



RESIDENTIAL SWIMMING POOL SUBMITTAL GUIDE

Pennsylvania Uniform Construction Code (UCC) referencing the International Residential Code & the International Swimming Pool and Spa Code as adopted by Manheim Township Ordinance

BUILDING PERMIT REQUIREMENTS A building permit is required for residential swimming pools as set forth in Section 403.26 of the PA Uniform Construction Code as adopted per Manheim Township Ordinance. Submit the following items for review and approval:

- **BUILDING PERMIT APPLICATION**

Complete the [Application for Zoning Review, Building Plan Examination, and Building Permit](#). It is necessary to fill out all applicable areas of the permit application including the signature of the permit applicant. Our staff will assist applicants with questions regarding the permit application.

- **PERMIT FEE SCHEDULE WORKSHEET**

Permit fees are as follows: Inground swimming pool \$400.00; above-ground swimming pool \$150.00. Additional fees include a UCC mandated Educational Fee and a Planning & Zoning Review Fee. If an elevated wood deck is installed as part of an above ground pool, an additional permit fee will apply.

A payment invoice will be provided to the permit applicant after permit issuance.

- **PLAN REQUIREMENTS – INGROUND POOLS**

- **Two (2) copies of inground pool plans**, specifications providing pool dimensions, construction details, wall slopes, floor slopes, pool deck, steps, ladders and diving/sliding boards
- **Two (2) copies of manufacturer information sheets** for circulation and filtration systems, pool pumps/motors, pool heaters, water treatment systems, electrical lighting systems, pool cover systems, drainage systems, and suction entrapment equipment conforming to ANSI/APSP/ICC-7 2020
- **Two (2) copies of Energy compliance information** for heaters, pump motors and covers
 - Heater controls including readily accessible on-off switch
 - Heater and pump motor time switches or other controls that can automatically turn off and on equipment to a preset schedule. Built-in time switches are permitted
 - Vapor-retardant cover specifications for heated pools
- **Two (2) copies of pool barrier/fence specifications** including barrier/fence type (height and opening limitations), gates with latching mechanism type, and door/window alarms on openings between the dwelling and the pool when a portion of the dwelling is within the fenced area
- If detached accessory buildings or structures are a part of the pool installation, submit two (2) copies of plans and specifications for those structures. Plans should include information on bathrooms/showers, dressing rooms, pool related equipment, mechanical equipment and electrical equipment
- **Four (4) copies of a site plan** that identify the pool and pool deck (provide square footage of pool deck) with dimensions from the edge of water surface to all adjacent property lines. Include all existing and proposed buildings (residence, detached garages and accessory structures) with square footage of each structure, driveways, sidewalks and other impervious coverage with square footage of each. Refer to the attached Zoning Requirements and Sample Site Plan at the end of this guide for more and specific zoning regulations

