GUIDE TO SWIMMING POOLS

VILLAGE OF ALBION
BUREAU OF CODE ENFORCEMENT AND FIRE PREVENTION
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PERMIT REQUIREMENTS

Permits are required for all permanent and temporary pools, spas and hot tubs having a depth of 24 inches or more. These must meet the requirements of the NYS Residential Code. To obtain a permit for a new or replacement pool, the following information is required to be submitted to the Bureau of Code Enforcement and Fire Prevention for review.

- -Pool alarm is required
- -barrier(fence) required on pools less than 48"
- -electrical inspection required by a third party
- -the State of NY requires the Village to have on file a current certificate of insurance for general liability and workers' compensation (if required) for the contractors, before a permit will be issued. A CE-200 is required from the homeowner if not hiring a contractor and completing the work themselves.

§ 290-56. Swimming pools.

Swimming pools may be installed as accessory structures to a dwelling for the private use of the owners or occupants of such dwelling and their families and guests or in conjunction with a club or as a public or commercial recreation use. Swimming pools shall conform to the following minimum standards:

- A. Such pools shall be installed in the rear or side yard of the premises.
- B. The setbacks from the side and rear lot lines shall be at least five feet.
- C. Fences shall be erected and maintained, in conformance with the provisions of the Uniform Fire Prevention and Building Code and all other applicable laws and regulations.
- D. Every gate in a fence enclosing any pool, including an opening through the dwelling or other main building of the premises, shall conform to the requirements of the NYS Uniform Fire Prevention and Building Code.
- E. This section does not apply to farm ponds or other natural or artificially made bodies of water.

PERMANENTLY INSTALLED SWIMMING POOLS

2017 National Electrical Code Requirements NEW YORK ELECTRICAL INSPECTION AGENCY

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PERMANENTLY INSTALLED SWIMMING POOLS ARE THOSE THAT ARE CONSTRUCTED IN THE GROUND OR PARTIALLY IN THE GROUND, AND ALL OTHERS CAPABLE OF HOLDING WATER WITH A DEPTH GREATER THAN 42 INCHES (1067 MM)

1) Pool Pump Receptacle (Outlet) and Wiring Method

- a. Swimming pool pump motor receptacle must be located at least 6' from the inside pool wall, must be grounded, and Ground Fault Circuit Interrupter (GFCI) protected.
- b. Receptacle must have an extra-duty, in-use, weatherproof cover that can be closed when the cord is plugged in.
- c. Depending on the horsepower of the pump motor, the circuit line for the pump motor may need to be a continuous line going directly to the panel box, and isolated from all other receptacles and loads. (see NEC Table 430.248)
- d. Grounding Conductor (ground wire) for the pump motor cannot be less than #12 AWG insulated copper grounded wire, and must be in conduit. (Exception: When entering a building the wire can change to NM) (Cannot use NM wire in conduit).
- e. Conduit
 - i. PVC All PVC conduit* must be buried at least 18" deep (12" if GFCI protected prior to entering the ground).
 - ii. Metal All Rigid Metal Conduit* must be at least 6" deep.
 - * Wires used in conduit must be single strand wires (ex: THWN, etc NO NM or UF CABLE in Conduit).

2) Convenience Receptacle (Outlet) and Wiring Method

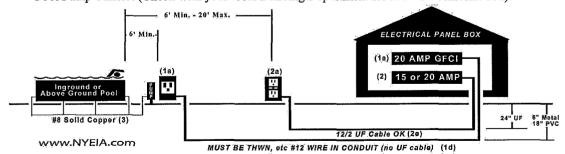
- a. At least one (1) 15- or 20-ampere convenience receptacle must be located no closer than 6' and no further than 20' from the inside pool wall (Can be existing and/or wired with any approved wiring method). This receptacle cannot be located more than 6 1/2' above the grade level, deck, or platform serving the swimming pool.
- b. Convenience receptacle must be Ground Fault Circuit Interrupter (GFCI) protected, Tamper Resistant (TR), and Weather Resistant (WR) type receptacle.
- c. Must have an extra-duty, in-use, weatherproof cover that can be closed when in use (for all wet locations).
- d. May need to be separate from the pool pump receptacle wiring.
- e. Wiring
 - i. UF cable if buried must be at least 24" deep (12" if GFCI protected prior to entering the ground).
 - ii. PVC All PVC conduits* must be buried at least 18" deep (12" if GFCI protected prior to entering the ground).
 - iii. Metal All Rigid Metal Conduits* must be at least 6" deep
 - * Wires used in conduit must be single strand wires (ex: THWN, etc. NO NM or UF CABLE in Conduit).

3) Bonding The Pool

- a. All metal parts must be bonded together using a #8 (or larger) solid copper wire.
- b. Must use non-corrosive clamps that are listed for direct burial use.
- c. Conductive pool shells must be bonded in a minimum of four (4) equal points uniformly spaced around the pool
- d. Nonconductive pool shells must have a #8 (or larger) solid, bare copper wire 18"-24" from the inside pool wall under the perimeter surface 4"-6" below the final grade.
- e. A minimum of nine (9) square inches of corrosion resistant metal must be in the water to bond the water.

4) Other

- a. Building Permits are required. Secure a Building Permit from your municipality prior to beginning work.
- b. Pool Alarms are required. (Check with your local Building Department for additional information).
- c. Pool Pump Timers: (Check with your local Building Department for additional information).



PLEASE CONTACT YOUR LOCAL INSPECTOR IF YOU HAVE ANY QUESTIONS NEW YORK ELECTRICAL INSPECTION AGENCY

Fritz Gunther - Chief Electrical Inspector

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STORABLE SWIMMING POOLS, SPAS, & HOT TUBS

2017 National Electrical Code Requirements NEW YORK ELECTRICAL INSPECTION AGENCY

585.436.4460 www.NYEIA.com

STORABLE POOLS ARE SWIMMING, WADING, OR IMMERSION POOLS THAT ARE INTENDED TO BE STORED WHEN NOT IN USE, CONSTRUCTED ON OR ABOVE THE GROUND, AND ARE CAPABLE OF HOLDING WATER TO A MAXIMUM DEPTH OF 42 IN., OR A POOL, CONSTRUCTED ON OR ABOVE GROUND WITH NON METALLIC, MOLDED POLYMERIC WALLS, OR INFLATABLE FABRIC WALLS REGARDLESS OF DIMENSION.

