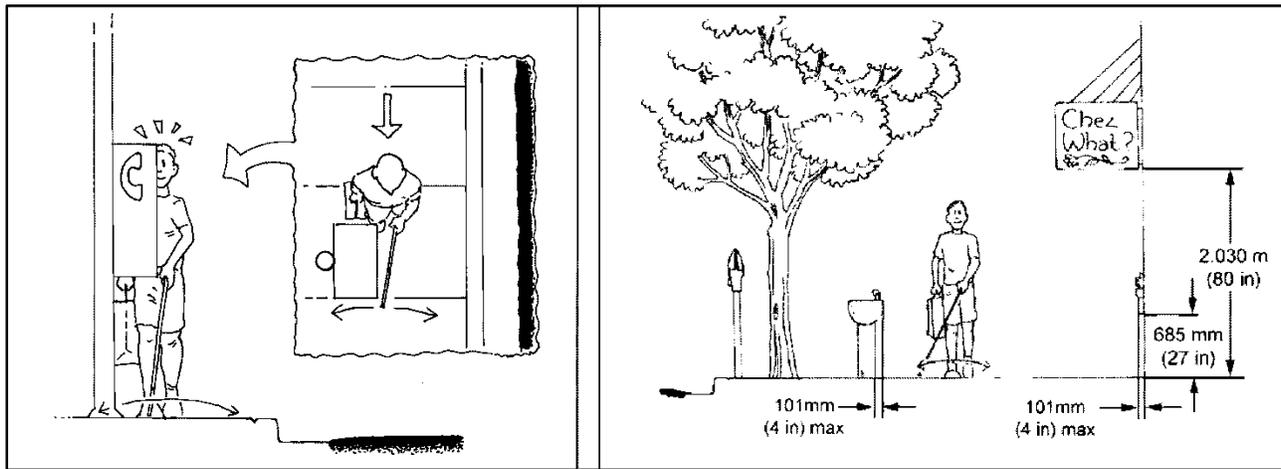


## Sidewalk Design Concepts

From "Designing Sidewalks and Trails for Access / Part II of II: Best Practices Design Guide", September 2001, (<http://www.fhwa.dot.gov/environment/sidewalk2/pdf.htm>)

### Protruding Objects and Vertical Clearance

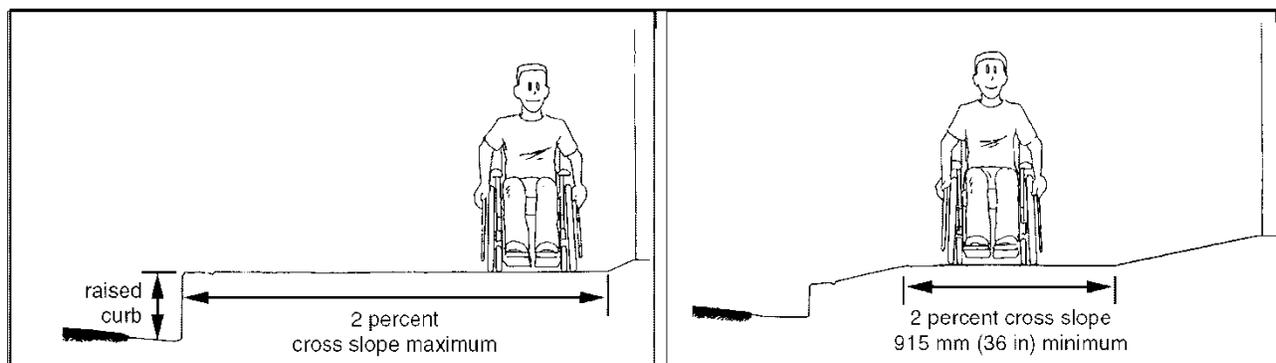


The two most important issues for people with vision impairments along the pedestrian corridor are protruding objects and vertical clearance. Objects that protrude into the sidewalk corridor but are higher than 6.7 ft are not a problem for people with vision impairments because most people require less than 6.7 ft of headroom. In addition, people who use long white canes to navigate will usually detect and avoid objects on the sidewalk that extend below 2.3 ft. Guide dogs take their owners around obstacles.

- Objects mounted on a post should protrude only 4 in.
- Wall mounted objects should protrude only 4 in.
- Signs mounted between two posts with a clear distance greater than 12 in. should be connected with a bar 15 in above the walking surface.

