

STAIRWAYS/STEPS

SINGLE, TWO & THREE-FAMILY DWELLINGS SHALL BE INSTALLED ACCORDING TO CHAPTER 3 OF THE RESIDENTIAL CODE OF OHIO AND THIS BULLETIN

- I. Materials and design shall be same as existing unless an alternative is approved or required by the Building Official/Architectural Board of Review. Submit permit application for construction for new or replacement steps. Adequate plans required for alternate proposals, unusual designs.
- II. All steps must be provided with a properly designed foundation/footer, minimum depth of 42" below grade.
- III. A landing, not more than 1-1/2" lower than the top of the threshold, is required for steps serving the required (Front) egress door. Other egress doors would require a landing, not more than 8-1/4" below the top of the threshold, if the threshold height is more than 30" above grade. A landing's width shall not be less than the doorway it serves, and extend a minimum of 36" in the direction travel.

A stairway shall not have a height of vertical rise of more than 12 feet between landings (or grade) and intermediate platforms.

- IV. Handrails shall be provided on at least one side of each continuous run of treads or flight with 4 or more risers. Handrails (for steps) height shall be 34" to 38", guardrails (for landings, porches) heights shall be a minimum of 36".

A. Continuity 311.7.7.2 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 inch between the wall and the handrails.

B. Handrail grip size. All required handrails shall be of one of the following types or provide equivalent grasp ability.

1. Type 1. Handrails with a circular cross sections shall have an outside diameter of at least 1-1/2 inches (32mm) and not greater than 2 inches (51mm). If the handrail is not circular it shall have a perimeter dimension of at least 4 inches (102mm) and not greater than 6-1/4 inches (160mm) with a maximum cross section of dimension of 2-1/4 inches (57mm).
2. Type II. Handrails with a perimeter greater than 6-1/4 inches (160mm) shall provide a graspable finger recess area on both sides of the profile. The finger recess shall begin within a distance of 3/4 inch (19 mm) measured vertically from the tallest portion of the profile and achieve a depth of at least 5/16 inch (8mm) within 7/8 inch (22mm) below the widest portion of the profile. This required depth shall continue for at least 3/8 inch (10mm) to a level that is not less than 1-3/4 inches (45mm) below the tallest portion of the profile. The minimum width of the handrail above the recess shall be 1-1/4 inches (32mm) to a

maximum of 2-3/4 inches (70 mm). Edges shall have a minimum radius of 0.10 inches (9.25mm).

SPECIFICATIONS:

- V. Guards required. Porches, balconies or raised floor surfaces located more than 30 inches (762 mm) above the floor or grade below shall have guards not less than 36 inches (914 mm) in height. Open sides of stairs with a total rise of more than 30 inches (762mm) above the floor or grade below shall have guards not less than 34 inches (864 mm) in height measured vertically from the nosing of the treads.

Porches and decks which are enclosed with insect screening shall be provided with guards where the walking surface is located more than 30 inches (762 mm) above the floor or grade below.

Guard opening limitations. Required guards on open sides of stairway, raised floor areas, balconies and porches shall have intermediate rails or ornamental closures which do not allow passage of a sphere 4 inches (102 mm) or more in diameter.

Exceptions:

1. The triangular openings formed by the riser, tread and bottom rail of a guard at the open side of a stairway are permitted to be of such a size that a sphere 6 inches (152 mm) cannot pass through.
2. Openings for required guards on the sides of stair treads shall not allow a sphere 4-3/8 inches (107 mm) to pass through.

- VI. Minimum stairway width: 36"

Maximum unsupported span of tread: 36"

Minimum headroom: 6'8"

Maximum riser height: 8-1/4"

Minimum tread: 9"

Maximum deviation allowed between any two riser heights or tread width in a run of stairs: 3/8"

Nosing of approximately 1" required for closed risers.

Open risers are permitted as long as the opening is less than 4"

Note: An alteration or the replacement of an existing stairway in an existing structure shall not be required to comply with the requirements of a new stairway where the existing space and construction will not allow a reduction in pitch or slope (including exterior stairs).

Note: For all other stairways – apartments and other commercial buildings, see appropriate Code for Commercial Buildings.