



SWIMMING POOLS

The State Building Code definition a swimming pool is any structure intended for swimming or recreational bathing that contains water **over 24 inches** deep. This includes in-ground, above-ground, inflatable and on-ground swimming pools, hot tubs and spas. **This includes the ready to assemble pools you purchase at your local discount stores.** Pools also need to be permitted and inspected to ensure they are safe and code compliant. For a detailed list of code requirements and further information on pool safety visit the Building Dept. website or contact our office at 203.452.5020 or 203.452.5021 Monday through Friday 7:30 am to 4 pm.

This packet contains the code sections based on the 2018 State Building Code, which includes the 2015 IRC with CT amendments. Illustrations are taken from the 2015 International Swimming Pool and Spa Code. If there is need for further clarification to any code reference, please contact one of the Trumbull Building Inspectors. (contact info located on website, www.trumbull-ct.gov /departments/Building)

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.-inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts *shall* not exceed 1 .-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.-inches (44 mm) in width.
6. Maximum mesh size for chain link fences *shall* be a 2¹/₄-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.-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. 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:
 - 8.1 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
 - 8.2 The gate and barrier *shall* have no opening larger than 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:
 - 9.1 The pool *shall* be equipped with a powered safety cover in compliance with ASTM F1346;
 - 9.2 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
 - 9.3 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.

POOL Alarm and Cover REQUIRED

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.

403.9.3 Pool covers. Heated pools shall be equipped with a vapor-retardant pool cover on or at the water surface. Pools heated to more than 90°F (32°C) shall have a pool cover with a minimum insulation value of R-12.

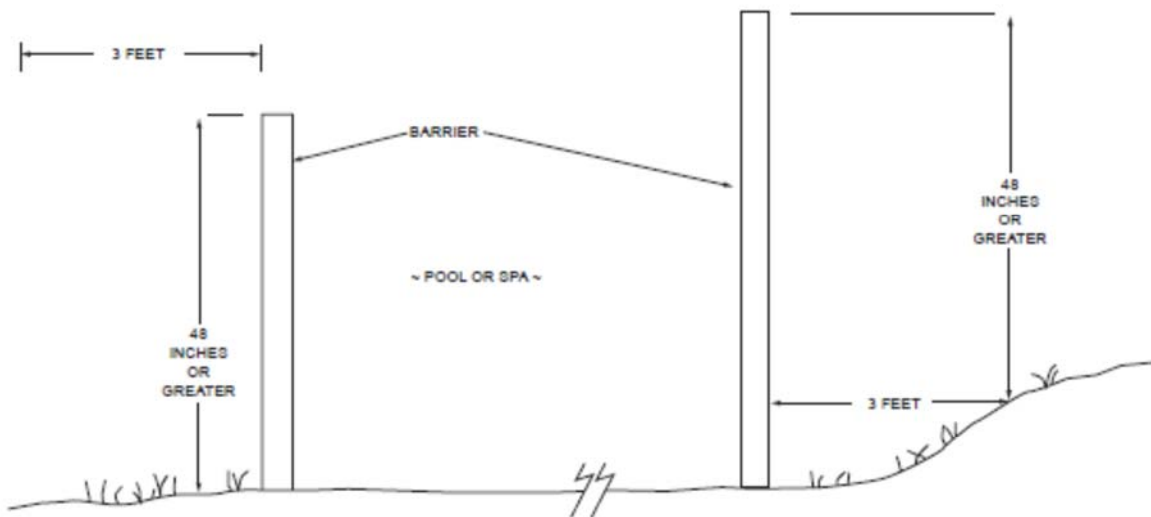
R326.7 Entrapment protection for swimming pool and spa suction outlets. Suction outlets *shall* be installed in accordance with APSP 7.

