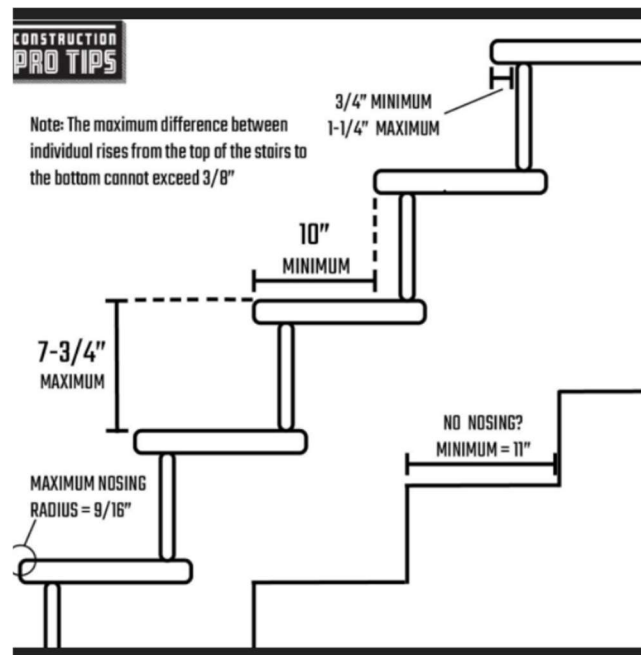


Specifications for Stairways

All stairs and stairway with more than three risers shall comply with the Pennsylvania Uniform Construction Code (IRC) Sec R311.7- 2015

Treads and Risers

- Riser height shall not be more than $7\frac{3}{4}$ inches. The riser shall be measured vertically between leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than $\frac{3}{8}$ inch. Risers shall be vertical or sloped from the underside of the nosing of the tread above at an angle not more than 30 degrees from the vertical. Open risers are permitted provided that the openings located more than 30 inches as measured vertically to the floor or grade below does not permit the passage of a 4-inch diameter.
- Tread depth shall not be less than 10 inches and measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The greatest tread depth within any flight of stairs shall not exceed the smallest by more than $\frac{3}{8}$ inch.
- Nosing the radius curvature shall not be greater than $\frac{9}{16}$ inch and nosing projection not less than $\frac{3}{4}$ inch and not more than $1\frac{1}{4}$ inch on stairways with solid risers. The greatest nosing projection shall not exceed the smallest nosing projection by more than $\frac{3}{8}$ inch between two stories, including the nosing at the level of floor and landings. Beveling of nosing shall not exceed $\frac{1}{2}$ inch. Nosing projection is not required where the tread depth is not less than 11 inches.





Stairway Width and Landing

- Stairways width shall not be less than 36 inches in clear width at all points above the permitted handrail height and below the required headroom height. Handrails shall not project more than 4 ½ inches on either side of the stairway and the clear width of the stairway at and below the handrail height, including treads and landings, shall not be less 31 ½ inches where a handrail are provided on both sides.
- Stairway headroom shall not be less than 6 feet 8 inches measured vertically from the slope line adjoining the tread nosing or floor surface of the landing.
- Stairway landing shall be a floor or landing at the top and bottom of each stairway.

Handrails

- Handrails shall be provided on at least one side of stairways that have 4 or more risers.
- Handrails shall be continuous for the full length of the flight, from a point directly above the top riser of the flight to point directly above the lowest riser of the flight.
- Handrail height is measured vertically from the nosing of the tread to the top of the handrail shall not be less than 34 inches and not more than 38 inches.
- Handrails attached to the wall shall have a space between the wall and the rail of at least 1 ½ inches to provide a graspable surface.
- A round handrail shall have a diameter no smaller than 1 ¼ inch and no larger than 2 inches so that it can be easily and securely gripped.
- Handrail grip-size with a perimeter greater than 6 ¼ inches 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 measured vertically from the tallest portion of the profile and achieve a depth of at least 5/16 inch within 7/8 inch below the widest portion of the profile. This required depth shall continue for at least 3/8 inch to a level that is not less than 1¾ inches below the tallest portion of the profile. The minimum width of the handrail above the recess shall be 1¼ inches to a maximum of 2 ¾ inches.

Guards

- Guards shall be located along open-sided walking surfaces, including stairs, ramps and landings, that are located more than 30 inches from the floor or grade below.
- Guard height on open-sides of stairs shall have a height of not less than 34 inches measured vertically from line connecting the leading edge of the treads.
- Where the top guard serves as a handrail on the open sides of the stairs, the top of the guard shall not be less than 34 inches and not more than 38 inches measured vertically from line connecting the leading edge of the treads.

