



# POOL/SPA/WATER FEATURES

## PERMIT APPLICATION REQUIREMENTS

To obtain a permit for a *pool, spa, or water feature*, please *fill out a building permit application* and supply *two (2) set of drawings* of the following (inked, photo copied or blueprinted):

1) **Site plan including:**

- a) Soils Report
- b) Lot size and a North arrow;
- c) All existing structures on the same property or parcel within twenty feet of any portion of the proposed pool, spa, or water feature;
- d) Area of pool/spa/water feature;
- e) Locations(s), type of material and height of access barriers;
- f) Location and specifications of pool/spa/water feature equipment (including heating, circulating, filtering, and water-handling equipment, GCFI outlets);
- g) Location and specifications of decking, pool stairs, steps, ladders, recessed treads, handrails/handholds, seats and lighting;
- h) Location of all glazing within the prescribed distance from the pool deck area and how the glazing safety requirements will be resolved;
- i) Dimensions, materials, and method of construction;
- j) Area and width of deck;

2) **Structural Plan** prepared by a registered professional civil or structural engineer which includes;

- a) Reinforcing steel placement, steel diameter, steel specifications, and steel strength
- b) Concrete specifications and strength

3) **If pool/spa feature is pre-manufactured, provide:**

- a) Make
- b) Model number,
- c) Manufacturer's installation instructions.
- d) Provide ICBO Evaluation Service (ES) Report for pools and IAPMO sp# for spas

**Normal Processing Time from Application to Permit Issuance:**

Once all the above items have been submitted and no other changes are required after plan review, the permit should be available for pick-up *after* 5 business days.

## APPENDIX G

### SWIMMING POOLS, SPAS AND HOT TUBS

#### SECTION AG101 – GENERAL

**AG101.1 General.** The provisions of this appendix shall control the design and construction of swimming pools, spas and hot tubs installed in or on the lot of a one and two family dwelling.

#### SECTION AG102.1 –DEFINITIONS

**AG102.1 General.** For the purposes of these requirements, the terms used shall be defined as follows and as set forth in Chapter 2.

**ABOVE GROUND/ON GROUND POOLS.** See “Swimming Pool.”

**BARRIER.** A fence, wall, building wall or combination thereof which completely surrounds the swimming pool and obstructs access to the swimming pool.

**HOT TUB.** See “Swimming Pool.”

**IN GROUND POOL.** See “Swimming Pool.”

**RESIDENTIAL.** That which is situated on the premises of a detached one or two family dwelling or a one family townhouse not more than three stories in height.

**SPA, NON-PORTABLE.** See “Swimming Pool.”

**SPA, PORTABLE.** A non-permanent structure intended for recreational bathing, in which all controls, water-heating and water-circulating equipment are an integral part of the product.

**SWIMMING POOL.** Any structure intended for swimming or recreational bathing that contains water over 24 inches (610 mm) deep. This includes in ground, above ground and on ground swimming pools, hot tubs and spas.

**SWIMMING POOL, INDOOR.** A swimming pool which is totally contained within a structure and surrounded on all four sides by walls of said structure.

**SWIMMING POOL, OUTDOOR.** Any swimming pool which is not an indoor pool.

## SECTION AG103

### SWIMMING POOLS

**AG103.1** In ground pools. In ground pools shall be designed and constructed in conformance with ANSI/NSPI-5 as listed in Section AG107.

**AG103.2** Above ground and on ground pools. Above ground and on ground pools shall be designed and constructed in conformance with ANSI/NSPI-4 as listed in Section AG107.

## SECTION AG104

### SPAS AND HOT TUBS

**AG104.1** Permanently installed spas and hot tubs. Permanently installed spas and hot tubs shall be designed and constructed in conformance with ANSI/NSPI-3 as listed in Section AG107.

**AG104.2** Portable spas and hot tubs. Portable spas and hot tubs shall be designed and constructed in conformance with ANSI/NSPI-6 as listed in Section AS107.

## SECTION AG105

### BARRIER REQUIREMENTS

**AG105.1** Application. The provisions of this chapter shall control the design of barriers for residential swimming pools, spas and hot tubs. These design controls are intended to provide protection against potential drowning and near-drownings by restricting access to swimming pools, spas and hot tubs.