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

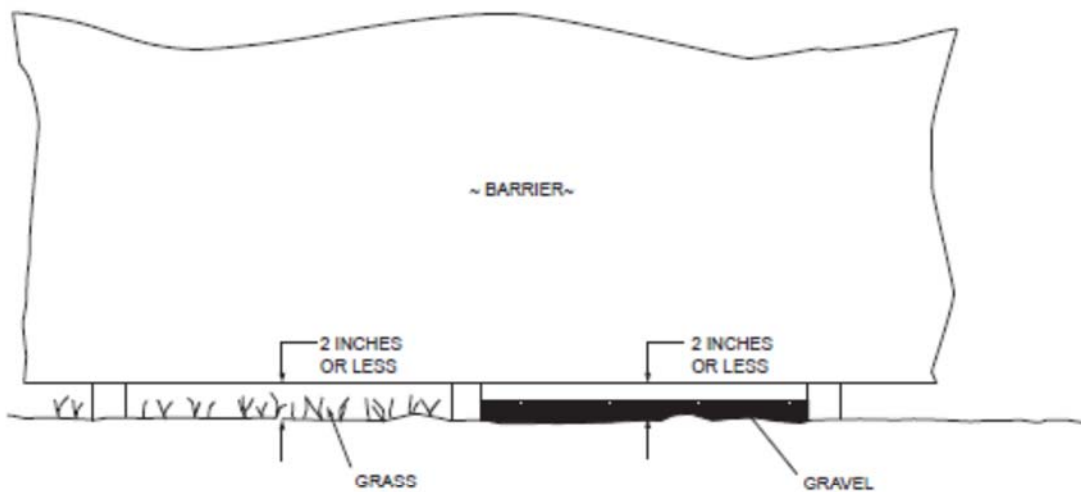
Electrical Requirements can be found in chapter 42 of the 2015 IRC. The chapter covers wiring methods, equipment location and clearances, proper bonding, grounding and equipment installation. We recommend consulting and hiring a Licensed Electrical contractor if you are not familiar with requirements, as electrical safety is utmost importance in regards to swimming pools.

Feel free to speak to a Building Inspector for further information.



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

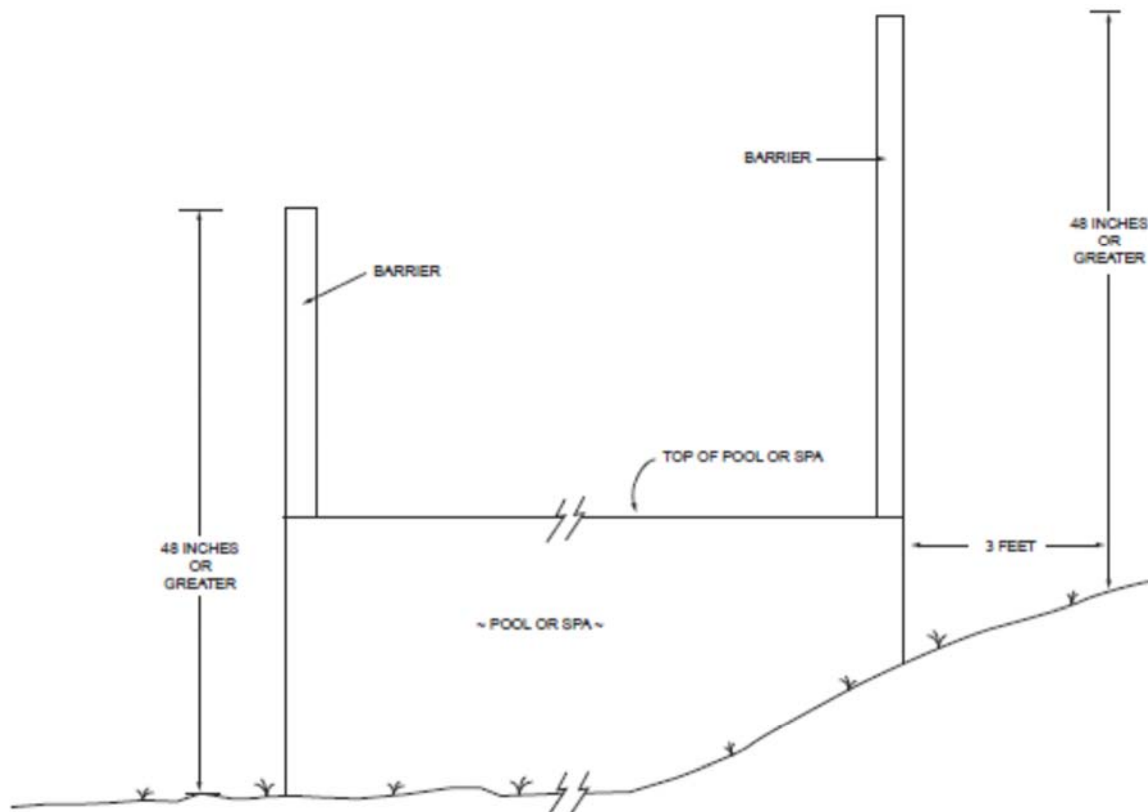
FIGURE 305.2.1(1)
HEIGHT OF BARRIER ABOVE GRADE



ELEVATION VIEW FROM OUTSIDE
BARRIER SURROUNDING THE POOL OR SPA

For SI: 1 inch = 25.4 mm.

