



Swimming Pool, Spa and Hot Tub Code Guide



**BASED ON THE 2018 INTERNATIONAL SWIMMING
POOL & SPA CODE
&
THE PA UNIFORM
CONSTRUCTION CODE**

THIS IS A GUIDE ONLY!

THIS GUIDE IS INTENDED TO PROVIDE PERTINENT AND HELPFUL INFORMATION TO ASSIST YOU IN COMPLETING YOUR APPLICATION.

FOR MORE DETAILED INFORMATION GO TO:

The 2018 International Swimming Pool and Spa Code:

[Https://codes.iccsafe.org/content/ISPSC2018/chapter-3-general-compliance](https://codes.iccsafe.org/content/ISPSC2018/chapter-3-general-compliance)

OR

The PA Department of Labor and Industry:

- <https://www.dli.pa.gov/ucc/Pages/UCC-Codes.aspx>

Does My Pool Need a Permit?

Permit Not Required - Any pool holding less than 24" of water



Permit AND Fence Required



DEFINITION

Pools in this Code refer to all private pools, any structure intended for swimming, recreational bathing or wading that is **NOT capable** of containing water twenty-four inches (24) inches or more. This also includes in-ground, above ground and on-ground pools; hot tubs, spas, fixed-in-place wading pools, inflatable and collapsible pools. Prefabricated swimming pools accessory to single family dwellings which are *not* capable of containing water *over* twenty-four (24) inches and do NOT exceed 5,000 gallons installed entirely above ground and ornamental or landscape ponds are *not* regulated herein. PLEASE NOTE THAT SIMPLY **NOT** FILLING A POOL THAT IS CAPABLE OF CONTAINING OVER 5,000 GALLONS MORE THAN 24" IN WATER DEPTH TO CAPACITY, DOES NOT EXCLUDE IT FROM THESE REGULATIONS.

PERMITS AND PLANS REQUIRED

Permits: No swimming pool as defined herein or appurtenances thereto shall be constructed, installed, enlarged, altered or used until the required permits and inspections have been obtained from the local Building & Zoning Department.

IT SHOULD BE NOTED THAT:

1. The application for building permit must be submitted by the contractor or their agent. Only when the property owner is doing the actual installation of the pool may they sign the permit application as the Applicant. This is the Township's way of assuring that the permit is issued to the person directly responsible for the work being done, and as well, Pennsylvania State Law requires all contractors to provide proof of Workmen's' Compensation Insurance Coverage when applying for building permits, to protect the property owner if an accident should occur during construction. When work is done in violation of Township Ordinances, the permit applicant is prosecuted (so if the homeowner has taken that responsibility for the contractor, *they* will be prosecuted, NOT the contractor).
2. Building and Zoning Permits are required. However, no separate deck or fencing permits are required when installed in conjunction with the erection of a swimming pool, unless the deck or fencing is being installed by a different contractor other than the one installing the pool. In that case each contractor must secure their own permit.

Please know that non-refundable application fees are due at time of permit approval. NO PERMIT WILL BE ISSUED UNTIL ALL FEES HAVE BEEN PAID.

Plans: Plans shall accurately show the dimensions of all structures, proposed and existing, as well as construction type and materials of the pool and all appurtenances relating thereto. A detailed plot plan, indicating all existing and proposed structures will also be required to be submitted, which accurately reflects the proposed distances to all property lines. Plans must also detail the type of barrier proposed to enclose the pool; including ladder & stair enclosures, gates, door alarms where required, etc.

TEMPORARY ABOVE GROUND STORABLE POOLS

DEFINITION

Those pools regulated under the Pennsylvania Uniform Construction Code, as amended, which are above ground, non-permanent pools, inflatable or otherwise, that are constructed to be disassembled and reassembled to their original integrity on a seasonal (**5 months or less**) basis.

LOCATION

1. Pool must be erected and removed completely within the same swimming season, and in no case shall be permitted to exist for more than five (5) months from the date of issuance.
2. Pool must be situate within all required side and rear property line set-backs. No pool may be located within a front yard setback.
3. Pool must adhere to all applicable barrier, inspection and safety requirements as established in the Pennsylvania Uniform Construction Code and ISPSC as amended. **THIS MEANS, AMONG OTHER THINGS, THAT THE POOL MUST BE IN A FENCED YARD AREA, AND BARRIER MUST MEET ALL REQUIREMENTS OF THE CODE.**
4. Permits must be applied for each swimming season prior to the installation of the pool.

PLEASE NOTE: If **ALL** safety requirements cannot be met, the temporary pool **CANNOT** be placed on the property. If a temporary pool is installed without permits, the property owner will be served a notice indicating the violation. If compliance is not met within the given deadline, citations may be issued.



See page 23 for temporary pool submission checklist.

INSPECTIONS

All pools, spas and hot tubs require inspections. An electrical inspection must be performed prior to the covering or concealing of any electrical work servicing the pool. A FINAL building inspection is required PRIOR to using any facility. Please know that if a deck is constructed with the pool, additional inspections will be required.

PLEASE REMEMBER THAT UNLESS AND UNTIL THE PROPER FENCING/BARRIER AND SELF LATCHING GATES ARE INSTALLED AND PROPER INSPECTIONS HAVE BEEN PERFORMED BY THE BUILDING INSPECTOR, YOU MAY NOT USE THE POOL FOR SWIMMING PURPOSES. NO POOL IS CONSIDERED COMPLETE AND APPROVED FOR USE UNTIL THE FINAL INSPECTION HAS BEEN PERFORMED AND THE POOL IS APPROVED FOR USE. THEREFORE, IT IS IMPERATIVE THAT THE FINAL INSPECTION HAS BEEN DONE.

