



STAFFORD COUNTY REQUIREMENTS FOR THE INSTALLATION OF POOLS, SPAS AND HOT TUBS

- Follow all requirements outlined in the International Residential Code “APPENDIX G SWIMMING POOLS, SPAS AND HOT TUBS”
- Follow all requirements outlined in the International Residential Code “Chapter 41“SWIMMING POOLS””; construction and installation of electric wiring and equipment.
- Follow all requirements outlined in the International Residential Code for the installation of equipment, tanks and supply lines.
- When installing an in ground or above ground pool you must complete and submit (with your permit application) the Stafford County Pool Fence Affidavit. This must be signed by the OWNER OF THE PROPERTY and Notarized. Without this affidavit, regardless of who is applying for the construction permit, the application will not be processed.

General

The Virginia Uniform Statewide Building Code, which incorporates the International Residential Code (IRC), establishes minimum regulations to govern the construction of buildings and structures. The specific requirements for the installation of pools, spas and hot tubs are covered in the IRC, Appendix G and Chapter 41. Other sections may also apply for the installation of pool heaters, supply tanks, piping, etc.

Supplemental information on Safety Barrier Guidelines can be obtained through the U.S. Consumer Product Safety Commission, Publication No. 362 (www.cpsc.gov). Note that this guide explains the reasons for many of the requirements in detail, however, it does not match all requirements in the IRC Appendix G. Always refer to Appendix G for specific details.

As indicated in CPSC Publication 362, “Each year hundreds of young children die and thousands come close to death due to submersion in residential swimming pools”. The following statistics quoted in this publication reinforce the need for effective barriers and diligent supervision:

- 75% of the children involved in swimming pool submersion or drowning accidents were between the ages of 1 and 3 years old.
- Most victims were being supervised by one or both parents.
- Boys between 1 and 3 years old were most likely victims of fatal drownings and near-fatal submersions.
- Nearly half of the child victims were last seen in the house before the pool accident occurred.
- Fully 69% of the children who became victims in swimming pool accidents were not expected to be in the pool, but were found drowned or submerged in the water.
- 65% of the accidents occurred in a pool owned by the victim’s immediate family, and 33% of the accidents occurred in pools owned by relatives or friends.
- Fewer than 2% of the pool accidents were a result of children trespassing on property where they didn’t live or belong.
- 77% of the swimming pool accident victims had been missing for five minutes or less when they were found in the pool drowned or submerged.

These statistics speak for themselves; codes provide minimum requirements which must be met, and inspections ensure that installations are in compliance. However, they are not a substitution for common sense. Without careful attention to barrier maintenance and diligent supervision by responsible people, the potential for fatal accidents can only increase.

To ensure that **specific responsibility** is assigned for the installation of **safety barriers** during the construction / installation processes of above ground and in ground swimming pools and after the pool completed, a “Pool Fence Affidavit” must be **signed by the property owner** and submitted as part of the permit application. This signed affidavit removes any ambiguity as to barrier requirement responsibility, specifically during the construction processes but also after construction is completed.

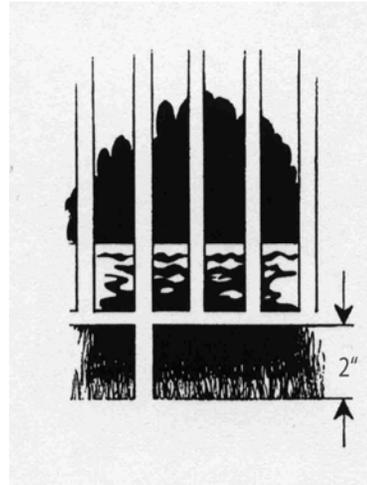
In situations where existing, adjacent physical structures (rocks, ledges, decks, fences, landscaping outcrops, etc.) are in such a position where they can be used to climb over or otherwise defeat the intent of the required pool barriers, the barriers must be relocated or otherwise modified to meet the intent of the Code. In addition, if after the barrier is installed a structure is constructed which causes the barrier requirements to be compromised, it is the responsibility of the pool owner to notify the constructor of the problem and pursue whatever course of action necessary to ensure all barrier requirements are restored to meet the intent of the Code.

