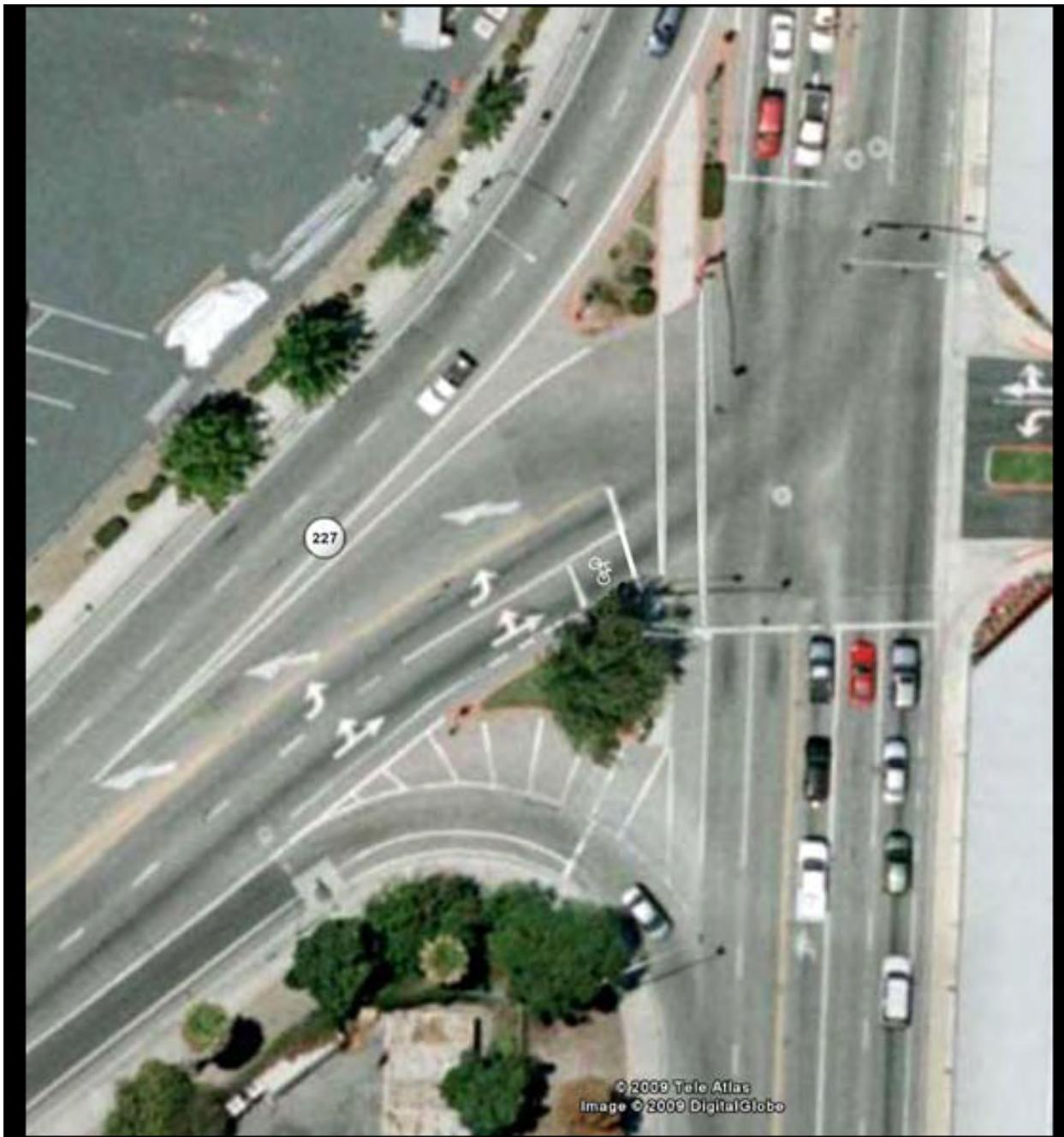
Thank you for the opportunity to voice our concerns on this project. We would be pleased to work with Caltrans in finding solutions as the project moves forward.

