

**REQUIREMENTS  
FOR  
SWIMMING POOLS, SPAS AND HOT TUBS**

***PERMIT REQUIREMENTS:***

Permits are required for all permanent and temporary pools, spas and hot tubs having a depth of 24 inches or more. To obtain a permit for a new or replacement pool, spa or hot tub, the following information is required to be submitted along with a completed permit application to the Building Department for review:

- Address of work site
- Name, address, phone number of owner
- Who will be doing the work, contractor or homeowner?
- Description of work to be done (i.e. aboveground pool, in-ground pool, hot tub, size of unit, attached deck, etc.)
- Estimated cost of project
- Current certificate of insurance for general liability and worker's compensation for the contractor

Note: The State of New York requires the Town/Village to have on file a current certificate of insurance for general liability and worker's compensation (if required) for the contractors before we can issue the permit.

***PLOT PLAN:***

When an application for a permit is made, it must be accompanied by a tape location or instrument survey map, which shows:

- Outline of the property
- Location of all buildings or structures
- Where the proposed pool will be located, including distances from the pool to the building and to the front, rear and side lot lines, and the size of the pool
- Location of any overhead wires on the property
- Location of proposed power source
- Trench location for power source and all required power receptacles for the pool

**SETBACK REQUIREMENTS:**

**TOWN**

No swimming pool shall be closer to the street or front lot line than the front of the building or structure to which the pool is an accessory use.

The setbacks from the side and rear lot lines shall be at least 15 feet

**Village**

Setback requirements vary depending on what zoning district you are located in, ask the Zoning Officer for this information.

**Town/Village**

Also, aboveground pools may not be closer than 10 feet from any basement; in-ground pools may not be closer than 15 feet. Pools may not be located in easements without first obtaining a release from the easement holder.

**OVERHEAD ELECTRICAL WIRES:**

The National Electrical Code requires that all pools must be at least 10 feet from overhead electrical wires.

**DISTANCE FROM A WELL OR SEPTIC SYSTEM:**

A pool must be located at least 20 feet from any active well or septic system, leach lines, etc.

**WATER SUPPLY:**

No fixed or direct connection may exist between the pool and the potable water supply.

**DRAINAGE:**

No drainage of pool water is permitted to a sanitary sewer or onto adjacent property.

**ADDITIONAL REQUIREMENTS FOR SWIMMING POOLS, SPAS, AND HOT TUB PERMITS:**

- The permit fee is \$55.00 Permit is valid for 3 months.
- A refundable escrow fee of \$150.00 is required. The deposit will be returned when final inspection is complete within the time frame of the permit issued. Applicant forfeits the deposit and must take out another 3 month permit along with a new \$150.00 escrow fee if permit expires.
- A re-inspection fee of \$35.00 will be imposed if an applicant calls for an inspection and the work is not complete at the time of inspection.

***SAFETY DEVICE:***

***Floating / Wave Sensor:***

This is a pool alarm that is required. Pool alarms are required on residential or commercial pools installed, constructed or substantially modified after December 14, 2006. The alarm must ring at the pool location and a remote alarm must ring within the residence. The alarm must be permanently attached to the pool structure and operate correctly at the time of final inspection.

***Time Clocks:***

Time clocks shall be installed so that the pump can be set to run in the off –peak electric demand period and can be set for the minimum time necessary to maintain the water in a clear and sanitary condition in keeping with applicable health standards.

***DECKS:***

Pools with attached decks must also conform to the applicable requirements for decks.

***ELECTRICAL INSPECTION:***

An electrical inspection is required for your pool once it has been installed. An underground/rough inspection is required as well as a final inspection. These inspections are made by the following agencies listed below:

**New York Electrical Inspection Agency  
Fritz Gunther, Inspector  
585-436-4460, [www.inspectNY.com](http://www.inspectNY.com)**

**Middle Department Inspection Agency  
Steve Haak, Inspector  
585-729-4649, [stevehaak@ymail.com](mailto:stevehaak@ymail.com)**

**Commonwealth Electrical Inspection Service  
Bill Schell, Inspector  
585-746-7030**

Final electrical inspection certificates are required by the Building Department before a Certificate of Compliance can be issued.

