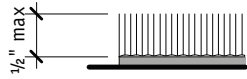


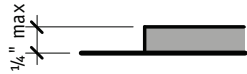
## Level Changes



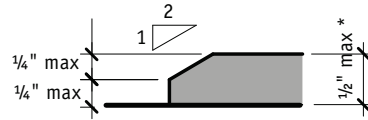
**Carpet Pile Height**

A slope of 1:2 is equivalent to a 30° slope from the horizontal

*\*3/4" allowed for existing thresholds with a 1:2 max slope*

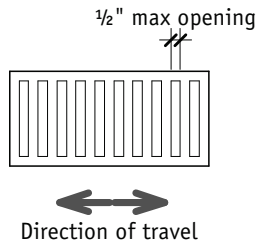


**Max Vertical Level Change**



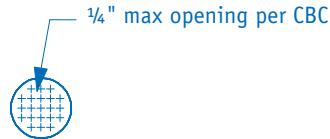
**Max Level Change without ramp typ @ threshold**

## Openings In Floor Surfaces



**Grates**

• Long dimension of openings perpendicular to direction of travel



**Shower Floor Drains**

## Walking Surfaces

### Notes:

- Ground and floor surfaces are stable, firm, and slip resistant with the exception of sports activity areas
- Walking surfaces have a cross slope of 1:48 maximum with a slope of 1:20 or less in the direction of travel, *except for the running slopes on sidewalks which are a maximum slope matching the general grade of the adjacent street in the direction of travel per CBC*
- Walking surfaces greater than a 1:20 slope are considered curb ramps or pedestrian ramps
- Level area is defined as having a maximum slope in any direction of 1:48
- *Sloped walkways have a 60" deep minimum level area (1:48 or less) in the direction of travel at 400 LF maximum for the full width of the walkway per CBC*
- *Walking surfaces with an abrupt change in level exceeding 4" at the edge require a 6" height curb or a guide rail if a hand or guard rail exists per CBC*
- Changes in level and thresholds can be vertical up to 1/4" maximum height, and changes between 1/4" to 1/2" should have a bevel with a 1:2 slope maximum ( $\approx 30^\circ$ ); changes in level more than 1/2" should be ramped except at areas of sports activities
- ~~Thresholds have a 1/2" maximum height change with 1/4" vertical and from 1/4" to 1/2" at a 1:2 maximum slope; existing thresholds can be 3/4" with a 1:2 maximum bevel on each side per CBC~~
- Carpet and carpet tiles have 1/2" maximum height pile and are securely attached to the floor with firm or no pad with all exposed edges trimmed and fastened to the floor
- Openings in ground and floor surfaces are 1/2" maximum whether in grates, tree wells, or between pavers with the exceptions of the elevator/lift hoistway edge to car platform edge, and rail platforms at track crossings
- Elongated openings are 1/2" maximum in walking surfaces with the 1/2" slot openings perpendicular to the direction of travel
- *Shower floors have a 1:48 maximum slope and drains in showers have grates flush with the adjacent floor surface with openings of 1/4" maximum per CBC*

# Walking Surfaces – Sources

## ADA Sources

**302** Floor or Ground Surfaces

**302.2** Carpet

**302.3** Openings

**303** Changes in Level

**305.2** Clear Floor or Ground Space - Floor or Ground Surfaces

**403.3** Walking Surfaces - Slope

**404.2.5** Thresholds

**407.4.3** Elevator Car Requirements - Platform to Hoistway Clearance

**410.4** Platform Lifts - Platform to Runway Clearance

**810.10** Transportation Facilities - Track Crossings

## CBC Sources *(sources shown in blue italics differ from ADA)*

**11B-302** Floor or Ground Surfaces

**11B-302.2** Carpet

**11B-302.3** Openings

**11B-303** *Changes in Level*

**11B-305.2** Clear Floor or Ground Space - Floor or Ground Surfaces

**11B-403.3** *Walking Surfaces - Slope*

**11B-403.7** *Walking Surfaces - Continuous Gradient*

**11B-404.2.5** *Thresholds*

**11B-407.4.3** Elevator Car Requirements - Platform to Hoistway Clearance

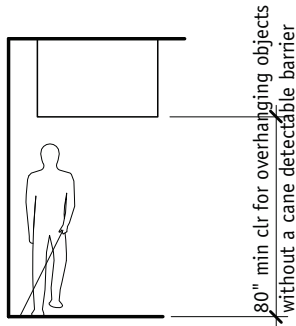
**11B-410.4** Platform Lifts - Platform to Runway Clearance

**11B-608.9** *Shower Floor or Ground Surface*

**11B-810.10** Transportation Facilities - Track Crossings

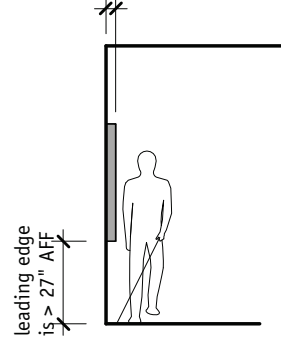
**Advisory 11B-302.1** *Floor or Ground Surfaces - General*