FIGURE 305.2.1(2)
MAXIMUM CLEARANCE FROM BOTTOM OF BARRIER TO GRADE



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

FIGURE 305.2.1(4)
HEIGHT OF BARRIER WHERE MOUNTED ON TOP OF THE POOL OR SPA

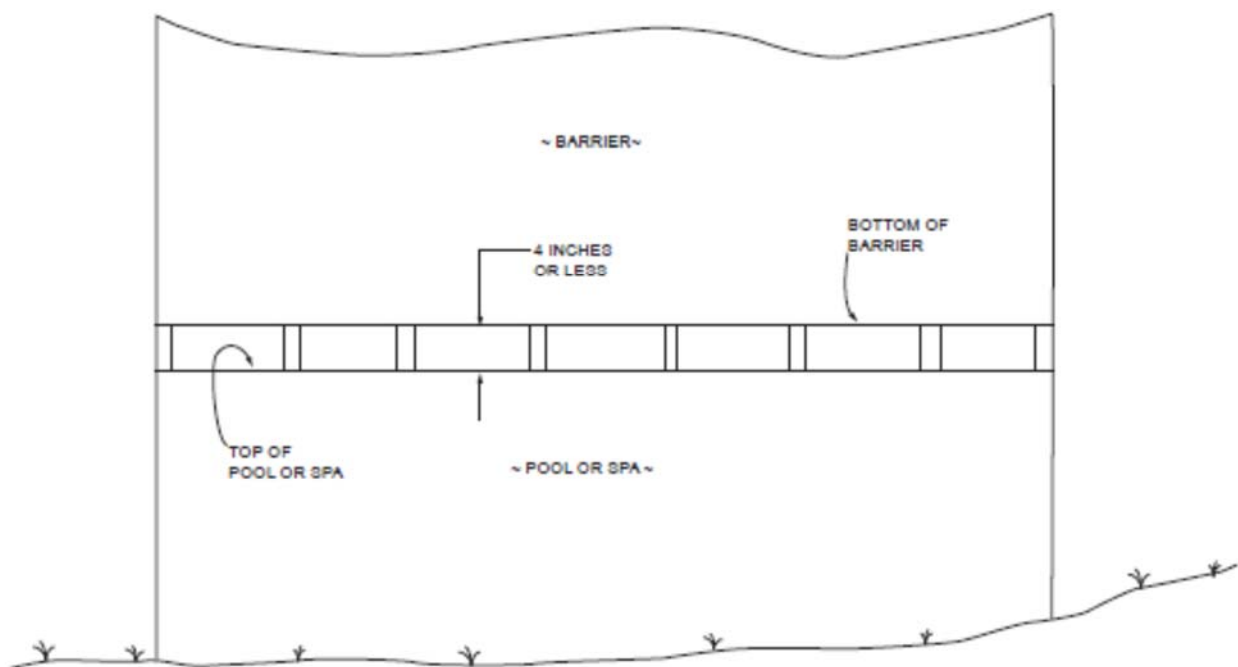
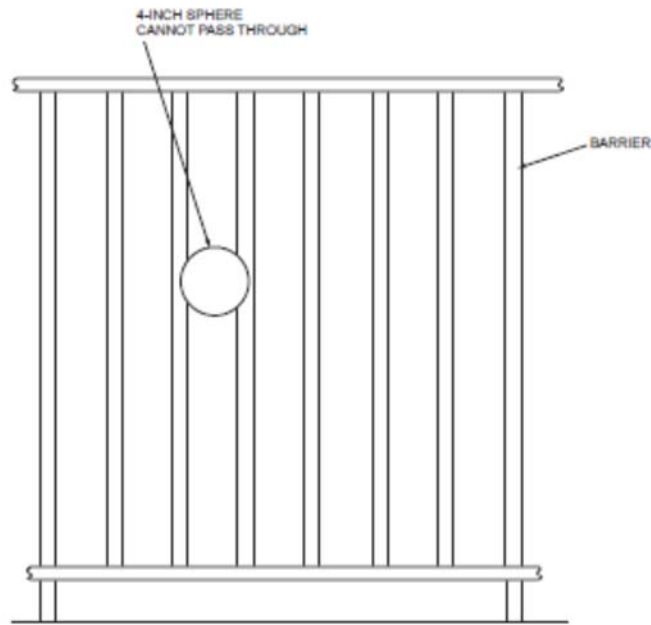
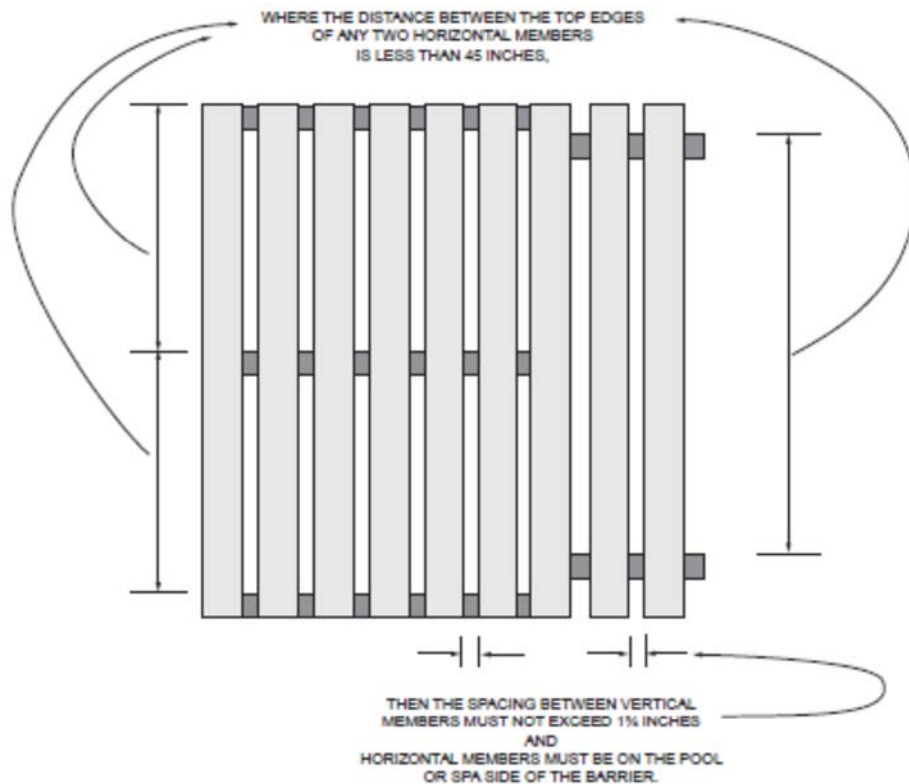


