SWIMMING POOLS, SPAS AND HOT TUBS, ENCLOSURES, AND SAFETY DEVICES

The purpose of this policy is to identify the related code requirements for swimming pools, spas and hot tubs, fish ponds, and other bodies of water; describe the pool enclosure requirements; and list exceptions to the requirement for installing a pool enclosure. In addition, this policy clarifies how to handle fence repair for existing pools and pool enclosure; and address maintenance requirements for alterations, additions, and repairs to existing dwelling. This policy shall apply to all one- and two-family dwellings.

1. Identify all the code requirements

   A. LACBC Section 3109.4.4 – Based on State Statutes: AB 3305 (1996), AB 2977 (2006), AB 382 (2007), SB 442 (2017). This section applies to Pools for Single Family Dwellings constructed or altered after January 1, 2007.

   B. LACBC Chapter 31B – Based on Department of Public Health (DPH) requirements. These provisions apply to all Public Pools, including residential (more than 3 dwelling units) pools and all commercial pools.

   C. Chapter 11.50 of the County of Los Angeles Health and Safety Code (HSC) Title 11. These provisions apply to all swimming pools, fish ponds, and other outdoor bodies of water.

   D. Chapter 11.51 HSC. These provisions apply to indoor and outdoor swimming pools, spas, hot tubs and other bodies of water located on the premises of a Single-Family Dwelling.

2. Clarification of terms (Definitions)

   A. **POOL.** Any structure intended for swimming or recreational bathing that contains water over 18 inches deep.

   B. **POOL ENCLOSURE.** Pool enclosure shall encompass all references to fences, barriers, and separation fence.

   C. **TEMPORARY BARRIER.** A temporary pool enclosure, which is used to prevent the public from injuries due to excavations during construction of a pool. The temporary barrier shall be not less than 6 feet high in accordance with LACBC Section 3306.9.

D. **BODY OF WATER.** Any outdoor structure other than a pool, as defined, that contains water over 24 inches deep, such as a water feature or a fish pond.

3. Protection of Excavation During Construction

Every excavation for the construction of a pool located 5 feet or less from the street lot line shall be enclosed with a temporary barrier. Where the excavation is located more than 5 feet from the street lot line, a temporary barrier shall be erected when required by the building official. Temporary barriers shall be maintained until the permanent pool enclosure and safety devices have been installed and approved by the building official.

4. Location of pool enclosure

A. The pool enclosure shall be constructed around the pool, except when approved by Building Official.

B. Stairways, ramps, and landings for slides or similar pool features shall have handrails and/or guardrails when they are 30" above adjacent grade in accordance with LACBC Section 1015.2.

5. Height of pool enclosure and other construction requirements

A. The top of the pool enclosure shall be at least 60 inches above grade. The height shall be measured from the side away from the pool as depicted in LACBC Figure 31B-4 and 31B-5.

B. Maximum vertical clearance between ground and the bottom of the barrier shall be 2 inches above earth.

C. Any decorative design work on the side away from the pool, such as protrusions, indentations, or cutouts, which render the pool enclosure easily climbable, is prohibited.

D. Gaps or voids, if any, shall not allow passage of a 4-inch diameter sphere.

E. Horizontal members that create a "ladder" effect are prohibited unless stated otherwise below.

6. Construction material for the pool enclosure

A. Chain Link

1. The wire for the chain link shall not be less than 11-gauge.

2. The posts shall be galvanized pipe at least 1-1/4 inch in diameter and spaced not more than 10 feet apart.

3. The posts shall be set not less than 12 inches into concrete. The concrete shall be poured into a hole minimum 6 inches in diameter and minimum 18 inches deep.

4. Openings in the chain link shall not be greater than 1-3/4 inches measured horizontally.

B. Solid Wood

1. Redwood or pressure treated posts shall be no less than 3 inches by 3 inches, set no more than 10 feet apart, and embedded at least 18 inches in the ground.

