

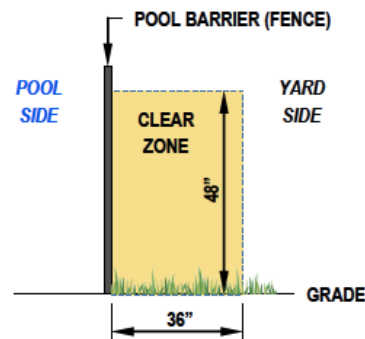
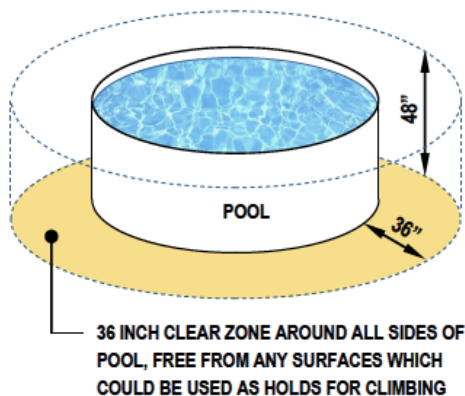
# Residential Swimming Pool Barriers

The following guide provides the requirements of the 2018 International Residential Code (IRC) and the 2018 International Swimming Pool and Spa Code (ISPSC) as adopted by the Pennsylvania Uniform Construction Code (PA UCC). The purpose of this document is to provide contractors and homeowners with guidelines and details for the construction/installation of swimming pool barriers. This guide is intended to provide pertinent and helpful excerpts from the noted sources and should not be considered as a complete list of code requirements. **As this is a guide only, contact the authority having jurisdiction for additional requirements or modifications to the following information.**

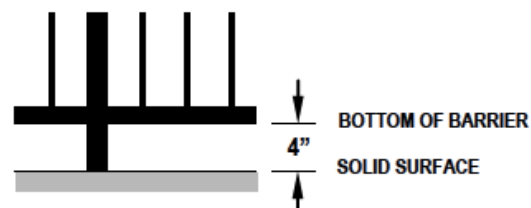
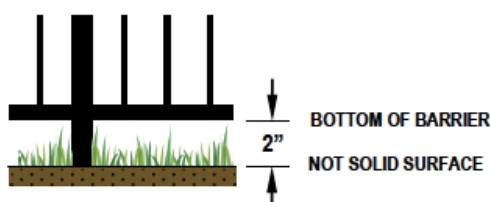
## BARRIER REQUIREMENTS

### 1. Barrier height and Clearances.

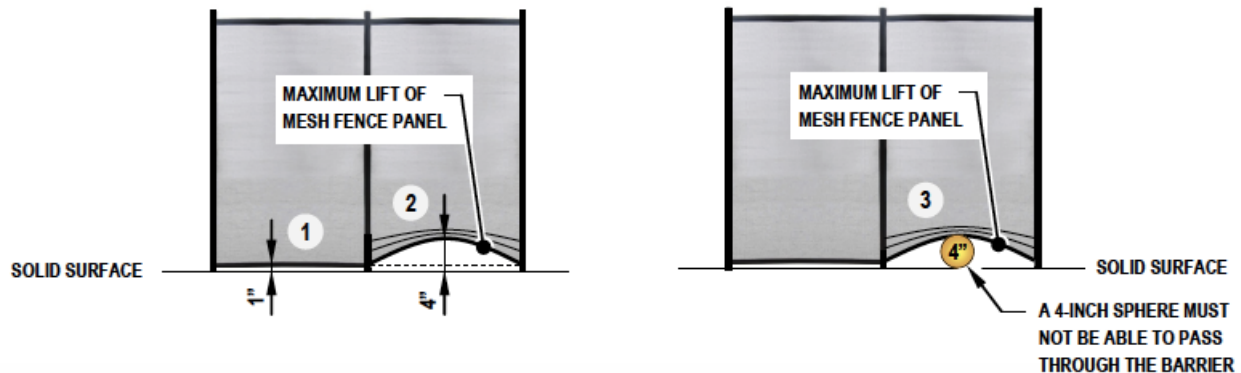
- Barriers shall be constructed and located to prohibit the barrier, permanent structures, trees, pool equipment, storage boxes, or similar objects from being used for climbing.
- Shall be installed in accordance with the manufacturer's instructions.
- The top of barrier shall be 48" minimum above grade where measured on the side of the barrier that faces away from the pool. Such height shall exist around the entire perimeter of the barrier and for a distance of 3-feet measured horizontally from the outside of the required barrier.