### ***FINAL INSPECTION:***

Once the pool has been installed and the electrical inspection has been completed, you are ready to schedule your final inspection. Call the Building Department at 597-4999 to make an appointment. It is not necessary to be home at the time of the inspection as long as the Building Inspector has access to the area and the electrical inspection sticker.

Upon successful completion of this inspection, a Certificate of Compliance will be mailed to you within 10 days. If you have not received this certificate, please contact us.

**Please note: The pool, spa or hot tubs are not to be used until all inspections have been successfully completed.**

### ***BARRIER REQUIREMENTS:***

#### ***ACCESS GATES:***

Any gates to be provided for an enclosure must be self-closing and self-latching and shall be securely locked when the pool is not in use.

- With the exception of spas or hot tubs with an approved safety cover, and pools at least 48 inches high measured from the surrounding grade, all swimming pools must be enclosed.
- The barrier or enclosure must be at least 48 inches above the surrounding grade, measured on the side facing away from the pool.
- Any openings in the barrier cannot allow passage of a 4-inch diameter sphere.
- Maximum mesh size for chain-link fences shall be 1.25 inches square.
- The wall of a dwelling is permitted to serve as part of the enclosure, provided that the pool is equipped with an approved safety cover, or all doors with direct access to the pool are equipped with an alarm that sounds when the door is opened, or other adequate means of protection are provided.
- The barrier must be able to withstand prescribed side and down loading pressure as determined in the State Building Code.

# PERMANENTLY INSTALLED SWIMMING POOLS

## 2017 National Electrical Code Requirements NEW YORK ELECTRICAL INSPECTION AGENCY

585.436.4460 www.NYEIA.com

PERMANENTLY INSTALLED SWIMMING POOLS ARE THOSE THAT ARE CONSTRUCTED IN THE GROUND OR PARTIALLY IN THE GROUND, AND ALL OTHERS CAPABLE OF HOLDING WATER WITH A DEPTH GREATER THAN 42 INCHES (1067 MM)

### 1) Pool Pump Receptacle (Outlet) and Wiring Method

- a. Swimming pool pump motor receptacle must be located at least 6' from the inside pool wall, must be grounded, and Ground Fault Circuit Interrupter (GFCI) protected.
- b. Receptacle must have an extra-duty, in-use, weatherproof cover that can be closed when the cord is plugged in.
- c. Depending on the horsepower of the pump motor, the circuit line for the pump motor may need to be a continuous line going directly to the panel box, and isolated from all other receptacles and loads. (see NEC Table 430.248)
- d. Grounding Conductor (ground wire) for the pump motor cannot be less than #12 AWG insulated copper grounded wire, and must be in conduit. (Exception: When entering a building the wire can change to NM) (Cannot use NM wire in conduit).
- e. Conduit
  - i. PVC – All PVC conduit\* must be buried at least 18" deep (12" if GFCI protected prior to entering the ground).
  - ii. Metal – All Rigid Metal Conduit\* must be at least 6" deep.

\* Wires used in conduit must be single strand wires (ex: THWN, etc - NO NM or UF CABLE in Conduit).

### 2) Convenience Receptacle (Outlet) and Wiring Method

- a. At least one (1) 15- or 20-ampere convenience receptacle must be located no closer than 6' and no further than 20' from the inside pool wall (Can be existing and/or wired with any approved wiring method). This receptacle cannot be located more than 6 1/2' above the grade level, deck, or platform serving the swimming pool.
- b. Convenience receptacle must be Ground Fault Circuit Interrupter (GFCI) protected, Tamper Resistant (TR), and Weather Resistant (WR) type receptacle.
- c. Must have an extra-duty, in-use, weatherproof cover that can be closed when in use (for all wet locations).
- d. May need to be separate from the pool pump receptacle wiring.
- e. Wiring
  - i. UF cable if buried must be at least 24" deep (12" if GFCI protected prior to entering the ground).
  - ii. PVC – All PVC conduits\* must be buried at least 18" deep (12" if GFCI protected prior to entering the ground).
  - iii. Metal – All Rigid Metal Conduits\* must be at least 6" deep

