

# City of Marlborough BUILDING DEPARTMENT

140 Main Street Marlborough, Massachusetts 01752 Tel. (508) 460-3776 Facsimile (508) 460-3736 JEFF COOKE BUILDING COMMISSIONER

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RICHARD DESIMONE PLUMBING & GAS INSPECTOR

> JOHN CAIN WIRING INSPECTOR

WILLIAM PAYTON BUILDING INSPECTOR

### **Swimming Pool Permit Application**

| =   | , , , , , , , , , , , , , , , , , , , |                         |                  |                              |
|---|---------------------------------------|-------------------------|------------------|------------------------------|
| £   |                                       | Re                      | Received:        |                              |
|   |                                       | Pe                      | rmit #:          |                              |
|   |                                       | Iss                     | sue Date:        |                              |
| Swimming pools constructed 2015 International Swimming  |                                       |                         | mply with 780    | CMR 9 <sup>th</sup> Edition, |
| Owner:  |                                       |                         |                  | (4)                          |
| Address:  |                                       |                         |                  |                              |
| Phone:N   |                                       |                         |                  |                              |
| Owner Email:  |                                       |                         |                  |                              |
| Contractor:   |                                       |                         | ne:              |                              |
| Address   |                                       |                         |                  |                              |
| Contractor Email:   |                                       |                         |                  |                              |
| Type of Pool: Inground<br>Steel:  | AbovegroundConcrete:                  | Size:<br>Other:         |                  | ×                            |
| Wetlands: Will any work, in YES:NO: If yespermit.   |                                       |                         |                  |                              |
| ** Attach a plot plan to a relocation of the existing plot Wetland, powerlines, fence (and location of pool** | of land, location of                  | f all structures on the | lot, septic sys  | stems, Easements             |
| Applicant shall bear full res   | oonsibility for locati                | on and verification o   | f property bou   | ndaries.                     |
| 3   | grees to install the r                | oool in accordance wi   | th all ordinanc  | es and codes, wil            |
| The undersigned applicant agmaintain the pool and safety completion of the installation                       | barrier in good cond                  |                         | t the Building I |                              |



# Ine Commonweaun of Massachuseus Department of Industrial Accidents Office of Investigations Lafayette City Center 2 Avenue de Lafayette, Boston, MA 02111-1750

e de Lafayette, Boston, MA 02111-175 www.mass.gov/dia

Workers' Compensation Insurance Affidavit: Builders/Contractors/Electricians/Plumbers

