

**Barriers and Fencing for Swimming Pools**  
**Section 421.10.1 BOCA National Building Code**  
**May 1, 1999**

421.10.1 Outdoor Private Swimming Pool: An outdoor private swimming pool, including an in-ground, above ground or on ground pool, hot tub or spa shall be provided with a barrier which shall comply with the following

1. The top of the barrier shall be **at least 48 inches** above finished ground level measured on the side of the barrier which faces away from the swimming pool. The maximum vertical clearance between finished ground level and the barrier shall be **2 inches** measured on the side of the barrier which faces away from the swimming pool. Where the top of the pool structure is above finished ground level, such as an above ground pool, the barrier shall be at finished ground level, such as the pool structure, or shall be mounted on top of the pool structure. Where the barrier is mounted on the pool structure, the opening between the top surface of the pool frame and the bottom of the barrier shall not allow passage of a **4 inch** diameter sphere.
2. Openings in the barrier shall not allow the passage of a **4 inch** diameter sphere.
3. Solid barriers shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.
4. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than **45 inches** the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed **1-3/4 inches** in width. Decorative cutouts shall not exceed **1-3/4 inches** in width.
5. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is **45 inches** or more, spacing between the vertical members shall not exceed **4 inches**. Decorative cutouts shall not exceed **1-3/4 inches** in width.
6. Maximum mesh size for chain link fences shall be a **1-1/4 inch** square unless the fence is provided with slats fastened at the top or bottom which reduce the openings to not more than **1-3/4 inches**.
7. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall be not more than **1-3/4 inches**.
8. Access gates shall comply with the requirements of items 1 through 7 of section 421.10.1, and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outwards away from the pool and shall be self-closing and have a self-latching device. Gates other than pedestrian access gates shall have a self-latching device. Where the release mechanism of the self latching device is less than **54 inches** from the bottom of the gate: ( a ) the release mechanism shall be located on the pool side of the gate at least **3 inches** below the top of the gate; and (b) the gate and barrier shall not have an opening greater than **1/2 inch within 18 inches** of the release mechanism.

9. Where a wall of a dwelling unit serves as part of part of the barrier and contains a door that provides direct access to the pool, one of the following shall apply:
  - 9.1 All doors with direct access to the pool through that wall shall be equipped with an alarm which produces an audible warning when the door and its screen, if present, are opened. The audible warning shall commence not more than **7 seconds** after the door and door screen, if present, are opened and shall sound continuously for a minimum of **30 seconds**. The alarm shall have a minimum sound pressure rating of **85 Db** at **10 feet** and the sound of the alarm shall be distinctive from other household sounds such as smoke alarms, telephones, and doorbells. The alarm shall automatically reset under all conditions. The alarm shall be equipped with manual means, such as touchpads or switches, to deactivate temporarily the alarm for a single opening from either direction. Such deactivation shall last for not more than **15 seconds**. The deactivation touchpads or switches shall be located at least **54 inches** above the threshold of the door
  - 9.2 All doors with direct access to the pool through that wall shall be equipped with a self-closing and self latching device with the release mechanism located a minimum of **54 inches** above the floor. Swinging doors shall open away from the pool area.
  - 9.3 The pool shall be equipped with a power safety cover. Where in a closed position, the cover shall be capable of holding a weight of 485 pounds, shall not have any openings that allow passage of a 4-1/2 inch sphere and shall incorporate a system to drain standing water that collects on the cover. The cover control switch shall be permanently installed in accordance with NFPA 70 listed in chapter 35, and be key operated and of a spring loaded or momentary contact type. Where the switch is released, the operation of the cover shall stop instantly and be capable of reversing direction immediately. The switch shall be in the line of sight of the complete pool cover
10. Where an above ground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure, and the means of access is a fixed or removable ladder or steps, the ladder or steps shall be surrounded by a barrier which meets the requirements of items 1 through 9 of section 421.10.1. A removable ladder shall not constitute an acceptable alternative to enclosure requirements.

421.10.2 Indoor private swimming pool: All walls surrounding an indoor private swimming pool shall comply with section 421.10.1, item 9.

421.10.3 Prohibited locations: Barriers shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.

421.10.5 Temporary enclosures : A temporary enclosure shall be installed in accordance section 3304.2 prior to the commencement of the installation of any in-ground swimming pool.

Exception: Where a permanent enclosure is provided prior to excavation  
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