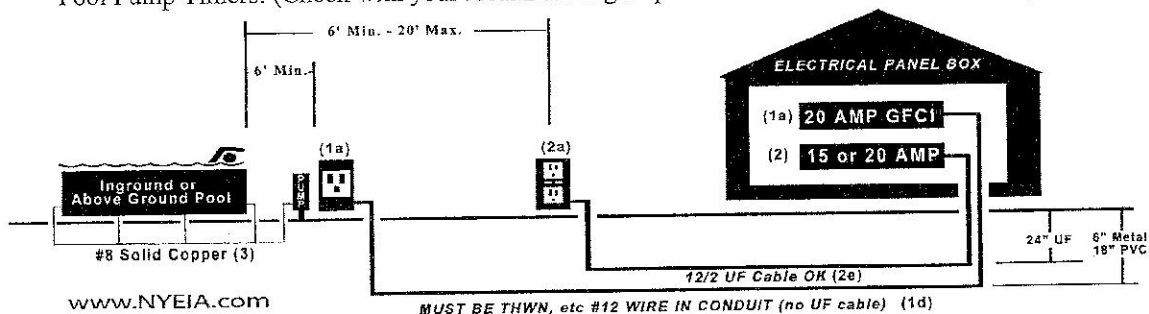
\* Wires used in conduit must be single strand wires (ex: THWN, etc. - NO NM or UF CABLE in Conduit).

### 3) Bonding The Pool

- a. All metal parts must be bonded together using a #8 (or larger) solid copper wire.
- b. Must use non-corrosive clamps that are listed for direct burial use.
- c. Conductive pool shells must be bonded in a minimum of four (4) equal points uniformly spaced around the pool
- d. Nonconductive pool shells must have a #8 (or larger) solid, bare copper wire 18"-24" from the inside pool wall under the perimeter surface 4"-6" below the final grade.
- e. A minimum of nine (9) square inches of corrosion resistant metal must be in the water to bond the water.

### 4) Other

- a. Building Permits are required. Secure a Building Permit from your municipality prior to beginning work.
- b. Pool Alarms are required. (Check with your local Building Department for additional information).
- c. Pool Pump Timers: (Check with your local Building Department for additional information).



PLEASE CONTACT YOUR LOCAL INSPECTOR IF YOU HAVE ANY QUESTIONS  
NEW YORK ELECTRICAL INSPECTION AGENCY

Fritz Gunther – Chief Electrical Inspector

2767 Dewey Avenue \* Rochester, New York 14616 ~ (585) 436-4460 \* www.NYEIA.com

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# STORABLE SWIMMING POOLS, SPAS, & HOT TUBS

## 2017 National Electrical Code Requirements NEW YORK ELECTRICAL INSPECTION AGENCY

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STORABLE POOLS ARE SWIMMING, WADING, OR IMMERSION POOLS THAT ARE INTENDED TO BE STORED WHEN NOT IN USE, CONSTRUCTED ON OR ABOVE THE GROUND, AND ARE CAPABLE OF HOLDING WATER TO A MAXIMUM DEPTH OF 42 IN., OR A POOL, CONSTRUCTED ON OR ABOVE GROUND WITH NON METALLIC, MOLDED POLYMERIC WALLS, OR INFLATABLE FABRIC WALLS REGARDLESS OF DIMENSION.  
(The maximum water depth of 42" does not apply to inflatable swimming pools.)

### 1) Storable Pool Pumps

- Cord-connected pool filters must be approved system and have a double insulation or equivalent cord
- Cord-connected pool filter pumps must have a ground-fault circuit interrupter (GFCI) on the power supply cord located within 12" of the attached plug or that is an integral part of the attached plug on the cord.