<u>Applicant Information</u>

Please Print Legibly

| Name (Business/Organization/Individual):_  |  |  |
|--|--|--|
| Address:   |  |  |
| City/State/Zip:  | Phone #:   |  |
| Are you an employer? Check the approact of the semployees (full and/or part-time).*  2. I am a sole proprietor or partnership and have no employees working for me in any capacity. [No workers' comp. insurance required.]  3. I am a homeowner doing all work myself. [No workers' comp. insurance required.] †  *Any applicant that checks box #1 must also fill out the Homeowners who submit this affidavit indicating the Contractors that check this box must attached an additional contractors that check this box must attached an additional contractors that check this box must attached an additional contractors that check this box must attached an additional contractors that check this box must attached an additional contractors that check this box must attached an additional contractors that check this box must attached an additional contractors that check this box must attached an additional contractors that check this affidavit indicating the contractors that check this box must attached an additional contractors that check this affidavit indicating the contractors that check this box must attached an additional contractors that check this affidavit indicating the contractors that check this box must attached an additional contractors that check this affidavit indicating the contractors that check this box must attached an additional contractors that check this affidavit indicating the contractors that check this box must attached an additional contractors that check this affidavit indicating the contractors that check this box must attached an additional contractors that check this affidavit indicating the contractors that check this affidavit indicating the check the contractors that check this affidavit indicating the check the   | 4. I am a general contractor and I have hired the sub-contractors listed on the attached sheet.  These sub-contractors have employees and have workers' comp. insurance.  5. We are a corporation and its officers have exercised their right of exemption per MGL c. 152, §1(4), and we have no employees. [No workers' comp. insurance required.]  the section below showing their workers' compensation between the section below showing their workers' compensation below and then hire outside contractors | must submit a new affidavit indicating such.   |
| employees. If the sub-contractors have employees, the<br>I am an employer that is providing worker,<br>information.  | ey must provide their workers' comp. policy number.  |  |
| Insurance Company Name:  |  |  |
| Policy # or Self-ins. Lic. #:  | Expir  | ation Date:  |
| Job Site Address:  | City/S   | tate/Zip:  |
| Attach a copy of the workers' compensate Failure to secure coverage as required under fine up to \$1,500.00 and/or one-year imprisof up to \$250.00 a day against the violator. Investigations of the DIA for insurance coverage as required under the secure of the property of | er Section 25A of MGL c. 152 can lead to the sonment, as well as civil penalties in the for Be advised that a copy of this statement me verage verification.   | the imposition of criminal penalties of a rm of a STOP WORK ORDER and a fine hay be forwarded to the Office of |
| I do hereby certify under the pains and per  | nalties of perjury that the information pro  | vided above is true and correct.   |
| Signature:   | Date:  |  |
| Phone #:   |  |  |
| Official use only. Do not write in this a  | rea, to be completed by city or town officia   | ul.  |
| City or Town:  | Permit/License #   |  |
| Issuing Authority (check one):  1□Board of Health 2□ Building Dep Inspector 6.□Other   | oartment 3 City/Town Clerk 4. Ele  | ectrical Inspector 5 Plumbing  |
| Contact Person:  | Phone #:   |  |
|  |  |  |

## **Information and Instructions**

Massachusetts General Laws chapter 152 requires all employers to provide workers' compensation for their employees. Pursuant to this statute, an *employee* is defined as "...every person in the service of another under any contract of hire, express or implied, oral or written."

An *employer* is defined as "an individual, partnership, association, corporation or other legal entity, or any two or more of the foregoing engaged in a joint enterprise, and including the legal representatives of a deceased employer, or the receiver or trustee of an individual, partnership, association or other legal entity, employing employees. However the owner of a dwelling house having not more than three apartments and who resides therein, or the occupant of the dwelling house of another who employs persons to do maintenance, construction or repair work on such dwelling house or on the grounds or building appurtenant thereto shall not because of such employment be deemed to be an employer."

MGL chapter 152, §25C(6) also states that "every state or local licensing agency shall withhold the issuance or renewal of a license or permit to operate a business or to construct buildings in the commonwealth for any applicant who has not produced acceptable evidence of compliance with the insurance coverage required." Additionally, MGL chapter 152, §25C(7) states "Neither the commonwealth nor any of its political subdivisions shall enter into any contract for the performance of public work until acceptable evidence of compliance with the insurance requirements of this chapter have been presented to the contracting authority."

#### **Applicants**

Please fill out the workers' compensation affidavit completely, by checking the boxes that apply to your situation and, if necessary, supply sub-contractor(s) name(s), address(es) and phone number(s) along with their certificate(s) of insurance. Limited Liability Companies (LLC) or Limited Liability Partnerships (LLP) with no employees other than the members or partners, are not required to carry workers' compensation insurance. If an LLC or LLP does have employees, a policy is required. Be advised that this affidavit may be submitted to the Department of Industrial Accidents for confirmation of insurance coverage. Also be sure to sign and date the affidavit. The affidavit should be returned to the city or town that the application for the permit or license is being requested, not the Department of Industrial Accidents. Should you have any questions regarding the law or if you are required to obtain a workers' compensation policy, please call the Department at the number listed below. Self-insured companies should enter their self-insurance license number on the appropriate line.