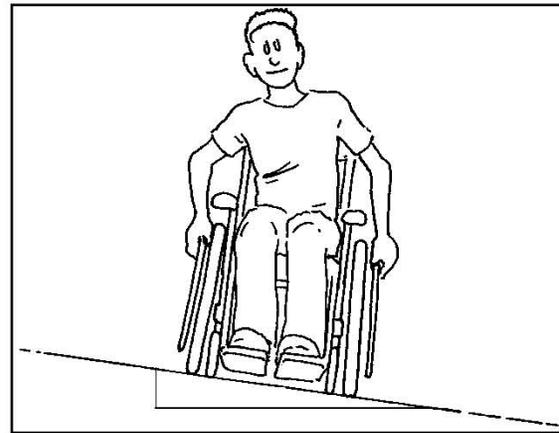
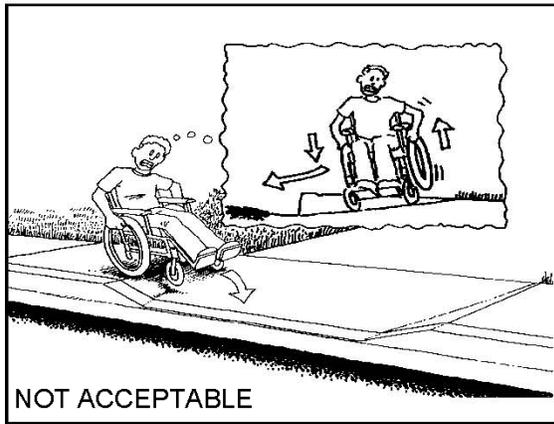
In all scenarios, the least amount of protrusion should be used. Furthermore, because people with vision impairments cannot detect the abstract division of the zones, protruding objects should be eliminated from the entire paved portion of the corridor.

### Elevation Difference between Street and Building



Raise the curb or provide a fillet no more than a foot wide at the edge of the building or the combination of both to make up the elevation difference. Less desirable is to create a level area at least 36 in. wide (5 feet or wider where possible) in the center of the sidewalk and slope the edges.

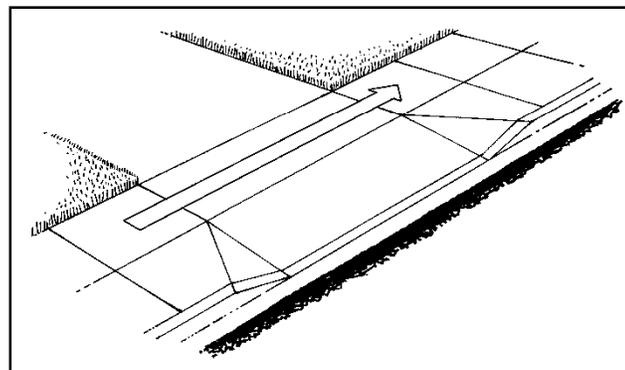
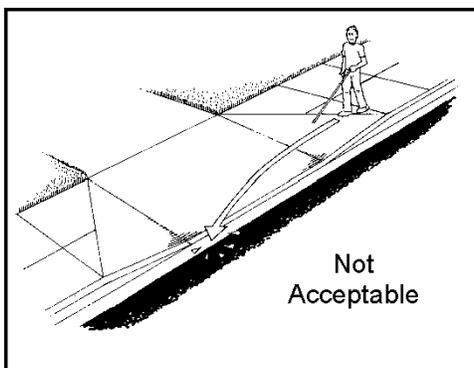
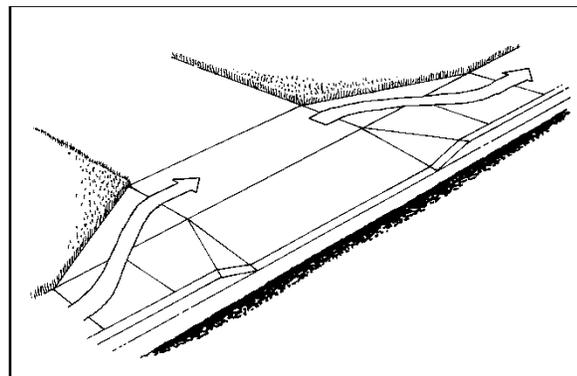
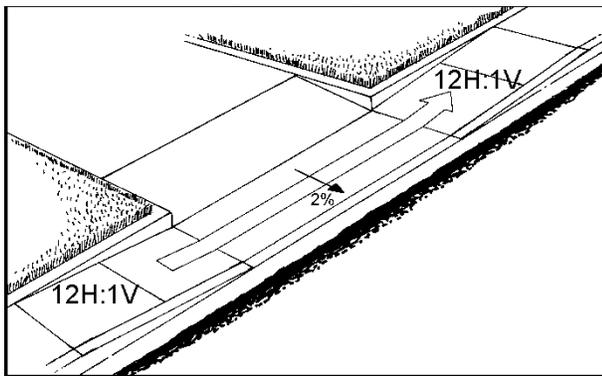
**Cross Slope**



Unlike grade, cross slope is not determined by the contours of the roadway. In all scenarios, the cross slope of the pedestrian corridor is 2%.

It is critical that the masons and carpenters are trained to understand how the 2% maximum benefits people with mobility impairments. Unfortunately, in many instances, the cross slope is designed for 2%, but then increased during construction either through unintentional error or as a way to improve drainage.

**Sidewalks Crossing Driveways**



On a narrow sidewalk, where space is at a premium, a sidewalk landing can be maintained by adding additional right-of-way just at the driveway. This can be done by purchasing the additional land or obtaining an easement from the adjacent property owner.

Gradually sloped driveway crossings are beneficial to people with mobility impairments, they can be problematic for people with vision impairments unless there is a detectable difference in slope at the edge of the street. If a person with a vision impairment veers towards the street and is not able to recognize where the driveway ends and the street begins, they may enter the street without realizing it.

Having the steeper driveway apron with a 2% cross slope 36-inches wide at the top serves as an effective way to slow motorists and accommodate pedestrians. Check the apron slope so the vehicle doesn't bottom-out at the front or rear.