(The maximum water depth of 42" does not apply to inflatable swimming pools.)

1) Storable Pool Pumps

- a. Cord-connected pool filters must be approved system and have a double insulation or equivalent cord
- b. Cord-connected pool filter pumps must have a ground-fault circuit interrupter (GFCI) on the power supply cord located within 12" of the attached plug or that is an integral part of the attached plug on the cord.

2) Receptacle (Outlet) and Wiring Method for Storable Pool Pump

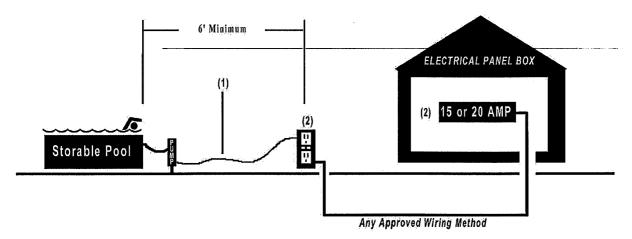
- a. Any receptacle, existing or new, cannot be located closer than 6' of the inside wall of the storable pool.
- b. The receptacle must be grounded, must be Ground Fault Circuit Interrupter (GFCI) protected, and the Tamper Resistant (TR), and Weather Resistant (WR) type receptacle.
- c. Receptacle must have an In-use, extra-duty weatherproof cover that can be closed when the cord is plugged in.
- d. An Automatic Timer (Time Switch) must be installed on storable swimming pool pumps.

3) Luminaries (lights) for Storable Pools (if used)

- a. Luminaries cannot have any exposed metal parts and must be listed for the purpose.
- b. Luminaries 15 Volts or less must:
 - i. Have a luminaire lamp that operates at 15 volts or less
 - ii. Have an impact-resistant polymeric lens, luminaire body, and a transformer enclosure
 - iii. Have a transformer listed for swimming pools with a primary rating not over 150 volts
- c. Luminaries Over 15 Volts but not over 150 volts must:
 - i. Have an impact-resistant polymeric lens and luminaire body
 - ii. Have Ground Fault Circuit Interrupter (GFCI) protection.

4) Other

- a. Building Permits are required. Secure a Building Permit from your municipality prior to beginning work.
- b. Pool Alarms may be required. (Check with your local Building Department for additional information.)
- c. All receptacles located within 20' of the inside walls of a storable pool wall must be GFCI protected.
- d. Overhead power lines within 10' of the edge of the storable pool must be at least 22 ½' above the water surface.



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CHAPTER 3 BUILDING PLANNING

SECTION R326 SWIMMING POOLS, SPAS AND HOT TUBS

[NY] R326.1 General.

The provisions of this section shall control the design and construction as well as substantial modification of swimming pools, spas and hot tubs installed in or on the lot of dwellings regulated under this code, and detached one- and two-family dwellings classified as Group R-3 and constructed under the *Building Code of New York State*.

Exception: Communal pools for the shared use of multiple townhouse units shall be regulated by the Building Code of New York State.

[NY] R326.1.1 Compliance with other sections.

Swimming pools, spas and hot tubs shall comply with this section and other applicable sections of this code. The requirements of this section and of the other applicable sections of this code shall be in addition to, and not in replacement of or substitution for, the requirements of other applicable federal, state and local laws and regulations, including, but not necessarily limited to the requirements of Section 8003 (Federal swimming pool and spa drain cover standard) of Title 15 of the United States Code (CPSC 15 USC 8003), where applicable.

[NY] R326.2 Definitions.

For the purpose of these requirements, the terms used shall be defined as follows and as set forth inChapter 2.

BARRIER, PERMANENT. A fence, the walls of a permanent structure, any other structure or combination thereof which completely surrounds the swimming pool and sufficiently obstructs access to the swimming pool.

BARRIER, TEMPORARY. An approved temporary fence, permanent fence, the walls of a permanent structure, any other structure, or any combination thereof that sufficiently prevents access to the swimming pool by any person not engaged in the installation or construction of the swimming pool during its installation or construction.

HOT TUB. See "Spa."

RESIDENTIAL. That which is situated on the premises of dwellings regulated under this code, and detached dwellings classified as R-3 and constructed under the *Building Code of New York State*.

SPA. A portable or nonportable structure intended for recreational or therapeutic bathing, in which all controls, waterheating and water-circulating equipment are an integral part of the product. Spas are shallow in depth and are not designed for swimming or diving.

SUBSTANTIAL DAMAGE. For the purpose of determining compliance with the pool alarm provisions of this section, damage of any origin sustained by a swimming pool, whereby the cost of restoring the swimming pool to its beforedamaged condition would equal or exceed 50 percent of the market value of the swimming pool before the damage occurred.

SUBSTANTIAL MODIFICATION. For the purpose of determining compliance with the pool alarm provisions of this section, any repair, alteration, addition or improvement of a swimming pool, the cost of which equals or exceeds 50 percent of the market value of the swimming pool before the improvement or repair is started. If a swimming pool has sustained substantial damage, any repairs are considered substantial modification regardless of the actual repair work performed.

SUCTION OUTLET. A fitting, fitting assembly, cover/grate, sump, and related components that provide a localized low-pressure area for the transfer of water from a swimming pool.

SWIMMING POOL. Any structure, basin, chamber or tank which is intended for swimming, diving, recreational bathing or wading and which contains, is designed to contain, or is capable of containing water more than 24 inches (610 mm) deep at any point. This includes in-ground, above-ground and on-ground pools, indoor pools, hot tubs, spas, and wading pools.

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

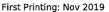
SWIMMING POOL, OUTDOOR. Any swimming pool which is not an indoor pool.

[NY] R326.3 Compliance with other standards.

[NY] R326.3.1 In-ground pools.

