

A GUIDE TO SWIMMING POOLS

Every person owning land on which there is situated a swimming pool, which contains twenty-four (24) inches or more of water in depth at any point, shall erect and maintain a four-foot (4'- 0") enclosure with a self-closing and self-latching gate surrounding the property or pool area sufficient to make such body of water inaccessible to small children. In addition to the required enclosure, a pool alarm is required by Public Act 99-140 that states when a person or object of fifteen (15) lbs. enters the water, the pool alarm must emit a sound of at least fifty (50) decibels.

Illustrations to ISPSC-2021 and ANSI/APSP-7

The drawings contained in this brochure pertain to the 2022 CT State Building Code along with the 2021 ISPSC, 2021 IRC, 2021 IBC, and 2020 NFPA 70 NEC where applicable. The Town of South Windsor assumes no responsibility for any errors or omissions contained in this handout. This handout cannot cover all situations, nor is it intended to do so.

Pool Barrier, Fence, Gate, Closer, and Alarm Requirements

Barriers

Barriers are not child proof, but they provide layers of protection for a child when there is a lapse in adult supervision. Barriers give parents additional time to find a child before the unexpected can occur.

Barriers include a fence or wall, door alarms for the house, a power safety cover over the pool and water surface alarm.

Barrier Locations

Barriers should be located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.

Fences

A fence completely surrounding the pool is better than one with the house serving as one or more sides. Fences shall be a minimum of 4 feet high, although fences 5 feet or higher are preferable.

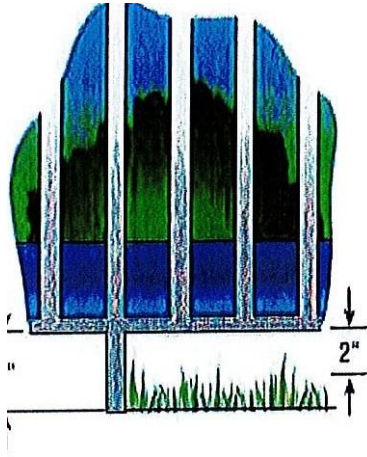
If the home serves as one or more sides of the barrier, installation of door alarms on all doors leading to the pool area are required.

Pool covers add another layer of protection and there are a wide variety of styles on the market. Keep pool covers well-maintained and make sure the control devices are kept out of the reach of children.

How to Prevent a Child from Getting OVER a Pool Barrier

A young child can get over a pool barrier if the barrier is too low or if the barrier has handholds or footholds to use when climbing. The top of a pool barrier shall be at least 48 inches above grade, measured on the side of the barrier which faces away from the swimming pool.

How to Prevent a Child from Getting UNDER a Pool Barrier



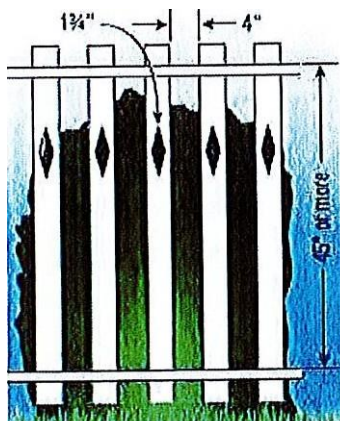
For any pool barrier, the maximum clearance at the bottom of the barrier shall not exceed **4 inches** above the surface or ground when the measurement is done on the side of the barrier facing away from the pool. If the bottom of the gate or fence rests on a non-solid surface like grass or gravel, the measurement shall not exceed **2 inches**.

For a Barrier (Fence) Made Up of Horizontal and Vertical Members

If the distance between the top sides of the horizontal members is less than 45 inches, the horizontal members shall be on the swimming pool side of the fence.



The spacing between vertical members and within decorative cutouts shall not exceed $1\frac{3}{4}$ inches. This size is based on the foot width of a young child and is intended to reduce the potential for a child to gain a foothold and attempt to climb the fence.



If the distance between the tops of the horizontal members is 45 inches or more, the horizontal members can be on the side of the fence facing away from the pool. The spacing between vertical members shall not exceed 4 inches. If there are any decorative cutouts in the fence, the space within the cutouts shall not exceed $1\frac{3}{4}$ inches.

Exception. A triangular wood block can be placed on top of the center cross member to bring shadow box fences into compliance.

