TRIP AND FALL EXPOSURES: Elevation Changes in Walking and Working Areas

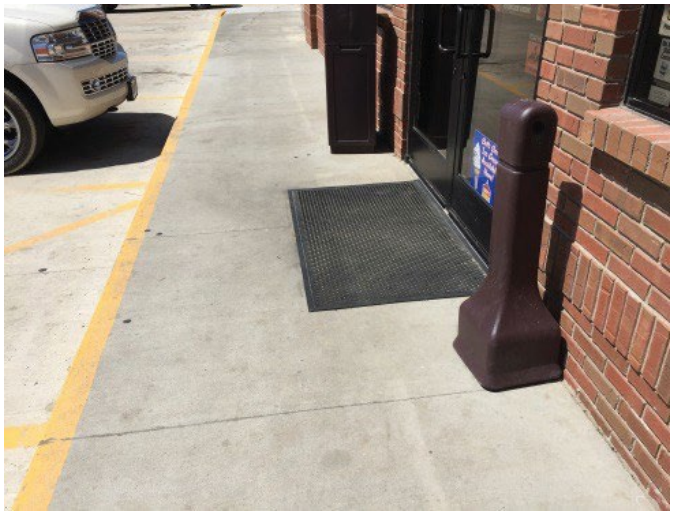
The first step in reducing tripping hazards in the workplace is to identify them, and the first step in identification is employee training. Training should focus on recognition. Employees should understand the importance of not just recognizing tripping hazards but reporting them to management. Emphasis should be placed on repairing or eliminating the hazard at the time of recognition.

Walking and working areas should be kept clean, smooth and free of obstructions or anything on which an employee or customer could trip. Most tripping hazards can be corrected easily by removing items from walkways, painting areas to better identify a change in elevation and using quality floor mats. Simply keeping areas clean and clear will go a long way to reducing tripping hazards in the workplace. Although it's not as easily corrected, uneven pavement and concrete can be shaved or ground to create a smooth transition.

Here are some examples of areas and items that may be considered tripping hazards and suggestions to help identify and eliminate them:

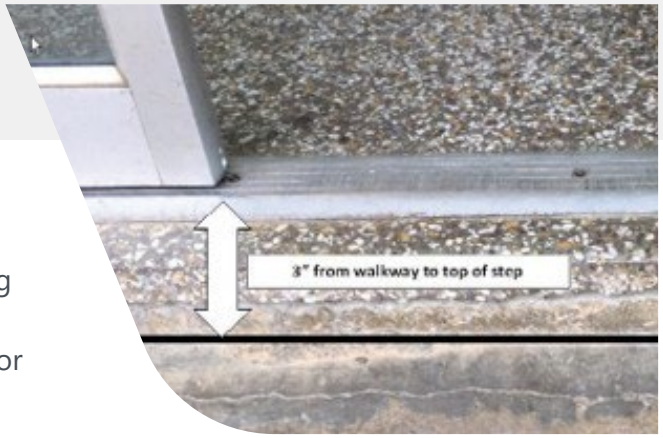
Shaded Areas or Obstructed Walkways

A shaded area can make elevation changes difficult to see. Keep walkways clear and paint the edges of walkways with a safety yellow or contrasting color to make the elevation change more identifiable. Stacking items on walkways also creates a hazard. An item can create a tripping hazard on its own, but items stacked along a walkway's sides narrow it, creating a funnel effect that forces customers to walk close to the sides of walkway. This increases the likelihood that a customer's foot will touch a stacked item and trip him.



Building Entrances

Entrances should be level inside and outside the door and should also be at least the width of the door (e.g., a 36" door should have a level entry of 36"). An entry should not have any changes in elevation that exceed ½". Any changes in excess of ½" should be ground smooth. Ideally, any changes in excess of ¼" should be addressed. Thresholds should be beveled to make a smooth, trip free entry into and out of the building. For areas like that depicted in the image below, a ramp should be built to eliminate tripping hazards. The ramp should comply with local building codes and the Americans with Disability Act (ADA).



