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HARFORD COUNTY GOVERNMENT DIVISION OF BUILDING SERVICES

Residential Swimming Pool Guidelines

Based upon the 2021 International Swimming Pool & Spa Code
and Bill 24-005

This document is a synopsis of code related provisions for the design, construction, and installation of residential swimming pools in Harford County, Maryland. This document is not all inclusive and is only intended to be a technical resource for the installation and protection of a residential swimming pool in Harford County. It is highly recommended that individuals familiarize themselves with the provisions of the 2021 International Building Code, the 2021 International Swimming Pool & Spa Code and Harford County Council Bill 24-005 prior to planning the project.

ADDITIONAL RESOURCES

Consumer Product Safety Commission – <https://www.cpsc.gov/> Search for Swimming Pools
www.poolsafety.gov

International Building Code and International Swimming Pool and Spa Code - Free Version -
[https://codes.iccsafe.org/category/I-Codes?year\[\]>2018&page=1](https://codes.iccsafe.org/category/I-Codes?year[]>2018&page=1)

The Association of Pool and Spa Professionals - <http://apsp.org/>

GENERAL REQUIREMENTS

Barrier Protection

All swimming pools, spas and hot tubs shall be provided with barrier protection in accordance with Section 305 of the 2021 International Swimming Pool and Spa Code.

NOTE: Power safety covers are no longer approved for use as a compliant barrier on inground swimming pools in Harford County.

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Construction fencing required

In accordance with section 305.1.1 of the International Swimming Pool and Spa Code, construction sites for in-ground swimming pools and spas shall be provided with construction fencing not less than 4 feet in height to surround the site from the time any excavation occurs until the time that the permanent barrier is completed. This fencing **MUST** be inspected prior to the start of any excavation. Failure to do so will cause additional fees to be assessed, up to and including the issuance of a Stop Work Order.

Building Permits

All residential "Swimming Pools" installed in Harford County require the property owner to obtain a Building Permit from Harford County Government. Prefabricated swimming pools accessory to a Group R-3 occupancy that are less than 24" deep, are not greater than 5,000 gallons and are installed entirely above ground are exempt from obtaining a permit. (*Note: It is advised that property owners consult with the Harford County Department of Planning and Zoning prior to installing or erecting any pool not required to be permitted by the Harford County Building Code.*)

Electrical Permits

The electrical distribution system supplying power to all newly installed/erected swimming pools, either permanently installed or storable, shall comply with Article 680 of the 2023 National Electric Code as adopted by Harford County. A Harford County Electrical Permit is required to install or modify the electrical distribution system.

A licensed Master Electrician is responsible for obtaining a permit for such work and oversees the installation.

Storable/Inflatable Pools (Temporary Pools) shall have a GFCI protected receptacle at least 6 feet from the pool wall and within the reach of the cord supplied with the listed pool pump without the addition of any extension cords.

Suction Entrapment Avoidance

All swimming pools, spas and hot tubs shall be provided with Suction Entrapment Avoidance in accordance with Section 310 of the 2021 International Swimming Pool and Spa Code.

DEFINED TERMS

Residential - For the purposes of this code, residential applies to detached one- and two-family dwellings and townhomes not more than 3 stories in height.

Residential Swimming Pool (Residential Pool) - A pool intended for use which is an accessory to a residential setting and available only to the household and its guests. All other pools shall be considered public pools for the purposes of this code.

Spa - A product intended for the immersion of persons in temperature-controlled water circulated in a closed system, and not intended to be drained and filled with each use. A spa usually includes a filter, an electric, solar or gas heater, a pump or pumps and a control, and can also include other equipment such as lights, blowers, and water-sanitizing equipment.

Swimming Pool - Any structure intended for swimming recreational bathing or wading that contains water over 24" deep. This includes in-ground, above-ground, and on-ground pools; hot tubs; spas and fixed-in-place wading pools

SECTION 305 OF THE 2021 INTERNATIONAL SWIMMING POOL AND SPA CODE BARRIER REQUIREMENTS

305.1 General. The provisions of this section shall apply to the design of barriers for restricting entry into areas having pools and spas. Where spas or hot tubs are equipped with a lockable *safety cover* complying with ASTM F1346, the areas where those spas, hot tubs are located shall not be required to comply with Sections 305.2 through 305.7.

305.1.1 Construction fencing required. The construction sites for in-ground swimming pools and spas shall be provided with construction fencing to surround the site from the time that any excavation occurs up to the time that the permanent barrier is completed. The fencing shall be not less than 4 feet (1219 mm) in height.

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.

305.3 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 security equal to or greater than that of a hook-and-eye type 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 on-ground residential pools.

305.2.4.1 Setback for mesh fences.

The inside of a mesh fence shall be not closer than 20 inches (508 mm) to the nearest edge of the water of a pool or spa.

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

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 1 3/4 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.

Where equipment, including pool equipment such as pumps, filters and heaters, is on the same lot as a pool or spa and such equipment is located outside of the barrier protecting the pool or spa, such equipment shall be located not less than 36 inches (914 mm) from the outside of the barrier.

305.3 Doors and gates.

Doors and gates in barriers 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 doors and 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 doors and gates.

Doors and gates not intended for pedestrian use, such as utility or service doors and gates, shall remain locked when not in use.

305.3.2 Double or multiple doors and gates.

Double doors and gates or multiple doors and gates shall have not fewer than one leaf secured in place and the adjacent leaf shall be secured with a self-latching device.

305.3.3 Latch release.

For doors and gates in barriers, the door and gate latch release mechanisms shall be in accordance with the following:

1. Where door and gate latch release mechanisms are accessed from the outside of the barrier and are not of the self-locking type, such mechanism shall be located above the finished floor or ground surface in accordance with the following:
 - 1.2. At residential pools and spas, not less than 54 inches (1372 mm).
2. Where door and gate latch release mechanisms are of the self-locking type such as where the lock is operated by means of a key, an electronic opener or the entry of a combination into an integral combination lock, the lock operation control and the latch release mechanism shall be located above the finished floor or ground surface in accordance with the following:
 - 2.2. At residential pools and spas, at not greater than 54 inches (1372 mm).

305.3.4 Barriers adjacent to latch release mechanisms.

Where a latch release mechanism is located on the inside of a barrier, openings in the door, gate and barrier within 18 inches (457 mm) of the latch shall not be greater than 1/2 inch (12.7 mm) in any dimension.

305.4 Structure Wall as a Barrier.

Where a wall of a dwelling or structure serves as part of the barrier and where doors, gates 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, doors and gates 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.
2. In dwellings not required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located at not less than 54 inches (1372 mm) above the finished floor.
3. In dwellings that are 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.
4. In structures other than dwellings, the operable parts of the alarm deactivation switches shall be located not greater than 54 inches (1372 mm) and not less than 48 inches (1220 mm) above the finished floor.
5. 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 On-ground Residential Pool Structure as a Barrier.

An on-ground residential pool wall structure or a barrier mounted on top of an on-ground residential pool wall structure shall serve as a barrier where 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 subsection 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 subsection 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.
4. Openings created by the securing, locking or removal of ladders and steps do not allow the passage of a 4- inch (102 mm) diameter sphere.
5. Barriers that are mounted on top of on-ground 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 subsections 305.2 through 305.5.