Visual Interpretations of Some of the IRC Appendix G Barrier and Glazing requirements:

Barrier Minimum Height:



Barrier Maximum Bottom Clearance:

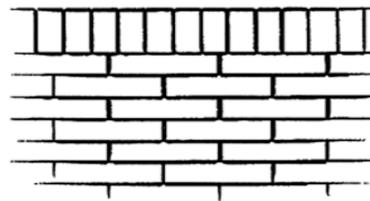


Solid Barrier:



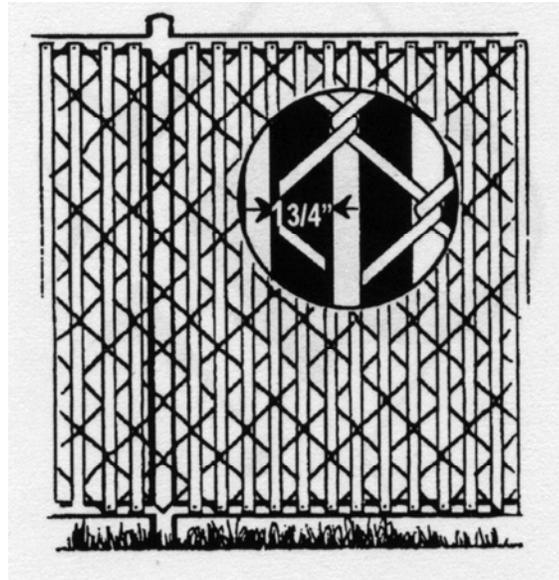
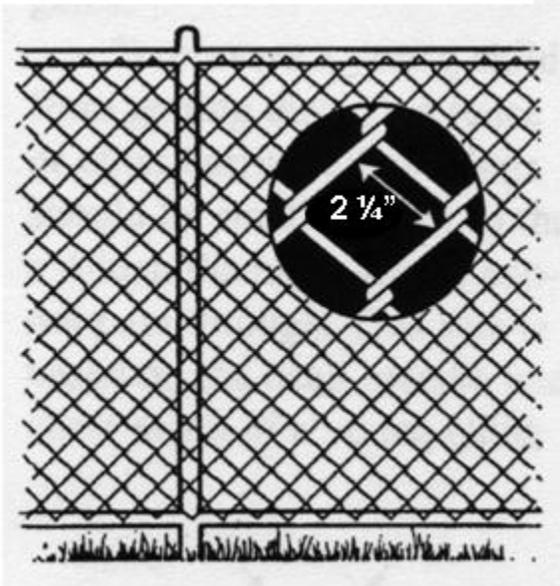
The picture to the left is a violation and shows an example of a stone wall that enhances climbing. Bricks, support posts, and similar construction must not provide hand or foot hold for climbing.

Solid Barrier: No indentations or protrusions shall be present, other than normal construction tolerances and masonry joints. The Brick Industry Association has established a maximum tolerance of 1/4" from plumb in 10 feet.

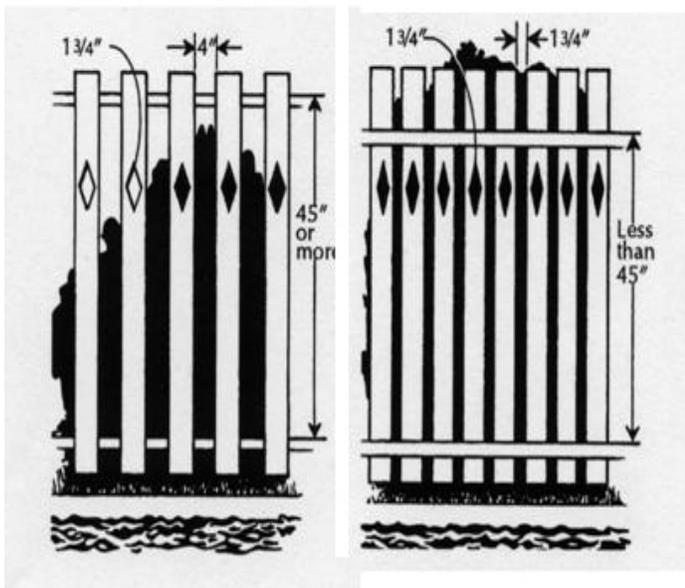


Chain Link Fence:

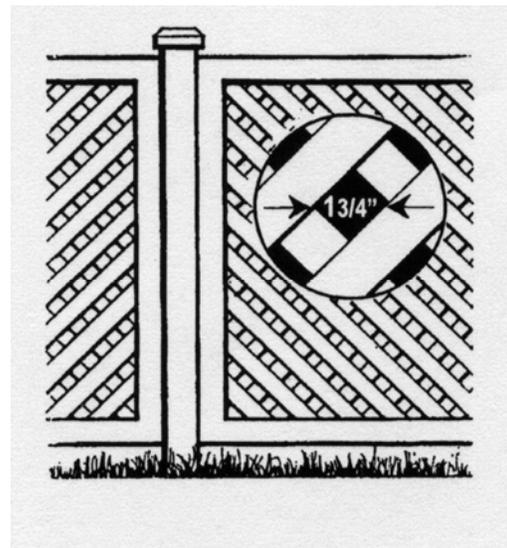
The chain link mesh size must not exceed 2 1/4" provided that slats are fastened at the top and bottom to reduce the mesh openings to no more than 1 3/4".



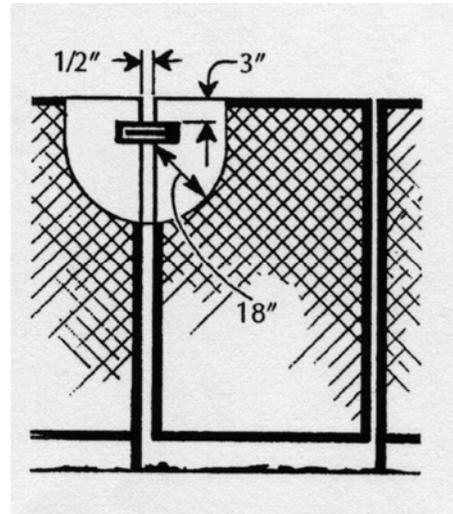
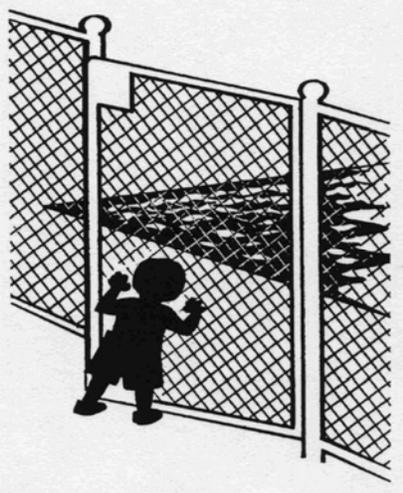
Picket Fences:



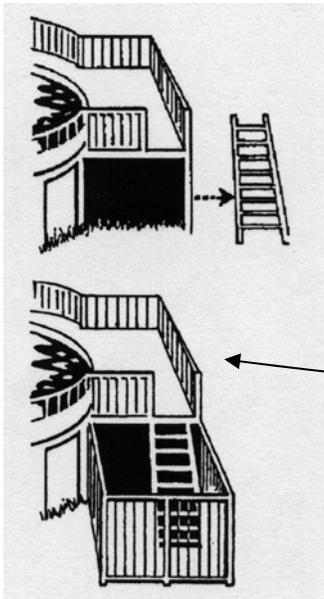
Lattice Type Fence:



Pedestrian Gates



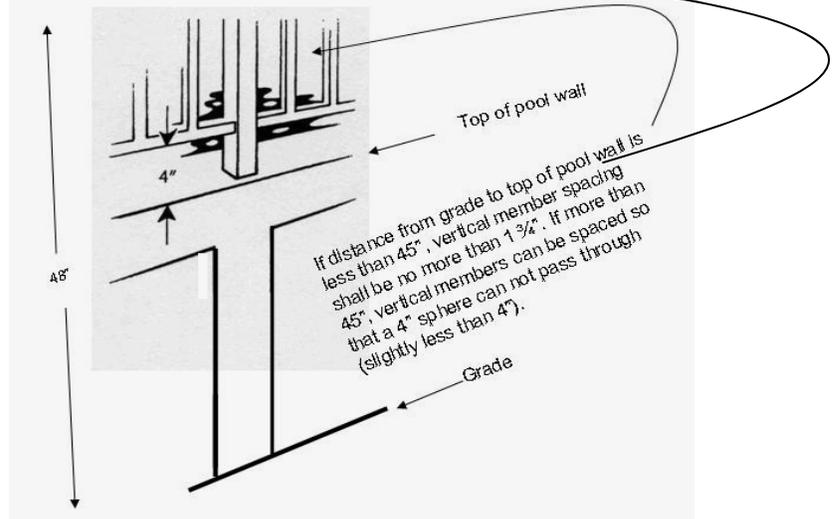
Gate must *swing out*, and be *self closing & self latching*. When the release mechanism is less than 54" from bottom of gate, it must be at least 3" below the top of the gate and located on the side of the gate facing the pool. There must be no opening in the gate greater than 1/2" within 18" of the release mechanism.



Above Ground Pools With integral Decks:

In this example the pool structure and associated deck serve as the barrier. If the ladder can be removed or the ladder is hinged and can be locked in the upright position, provided the distance from grade to the deck is the required 48", this would meet barrier requirements. For a non removable ladder or a fixed stair assembly an enclosure would be required around the ladder / stairs that would meet all barrier requirements (outward swing, self closing & latching gate with compliant release mechanism, etc.). See "Above Ground "Pool with Barrier On top Of Pool" below for additional details.

Above Ground Pool With Barrier On top of Pool:

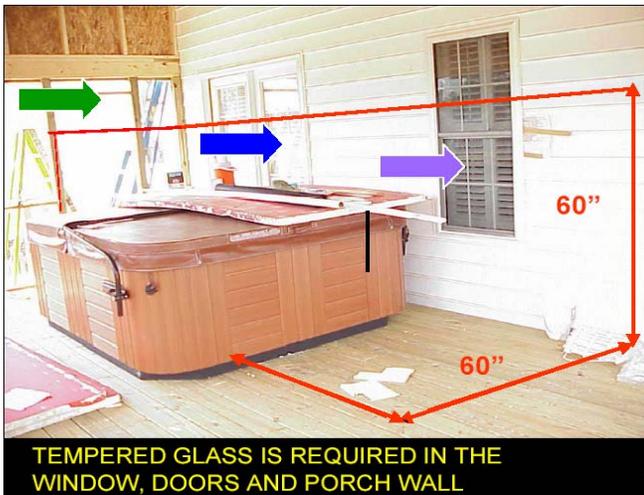


Door Alarms:



Doors with direct access to the pool must be equipped with alarms meeting Appendix G requirements (alarms meeting UL 2017 are acceptable). Door alarms associated with home security systems will not usually meet these requirements.

Tempered Glazing :



Tempered glazing is required in walls and fences enclosing indoor and outdoor swimming pools, hot tubs and spas where the bottom edge of the glazing is less than 60" above a walking surface and within 60" horizontally of the waters edge.

Spas & Hot Tubs:

See Appendix G - specific barrier exceptions for spas & hot tubs with safety covers meeting ASTM F 1346.

Temporary Barriers installed during Construction:

Temporary barriers erected during construction activities must, be structurally sound and prevent unsupervised access prior to filling the pool with water. **Fiberglass type pools require filling with water when set in place, and as such, barriers must be in place at that time.** Barriers must meet basic height and opening requirements indicated in Appendix G and secured to grade around the perimeter to prevent access. Points for access in the barrier or points where the barrier can be joined together and closed must be done at structural supports. During construction activities when the barrier is opened or otherwise compromised, the site must be continuously supervised by a responsible person. Until the permanent barrier is in place, the temporary barrier must be maintained. If, during inspections, a barrier meeting these requirements is not in place, no inspection will be made and a **"Stop Work Order"** will be posted. The Stop Work Order "will not be removed until all required fees are paid and a barrier inspection approved.