FIGURE 305.2.1(5)
MAXIMUM CLEARANCE FROM BOTTOM OF BARRIER TO TOP OF THE POOL OR SPA WHERE BARRIER IS MOUNTED ON TOP OF THE POOL OR SPA



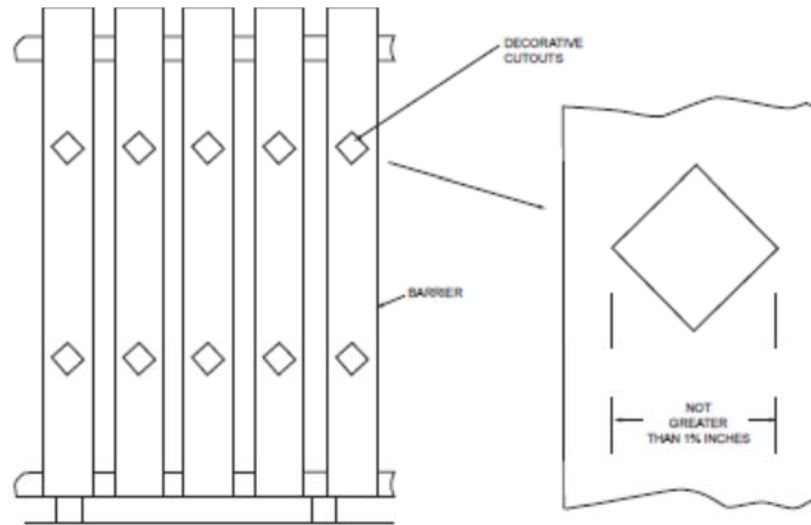
For SI: 1 inch = 25.4 mm.