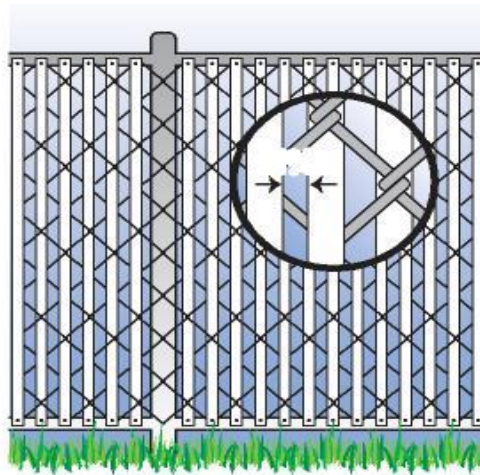
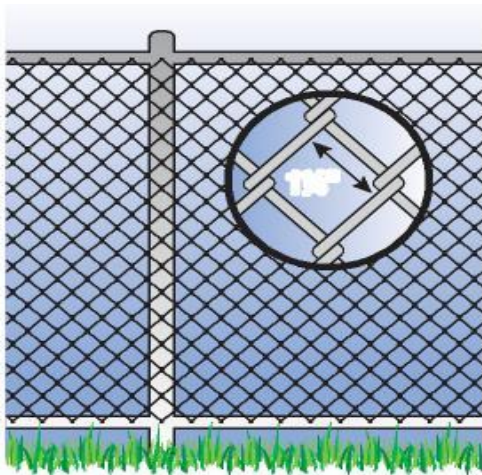
For Solid Barrier's



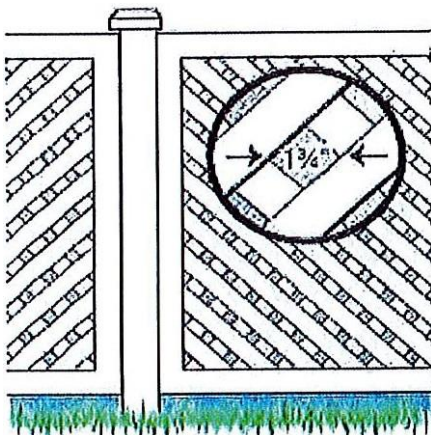
No indentions or protrusions shall be present, other than normal construction tolerances and masonry joints.

For a Chain Link Fence

The mesh size shall not exceed $1\frac{3}{4}$ inches square unless slats, fastened at the top or bottom of the fence, are used to reduce mesh openings to no more than $1\frac{3}{4}$ inches



For a Fence Made Up of Diagonal Members or Latticework



The maximum opening in the lattice shall not exceed $1\frac{3}{4}$ inches.

For Above Ground Pools

Above ground pools shall have barriers if less than 48" in height from exterior grade. The pool structure itself can serve as a barrier if the pool wall is 48" above exterior grade or a barrier can be mounted on top of the pool structure.

There are two possible ways to prevent young children from climbing up into an above ground pool. The steps or ladder can be designed to be secured, locked or removed to prevent access, or the steps or ladder can be surrounded by a barrier such as those described in these guidelines

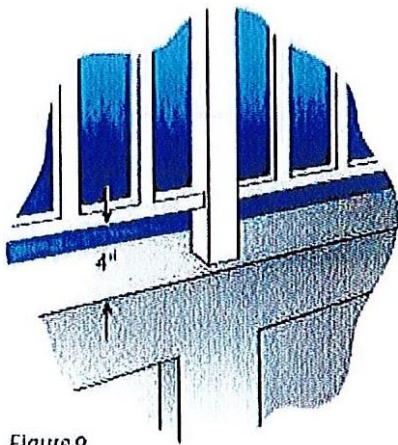
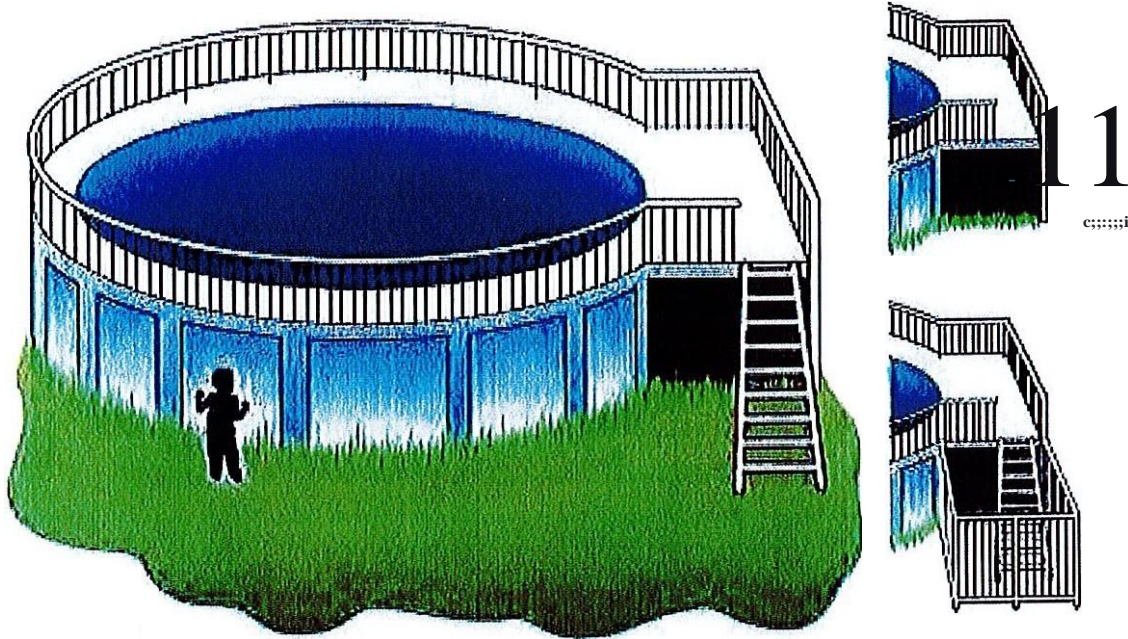


