



**Town of Kent
Building Inspector Office
25 Sybil's Crossing
Kent Lake NY 10512**

NYS- IRC Code Requirements for

RESIDENTIAL Guards(Railing), Handrails, Windows Fall Protection

The following information sheet contains important excerpts from the 2015 IRC code

***R311.7.8 - Handrails** shall be provided on not less than one side of each continuous run of treads or flight with four or more risers.

***R311.7.8.1 Handrail Height** is, measured vertically from the sloped plane adjoining the tread nosing, or finish surface of ramp slope, shall be not less than 34 inches and not more than 38 inches.

Exceptions:

1. The use of a volute, turnout or starting easing shall be allowed over the lowest tread.
2. Where handrail fittings or bendings are used to provide continuous transition between flights, transitions at winder treads, the transition from handrail to /guard/, or used at the start of a flight, the handrail height at the fittings or bendings shall be permitted to exceed 38 inches.

R311.7.8.2 - Continuity.

Handrails for stairways shall be continuous for the full length of the flight, from a point directly above the top riser of the flight to a point directly above the lowest riser of the flight. **Handrail ends shall be returned or shall terminate in newel posts or safety terminals.**

Handrails adjacent to a wall shall have a space of not less than 1-1/2" inches between the wall and the handrails.

Exceptions:

1. Handrails shall be permitted to be interrupted by a newel post at the turn.
2. The use of a volute, turnout, starting easing or starting newel shall be allowed over the lowest tread.



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R311.7.8.3 –Handrail - Grip-size.

Required handrails shall be of one of the following types or provide equivalent graspability.

1. Type I. Handrails with a circular cross section shall have an outside diameter of not less than 1-1/4 inches and not greater than 2 inches. If the handrail is not circular, it shall have a perimeter dimension of not less than 4 inches and not greater than 6-1/4 inches with a cross section of dimension of not more than 2-1/4 inches. Edges shall have a radius of not less than 0.01 inch.
2. Type II. Handrails with a perimeter greater than 6-1/4 inches shall have a graspable finger recess area on both sides of the profile. The finger recess shall begin within a distance of 3/4 inch measured vertically from the tallest portion of the profile and achieve a depth of not less than 5 /16 inch within 7/8 inch below the widest portion of the profile.

This required depth shall continue for not less than 3/8 inch, to a level that is not less than 1-3/4 inches below the tallest portion of the profile. The width of the handrail above the recess shall be not less than 1-1/4 inches and not more than 2-3/4 inches . Edges shall have a radius of not less than 0.01 inch.

***R311.7.8.4 - Exterior plastic composite handrails** shall comply with the requirements of Section R507.3.

***R311.7.9 - Illumination.** *Stairways shall be provided with illumination in accordance with Section R303.7.



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2015-IRC Code - SECTION R312 GUARDS AND WINDOW FALL PROTECTION

R312.1 Guards. - Shall be provided in accordance with Sections R312.1.1 through R312.1.4.

***R312.1.1 Where required.** Guards shall be located along open-sided walking surfaces, including stairs, ramps and landings, that are located more than 30 inches measured vertically to the floor or grade/ below at any point within 36 inches horizontally to the edge of the open side. Insect screening shall not be considered as a guard.

***R312.1.2 Height.**

Required guards at open-sided walking surfaces, including stairs, porches, balconies or landings, shall be not less than 36 inches in height, as measured vertically above the adjacent walking surface or the line connecting the leading edges of the treads.

Exceptions:

1. Guards on the open sides of stairs, shall have a height not less than 34 inches measured vertically from a line connecting the leading edges of the treads.
2. Where the top of the guard serves as a handrail on the open sides of stairs, the top of the guard shall be not less than 34 inches and not more than 38 inches as measured vertically from a line connecting the leading edges of the treads.

***R312.1.3 Opening limitations.**

Required guards shall not have openings from the walking surface to the required guard height that allow passage of a sphere 4 inches in diameter.



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Exceptions:

1. The triangular openings at the open side of stair, formed by the riser, tread and bottom rail of a guard, shall not allow passage of a sphere 6 inches in diameter.
2. Guards on the open side of stairs shall not have openings that allow passage of a sphere 4³/₈ inches in diameter.

*** R312.1.4 - Exterior plastic composite guards.**

Plastic composite exterior guards shall comply with the requirements of Section R317.4.

R312.2 Window fall protection.

Window fall protection shall be provided in accordance with Sections R312.2.1 and R312.2.2.

***R312.2.1 Window sills.**

In dwelling units, where the top of the sill of an operable window opening is located less than 24 inches above the finished floor and greater than 72 inches above the finished grade or other surface below on the exterior of the building, the operable window shall comply with one of the following:

1. Operable windows with openings that will not allow a 4-inch-diameter sphere to pass through the opening where the opening is in its largest opened position.
2. Operable windows that are provided with window fall prevention devices that comply with ASTM F 2090.
3. Operable windows that are provided with window opening control devices that comply with Section R312.2.2.



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R312.2.2 - Window opening control devices.

Window opening control devices shall comply with ASTM F 2090. The window opening control device, after operation to release the control device allowing the window to fully open, shall not reduce the net clear opening area of the window unit to less than the area required by Section R310.2.1. *