- **PLAN REQUIREMENTS – ABOVE GROUND OR ONGROUND POOLS**

- **Two (2) copies of above ground pool plans**, specifications providing pool dimensions, construction details, and ladder or stair specifications
 - Ladder and stair specifications are to include the type of permanent or storable ladder/stair assembly to be installed
 - **Two (2) copies of manufacturer information sheets** for circulation and filtration systems, pool pumps/motors, pool heaters, water treatment systems, electrical lighting systems, pool cover systems, drainage systems, and suction entrapment equipment conforming to ANSI/APSP/ICC-7 2020 (if applicable)
 - **Two (2) copies of Energy compliance information** for heaters, pump motors and covers
 - Heater controls including readily accessible on-off switch
 - Heater and pump motor time switches or other controls that can automatically turn off and on equipment to a preset schedule. Built-in time switches are permitted
 - Vapor-retardant cover specifications for heated pools
 - **Two (2) copies of pool barrier/fence specifications** including barrier/fence type (height and opening limitations), gates with latching mechanism type, and door/window alarms on openings between the dwelling and the pool. Barrier specifications are not required when the pool walls are a minimum of 48" above finished grade for the entire perimeter of the pool.
 - If proposed, **two (2) copies of an elevated wood deck** floor and framing plan for any wood deck more than 30" above the adjacent grade. Floor plans are to include proposed stair locations and specifications. Framing plans are to include footing, beam, joist layout and ledger connections if deck is secured to a structure. Details are to be provided for stairway construction, guardrail and handrail construction as well as barrier requirements if stairways provide access to the pool. Refer to our [Residential Deck Submittal Guide](#) for more information.
 - If detached accessory buildings or structures are a part of the pool installation, submit two (2) copies of plans and specifications for those structures. Plans should include information on bathrooms/showers, dressing rooms, pool related equipment, mechanical equipment and electrical equipment.
 - **Four (4) copies of a site plan** that identify the pool and pool deck (provide square footage of pool deck) with dimensions from the edge of water surface to all adjacent property lines. Include all existing and proposed buildings (residence, detached garages and accessory structures) with square footage of each structure, driveways, sidewalks and other impervious coverage with square footage of each. Refer to the attached Zoning Requirements and Sample Site Plan at the end of this guide for more and specific zoning regulations.
- **PERMIT CONSIDERATIONS AND REQUIREMENTS**
- If natural gas piping is installed as part of a pool addition, a visual inspection with a pressure test witnessed by the code official is needed. A [Gas Piping Certification Testing Certification](#) is to be completed and submitted by the installer after final connections have been made.
 - Temporary fencing is to be installed when pool excavation begins in order to prevent unauthorized entry and potential accidents. Temporary fencing shall be a minimum of 36 inches in height with no openings greater than 4 inches with adequate supports every 4 feet or as necessary to support the fencing, Temporary fencing is to be maintained until the permanent pool barrier is installed.
 - Permanent pool fences/barriers and gate requirements are fully explained later in this guide. Per the Manheim Township Zoning Ordinance, fences shall not be more than 6 feet in height.
 - Electrical work shall be installed per the IRC/NEC. All new electrical work associated with the pool and pool equipment is subject to field inspection and approval.

INSPECTION REQUIREMENTS

- Pools shall not be used until a Manheim Township Code Official approves the Final Electrical and Final Pool Inspections. Manheim Township will issue a Certificate of Use and Occupancy upon approval of all required inspections.
- **IN-GROUND SHOTCRETE POOL INSPECTIONS:**
 1. Pool reinforcing and pool plumbing prior to placement of Shotcrete
(All rebar and wire mesh must be properly supported)
 2. Bonding of all metal parts within 5 feet of the inside walls of the pool including rebar, light fixtures, ladders, handrails, pump motors, filters, heaters and metal fencing
 3. Underground conduit and wiring prior to backfill
 4. Gas piping pressure testing if applicable
[Gas Piping Certification Testing Certification](#)
 5. Final electrical – ground fault protected receptacle(s), pool pump motor, filter, heaters, light fixture(s), landscape lighting and bonding of metal fencing and equipment, energy requirements
 6. Final Pool – fencing / barriers, access gate hardware operation, door & window alarms, and pool cover
- **IN-GROUND METAL LINER PANEL POOL INSPECTIONS:**
 1. Pool footings and pool plumbing prior to placement of concrete
(All rebar, wire mesh and steps must be properly supported)
 2. Bonding of all metal parts within 5 feet of the inside walls of the pool including rebar, light fixtures, ladders, handrails, pump motors, filters, heaters and metal fencing
 3. Underground conduit and wiring prior to backfill
 4. Gas piping pressure testing, if applicable
[Gas Piping Certification Testing Certification](#)
 5. Final electrical – ground fault protected receptacle(s), pool pump motor, filter, heaters, light fixture(s), landscape lighting and bonding of metal fencing and equipment, energy requirements
 6. Final Pool – fencing / barriers, access gate hardware operation, door & window alarms, and pool cover
- **ABOVE-GROUND POOL INSPECTIONS:**
 1. Bonding of all metal parts within 5 feet of the inside walls of the pool including rebar, light fixtures, ladders, handrails, pump motors, filters, heaters and metal fencing
 2. Underground conduit and wiring prior to backfill
 3. Gas piping testing if applicable
[Gas Piping Certification Testing Certification](#)
 4. Elevated wood deck post footings, if applicable (Prior to pouring concrete)
 5. Framing of pool deck posts, beams, joists and applicable structural connections
 6. Final electrical – ground fault protected receptacle(s), pool pump motor, filter, heaters, light fixture(s), landscape lighting and bonding of metal fencing and equipment, energy requirements
 7. Final Pool – installation performed in accordance with the pool manufacturer's installation instructions, fencing / barriers, access gate hardware operation, listed step assemblies (removable or fold-up locking type), and deck guardrails / stairways / handrails if applicable
 8. Landscape screening (trees and/or shrubs) and setback requirements per the Township approved site plan, as required by the Planning & Zoning Department

