

2015 International Residential Code portion of the 2018 Connecticut State Building Code

Section R326 Swimming Pools, Spas and Hot Tubs

R326.1 General

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

R326.2 Pools in flood hazard areas

Pools that are located in *flood hazard areas* established by Table R301.2(1), including above-ground pools, on-ground pools and in-ground pools that involve placement of fill, *shall* comply with Section R326.2.1 or R326.2.2.

Exception: Pools located in riverine *flood hazard areas* which are outside of designated *floodways*.

R326.2.1 Pools located in designated floodways

Where pools are located in designated *floodways*, documentation *shall* be submitted to the *building official* which demonstrates that the construction of the pool will not increase the *design flood elevation* at any point within the *jurisdiction*.

R326.2.2 Pools located where floodways have not been designated

Where pools 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 will not increase the *design flood elevation* more than 1 foot (305 mm) at any point within the *jurisdiction*.

R326.3 Definitions

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 POOL. 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 where the pool is intended to be used by the *owners* and invited guests.

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 sanitizing equipment.

SPA, EXERCISE (Also known as a swim spa). Variants of a spa in which the design and construction includes specific features and equipment to produce a water flow intended to allow recreational physical activity including, but not limited to, swimming in place. *Exercise spas* can include peripheral jetted seats intended for water therapy, heater, circulation and filtration system, or can be a separate distinct portion of a combination *spa/exercise spa* and can have separate controls. These spas are of a design and size such that they have an unobstructed volume of water large enough to allow the 99th Percentile Man as specified in APSP 16 to swim or exercise in place.

SPA, NONPORTABLE. See “Swimming pool.”

SPA, PORTABLE. A nonpermanent 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 more than 24 inches (610 mm) deep.

SWIMMING POOL, INDOOR. A swimming pool that is totally contained within a structure and surrounded on all four sides by the walls of the enclosing structure.

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

R326.4 Swimming pools

Swimming pools *shall* be designed and constructed in accordance with Sections R326.4.1 through R326.4.3.

R326.4.1 In-ground pools

In-ground pools *shall* be designed and constructed in compliance with APSP 5.

R326.4.2 Above-ground and on-ground pools

Above-ground and on-ground pools *shall* be designed and constructed in compliance with APSP 4.

R326.4.3 Pools in flood hazard areas

In *flood hazard areas* established by Table R301.2(1), pools in coastal high-hazard areas *shall* be designed and constructed in compliance with ASCE 24.

R326.5 Spas and hot tubs

Spas and hot tubs *shall* be designed and constructed in accordance with Sections R326.5.1 and R326.5.2.

R326.5.1 Permanently installed spas and hot tubs

Permanently installed spas and hot tubs *shall* be designed and constructed in compliance with APSP 3.

R326.5.2 Portable spas and hot tubs

Portable spas and hot tubs *shall* be designed and constructed in compliance with APSP 6.

R326.6 Barrier requirements

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

R326.6.1 Outdoor swimming pool

An outdoor swimming pool, including an in-ground, above-ground or on-ground pool, hot tub or spa, *shall* be surrounded by a barrier which *shall* comply with the following:

1. The top of the barrier *shall* be at least 48 inches (1219 mm) 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. Where the barrier is 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 the 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 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.
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 ³/₄ -inches (44 mm) in width.
6. Maximum mesh size for chain link fences *shall* be a 2 ¹/₄-inch (57 mm) square, unless the fence has slats fastened at the top or the bottom which reduce the openings to not more than 1 ³/₄ -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 ³/₄ inches (44 mm).
8. Access gates *shall* comply with the requirements of 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:

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
 2. The gate and barrier *shall* have no opening larger than $\frac{1}{2}$ 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:
1. The pool *shall* be equipped with a powered safety cover in compliance with ASTM F1346;
 2. Doors with direct access to the pool through that wall *shall* be equipped with an alarm that produces an audible warning when the door and/or its screen, if present, are opened. The alarm *shall* be *listed* and *labeled* in accordance with UL 2017. The deactivation switch(es) *shall* be located at least 54 inches (1372 mm) above the threshold of the door; or
 3. Other means of protection, such as *self-closing* doors with self-latching devices, which are *approved* by the governing body, *shall* be acceptable as long as the degree of protection afforded is not less than the protection afforded by Item 9.1 or 9.2 described herein.
10. Where an above-ground or on-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, the ladder or steps *shall* be surrounded by a barrier that meets the requirements of Section AG105.2, Items 1 to 9, inclusive.

