PEDESTRIAN MITIGATION : (Subsection)

Pedestrians (Temporary Alternate Circulation Path)

General
When crosswalk or other pedestrian facilities are temporary closed or relocated, alternate circulation paths are alterations to an existing developed pedestrian environment and are required to achieve the maximum accessibility feasible under existing conditions.

Components
Temporary Alternate Circulation Path (hereafter referred to as "path" or "pathway") shall consist of one or more of the following components: walkways, ramps, curb ramps (excluding flared sides) and landings, blended transitions, crosswalks, and pedestrian overpasses and underpasses. Elevators, platform lifts, stairways and escalators shall not be part of a path. All components of a path shall comply with the applicable portions of this document.

Continuous Width
The minimum continuous and unobstructed clear width of a path shall be 1.2 m (4.0 ft) preferably 1.5 m (5.0 ft), exclusive of the width of the pedestrian barricades and channelizing devices. Where a path turns or changes direction, it shall accommodate the continuous passage of a wheelchair or scooter. As with street or highway design for vehicles, additional maneuvering width or length may be needed along curved or angled routings, particularly where the grade exceeds 5%. Individual segments of paths shall have a minimum straight length of 1.2 m (4.0 ft).

California Code of Regulations (CCR) Title 24 Part 2 Chapter 11B section 1133B.8.6 and Americans with Disabilities Act Accessibility Guidelines (ADAAG) 4.4 Provisions for protruding objects apply across the entire width of the path.

Width at Passing Spaces
Paths that are less than 1.5 m (5.0 ft) in clear width shall provide passing spaces at intervals of 61 m (200 ft) maximum. Paths at passing spaces shall be 1.5 m (5.0 ft) wide for a distance of 1.5 m (5.0 ft).

Walkway Grade and Cross Slope
The pathway surface shall be level and shall not have a slope greater than 12 to 1 nor a cross slope greater than 2%. At locations where it is impractical to obtain the required 12 to 1 slope or 2% cross slope, exceptions may be granted on an individual bases depending on the specific site conditions.

Where the walkway of a pedestrian access route is contained within a street or highway border, its grade shall not exceed the general grade established for the adjacent street or highway.

Surface
The surface of the path shall be firm, stable, and slip resistant. The pathway shall be constructed of concrete, asphalt, non slip plywood or non slip steel plate. Non slip plywood used for a walkway surface shall be ¾ inch (18 mm) minimum and shall be thoroughly supported so as to produce a firm stable surface. Compacted soil or aggregate base material is not considered an acceptable surface.

Surface discontinuities shall not exceed ½ inch maximum. Changes in level up to ¼ inch (6 mm) may be vertical and without edge treatment. Vertical discontinuities between ¼ inch and ½ inch (6 mm and 13 mm) maximum shall be beveled at 1:2 minimum. The bevel shall be applied across the entire level change. Changes in level greater than ½ inch (13 mm) shall be accomplished by means of a ramp that complies with CCR Title 24 Part 2 Chapter 11B section 1127B.5 and ADAAG 4.7. Surfaces with individual units laid out of plane and those that are heavily textured, rough, or chamfered, will greatly increase rolling resistance and will subject pedestrians who use wheelchairs, scooters, and rolling walkers to the stressful (and often painful) effects of vibration. It is highly desirable to minimize surface discontinuities; when discontinuities on the path are unavoidable, they should be widely separated.

The installation of gratings in the surface of the pathway should be avoided. If gratings are located in path surfaces, then they shall have spaces no greater than ½ inch (13 mm) wide in one direction. If gratings have elongated openings, then they shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

Location
Sidewalks at the construction location may be closed with adequate detours. Sidewalks may only be closed to through traffic and shall not prevent local pedestrian access. Detours shall not increase the path of travel by more than 500 feet. Detour routes shall be limited to existing sidewalks, private properties (see above requirements) and crossings at roadway intersections. To the maximum extent feasible, the alternate circulation path shall be provided on the same side of the street as the disrupted route. Where it is feasible to provide a same-side alternate circulation path and pedestrians will be detoured, section 6D.02 of the Federal Highway Administration Manual on Uniform Traffic Control Devices for Streets and Highways 2003 Edition (MUTCD) approved for use in California, Amended September 26, 2006, specifies that the alternate path provide a similar level of accessibility to that of the existing disrupted route. This may include the incorporation of accessible pedestrian signals (APS), curb ramps, or other accessibility features.