**FIGURE 305.2.2
FOUR-INCH SPHERE CANNOT
PASS THROUGH BARRIER OPENINGS**



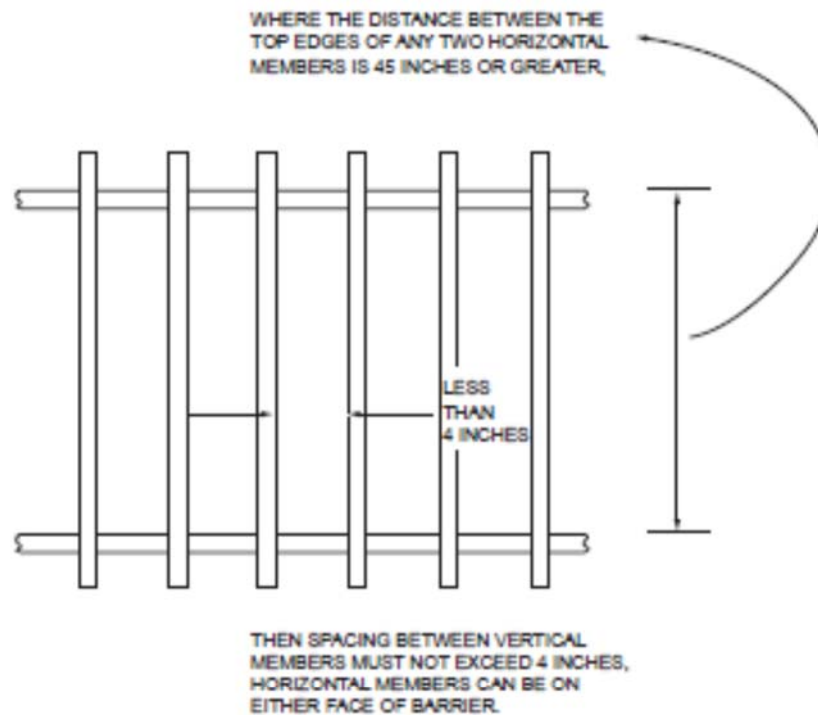
For SI: 1 inch = 25.4 mm.

**FIGURE 305.2.5(1)
MAXIMUM SPACING BETWEEN VERTICAL MEMBERS WHERE
DISTANCE BETWEEN TOP OF HORIZONTAL MEMBERS IS LESS THAN 45 INCHES**



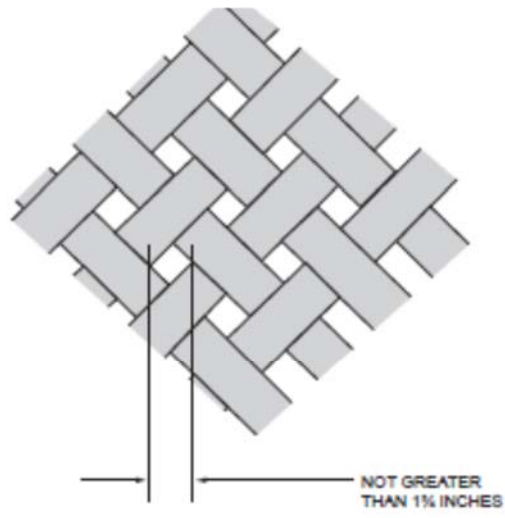
For SI: 1 inch = 25.4 mm.

FIGURE 305.2.5(2)
MAXIMUM OPENING WIDTH OF DECORATIVE CUTOUTS IN BARRIER MATERIALS



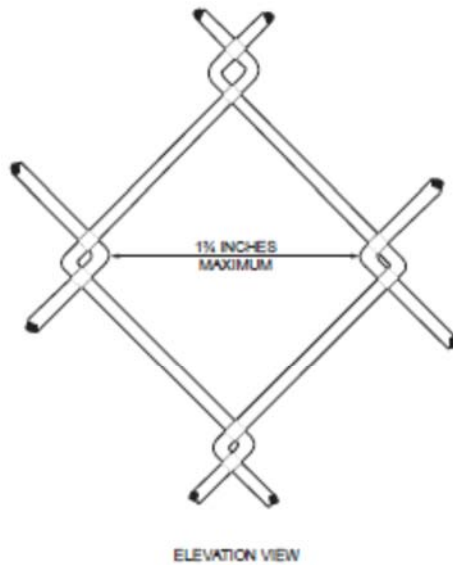
For SI: 1 inch = 25.4 mm.