LOCATION RESTRICTIONS:

Please check your local Zoning Ordinance to verify all required set-backs. NO pool (temporary, above ground or in-ground), deck, or fencing shall be permitted to be located within any easement area or in a flood hazard area as identified by the Federal Emergency Management Agency (FEMA). Please contact the Zoning Officer for further determinations regarding required setbacks for your individual lot. (See attached sample plot plan – page 19 for more information). In addition, you should always be aware of any easements encumbering your property. Check your deed or other paperwork to be certain. Please know that no pool will be permitted to be constructed in an easement that is owned by the Municipality.

According to the International Residential Code, no receptacles can be within 6 feet of a pool structure; and no switches or light fixtures can be within 5 feet of a pool structure; therefore the structure should be located a sufficient distance away from existing fixtures and structures to comply with these regulations. There are also setbacks from overhead wires and conductors, for more information see the electrical section of this code, starting on page 15.

WASTEWATER:

According to the Pennsylvania Department of Environmental Protection, and pursuant to the Federal National Pollutant Discharge Elimination System (NPDES) regulations, no wastewater from a swimming pool that is still considered treated water can be discharged directly into the street or into a storm sewer. All waste water should be discharged into the owner's property and gradually flow through the property to its ultimate destination. Chlorinated or otherwise chemically treated pool water discharged directly into the storm sewer can make its way quickly to a stream or other body of water where aquatic life is damaged or killed.



BARRIERS/FENCING (see attached drawings for additional information)

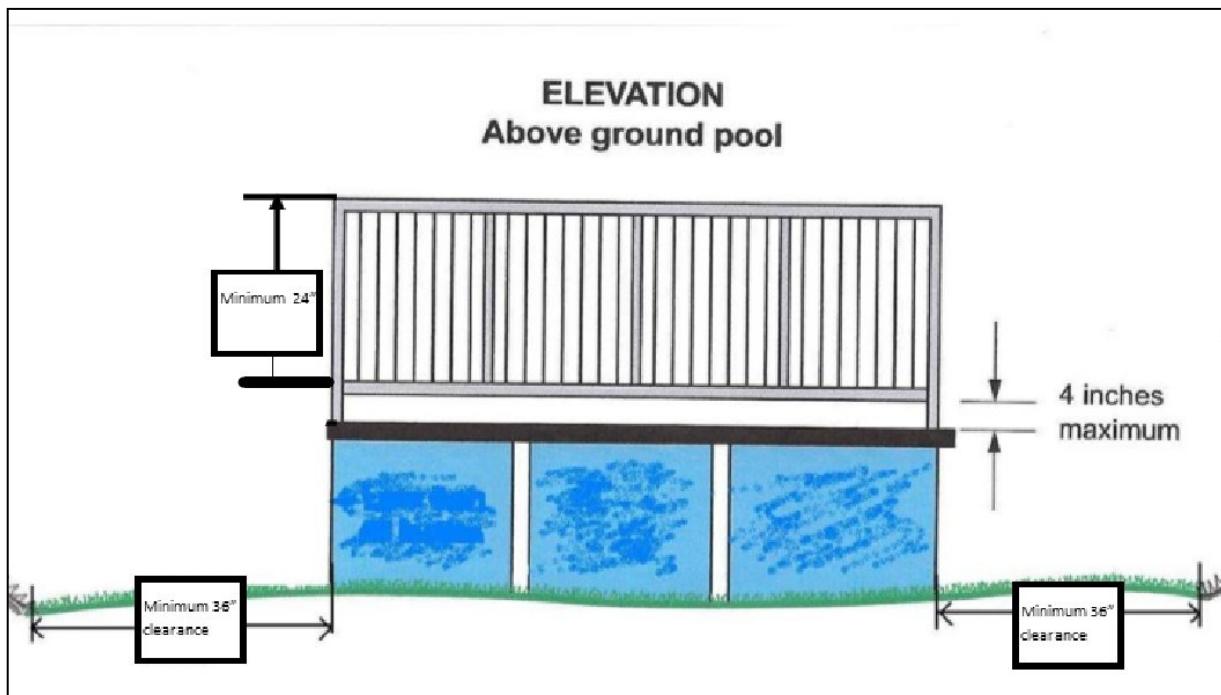
An outdoor swimming pool, including an on-ground, in-ground or above ground pool, hot tub or spa shall be provided with a barrier. A barrier is defined as: ***A permanent fence, wall, building wall, or combination thereof that completely surrounds the pool or spa and obstructs the access to the pool or spa.*** For additional information please refer to the appropriate code or contact the Zoning Officer. This barrier shall comply with the following minimum requirements:

1. The top of the barrier shall be at least 48 inches 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 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 or mounted on the top of the pool structure. Where the barrier is mounted on top of the pool structure, it shall be a minimum of 24 inches in height, and the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be 4 inches.
2. Openings in the fencing or barrier shall not allow passage of a 4-inch diameter sphere.
3. Solid barriers, which do not have openings, 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, the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed 1.75 inches in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches 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 or more, spacing between vertical members shall not exceed 4 inches. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches in width.