#### City or Town Officials

Please be sure that the affidavit is complete and printed legibly. The Department has provided a space at the bottom of the affidavit for you to fill out in the event the Office of Investigations has to contact you regarding the applicant. Please be sure to fill in the permit/license number which will be used as a reference number. In addition, an applicant that must submit multiple permit/license applications in any given year, need only submit one affidavit indicating current policy information (if necessary) and under "Job Site Address" the applicant should write "all locations in \_\_\_\_\_ (city or town)." A copy of the affidavit that has been officially stamped or marked by the city or town may be provided to the applicant as proof that a valid affidavit is on file for future permits or licenses. A new affidavit must be filled out each year. Where a home owner or citizen is obtaining a license or permit not related to any business or commercial venture (i.e. a dog license or permit to burn leaves etc.) said person is NOT required to complete this affidavit.

The Office of Investigations would like to thank you in advance for your cooperation and should you have any questions, please do not hesitate to give us a call.

The Department's address, telephone and fax number:

The Commonwealth of Massachusetts
Department of Industrial Accidents
Office of Investigations
Lafayette City Center, 2 Avenue de Lafayette
Boston, MA 02111-1750

Tel. (617) 727-4900 or 1-877-MASSAFE Fax (617) 727-7749 permanent *residential* spas shall be controlled in accordance with the requirements of APSP 15.

#### SECTION 304 FLOOD HAZARD AREAS

**304.1 General.** The provisions of Section 304 shall control the design and construction of pools and spas installed in *flood hazard areas*.

[BS] 304.2 Determination of impacts based on location. Pools and spas located in *flood hazard areas* indicated within the *International Building Code* or the *International Residential Code* shall comply with Section 304.2.1 or 304.2.2.

**Exception:** Pools and spas located in riverine *flood hazard* areas that are outside of designated floodways and pools and spas located in *flood hazard areas* where the source of flooding is tides, storm surges or coastal storms.

[BS] 304.2.1 Pools and spas located in designated floodways. Where pools and spas are located in designated floodways, documentation shall be submitted to the code official that demonstrates that the construction of the pools and spas will not increase the design flood elevation at any point within the jurisdiction.

[BS] 304.2.2 Pools and spas located where floodways have not been designated. Where pools and spas are located where design flood elevations are specified but floodways have not been designated, the applicant shall provide a floodway analysis that demonstrates that the proposed pool or spa and any associated grading and filling, will not increase the design flood elevation more than 1 foot (305 mm) at any point within the jurisdiction.

[BS] 304.3 Pools and spas in coastal high-hazard areas. Pools and spas installed in coastal hazard areas shall be designed and constructed in accordance with ASCE 24.

**[BS] 304.4 Protection of equipment.** Equipment shall be elevated to or above the design flood elevation or be anchored to prevent flotation and protected to prevent water from entering or accumulating within the components during conditions of flooding.

304.5 GFCI protection. Electrical equipment installed below the design flood elevation shall be supplied by branch circuits that have ground-fault circuit interrupter protection for personnel.

#### SECTION 305 BARRIER REQUIREMENTS

305.1 General. The provisions of this section shall apply to the design of barriers for pools and spas. These design controls are intended to provide protection against the potential drowning and near drowning by restricting access to such pools or spas. These requirements provide an integrated level of protection against potential drowning through the use of physical barriers and warning devices.

#### Exceptions:

1. Spas and hot tubs with a lockable *safety cover* that complies with ASTM F 1346.

2. Swimming pools with a powered safety cover that complies with ASTM F 1346.

305.2 Outdoor swimming pools and spas. Outdoor pools and spas and indoor swimming pools shall be surrounded by a barrier that complies with Sections 305.2.1 through 305.7.