### 2) Receptacle (Outlet) and Wiring Method for Storable Pool Pump

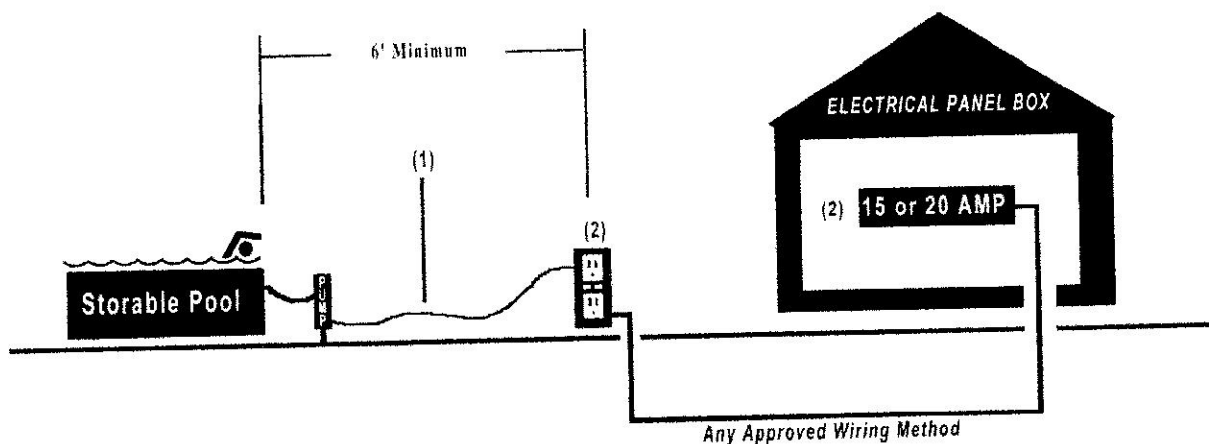
- Any receptacle, existing or new, cannot be located closer than 6' of the inside wall of the storable pool.
- The receptacle must be grounded, must be Ground Fault Circuit Interrupter (GFCI) protected, and the Tamper Resistant (TR), and Weather Resistant (WR) type receptacle.
- Receptacle must have an In-use, extra-duty weatherproof cover that can be closed when the cord is plugged in.
- An Automatic Timer (Time Switch) must be installed on storable swimming pool pumps.

### 3) Luminaries (lights) for Storable Pools (if used)

- Luminaries cannot have any exposed metal parts and must be listed for the purpose.
- Luminaries 15 Volts or less must:
  - Have a luminaire lamp that operates at 15 volts or less
  - Have an impact-resistant polymeric lens, luminaire body, and a transformer enclosure
  - Have a transformer listed for swimming pools with a primary rating not over 150 volts
- Luminaries Over 15 Volts but not over 150 volts must:
  - Have an impact-resistant polymeric lens and luminaire body
  - Have Ground Fault Circuit Interrupter (GFCI) protection.

### 4) Other

- Building Permits are required. Secure a Building Permit from your municipality prior to beginning work.
- Pool Alarms may be required. (Check with your local Building Department for additional information.)
- All receptacles located within 20' of the inside walls of a storable pool wall must be GFCI protected.
- Overhead power lines within 10' of the edge of the storable pool must be at least 22 ½' above the water surface.



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# HOT TUBS & SPAS - ELECTRICAL WIRING REQUIREMENTS

## 2017 National Electrical Code Requirements NEW YORK ELECTRICAL INSPECTION AGENCY

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**SPA OR HOT TUB.** A HYDROMASSAGE POOL, OR TUB FOR RECREATIONAL OR THERAPEUTIC USE, NOT LOCATED IN HEALTH CARE FACILITIES, DESIGNED FOR IMMERSION OF USERS, AND USUALLY HAVING A FILTER, HEATER, AND MOTOR-DRIVEN BLOWER. THEY ARE INSTALLED INDOORS OR OUTDOORS, ON THE GROUND OR SUPPORTING STRUCTURE, OR IN THE GROUND OR SUPPORTING STRUCTURE. GENERALLY, A SPA OR HOT TUB IS NOT DESIGNED OR INTENDED TO HAVE ITS CONTENTS DRAINED OR DISCHARGED AFTER EACH USE.

