

Guidance on Private Outdoor Pools

The Department of Buildings is committed to enhancing safety and quality of life for residents and visitors of the City of Chicago through permitting, inspections, trade licensing, and enforcement of the Chicago Construction Codes. For homeowners, builders, and design professionals interested in requirements for private residential swimming pools and other small outdoor pools, the Department offers the following guidance:

Pools and water features with water depth of 48 inches (4 feet) or less

A building permit is **not required** for any pool or water feature that meets the following requirements:

- Located on the same lot as a building containing 1, 2, or 3 residential dwelling units
- Intended for the exclusive use of the residents of that building and their guests
- Installed at ground level or in-ground but not requiring excavation deeper than 5 feet
- With a water depth no greater than 48 inches (4 feet)
- With a volume no greater than 5,000 gallons when 90% full

Though a permit is not required for this type of pool or water feature, please note the following:

An **electrical permit** is required for any permanent or temporary electrical connection or electrical wiring, other than a cord-and-plug connection. Electrical work must comply with Article 680 of the Chicago Electrical Code. An electrical permit is obtained online by a licensed electrical contractor.

A **plumbing permit** is required for any permanent connection to the Chicago Waterworks system. When using a flexible hose to fill a pool, the end of the hose should never be submerged in the pool water. This will prevent backflow and potential contamination of the water supply.

An **easy permit**, based on a dimensioned sketch, is required for any pool with a volume greater than 5,000 gallons when 90% full. An easy permit, based on a dimensioned sketch, and excavation certificate is required if pool installation will require excavation greater than 5 feet in depth. An easy permit is required to install any fence greater than 5 feet high.

A **full building permit**, based on plans prepared by a licensed architect or structural engineer, is required if an elevated deck structure will be built to access an above-ground pool. A full building permit is required to install a pool or spa on a balcony, deck, or rooftop.

Private residential swimming pools

Installation of a private residential swimming pool **requires a full building permit**, based on plans prepared by a licensed architect or structural engineer. A "private residential swimming pool" is defined as a pool which is located on the same lot as a building containing 1, 2 or 3 residential dwelling units, is intended for the exclusive use of the residents of that building and their guests, and has a **water depth greater than 48 inches** at any point.

Every outdoor private residential swimming pool must meet the following requirements:

- The edges of the pool must be at least 10 feet away from any neighboring lot or alley.
- Any pump, filtration, or treatment equipment must be at least 10 feet away from any neighboring lot.
- Pools must be of the recirculation type. The recirculation system must be capable of turning over the entire water volume every six hours.
- Pools must be constructed of materials that provide a rigid, watertight shell and a smooth, impervious light-colored finish that is non-toxic and easily cleaned. The floor of shallow areas must have a slip-resistant finish and meet slope requirements specified in the Plumbing Code.
- Pools must be designed to meet the general structural requirements of the Chicago Building Code, to withstand water pressure from within when full, and to resist pressure from the ground when empty.
- Walk areas, at least 6 feet wide, must be provided on all sides of the pool. The walk area must have a smooth, easily cleaned non-slip surface, pitched away from the pool. Walk drains shall be provided for every 100 square feet of walk area.
- A fence or wall must completely enclose the pool deck. The enclosure, including gates, must be at least 5 feet high. Gates must be equipped with self-closing and self-latching hardware, mounted at a height inaccessible to small children.
- Metal fences must be electrically grounded.

- Two or more means of egress, such as steps or ladders, must be provided. Handrails must be provided on both sides of steps or ladders.
- Overflow gutters must be provided around the entire perimeter of the pool.
- The makeup water system must be designed to prevent a cross connection, either by having a permanent six-inch air gap above the rim of the pool or, if water is added by a hose, having a vacuum breaker installed at the sill cock.
- The recirculation piping must be designed as required by the Chicago Plumbing Code for water distribution piping, however PVC plastic pipe may be used.
- The backwash filter must be capable of providing 15-gallons-per-minute flow per square foot of filter area.
- The pool must be capable of being completely drained to the sewer system, via an indirect connection, at a rate not exceeding 250 gallons per minute. Pools shall not discharge to the sewer system during a rainstorm.
- All pools require disinfection equipment. Chlorine-based disinfection equipment shall provide for a chlorine residual of 0.5 parts per million. Gaseous chlorine systems are prohibited. Any method of disinfection other than chlorine-based disinfection must be pre-approved in writing by the Chicago Department of Public Health.
- Electrical wiring may not pass above or below a pool and must meet other clearance and installation requirements provided in the Chicago Electrical Code. In general, overhead wiring may not be located within 10 feet horizontally from the edge of a pool.

Private residential swimming pools must comply with the following safety precautions:

- A skilled swimmer must always be present when the pool is in use.
- A throwing ring buoy, with a rope line attached, and a flexible pole for reach assist rescues must be available.
- No diving boards more than 3 feet above the water surface are allowed.

Outdoor private residential pools may only be used between June 1 and September 15 and must be drained and covered at all other times of the year. Outdoor private residential pools may only be used between 8:00 a.m. and 10:00 p.m.

The construction documents accompanying a permit application to build a private residential pool must include:

- A site plan, based on a legal survey, showing:
 - Lot lines
 - Existing buildings
 - Overhead and/or underground electric utility lines
 - Sewer line
 - Water supply line
- A plan, cross section, and longitudinal section, indicating the volume and surface area of the pool
- Electrical and grounding schematic
- Plumbing and piping schematic, including notes on:
 - Method of filling pool
 - Method of filter backwash and pool water discharge
 - Manner of disinfection of pool water
 - Make/model of filter, including filter area (ft²) and maximum filtration rate (gpm)
- Pool wall and lighting details
- Diving board details (if applicable)
- Detail of steps or ladders
- Skimmer and return inlet detail
- Main drain detail
- Fence detail
- Manufacturer's cut sheets for pump, filter, heater, and chlorine feeder
- Manufacturer's cut sheets for premanufactured pools or spas

Construction documents must be prepared, signed and sealed by an Illinois-licensed architect or structural engineer.

Excavation work more than 5 feet below grade may require an excavation certificate. Excavation work more than 12 feet below grade will require a geotechnical review.

Either the architect or structural engineer, or a licensed permit expeditor, must start an online permit application and upload the drawings for electronic review.

Other swimming pools and swimming facilities

A full building permit, based on plans prepared by a licensed architect or structural engineer is required to install any other type of pool or swimming facility, such as a pool for a multi-family apartment building or a public pool. These types of pools also require licenses from the Illinois Department of Public Health.