305.2.1 Barrier height and clearances. Barrier heights and clearances shall be in accordance with all of the following:

- 1. The top of the barrier shall be not less than 48 inches (1219 mm) above grade where measured on the side of the barrier that faces away from the pool or spa. Such height shall exist around the entire perimeter of the barrier and for a distance of 3 feet (914 mm) measured horizontally from the outside of the required barrier.
- 2. The vertical clearance between grade and the bottom of the barrier shall not exceed 2 inches (51 mm) for grade surfaces that are not solid, such as grass or gravel, where measured on the side of the barrier that faces away from the pool or spa.
- 3. The vertical clearance between a surface below the barrier to a solid surface, such as concrete, and the bottom of the required barrier shall not exceed 4 inches (102 mm) where measured on the side of the required barrier that faces away from the pool or spa.
- 4. Where the top of the pool or spa structure is above grade, the barrier shall be installed on grade or shall be mounted on top of the pool or spa structure. Where the barrier is mounted on the top of the pool or spa, the vertical clearance between the top of the pool or spa and the bottom of the barrier shall not exceed 4 inches (102 mm).

305.2.2 Openings. Openings in the barrier shall not allow passage of a 4-inch-diameter (102 mm) sphere.

**305.2.3 Solid barrier surfaces.** Solid barriers that do not have openings shall not contain indentations or protrusions that form handholds and footholds, except for normal construction tolerances and tooled masonry joints.

305.2.4 Mesh fence as a barrier. Mesh fences, other than chain link fences in accordance with Section 305.2.7, shall be installed in accordance with the manufacturer's instructions and shall comply with the following:

- 1. The bottom of the mesh fence shall be not more than 1 inch (25 mm) above the deck or installed surface or grade.
- 2. The maximum vertical clearance from the bottom of the mesh fence and the solid surface shall not permit the fence to be lifted more than 4 inches (102 mm) from grade or decking.
- 3. The fence shall be designed and constructed so that it does not allow passage of a 4-inch (102 mm) sphere under any mesh panel. The maximum vertical clearance from the bottom of the mesh fence and the solid surface shall not be more than 4 inches (102 mm) from grade or decking.

- 4. An attachment device shall attach each barrier section at a height not lower than 45 inches (1143 mm) above grade. Common attachment devices include, but are not limited to, devices that provide the security equal to or greater than that of a hook-and-eyetype latch incorporating a spring-actuated retaining lever such as a safety gate hook.
- 5. Where a hinged gate is used with a mesh fence, the gate shall comply with Section 305.3.
- 6. Patio deck sleeves such as vertical post receptacles that are placed inside the patio surface shall be of a nonconductive material.
- 7. Mesh fences shall not be installed on top of onground *residential* pools.
- 305.2.5 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 (1143 mm), the horizontal members shall be located on the pool or spa side of the fence. Spacing between vertical members shall not exceed  $1^{3}/_{4}$  inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed  $1^{3}/_{4}$  inches (44 mm) in width.
- 305.2.6 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 (1143 mm) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Where there are decorative cutouts within vertical members, the interior width of the cutouts shall not exceed 13/4 inches (44 mm).
- 305.2.7 Chain link dimensions. The maximum opening formed by a chain link fence shall be not more than  $1^3/_4$  inches (44 mm). Where the fence is provided with slats fastened at the top and bottom which reduce the openings, such openings shall be not more than  $1^3/_4$  inches (44 mm).
- 305.2.8 Diagonal members. Where the barrier is composed of diagonal members, the maximum opening formed by the diagonal members shall be not more than  $1^{3}/_{4}$  inches (44 mm). The angle of diagonal members shall be not greater than 45 degrees (0.79 rad) from vertical.
- 305.2.9 Clear zone. There shall be a clear zone of not less than 36 inches (914 mm) between the exterior of the barrier and any permanent structures or equipment such as pumps, filters and heaters that can be used to climb the barrier.
- 305.2.10 Poolside barrier setbacks. The pool or spa side of the required barrier shall be not less than 20 inches (508 mm) from the water's edge.
- 305.3 Gates. Access gates shall comply with the requirements of Sections 305.3.1 through 305.3.3 and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool or spa, shall be self-closing and shall have a self-latching device.