PLEASE REMEMBER THAT UNLESS AND UNTIL THE PROPER FENCING/BARRIER AND SELF LATCHING GATES ARE INSTALLED AND PROPER INSPECTIONS HAVE BEEN PERFORMED BY TOWNSHIP PERSONNEL, YOU MAY NOT USE THE POOL FOR SWIMMING PURPOSES. NO POOL IS CONSIDERED COMPLETE AND APPROVED FOR USE UNTIL THE FINAL INSPECTION HAS BEEN PERFORMED AND THE POOL IS APPROVED FOR USE. THEREFORE, IT IS IMPERATIVE THAT THE FINAL INSPECTION HAS BEEN DONE.

Please see additional helpful graphics on pages 11-15

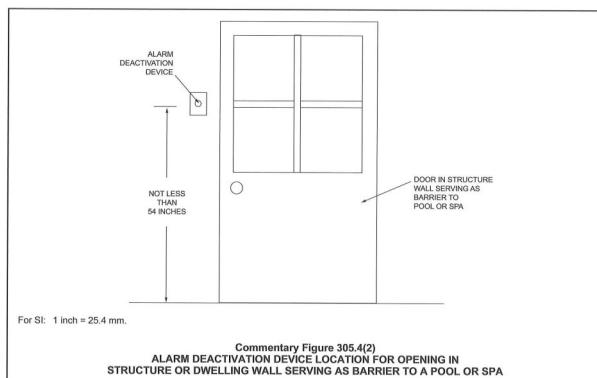
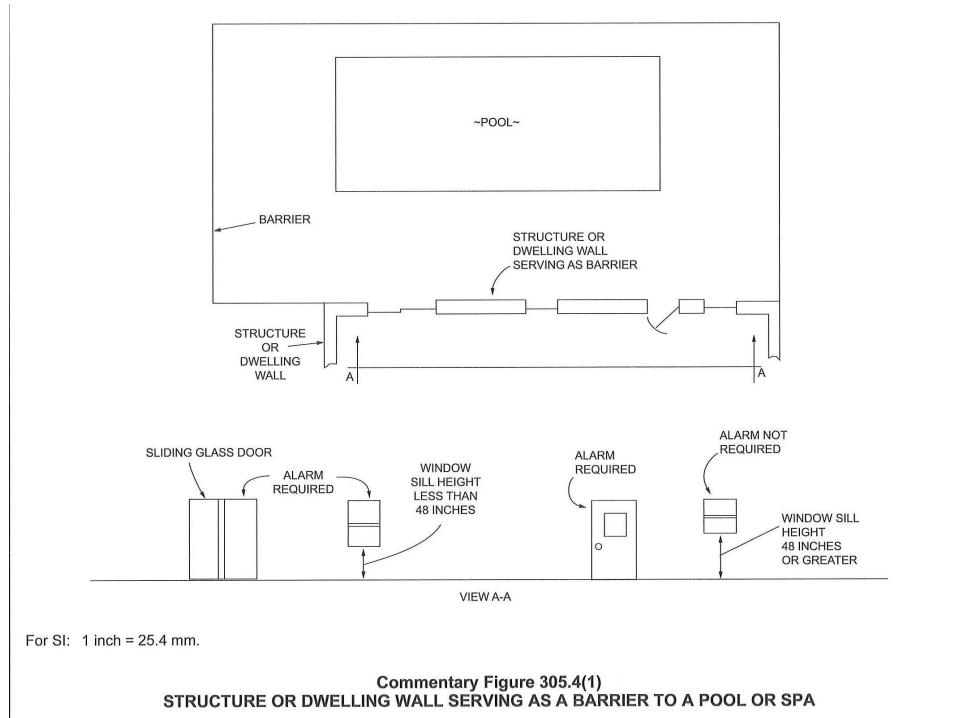
6. Maximum mesh size for chain link fences shall be a 1.75 inch square unless the fence has slats fastened at the top or bottom which reduce the openings to not more than 1.75 inches.
7. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall be no more than 1.75 inches. Please see Section 305.2 for more detailed information.
8. Where the barrier for an above ground pool structure is mounted on top of the pool structure, and the means of access is a ladder or steps:
 - 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 barrier which meets the requirements of section AG105.2, Items 1 through 9. When the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4-inch diameter sphere.
9. Said barrier or fencing shall be a minimum of four (4) feet; but shall not exceed six (6) feet in height, except when mounted on above ground pool.
10. Barriers shall be located so as to prohibit permanent structures, equipment, or similar objects from being used to climb the barriers.