Floor Mats

Floor mats help remove moisture and soil from shoes when entering a building. Mats can create hazards if they're not of good quality or are not properly maintained. Using good quality, rubber backed floor mats that lay flat and do not ripple will reduce tripping hazards. Below is a picture of a rippled mat.

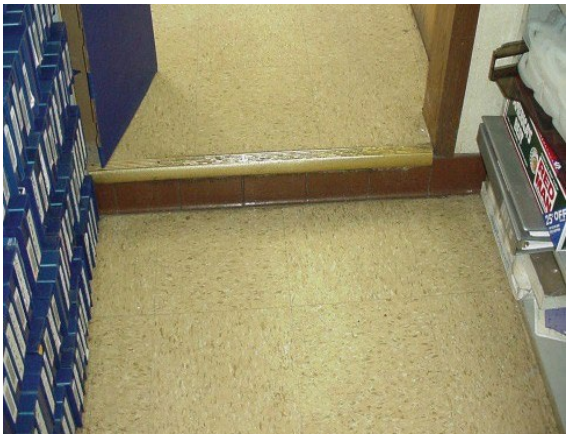
Vehicle Bumpers

Vehicle traffic bumpers that are concrete can blend into the concrete pavement, making them less visible. They should be painted a safety yellow or a contrasting color to clearly identify them. In this example, notice that the sidewalk is a different color, providing a contrast that clearly differentiates the change in elevation.

Interior Elevation Changes

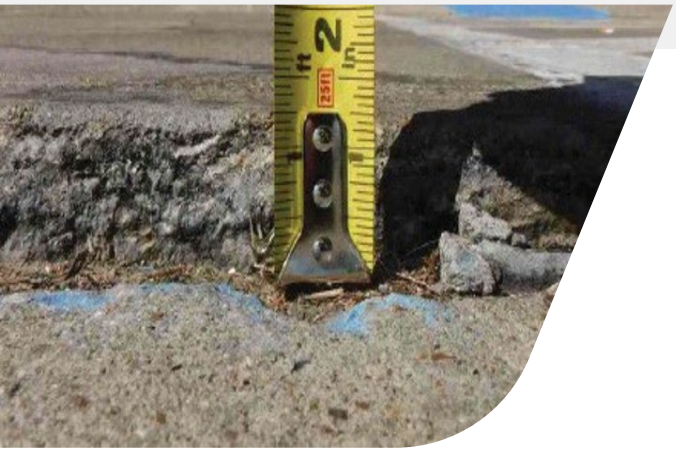
Elevation changes within a facility present a severe trip and fall hazard if not clearly identified. This transition should be clearly identified as a change in elevation or changed to a ramp configuration. A ramp will also aid in accessibility. The elevation change should be painted with a slip resistant contrasting color, such as caution yellow. Place a sign that says "Watch your step."

Drains like those in bathrooms can also pose a risk of tripping if they are not level with the surrounding floor. They should have covers that are mounted securely and are level with the walking surface.



Pavement Shifting

Parking lots and walkways may have sections of pavement that have shifted as a result of freezing or thawing, flooding, or soil erosion, or have become damaged over time from the weight of large trucks. These elevation changes, especially those of ½" or more, can create tripping hazards that should be repaired as soon as possible.

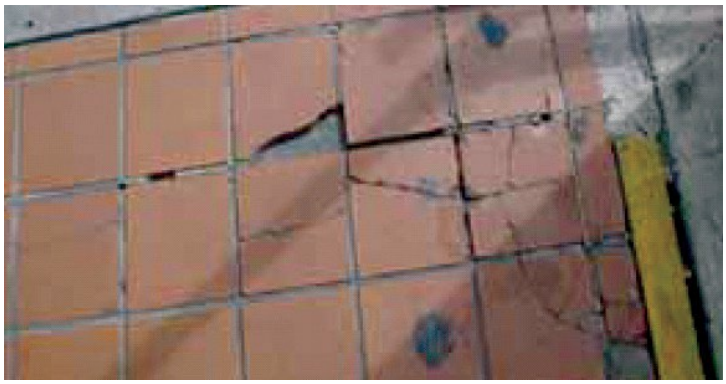


Concrete Shaving

Replacing sections of pavement, whether concrete or asphalt, can be expensive and time consuming. A more cost effective and time efficient way to reduce tripping hazards is by shaving the edge of the pavement. As a result, what was a tripping hazard will be eliminated, and in a way that is ADA compliant.