2. The vertical boards at least 1/2-inch thick shall be placed side-by-side without any gaps or spaces.

3. The vertical boards shall be securely fastened to no less than two horizontal rails that are at least 2 inches by 3 inches in cross section.

4. The distance between the tops of the horizontal rails located on the outside of the fence shall not be less than 45 inches apart.

C. Masonry/Concrete

1. Masonry fences shall be supported on a foundation of concrete extending not less than 12 inches below grade, not less than 12 inches in width, and not less than six inches in thickness.

2. Reinforcing steel located in the masonry wall, when required, shall be embedded 16 bar diameters into the footing.

D. Wrought Iron

1. When horizontal members are spaced less than 45 inches apart, the horizontal members shall be placed on the inside face of the fence and vertical members shall be spaced at 1-3/4 inches maximum.

2. When the distance between the tops of horizontal members is 45 inches or more, vertical member spacing may be increased up to 4 inches.

E. Combination of Material

Different materials used in the horizontal direction shall be permitted, provided each portion of the pool enclosure meets the requirements of this section. Different materials used in the vertical direction (one-on-top of another) shall be prohibited, unless approved by the Building Official.

F. Mesh Pool Fencing

Mesh pool fencing that meets ASTM Standard F2286 shall be approved by Research Section. Installation shall comply with all conditions of approval specified in a valid Research Bulletin.

7. Gates

A. Pedestrian walkway access gates when part of the pool enclosure shall meet all the construction requirements of Section 5 and 6.

B. The gate shall be self-closing and self-latching.

C. The gate shall open or swing away from the pool.

D. The release mechanism of the self-latching device shall not be located less than 60 inches from the bottom of the gate.

E. The following doors and gates are prohibited as part of the pool enclosure due to intrinsic problems with self-closing or self-latching devices:

1. Double doors or pairs of gates
2. Doors or gates wider than 4 feet
3. Driveway gates
4. Overhead garage doors

F. Additional locking devices, hooks or bolts may be installed for security of the premises, provided normal satisfactory operation of the required self-closing and self-latching systems is maintained.

8. Exceptions

A. **Buildings may be part of the pool enclosure**

1. Exterior wall of a building in combination with a pool enclosure, which completely surrounds the pool and obstructs access to the pool, shall be permitted.

2. All doors providing direct access from a dwelling unit to the pool shall comply with one of the following:

a. The door shall have an alarm that sound continuously for a minimum of 30 seconds within 7 seconds after the door and its screen, if present, are opened, and shall be capable of providing a sound pressure level of not less than 85 dBA when measured indoors at 10 feet. The alarm shall automatically reset under all conditions. The alarm system shall be equipped with a manual means, such as a touchpad or switch, to temporarily deactivate the alarm for a single opening. Such deactivation shall last no longer than 15 seconds. The deactivation switch shall be located at least 54 inches above the threshold of the door, or

b. The door shall have self-closing and self-latching devices with a release mechanism placed no lower than 54 inches above the floor.

3. All doors providing direct access from a garage or accessory structure to the pool shall be self-closing and self-latching with a release mechanism located not less than 54 inches above the floor.

B. **Above-ground swimming pool structure.** Where an above-ground swimming pool structure is used as a barrier or where the barrier is mounted on top of the swimming pool structure, the ladder or steps shall be secured to prevent access, or they shall be surrounded by a barrier. When the barrier is mounted on top of the above-ground pool structure, the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall not allow the passage of a sphere 4 inches in diameter.

C. **Use of other safety devices.** Lockable spa covers shall comply with ASTM Standard F1346.

9. Drowning Prevention Safety Features

   Effective January 1, 2018, Health and Safety Code Section 115922 (LACBC 3109.4.4.2) requires new swimming pools or spas or remodeled swimming pools or spas at a private single-family home to be equipped with at least 2 drowning prevention safety features. Compliance with the pool enclosure requirements above shall serve as one of the required safety features. A second feature from the list below must be installed:

   A. Removable mesh fencing that meets ASTM Standard F2286.

   B. A pool safety cover that meets ASTM Standard F1346.

   C. A pool alarm that, when placed in the pool, will sound upon detection of entrance into the water. The pool alarm shall meet ASTM Standard F2208.