Best regards,

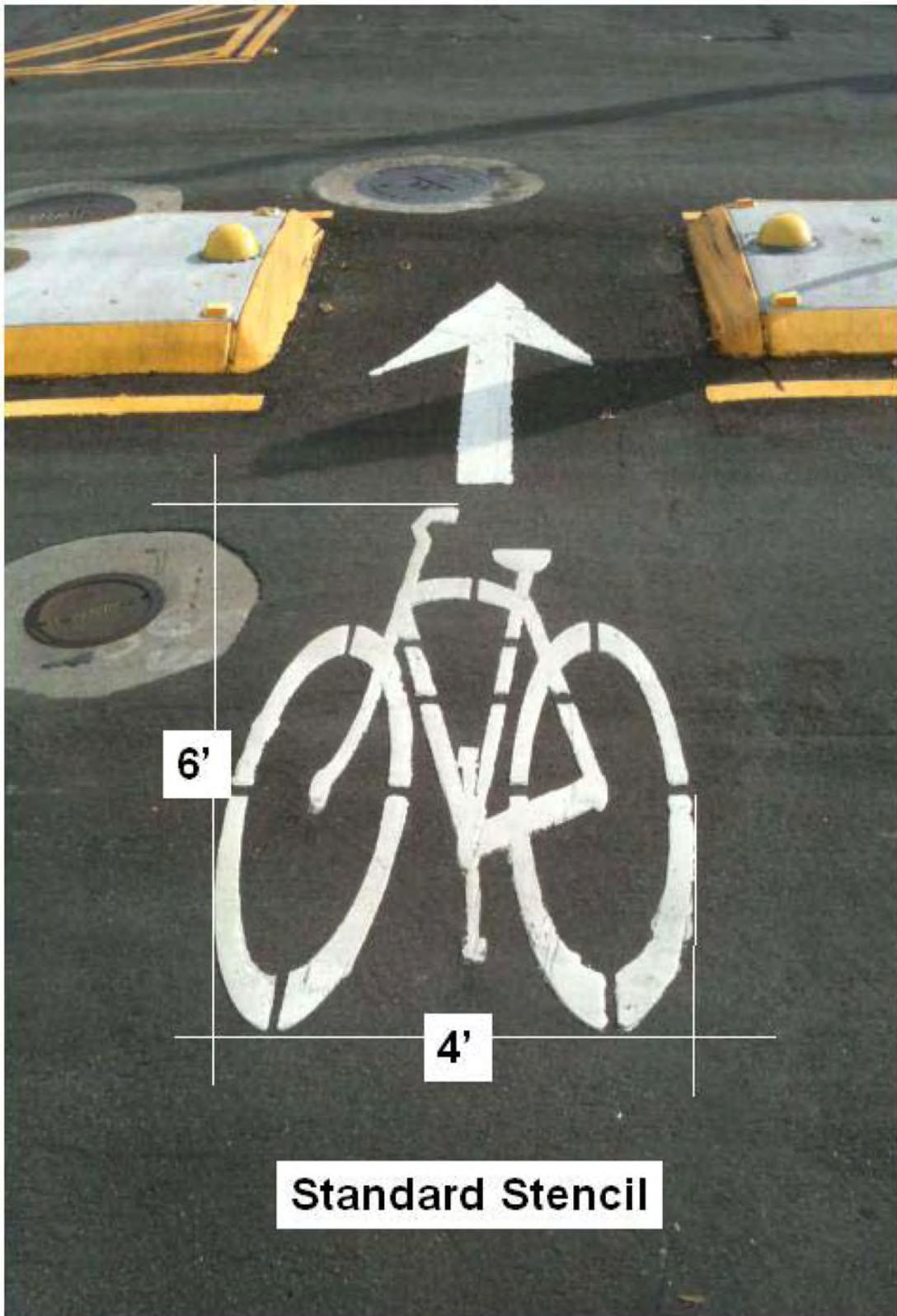
Dan Rivoire, *Executive Director*
San Luis Obispo County Bicycle Coalition