In-ground pools shall be designed and constructed in conformance with ANSI/APSP/ICC 5 (American National Standard

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for Residential Inground Swimming Pools, 2011).

[NY] R326.3.2 Above-ground and on-ground pools.

Above-ground and on-ground pools shall be designed and constructed in conformance with ANSI/APSP/ICC 4 (American National Standard for Aboveground/Onground Residential Swimming Pools, 2012).

[NY] R326.3.3 Permanently installed spas and hot tubs.

Permanently installed spas and hot tubs shall be designed and constructed in conformance with ANSI/APSP/ICC 3 (American National Standard for Permanently Installed Residential Spas and Swim Spas, 2014).

[NY] R326.3.4 Portable spas and hot tubs.

Portable spas and hot tubs shall be designed and constructed in conformance with ANSI/APSP/ICC 6 (American National Standard for Residential Portable Spas and Swim Spas, 2013).

[NY] R326.4 Barriers, application.

The provisions of this section shall control the design of barriers for swimming pools, spas and hot tubs. These design controls are intended to provide protection against potential drowning and neardrowning by sufficiently preventing access to swimming pools, spas and hot tubs by persons outside the property, persons within the dwelling, and persons in other parts of the property not contained within the pool enclosure.

[NY] R326.4.1 Temporary barriers.

An outdoor swimming pool shall be surrounded by a temporary barrier during installation or construction that shall remain in place until a permanent barrier in compliance with Section R326.4.2 is provided.

Exceptions:

- 1. Above-ground or on-ground pools where the pool structure constitutes a barrier in compliance with Section R326.4.2.9.
- 2. Spas or hot tubs with a safety cover which complies with ASTM F1346, provided that such safety cover is in place during the period of installation or construction of such hot tub or spa. The temporary removal of a safety cover as required to facilitate the installation or construction of a hot tub or spa during periods when at least one person engaged in the installation or construction is present is permitted.

[NY] R326.4.1.1 Height.

The top of the temporary 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.

[NY] R326.4.1.2 Replacement by a permanent barrier.

A temporary barrier shall be replaced by a complying permanent barrier within either of the following periods:

- 1. 90 days of the date of issuance of the building permit for the installation or construction of the swimming pool; or
- 2. 90 days of the date of commencement of the installation or construction of the swimming pool.

[NY] R326.4.1.2.1 Replacement extension.

Subject to the approval of the building official, the time period for completion of the permanent barrier may be extended for good cause, including, but not limited to, adverse weather conditions delaying construction.

[NY] R326.4.2 Permanent barriers.

Swimming pools shall be completely enclosed by a permanent barrier complying with Sections R326.4.2.1 through R326.4.2.6.

[NY] R326.4.2.1 Barrier height and clearances.

The top of the barrier shall be no less than 48 inches (1219 mm) above grade measured on the side of the barrier that faces away from the swimming pool. The vertical clearance between grade and the bottom of the barrier shall be not greater than 2 inches (51 mm) measured on the side of the barrier that faces away from the swimming pool. Where the top of the pool structure is above grade, the barrier may be at ground level, or mounted on top of the pool structure. Where the barrier is mounted on top of the pool structure, the barrier shall comply with Sections R326.4.2.2 and R326.4.2.3.

[NY] R326.4.2.2 Solid barrier surfaces.

Solid barriers which do not have openings shall not contain indentations or protrusions except for normal





construction tolerances and tooled masonry joints.

[NY] R326.4.2.3 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 swimming pool side of the fence. Spacing between vertical members shall not exceed 13/4 inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall be not greater than $1^3/4$ inches (44 mm) in width.

[NY] R326.4.2.4 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 be not greater than 4 inches (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall be not greater than 13/4 inches (44 mm) in width.

[NY] R326.4.2.5 Chain link dimensions.

Maximum mesh size for chain link fences shall be a 2/4 inch (57 mm) square, unless the fence has vertical slats fastened at the top or the bottom which reduce the openings to not more than $1^3/4$ inches (44 mm).

[NY] R326.4.2.6 Diagonal members.

Where the barrier is composed of diagonal members, the maximum opening formed by the diagonal members shall be not greater than $1^3/4$ inches (44 mm).

[NY] R326.4.2.7 Gates.

Gates shall comply with the requirements of Sections R326.4.2.1 through R326.4.2.6, and with the following requirements:

[NY] R326.4.2.7.1 Self-closing and opening configuration.

All gates shall be self-closing. In addition, if the gate is a pedestrian access gate, the gate shall open outward, away from the pool.

[NY] R326.4.2.7.2 Latching.

All gates shall be selflatching, with the latch handle located within the enclosure (i.e., on the pool side of the enclosure) and at least 40 inches (1016 mm) above grade. In addition, if the latch handle is located less than 54 inches (1372 mm) from grade, the latch handle shall be located at least 3 inches (76 mm) below the top of the gate, and neither the gate nor the barrier shall have any opening greater than 0.5 inch (12.7 mm) within 18 inches (457 mm) of the latch handle.

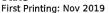
[NY] R326.4.2.7.3 Locking.

All gates shall be securely locked with a key, combination or other child-proof lock sufficient to prevent access to the swimming pool through such gate when the swimming pool is not in use or supervised.

[NY] R326.4.2.8 Dwelling wall as barrier.

A wall or walls of a dwelling may serve as part of the barrier, provided that the wall or walls meet the applicable barrier requirements of Sections R326.4.2.1 through R326.4.2.6, and one of the following conditions shall be met:

- 1. a) 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 in accordance with UL 2017. The audible alarm shall activate within 7 seconds and sound continuously for a minimum of 30 seconds after the door and/or its screen, if present, are opened and be capable of being heard throughout the house during normal household activities. The alarm shall automatically reset under all conditions. The alarm system shall be equipped with a manual means, such as touch pad or switch, to temporarily deactivate the alarm for a single opening. Deactivation shall last for not more than 15 seconds; and
 - b) Operable windows in the wall or walls used as a barrier shall have a latching device located no less than 48 inches above the floor. Openings in operable windows shall not allow a 4-inch-diameter (102 mm) sphere to pass through the opening when the window is in its largest opened position; and
 - c) Where the dwelling is wholly contained within the pool barrier or enclosure, alarms shall be provided at every door with direct access to the pool; or
- 2. Other approved means of protection, such as selfclosing with self-latching devices, so long as the degree





of protection afforded is not less than the protection afforded by Item 1 described above.