2021 ISPSC CODE REFERENCES

The following code sections are applicable for Inground and above ground pool installations. This list, although not all inclusive, provides guidance on some important code provisions.

- **302.1 Electrical.** Electrical requirements for aquatic facilities shall be in accordance with NFPA 70 or the International Residential Code.
- **303.1.1 Heaters.** The electric power to heaters shall be controlled by a readily accessible on-off switch that is an integral part of the heater, mounted on the exterior of the heater or external to and within 3 feet (914 mm) of the heater. Operation of such switch shall not change the setting of the heater thermostat. Such switches shall be in addition to a circuit breaker for the power to the heater. Gas-fired heaters shall not be equipped with continuously burning ignition pilots.
- **303.1.2 Time switches.** Time switches or other control methods that can automatically turn off and on heaters and pump motors according to a preset schedule shall be installed for heaters and pump motors. Heaters and pump motors that have built-in time switches shall be in compliance with this section.
- **303.1.3 Covers.** Outdoor heated pools and outdoor permanent spas shall be provided with a vapor-retardant cover or other approved vapor-retardant means.
- **305.1 Barrier Requirements - General.** The provisions of this section shall apply to the design of barriers for pools and spas. These design controls are intended to provide protection against the potential drowning and near drowning by restricting access to such pools or spas. These requirements provide an integrated level of protection against potential drowning through the use of physical barriers and warning devices.

Exceptions:

1. **Spas and hot tubs with a lockable safety cover that complies with ASTM F1346.**
 2. **Swimming pools with a powered safety cover that complies with ASTM F1346.**
- **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.
 - **305.3.1 Utility or service gates.** Gates not intended for pedestrian use, such as utility or service gates, shall remain locked when not in use.
 - **305.4 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:
 1. **Operable windows** having a sill height of less than 48 inches (1219 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. Alarms are to be UL 2017 listed and labeled.
 2. An automatic or a power operated safety cover that is listed and labeled in accordance with ASTM F1346 is installed.
 3. An approved means of protection, such as self-closing doors with self-latching devices, is provided.
 - **307.1.1 Glazing in hazardous locations.** Hazardous locations for glazing are defined in the International Residential Code Section R308.4.5 specifically covers walls, enclosures or fences that are 60 inches or less from the water's edge. Where the bottom edge of the glazing is 60 inches or less above the walking surfaces, the glazing must be safety glazing.
 - **310.1 Suction Entrapment Avoidance - General.** Suction entrapment avoidance for pools and spas shall be provided in accordance with ANSI / APSP / ICC-7 2020.
 - **702.1 Ladders and stairs – Above Ground Pools.** Pools shall have a means of entry and exit consisting of not less than one ladder or a ladder and staircase combination.
 - **703.4 Extension over pool – Above Ground Pools.** Where a deck extends inside the top rail of the pool, it shall extend not more than 3 inches (76 mm) beyond the inside of the top rail of the pool.