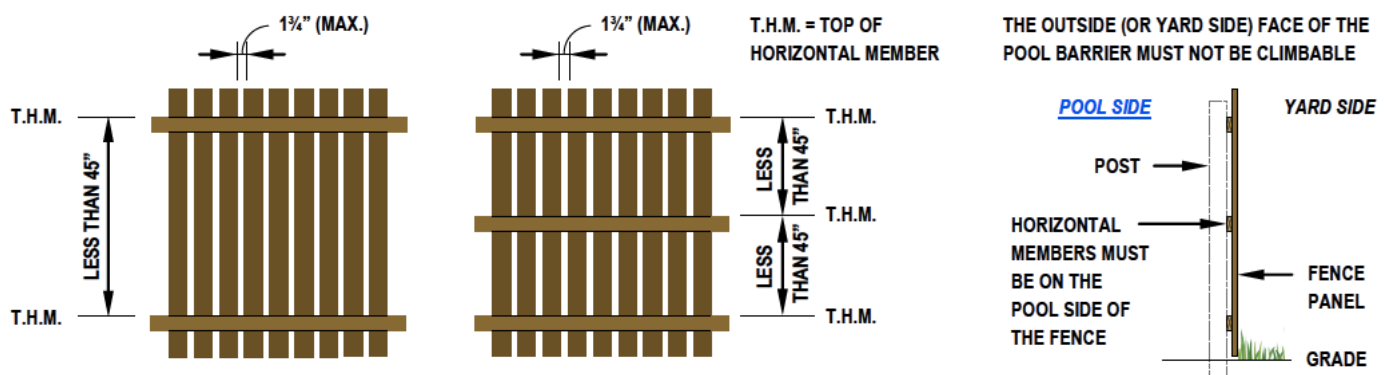
- The vertical clearance between grade and the bottom of the barrier shall not exceed 2-inches for grade surfaces that are not solid (grass, mulch, gravel, etc.) or 4-inches for solid grade surfaces (concrete, asphalt, etc.).



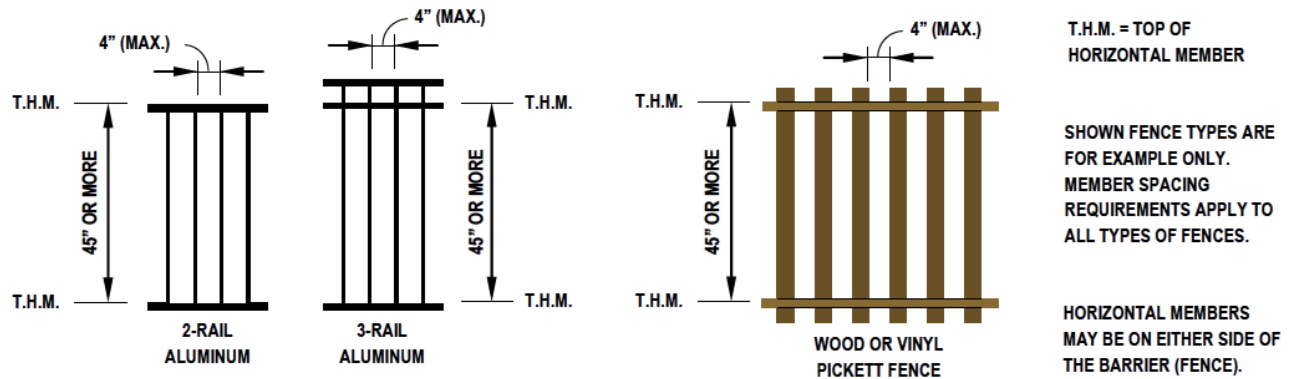
- e. Openings in the barrier shall not allow the passage of a 4-inch diameter sphere.
  - f. Solid barriers that do not have openings shall not contain indentations or protrusions that form handholds and footholds, except for normal construction tolerances and tooled masonry joints.
2. Mesh fences (other than chain link fences).
- a. The bottom of the mesh fence shall not be more than 1-inch above the deck or installed surface or grade.
  - b. 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 from grade or decking.
  - c. The Fence shall be designed and constructed so that it does not allow passage of a 4-inch sphere under any mesh panel.
  - d. An attachment device shall attach each barrier section at a height not lower than 45" 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.
  - e. Where a hinged gate is used with a mesh fence, the gate shall comply with the requirements listed below.
  - f. Patio deck sleeves such as vertical post receptacles that are placed inside the patio surface shall be of a nonconductive material.
  - g. Mesh fences shall not be installed on top of on-ground pools.