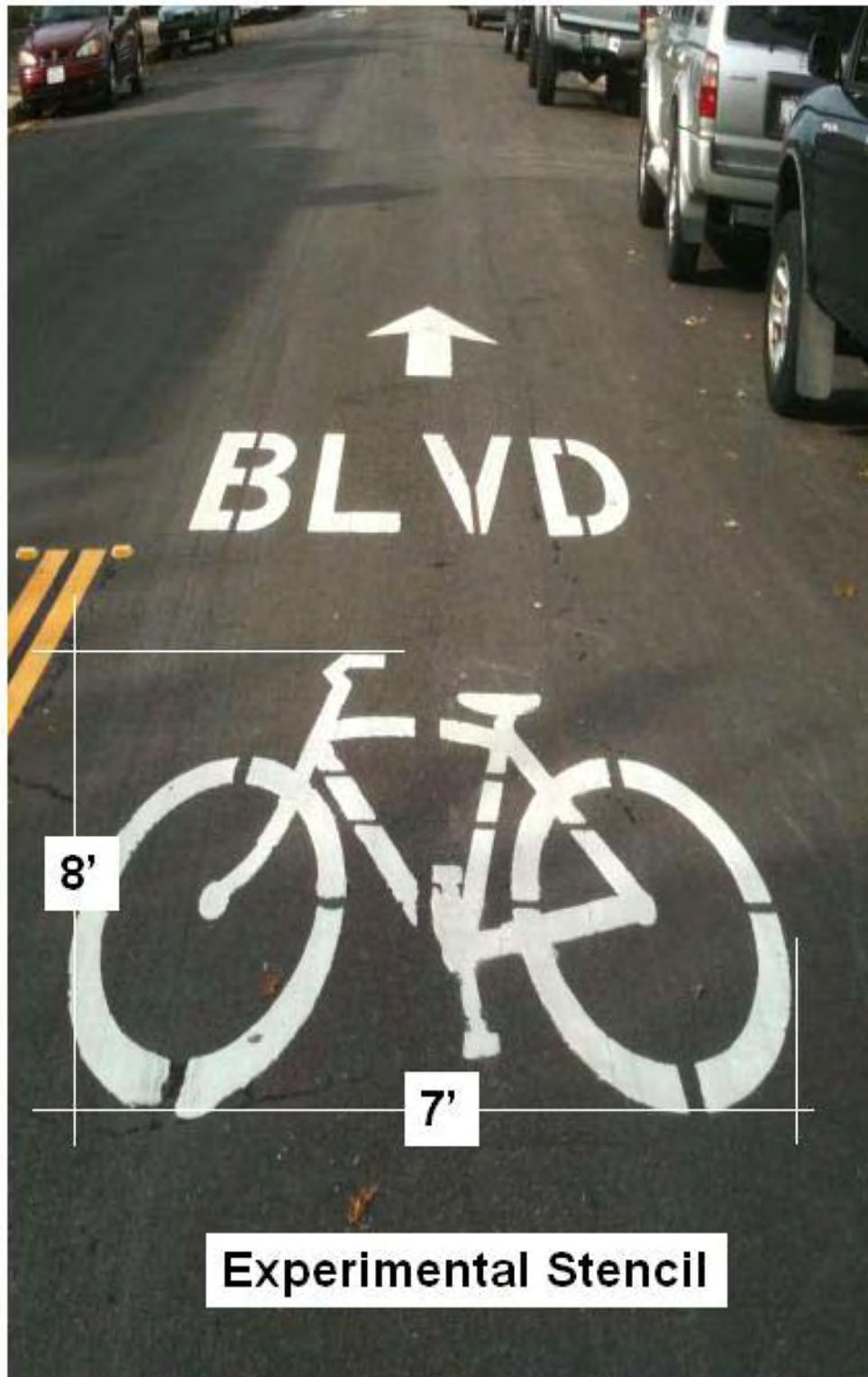
The San Luis Obispo County Bicycle Coalition is a 501(c)(3) nonprofit organization working to transform SLO County into a safer and more livable community by promoting bicycling and walking for everyday transportation and recreation. For more information, visit www.slobikelane.org.