   D. Other means of protection, if the degree of protection afforded is equivalent to the other devices specified above and has been independently verified by an approved testing laboratory as meeting standards for the device established by ASTM or ASME.

10. Repair or replacement of fencing for existing pools

   A. Replacement of existing pool enclosure shall comply with this policy.

   B. Existing pool enclosures constructed prior to January 1, 2007 shall be maintained in good condition without having to comply with all the above requirements.

   C. Any alteration, addition or repair to an existing pool, spa, hot tub or pool enclosure, shall require the pool enclosure to comply with all the above requirements.

      Exceptions:

      1. Alterations such as re-plastering or changing the decking, tile or coping.
      2. Projects that only require electrical, plumbing or mechanical permits, such as replacing pumps, gas lines or heaters.

   D. Existing homes may install battery-operated alarms when a new pool is built or a pool/spa alteration triggers requirement of Section 8-A-2-a.

11. Alterations, additions, or repairs to an existing dwelling

    A. Alterations or additions to an existing dwelling that create new access points to the pool area shall comply with all the requirements of this policy.

    B. Repairs or replacement of doors in existing dwellings built prior to September 1, 1995 are not required to have an alarm or be self-closing and self-latching if the existing doors being repaired or replaced do not have an alarm or are not self-closing and self-latching.

12. Fence and Gate details

    A. Attachment A, for sample fence and gate construction.

    B. Attachment B, swimming pool drowning prevention safety features.

13. Complaints or code violations

    Complaints regarding missing or damaged pool barriers of occupied buildings shall be referred to the nearest Sheriff's Station (HSC 11.50.130). For vacant buildings, complaints shall be referred to the Property Rehabilitation Section.

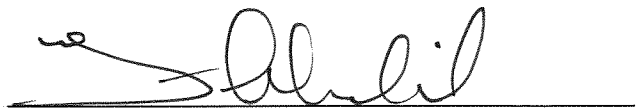
Attachments

Supersedes BCM 3109 Article 1 dated 03-05-18

WRITTEN BY: MIGUEL GARCIA
Supervising Building and Safety
Engineering Specialist

REVIEWED BY: POLICY COMMITTEE

APPROVED BY:

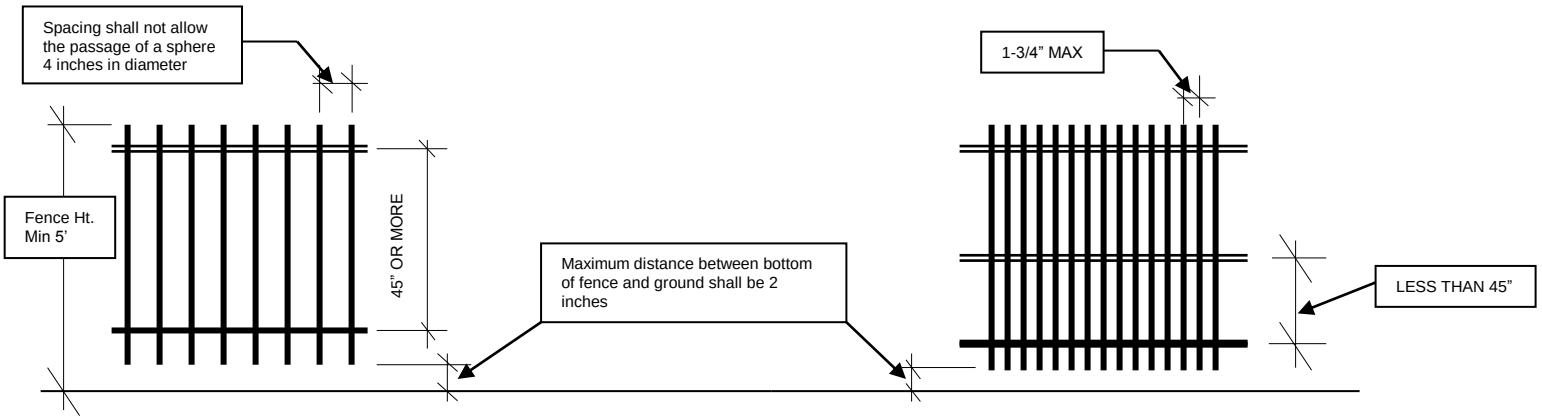


FADY KHALIL
Principal Engineer

Attachment A

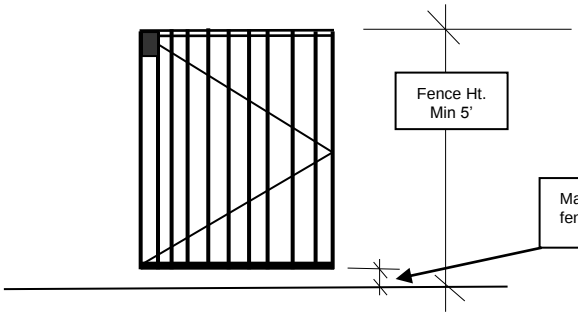
SAMPLE FENCE AND GATE CONSTRUCTION FOR SWIMMING POOLS, SPAS, AND HOT TUBS

ANY STRUCTURE THAT CONTAINS WATER OVER 18 INCHES DEEP

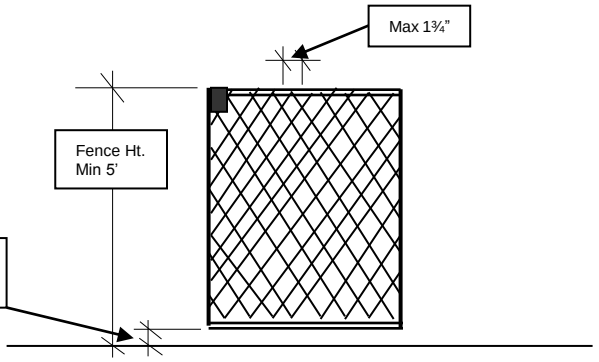


Wrought iron fence with horizontal members at 45" or more apart.

Wrought iron fence with horizontal members less than 45" apart shall be located on the pool side.



Pool gate-release mechanism allowed on either side



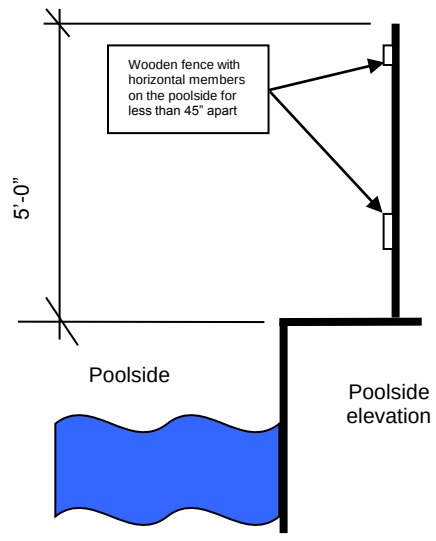
Chain link fence

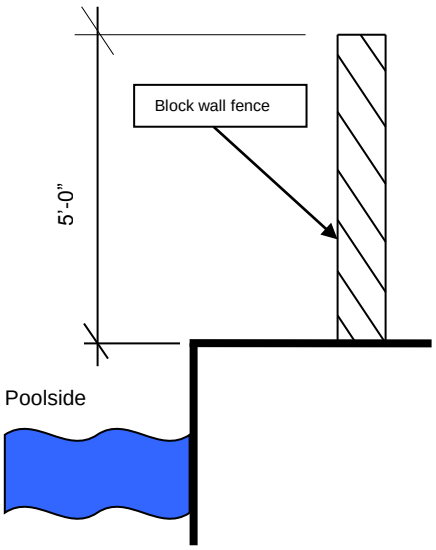
Notes:

1. 11 GA. min.
2. For existing chain link fences meeting height requirements with openings exceeding 1¾", vertical Wood slats or equivalent may be installed to meet code requirements.