Pedestrians may be detoured onto private property only if written permission from the property owner is obtained along with documentation indicating that the County would not be liable in the event of an accident.

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Protection
Where the temporary alternate circulation path is exposed to adjacent construction, excavation drop-offs, traffic, or other hazards, it shall be protected with a pedestrian barricade or channelizing device.

When it is necessary to block travel at the departure curb to close a crosswalk that is disrupted by excavation, construction, or construction activity, care must be taken to preserve curb ramp access to the perpendicular crosswalk. This may require additional pedestrian channelization if only a single diagonal curb ramp serves the corner.

Figures TA-28 and TA-29 of the MUTCD specify notification signage for pedestrian closings and detours. Audible signage triggered by proximity switches should be used whenever possible to provide information to pedestrians such as the blind and visually impaired, who cannot use print signs.

Pedestrians routed into normal bicycle or automobile traffic lanes must be protected from traffic via pedestrian barricade or channelizing device that is continuous, immovable, stable, rigid, and visible that is free of splintered, jagged, and sharp surfaces/edges: concrete barriers (k-rail) or other similar protective devices. Caution tapes, cones, drums, sawhorses, and A Frames are not considered effective substitutions for this purpose.

Pedestrians routed onto the roadway shoulder at locations not normally traveled by bicycles or locations where bicycle traffic has been relocated must be protected with a continuous, immovable, stable, rigid, and visible barrier that is free of splintered, jagged, and sharp surfaces/edges. Pedestrian barricades and channelizing devices shall consist of a wall, fence, or enclosures specified in section 6F-58, 6F-63, and 6F-66 of the MUTCD. Caution tapes, cones, drums, sawhorses, and A Frames are not considered effective substitutions for this purpose. Barriers shall have a bottom or lower continuous rail equivalent to a 2x6 secured in a vertical orientation and a 2x6 minimum upper rail 36 inches (915 mm) minimum above the ground or walkway surface. Barrier support members shall not protrude beyond the barricade face into the pedestrian access route or alternate circulation path.

These pathways shall be well marked with reflective materials to assist both visually impaired pedestrians and vehicles traveling at times when visibility may be limited. The reflective materials shall be color yellow conforming to Federal Color No. 33538, as shown in Table IV of Standard No. 595B.

During working hours, at least one worker shall be assigned the responsibility to escort elderly, disabled or any other pedestrians in need of assistance through the construction site. Worker assigned this responsibility may also participate in other construction activities however, the assigned worker shall be aware of his or her responsibilities for providing this assistance.

Lighting
The pathway is to be continuously and uniformly illuminated at all times. When existing artificial lighting does not continuously and uniformly illuminate the path or there is no artificial lighting, there shall be temporary lights installed, if electrical power is available. Paths are more visible for persons with low vision when a pedestrian barricade or channelizing device contrasts as much as possible with its surroundings. Additional factors affecting the ease with which the pathway can be distinguished from its surroundings include shadows cast by lighting sources, surface reflectance, and the uniformity of the color and texture of the materials making up the walking surface, pedestrian barricade, or channelizing device.

Holes in the Permanent Path of Travel
When there is a hole or opening, e.g. manhole cover, within the permanent pathway of travel, there shall be a continuous, immovable, stable, rigid, and visible pedestrian barricade surrounding the boundary of the opening which is free of splintered, jagged, and sharp surfaces/edges. There shall also be a clear pathway around the pedestrian barrier at a minimum of 1.2 m (4.0 ft) preferably 1.5 m (5.0 ft). The pedestrian barrier/pathway must also meet all requirements as listed above.

REVISIONS			
REV.	DESCRIPTION	BY	DATE

REZA MOGHISSI, CHIEF
DEPARTMENT OF TRANSPORTATION

SACDOT

M & O TYPICAL TRAFFIC CONTROL PLANS

PEDESTRIAN MITIGATION REQ.

TYPICAL PEDESTRIAN CONTROL

JOB NO.
TEMPLATE NAME TC-45
DRAWN LB
DESIGNED
CHECKED SU/GK
SHEET DATE 7/1/2010

SCALE
HOR: N/A
VER: N/A

SHEET
TC-45
OF 50 SHEETS