

Residential Stairway Details

- 1) **Width** – Stairways shall not be less than 36 inches in clear width at all points above the permitted handrail height. (see figure R311.5.1)
- 2) **Tread and Risers** – The maximum riser height shall be 8 ¼ inches and the minimum tread depth shall be 9 inches. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch. The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8 inch.
- 3) **Headroom** – The minimum headroom in all parts of the stairway shall not be less than 6 feet, 8 inches measured vertically from the sloped plane adjoining the tread nosing or from the floor surface of the landing or platform. (see figure R311.5.2)
- 4) **Winders** – Winders are permitted, provided that the width of the tread at a point not more than 12 inches from the side where the treads are narrower is not less than 9 inches and the minimum width of any tread is not less than 6 inches.
- 5) **Illumination** – All stairs shall be provided with illumination in accordance with KRC R303.6. Interior stairs shall be illuminated no less than 1 ft-candle (11 lux) measured at the center of the treads and landings.
- 6) **Handrails** – Graspable handrails are required on at least one side of a stairway when there are 4 or more risers. The handrail must be placed between 34 and 38 inches vertically from the sloped plain adjoining the tread nosing or from the floor surface of the landing or platform (see figure R311.5.6.1). Handrail design shall comply with figures R311.5.6.2 and R311.5.6.3.
- 7) **Guards** – Porches, balconies, raised surfaces, and ramps located more than 30 inches above the floor or grade below shall have guards not less than 36 inches in height. Open sides of stairs with a total rise of more than 30 inches shall have guards not less than 34 inches. Required guards should not allow the passage of a 4-inch diameter sphere to pass through the openings. The KRC does contain exceptions for stairs. (see figure R312)

A more thorough explanation can be found in the 2007 Kentucky Residential Code (KRC).

