

HANDRAILS AND GUARDRAILS

REVISION DATE: JANUARY 2017

Handrails

Handrails shall be provided on at least one side of each continuous run of treads or flight with four or more risers. The handrail height, 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:

- The use of a volute, turnout or starting easing shall be allowed over the lowest tread.
- When handrail fittings or bendings are used to provide continuous transition between flights, transitions at winder treads, the transition from handrail to guardrail, or used at the start of a

flight, the handrail height at the fittings or bendings shall be permitted to exceed the maximum height.

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 $\frac{1}{2}$ inch between the wall and the handrails.

Exceptions:

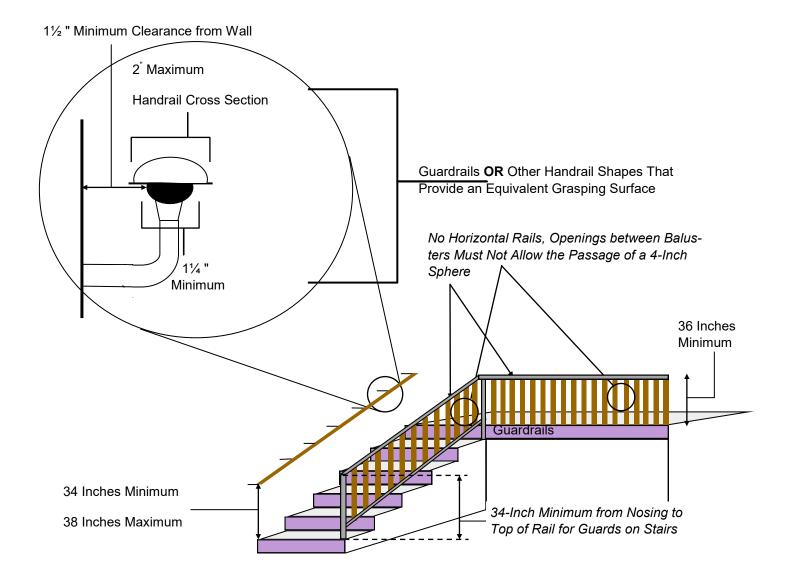
- Handrails shall be permitted to be interrupted by a newel post at the turn.
- The use of a volute, turnout, starting easing or starting newel shall be allowed over the lowest tread.

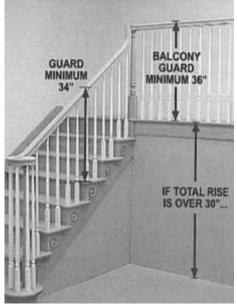
All required handrails shall be of one of the following types or provide equivalent graspability.

Type I. Handrails with a circular cross section shall have an outside diameter of at least 1 $\frac{1}{1}$ 4 inches and not greater than 2 inches. If the handrail is not circular, it shall have a perimeter dimension of at least 4 inches and not greater than 6 $\frac{1}{1}$ 4 inches with a maximum cross section of dimension of 2 $\frac{1}{1}$ 4 inches. Edges shall have a minimum radius of 0.01 inch

Type II: Handrails with a perimeter greater than 6 $\frac{1}{4}$ inches shall have a graspable finger recess area on both sides of the profile. The finger recess shall begin within a distance of $\frac{3}{4}$ inch measured vertically from the tallest portion of the profile and achieve a depth of at least $\frac{5}{16}$ inch within $\frac{7}{8}$ inch below the widest portion of the profile. This required depth shall continue for at least $\frac{3}{8}$ inch to a level that is not less than 1 $\frac{3}{4}$ inches below the tallest portion of the profile. The minimum width of the handrail above the recess shall be 1 $\frac{1}{4}$ inches to a maximum of 2 $\frac{3}{4}$ inches. Edges shall have a minimum radius of 0.01 inch.

Handrail and Guardrail Specifications









Guard Opening Limitations



Guard Opening Limitations

Guardrails

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.

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

Exceptions:

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.

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

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

Exceptions:

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.

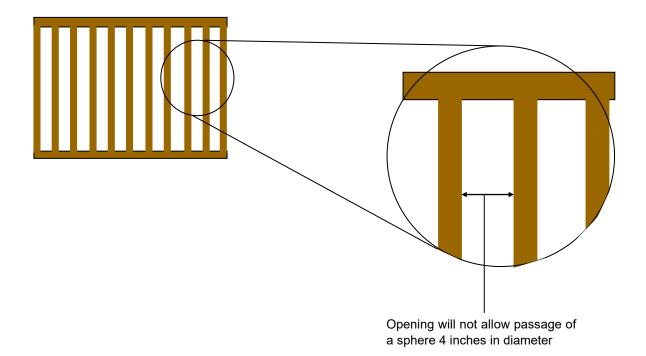
Guards on the open side of stairs shall not have openings which allow passage of a sphere 4 $^3/_8$ inches in diameter.

Window Fall Protection: In dwelling units, where the opening of an operable window is located more than 72 inches above the finished grade or surface below, the lowest part of the clear opening of the window shall be a minimum of 24 inches 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:

Windows whose openings will not allow a 4-inch-diameter sphere to pass through the opening when the opening is in its largest opened position.

Openings that are provided with window fall prevention devices that comply with ASTM F 2090.



CITY OF REPUBLIC

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We're on the Web!

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Builders-Resources

The Community Development Department is made up of five full-time employees including a Department Director, Administrative Assistant, Principal Planner, Building Inspector, and Code Compliance Official. Our office is located at 204 North Main Street. The goal of the department is to serve the citizens of Republic through pursuance, guidance, and assistance in the development of the City. This is accomplished through marketing and strategic planning accompanied by oversight and enforcement of the City's Building Codes, Zoning Codes and Subdivision Regulations.

The Department has marketing material that is updated every year and is provided to prospective developers considering bringing a new business or constructing new housing in the City. Our City Council made it a high priority to improve the quality of life in the City by adding a Code Compliance Official to handle nuisance related issues.

In order to guide the significant growth and changes that are occurring in the community, the Community Development Department has been proactive with respect to transportation planning, corridor development planning, land use planning and site planning. The department has also conducted several V isioning Meetings to allow the public to get involved in planning the future of the Community. Along with planning, the Community Development Department has made significant

improvements to existing ordinances and processes to streamline the development process.

COMMUNITY DEVELOPMENT DEPARTMENT



