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‘Wheel Stop’ Tripping Hazards in Pedestrian Paths of Travel

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Consider these commonalities at Photos 1, 2 and 3 below:

- A ‘wheel stop’ (serving no functional purpose) straddles a primary pedestrian route into a busy store;
- Even after multiple trip-and-fall incidents, management has not removed the known tripping hazard;
- Eventually, a seriously injured customer sues the store;
- In trial: the injured plaintiff asserts that failure to remove this hazard constituted gross negligence, while the defense responds that customers have a duty to watch where they’re walking.

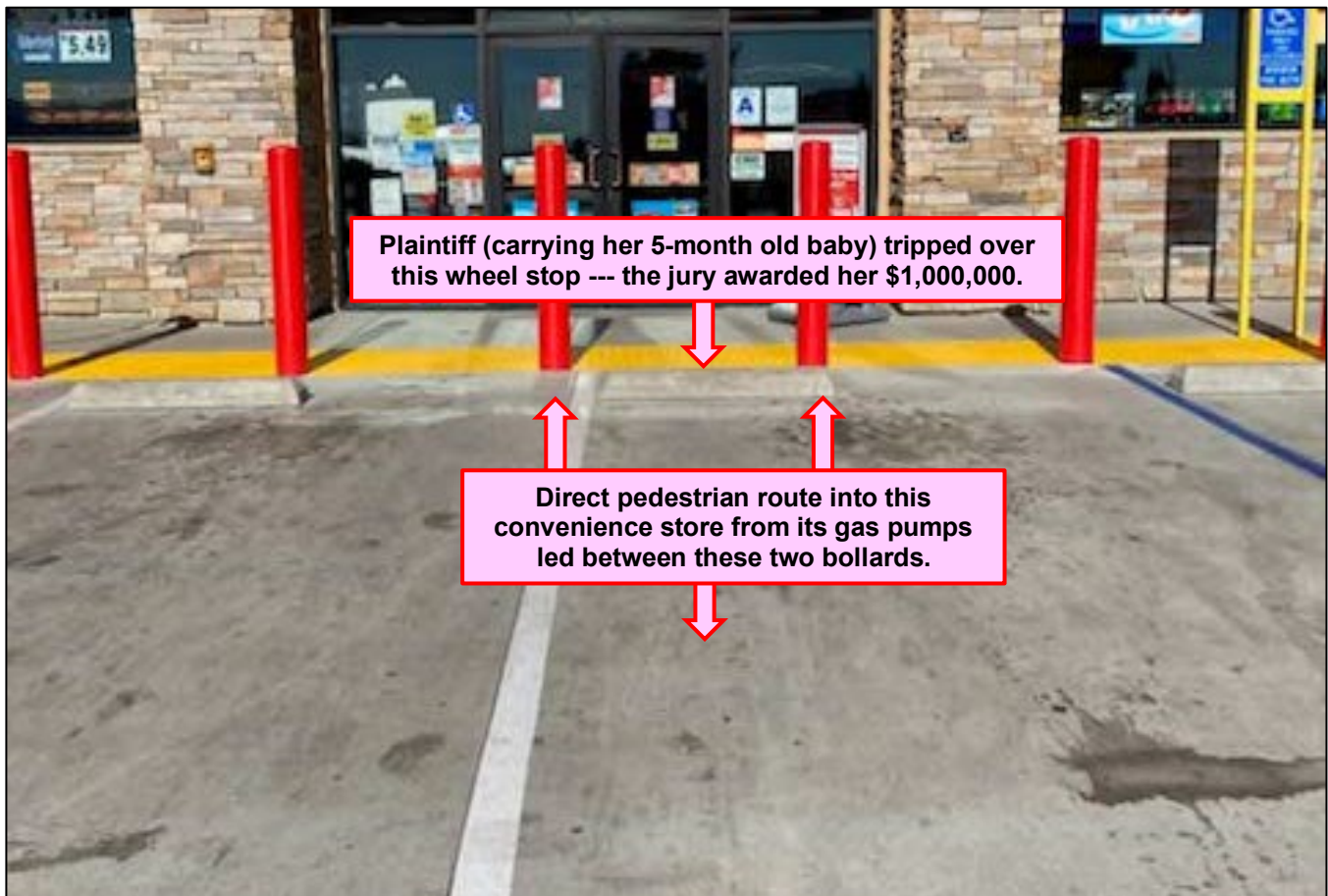


