ABOVE-GROUND SWIMMING POOL

The following requirements are only a **partial list** of the locally adopted codes. This list represents the most common items that require compliance. All City of Elgin ordinances and adopted codes must be complied with as determined by the building official.

DEFINITION: Any pool that is less than 24 inches deep and has a surface area of less than 250 square feet (18 feet in diameter for round pools) is exempt from these requirements unless the pool is permanently equipped with a water recirculating system or is built of structural materials.

GENERAL REQUIREMENTS:

1. **PERMIT FEE:** $100.00 includes electric permit
   $70.00 for Plumbing permit for pool heater
   $70.00 for Deck permit

2. **ZONING:** A plat of survey showing the locations, dimensions, and setbacks of all existing and proposed improvements is required.

   Pools shall not be located in the front or side yard. Pools cannot encroach into the required building setback from an interior lot line (contact the Department of Code Administration to determine required setback).

3. **HISTORIC DISTRICT:** If the property is located in the Historic District, a Certificate of Appropriateness (COA) is required.

4. **EASEMENTS:** Pools must not be located on or in any utility or drainage easement.

5. **POOL DECKS AND STAIRS:** Pool decks higher than 30 inches above grade must have guardrails. Permanent stairs having more than 3 risers must have handrails. Open portions of stair risers shall not allow the passage of a 4 inch sphere. Pool decks and stairs must be built as specified in the City of Elgin Open Deck handout.

6. **SECURITY FENCES, GUARDRAILS, AND HANDRAILS:** All pools must be designed to restrict access into the pool. Three options are available for restricting access:

   Set the Pool 4 Feet or More Above Grade: If all points of the perimeter of a pool are 4 feet or more above grade *and* if no deck adjoins the pool, then no fencing or guardrail is required.

   Enclose the Pool with a Fence: The fence must be at least 4 feet high and must completely surround the pool (or the entire yard in which the pool is located). All openings in the fence (with the exception of those openings which allow direct access to the house) must have a self-closing, self-latching gate. The latch must be located at least 4 feet above grade or be inoperable from the outside. The fence must be constructed so that a 4 inch sphere cannot pass through at any point.

All required fencing must be installed prior to filling the pool.

Enclose the Pool with a Deck and Guardrail System: Pools that have a deck and guardrail system instead of a security fence must have a guardrail at least 4 feet above grade and 3 feet above the deck. The guardrail must go around the entire deck, as well as any portions of the pool which are not bounded by a deck and which are less than 4 feet above grade. All openings in the guardrail (with the exception of those openings which allow direct access to the house or to the pool) must have a self-closing, self-latching gate. The latch must be located at least 4 feet above grade or be inoperable from the outside. All guardrails and handrails must be constructed so that a 4 inch sphere cannot pass through at any point. **All required railing must be installed prior to filling the pool.**

Where a Wall of a Dwelling Unit serves as part of the Barrier: One of the following conditions shall be met:

1. The pool shall be equipped with a powered safety cover in compliance with ASTM F 1346;

2. Doors 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, if present, are opened. The alarm shall be listed in accordance with UL 2017; or

3. Other means of protection, such as self-closing doors with self-latching devices, which are approved by the building official, shall be acceptable so long as the degree of protection afforded is not less than the protection afforded by either Item 1 or 2 described above.

7. **LADDERS:** Pool ladders must be secured with an approved security gate or be capable of being locked in an upright position. Latches or locks must be located at least 4 feet above grade.

ELECTRICAL REQUIREMENTS:

All requirements of the 2011 National Electrical Code, Article 680, including, but not limited to the following, shall be complied with.

1. Over head electrical conductors (electric or telephone) and metal clothes lines must be located at least 10 feet from the inside wall of the pool. Uninsulated overhead utility lines must be at least 25 feet in any direction from the water's edge [Table 680.8 & figure 680.8]. Underground conductors (electrical, cable TV, phones lines, etc.) not associated with pool equipment must be located at least 5 feet from the inside wall of the pool.

2. Receptacles that provide power for water-pump motors or for other loads directly related to the circulation and sanitation system shall be located at least 10 feet from the inside walls of the pool, or not less than 6 feet from the inside walls of the pool if they meet **all** of the following conditions:
   (1) Consist of single receptacles
   (2) Employ a locking configuration

(3) Are of the grounding type
(4) Have GFCI protection (using a GFCI type circuit breaker, per City of Elgin Amendments)

3. An additional, GFCI protected, general purpose receptacle on a separate circuit from the pool pump motor (general purpose circuit) shall be provided at least six feet from the inside wall of the pool, but not more than 20 feet from the inside wall of the pool.