7 Discussion Items

10-5 When Children are Present

Discussion Topics:

Per Mr. Chuck Ferrell correspondence, two problems are:

A) The varied interpretation of the sign, "WHEN CHILDREN ARE PRESENT" and requests resolution w/ the definition of the sign and,

B) Caltrans District office in Redding does not allow the speed limit signs with yellow flashing beacons to operate the yellow flashing beacons throughout the school day, as police and school personnel have requested. In Mr. Ferrell's opinion, Caltrans should abide by what the school wishes as they have to live with the problem on a day to day basis.

- Mr. Chuck Ferrell is a parent of a student at this school, and is a community volunteer and safety advocate who is concerned about traffic speed enforcement at the Antelope Elementary School project, in Red Bluff, CA.
- Mr. Ferrell has made volunteer efforts to improve the situation in front of the school to influence vehicle drivers to slow down.
- Mr. Ferrell has asked various authoritative sources on their functional definition to find out exactly what the sign "WHEN CHILDREN ARE PRESENT" means: Red Bluff Police, CHP, Tehama County Sheriff, DMV, Tehama County Traffic Court, Caltrans District 2 Office and dozens of parents and the general public.
 1. Some feel "Only when children are walking on the road" to and from school:
 2. Others seems to feel whenever children are on the school grounds.
 3. The local court that enforces traffic laws states, per Mr. Ferrell: "They will enforce any violations of exceeding the speed limit in the school zone, between the hours of 7:30 AM and 3:30 PM.
 4. DMV shared CVC language ". . . any time that children are on the school grounds or walking to and from school." and cited DMV handbook that says: ". . . the speed limit is 25 mph, when there is not a fence, when the vehicle is within 500 feet of school grounds and there are children visible."
 5. Mr. Ferrell supports the speed limit being enforced at 25 mph between 7:30AM-3:30PM
- Main reasons for letter to Director Randy Iwasaki:
 1. Per Mr. Ferrell "It is pretty much unanimous, that the wording on the sign is poor (cites example from Oregon that states the time, 7:30 AM and 5:30 PM)."
 2. Caltrans refuses to turn the flashing yellow lights on all day as **Police** and the **school** officials request, because:
 - * Caltrans is not willing extend flashing yellow beacon times.
 - * Pros and cons of Caltrans' position that flashing the yellow beacon all day (7:30 AM to 3:30 PM) local area drivers become immune to the flashing yellow beacon.
 - * Caltrans replied that there hasn't been any accidents in front of the school, so accident history does not indicate that there is a problem.
 - * Mr. Ferrell asks: **How many accidents must there be, and, how many children have to be hurt (or worse) before anything is done?**
- Mr. Ferrell was surprised to find out that there is no authority to direct Caltrans to change signage, or in this case, turn on warning beacons for longer timeframes.
- In Mr. Ferrell's opinion: "It is extremely dangerous in front of this school with some traveling 45+ mph and some going 25 mph. I don't know how the speed limit can be enforced when even the police cannot agree on the interpretation of WHEN CHILDREN ARE PRESENT."

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December 3, 2009

Mr. Chuck Ferrell
14750 Hilltop Drive
Red Bluff, CA 96080

Dear Mr. Farrell:

I have been asked to respond to your letter to Randell H. Iwasaki, Director, California Department of Transportation (Caltrans) regarding school zone speed limits on State Highway 36 at Antelope Elementary School in Red Bluff. Thank you for your efforts to promote traffic safety within the school zone. The issues requested for Caltrans to resolve in your letter are:

1. Wording and varying interpretations of the "WHEN CHILDREN ARE PRESENT" sign; and,
2. Operation by Caltrans of flashing yellow beacons near Antelope Elementary School as requested by local law enforcement and school district personnel.

The wording of the sign is guided by the law, CVC 22352, which states that the lowered speed limit can only be enforced "... while children are going to or leaving the school either during school hours or during the noon recess period." The California Traffic Control Devices Committee (CTCDC) has recommended that this part of the law be conveyed by "WHEN CHILDREN ARE PRESENT." I can have the CTCDC discuss this wording at their next meeting in January 2010 to see if they would recommend modifying the wording to make it clearer. Don Howe, my signing specialist, will contact you next week to discuss your recommended wording change.

