



INFORMATION SHEET

NO. DA-07

DATE : September 2, 2014
CATEGORY : Disabled Access
SUBJECT : **Rails or Barriers for Protruding Objects**

SECTIONS INVOLVED : **2013 California Building Code (CBC) Sections 11B-307.4 Vertical Clearances**
U.S. Access Board Commonly Asked Questions; Protruding Objects

INTENT : To clarify the CBC requirements regarding the minimum dimensions of a detectable barrier or guardrail required at protruding objects.

DISCUSSION :

CBC Section 11B-307.4 Vertical Clearances states that where objects protrude into a circulation path by more than 4 inches above 27" or below 80", a barrier or guardrail shall be provided. The code section stipulates that the leading edge of such barriers or guardrails shall be a maximum of 27" above the finished floor or ground. The code is silent on what the minimum height of the guardrail or barrier shall be.

The purpose of the barrier or guardrail is so that a person with a sight disability may detect the barrier and not inadvertently injure themselves by walking into the protruding object. Taking into account that there are multiple types and degrees of sight disabilities, it is imperative that any barrier that is provided be functional for as many people as possible.

This Information Sheet was requested in light of a recent architectural trend towards extremely low profile cane detection rails. Field inspectors have encountered cane detection rails as low as 1" or less.

One party has used the 2009 ICC ANSI A117 commentary regarding this section as a justification for this low height. The commentary stated "Note that whatever barrier is chosen, it must be detectable by a long cane." This could be a full height wall, a low rail, a planter, etc (see commentary Figure C307.4). At the same time, a platform or curb under a stair would be detectable, but if it could be perceived by a person with low vision as a step up, rather than a barrier, it would not meet the intent of this provision.

The U.S. Access Board in their Commonly Asked Questions; Protruding Objects brochure raises the same concern about confusing a barrier for a step or change in elevation, the Board, however, recommends raising the height of the barrier rather than lowering it.

The Access Board states:” The standards specify a maximum height (27”) for the leading edge of barriers so they are within cane sweep, but a minimum height is not specified. Curbs may be mistaken for a step or change in level, instead of a barrier. For this reason, barriers significantly higher than a curb or riser, such as a guardrail, planter box, bench, parapet wall, or similar elements are recommended.”

As the code language is developed by the U.S. Access Board, it is reasonable to accept their interpretation. Webster’s New College Dictionary defines barrier as “a structure, as a fence or wall, built to bar passage.”

It is therefore advised that low lying rails less than 6” in height do not meet the intent of the code and should be disallowed in plan review and inspection. Additionally, in order to address the visual concerns, it is strongly recommended that these barriers and rails be constructed of contrasting colors, as is required by the San Francisco Mayor’s Office on Disabilities (MOD) for City projects.

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9/2/14

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Date

Director

Department of Building Inspection

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