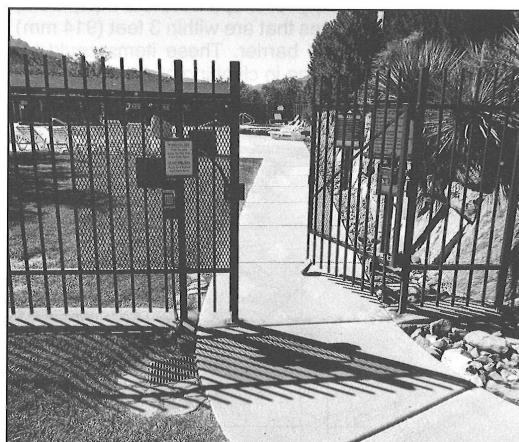
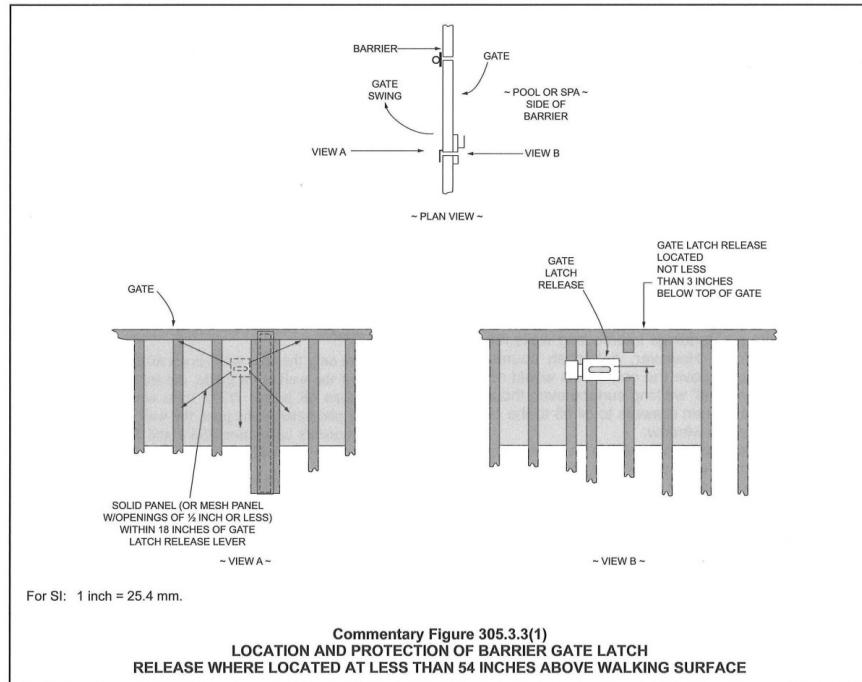
11. **Dwelling Unit as a Barrier.** Where a wall of a dwelling unit is proposed as part of the barrier/enclosure, the following shall apply:

Doors and windows (with sills less than 48-inches above the finished floor) with direct access to the pool through that wall shall be equipped with an alarm, which produces an audible warning when the door and/or its screen are opened. The alarm must be listed and labeled per UL 2017. The alarm shall activate within 7 seconds and sound continuously for a minimum of 30 seconds immediately after the door and/or its screen is opened and be capable of being heard throughout the house during normal household activities. The alarm shall automatically reset under all conditions. The alarm shall be equipped with a manual means to temporarily deactivate the alarm for a single opening. Such deactivation shall last no more than 15 seconds. The deactivation switch shall be located at least 54 inches above the threshold of the door. (see below)

Please note that there are additional regulations pertaining to these alarms, with respect to type and sound. Again, this document is intended to be a guide only. For more information please refer to the codes herein referenced or contact the Municipality.



12. **Gates.** Access gates shall comply with the requirements of this Code, and shall be equipped to accommodate a locking device. Pedestrian access gates shall open 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. Release mechanisms must be 54" from grade. Where the release mechanism of the self-latching device is located less than 54 inches from the bottom of the gate, the release mechanism shall be located on the pool side of the gate at least three (3) inches below the top of the gate, and the gate and barrier shall have no opening greater than 0.5 inch within 18 inches of the release mechanism.



Commentary Figure 305.3
VIOLATION—WRONG SWING DIRECTION ON
PEDESTRIAN ACCESS GATE



Safety Barrier Guidelines for Residential Pools

Preventing Child Drownings

U.S. Consumer Product
Safety Commission



A successful pool barrier prevents a child from getting **OVER**, **UNDER**, or **THROUGH** and keeps the child from gaining access to the pool except when supervising adults are present.

How To Prevent a Child from Getting **OVER** a Pool Barrier

A young child can get over a pool barrier if the barrier is too low or if the barrier has handholds or footholds to use when climbing. The top of a pool barrier should be at least 48 inches above grade, measured on the side of the barrier which faces away from the swimming pool. Some states, counties or municipalities require pool barriers of 60 inches.

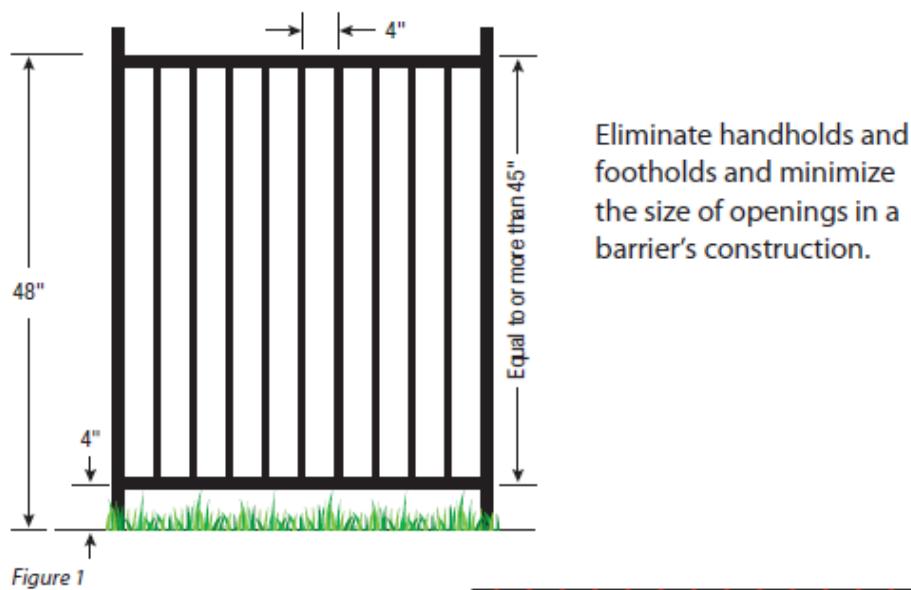


Figure 1

For a Solid Barrier

No indentations or protrusions should be present, other than normal construction tolerances and masonry joints.