- 305.3.1 Utility or service gates. Gates not intended for pedestrian use, such as utility or service gates, shall remain locked when not in use.
- 305.3.2 Double or multiple gates. Double gates or multiple gates shall have at least one leaf secured in place and the adjacent leaf shall be secured with a self-latching device. The gate and barrier shall not have openings larger than  $^{1}/_{2}$  inch (12.7 mm) within 18 inches (457 mm) of the latch release mechanism. The self-latching device shall comply with the requirements of Section 305.3.3.
- 305.3.3 Latches. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from grade, the release mechanism shall be located on the pool or spa side of the gate not less than 3 inches (76 mm) below the top of the gate, and the gate and barrier shall not have openings greater than ½ inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.
- 305.4 Structure wall as a barrier. Where a wall of a dwelling or structure serves as part of the barrier and where doors or windows provide direct access to the pool or spa through that wall, one of the following shall be required:
  - 1. Operable windows having a sill height of less than 48 inches (1219 mm) above the indoor finished floor and doors shall have an alarm that produces an audible warning when the window, door or their screens are opened. The alarm shall be *listed* and *labeled* as a water hazard entrance alarm in accordance with UL 2017. In dwellings or structures not required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located 54 inches (1372 mm) or more above the finished floor. In dwellings or structures required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located not greater than 54 inches (1372 mm) and not less than 48 inches (1219 mm) above the finished floor.
  - 2. A safety cover that is listed and labeled in accordance with ASTM F 1346 is installed for the pools and spas.
  - 3. An approved means of protection, such as self-closing doors with self-latching devices, is provided. Such means of protection shall provide a degree of protection that is not less than the protection afforded by Item 1 or 2.
- 305.5 Onground residential pool structure as a barrier. An onground residential pool wall structure or a barrier mounted on top of an onground residential pool wall structure shall serve as a barrier where all of the following conditions are present:
  - 1. Where only the pool wall serves as the barrier, the bottom of the wall is on grade, the top of the wall is not less than 48 inches (1219 mm) above grade for the entire perimeter of the pool, the wall complies with the requirements of Section 305.2 and the pool manufacturer allows the wall to serve as a barrier.

- 2. Where a barrier is mounted on top of the pool wall, the top of the barrier is not less than 48 inches (1219 mm) above grade for the entire perimeter of the pool, and the wall and the barrier on top of the wall comply with the requirements of Section 305.2.
- 3. Ladders or steps used as means of access to the pool are capable of being secured, locked or removed to prevent access except where the ladder or steps are surrounded by a barrier that meets the requirements of Section 305.
- Openings created by the securing, locking or removal of ladders and steps do not allow the passage of a 4inch (102 mm) diameter sphere.
- 5. Barriers that are mounted on top of onground *residential* pool walls are installed in accordance with the pool manufacturer's instructions.
- 305.6 Natural barriers. In the case where the pool or spa area abuts the edge of a lake or other natural body of water, public access is not permitted or allowed along the shoreline, and required barriers extend to and beyond the water's edge not less than 18 inches (457 mm), a barrier is not required between the natural body of water shoreline and the pool or spa.
- 305.7 Natural topography. Natural topography that prevents direct access to the pool or spa area shall include but not be limited to mountains and natural rock formations. A natural barrier approved by the governing body shall be acceptable provided that the degree of protection is not less than the protection afforded by the requirements of Sections 305.2 through 305.5.