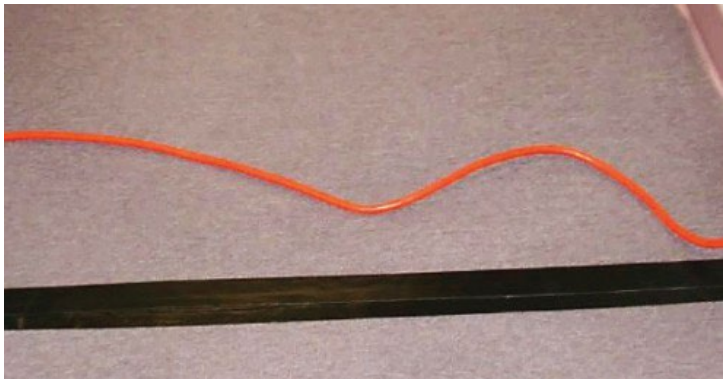
Damaged Tile and Walking Surfaces

Damaged tiles, whether inside or outside, can be considered tripping hazards. These areas present the potential for shoes to slip, their heels to catch, or their toes to stub. These areas should be identified and repaired immediately.



Electrical Cords and Hoses

These items are always tripping hazards if they are in an area of travel and should be avoided at all times. If they must be used, block off the area to prevent pedestrian traffic.



Holes, Depressions and Damaged Covers

These areas should be identified and repaired as soon as possible. If there are areas in need of maintenance, they should be barricaded to prevent tripping or falling.

What Color?

Safety yellow paint is the most common color used when painting a surface to indicate an elevation change. Yellow is the basic color designating caution. It is commonly used for marking physical hazards that pose the risk of contact, stumbling or tripping.

Some companies are hesitant to use yellow because it's not complementary to their color schemes, but differentiating changes in elevation so that they are readily visible should be the primary consideration. Some municipal codes have color requirements. A general purpose paint is usually not the best choice as it may wear off quickly and can create a slick surface. Commercial traffic and zone marking paints with slip resistant properties are available.

Summary

What to consider?

+ Train employees on how to identify report and eliminate tripping hazards.
+ Develop a consistent program to inspect and observe the premises for tripping hazards.
+ Repair or eliminate tripping hazards immediately, when possible. If not, barricade the area until a repair has been completed.
+ Identify changes in elevation such as sidewalks, curbs, speed bumps, and wheel stops with a contrasting paint color.
+ Use paint designed for striping that is slip resistant. Follow the manufacturer's recommendations.
+ If hiring a paint contractor or any contractor for working on the premises, obtain a certificate of insurance.
+ When painting, barricade the area to prevent anyone from walking or running on the paint before it is dried.
+ Use signage when and where appropriate to alert employees and customers, such as at a step that cannot be eliminated.
+ Consider concrete shaving. This is a specialized process that should only be preformed by a qualified person or contractor. Any bump may create a tripping hazard. Special attention should be given to any bump over ½".
+ Recent federal laws such as the CAA and the Affordable Care Act have added additional layers of obligation, particularly around transparency and access to data. Employers now have more tools than ever to track cost and performance, but this also raises the bar for compliance.

Reporting of a customer injury due to a tripping hazard:

1. Attend to the customer in a friendly and helpful manner.
2. Assist with medical attention as necessary.
3. Document the incident on your company's incident injury report.
4. Take photos of the area of incident.
5. Report to management.
6. Contact IMA's claims department as soon as possible.

Information provided by Crum & Forster.

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