[NY] R326.4.2.8.1 Alarm deactivation switch location.

Where an alarm is provided, the deactivation switch shall be located 54 inches (1372 mm) or more above the threshold of the door. In dwellings required to be Accessible units, Type A units, or Type B units, the deactivation switch shall be located 48 inches (1219 mm) above the threshold of the door.

[NY] R326.4.2.9 Pool structure as barrier.

Where an above-ground pool structure is used as a barrier, or where the barrier is mounted on top of the pool structure, the structure shall be designed and constructed in compliance with ANSI/APSP/ICC 4 and meet the applicable barrier requirements of Sections R326.4.2.1 through R326.4.2.8. Where the means of access is a ladder or steps, one of the following conditions shall be met:

- 1. The ladder or steps shall be capable of being secured, locked or removed to prevent access. 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; or
- 2. The ladder or steps shall be surrounded by a barrier which meets the requirements of Sections R326.4.2.1 through R326.4.2.8.

[NY] R326.4.3 Indoor swimming pool.

Walls surrounding an indoor swimming pool shall comply with Section R326.4.2.8.

[NY] R326.4.4 Prohibited locations.

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

[NY] R326.5 Entrapment protection for swimming pool and spa suction outlets.

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

[NY] R326.5.1 Compliance.

Suction outlets shall be designed and installed in accordance with the requirements of CPSC 15 USC 8003 and ANSI/APSP/ICC 7, where applicable.

[NY] R326.6 Suction outlets.

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

[NY] R326.6.1 Compliance alternative.

Suction outlets may be designed and installed in accordance with ANSI/APSP/ICC 7.

[NY] R326.6.2 Suction fittings.

Pool and spa suction outlets shall have a cover that conforms to ANSI/ASME A112.19.8, or an 18 inch by 23 inch (457 mm by 584 mm) drain grate or larger, or an approved channel drain system.

Exception: Surface skimmers.

[NY] R326.6.3 Atmospheric vacuum relief system required.

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. This vacuum relief system 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.

[NY] R326.6.4 Dual drain separation.

Single or multiple pump circulation systems have a minimum of two suction outlets of the approved type. A minimum horizontal or vertical distance of 3 feet (914 mm) shall separate the outlets. These suction outlets shall be piped so that water is drawn through them simultaneously through a vacuumrelief-protected line to the pump or pumps.

[NY] R326.6.5 Pool cleaner fittings.



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Where provided, vacuum or pressure cleaner fitting(s) shall be located in an accessible position(s) at least 6 inches (152 mm) and not more than 12 inches (305 mm) below the minimum operational water level or as an attachment to the skimmer(s).

[NY] R326.7 Swimming pool and spa alarms, applicability.

A swimming pool or spa installed, constructed or substantially modified after December 14, 2006, shall be equipped with an approved pool alarm. Pool alarms shall comply with ASTM F2208 (Standard Specification for Pool Alarms), and shall be installed, used and maintained in accordance with the manufacturer's instructions and this section.

Exceptions:

- 1. A hot tub or spa equipped with a safety cover which complies with ASTM F1346.
- 2. A swimming pool (other than a hot tub or spa) equipped with an automatic power safety cover which complies with ASTM F1346.

[NY] R326.7.1 Multiple alarms.

A pool alarm must be capable of detecting entry into the water at any point on the surface of the swimming pool. If necessary to provide detection capability at every point on the surface of the swimming pool, more than one pool alarm shall be provided.

[NY] R326.7.2 Alarm activation.

Pool alarms shall activate upon detecting entry into the water and shall sound poolside and inside the dwelling.

[NY] R326.7.3 Prohibited alarms.

The use of personal immersion alarms shall not be construed as compliance with this section.



Building Standards | Fire Prevention and Codes

and Control

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April 9, 2018

CODE OUTREACH PROGRAM

Issue 2018- 4

Code Outreach Program – Swimming Pools for Buildings Governed by the 2015 International Residential Code

The swimming pool season is fast approaching. This edition of the Code Outreach Program focuses on some of the frequently asked questions related to swimming pools, spas, and hot tubs for buildings governed by the 2015 International Residential Code.

Section R326 of the 2015 International Residential Code (2015 IRC) is amended in its entirety by Chapter 2, Item 2.24, Section R326 of the 2017 Uniform Code Supplement, by providing New York State specific requirements for new swimming pools, spas, and hot tubs. Section 303 of the 2015 International Property Maintenance Code (2015 IPMC) is amended by the addition of new Sections 303.3 through 303.8 by Chapter 8, Item 8.6 of the 2017 Uniform Code Supplement for existing swimming pools, spas, and hot tubs. Below are some frequently asked questions pertaining to these code sections:

Can a safety cover be substituted for the requirements of R326.5 "Barrier Requirements"?

A safety cover that complies with ASTM F 1346 can be substituted for a permanent barrier for spas and hot tubs only, not swimming pools (R326.5.6). A powered safety cover that complies with ASTM F 1346 can substitute the requirement for an alarm and/or a self-closing device on a door that has direct access to a pool, in situations where the dwelling serves as part of the barrier (R326.5.3 (9)). Lastly, an automatic power safety cover on a swimming pool or, a safety cover on a spa or hot tub can be substituted for the requirements of a pool alarm, if such cover complies with ASTM F1346 (R326.7.1).

Can a neighbor's fence be used as part of the barrier for a swimming pool?

The owner of the pool is responsible for maintaining a barrier in compliance with Section 303 of the 2015 IPMC, as modified by the 2017 Uniform Code Supplement. An owner can use a portion of a neighbor's fence as a barrier, provided the entire fence is installed and maintained in accordance with the barrier requirements of the code. However, should the neighbor's fence become noncompliant, the pool owner is still required to maintain a code-compliant barrier by installing a new fence or by providing another form of a compliant barrier.

