

POOLS SUMMARY GUIDE

CITY OF LIBERTY - BUILDING DIVISION



Is a Permit Required?

Work permits are required for all outdoor pools or hot tubs more than 24" in depth and all indoor pools regardless of depth. Barrier requirements must also be met as per 2018 International Swimming Pool and Spa Code. Chapter 3 Section 305, listed below.

Guidelines

- Per the City of Liberty's Municipal Code, ALL outdoor pools, spas and hot tubs must have a minimum 48" fence around the yard or pool area.
- No excavation will be started until a building permit has been obtained.
- Inspections are performed during construction and will be performed within 24 hours from the time of the inspection request.
- Swimming pools and landscape features with water greater than 2-feet in depth are allowed in the rear or side yard at least 5-feet from the property line and at least 20-feet from the primary structure on any adjoining lot.

Application Requirements

- Completed application by licensed contractor
- Site plan showing the following:
 - Property address and property lines
 - All easements on the property
 - Location of all permanent structures
 - The location of the pool decking or patio around the pool including distance from all property lines (minimum 5-feet) and homes on adjoining lots (pool must be minimum of 20-feet away)
 - Location of underground and or overhead electrical lines
 - Location and height of required fence (minimum 4-feet) and secured gate - see Chapter 3 Section 305 ISPSC
- Completed Residential Pool Supplemental Handout (attached)
- List of UL listed pumps, filters, etc. (brochures are acceptable)

Note: Plans should be drawn to scale. Normal scales are ¼" per foot for the building plans and 1"= 20' or 1"= 30' for the site plan.

In a Historic District?

Any pool, hot tub, or fence proposed on a property in the Historic District requires a Certificate of Appropriateness. For further information on details in historic districts, please contact the Preservation Office at 816.439.4537.

For more information, please contact the City of Liberty Building Department at 816.439.4534 or inspections@libertymo.gov or visit our website at libertymissouri.gov/building

Section 305 Barrier Requirements

305.1 General.

The provisions of this section shall apply to the design of barriers for restricting entry into areas having pools and spas. Where spas or hot tubs are equipped with a lockable safety cover complying with ASTM F1346 and swimming pools are equipped with a powered safety cover that complies with ASTM F1346, the areas where those spas, hot tubs or pools are located shall not be required to comply with Section 305.2 through 305.7.

305.2.1 Barrier height and clearances.

Barrier heights and clearances shall be in accordance with all of the following:

- The top of the barrier shall not be less than 48 inches (1,219 mm) above grade where measured on the side of the barrier that faces away from the pool or spa. Such height shall exist around the entire perimeter of the barrier and for a distance of 3-feet (914 mm) measured horizontally from the outside of the required barrier.
- The vertical clearance between grade and the bottom of the barrier shall not exceed 2 inches (51 mm) for grade surfaces that are not solid, such as grass or gravel, where measured on the side of the barrier that faces away from the pool or spa.
- The vertical clearance between a surface below the barrier to a solid surface, such as concrete, and the bottom of the required barrier shall not exceed four 4 inches (102 mm) where measured on the side of the required barrier that faces away from the pool or spa.
- Where the top of the pool or spa structure is above grade, the barrier shall be installed on grade or shall be mounted on top of the pool or spa structure. Where the barrier is mounted on the top of the pool or spa, the vertical clearance between the top of the pool or spa and the bottom of the barrier shall not exceed 4 inches (102 mm).

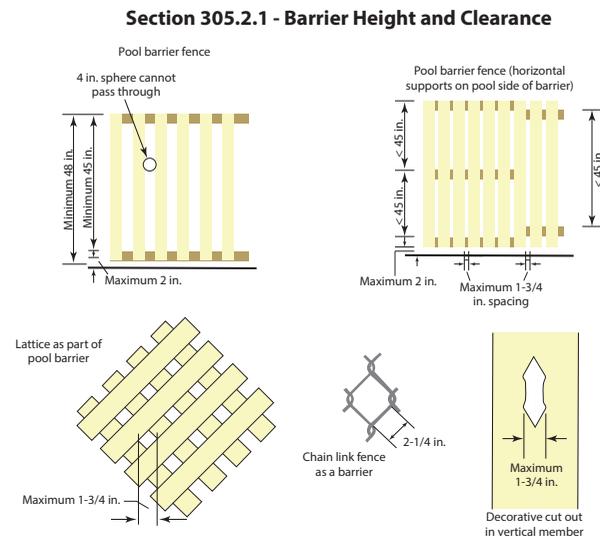


Figure 19: Barrier Height and Clearance

305.2.2 Openings.

Openings in the barrier shall not allow passage of a 4-inch diameter (102 mm) sphere.