Photo 1 – At this Southern California convenience store, a primary route of pedestrian travel from the gas pumps to these entry doors led directly across this unpainted wheel stop between the two bollards --- *what could go wrong?*

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Photo 2 – At this grocery store in Southern California, a primary route of pedestrian travel from the parking lot toward the entry doors led across this wheel stop --- *what could go wrong?*

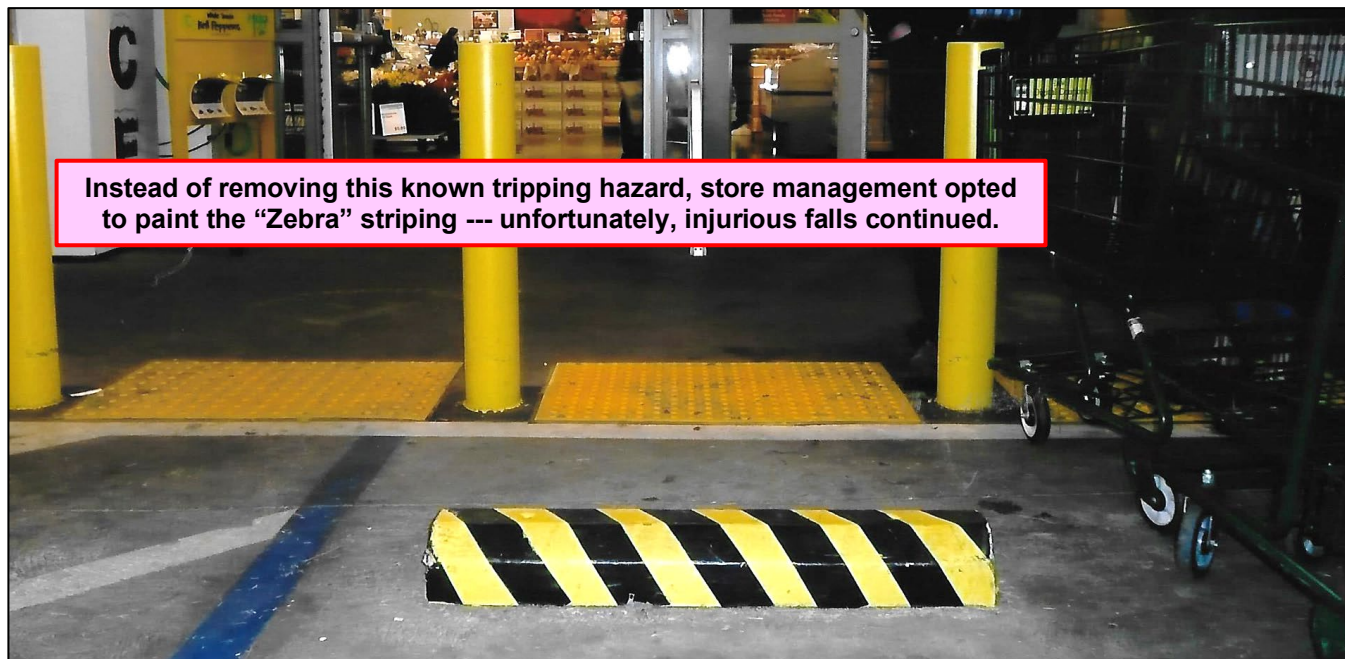


Photo 3 – The most direct route for customers exiting this Northern California store into the adjacent parking garage led across this wheel stop --- *what could go wrong?*

