



CITY OF EASTON

PENNSYLVANIA

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RESIDENTIAL SWIMMING POOL GUIDELINES

These are guidelines and not a complete set of code requirements. To review all of the relevant code sections please refer to the City of Easton Zoning Code and the currently adopted edition of the International Residential Code and/or National Electric Code.

BEFORE YOU DIG: CALL PA ONE CALL - Dial 8-1-1 or 1-800-242-1776

BUILDING & ELECTRICAL CODE

1. Location of pool must be so that any overhead service entrance cables are 22.5' from the water level in any direction. If installing a diving board or platform a distance of 14.5' must be maintained.
2. If an in-ground pool, consideration for any underground utilities should be taken. No non-pool related underground wire within 6' of pool wall unless in approved conduit.
3. **Pool wiring:**
 - a. Feed wires and branch circuit wires must be installed in conduit. NM (Romex) is only allowed indoors.
 - b. Conduit must be of the following type: RMC, IMC, LFNMC, RNC
4. **Bonding:**
 - a. All metal parts of structure & equipment must be bonded
Exception: isolated parts less than 4" in any dimension and do not penetrate the pool structure less than 1".
 - b. Bonding with an 8 AWG copper or larger conductor to include the bonding-ring around pools 18"-24" from pool and 4"-6" deep.
5. **Grounding:**
 - a. Grounding conductors must be insulated
 - b. No splices in conductors, they must land in terminals
6. **Lighting:**
 - a. Underwater Wet-Niche:
 1. Installed where top of fixture lens is not less than 18" below water line
 2. Bonded and secured to shell requiring a tool for fixture removal
 3. Low voltage lines from UL listed transformer separate from line voltage
 4. Over 15 V must be GFCI protected
 5. Connections in Wet-Niche must be potted and be insulated #8 copper
 6. Metal parts in contact with pool water must be corrosion-resistant
 7. Junction boxes for pools must be UL listed for use

- b. Dry-Niche:
 - 1. Provided with means for drainage of water
 - 2. One equipment-grounding conductor for each conduit entry
- c. No-Niche:
 - 1. UL listed for use
 - 2. Installed in forming shells connected for each conduit bracket

7. Receptacles and Equipment Locations:

- a. Receptacles for circulation and sanitation systems of pools shall be permitted to be located between 6' and 10' from pool wall and be a single rec. GFCI protected with ground and be of a locking type. Timer required for pumps.
- b. Permanently installed pools require a receptacle at least 10' but no more than 20' from pool wall.
- c. All exterior receptacles within 20' of pool walls must be GFCI protected
- d. An accessible disconnecting means for all equipment except lighting shall be located within site of equipment and not less than 5' from pool wall.

8. Lighting Outlets:

- a. Existing lights located less than 5' from pool wall must be at least 5' above the maximum water level must be GFCI protected
- b. New installation above the pool or within 5' of pool wall must be installed at least 12' above the maximum water level
- c. Indoors lights with a totally enclosed fixture or identified for use can be 7'6" above the water if GFCI protected
- d. Switching devices, time clocks, pool light switches, etc must be at least 5' from pool wall

9. Entrapment protection:

- a. All pool and spa suction outlets shall conform to ANSI/ASME A112.19.8M or be a drain grate of at least 12" X 12" or larger or an approved channel drain