3. Closely spaced horizontal members.
- a. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45", the horizontal members shall be located on the pool side of the fence. Spacing between vertical members shall not exceed 1¾-inches in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1¾-inches in width.

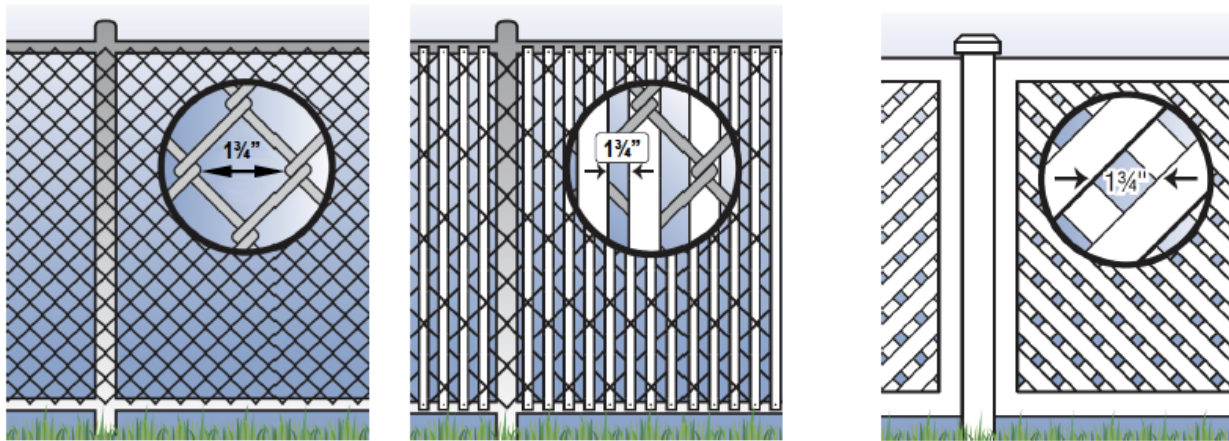


4. Widely spaced horizontal members.
- a. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45" or more, spacing between vertical members shall not exceed 4-inches). Where there are decorative cutouts within vertical members, the interior width of the cutouts shall not exceed 1¾-inches.