Notes:

- All pedestrian gates shall be self-closing and self-latching.
- Any decorative design work on the side away from the pool, such as protrusions, indentations, or cutouts, which render the barrier easily climbable, is prohibited.

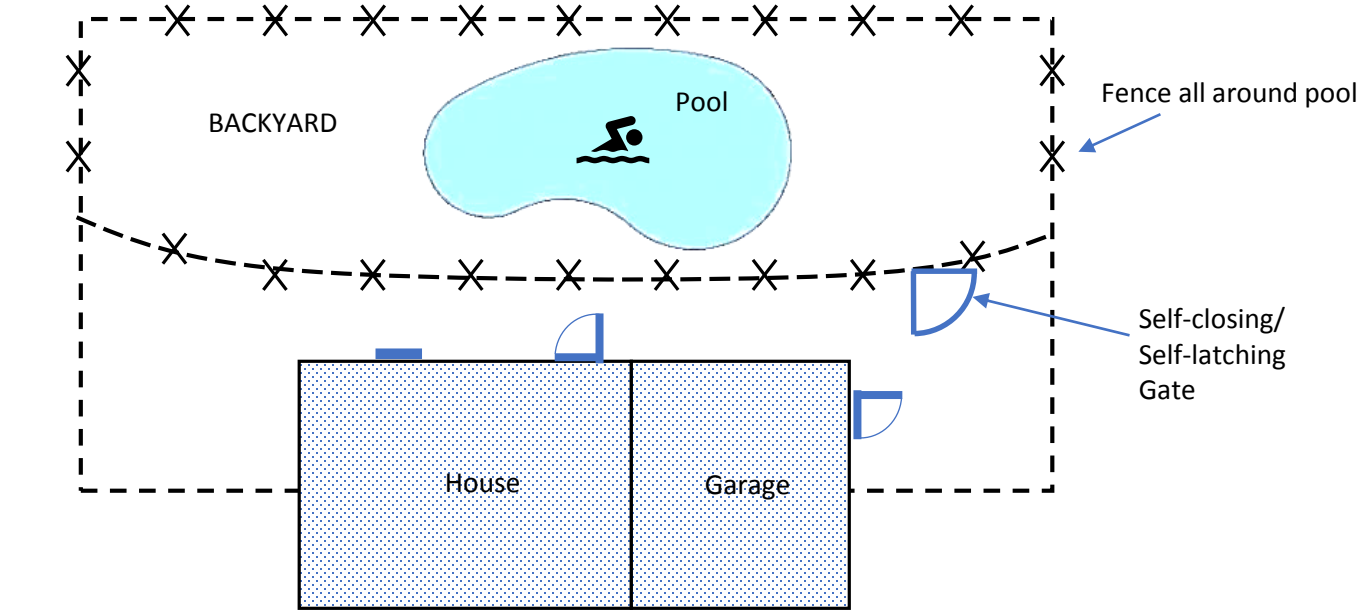




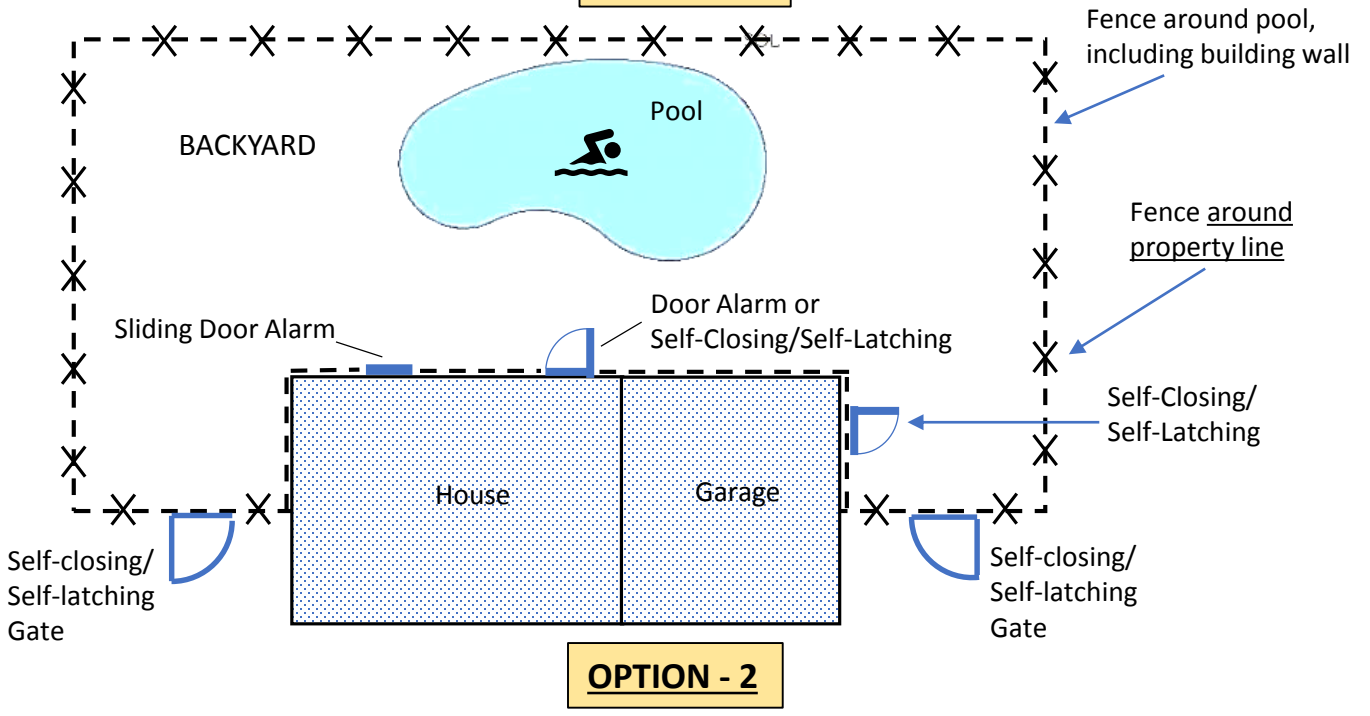
SWIMMING POOL DROWNING PREVENTION SAFETY FEATURES MEASURE

Attachment B

Effective January 1, 2018, Health and Safety Code Section 115922 (Building Code Section 3109.4.4.2) requires new swimming pools or spas or remodeled swimming pools or spas at a private single-family home to be **equipped with at least 2 drowning prevention safety features**. Compliance with the pool enclosure requirements **(see below OPTION 1 & OPTION 2)** serves as one of the required safety features. A second feature from the list below must also be installed.



OPTION - 1



OPTION - 2

DROWNING PREVENTION SAFETY FEATURES (SECOND FEATURE): AT LEAST ONE FEATURE MUST BE CHOSEN

- ☐ **A pool alarm that, when placed in the pool, will sound upon detection of entrance into the water. The pool alarm shall meet ASTM Standard F2208.**
- ☐ **Removable mesh fencing that meets ASTM Standard F2286 – 60" high minimum**
- ☐ **A pool safety cover that meets ASTM Standard F1346**
- ☐ **Other means of protection, if the degree of protection afforded is equivalent to the other devices specified above, and has been independently verified by an approved testing laboratory as meeting standards for the device established by ASTM or ASME.**

Note: Release mechanism for doors with direct access from home or accessory structures shall be placed no lower than 54" above the floor, and for gates through enclosure shall be placed no lower than 60" above the ground.