

Window Sills
2008 Oregon Residential Specialty Code
Section R613.2

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The International Codes Council recently concluded the 2009 code development process with its Final Action Hearings in Minneapolis, MN. One of the successful International Residential Code (IRC) change proposals (RB 173-07/08) significantly modified the window sill requirements of R613.2.

The changes were prompted by reports issued by the U.S. Consumer Products Safety Commission (CPSC). Between 2002 and 2004, the CPSC staff received an average of 25 reports each year regarding fatalities associated with falls from windows. Between April and May of 2008, the CPSC reported at least 18 falls from windows, including two deaths, involving small children.

The Oregon Building Codes Division, in concert with the Residential Structures Board, recently adopted amendments to section R613.2 of the 2008 Oregon Residential Specialty Code (ORSC). These amendments are based, in part, on the 2009 IRC changes.

The changes to ORSC section R613.2 may be characterized as;

1. Clarifying that this section is only applicable to operable glazing below the 24 inch threshold.
2. Adding a new section (R613.2.1) as a reminder that the window opening fall prevention device cannot reduce the minimum net clear opening area of the window below what is required by Section R310.1.1 (*5 sq. ft. for windows at grade, 5.7 sq. ft. elsewhere*).
3. The reference standard ASTM F 2006 is being deleted from this section because it is only applicable to windows that are not designated for emergency escape or rescue in installations more than 75 feet above ground level in multiple family dwellings. ASTM F 2090 as revised/updated in 2008, is adopted as it is the specification for "*Window Fall Prevention Devices with Emergency Escape Release Mechanisms*."

ASTM F 2090 (Revised/Updated 2008):

This specification applies to window fall prevention devices that are to be used on any windows, including those that are designated for emergency escape (egress) and rescue (ingress). As noted in Section 1.1 of the standard, "*This specification establishes requirements for devices intended to address the risk of injury and death associated with accidental falls from windows by children five years old and younger.*" The performance expectation of constraint devices which comply with this standard is set forth in Section 4.1,

which states: “*Window fall prevention devices shall be constructed so as to prohibit the free passage of a 4.0 inch diameter rigid sphere at any point, during or after testing as specified in Section 8, when the window fall prevention device is installed in accordance with the manufactures instructions.*”

Section 4a addresses the operation of the emergency escape release mechanism. Paraphrasing the key operational functions:

- Devices must be designed to release without the need for special tools or special knowledge
- Operation shall be accomplished with a minimum amount of effort (no more than 15 lbf) of force
- To protect against inadvertent operation by a young child, the release mechanism(s) requires two distinct actions to operate
- The release mechanisms must have their operating mechanisms clearly identified for use in an emergency

In addition, release devices cannot be designed in a manner which accommodates the use of locking devices which require special tools or knowledge to operate, such as combination locks or keyed locks.

2008 ORSC has been amended as follows:

R613.2 Window sills. In dwelling units, where the opening of an operable window is located more than 72 inches (1829 mm) above the finished grade or surface below, the lowest part of the clear opening of the window shall be a minimum of 24 inches (610 mm) above the finished floor of the room in which the window is located. Operable sections of windows shall not permit openings that allow passage of a 4 inch diameter sphere where such openings are located within 24 inches of the finished floor.

Exceptions:

1. Windows whose openings will not allow a 4-inch-diameter (102 mm) sphere to pass through the opening when the opening is in its largest opened position.
2. Openings that are provided with window fall prevention devices that comply with the requirements of ASTM F 2090 (Revised/Updated 2008).

R613.2.1 Operation for Emergency Escape. The window opening fall prevention device shall not reduce the minimum net clear opening area of the window unit below what is required by Section R310.1.1 of the code.

Revise Chapter 43 as follows:

ASTM F 2090 (Revised/Updated 2008) Specification for Window Fall Prevention

Insert pages for the Oregon Residential Specialty Code are available at the following URL:

http://www.cbs.state.or.us/external/bcd/programs/residential/20081006_supp_cc.pdf