Figure 9

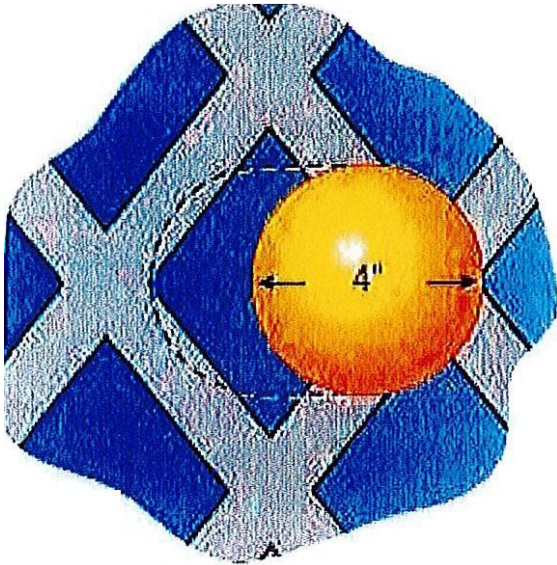
Above Ground Pool with Barrier on Top of Pool

If an above ground pool has a barrier on the top of the pool, the maximum vertical clearance between the top of the pool and the bottom of the barrier shall not exceed 4 inches

How to Prevent a Child from Getting THROUGH a Pool Barrier

Preventing a child from getting through a pool barrier can be done by restricting the sizes of openings in a barrier and by using self-closing and self-latching gates.

To prevent a young child from getting through a fence or other barrier, all openings shall be small enough so that a 4-inch diameter sphere cannot pass through. This size is based on the head breadth and chest depth of a young child.



Removable Mesh Fences

Mesh fences are specifically made for swimming pools or other small bodies of water. Although mesh fences are meant to be removable, the safest mesh pool fences are locked into the deck so that they cannot be removed without the extensive use of tools.

Like other pool fences, mesh fences shall be a minimum of 48" in height. The distance between vertical support poles and the attached mesh, along with other manufactured factors, shall be designed to hinder a child's ability to climb the fence. The removable vertical support posts should extend a minimum of 3 inches below grade and they shall be spaced no greater than 40 inches apart. The bottom of the mesh barrier shall not be more than 1 inch above the deck or installed surface.

For more information on Removable Mesh Fencing see ASTM standard F 2286 - 05.

Power Safety Covers

Power safety covers can be installed on pools to serve as security barriers, especially when the house serves as the fourth wall or side of a barrier. Power safety covers shall conform to the specifications in the ASTM F 1346-91 standard, which specifies safety performance requirements for pool covers to protect young children from drowning



Gates

There are two kinds of gates which might be found on a residential property. Pedestrian and vehicle gates or other types of gates. Both can play a part in the design of a swimming pool. All barrier gates shall be designed with self-latching devices.

Pedestrian Gates

These are the gates people walk through. Swimming pool barriers shall be equipped with a gate or gates which restrict access to the pool. Gates shall open out from the pool and shall be self-closing and self-latching. If a gate is properly designed and not completely latched, a young child pushing on the gate in order to enter the pool area will at least close the gate and may actually engage the latch.

Where the release mechanism of the self-latching device on the gate is less than 54 inches from the bottom of the gate, the release mechanism for the gate shall be at least 3 inches below the top of the gate on the side facing the pool. Placing the release mechanism at this height prevents a young child from reaching over the top of a gate and releasing the latch.

Also, the gate and barrier shall have no opening greater than 1/2 inch within 18 inches of the latch release mechanism. This prevents a young child from reaching through the gate and releasing the latch.

All Other Gates (Vehicle Entrances, Etc.)

Other gates shall be equipped with self-latching devices. The self-latching devices shall be installed as described above for pedestrian gates.



When the House Forms Part of the Pool Barrier.

In many homes, doors open directly from the house to the pool area or onto a patio leading to the pool. In such cases, the side of the house leading to the pool is an important part of the pool barrier. Passage through any door from the house to the pool shall be controlled by security measures.

Door Alarms

All doors that allow access to a swimming pool shall be equipped with an audible alarm which sounds when the door and/or screen are opened. Alarms shall meet the requirements of UL 2017 General-Purpose Signaling Devices and Systems, Section 77 with the following features:

Sound lasting for 30 seconds or more within 7 seconds after the door is opened.

The alarm shall have an automatic reset feature to temporarily deactivate the alarm for up to 15 seconds to allow adults to pass through house doors without setting off the alarm. The deactivation switch could be a touchpad (keypad) or a manual switch, and shall be located at least 54 inches above the threshold and out of the reach of children.

Self-closing doors with self-latching devices mounted at 54" may be used in conjunction with door alarms to safeguard doors which give access to a swimming pool.

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