PLANNING AND ZONING REQUIREMENTS

Manheim Township Zoning Ordinance 2014, Section 2104

1. No permanent structure shall be permitted without an operable, maintained, filtering system utilizing an approved method of treated water.
2. All swimming pools which have the capability to contain more than twenty-four (24) inches of water shall be enclosed by a permanent fence which is at least four (4) feet in height. No fence will be required for above-ground permanent pools which have sides which are at least four (4) feet above grade and access to the pool can be secured, unless the Zoning Officer determines that conditions warrant greater safety measures. However, all above-ground permanent pools shall be screened by a landscape screen, which shall be composed of shrubs that have a minimum height of at least four (4) feet, measured from the ground level, at the time of planting.
3. No structure shall be within ten (10) feet of any property line which shall be measured from the nearest water surface.
4. No structure shall be permitted between the building setback line and the street line.
5. An approved temporary construction fence shall be erected around the excavation site during construction of the pool and shall remain in place until the permanent fence is erected.
6. Water shall not be placed in a swimming pool until a permanent, approved fence has been erected and a Certificate of Use and Occupancy has been issued.

ADDITIONAL ZONING REQUIREMENTS

1. No structure(s) shall be permitted to be placed in any easement (stormwater or utility); this includes but is not limited to fences, playground equipment, sheds and gazebos. This applies to new and existing structures. (Subdivision Land Development Ordinance).
2. Accessory structures shall be at least 5 feet from the property lines and not be more than 10 feet in height
3. Fences shall not be more than 6 feet in height.
4. A building permit is required if an above-ground pool and/or an in-ground pool has the capability to contain MORE THAN 24 inches of water.
5. Two copies of the site plan must be submitted for any pool installation.

If you need information on the setback lines for the property, or if you have any other questions related to the zoning ordinance, please contact the Planning and Zoning Department at (717) 569-6406 ext. 7.

ZONING SITE PLAN REQUIREMENTS

The following must appear on all site plans:

- ◆ Location of all property lines. Include exact length of all property lines and include the size of your lot in square feet.
- ◆ Location of all existing buildings and improvements, including but not limited to, residence, driveways, walkways, sheds, decks, patios, porches, swimming pools, garages, hot tubs, and any other impervious surface.
- ◆ Location of all proposed projects and other improvements, including but not limited to, driveways, walkways, sheds, decks, patios, porches, swimming pools, garages, hot tubs, and any other impervious surface.
- ◆ Exact dimensions, including the area calculations in square feet, of all existing and proposed improvements on the property, including but not limited to, residence, driveways, walkways, sheds, decks, patios, porches, swimming pools, garages, hot tubs, and any other impervious surface.
- ◆ Exact dimensions from all existing and proposed improvements to all property lines, including but not limited to, residence, driveways, walkways, sheds, decks, patios, porches, swimming pools, and any other impervious surface.
- ◆ Location of all easements on the property, both public and private including the exact dimensions of the easements. (See notes below)
- ◆ Location of the 100-year floodplain and the 100 year floodplain elevation, if applicable. Boundaries of the 100-year floodplain must be field staked prior to any on site construction, if applicable. (See notes below)
- ◆ Location and dimension of any clear sight triangles on the property. (See notes below)
- ◆ Location of all required Manheim Township building setback lines.
- ◆ Location of all public street rights-of-way.
- ◆ Location of all public streets, including curb and sidewalk, if applicable.
- ◆ Location of an on-lot sewage system, if applicable.
- ◆ Location of all wetland areas, if applicable.
- ◆ Location of all Municipal boundaries, if applicable.

• SITE PLAN NOTE REQUIREMENTS

- ◆ Any lot which contains a recorded easement or right-of-way MUST have the following note on the site plan:

“Nothing shall be placed, planted, set, or put within the area of the easement that would adversely affect the function of the easement.”