305.2.3 Solid barrier surfaces.

Solid barriers that do not have openings shall not contain indentations or protrusions that form handholds and footholds, except for normal construction tolerances and tooled masonry joints.

305.2.4 Mesh fence as barrier.

Mesh fences, other than chain link fences in accordance with Section 305.2.7, shall be installed in accordance with the manufacturer's instruction and shall comply with the following:

- The bottom of the mesh fence shall be not more than 1-inch (25 mm) above the deck or installed surface or grade.
- The maximum vertical clearance from the bottom of the mesh fence and the solid surface shall not permit the fence to be lifted more than 4 inches (102 mm) from grade or decking.
- The fence shall be designed and constructed so that it does not allow passage of a 4-inch (102 mm) sphere under any mesh panel. The maximum vertical clearance from the bottom of the mesh fence and the solid surface shall be not greater than 4 inches (102 mm) from grade or decking.

- An attachment device shall attach each barrier section at a height not lower than 45 inches (1,143 mm) above grade. Common attachment devices include, but are not limited to, devices that provide the security equal to or greater than that of a hook-and-eye-type latch incorporating a spring-actuated retaining lever such as a safety gate hook.
- Where a hinged gate is used with a mesh fence, the gate shall comply with Section 305.3.
- Patio deck sleeves, such as vertical post receptacles, that are placed inside the patio surface shall be of a non-conductive material.
- Mesh fences shall not be installed on top of on-ground residential pools.

305.2.5 Closely spaced horizontal members.

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 (1,143 mm), the horizontal members shall be located on the pool or spa side of the fence. Spacing between vertical members shall not exceed 1- 3/4 inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1 3/4 inches (44 mm) in width.

305.2.6 Widely spaced horizontal members.

Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1,143 mm) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Where there are decorative cutouts within vertical members, the interior width of the cutouts shall not exceed 1-3/4 inches (44 mm).

305.2.7 Chain link dimensions.

The maximum opening formed by a chain link fence shall be not more than 1-3/4 inches (44 mm). Where the fence is provided with slates fastened at the top and bottom that reduce the openings, such openings shall be not greater than 1-3/4 inches (44 mm).

305.2.8 Diagonal members.

Where the barrier is composed of diagonal members, the maximum opening formed by the diagonal members shall be not greater than 1-3/4 inches (44 mm). The angle of diagonal members shall be not greater than 45 degrees (.79 rad) from vertical.

305.2.9 Clear zone.

There shall be a clear zone of not less than 36 inches (914 mm) between the exterior of the barrier and any permanent structures or equipment such as pumps, filters and heaters that can be used to climb the barrier.

305.3 Gates.

Access gates shall comply with the requirements of Section 305.3.1 through 305.3.3 and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool or spa, shall be self-closing and shall have a self-latching device.

305.3.1 Utility or service gates.

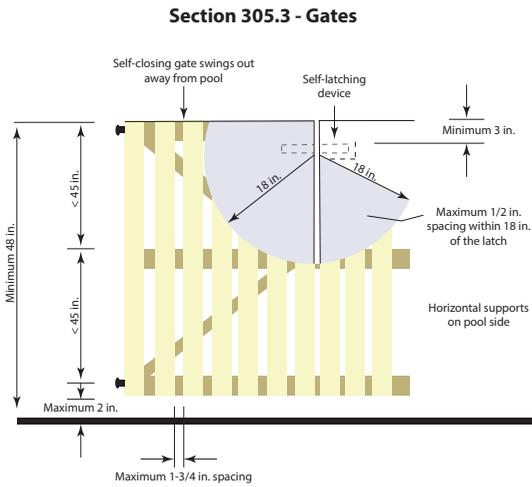
Gates not intended for pedestrian use, such as utility or service gates, shall remain locked when not in use.

305.3.2 Double or multiple gates.

Double gates or multiple gates shall have not fewer than one leaf secured in place and the adjacent leaf shall be secured with a self-latching device. The gate and barrier shall not have openings larger than 1/2 inch (12.7 mm) within 18 inches (456 mm) of the latch release mechanism. The self-latching device shall comply with the requirements of Section 305.3.3.

305.3.3 Latches.

Where the release mechanism of the self-latching device is located less than 54 inches (1,372 mm) from grade, the release mechanism shall be located on the pool or spa side of the gate not less than 3 inches (76 mm) below the top of the gate, and the gate and barrier shall not have openings greater than 1/2 inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.