The "WHEN FLASHING" and plaques with specific times are not supported by existing law (CVC 22352). I will ask our District 2 Office to experiment with extending the flashing period time, even though it has no effect on enforceability, for the remainder of the school year to see if it has a measurable effect on collisions.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert Copp".

ROBERT COPP
Chief
Division of Traffic Operations

c: Don Howe, Division of Traffic Operations

10-6 Proposal to Restructure the CTCDC
DECISION DOCUMENT

Bicyclist Representation on California Traffic Control Devices Committee

Problem statement: The CTCDC currently has 8 members, 2 each from cities, counties, and the automobile clubs, and 1 each from CHP and Caltrans. Current representatives cannot be expected to be knowledgeable about bicyclist concerns in the specialized areas of bicycle traffic engineering, traffic safety, and public policy.

Recommendation: Add bicyclist representatives from each of the 2 statewide bicycling organizations.

Fiscal impact: None. Expenses of the representative would be paid by the sponsoring organization, as is the case for the current representatives.

Policy impact: Concerns of bicyclists would be explicitly considered during the decision process. The CTCDC would be addressing the State's Complete Streets policy.

Organizational impact: The CTCDC by-laws would need to be revised. Motions would still need to be passed with 75% majority.

Risk(s): Other road user groups, such as motorcyclists, pedestrians, truck drivers, etc., might also request seats on the CTCDC. Other road users groups do have seats on the NCUTCD, which has about 250 members.

Proposed implementation schedule: By the end of 2010.

APPROVAL RECOMMENDED BY:
California Bicycle Advisory Committee

APPROVED BY:



Jim Baross, Jr., President
California Association of Bicycling Organizations

December 9, 2009
Date

APPROVED BY:



David Hoffman, Interim Executive Director
California Bicycle Coalition

December 9, 2009
Date

8. Information on CA MUTCD training

• California MUTCD training is available. See the following web link for more information and details:

<http://www.dot.ca.gov/hq/traffops/signtech/mutcdsup/training.htm>

- **Speed Limit Workshops were held in 12 locations over last several months.**

9 Information Items**10-7 MUTCD 2009**

On December 16, 2009 a final rule adopting the 2009 Edition of the MUTCD was published in the Federal Register. States must adopt the 2009 National MUTCD as their legal State standard for traffic control devices within two years. The 2009 MUTCD is effective nationwide on January 15, 2010. **The important thing to remember is that in California it does not take effect until we take formal action through the CTCDC and Caltrans formal efforts. We have until 1/15/2012 to do this.**

The Federal Register notice, which provides detailed discussion of the FHWA's decisions on major changes from the 2003 edition, can be viewed at <http://edocket.access.gpo.gov/2009/pdf/E9-28322.pdf>.

To view the 2009 MUTCD and other related information, go to http://mutcd.fhwa.dot.gov/kno_2009.htm.

United States Department of Transportation Press Release

(Release Date: Wednesday, December 16, 2009)

Federal Highway Administration Revises Rules to Make Highways Safer
U.S. Transportation Secretary Ray LaHood Calls Updates Needed and Welcome

FHWA does not print copies of the MUTCD. National organizations have partnered and printed hard copies of the MUTCD. These hard copies are available for sale. Go to [ATSSA](#), [ITE](#), or [AASHTO](#) to get sales information.

10 Tabled Item

08-22	Proposal to amend CA MUTCD Section 10C.15 & 10C.23 (Item Deferred for the Future Meeting)	(Continued) (Wong)
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There has been no update on this item, Staff recommends removing this item from the agenda. Kevin Schumacher from CPUC concurred.

06-7	MUTCD 2003 Revision No. 1 (Pharmacy Signing) (Proposed to Adopt Pharmacy Signing in CA)	(Continued) (Henley)
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There has been no update on this item, Staff recommends removing this item from the agenda.

11 Next Meeting**12 Adjourn**