## Overhanging Objects



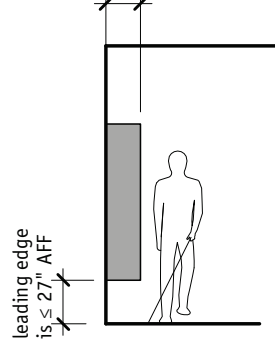
## Projecting Objects

4" max projection without a cane detectable barrier



Leading Edge > 27" AFF

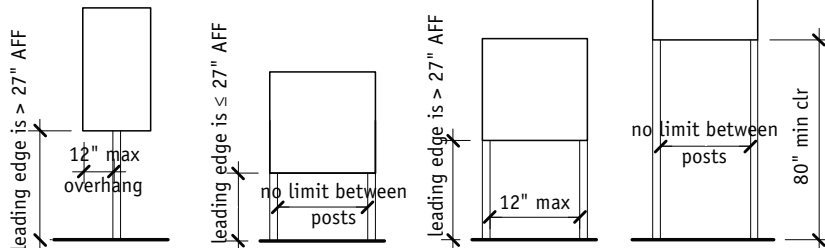
any projection depth



Leading Edge ≤ 27" AFF

## Post Mounted Objects

- No limits if leading edge is ≤ 27" or ≥ 80"

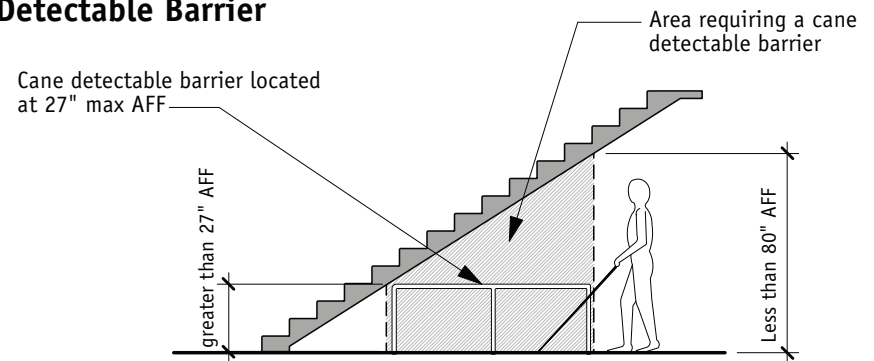


## Protruding & Overhanging Objects

### Notes:

- Protruding objects can project into a circulation path but can not reduce the required clear width on an accessible route
- Objects can project from a vertical surface 4" maximum when the leading edge is above 27" above finished floor (AFF) and below 80" AFF, unless there is a cane detectable barrier
- Objects can project or overhang any amount if the leading edge is either 80" or more AFF or 27" or less AFF, otherwise a cane detectable barrier is required
- Post-mounted objects can overhang 12" maximum when the leading edge is above 27" AFF and below 80" AFF unless there is a cane detectable barrier
- Double post-mounted objects can have 12" maximum clear between posts if the leading edge is greater than 27" AFF and less than 80" AFF otherwise a cane detectable barrier is required
- Handrails are allowed to protrude from the face of the wall 4½" maximum, 3½" maximum into the required clear width on both sides of ramps, and no protrusion in the required clear width at stairs per CBC
- Sloping portions only of stairs and ramp handrails can project from a post more than 12"
- Where a guy support is located parallel to a circulation path a guy brace, sidewalk guy, or similar device is required per CBC
- Within areas of sports activity there is no projection limitation into circulation paths
- All accessible van parking stalls, their access aisle, and the full vehicular route from the entry, to the stall, and to the exit has a 98" minimum clear height per CBC
- Provide vertical clearance of 114" minimum for all passenger loading areas, the accessible pull up space, loading area, and the 1 full vehicular route serving the area
- Edges of post-mounted objects have a ⅛" min radius if less than 80" above grade per CBC
- No projections into the required clear opening width on a door below 34" AFF and 4" maximum projection between 34" AFF and 80" AFF with the exception in alterations of a ⅝" door stop on the latch side
- Door stops and closers are 78" minimum AFF

## Cane Detectable Barrier



# Protruding & Overhanging Objects – Sources

## ADA Sources

204.1 Protruding Objects - General - Exceptions - 1

307 Protruding Objects

404.2.3 Manual Doors, Doorways... - Clear Width

502.5 Parking Spaces - Vertical Clearance

503.5 Passenger Loading Zones - Vertical Clearance

## CBC Sources (*sources shown in blue italics differ from ADA*)

*11B-204.1* Protruding Objects - General - Exceptions - 1

*11B-307* Protruding Objects

*11B-404.2.3* Manual Doors, Doorways... - Clear Width

*11B-405.5* Ramps - Clear Width

*11B-502.5* Parking Spaces - Vertical Clearance

*11B-503.5* Passenger Loading Zones - Vertical Clearance