- ◆ Any lot which contains a 100-year floodplain MUST contain the following note:

“Any proposed improvements to be located within the 100 year floodplain shall be in accordance with the Manheim Township Floodplain Ordinance, 2015 as amended.”

- ◆ Any lot which contains a 100-foot clear site triangle MUST have the following note written on the site plan:

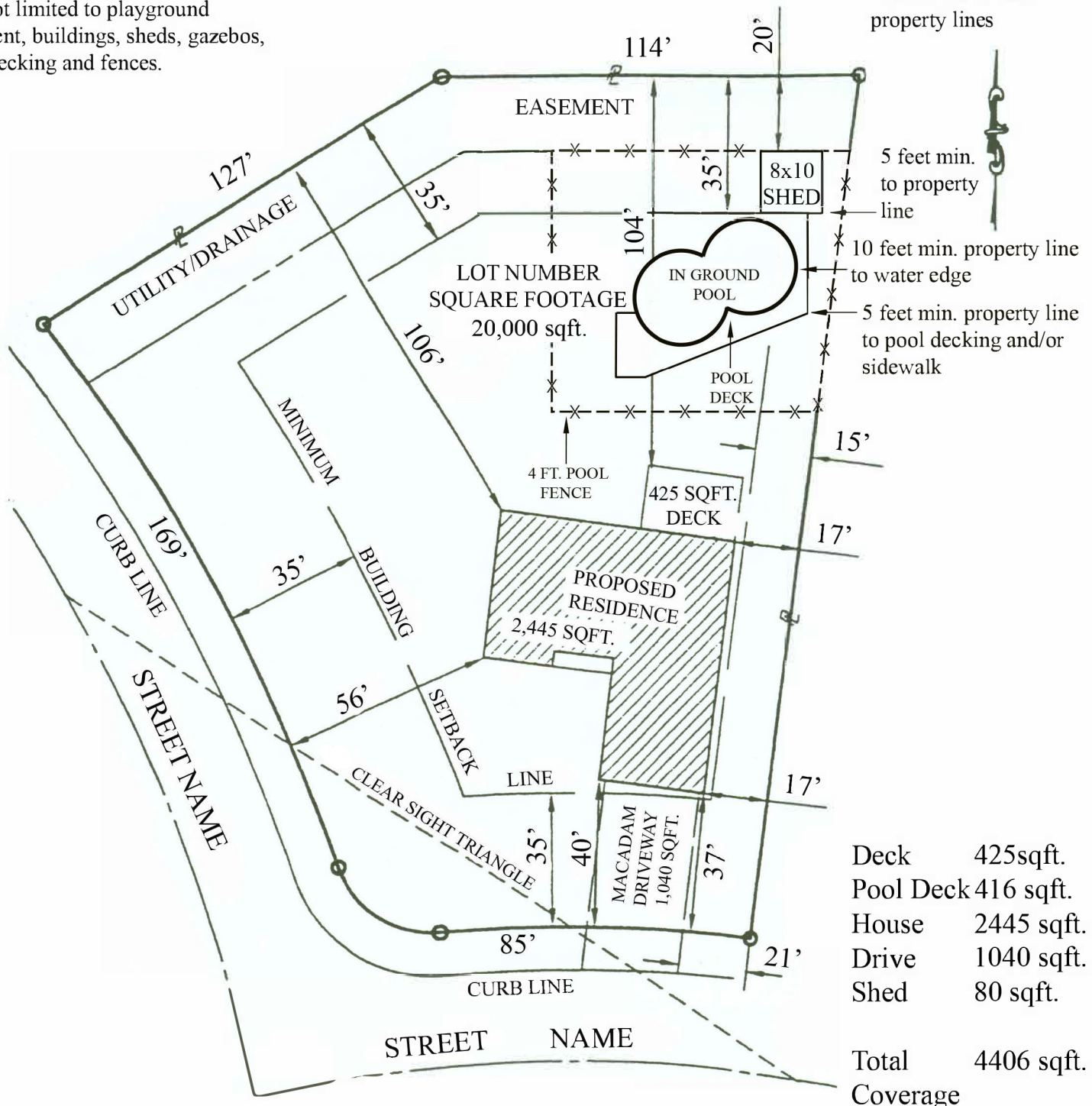
“Nothing shall be placed, planted, set, or put within the area of the 100 foot clear site triangle that has the possibility of growing in excess of 30 inches or may obscure motorist vision.”