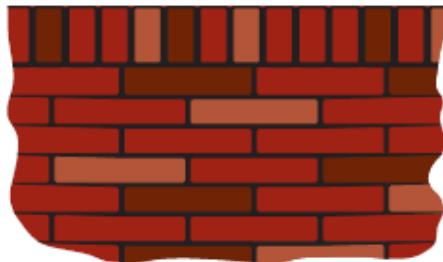


Figure 2

For a Barrier (Fence) Made Up of Horizontal and Vertical Members

If the distance between the top side of the horizontal members is less than 45 inches, the horizontal members should be on the swimming pool side of the fence.

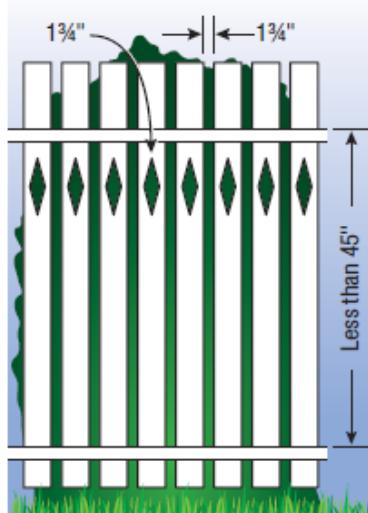


Figure 3

The spacing between vertical members and within decorative cutouts should not exceed 1 3/4 inches. This size is based on the foot width of a young child and is intended to reduce the potential for a child to gain a foothold and attempt to climb the fence.

If the distance between the tops of the horizontal members is more than 45 inches, the horizontal members can be on the side of the fence facing away from the pool. The spacing between vertical members should not exceed 4 inches. This size is based on the head breadth and chest depth of a young child and is intended to prevent a child from passing through an opening. If there are any decorative cutouts in the fence, the space within the cutouts should not exceed 1 3/4 inches.

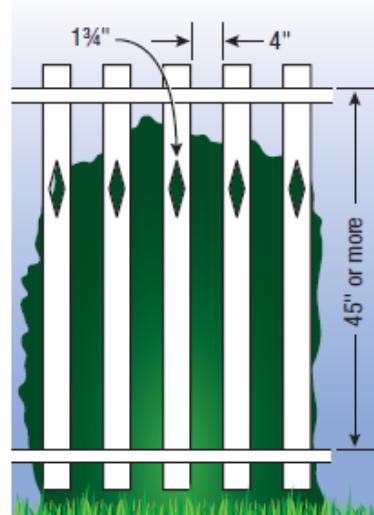


Figure 4

For a Chain Link Fence

The mesh size should not exceed 1¼ inches square unless slats, fastened at the top or bottom of the fence, are used to reduce mesh openings to no more than 1¾ inches.

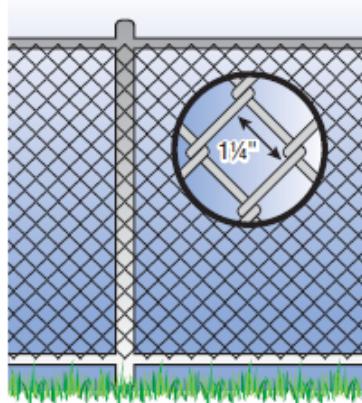


Figure 5

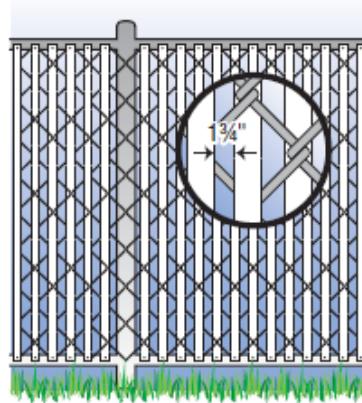


Figure 6

For a Fence Made Up of Diagonal Members or Latticework

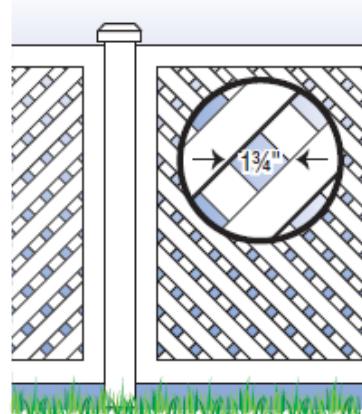


Figure 7

The maximum opening in the lattice should not exceed 1¼ inches.

For Above Ground Pools

Above ground pools should have barriers. The pool structure itself serves as a barrier or a barrier is mounted on top of the pool structure.