4. GFCI protected conductors shall not occupy the same raceway (conduit) as non-GFCI protected conductors.

5. The receptacle must be of the grounding type and protected by a ground fault circuit interrupter. Copper conductors no smaller than #12 AWG and a green insulated copper equipment grounding conductor sized per NEC Table 250.122, but not smaller than #12 AWG ground wire must be used. This equipment grounding conductor must be bonded to all metal boxes.

6. The pool pump motor must be listed by an independent third party testing lab to UL Standard 1081. A "CSA" listing label is not acceptable. A "CSA-US", "UL", "ETL", or "Intertek" label is acceptable.

7. Electrical rigid steel conduit or steel intermediate metal conduit (IMC) can be used as the raceway to the receptacle and must be a minimum of 6 inches below grade. A single conduit cannot act as the support for the receptacle box. Rigid polyvinyl chloride conduit (PVC) can be used as the raceway to the receptacle and must be a minimum of 18 inches below grade. When using PVC as the raceway, the PVC cannot act as the support of the receptacle box. When using PVC conduit, provide protection for the above grade portion of the raceway, or install schedule 80 PVC raceway. PVC conduit must be listed as an electrical raceway, plumbing style (white) PVC is not allowed. The recommended mounting height for the receptacle is 12 to 18 inches above grade with a weatherproof box and receptacle cover. The weatherproof box must be securely supported. All raceways, fittings, and boxes must be listed for the use. EMT is allowed for pool wiring of a single family home, if it is mounted in or on the house. It shall not be used underground, or mounted to any other structure, like a deck or gazebo.

8. Equipotential Bonding. An equipotential bonding grip shall be established for all pools. This shall include a bare, solid copper #8 AWG or larger conductor, installed around the perimeter of the pool. This conductor shall follow the contour of the pool and be buried 4" below grade, at 12"-18" from the pool (this includes both paved and unpaved surfaces). The rebar or welded wire fabric used to reinforce a concrete pool deck must be bonded together, and be made a part of this bonding grid. This conductor shall be bonded to any metal pool components with stainless steel, brass or copper fittings, and to the pool water (ask your pool supplier or your local electrical supply house for fittings to be used for the purpose). It shall also be bonded to the bonding lugs of the pool pump motor, and the pool heater (if installed). This bonding conductor shall be bonded to a conductive pool shell, or to the un-encapsulated rebar of an in-ground pool at four locations, equally spaced. The bonding conductor shall not be attached to a ground rod, or to service equipment or remote panel boards.
9. One or more means of disconnect shall be provided for all pool pump motors. This means of

disconnect shall simultaneously disconnect all ungrounded conductors for all pool utilization equipment except for lighting. The means of disconnect for the pool pump motor may be a switch in a weather-proof box and cover, or it may be the switch on the pump motor. The means of disconnect shall not be less than five feet from the inside wall of the pool, and shall be readily accessible.

10. Except for storable pools, the cord that supplies power to the filter pump must not be longer than 3 feet. Portable UL-listed pumps that have factory-installed longer cords may be used with a GFCI receptacle.

PLUMBING REQUIREMENTS (ONLY APPLIES WHEN INSTALLING POOL HEATER):

1. Black iron pipe (schedule 40), wrapped or coated with a weather resistant material. The pipe shall be installed to be a minimum of 12 inches below grade to the top of the pipe.

2. Approved plastic pipe can be installed outdoors, underground only. Plastic pipe shall be permitted to terminate above-ground only where an anodeless riser is used. The plastic pipe shall be installed to be a minimum of 18 inches below grade to the tip of the plastic pipe.

3. Connections made outdoors and underground between metallic and plastic piping shall be made with fittings conforming to either ASTM D 2513 or ASTM F 1973.

4. An electrically continuous corrosion-resistant tracer wire (minimum 14 AWG copper) or tape shall be buried with the plastic pipe to facilitate locating by JULIE. One end shall be brought aboveground at the building wall or riser.

INSPECTION REQUIREMENTS:

1. A pool layout inspection is highly recommended. This inspection should take place after the yard has been marked by J.U.L.I.E., and after the pool location has been marked with white spray paint.

2. Underground electrical and underground plumbing inspections (if pool heater is installed), prior to backfilling. (J.U.L.I.E markings must still be present at this inspection.)

3. Final electrical inspection. (Access to the electrical panel in the house is required at this time, as well as access to any sub-panels installed for or feeding the pool.)

4. Final swimming pool inspection.

FOR INFORMATION VISIT OUR WEBSITE AT www.cityofelgin.org OR CALL:
Community Development at (847) 931-5920 (Zoning, Building and Inspections)
Historic Preservation or COA's (847) 931-6004

CALL BEFORE YOU DIG: JULIE (800) 892-0123 (or 811) to locate utility lines

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