Nothing shall be placed, planted, set, or put within the area of the easement that would adversely effect the function of the easement. This includes but is not limited to playground equipment, buildings, sheds, gazebos, pools, decking and fences.



Sheds may be located up to, but not into an easement

Maintain a minimum of 5 feet setback between shed and side/rear property lines



Nothing shall be placed, planted, set, or put within the area of a clear site triangle that has the possibility of growing in excess of 30 inches or may obscure motorist vision.

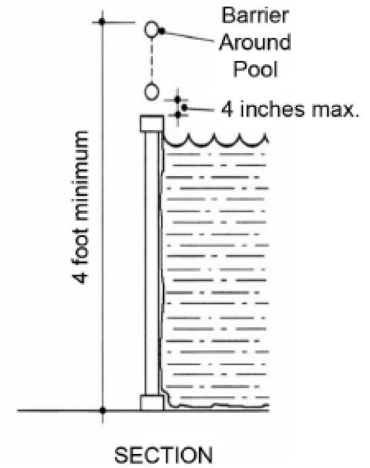
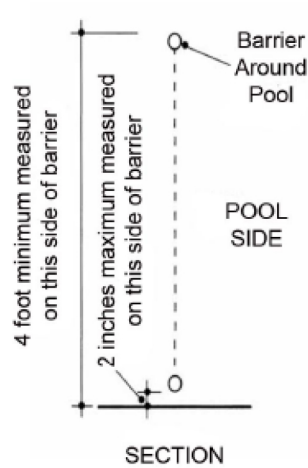
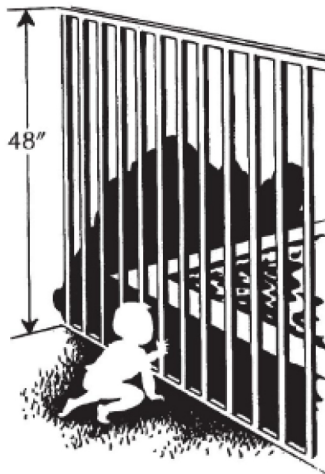
Name
Address
City, State, Zip code
Home Phone Work Phone

TYPICAL POOL SITE PLAN

SCALE: 1" = 40'0"