FIGURE 305.2.6(1)
MAXIMUM SPACING BETWEEN VERTICAL MEMBERS WHERE DISTANCE BETWEEN TOPS OF HORIZONTAL MEMBERS IS 45 INCHES OR GREATER



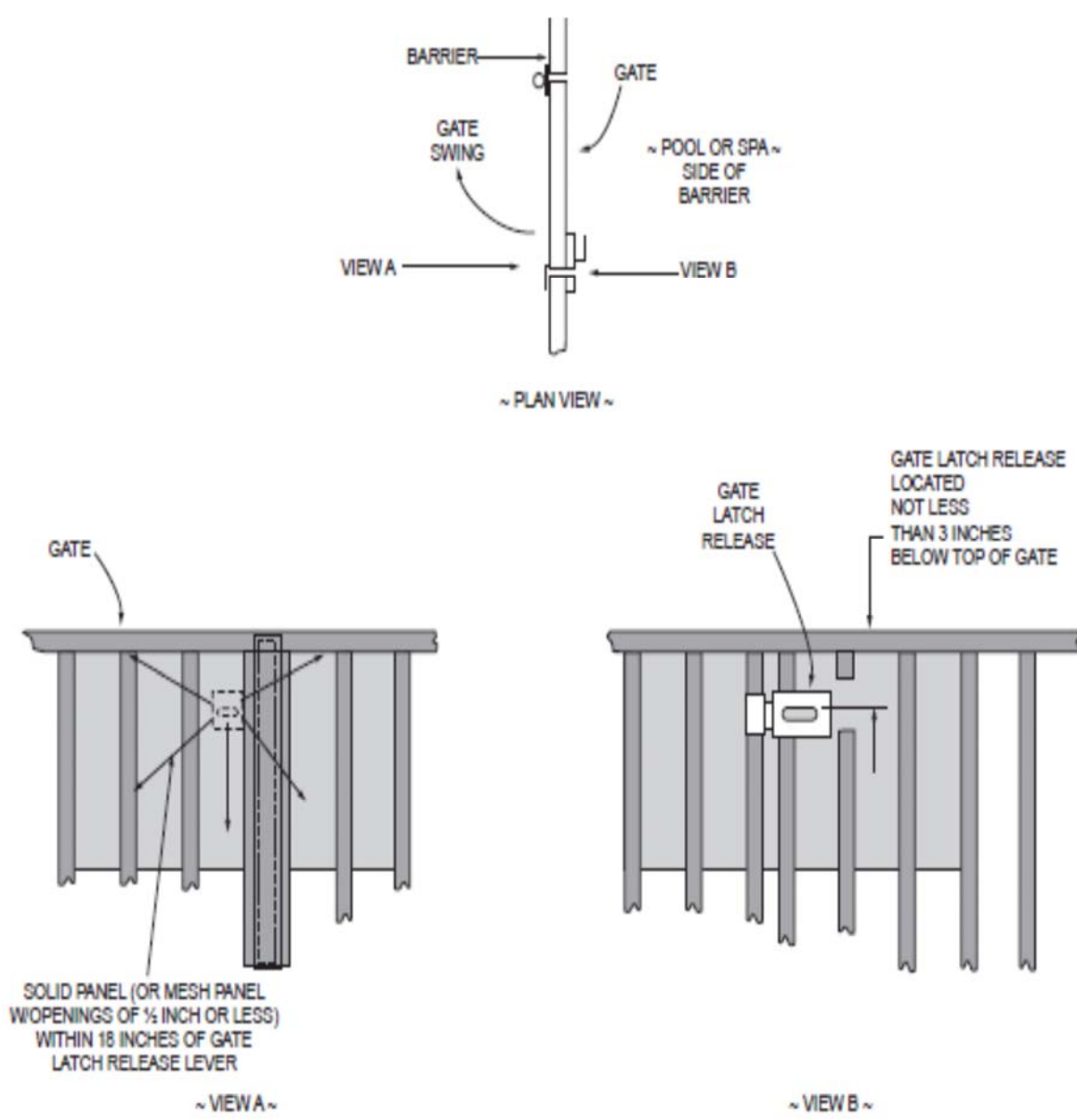
or SI: 1 inch = 25.4 mm.

