



## Swimming Pools

### Chapter 36 of the Camarillo Municipal Code

**DEFINITION**—Any structure intended for swimming, recreational bathing or wading that contains water over 18 inches deep. This includes in-ground, above-ground and on-ground pools, hot tubs, spas and fixed-in-place wading pools.

**Public swimming pools**—shall be completely enclosed by a fence at least 60” in height or a screen enclosure. Openings in the fence shall not permit the passage of a 4-inch-diameter sphere. The fence or screen enclosure shall be equipped with self-closing and self-latching gates.

**Residential swimming pools barrier height and clearances**—The top of the barrier shall be at least 60 inches above grade measured on the side of the barrier that faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be 2 inches measured on the side of the barrier that faces away from the swimming pool. Where the top of the pool structure is above grade, the barrier is authorized to be at ground level or mounted on top of the pool structure, and the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be 4 inches.

**Openings** in the barrier shall not allow passage of a 4-inch-diameter sphere.

**Solid barrier surfaces** which do not have openings shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.

**Closely spaced horizontal members**—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 1.75 inches in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches in width.

**Widely spaced horizontal members**—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 vertical members shall not exceed 4 inches. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches in width.

**Chain link dimensions**—Maximum mesh size for chain link fences shall be a 2.25 inch square unless the fence is provided with slats fastened at the top or the bottom which reduce the openings to no more than 1.75 inches.

**Diagonal members**—Where the barrier is composed of the diagonal members, the maximum opening formed by the diagonal members shall be no more than 1.75 inches.

**Gates**—Access gates shall comply with the requirements above and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward 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. Release mechanisms shall be easily openable, without the use of a key or special knowledge or effort. Handles shall not require tight grasping, tight pinching or twisting of the wrist to operate. The release mechanism of the self-latching device is located less than 60 inches above grade, measured on the side of the barrier that faces away from the swimming pool. The release mechanism shall be located on the pool side of the gate at least 3 inches below the top of the gate, and the gate and barrier shall have no opening greater than 0.5 inch within 18 inches of the release mechanism.

**Dwelling wall as a barrier**—Where a wall of a dwelling serves as part of the barrier, one of the following shall apply:

1. Doors with direct access to the pool through that wall shall be equipped with an alarm that produces an audible warning when the door and/or its screen, if present, are opened. The alarm shall be listed in accordance with UL 2017. The audible alarm shall activate within 7 seconds and sound continuously for a minimum of 30 seconds after the door and/or its screen, if present, are opened and be capable of being heard throughout the house during normal household activities. The alarm shall automatically reset under all conditions. The alarm shall be equipped with a manual means, such as touchpad or switch, to temporarily deactivate the alarm for a single opening. Such deactivation shall last for not more than 15 seconds. In dwellings not required to be Accessible Type A or Type B units, the deactivation switch shall be located in 54 inches or more above the threshold of the door. In dwellings required to be accessible, Type A or Type B units, the deactivation switch(es) shall be located at 54 inches maximum and 48 inches minimum above the threshold of the door.
2. The pool shall be equipped with a power safety cover that complies with ASTM F 1346.
3. Other means of protection, such as self-closing doors with self-latching devices, which are approved by the administrative authority, shall be accepted so long as the degree of protection afforded is not less than the protection afforded by Items 1 or 2 above.

**Pool structure as barrier**—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 ladder or steps, then the ladder or steps either shall be capable of being secured, locked or removed to prevent access, or the ladder or steps shall be surrounded by a barrier which meets the requirements above. When the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4-inch-diameter sphere.

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

### **Pool Design and Construction**—

1. **General**---Pool design and construction must be accomplished in accordance with accepted engineering practice, in conformity with applicable code provisions, and be structurally suitable for the soil, topographic, and geologic conditions prevailing at the construction site.
2. **Expansive Soil Design**---Pools constructed at grade must be designed on the assumption that their construction is to be in an area of moderately expansive soil having an expansion index of 51-90 and an equivalent fluid pressure of not less than 45 pounds per cubic foot (45 p.c.f.). **Exception:** Where tests indicate that soils at a pool site are non-expansive or have low expansion characteristics from the ground surface to the full depth of the pool, structural design must be based on an equivalent fluid pressure not less than 30 p.c.f.
3. In highly expansive soils having an expansion index of 91-130, pools must be designed for not less than 60 p.c.f. equivalent fluid pressure. In very highly expansive soils having an expansion index over 130, pool design will be subject to special requirements based on a site investigation, soil testing, and engineering analysis by a registered civil engineer to determine appropriate design parameters for the site.
4. **Hydrostatic Uplift**—In areas of anticipated high water table, an approved hydrostatic relief system or device must be installed.
5. **Thermal Protection for Plastic Piping**—Between the inlet of pool water heating equipment and any plastic water piping connected thereto, a check valve must be installed to prevent thermal damage to such piping due to backflow. **Exception:** When rapid or high-rate filters are employed, a check valve may be omitted.

