



# IRC Code Handout Handrails

**R311.7.8 Handrails:** Handrails shall be provided on not less than one side of each flight of stairs with four or more risers.

**R311.7.8.1 Height:** Handrail height, measured vertically from the sloped plan adjoining the tread nosing, or finish surface of ramp slope, shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm).

**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 (965 mm).

**R311.7.8.2 Handrail projection:** Handrails shall not project more than 4 ½ inches (114 mm) on either side of the stairway.

**Exception:**

Where nosing's of landings, floors or passing flights project into the stairway reducing the clearance at passing handrails, handrails shall project not more than 6 ½ inches (165 mm) into the stairway, provided that the stair width and handrail clearance are not reduced to less than that required.

**R311.7.8.3 Handrail clearance:** Handrails adjacent to a wall shall have space of not less than 1 ½ inches (38 mm) between the wall and the handrails.

**R311.7.8.4 Continuity:** Handrails 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.

**Exceptions:**

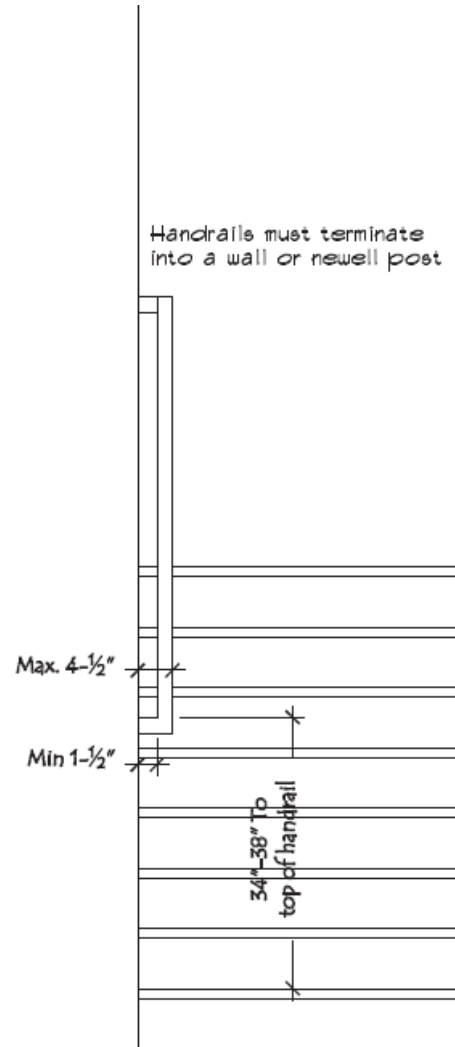
1. Handrail continuity shall be permitted to be interrupted by a newel post at a turn in a flight with winders, at a landing, or over the lowest tread.
2. A volute, turnout or starting easing shall be allowed to terminate over the lowest tread.

**R311.7.8.5 Grip Size:** Required handrails shall be one of the following types or provide equivalent grasp-ability.

1. Type I. Handrails with a circular cross section shall have an outside diameter of not less than 1 ¼ inches (32 mm) and not greater than 2 inches (51 mm). If the handrail is not circular, it shall have a perimeter of not less than 4 inches (102 mm) and not greater than 6 ½ inches (160 mm) and a cross section of not more than 2 ¼ inches (57 mm). Edges shall have a radius of not less than 0.01 inch (0.25 mm).

2. Type II: Handrails with a perimeter greater than 6 ¼ inches (160 mm) shall have a graspable finger recess area on both sides of the profile. The finger recess shall begin within ¾ inch (19 mm) measured vertically from the tallest portion of the profile and have a depth of not less than 5/16 inch (8 mm) within 7/8 inch (22 mm) below the widest portion of the profile. This required depth shall continue for not less than 3/8 inch (10 mm) to a level that is not less than 1 ¾ inches (45 mm) below the tallest portion of the profile. The width of the handrail above the recess shall be not less than 1 ¼ inches (32 mm) and not more than 2 ¾ inches (70 mm). Edges shall have a radius of not less than 0.01 inch (0.25 mm).

**R311.7.8.6 Exterior plastic composite handrails:** Plastic composite exterior handrails shall comply with the requirements of Section R507.2.2.





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