



Requirements for Outdoor Residential Swimming Pools



Your guide to the permit and inspection process



When is a permit required?

The Virginia Uniform Statewide Building Code requires a building permit for any swimming pool that is larger than 150 square feet in surface area, holds over 5,000 gallons of water, or is 24 inches or more in depth. The code makes no distinction between in-ground, above-ground or inflatable pools, hot tubs or spas.



NO



YES



YES



YES



What is the process?

The process is simple but requires some coordination:

1. If applicable, check with your homeowners association to verify if a pool is permitted in your community.
2. Gather all of the necessary documents.
3. Submit the required permit applications.
4. Pay the required fees.
5. Wait for the permit to be issued.
6. Construct the pool and barrier including any required electrical installations.
7. Call for the required inspections prior to concealing work.

What documents do I need?

Three documents must accompany your permit application:

1. **Plot plan** — showing the proposed distances from the pool to all property lines and the house. It is required to show compliance with the Planning Department's setback requirements. A survey plat with the pool location or a hand sketch showing the pool location with respect to the property lines and house is acceptable.
2. **Construction drawings** — are required. Drawings for in-ground pools must include wall sections with size and spacing of reinforcing steel and be sealed by a Virginia registered design professional. Drawings for above-ground pools must include copies of the assembly instructions.



What permits do I need?

The following permits are required:

1. Pool permit
2. Electrical permit
3. Gas permit (if the pool, hot tub or spa will be heated by gas)

Notes:

- ✓ Existing barriers and electrical equipment will be required to be code compliant. If they are not a permit will be required to bring them into compliance.

Who should apply for the permit?

Applying for a permit is an important decision because the permit holder(s) bears the ultimate responsibility that the work will comply with the code.

- ✓ For in-ground pools, we recommend the licensed pool contractor obtain the **pool permit**, but the homeowner may do so.
- ✓ For above-ground pools, the homeowner usually obtains the permit, unless a contractor is hired, who should then obtain the permit.

- ✓ The homeowner is encouraged to have a licensed electrical and, if applicable, gas contractor apply for the **electrical and gas permits**, however, the homeowner may do so.

The final inspection for the pool permit will not be approved until the work for all permits is completed.

Safety First!



What are the fees for the permits?

Information concerning fees is available on by calling the Building Inspection Department and is subject to annual change.



Outdoor swimming pools are required to have a barrier around them that complies with, but is not limited to, these general provisions (see the actual code for the definitive provisions):

- **Minimum height:**
 - ✓ 48 inches above grade measured from the outside face of the barrier.
 - ✓ For above-ground pools, the side of the pool may qualify as the barrier if the pool is 48 inches tall, or the barrier may mount on top of the pool structure. In each case, the ladder must be removable when not in use or have a gate that meets requirements listed under "Access Gates".
- **Maximum opening size :**
 - ✓ 2 inches between grade and bottom of barrier
 - ✓ 4 inches between top of above-ground pool wall and bottom of barrier when barrier is attached to the top of pool wall.
 - ✓ All other openings shall not allow the passage of a 4-inch diameter sphere.



- **Climbability:**
 - ✓ Solid barriers (stone walls, etc.) must have no protrusions or indentations.
 - ✓ Horizontal members less than 45 inches apart must be located on the inside face of the barrier. In such cases, the space between corresponding vertical members must be 1.75 inches or less.
 - ✓ Chain-link or lattice-type barriers with diagonal members must have openings less than 1.75 inches measured horizontally or 1.25 inches measured diagonally. Slats may be placed in openings to reduce size to the required dimension.
 - ✓ Decorative cutouts within a vertical member must not have openings greater than 1.75 inches.
- **Access Gates:**
 - ✓ Must meet height, opening and climbability requirements for barriers.
 - ✓ Must be self-closing and self-latching, and must open outward away from pool.
 - ✓ Latches less than 54 inches from the bottom of the gate must be located on pool side at least 3 inches from the top of the gate. There shall be no openings ½ inch or greater within 18 inches of the latch.
 - ✓ Latches located greater than 54 inches from the bottom of the gate may be located on both sides.
 - ✓ For above-ground pools where the side of the pool is the barrier, the ladder shall be capable of being removed or secured to prevent access, or be surrounded by a barrier that meets the above requirements.
- **Door alarms:**
 - Only applies where the house serves as part of the barrier:
 - ✓ Must sound immediately and continuously for 30 seconds
 - ✓ Must be heard throughout the house
 - ✓ Must reset automatically
 - ✓ Must be able to be temporarily, but not permanently, deactivated. Mechanism to deactivate must be 54 inches above the door threshold.
- **Spas and Hot Tubs:**
 - ✓ Safety covers may be substituted for barriers provided such covers meet standard ASTM F1346.



What are the entrapment protection requirements?

Some pools may have circulation systems that may create hazardous entrapment situations for swimmers if not protected. The following are some of the entrapment protection requirements:

- Suction outlets are 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.
- Pool and spa suction outlets shall have a minimum 18-inch by 23-inch drain grate or other approved system to protect against user entrapment.
- Single or multiple outlet circulation systems shall be equipped with an atmospheric vacuum relief should grate covers located therein become missing or broken.
- Single or multiple circulation systems shall have a minimum of two suction approved outlets at least 3 feet apart. These suction outlets shall be piped so that the water is drawn through them simultaneously through a vacuum-relief-protected line to the pump(s).
- Where provided, vacuum or pressure-cleaner fitting(s) shall be located in an accessible position(s) at least 6 inches and not more than 12 inches below the minimum operational water level or as an attachment to the skimmer(s)

NOTE: If you are not familiar or are uncomfortable with these requirements, please seek a professional's service.

Have fun safely!

Call Miss Utility — Dial 811

Miss Utility is a free service that will locate all member utilities that may have facilities in your proposed area of excavation. Notification must be made a minimum of 48 hours prior to any excavating.



What are the electrical requirements?

There are many specific electrical requirements for a pool based on the type and complexity of the installation. If you are unfamiliar or uncomfortable with these requirements, you are strongly encouraged to seek the services of a licensed electrical contractor. Below are a few of the basic requirements:

Power for circulation pumps, filtration system, etc.:

- An accessible power disconnect shall be provided within sight of the pool equipment, not closer than 5 feet and not more than 10 feet from the pool.
 - All receptacle outlets shall be single, GFCI, locking and grounding type. They are not permitted closer than 5 feet from the pool.
 - Switches shall not be located within 5 feet of the pool unless separated by a fence or wall.
- Convenience power (for lights, radios, etc):
- There shall be at least one GFCI, 125 volt, 15-20 amp, general purpose receptacle not closer than 10 feet nor farther than 20 feet from the pool. It shall not be more than 6.5 feet above the pool apron.
 - In no case should extension cords ever be within 10 feet of the pool.
 - No light or fan shall be mounted over the pool except if it is at least 12 feet above the water level.

What inspections are required?

The primary purpose of the pool inspection process is to assure that safety requirements have been met, including verifying that the electrical installation has been completed, inspected and approved, and that the swimming pool barrier requirements of the code have also been satisfied by a permanent pool barrier.

Swimming pools shall not be used until all required inspections of the pool, its barrier (fence or pool wall for an above-ground pool), and its associated electrical equipment have been approved.

The following inspections are typically required:

- Pool footings inspection for in-ground pools
- Bonding-grounding inspection for in-ground pools
- Rough-in and final gas inspection, if applicable
- Final electrical inspection
- Barrier inspection and final building inspection (May be performed together or separately)