Between the outlet of pool heating equipment and any plastic water piping connected thereto, not less than five feet of approved metal pipe must be installed for the purpose of dissipating heat.

6. **Safeguarding Suction Drains**—Bottom drains and suction intakes in pools and spas must be covered with grated or other protective devices (Anti-Entrapment Devices) which cannot be removed except with tools. The slots or openings in these covers must be of such area, shape, and arrangement as to prevent bathers from being drawn thereto with such force as to constitute a safety hazard.
7. **Grab Bars**—Wherever egress from a pool by bathers is restricted by the presence of a vertical wall or other barrier which extends more than 12 inches above the water at the pool's edge, permanent handrail, grab bars or equivalent device(s) must be installed within 12 inches of the water surface, capable of being securely grasped and adequate to support the weight of a user of the pool.

### **Decks—**

1. **General**--A deck must be provided around below-grade swimming pools except when special engineering design is furnished which indicates that such deck is not necessary for the purpose of maintaining the structural integrity of the pool and/or for controlling surface water and moisture content in the soil adjacent to the pool. Decks are not required for spas and hot tubs.
2. **Deck Design and Construction**—Required decks must be constructed of concrete or other approved impervious material and be sloped to provide positive drainage away from the perimeter of the pool. Except as provided below, decks must have a minimum width of four feet and be at least 3-1/2 inches in thickness. Reinforcement must be #3 bars spaced not over 24 inches o.c. each way, or equivalent reinforcing.

Approved joints must be provided in the deck at corners, at maximum 10-foot intervals, and wherever necessary in order to control cracking, to allow for differential movement and to minimize damage to the deck from such movement should it occur. Joints in decks and coping must be made watertight with an approved permanent resilient sealant.

3. **Cutoff Walls**—At the outer perimeter of pool decks a cutoff wall of approved material must be installed below-grade to a depth of at least 15 inches to form a permanent and effective vertical moisture barrier.

#### **Exceptions:**

- a. A cutoff wall may be omitted when a deck at least six feet wide is installed.
- b. Decks less than four feet in width may be installed provided that the required cutoff wall is increased in depth beyond the minimum by an amount directly proportional to the reduction in deck width.

4. **Pre-Saturation, Highly Expansive Soils**—When the soil below a deck has an expansion index of 91 or greater, it must be saturated with water to a depth of a least 18 inches before installing the deck.
5. **Deck Bonding**—When a deck is installed, whether structurally required or not, the reinforcing installed in the deck must be electrically bonded together with the pool shell reinforcing and metal parts of electrical equipment associated with the pool water recirculation system and with miscellaneous metal accessories, such as pool slides, diving boards and spring boards, in accordance with CEC Article 680.26.

**Drainage and Disposal—**

1. **Surface Water**—Surface water from pool decks must be collected and conducted through non-erosive subsurface drainage devices to a street, storm drain, or other approved watercourse or disposal area.
2. **Wastewater**—Pool waste must be disposed of in accordance with the requirements of the environmental health officer.
3. **Drywells**—Drywells cannot be employed for pool wastewater disposal except when specifically approved for the purpose and when it has been determined that such installation is not likely to have adverse effects on the structural stability of the pool or other structures on the site. The building official may require a percolation test, soils report, and/or geological report to make such a determination.

**Special Inspection**—Special inspection as required by CBC Section 1704A must be provided for pneumatically placed concrete (gunite) in swimming pools.

**Fencing and Gates**—Any person, firm, or corporation in possession of land either as owner in fee, purchaser under contract, lessee, tenant, licensee or any type of legal estate upon which is situated a pool as defined above must at all times maintain on the lot or premises a fence or wall not less than five feet in height which completely surrounds such pool or body of water provided, however, that a dwelling or accessory building may be used as a part of such enclosure. Such fence must be constructed of durable material and must be designed to withstand a horizontal force of at least 20 pounds per lineal foot at the top of the fence or top of the railing. Openings, holes, or gaps therein must be no larger than four inches wide except for openings closed by doors or gates. Fences may not have a configuration which provides a ladder-like access to the pool area.

Each gate or door opening through a pool enclosure must be equipped with a self-closing and self-latching device capable of keeping the gate or door securely closed at all times when not in use.

**Exceptions:**

1. Doors in Group R, Division 1, 2 and 3 occupancies which form part of a pool enclosure.
2. Gates used primarily for ingress and egress of equipment but not persons to the pool area, and which are kept padlocked when not in use.

Required latching devices must be installed not less than (60) inches above ground level and on the water side of the gate.

The building official may make modifications and accept alternatives to the fencing requirements in individual cases upon a showing of good cause with respect to the height, nature or location of the fence, wall, gates, or latches, or the necessity for such alternative, provided that protection is not reduced.