Depending on the extent of the hazard, the County may have the pool drained if *immediate* action is not taken and will not be responsible for damages resulting from this action.

Electrical Wiring and Equipment Installation

- All electrical wiring and equipment installation must be done in strict accordance with IRC Chapter 41. Note that concrete decking surrounding a pool which contains steel components such as reinforcing steel mat or rebar must be bonded in accordance with E4104 and requires inspection prior to concrete placement.
- Pool & Spa water heaters must be installed in accordance specific manufacturer’s instructions (to be on site for inspections). See IRC M2006 for details. Electric pool heaters must be tested in accordance with UL 1261 and oil-fired heaters tested in accordance with UL 726. If the Pool heater is gas or oil and the tank and lines are being installed under a separate permit, the heater must also be listed on the pool permit or whatever permit covers the electrical connections.

Inspections

| INSPECTION | Requirements Prior to Inspection |
|--|---|
| # 502 Electric/Steel & Bonding | <ul style="list-style-type: none"> • Framework must be in place and bonded (Typical; vinyl liner pools) • All required reinforcing steel must be in place and properly bonded. Any decking with metal reinforcement must be prepared and properly bonded. Any other equipment requiring bonding must be in its roughed in location. • If problem soil, inspection must be made by engineer |
| #503 Site Trenching/Conduit/Residential | <ul style="list-style-type: none"> • All conduit must be installed at proper depth(s) |
| #500 Electric/Rough-in | <ul style="list-style-type: none"> • Wring rough-in completed including rough in for heaters, etc. |
| #403 Mechanical/Gas Line/Outside (As Applicable) | <ul style="list-style-type: none"> • Gas / Oil pool heater line installation; proper materials & depth with pressure test, prior to concealment |
| # 402 Mechanical/Tanks/Propane/ Oil (As Applicable) | <ul style="list-style-type: none"> • New tank installation associated with pool heater. Anode placement (Propane), prior to concealment. |
| # 400 Mechanical/Rough-In (As Applicable) | <ul style="list-style-type: none"> • Pool Heater; PTR valve & piping & connections. (manufacturers instructions to be on site) |

| | |
|------------|---|
| #999 Final | <ul style="list-style-type: none">• Pool heater must be completely installed (as applicable).• Appliances, slides, motors, pumps, receptacle outlets, lighting, panels, switches, etc. must be properly installed, secured and operational.• All permanent barriers, safety covers, removable / fold up ladders must be in place and operational including door alarms, etc.• All work as indicated on the permit must be completed including final inspections on any retaining walls issued on associated permits. |
|------------|---|

RMB

Effective Date 01/16/2008

Rev. 1, 2/13/2008 (Revised to include requirements for structures adjacent to barriers)



Stafford County
Code Administration Department

Assigned Permit No. _____
Permit Applicant _____
(To be filled in by Stafford County Permit Office at
time Permit is issued)

POOL FENCE AFFIDAVIT

As owner of the property located at _____
I have read and I am aware of the requirements for swimming pool safety barriers specified
by the International Residential Code Appendix G.

I realize that by signing this affidavit I am responsible for ensuring that the swimming pool
is properly protected by a barrier during the construction process and after construction is
completed. This assignment of responsibility applies whether I am the permit holder or if I
hire a licensed contractor for the installation of the pool who has obtained the required
Construction Permit.

In addition, I assure that the swimming pool will not be used or otherwise occupied, until a
final inspection is made and passed by the Stafford County Code Administration
Department. Although anyone can schedule the final inspection, The Virginia Uniform
State Wide Building Code assigns specific responsibility for scheduling all required
inspections to the permit Holder (Section 113.1.2)

Owner's Name (Print)

Owner's Signature

NOTARY:
Commonwealth of Virginia
County/City _____

The foregoing was acknowledged before me on this _____ day of _____, 200__

Notary Signature.