

### **15A NCAC 18A .2521 LADDERS, RECESSED STEPS, AND STAIRS**

(a) If the vertical distance from the bottom of the swimming pool to the deck is over two feet (0.61 m), recessed steps, stairs, or ladders shall be provided in the shallow area of all swimming pools. Recessed steps or ladders shall be provided at the deep portion of all pools; and, if the swimming pool is over 30 feet (9.14 m) wide, such recessed steps or ladders shall be installed on each side near the deep end. A stairway, ladder or set of recessed steps shall be provided every 75 feet along the shallow area perimeter. Where stairs are provided in the shallow area of the pool, one ladder may be deleted in the shallow area for each stairway provided.

(b) Pool Stairs - The design and construction of pool ladders and stairs shall conform to the following:

- (1) Stair treads shall have a minimum unobstructed horizontal depth of 10 inches, a maximum horizontal depth of 36 inches, and a minimum unobstructed surface area of 240 square inches.
- (2) Risers at the centerline of the treads shall have a maximum height of 12 inches and shall be within one inch of a uniform height with the bottom riser height allowed to vary plus or minus two inches from the uniform riser height.
- (3) Each set of stairs shall be provided with at least one handrail to serve all treads and risers. For stairs wider than 20 feet, additional handrails shall be provided and spaced no more than 10 feet from adjacent handrails or stair ends.
  - (A) Handrails, if removable, shall be installed in such a way than they cannot be removed without the use of tools.
  - (B) The leading edge of handrails facilitating stairs and pool entry/exit shall be no more than 18 inches horizontally from the vertical plane of the bottom riser.
  - (C) The outside diameter of handrails shall be between one inch and one and nine-tenths inches.
- (4) The leading edge of stair treads shall be marked with a contrasting color band or line at least two inches (5 cm) wide visible from above the stairs. Use of contrasting color tiles installed in the stair tread is acceptable provided the tiles are spaced no more than one inch (2.5 cm) from the edge of the tread or from adjacent tiles.
- (5) Swimming pool ladders shall be corrosion-resistant and shall be equipped with slip-resistant treads. All ladders shall be designed to provide a handhold and shall be installed rigidly. There shall be a clearance of not more than six inches (15.3 cm), nor less than three inches (7.6 cm), between any ladder and the swimming pool wall. If the steps are inserted in the walls or if step holes are provided, they shall be of such design that they may be cleaned easily and shall be arranged to drain into the swimming pool to prevent the accumulation of dirt thereon. Step holes shall have a minimum tread of five inches (12.7 cm) and a minimum width of 14 inches (35.6 cm).
- (6) When step holes or ladders are provided within the swimming pool, there shall be a handrail at each side.

*History Note:* Authority G.S. 130A-282;  
Eff. May 1, 1991;  
Amended Eff. May 1, 2010; January 1, 1996;  
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. July 20, 2019.