R326.6.2 Indoor swimming pool

Walls surrounding an indoor swimming pool *shall* comply with Item 9 of Section R326.6.1.

R326.6.3 Barrier perimeter clearance

The required barrier 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, free of structures, equipment or similar objects.

R326.6.4 Barrier exceptions

Spas or hot tubs with a safety cover which comply with ASTM F1346 *shall* be exempt from the provisions of this chapter.

R326.6.5 Temporary enclosure

A temporary enclosure *shall* be installed prior to the electrical bonding inspection of any in-ground swimming pool unless the permanent barrier specified in Section R326.6.1 is in place prior to the commencement of the installation. The temporary enclosure *shall* be a minimum of 4 feet (1219) in height, *shall* have no openings that will allow passage of a 4-inch (102 mm) sphere and shall be equipped with a positive latching device on any openings.

R326.6.6 Pool alarm

Pursuant to section 29-265a of the Connecticut General Statutes, no building *permit shall* be issued for the construction or substantial *alteration* of a swimming pool at a residence occupied by, or being built for, one or more families unless a pool alarm is installed with the swimming pool. As used in this section, “pool alarm” means a device that emits a sound of at least 50 decibels when a person or an object weighing 15 pounds (6.8 kg) or more enters the water in a swimming pool.

Exception: Hot tubs and portable spas *shall* be exempt from this requirement.

R326.7 Entrapment protection for swimming pool and spa suction outlets

Suction outlets *shall* be installed in accordance with APSP 7.

R326.8 Abbreviations

The following abbreviations are defined as:

ANSI—American National Standards Institute
25 West 43rd Street, 4th Floor
New York, NY 10036

APSP—Association of Pool and Spa Professionals
NSPI—National Spa and Pool Institute
2111 Eisenhower Avenue
Alexandria, VA 22314

ASCE—American Society of Civil Engineers
1801 Alexander Bell Drive
Reston, VA 20191

ASTM—ASTM International
100 Barr Harbor Drive, P.O. Box C700
West Conshohocken, PA 19428

UL LLC
333 Pfingsten Road
Northbrook, IL 60062

R326.9 Referenced standards

The standards referenced herein are in Table R326.9.

Table R326.9
Referenced Standards

ANSI/APSP	Section
ANSI/APSP/ICC-3—14 American National Standard for Permanently Installed Residential Spas and Swim Spas	R326.5.1

ANSI/APSP/ICC-4—12 American National Standard for Aboveground/Onground Residential Swimming Pools	R326.4.2
ANSI/APSP/ICC-5—11 American National Standard for Residential Inground Swimming Pools	R326.4.1
ANSI/APSP/ICC-6—13 American National Standard for Residential Portable Spas and Swim Spas	R326.5.2
ANSI/APSP/ICC-7—13 American National Standard for Suction Entrapment Avoidance in Swimming Pools, Wading Pools, Spas, Hot Tubs and Catch Basins	R326.7
ANSI/APSP/ICC-16-11 American National Standard for Suction Fittings for Use in Swimming Pools, Wading Pools, Spas and Hot Tubs	R326.3
ASTM	
ASTM F1346—91 (2010) Standard Performance Specification for Safety Covers and Labeling Requirements for All Covers for Swimming Pools, Spas and Hot Tubs	R326.6.1,
	R326.6.4
UL	
UL 2017—2008 General-Purpose Signaling Devices and Systems - with revisions through May 2011	R326.6.1

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<https://portal.ct.gov/-/media/DAS/Office-of-State-Building-Inspector/2018-CT-State-Building-Code---Effective-10-01-18.pdf>