### 1) Hot Tub / Spa Wiring Method and Receptacles (Outlets)

- a. Maintenance Disconnect - A disconnect is required for all ungrounded electrical wires (except for lighting). It must be at least 5' horizontally but not more than 50' from the water's edge, readily accessible, and within sight of the Hot Tub / Spa.
- b. The outlet(s) that supply a Hot Tub / Spa must be Ground-Fault Circuit Interrupter (GFCI) protected.
- c. Indoor Hot Tubs & Spas
  - i. At least one (1) convenience receptacle must be located between 6' and 10' from the inside wall of the Hot Tub / Spa and be GFCI Protected (Existing receptacle OK and wired with any approved wiring method).
- d. Outdoor Hot Tubs & Spas
  - i. At least one (1) 15- or 20-amp convenience receptacle must be located between 6' and 20' from the inside wall of the Hot Tub / Spa and be GFCI Protected (Existing receptacle OK and wired with any approved wiring method).
  - ii. Liquidtight flexible nonmetallic or metallic conduit is permitted in any lengths.
  - iii. A listed packaged hot tub / spa installed outdoors that is GFCI protected shall be permitted to be cord and plug-connected provided that such cord does not exceed 15 feet in length.
  - iv. Outdoor receptacles must have an in-use weatherproof cover rated "extra-duty" where exposed to the weather.

### 2) Bonding The Hot Tub / Spa

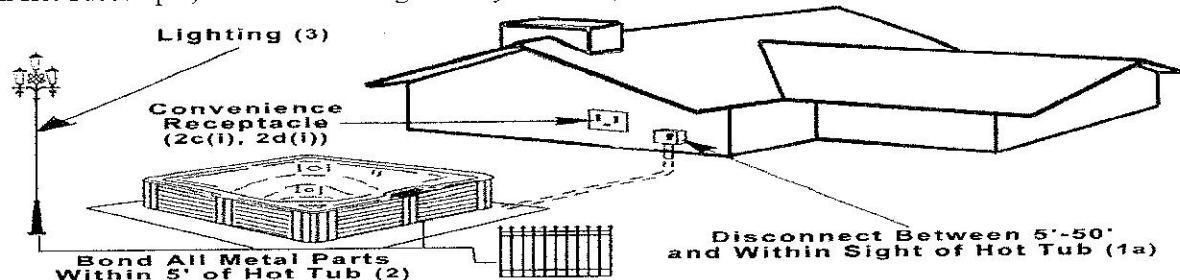
- a. All metal parts & surfaces within 5' of the Hot Tub / Spa must be bonded together using a #8 (or larger) solid copper wire and connections must be listed and non-corrosive. Indoor Hot Tubs / Spas must bond all metal within or attached to the hot tub.
- b. Outdoor Hot Tubs / Spas with nonconductive shells must have a #8 (or larger) solid, bare copper wire 18"-24" from the inside hot tub wall under the perimeter surface 4"-6" below the final grade and connected to a metal part of the pump motor.\*  
\* Exception: All must apply; 1) Hot tub must be listed for aboveground use, 2) Listed for outdoor use, 3) Installed on or aboveground, 4) The top rim of the hot tub must be at least 28" above the perimeter surfaces within 30" horizontally.

### 3) Lighting (other than underwater applications) (if any)

- a. All non-GFCI protected lights and ceiling fans within 5' of the inside wall of the Hot Tub / Spa must be at least 12' above the maximum water level of the Hot Tub / Spa.
- b. All GFCI protected lights and ceiling fans within 5' of the inside wall of the Hot Tub / Spa must be at least 7 ½' above the maximum water level of the Hot Tub / Spa.
- c. Exception - Lights that are within 5' of the inside wall of the Hot Tub / Spa and less than 7 ½' above the water level are only acceptable if they meet the following:
  - i. Recessed Lights - GFCI protected with a glass or plastic lens, nonmetallic or electrically isolated metal trim, and suitable for damp locations.
  - ii. Surface-Mounted Lights - GFCI protected with a glass or plastic globe, a nonmetallic body, or a metallic body isolated from contact, and suitable for damp locations.

### 4) Other

- a. Building Permits are required. Always secure a Building Permit from your municipality prior to beginning work.
- b. Indoor Hot Tubs / Spas wall switches must be a minimum 5' from the inside wall of the Hot Tub / Spa.
- c. Outdoor Hot Tubs check for overhead wires within 10' of the Hot Tub. (Must be 22 ½' above water level & not allowed in many towns)
- d. All Hot Tubs / Spas, other than in a single-family residence, must have an emergency shutoff between 5'-50' & within sight.



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