There are two possible ways to prevent young children from climbing up into an above ground pool. The steps or ladder can be designed to be secured, locked or removed to prevent access, or the steps or ladder can be surrounded by a barrier such as those described in these guidelines

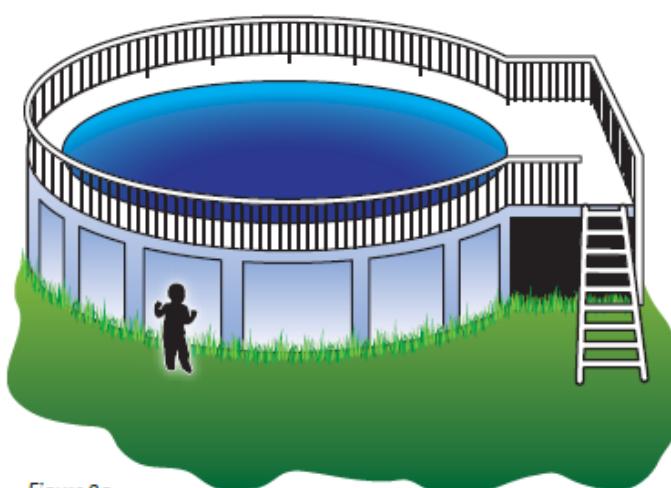


Figure 8a



Figure 8b



Figure 8c

Above Ground Pool with Barrier on Top of Pool

If an above ground pool has a barrier on the top of the pool, the maximum vertical clearance between the top of the pool and the bottom of the barrier should not exceed 4 inches.

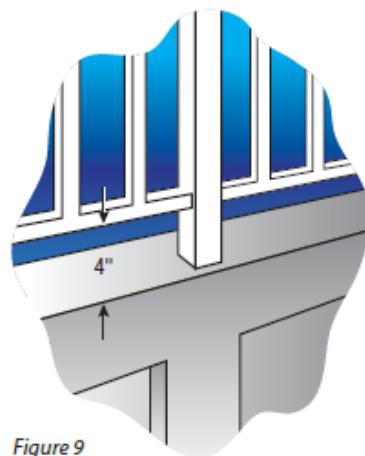


Figure 9

8 Safety Barrier Guidelines for Residential Pools

Decks used as a barrier shall comply with 2018 IRC regarding landings. Gates shall open outwards but cannot open over steps.

311.7.6—2018 IRC for landings

311.7.6—Exception for door swing

How to Prevent a Child from Getting UNDER a Pool Barrier

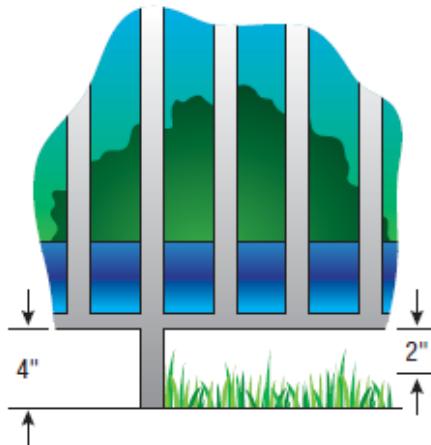


Figure 10

For any pool barrier, the maximum clearance at the bottom of the barrier should not exceed 4 inches above the surface or ground when the measurement is done on the side of the barrier facing away from the pool. Industry recommends that if the bottom of the gate or fence rests on a non-solid surface like grass or gravel, that measurement should not exceed 2 inches.

How to Prevent a Child from Getting THROUGH a Pool Barrier

Preventing a child from getting through a pool barrier can be done by restricting the sizes of openings in a barrier and by using self-closing and self-latching gates.

To prevent a young child from getting through a fence or other barrier, all openings should be small enough so that a 4-inch diameter sphere cannot pass through. This size is based on the head breadth and chest depth of a young child.

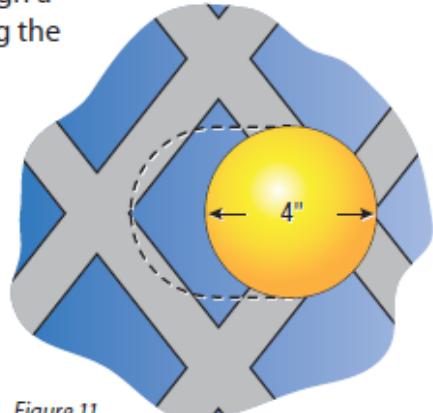


Figure 11

ELECTRICAL INFORMATION (see attached drawing for additional information)

General: The construction and installation of electrical wiring for equipment in or adjacent to swimming pools, and to all appurtenances thereto shall comply with Chapter 42 of the International Residential Code.

Overhead Conductor Clearances. The following parts of pools and outdoor spas and hot tubs shall not be placed under existing service-drop conductors or any other open overhead wiring; nor shall such wiring be installed above the following:

1. Pools and the areas extending 10 feet horizontally from the inside walls of the pool;
2. Diving structures; or
3. Observation stands, towers, and platforms. Or comply with Table 4203.6—2018 IRC.

Underground Wiring. Underground wiring shall not be installed under or within the area extending five (5) feet horizontally from the inside walls of pools and outdoor hot tubs and spas except where the wiring is installed to supply equipment for same.

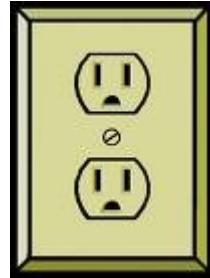
Receptacles.