**FIGURE 305.2.8
MAXIMUM OPENING WIDTH IN BARRIERS
BUILT WITH DIAGONAL MEMBERS**



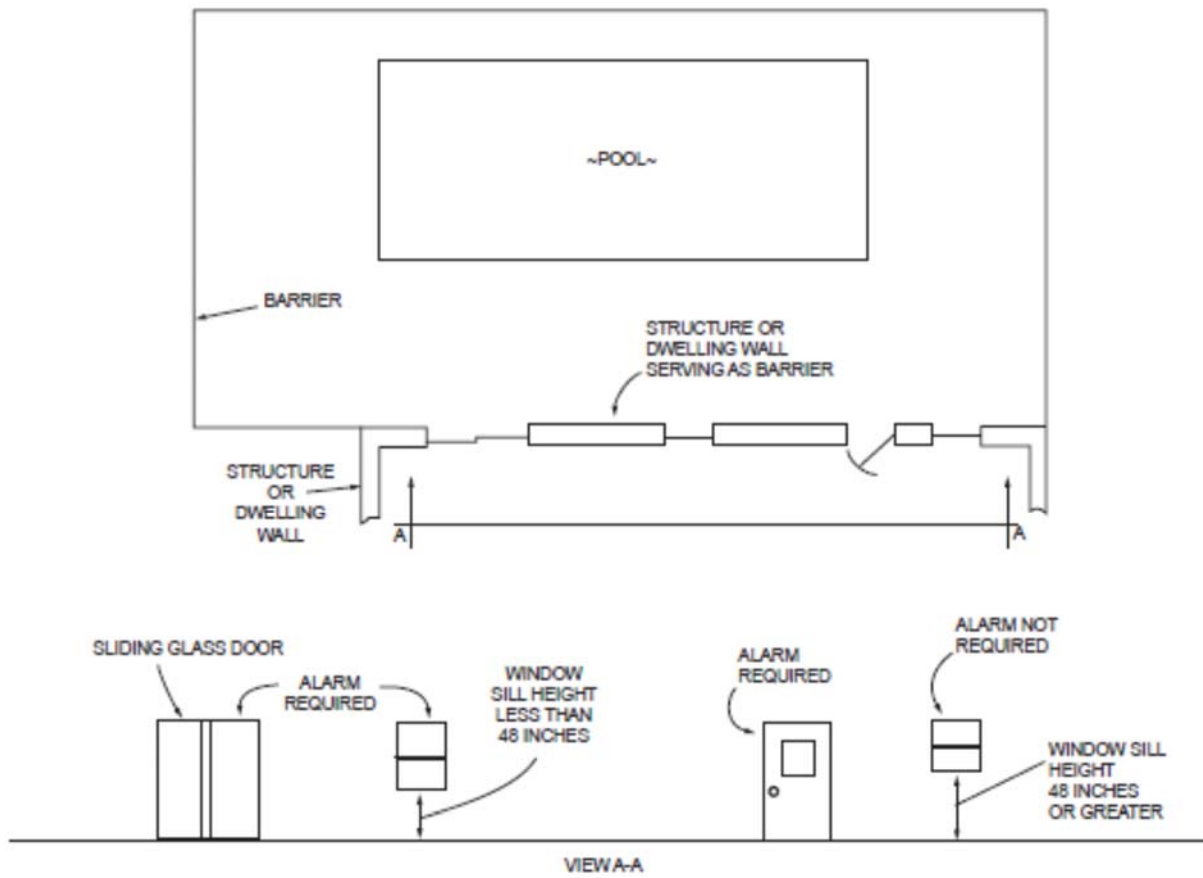
or SI: 1 inch = 25.4 mm.

**FIGURE 305.2.7
MAXIMUM OPENING WIDTH IN
BARRIERS BUILT WITH CHAIN LINK FENCING**



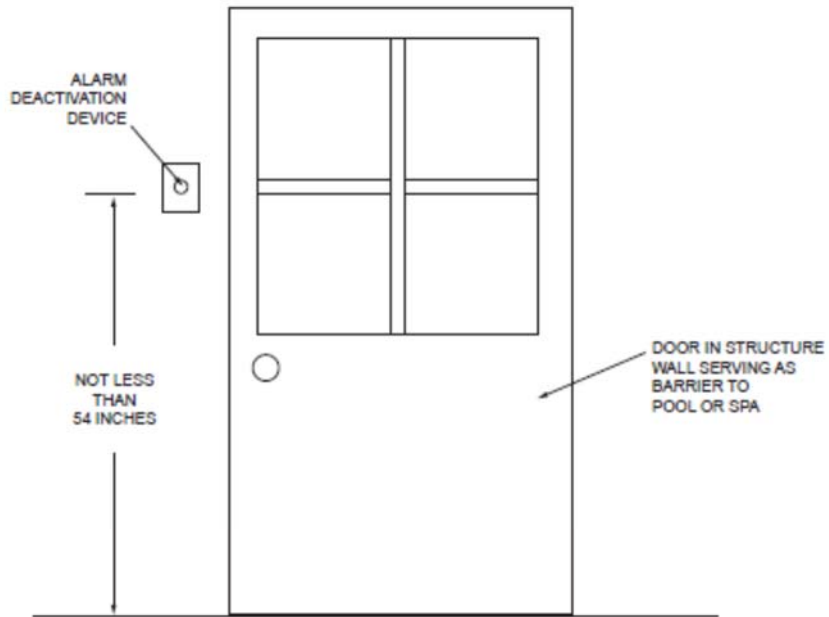
For SI: 1 inch = 25.4 mm.