If I drain my swimming pool, do I still need to maintain a barrier around it?

A swimming pool is defined in Section R326.2 of the 2015 IRC as amended by the 2017 Uniform Code Supplement as "Any structure, basin, chamber or tank which is intended for swimming, diving, recreational bathing or wading and which contains, is designed to contain, or is capable of containing water more than 24 inches (610 mm) deep at any point. This includes in-ground, above-ground and on-ground pools; indoor pools; hot tubs; spas; and, fixed-in-place wading pools." Draining a pool in and of itself does not remove it from the definition and therefore, would still require a barrier to be maintained.

When do I need to install a barrier around my new pool?

An outdoor swimming pool, including an in-ground, above-ground, or on-ground pool, hot tub, or spa, shall be surrounded by a temporary barrier during installation or construction, which shall remain in place until a permanent barrier in compliance with Section R326.5.3 is provided. The temporary barrier shall be replaced within 90 days of either of the following: the date of issuance of the building permit for the installation or construction of the swimming pool, or, commencement of the installation or construction of the swimming pool. The CEO may extend this time frame for good cause, including, but not limited to, adverse weather conditions which delay construction (R326.5.2).

DBSC is preparing updates to the swimming pool information provided on it's website. The Division anticipates that the update will be completed by the end of May 2018.

Please look for our next edition of the Code Outreach Program at the beginning of next month.

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NEW YORK Building Standards Fire Prevention and Codes

and Control

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May 5, 2020

CODE OUTREACH PROGRAM

Issue 2020-05

Code Outreach Program – Above-Ground Swimming Pool Barrier Requirements

This document is intended to clarify some of the barrier requirements applicable to new or substantially modified residential above ground swimming pools. Those reviewing plans for the installation, or substantial modification, of a swimming pool should review the full text of the provisions found in the Uniform Code as well as the local laws, ordinances, codes, and regulations of the municipality where the pool is to be installed for any further requirements.

The word "residential," as used in this document, applies to pools accessory to one- and two-family dwellings regulated by the 2020 Residential Code of New York State (2020 RCNYS) and to pools accessory to detached one- and two-family dwellings classified as Group R-3 occupancies constructed under the 2020 Building Code of New York State (2020 BCNYS). Provisions for communal swimming pools accessory to townhouses and swimming pools accessory to other buildings regulated by the 2020 BCNYS, can be found in Section 3109 of the 2020 BCNYS. The provisions for residential pools are found in Section R326 of the 2020 RCNYS.

The 2020 RCNYS defines a swimming pool as "any structure, basin, chamber or tank which is intended for swimming, diving, recreational bathing or wading and which contains, is designed to contain, or is capable of containing water more than 24 inches (610 mm) deep at any point. This includes in-ground, above-ground and on-ground pools, indoor pools, hot tubs, spas, and wading pools."

New or substantially modified swimming pools are required to be provided with temporary barriers during installation (see Section R326.4.1) and with permanent barriers thereafter. The permanent barrier requirements are found in Section R326.4.2 and include heights, clearances, and opening size and configuration.

In accordance with Section R326.4.2.9, as an alternate to a conventional on ground barrier, the barrier for above-ground or on-ground swimming pools, including quick set, inflatable swimming pools, is permitted to be mounted on top of the pool structure or the pool structure may constitute a barrier, where all the following requirements are met:

- 1. the structure shall meet the applicable barrier and gate requirements of Section R326.4.2, including among others, a 48-inch height (see Section R326.4.2.9):
- 2. the barrier is designed "to provide protection against potential drowning and near drowning by sufficiently preventing access to [the] swimming" pool (see Section R326.4);
- 3. the pool and pool structure must be designed and constructed in compliance with ANSI/APSP/ICC 4, 2012 titled American National Standard for Aboveground/ Onground Residential Swimming Pools (see Section R326.4.2.9);
- 4. the pool manufacturer certifies that the pool structure, if used as a barrier or with a barrier mounted on it, is designed with accepted structural engineering practices (see Section 6.1 of ANSI/APSP/ICC 4); and
- 5. if the means of access is a ladder or steps, then:
 - a. the ladder or steps shall be capable of being secured, locked or removed to prevent access; or
 - b. the ladder or steps shall be surrounded by a complying swimming pool barrier. See Section R326.4.2.9 (1) and (2).

A wall, or walls, of a dwelling may also serve as part of the barrier, provided that they meet the applicable barrier requirements of Section R326.4.2. Barriers shall be located in a manner that prohibits permanent structures, equipment, or similar objects from being used to climb the barrier.

Other requirements of the 2020 RCNYS are applicable, including requirements for gates, pool alarms, and entrapment protection.

The 2020 Property Maintenance Code of New York State requires that all swimming pools, enclosures/barriers, alarms, and entrapment protection be maintained in a clean and sanitary condition, and in good repair.

Please look for our next edition of the Code Outreach Program at the beginning of next month.

DBSC - A Division of Department of State OFPC - An Office of the Division of Homeland Security & Emergency Services

If you have questions pertaining to the Code Outreach Program, email us at COP.codes@dos.ny.gov If you have questions pertaining to the Uniform Code or Energy Code, email our technical support group at: codes@dos.ny.gov To cancel your subscription to this email list, click on the unsubscribe link found here.

Current Requirements for Swimming Pools Contained in the Uniform Fire Prevention and Building Code (Uniform Code)

April 2011

Introduction

The State Uniform Fire Prevention and Building Code (the "Uniform Code") is promulgated by the State Fire Prevention and Building Code Council (the "Code Council") pursuant to Article 18 of the Executive Law. The Uniform Code includes provisions contained in Parts 1219 to 1228 of Title 19 of the New York Code, Rules and Regulations (the "NYCRR") and the provisions contained in the publications that are mentioned in Parts 1220 to 1227. Those publications include the 2010 editions of the Residential Code of New York State, the Building Code of New York State, the Plumbing Code of New York State, the Mechanical Code of New York State, the Fuel Gas Code of New York State, the Fire Code of New York State, the Property Maintenance Code of New York State, and the Existing Building Code of New York.