1. **Location.** A single, grounding type receptacle which is protected by ground fault circuit interrupters and run in conduit, is required for the pump motor. This must be at least six (6) feet from the inside walls of the pool. *NO* receptacles shall be located within *six* (6) feet of the inside walls of the pool.
2. **Where Required.** At least one 125 volt 15 or 20 ampere convenience duplex receptacle supplied by a general purpose branch circuit shall be located a minimum of six (6) feet from and not more than 20 feet from the inside walls of the pool. This receptacle shall not be located more than 6 feet, 6 inches above the floor, platform or grade level serving the pool, spa or hot tub. This receptacle must have an in-use cover. Pool pump receptacle shall be mounted on a post, (usually 4" x 4" pressure treated) or other structure.
3. **GFCI Protection.** All receptacles located within 20 feet of the inside walls of the pool, spa or hot tub shall be protected by a ground fault circuit interrupter, protected with an in-use cover.
4. All receptacles installed in wet locations shall have in-use covers and be listed as weather resistant location receptacles.

RECEPTACLE EXAMPLES:



Single Twist Lock Receptacle



Duplex Receptacle

Conduit Burial. Unless an exception applies, all conduit must be buried a minimum of 18 inches, or no less than 12" if protected by a GFCI, and electrical *rigid* conduit ONLY is permitted (PVC or metal), no EMT (Electrical Metallic Tubing) or Aluminum. Black, white, and green #12 THHN/THWN minimum should be installed inside the conduit.

Certifications. All pool, spa and hot tub equipment must have UL or other national recognized testing laboratory approval. Any pool equipment without such a rating is not permitted, and any pool equipment altered by consumer or contractor will violate the national rating and will NOT be acceptable.

Grounding and Bonding. All equipment shall be properly bonded and grounded as required by this Code and all other applicable codes, including but not limited to Chapter 42 of the International Residential Code:

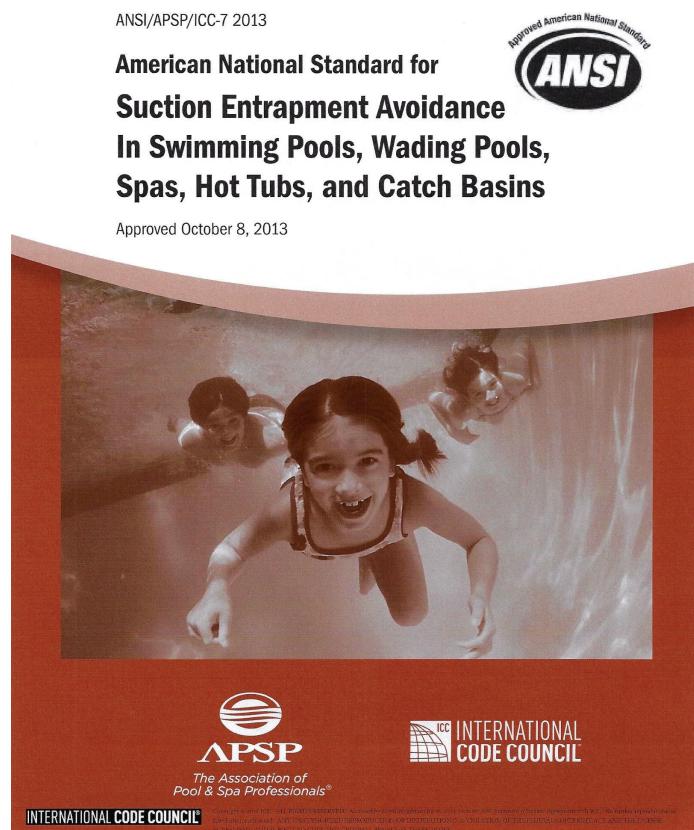
- Pool motor must be bonded with #8 solid copper wire
- If the ladder is metal, it must also be bonded to the pool
- All metal within 5 feet of the inside wall of the pool shall be bonded to the pool with #8 solid copper.
- Bonding connectors shall be stainless steel, brass, copper or alloy.
- Equipotential plane must be installed, and may be #8 Bare Solid Copper 18"-24" from pool, 4"-6" below grade, and attached to pool in four locations.
- Pool water must be bonded with a minimum conductive surface area of 9 square inches. Bond to #8 solid copper bond system.

Pool Pump. Shall have maximum 3 foot cord with a plug factory installed.

Switching Devices. Switching devices shall be located not less than 5 feet horizontally from the inside walls of pools, except where separated from the pool, spa or hot tub by a solid fence, wall or other permanent barrier.