#### SECTION 306 DECKS

- 306.1 General. Decks shall be designed and installed in accordance with the *International Residential Code* or the *International Building Code*, as applicable in accordance with Section 102.7.1, except as provided in this section.
- 306.2 Slip resistant. Decks, ramps, coping, and similar step surfaces shall be slip resistant and cleanable. Special features in or on decks such as markers, brand insignias, and similar materials shall be slip resistant.
- 306.3 Step risers and treads. Step risers for decks of public pools and spas shall be uniform and have a height not less

- than  $3^3/_4$  inches (95 mm) and not greater than  $7^1/_2$  inches (191 mm). The tread distance from front to back shall be not less than 11 inches (279 mm). Step risers for decks of *residential* pools and spas shall be uniform and shall have a height not exceeding  $7^1/_2$  inches (191 mm). The tread distance from front to back shall be not less than 10 inches (254 mm).
- 306.4 Deck steps handrail required. Public pool and spa deck steps having three or more risers shall be provided with a handrail.
- 306.5 Slope. The minimum slope of decks shall be in accordance with Table 306.5 except where an alternative drainage method is provided that prevents the accumulation or pooling of water. The slope for decks, other than wood decks, shall be not greater than  $\frac{1}{2}$  inch per foot (1 mm per 24 mm) except for ramps. The slope for wood and wood/plastic composite decks shall be not greater than  $\frac{1}{4}$  inch per 1 foot (1 mm per 48 mm). Decks shall be sloped so that standing water will not be deeper than  $\frac{1}{8}$  inch (3.2 mm), 20 minutes after the cessation of the addition of water to the deck.
- 306.6 Gaps. Gaps shall be provided between deck boards in wood and wood/plastic composite decks. Gaps shall be consistent with *approved* engineering methods with respect to the type of wood used and shall not cause a tripping hazard.
  - 306.6.1 Maximum gap. The open gap between pool decks and adjoining decks or walkways, including joint material, shall be not greater than  $^{3}/_{4}$  inch (19.1 mm). The difference in vertical elevation between the pool deck and the adjoining sidewalk shall be not greater than  $^{1}/_{4}$  inch (6.4 mm).
- 306.7 Concrete joints. Isolation joints that occur where the pool coping meets the concrete deck shall be water tight.
  - 306.7.1 Joints at coping. Joints that occur where the pool coping meets the concrete deck shall be installed to protect the coping and its mortar bed from damage as a result of the anticipated movement of adjoining deck.
  - 306.7.2 Crack control. Joints in a deck shall be provided to minimize visible cracks outside of the control joints caused by imposed stresses or movement of the slab.
  - 306.7.3 Movement control. Areas where decks join existing concrete work shall be provided with a joint to protect the pool from damage caused by relative movement.
- 306.8 Deck edges. The edges of decks shall be radiused, tapered, or otherwise designed to eliminate sharp corners.

#### TABLE 306.5 MINIMUM DRAINAGE SLOPES FOR DECK SURFACES

| SURFACE  | MINIMUM DRAINAGE SLOPE<br>(INCH PER FOOT) |  |
|--|---|--|
| Carpet   | 1/2                                       |  |
| Exposed aggregate                                      | 1/4                                       |  |
| Textured, hand-finished concrete                       | <sup>1</sup> / <sub>8</sub>               |  |
| Travertine/brick-set pavers, public pools or spas      | 3/8                                       |  |
| Travertine/brick-set pavers, residential pools or spas | 1/ <sub>8</sub>                           |  |
| Wood   | 1/ <sub>g</sub>                           |  |
| Wood/plastic composite                                 | 1/8                                       |  |

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

306.9 Valves under decks. Valves installed in or under decks shall be accessible for operation, service, and maintenance. Where access through the deck walking surface is required, an access cover shall be provided for the opening in the deck. Such access covers shall be slip resistant and secured.

306.9.1 Hose bibbs. Hose bibbs shall be provided for rinsing down the entire deck and shall be installed in accordance with the *International Plumbing Code* or *International Residential Code*, as applicable in accordance with Section 102.7.1, and shall be located not more than 150 feet (45 720 mm) apart. Water-powered devices, such as water-powered lifts, shall have a dedicated hose bibb water source.