The Uniform Code includes a number of provisions relating to swimming pools. This document is intended to summarize the requirements for swimming pools currently found in the Uniform Code.

Please note that local laws regarding fencing and other safety requirements for swimming pools may be more restrictive than requirements for swimming pools contained in the Uniform Code. If you are considering the purchase of a swimming pool, you should review the Uniform Code provisions summarized in this document and, in addition, you should consult the local laws, ordinances, codes and regulations of the municipality where the pool is to be installed for any further requirements

Definition of "Swimming Pool"

The term "swimming pool" is defined in the Uniform Code as "any structure, basin, chamber or tank which is intended for swimming, diving, recreational bathing or wading and which contains, is designed to contain, or is capable of containing water more than 24 inches (610 mm) deep at any point. This includes in-ground, above-ground and on-ground pools; indoor pools; hot tubs; spas; and fixed-in-place wading pools." 1

NOTE: A pool which is capable of containing more that 24 inches of water is a "swimming pool" (and is subject to all applicable Uniform Code provisions relating to "swimming pools") even if the pool is filled to a depth of less than 24 inches.

Barrier Requirements: Outdoor Residential Swimming Pools

An outdoor residential swimming pool must be provided with a barrier which completely surrounds the swimming pool and obstructs access to the swimming pool. The barrier may consist of a fence, a wall, a building wall, or any combination thereof. The barrier must be at least 4 feet (48 inches) high, and must satisfy certain specified requirements (which are discussed in more detail below).

Access gates must satisfy the requirements applicable to barriers, as well as certain additional requirements (which are discussed in more detail below). In addition, access gates must be securely locked with a key, combination or other child-proof lock sufficient to prevent access to the swimming pool through such gate when the swimming pool is not in use or supervised.

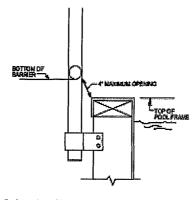
NOTE: In general, the barrier requirements discussed in this document apply to all swimming pools, without regard to the date of construction or installation of the pool. $\frac{3}{2}$

NOTE: As mentioned above, the definition of "swimming pool" includes hot tubs and spas. However, a hot tub or spa with a safety cover that complies with reference standard ASTM F 1346, entitled Standard Performance Specification for Safety Covers and Labeling Requirements for All Covers for Swimming Pools, Spas and Hot Tubs, is exempt from the barrier requirements discussed here.

NOTE: The principal purpose of the Uniform Code's barrier requirements is to make swimming pools inaccessible to young children. The specific requirements discussed below are intended to prevent a child from crawling under the barrier, fitting through the barrier, or climbing over the barrier. The requirements for access gates are intended to prevent a child from opening an access gate.

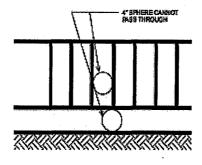
Barriers provided for outdoor residential swimming pools must satisfy the following requirements:

- The barrier must completely surround the swimming pool and must obstruct access to the swimming pool.
- The barrier must be at least 4 feet (48 inches) high.
- The space between the bottom of the barrier and the ground cannot exceed 2 inches.
- In the case of an above-ground pool, the barrier may be at ground level or mounted on top of the pool structure; however, if the barrier is mounted on top of the pool structure, the space between the top of the pool structure and the bottom of the barrier cannot exceed 4 inches. See Figure 3109.4.1 on Page 3.
- Any opening in the barrier must be small enough to prevent the passage of a 4-inch-diameter sphere through the opening. See Figure 3109.4.1.1 on Page 3.



For St. 1 Inch = 25.4 mm.

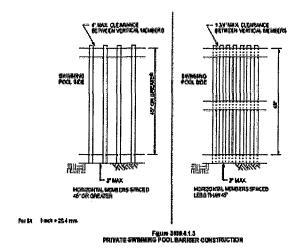
Figure 3109.4.1
OPENING LIMITATIONS



For St. 1 inch = 25.4 mm

Figure 2109.4.1.1 BARRER OPENINGS

- A barrier that does not have openings, such as a masonry or stone wall, cannot contain indentations or protrusions (except for normal construction tolerances and tooled masonry joints).
- 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:
 - o the horizontal members must be located on the swimming pool side of the fence;
 - o the spacing between vertical members cannot exceed 1.75 inches; and
 - o the spacing within any decorative cutouts in vertical members cannot exceed 1.75 inches. See Figure 3109.4.1.3 below.
- Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches or more:
 - o the spacing between vertical members cannot exceed 4 inches; and
 - o the spacing within any decorative cutouts in vertical members cannot exceed 1.75 inches. See Figure 3109.4.1.3 below.



For Sh. 1 tech = 28.4 mm.
Figure 3199.4.1.6
CHAIN-LINK FENCE MESH FOR PRIVATE
SWIMMINS POOLS

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International Code Council.

- If a chain link fence is used as the barrier, the mesh size cannot exceed 2.25-inch 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. See Figure 3109.4.1.6 above.
- Where the barrier is composed of diagonal members, such as a lattice fence, the opening formed by the diagonal members cannot exceed 1.75 inches.
- Access gates must satisfy the requirements stated above, and with the following additional requirements:
 - o All gates must be self-closing.
 - In addition, if the gate is a pedestrian access gate, the gate must open outward, away from the pool.
 - o All gates shall be self-latching, with the latch handle located within the enclosure (i.e, on the pool side of the enclosure) and at least 40 inches (1016 mm) above grade.
 - In addition, if the latch handle is located less than 54 inches (1372 mm) from the bottom of the gate, the latch handle shall be located at least 3 inches (76 mm) below the top of the gate, and neither the gate nor the

barrier shall have any opening greater than 0.5 inch (12.7 mm) within 18 inches (457 mm) of the latch handle.

