

# COMMUNITY TRAFFIC SAFETY COALITION



## Recommended Guidelines to Protect the Safety of Bicyclists, Pedestrians, and Disabled Travelers during Road Construction

Chapter 5 of Caltrans Traffic Manual requires safety measures during construction to protect all road users. Since the needs of bicyclists, pedestrians, and disabled travelers may not be obvious to construction managers used to thinking in terms of motor vehicles, the following list of hazards and recommended safety and access measures is offered to increase awareness.

### THE PROBLEM

There are three general situations which impact bicyclists, pedestrians, and disabled travelers:

1. Work in the *bikeway*\* or *walkway* which forces bicyclists or pedestrians to compete with motor vehicles in a narrow car lane.
2. Work which is not in the *bikeway* or *walkway* but which puts equipment, debris, or warning signs in the *bikeway* or *walkway*.
3. Work which blocks the direction of travel without a clear, safe, and convenient detour for cyclists, pedestrians, or wheelchair travelers.

In addition, please be aware of these specific hazards for bicyclists, pedestrians, and disabled travelers.

#### Hazards to Bicyclists

- Signs, equipment, or debris in the *bikeway*.
- *Bikeway* blocked without advance warning.
- Rough pavement or gravel without advance warning.
- Poor pavement transitions, especially when parallel to the line of travel (eg: metal plate edges or pavement removal/resurface areas which are not tapered).
- Inadequate time to pass through a signalized one-lane, two-way traffic control.

#### Hazards to Pedestrians

- Blocked or hazardous *walkway* which is not marked in a way that is visible in advance, especially at night.
- Alternate route or detour which is not negotiable by wheelchairs, strollers, carts, etc.

#### Special Hazards to Visually Impaired Pedestrians

- Blocked or hazardous *walkway* without a barrier which is solid enough to be discernible by guide dog or cane.

#### Special Hazards to Wheelchair Travelers

- Signs, equipment, or debris partially blocking the *walkway*.
- Sidewalk blocked with no curb cut or ramp to exit sidewalk, or advance warning to exit at a prior curb cut.
- Rough pavement, grooves, or gravel without advance warning. Rocks of 3" diameter or greater are especially hazardous because they may cause the wheelchair to stop abruptly and eject the occupant.

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\* For the purposes of these guidelines, "*bikeway*" will be used to refer to where bicyclists usually travel on a given road, including painted bike lanes, paved shoulders, the right side of a wide travel lane, or the center of a narrow travel lane if there is no bike lane or shoulder. "*Walkway*" will be used to refer to sidewalks, shoulders, and paths where pedestrians and wheelchairs travel.

## THE SOLUTION

The Caltrans Traffic Manual (Section 5-01-2) includes these “fundamental principles” for bicyclists and pedestrians in construction and maintenance work zones:

1. Bicycle and pedestrian “movement should be disrupted as little as practicable”.
2. “Pedestrians and bicyclists should be provided with access and passage through, or around, the temporary traffic control zone at all times.”
3. Bicyclists and pedestrians “should be guided in a clear and positive manner while approaching and space traversing the temporary traffic control zone.”

In addition, please consider the following specific safety and access measures.

### Detours

- When construction blocks the *bikeway*, accommodations should be made for bicyclists if they are made for motor vehicles, including safe and well marked detours for cyclists when needed. In some situations when motor vehicles are detoured, a safe corridor can be left open for bicyclists. If not possible, post “End Bike Lane” and “Share the Road” (or “Merge Left”) caution signs to encourage cyclists to merge into the through lane. Rather than directing bicyclists to walk their bikes in pedestrian zones, try to provide a rideable alternative.
- If construction or signs must block the *walkway*, establish safe, well-signed detours for pedestrians which are accessible for wheelchairs, strollers, carts, etc.
- When one-lane, two-way traffic control is done by temporary traffic signals, timing should accommodate bicyclists, who will be slower than motor vehicles especially in the uphill direction. Consider push button signals for bicyclists or special bicycle loops, if practical.
- Barriers should include a portion low enough and solid enough to be easily discernible by a cane, guide dog, or child. If necessary, use flaggers to guide pedestrians.

### Signs

- Whenever possible, construction warning signs should be placed out of the *bikeway* and *walkway*, so that the sign itself is not a barrier for bicyclists for wheelchair travelers. Remove construction signs promptly when construction pauses or ends.
- Any construction or sign which blocks the *bikeway* should have sufficient sight distance, including night-time visibility, to allow cyclists time to merge safely into the car lane. Use “End Bike Lane” and “Share the Road” signs.
- Any construction or sign which blocks the *walkway* should have prior warning to allow wheelchairs time to exit the walkway at a prior curb cut.
- For all construction where the *bikeway* or *walkway* is blocked or the lane narrows, post “Share the Road” caution signs to warn motorists to slow down and watch for bicyclists and pedestrians.

### Pavement Surface

- Temporary pavement or metal plates installed during construction should have cold mix asphalt tapered at the edges for bicyclist, pedestrian and wheelchair safety. When locating metal plates, avoid placing edges in the middle of the *bikeway*. Debris in the *bikeway* or *walkway* should be cleared at the end of each workday.
- If no smooth surface is available for bicyclists, pedestrians, or wheelchairs, post signs warning “Rough Surface” or “Uneven Pavement” at the beginning of the work area. Keep signs posted at the end of the workday. Use reflective signage on barricades with flashers for night safety.
- Prior to “sign off” on projects, verify that the pavement in the *bikeway* and *walkway* is even. Overlay should be smoothed at drainage grates, manholes, and gutter pan, and after narrow trenching in the *bikeway*.