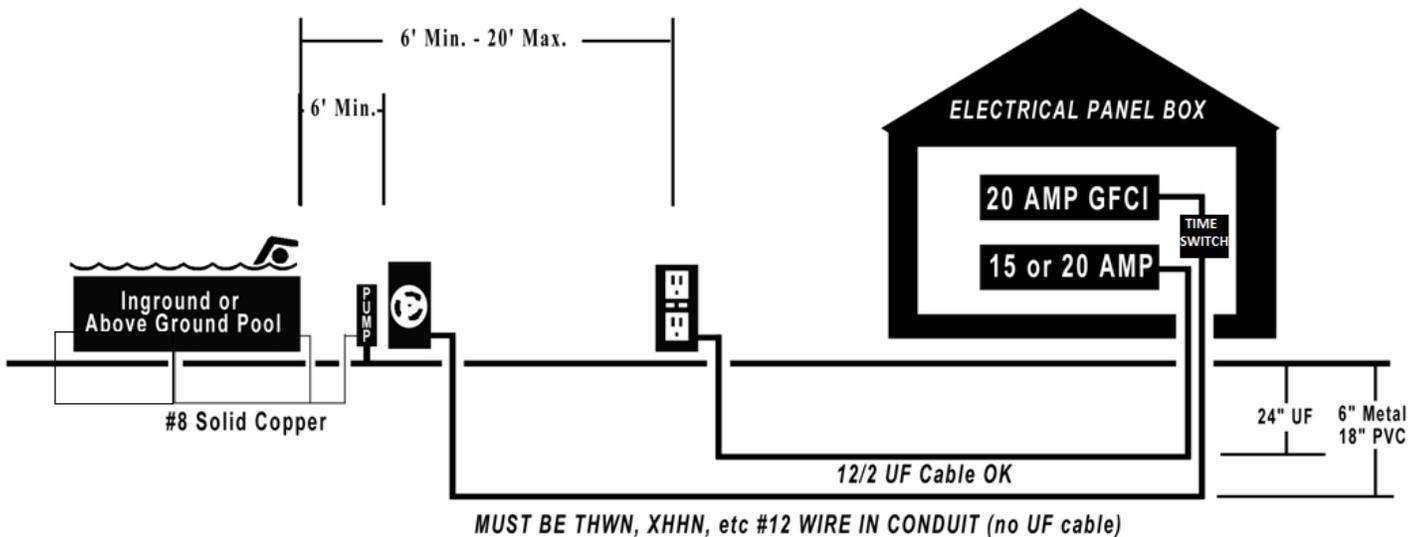
10. Energy Conservation:

- a. Pool heater shall be equipped with readily accessible on-off switches without adjusting the thermostat setting and shall not have continuously burning pilot lights.
- b. Time switches that can automatically turn off and on heaters and pumps according to a preset schedule shall be installed on heaters and pumps.
- c. Heated pools shall be equipped with a vapor retardant pool cover on or at the water surface.

SPAS AND HOT TUBS

11. Spas and hot tubs follow same rules as pools except for:

- a. Factory assembled units can connect to power source with a 15" cord to a GFCI outlet
- b. Bond all metal parts within 5' of spa or hot tub
- c. GFCI protection to spa or hot tub not required if pumps, heaters, lights and other electrical equipment are protected by self-contained GFCI protection - UL listed from factory.
- d. No wall switches or appliances within 5' of hot tub or spa
- e. Indoor locations: Light fixtures permitted less than 7' 6" over spa or hot tub if GFCI protected, enclosed with glass or plastic lens, no exposed metal parts and listed for damp locations.



REQUIRED BARRIERS

12. Barriers are designed to provide protection against potential drowning by restricting access to swimming pools, hot tubs and spas:

- a. The top of the barrier must be at least 48" above the finish grade
- b. Openings in barrier shall not allow a 4" diameter sphere to pass through
- c. Access gates for pedestrians shall have a self-locking device and be of a self-closing type
- d. The release mechanism for the gate must be at least 54" from the bottom of the gate or be located at least 3" below the pool side of the top of the gate
- e. If a wall of a dwelling serves as part of the barrier all doors that directly access the pool need to be equipped with an audible alarm when the door and/or its screen, if present, are opened. The alarm shall be listed and labeled in accordance with UL 2017.
- f. If the wall of an above ground pool serves as the barrier the ladder or steps need to be capable of being locked, secured or removed to prevent access
- g. Barriers shall be constructed and located away from structures, equipment or similar objects to prevent them from being used to climb on or over the barriers
- h. Barrier exceptions – hot tubs or spas with a safety cover complying with ASTM F 1346 shall be exempt from these provisions.

13. Decks:

- a. Decks built 30" high above grade require guards
- b. Plans for deck need to be submitted for approval at time of permit application
- c. Deck footing must be a minimum of 36" deep
- d. Access to decks around pools must meet above barrier requirements
- e. Decks cannot cantilever on above ground pool walls without proof from the manufacturer that the pool is capable of supporting the deck

14. Portable or storable pools:

- a. Cord connected pumps shall have a double insulated cord and ground that grounds all internal non-accessible metal parts
- b. Electrical equipment needs protected by GFCI circuit
- c. Lights for storable pools must be listed for such use with no exposed metal parts