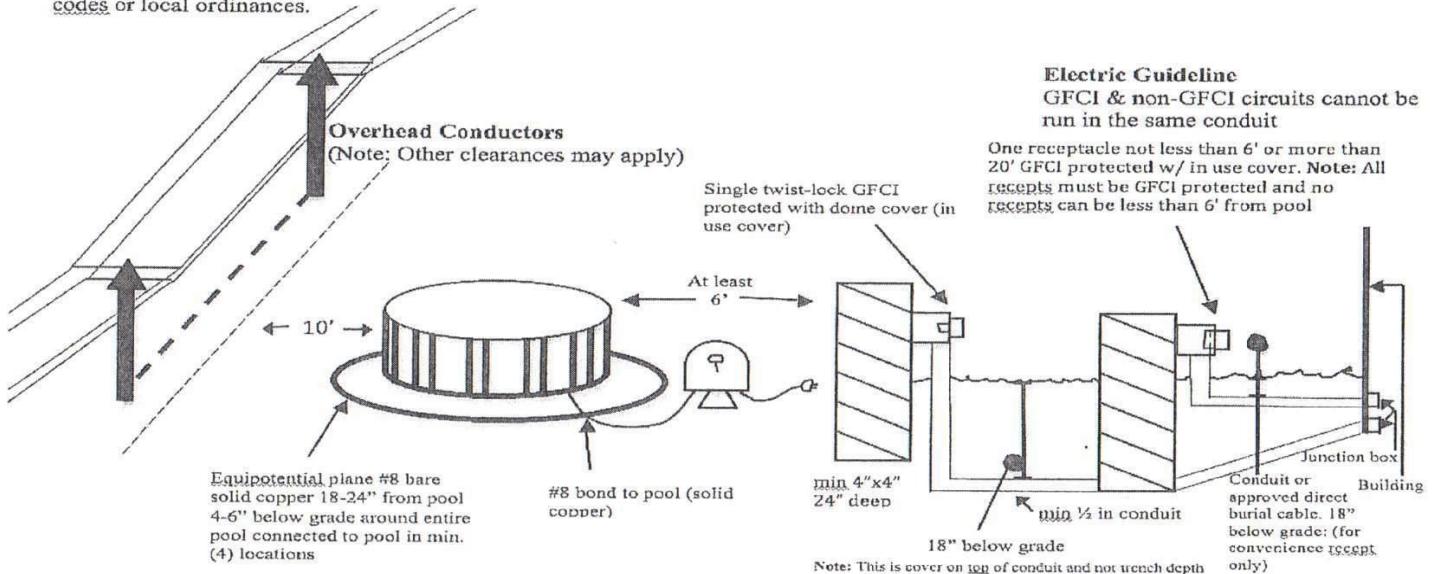
Disconnecting Means – E 4103.3. An accessible disconnecting means shall be provided and located within sight from all pools, spas, and hot tub equipment, and shall be located not less than 5 feet from the inside walls of the pool, spa or hot tub.

Time Switches – N 1103.8.2. Time switches that can automatically turn heaters and pumps off and on to a pre-set schedule shall be installed on swimming pool heaters and pumps.



ELECTRICAL REQUIREMENTS

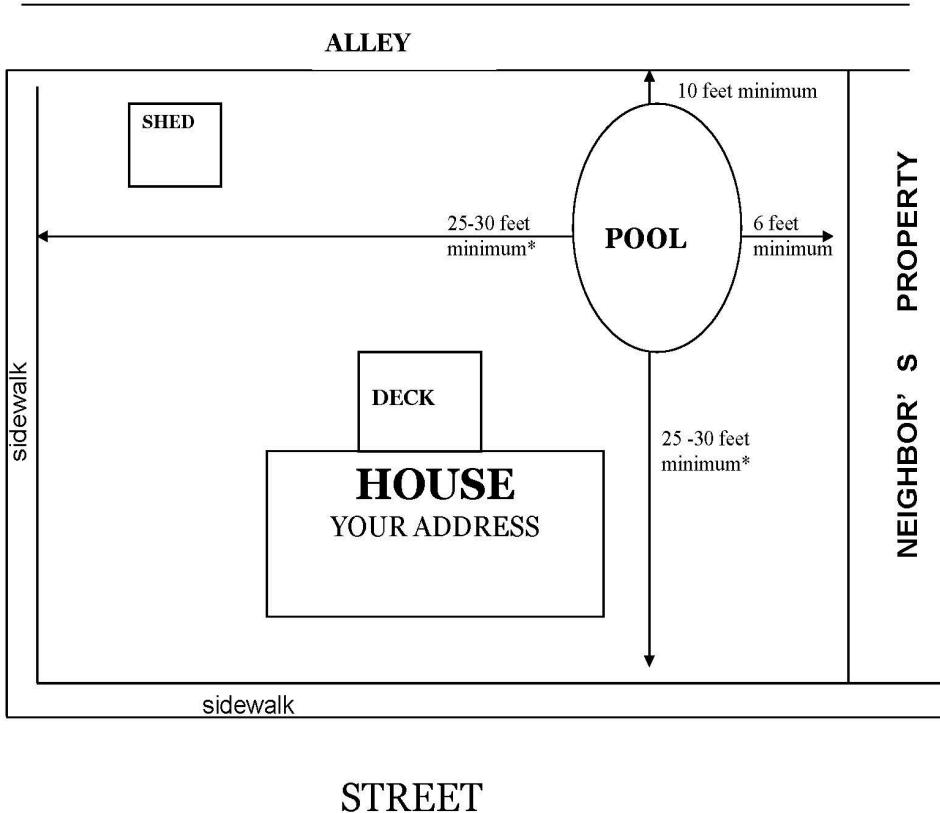
Note: This drawing is intended to aid in the wiring of your pool. It is not a guarantee that the inspection will pass and does not relieve you of compliance with the applicable codes or local ordinances.



Keystone Code Consulting and Enforcement

PLOT PLAN REQUIREMENTS

STREET



PLAN MUST SHOW ALL PROPERTY LINES

MINIMUM DISTANCES

- To side and rear property line - **6FEET**
- To any alley – **10 FEET**
- **No pool can be located in a front yard** (any yard that abuts a street) – please consult with the zoning office to determine what the setback must be
- Plan must include all easements or rights of way encumbering your lot
- All other structures on the property must be shown – i.e., deck, shed, driveway, etc.
- The pool size, type of fencing/barriers, proposed deck areas, gates, closures and alarms are required to be shown/noted
- All accurate distances and measurements must be shown

* minimum front yard setback distance varies depending on the zoning district in which you reside – contact Zoning Officer for more information.

REMEMBER TO CALL PA ONE CALL
(8-1-1-) **3 DAYS BEFORE EXCAVATION!**