- All gates shall be securely locked with a key, combination or other child proof lock sufficient to prevent access to the swimming pool through such gate when the swimming pool is not in use or supervised.
- A building wall can form part of the required barrier. However, where a wall of a dwelling serves as part of the barrier, at least one of the following requirements must be satisfied:
 - o the pool must be equipped with a powered safety cover in compliance with reference standard ASTM F1346, entitled Standard Performance Specification for Safety Covers and Labeling Requirements for All Covers for Swimming Pools, Spas and Hot Tubs; or
 - o all doors with direct access to the pool through that wall must be equipped with an alarm which:
 - 1. produces an audible warning when the door and its screen, if present, are opened,
 - 2. sounds continuously for a minimum of 30 seconds immediately after the door is opened,
 - 3. is capable of being heard throughout the house during normal household activities,
 - 4. automatically resets under all conditions, and
 - 5. is equipped with a manual means, such as touchpad or switch, to deactivate the alarm temporarily for a single opening (such deactivation cannot last for more than 15 seconds, and the deactivation switch[es] must be located at least 54 inches above the threshold of the door); or
 - o other means of protection, such as self-closing doors with self-latching devices, which are approved by the governing body and which afford a degree of protection not less than the protection afforded by the powered safety cover and door alarm described above, must be provided.
- In the case of an above-ground pool, the pool structure itself can serve as a part of the required barrier, provided that the pool structure is sufficiently rigid to obstruct access to the pool. However, 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:
 - the ladder or steps shall be capable of being secured, locked or removed to prevent access, or the ladder or steps shall be surrounded by a complying swimming pool barrier;
 - o when the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4-inch-diameter sphere.
- Barriers shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.

All walls surrounding an indoor residential swimming pool must comply with the above-stated requirements for building walls used as all or part of a barrier around an outdoor residential swimming pool. ⁴

Barrier Requirements: Public Swimming Pools

A public swimming pool must be completely enclosed by a fence at least 4 feet in height or a screen enclosure. Openings in the fence must not permit the passage of a 4-inch diameter sphere. The fence or screen enclosure must be equipped with self-closing and self-latching gates.⁵

See also Section 302.7.2.1 of the *Property Maintenance Code of New York State*, which provides that an approved enclosure, at least 4 feet in height, must be provided around outdoor swimming pools, so that such pools are inaccessible to children. The enclosure may surround either the pool area or the property.

NOTE: The State Sanitary Code (10 NYCRR Chapter 1) is a regulation promulgated by the New York State Department of Health. Subpart 6-1 of the State Sanitary Code applies to all swimming pools except:

- (1) a swimming pool "owned and/or maintained by an individual for the use of his family and friends:
 - (2) spa pools used under medical supervision or associated with hospitals; and
- (3) float tank or relaxation tank used for solitary body immersion in skin-temperature salt water."

Therefore, Subpart 6-1 applies to most "public" swimming pools. If a swimming pool is subject to the provisions of Subpart 6-1 of the State Sanitary Code, then:

- The pool must be enclosed within a fence or other barrier, at least four feet high, which can only be entered by bathers through self-closing and positive self-latching doors or gates;
- the knob or handle controlling the latch must be at least 40 inches above grade;
- the gate or door must be locked, and access to pool prevented, when the pool is not supervised;
- swimming pool fences constructed after the effective date of Subpart 6-1 (March 30, 1988) must meet the requirements of the Uniform Code; and
- in the case of a swimming pool fence constructed prior to March 30, 1988, no opening shall exceed four inches.

Temporary Pool Enclosures ⁶

During the installation or construction of a swimming pool, the swimming pool must be enclosed by a temporary enclosure. The temporary enclosure may consist of a temporary fence, a

permanent fence, the wall of a permanent structure, any other structure, or any combination of the foregoing. However:

- all portions of the temporary enclosure must be at least four(4) feet high, and
- all components of the temporary enclosure must be sufficient to prevent access to the swimming pool by any person not engaged in the installation or construction process and to provide for the safety of all such persons.

The temporary enclosure must remain in place throughout the period of installation or construction of the swimming pool, and thereafter until the installation or construction of a permanent enclosure has been completed. The temporary enclosure must be replaced by a permanent enclosure. The permanent enclosure must comply with all applicable "Barrier Requirements" described at pages 2 to 7 of this publication, and with any additional requirements that may be imposed by any other New York State codes or regulations applicable to swimming pool enclosures or by any local law applicable to swimming pool enclosures and in effect in the location where the swimming pool has been installed or constructed.

The permanent enclosure must be completed within ninety days after the date of issuance of the building permit for the installation or construction of the swimming pool, or the date of commencement of the installation or construction of the swimming pool, whichever is later. (If the swimming pool is installed or constructed without the issuance of a building permit, the permanent enclosure must be completed within ninety days after the date of commencement of the installation or construction of the swimming pool - note, however, that this provision does not permit the installation or construction of a pool without a building permit where such a permit is required by applicable law.) The local code enforcement official has authority to extend the 90 day period for completion of the permanent enclosure for good cause, such as a delay in construction caused by bad weather.

Pool Alarm Requirements ⁷

Every swimming pool that is installed, constructed or substantially modified after December 14, 2006 must be equipped with an approved pool alarm which:

- is capable of detecting a child entering the water and giving an audible alarm when it detects a child entering the water;
- is audible poolside and at another location on the premises where the swimming pool is located;
- is installed, used and maintained in accordance with the manufacturer's instructions;
- is classified to reference standard ASTM F2208, entitled *Standard Specification for Pool Alarms* (either the version adopted in 2002 and editorially corrected in June 2005, or the version adopted in 2007); and
- is not an alarm device which is located on person(s) or which is dependent on device(s) located on person(s) for its proper operation.

A pool alarm must be capable of detecting entry into the water at any point on the surface of the swimming pool. If necessary to provide detection capability at every point on the surface of the swimming pool, more than one pool alarm must be installed.

Pool alarms are not required in:

- a hot tub or spa equipped with a safety cover classified to reference standard ASTM F1346 (2003), entitled Standard Performance Specification for Safety Covers and Labeling Requirements for All Covers for Swimming Pools, Spas and Hot Tubs, or
- any swimming pool (other than a hot tub or spa) equipped with an automatic power safety cover classified by to reference standard ASTM F1346 (2003).