Evaluative Principles

When evaluating such path-of-travel hazards, designers and managers should consider the following principles:

- Where bollards have been installed, placement or continuation of such trip-and-fall hazards *never* has been required by the California Building Code or the Americans with Disabilities Act.¹
 - The only code-recommended purpose for a wheel stop is to deter potential vehicle encroachment into the “required clear width” of an accessible sidewalk or route.²
 - In the above Photos, such vehicle deterrence instead is achieved by the structural bollards.³
- We pedestrians tend to take the shortest route from Point A to Point B when walking across parking lots and through parking garages.⁴
- The greater the rate of pedestrian traffic across any particular wheel stop or comparable hazard, the greater the likelihood of pedestrian trip-and-fall incidents occurring over time --- as such, injurious falls are virtually inevitable at the heavily trafficked paths of travel seen in these Photos.
- Section 1003 (Unsafe Conditions) of the Civil Jury Instructions published by the Judicial Council of California advises jurors that a defendant property owner or manager can be deemed negligent in its use or maintenance of the property *if* the jury determines that:
 1. A condition on the property created an unreasonable risk of harm;
 2. The defendant knew or, through the exercise of reasonable care, should have known about it; and
 3. The defendant failed to repair the condition, protect against harm from the condition, or give adequate warning of the condition.⁵

Defense Arguments

During the three trials associated with the pedestrian hazards seen above, defense attorneys and their experts presented the following (highly generalized) arguments:

- These wheel stops *did* have a functional purpose: to warn drivers of the (brightly painted) bollards.
 - Our response: any claim that protection of car bumpers justifies continuation of known tripping hazards is utterly absurd --- and certainly evidences negligent safety priorities.
- Because these wheel stops were “open and obvious”, it was plaintiffs’ fault for failing to watch where they were walking.
 - Our response: while agreeing that we pedestrians should exercise reasonable care and attention, any argument that customers – while walking a commonly used path of travel – always must remain on full alert for hazards and traps set by property owners is comparably absurd.
 - We patrons have a right to expect that store designers and managers will provide and maintain safe pedestrian pathways.

¹ Reference our 2018 paper, *Uses and Misuse of Wheel Stops at Parking Spaces in California*:

https://avelar.net/articles_publications/position-paper-uses-and-misuse-of-wheel-stops-at-parking-spaces-in-california/.

² Section 502.7 (Relationship to Accessible Routes) and Advisory 502.7 of “2010 ADA Standards for Accessible Design”: <https://www.ada.gov/regs2010/2010ADASTandards/2010ADASTandards.htm>. (Note: Section 502.7 of California Building Code Chapter 11B is identically worded.)

³ Reference our 2019 paper, *Let’s Eliminate Parking ‘Wheel Stops’ at Busy Storefronts*:

https://avelar.net/articles_publications/lets-eliminate-parking-wheel-stops-at-busy-storefronts/.

⁴ Reference our 2022 paper, *Parking Space ‘Wheel Stops’ in California – Answers for Puzzled Facility Owners, Managers, and Designers*: https://avelar.net/articles_publications/parking-space-wheel-stops-in-california-answers-for-puzzled-facility-owners-managers-and-designers/.

⁵ <https://www.courts.ca.gov/partners/317.htm>

Supplemental Discussion

The three storefronts are managed by corporations owning multiple hundreds of comparable facilities across North America.

- It seems self-evident that experienced designers, store managers, and risk assessment professionals serving such corporations *should* proactively recognize – well prior to a trip-and-fall incident – that positioning wheel stops in intended paths of customer travel is not a good idea.
- Further, it seems self-evident that properly trained managers *would* – after the first incident on these heavily trafficked pedestrian routes – take action to remediate (or eliminate) such tripping hazards.
- Even so, only after serious injuries and ensuing litigation were these wheel stops removed --- as noted, such negligent inaction at the Photo 1 store above led to a \$1,000,000 verdict for the plaintiff.