**AG105.2** Outdoor swimming pool. An outdoor 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 72 inches (17.28.060) above grade measured on the side of the barrier which faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be 2 inches (51 mm) measured on the side of the barrier which faces away from the swimming pool. Where the top of the pool structure is above grade, such as an above ground pool, the barrier may be at ground level, such as the pool structure, or mounted on top of the pool structure, the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be 4 inches (102 mm).
2. Openings in the barrier shall not allow passage of a 4 inch diameter (102 mm) sphere.
3. Solid barriers which do not have openings, such as a masonry or stone wall, 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 (1143 mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed 1.75 inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) 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 (1143 mm) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) in width.

6. Maximum mesh size for chain link fences shall be at 2.25 inches (57 mm) square unless the fence is provided with slats fastened at the top or the bottom which reduce the openings to not more than 1.75 inches (44 mm).
7. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall not be more than 1.75 inches (44 mm).
8. Access gates shall comply with the requirements of Section AG105.s, items 1 through 7, 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. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from the bottom of the gate, the release mechanism and openings shall comply with the following:
  - 8.1. The release mechanism shall be located on the pool side of the gate at least 3 inches (76 mm) below the top of the gate, and
  - 8.2. The gate and barrier shall have no opening greater than 0.5 inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.
9. Where a wall of a dwelling serves as part of the barrier one of the following conditions shall be met:
  - 9.1. The pool shall be equipped with a powered safety cover in compliance with ASTM F1346; or
  - 9.2. 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 alarm shall sound continuously for a minimum of 30 seconds immediately after the door is opened and be capable of being heard throughout the house during normal house hold activities. The alarm shall automatically reset under all conditions. The alarm system 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. The deactivation switch(es) shall be located at least 54 inches (1372 mm) above the threshold of the door; or
  - 9.3. Other means of protection, such as self-closing doors with self-latching devices, which are approved by the governing body, shall be acceptable so long as the degree of protection afforded is not less than the protection afforded by item 9.1 or 9.2 described above.
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 ladder or steps, then:
  - 10.1. The ladder or steps shall be capable of being secured, locked or removed to prevent access, or
  - 10.2. The ladder or steps shall be surrounded by a barrier which meets the requirements of Section AG105.2, items 1 through 9. When the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4 inch diameter (102 mm) sphere.

**AG105.3 Indoor swimming pool.** All walls surrounding an indoor swimming pool shall comply with Section AG105.2, Item 9.

**AG105.4 Prohibited locations.** Barriers shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.

**AG105.5 Barrier exceptions.** Spas or hot tubs with a safety cover which complies with ASTM F 1346, as listed in Section AG107, shall be exempt from the provisions of this appendix.

## SECTION AG106

### ENTRAPMENT PROTECTION FOR SWIMMING POOL AND SPA SUCTION OUTLETS

**AG106.1 General.** Suction outlets shall be designed to produce circulation throughout the pool or spa. Single outlet systems, such as automatic vacuum cleaner systems, or other such multiple suction outlets whether isolated by valves or otherwise shall be protected against use entrapment.

**AG106.2 Suction Fittings.** All pool and spa suction outlets shall be provided with a cover that conforms with ANSI/ASME A112.19.8M, or a 12" X 12" drain grate or larger, or an approved channel drain system.

Exception: Surface skimmers

**AG106.3 Atmospheric vacuum relief system required.** All pool and spa single or multiple outlet circulation systems shall be equipped with atmospheric vacuum relief should grate covers located therein become missing or broken. Such vacuum relief systems shall include at least one approved or engineered method of the type specified herein, as follows:

1. Safety vacuum release system conforming to ASME A112.19.17, or
2. An approved gravity drainage system

**AG106.4 Dual drain separation.** Single or multiple pump circulation systems shall be provided with a minimum of two (2) suction outlets of the approved type. A minimum horizontal or vertical distance of three (3) feet shall separate such outlets. These suction outlets shall be piped so that water is drawn through them simultaneously through a vacuum relief protected line to the pump or pumps.