Entrapment Protection Requirements 8

- Suction outlets must 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 must be protected against user entrapment.
- All pool and spa suction outlets (except surface skimmers) must be provided with:
 - o a cover that conforms with reference standard ASME/ANSI A112.19.8M, entitled Suction Fittings for Use in Swimming Pools, Wading Pools, Spas, Hot Tubs, and Whirlpool Bathtub Appliances, or
 - o a drain gate that is 12" × 12" or larger, or
 - o a channel drain system approved by the local code enforcement official.
- All pool and spa single or multiple outlet circulation systems must be equipped with atmospheric vacuum relief should grate covers located therein become missing or broken. Such vacuum relief systems shall include at least one the following:
 - safety vacuum release system conforming to reference standard ASME
 A112.19.17, entitled Manufacturers Safety Vacuum Release Systems (SVRS) for Residential and Commercial Swimming Pool, Spa, Hot Tub and Wading Pool, or
 - o a gravity drainage system approved by the local code enforcement official.
- Single or multiple pump circulation systems must be provided with a minimum of two (2) suction outlets of the approved type.
- The suction outlets must be separated by a minimum horizontal or vertical distance of three (3) feet.
- These suction outlets must be piped so that water is drawn through them simultaneously through a vacuum relief-protected line to the pump or pumps.
- If the pool or spa is equipped with vacuum or pressure cleaner fitting(s), each fitting must be located:
 - in an accessible position which is at least six (6) inches and not greater than twelve (12) inches below the minimum operational water level, or
 - o as an attachment to the skimmer(s).

Design and Construction Requirements

In-ground pools must be designed and constructed in conformance with reference standard ANSI/NSPI-5, entitled *Standard for Residential In-ground Swimming Pools*.⁹

Above-ground and on-ground pools must be designed and constructed in conformance with reference standard ANSI/NSPI-4, entitled *Standard for Above-ground/On-ground Residential Swimming Pools*. 10

NOTE: A "public" swimming pool that is subject to Subpart 6-1 of the State Sanitary Code must comply with the design standards and construction provisions of Subpart 6-1.

Maintenance Requirements

The *Property Maintenance Code of New York State* provides that swimming pools must be maintained in a clean and sanitary condition, and in good repair. 11

NOTE: A "public" swimming pool that is subject to Subpart 6-1 of the State Sanitary Code must comply with the operation, supervision and maintenance provisions of Subpart 6-1.

Other Requirements

Many other technical requirements are covered by the Uniform Code:

- o Safety glazing material is required in the walls and fences enclosing indoor and outdoor swimming pools where certain conditions are met. See *Building Code of New York State* Section 2406.2.9.
- Support provisions for membrane structures: see Building Code of New York State Section 3102.8.3.
- Recirculation of supply air to a swimming pool and associated deck areas: see *Mechanical Code of New York State* Section 403.2.1.2.

- o Regulation of solar heating systems: see Mechanical Code of New York State Section 1401.
- Swimming pools shall be protected against backflow in accordance with Plumbing Code of New York State Section 608. See Plumbing Code of New York State Section 423.1.
- Where waste water from swimming pools, backflow from filters and water from pool deck drainsdischarge to the building drainage system, the discharge must be through an indirect waste pipe via an air gap. See *Plumbing Code of New York State* Section 802.1.4.
- Suction fittings for use in swimming pools shall comply with reference standard ASME/ANSI A112.19.8M, entitled Suction Fittings for Use in Swimming Pools, Wading Pools, Spas, Hot Tubs, and Whirlpool Bathtub Appliances. See Residential Code of New York State Section 2701.1.
- The installation of electric wiring and equipment associated with swimming pools, wading pools, hot tubs and spas, and hydromassage bathtubs, whether permanently installed or storable, and metallic auxiliary equipment, such as pumps, filters and similar equipment, are subject to the provisions of Chapter 41 of the Residential Code of New York State. For example:
 - Section 4102 contains requirements for wiring methods.
 - Section 4103 contains requirements for equipment locations and clearances.
 - Section 4104 contains requirements for the bonding of metallic parts, and permitted methods of bonding.
 - Section 4105 contains requirements for the grounding of equipment.
 - Section 4106 contains requirements for the installation of equipment.
 - Section 4107 contains special provisions for storable swimming pools.
 - Section 4108 contains special provisions for spas and hot tubs.
 - Section 4109 contains special provisions for hydromassage bathtubs.

State Energy Conservation Construction Code

The State Energy Conservation Construction Code of New York State (Energy Code) is promulgated by the Code Council pursuant to Article 11 of the Energy Law. The Energy Code is included provisions in Part 1240 of Title 19 of the NYCRR and in the publication mentioned in that Part. That publication is the Energy Conservation Construction Code of New York State.

Energy conservation requirements for residential and commercial swimming pools can be found in Chapters 4 and 5 of the Energy Code.

ENDNOTES

- 1. See 19 NYCRR Sections 1220.1(d)(7), 1221.1(d)(2), 1222.1(c)(1), 1228.2(b)(4), and 1228.4(b)(3).
- 2. See Residential Code of New York State, Appendix G, Section 105.2 and the definitions in Residential Code of New York State, Appendix G, Section 102.1. See also Property Maintenance Code of New York State Section 302.7.2.1, which provides that an approved enclosure, at least 4 feet in height, must be provided around outdoor swimming pools, so that such pools are inaccessible to children.
- 3. See Tarquini v. Town of Aurora, 77 N.Y.2d 354 (1991).
- 4. See Residential Code of New York State, Appendix G, Section 105.3.
- 5. See Building Code of New York State Section 3109.3.
- 6. See 19 NYCRR, Part 1228, Section 1228.4.
- 7. See 19 NYCRR, Part 1228, Section 1228.2.
- 8. See Residential Code of New York State, Appendix G, Section 106.
- 9. See Residential Code of New York State, Appendix G, Section 103.1.
- 10. See Residential Code of New York State, Appendix G, Section 103.2.
- 11. See Property Maintenance Code of New York State Section 302.7.2