California’s decades-long epidemic of trip-and-fall injuries at wheel stops readily could be eradicated by simply eliminating these hazards where feasible:

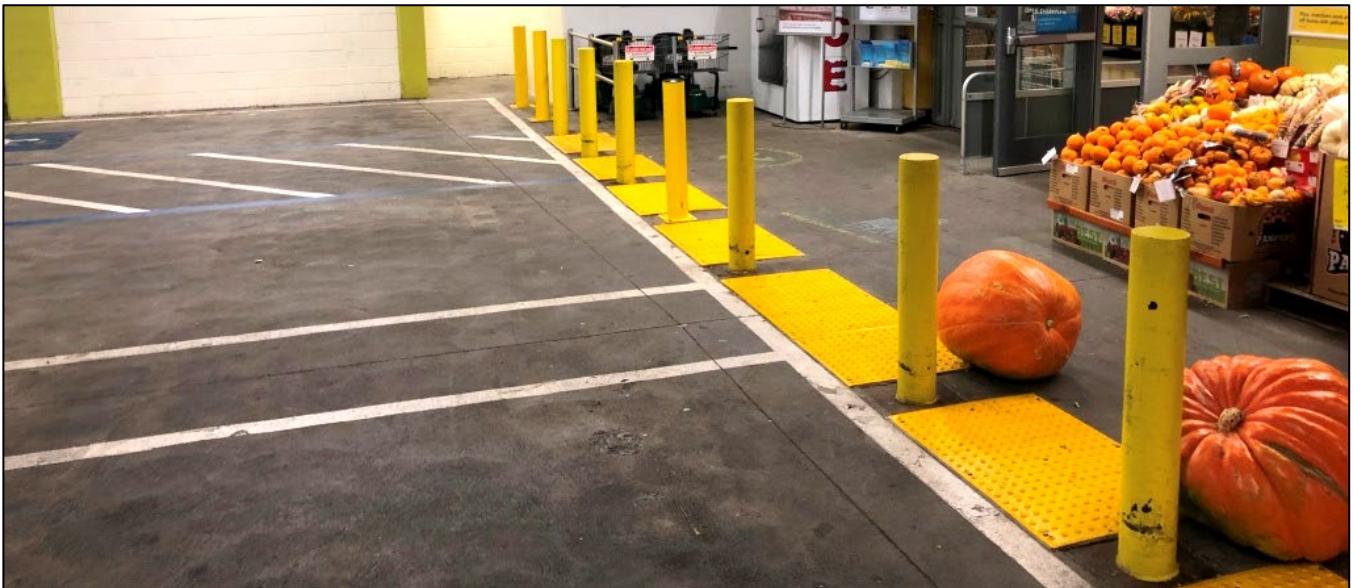


Photo 4 – The structural bollards at this Northern California store eliminated any need for wheel stops.



Photo 5 – Designers of this Southern California parking lot similarly elected to eliminate wheel stop tripping hazards.

We applaud owners, designers, and managers who recognize the trip-and-fall risks associated with wheel stops and proactively take steps to eliminate their use at busy storefronts and similar heavily trafficked pedestrian routes.

Sincerely,

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Key References:

- L. Haughton, J. Agnello, AIA, D.M. Field, AIA, *Uses and Misuse of Wheel Stops at Parking Spaces in California*: https://avelar.net/articles_publications/position-paper-uses-and-misuse-of-wheel-stops-at-parking-spaces-in-california/.
- L. Haughton, J. Agnello, AIA, and D.M. Field, AIA, *Let’s Eliminate Parking ‘Wheel Stops’ at Busy Storefronts*: https://avelar.net/articles_publications/lets-eliminate-parking-wheel-stops-at-busy-storefronts/.
- L. Haughton and D.M. Field, AIA, *Parking Space ‘Wheel Stops’ in California – Answers for Puzzled Facility Owners, Managers, and Designers*: https://avelar.net/articles_publications/parking-space-wheel-stops-in-california-answers-for-puzzled-facility-owners-managers-and-designers/.