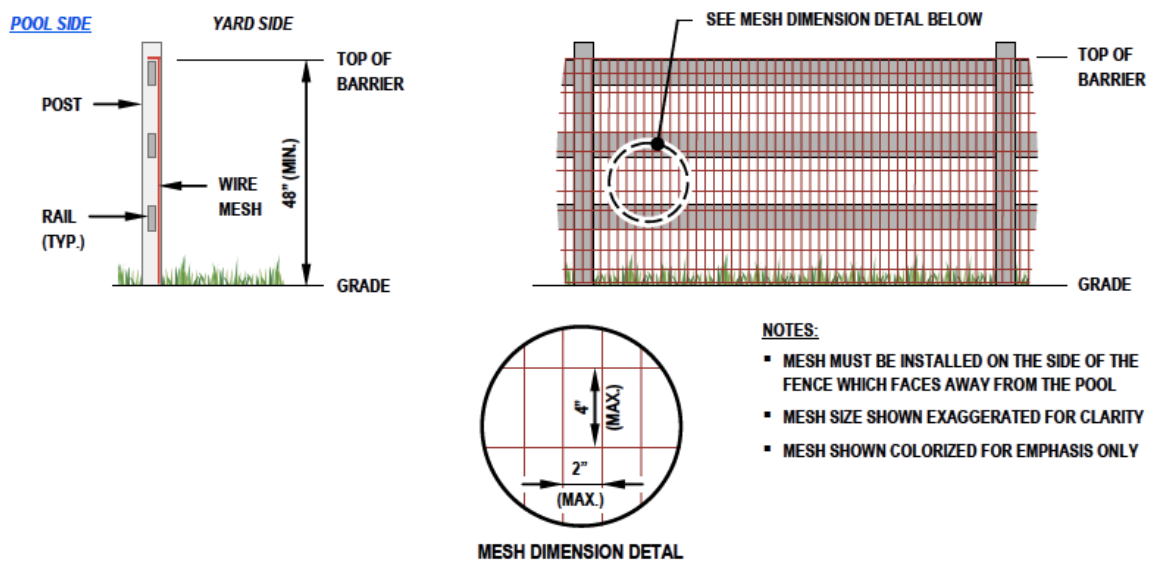


## 5. Chain link fence and diagonal members.

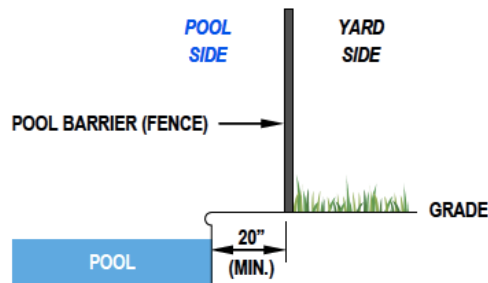
- The maximum opening formed by a chain link fence shall not be more than 1 $\frac{3}{4}$ -inches. Where the fence is provided with slats fastened at the top and bottom that reduce the openings, such openings shall not be greater than 1 $\frac{3}{4}$ -inches.
- Where the barrier is composed of diagonal members, the maximum opening formed by the diagonal members shall be no more than 1 $\frac{3}{4}$ -inches. The angle of diagonal members shall not be greater than 45 degrees from vertical.



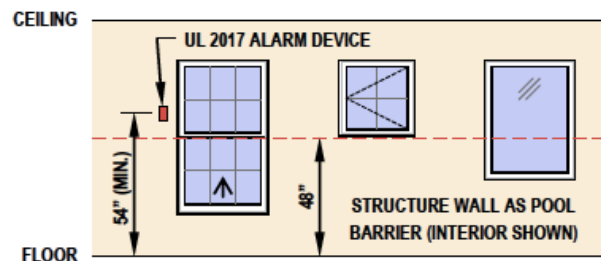
## 6. Split rail fences.



7. There shall be a clear zone of not less than 36" 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.
8. The pool side of the required barrier shall not be less than 20" from the waters edge.



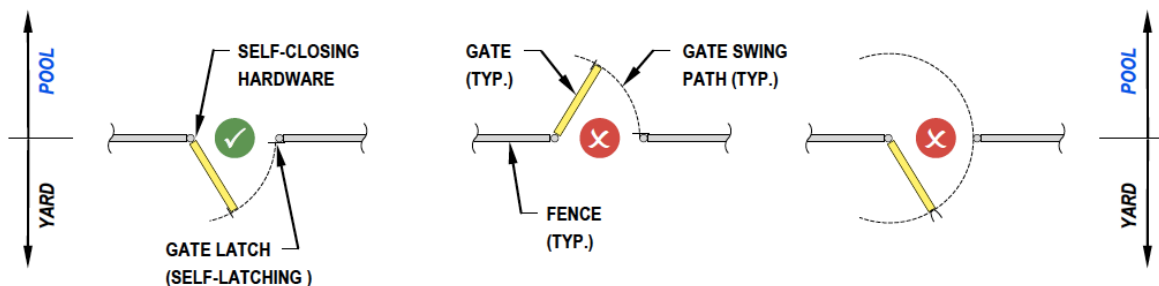
9. Structure Wall.
  - a. Where a wall of a dwelling or structure serves as part of the barrier, and where doors or windows provide direct access to the pool through that wall, one of the following shall be provided:
    - i. Operable windows having a sill height of less than 48" above the indoor finish 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. The alarm shall be equipped with a deactivation switch located 54" or more above the finish floor.
    - ii. A safety cover that is listed and labeled in accordance with ASTM F1346 is installed for the pool.



OPERABLE?	YES	YES	NO
SILL HEIGHT	BELOW 48"	ABOVE 48"	N/A
ALARM REQUIRED?	YES	NO	NO

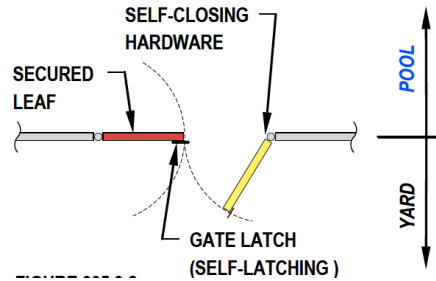
## GATE REQUIREMENTS

1. Access gates shall be equipped to accommodate a locking device.
2. Pedestrian access gates shall open outward away from the pool, shall be self-closing and self-latching.



3. Utility or service gates (not intended for pedestrian use) shall remain locked when not in use.

4. Double or multiple gates shall have at least 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  $\frac{1}{2}$ -inch within 18" of the latch release mechanism.



5. The release mechanism of the self-latching device shall be located 54" above grade. Where located less than 54" from grade, the release mechanism shall be located on the pool side of the gate not less than 3-inches below the top of the gate. The gate and barrier shall have no openings greater than  $\frac{1}{2}$ -inch within 18" of the release mechanism.