For SI: 1 inch = 25.4 mm
View of gate from outside (opposite pool side)
Figure 28: Gates

Examples of Self Latching Gate



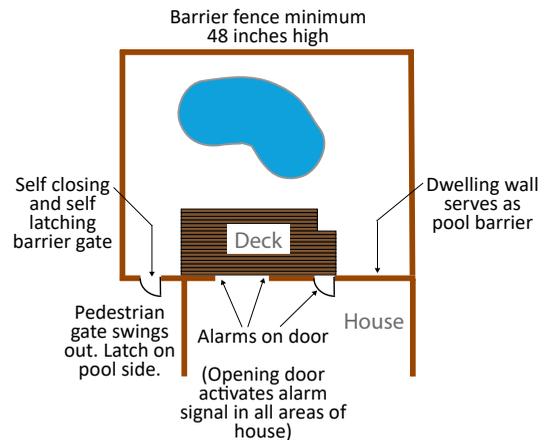
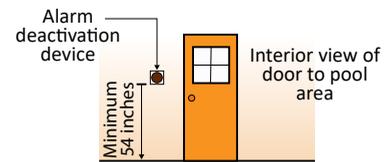
Figure 30: Self Latching Gate
Photo courtesy of Association of Pool & Spa Professionals™

305.4 Structure wall as a barrier.

Where a wall of a dwelling or structure serves as part of the barrier and where doors or windows provide direct access to the pool or spa through that wall, one of the following shall be required:

- Operable windows having a sill height of less than 48 inches (1,219 mm) above the indoor finished floor and doors shall have an alarm that produces an audible warning when the window, door or their screens are opened. The alarm shall be listed and labeled as a water hazard entrance alarm in accordance with UL 2017. In dwellings or structures not required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located 54 inches (1372 mm) or more above the finished floor. In dwellings or structures required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located not greater than 54 inches (1,372 mm) and not less than 48 inches (1,219 mm) above the finished floor. A safety cover that is listed and labeled in accordance with ASTM F1346 is installed for the pools and spas.
- An approved means of protection, such as self-closing doors with self-latching devices, is provided. Such means of protection shall provide a degree of protection that is not less than the protection afforded by item 1 or 2.

Section 305.4 - Structured Wall as Barrier



Pool barrier and door alarm requirements

305.5 On-ground residential pool structure as a barrier.

An on-ground residential pool wall structure or barrier mounted on top of an on-ground residential pool wall structure shall serve as a barrier where all of the following conditions are present:

- Where only the pool wall serves as the barrier, the bottom of the wall is on grade, the top of the wall is not less than 48 inches (219 mm) above grade for the entire perimeter of the pool, the wall complies with the requirements of Section 305.2 and the pool manufacturer allows the wall to service as a barrier.
- Where a barrier is mounted on top of the pool wall, the top of the barrier is not less than 48 inches (1,219 mm) above grade for the entire perimeter of the pool, and the wall and the barrier on top of the wall comply with the requirements of Section 305.2.
- Ladders or steps used as means of access to the pool are capable of being secured, locked or removed to prevent access except where the ladder or steps are surrounded by a barrier that meets the requirements of Section 305.
- Openings created by the securing, locking or removal of ladders and steps do not allow the passage of a 4-inch (102 mm) diameter sphere.
- Barriers that are mounted on top of on-ground residential pool walls are installed in accordance with the pool manufacturer's instructions.

Section 305.5 - Pool Structure as Barrier

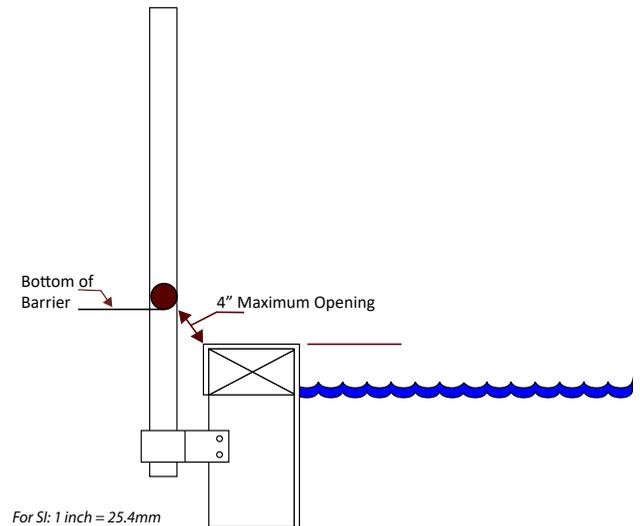


Figure 29: Pool Structure Barrier

Indoor swimming pool.

Shall comply with section 305.4.

305.2.9 Clear Zone.

There shall be a clear zone of not less than 36 inches (914 mm) between the exterior of the barrier and any permanent structures or equipment such as pumps, filters and heaters that can be used to climb the barrier.

Note: ALL outdoor pools must have a minimum 48" fence around the yard or pool area per the City of Liberty's Municipal Code.