Exception: Residential pools and spas shall not be required to have hose bibbs located at 150-foot (45 720 mm) intervals, or have a dedicated hose bibb for waterpowered devices.

#### SECTION 307 GENERAL DESIGN

**307.1 General.** The provisions of this section apply to all pools and spas.

**Exception:** The provisions of Sections 307.3 through 307.6 do not apply to *listed* and *labeled* portable *residential* spas and *listed* and *labeled* portable *residential* exercise spas.

307.2 Glazing in hazardous locations. Hazardous locations for glazing shall be as defined in the *International Building Code* or the *International Residential Code*, as applicable in accordance with Section 102.7.1 of this code. Where glazing is determined to be in a hazardous location, the requirements for the glazing shall be in accordance with those codes, as applicable.

307.3 Materials. Pools and spas and appurtenances thereto shall be constructed of materials that are nontoxic to humans and the environment; that are generally or commonly regarded to be impervious and enduring; that will withstand the design stresses; and that will provide a watertight structure with a smooth and easily cleanable surface without cracks or joints, excluding structural joints, or that will provide a watertight structure to which a smooth, easily cleaned surface/finish is applied or attached. Material surfaces that come in contact with the user shall be finished, so that they do not constitute a cutting, pinching, puncturing or abrasion hazard under casual contact and intended use.

307.3.1 Beach pools. Clean sand or similar material, where used in a beach pool environment, shall be used over an impervious surface. The sand area shall be designed and controlled so that the circulation system, maintenance, safety, sanitation, and operation of the pool are not adversely affected.

**307.3.2** Compatibility. Assemblies of different materials shall be chemically and mechanically compatible for their intended use and environment.

**307.4** Materials and structural design. Pools and spas shall conform to one or more of the standards indicated in Table 307.4. The structural design of pools and spas shall be in accordance with the *International Building Code* or the *International Residential Code*, as applicable in accordance with Section 102.7.1 of this code.

TABLE 307.4 RESERVOIRS AND SHELLS

| MATERIAL  | STANDARD              |
|---|-----------------------|
| Fiberglass reinforced plastic                   | IAPMO Z124.7          |
| Plastic   | IAPMO Z124.7          |
| Stainless steel<br>(Types 316, 316L, 304, 304L) | ASTM A 240            |
| Tile  | ANSI A108/A118/A136.1 |
| Vinyl   | ASTM D 1593           |

**307.4.1 Installation.** Equipment for pools and spas shall be supported to prevent damage from misalignment and settling and located so as to allow access for inspection, servicing, removal and repair of component parts.

307.5 Freeze protection. In climates subject to freezing temperatures, outdoor pool and spa shells and appurtenances, piping, filter systems, pumps and motors, and other components shall be designed and constructed to provide protection from damage from freezing.

**307.6 Surface condition.** The surfaces within public pools and spas intended to provide footing for users shall be slip resistant and shall not cause injury during normal use.

**307.7** Colors and finishes. The colors, patterns, or finishes of the pool or spa interior shall not obscure objects or surfaces within the pool or spa.

Exception: Residential pools and spas.

307.8 Roofs or canopies. Roofs or canopies over aquatic vessels shall be in accordance with the *International Building Code* or *International Residential Code*, as applicable in accordance with Section 102.7.1 and shall be constructed so as to prevent water runoff into the pool or spa.

307.9 Accessibility. An accessible route to public pools and spas shall be provided in accordance with the *International Building Code*. Accessibility within public pools and spas shall be provided as required by the accessible recreational facilities provisions of the *International Building Code*. Accessibility for pools and spas accessory to detached one-and two-family dwellings and townhouses not more than three stories in height shall be provided where required by the *International Residential Code*.

#### SECTION 308 DIMENSIONAL DESIGN

**308.1 Floor slope.** The slope of the floor from the point of the first slope change to the deep area shall not exceed one unit vertical in three units horizontal (33-percent slope).

Exception: Portable residential spas and portable residential exercise spas.