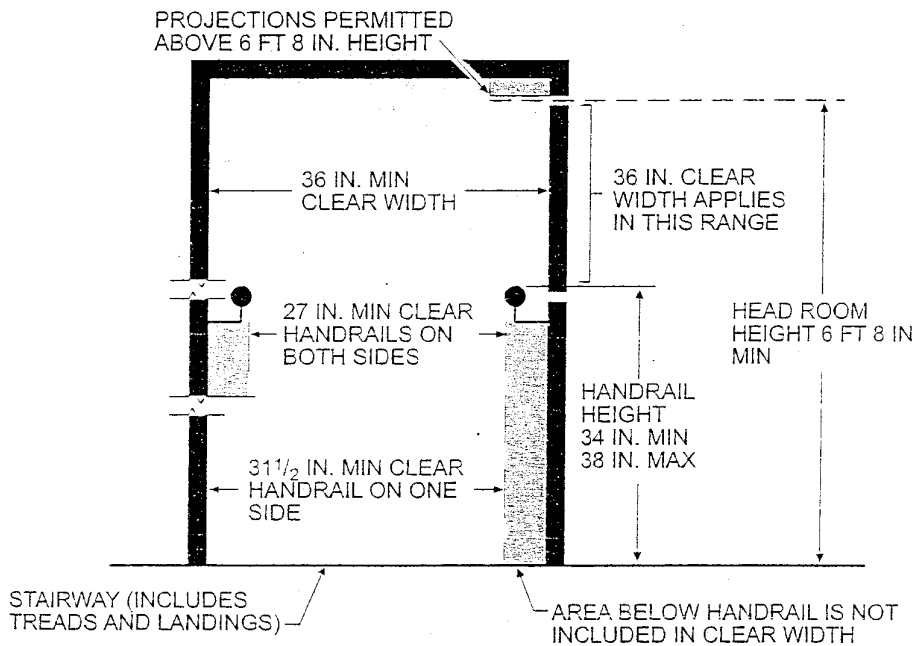


Figure R311.5.1
STAIRWAY CLEARANCES

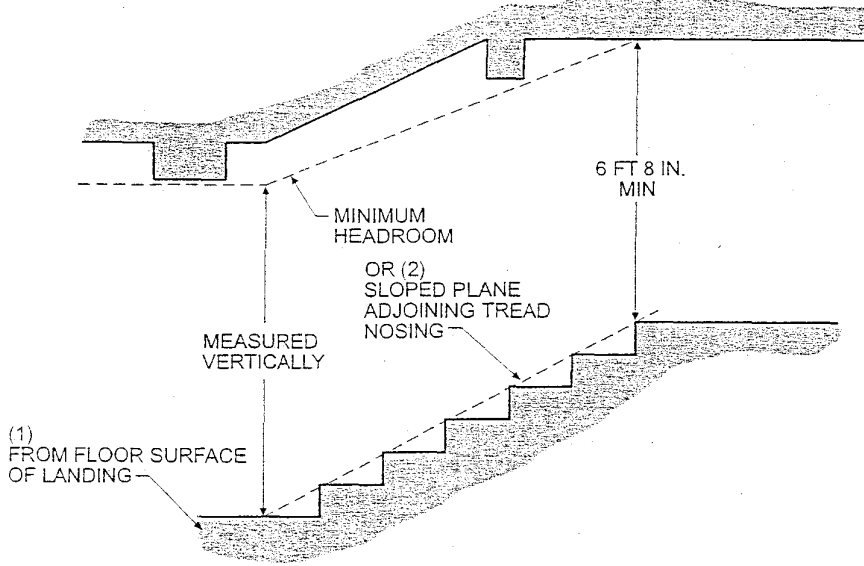
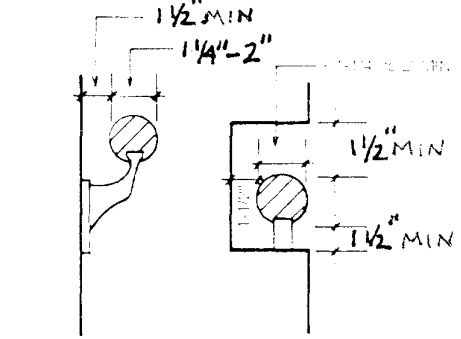


Figure R311.5.2
MINIMUM HEADROOM



TYPICAL HANDRAIL DETAIL
Figure R311.5.6.2

TYPICAL HANDRAIL SHAPES

Handrail height and minimum length

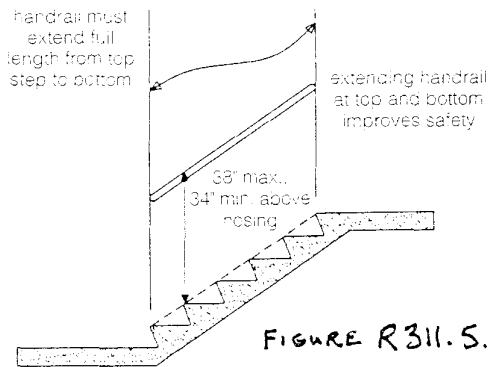


FIGURE R311.5.6.1

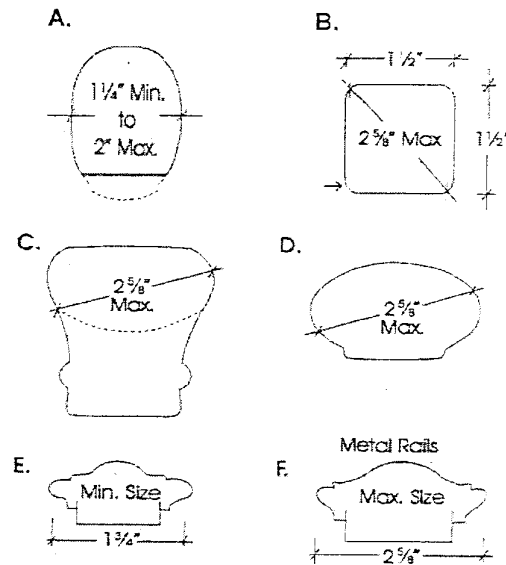
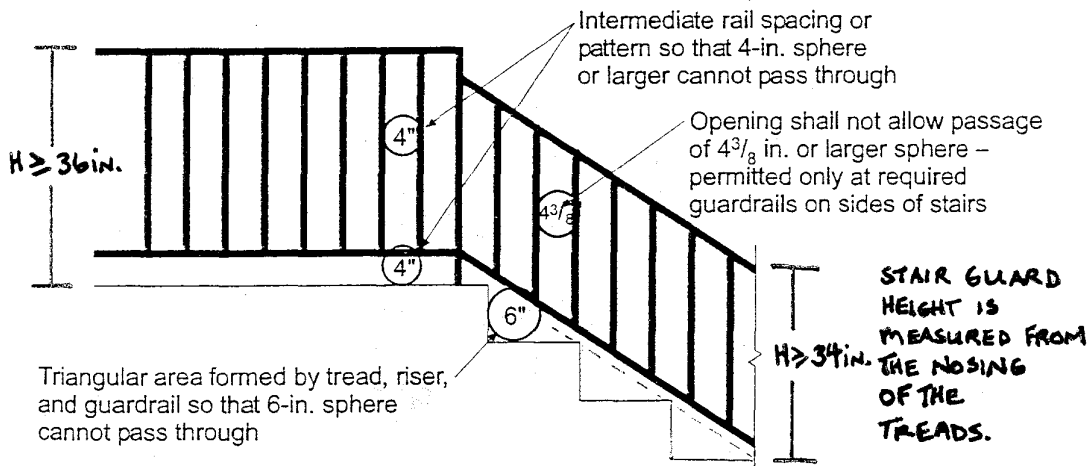


Figure 311.5.6.3



GUARD REQUIREMENTS
FIGURE R312

STAIR GUARD
HEIGHT IS
MEASURED FROM
THE NOSING
OF THE
TREADS.