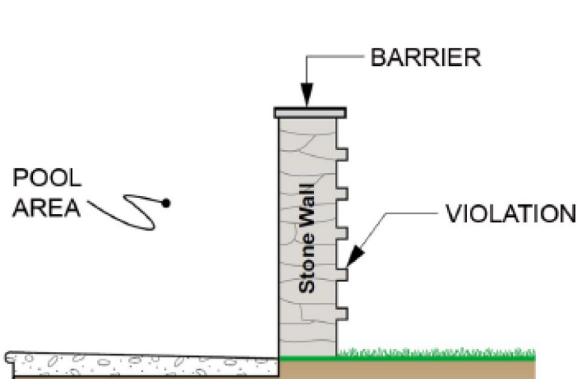


INTERNATIONAL SWIMMING POOL AND SPA CODE - BARRIER REQUIREMENTS

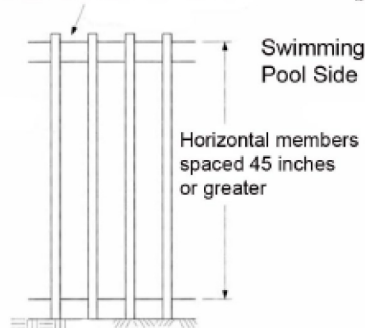


ISPSC SECTION 305.2 OUTDOOR SWIMMING POOL BARRIERS

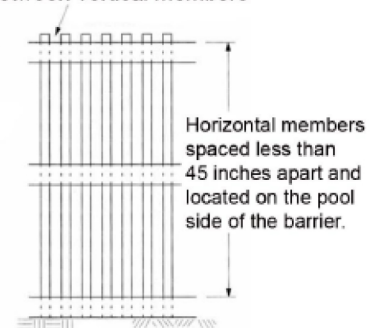
- * The top of the barrier shall be at least 48 inches above grade measured on the side of the barrier which faces away from the pool.
- * Vertical clearance between grade and bottom of barrier is 2" maximum.
- * Vertical clearance between elevated pool structure and bottom of barrier is 4" maximum.
- * Openings in barrier shall not allow the passage of a 4" sphere.



4 inches maximum spacing between vertical members



1 3/4 inches maximum spacing between vertical members

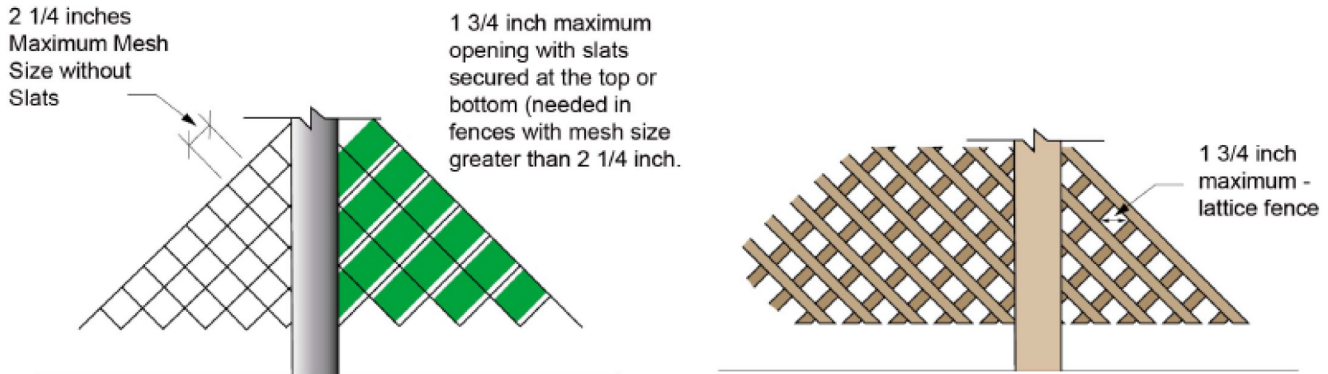


ISPSC SECTIONS 305.2.3, 305.2.5 & 305.2.6 BARRIER OPENING ALLOWANCES

- * Solid barriers without openings shall not contain protrusions except normal tooled joints.
- * Horizontal & vertical barrier members and opening requirements.