FIGURE 305.3.3(1)
LOCATION AND PROTECTION OF BARRIER GATE LATCH
RELEASE WHERE LOCATED AT LESS THAN 54 INCHES ABOVE WALKING SURFACE



or SI: 1 inch = 25.4 mm.

FIGURE 305.4(1)
STRUCTURE OR DWELLING WALL SERVING AS A BARRIER TO A POOL OR SPA



For SI: 1 inch = 25.4 mm.

FIGURE 305.4(2)
ALARM DEACTIVATION DEVICE LOCATION FOR OPENING IN
STRUCTURE OR DWELLING WALL SERVING AS BARRIER TO A POOL OR SPA

*Town of Trumbull
Connecticut*

Town Hall
5866 Main Street
Trumbull, Connecticut 06611

203.452.5020
Fax: 203.452.5093

**TRUMBULL BUILDING
DEPARTMENT**

buildinginfo@trumbull-ct.gov



Please fill out in ink

APPLICATION FOR BUILDING PERMIT

Date: _____

House Number: _____ Lot Number: _____ Street: _____

Owner: _____ Phone: _____

Owner's Address: _____
Street City State

Email address: _____

Construction: Residential: ___ Commercial: ___ New: ___ Addition: ___ Remodel: ___ Pre-existing: ___ Foundation Only: ___
Use Group: _____ Type of Construction: _____ Edition of Code: _____ Design occupant load: _____
Size of Building _____ Number of Floors _____ Floor Area _____ Structure: Frame: ___ Masonry: ___
Automatic Sprinkler: Yes ___ No: ___

Description: _____

I estimate the value of this work will be: \$ _____ Permit Fee \$ _____

Contractor's Name: _____ License #: _____ Type: _____

Address: _____ Email: _____

Phone: _____ Cell Phone: _____ Fax: _____

Architect's Name: _____ License #: _____

Address: _____ Email: _____

Phone: _____ Cell Phone: _____ Fax: _____

I HEREBY MAKE APPLICATION FOR A PERMIT TO DO WORK IN ACCORDANCE WITH THE CONNECTICUT STATE BUILDING CODE
IN EFFECT AT THE TIME OF APPLICATION AND WITH ANY AND ALL REGULATIONS OF THE TOWN OF TRUMBULL.

Applicant's Signature: _____ Applicant's Printed Name: _____

Address: _____ Phone: _____

THE PROPOSED WORK IS AUTHORIZED BY THE OWNER-IN-FEE AND THE UNDERSIGNED IS AUTHORIZED BY THE OWNER-IN-FEE
TO MAKE THE APPLICATION FOR BUILDING PERMIT.

Agent of owner's signature: _____ Agent of Owner's Printed Name: _____

PERMIT:

Address: _____

Description of Work: _____

Reviewed By: _____

A CERTIFICATE OF INSURANCE IS REQUIRED FOR ALL CONTRACTORS

Departmental Approval for Building Permit

Required

() Planning & Zoning _____ Date: _____

() Town Commission _____ Date: _____

() Z.B.A. Letter: _____ Date Recorded: _____

() Engineering _____ Date: _____

() Inland Wetlands _____ Date: _____

Flood Plain? Yes: ____ Flood Plain Elevation Certificate Required? Yes: ____

() W.P.C.A. _____ Date: _____

City Water: ____ Sewer: ____

() Health Department _____ Date: _____

Well: ____ Septic: ____

() Tax Collector

Approvals for the Certificate of Occupancy are also required.



Trumbull Building Department

State of Connecticut Public Act No. 99-140 Alarms for New Swimming Pools

All swimming pools installed in the State of Connecticut after Oct. 1, 1999 must have a **pool alarm** that when a person or an object weighing 15 lbs. or more enters the water the pool alarm must emit a sound of at least 50 decibels.

403.9.3 Pool covers. Heated pools shall be equipped with a vapor-retardant pool cover on or at the water surface. Pools heated to more than 90°F (32°C) shall have a pool cover with a minimum insulation value of R-12.

Exception: Pools deriving over 60 percent of the energy for heating from site-recovered energy or solar energy source.

Owner of pool: _____

Address of pool: _____

Type of pool Above ground [] In ground []

Pool to be constructed by: _____

I, hereby agree to comply with Connecticut General Statute's public act 99-140 and will install a code compliant pool cover if a pool heater is installed.

Owners Signature: _____

Date: _____