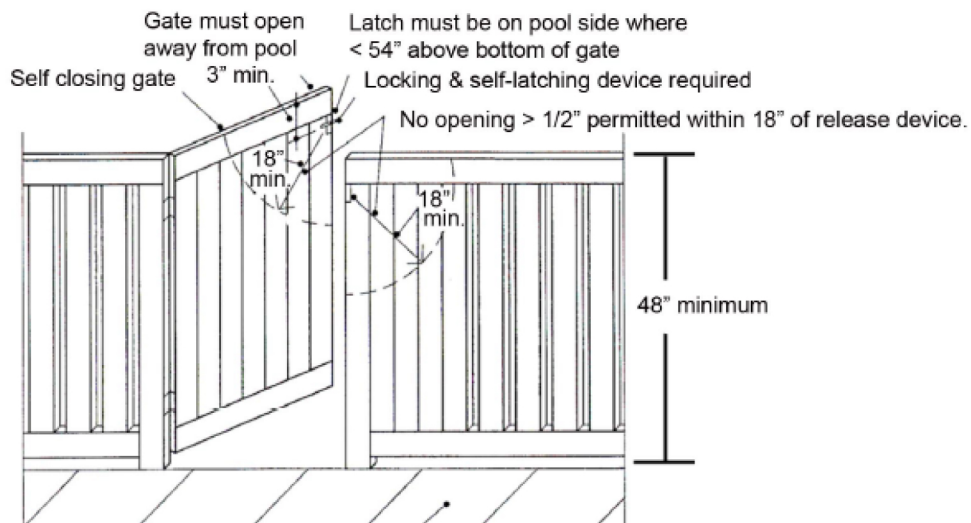


INTERNATIONAL SWIMMING POOL AND SPA CODE - BARRIER REQUIREMENTS



ISPSC SECTIONS 305.2.7 & 305.2.8 BARRIER OPENING ALLOWANCES

- * Maximum mesh size for chain link fences shall be 2 1/4 inches square unless the fence has slats which are fastened at the top or bottom which reduce the openings to not more than 1 3/4 inches
- * Where the barrier is composed of diagonal members, such as lattice fence, the maximum opening formed by the diagonal members shall not be more than 1 3/4 inches.



ISPSC SECTION 305.3 ACCESS GATE AND LATCH REQUIREMENTS

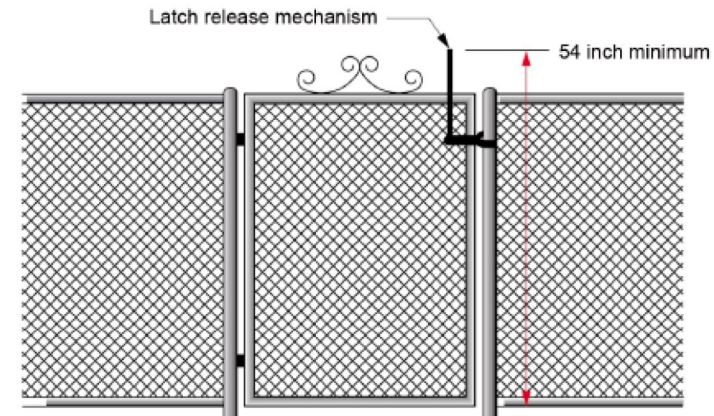
- * Access gates shall comply with all of the previous barrier requirements and shall be equipped to accommodate a locking device. Gates are to open outward away from the pool and shall be self-closing and have a self-latching device. Release mechanism shall be located 54" from the bottom of the gate or it shall conform to the above noted diagram.



INTERNATIONAL SWIMMING POOL AND SPA CODE - BARRIER REQUIREMENTS

ISPSC SECTION 305.3.3

48" access gate with approved release mechanism located 54" above the bottom of the gate.



Glazing in walls and fences enclosing pool to be tempered safety glazing if less than 60 inches above walking surface and within 60 inches horizontally of the water's edge

Pedestrian access gates shall swing away (to the outside) of the pool and be self-closing and self-latching

Pool barriers shall not have protrusions or steps

Utility or service gates shall be self-closing and self-latching. Gates not intended for pedestrian use shall remain locked when not in use

Where wall of a dwelling serves as part of the pool barrier, one of the following is required:

1. Operable windows with sill less than 48 inches above finished floor and doors shall be equipped with UL 2017 audible alarms
2. ASTM F1346 powered safety cover is installed

Overhead conductors between 0-750 volts shall be located no less than 22.5 feet above pools and the area extending 10 feet horizontally from the inside walls of the pool. No less than 14.5 feet is to be maintained between overhead conductors and diving platforms

For communication cable clearances contact the respective utility provider (i.e., Verizon, Comcast)

Minimum 48 inch high pool barrier. Clear zone - There shall be a clear zone of not less than 36 inches 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

ISPSC OUTDOOR SWIMMING POOL BARRIER SUMMARY DIAGRAM