



EXAMPLES OF APPROVED ABOVE-GROUND POOLS

SWIMMING POOLS & SPAS INFORMATION



**CITY OF UNDERWOOD
BUILDING & SAFETY DEPARTMENT
241 Third Street
Underwood, IA 51576**

**Phone: (712) 566-2373
Fax: (712) 566-2083
Inspection Line: (712) 309-2935
www.underwoodia.com**



**POOLS EXEMPT
From Building Permits when they are:**
- **Less than 24" deep (measuring water level at the surface to the bottom of pool).**
AND
- **Above ground pool less than 5,000 gallons.**

SWIMMING POOL AND SPA PERMIT SUBMITTAL REQUIREMENTS

DRAWINGS SUBMITTAL: Two (2) copies of the following drawings are required. Drawings must be drawn to scale, dimensioned and of sufficient clarity. Drawings must be submitted along with a completed permit application form.

PROFESSIONAL CERTIFICATION: Depth of the swimming pool shall maintain a ratio of 1:1 from the nearest foundation up to a maximum depth of 5'-0" (i.e. for a depth of 5'-0" the pool must be located 5'-0" from the nearest foundation) otherwise an engineered drawing is required.

REQUIRED DRAWINGS: The following is a general outline of drawings necessary for plan review (Plan Examiner may request additional information if necessary).

1. Site plan must include all dimensions, (scale: 1"=20'-0") including location of pool in reference to the property line, septic system, well and all building locations. All easements must be shown on site plan.
2. Pool plans must include all dimensions (scale: 1/8"=1'-0" or 1/4"=1'-0")
3. Section through the pool structure must include all depth dimensions.
4. Equipment drawings' diagrams must include dimension in reference to property line.
5. All decking is required to be shown on the pool plans. Decking is prohibited in utility/electric easements and must comply with setbacks.
6. Manufacturer's brochure or details of pool required for above ground pools.

CODE NOTES:

1. Fences surrounding residential pools require separate permits and are subject to special requirements (refer to Appendix G, Section AG105, 2009 IRC) (See Pool Barrier Requirements in this pamphlet).
2. Self-contained units without hardwiring do not require an electrician to perform the work.
3. Pre-plaster inspection cannot be done unless the swimming pool barrier has been installed and approved.
4. Provide pool barrier information on the drawings; refer to glazing requirements of Chapter 3, of 2009 IRC. (Impact resistance glazing is required when the glazing is within 5 feet of a swimming pool or spa water's edge and the bottom edge of the glazing is less than 60" above the poolside of the glazing).
5. Where the fence is existing; it is the applicant's responsibility to upgrade the existing fence to comply with the pool barrier requirements.
6. Where the pool and fence are existing; only the fence is being replaced, the fence has to comply with the pool barrier requirements.
7. Permit holder is responsible for requesting and completing all required inspections.
8. Public swimming pools and spas shall comply with Iowa Department of Health Standards for Public Swimming Pool and Spa. For a copy of the Standard, contact the State of Iowa at 1-888-398-9696.
9. Diving board for residential pools (drawings required) shall comply with ANSI/NSPI-5 2006 Article 5.8, 5.9, 5.10.
10. Manufacturer's specifications required for diving equipment including pool type and maximum height above the water.
11. Swimming pools shall comply with the 2009 International Energy Conservation Code Section 504.3 – 504.3.3.

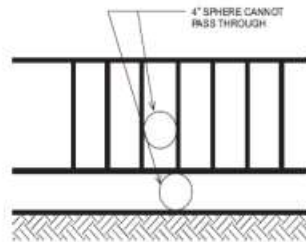


POOL BARRIER REQUIREMENTS FOR RESIDENTIAL POOL

International Residential Code 2009 Appendix G, Section AG105-2- AG105.5

AG105.2 Outdoor Swimming Pool. An outdoor swimming pool, including an in-ground, aboveground or on-ground pool, hot tub or spa shall be provided with a barrier, which shall comply with the following:

1. The top of the barrier **shall be at least 54 inches** (1219mm) above grade measured on the side of the barrier, which faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be 2 inches (51mm) measured on the side of the barrier, which faces away from the swimming pool. Where the top of the pool structure is above grade, such as an above-ground pool, the barrier may be at ground level, such as the pool structure, or mounted on top of the pool structure. Where the barrier is mounted on top of the pool structure, the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be 4 inches (102mm).
2. Openings in the barrier shall not allow passage of a 4-inch-diameter (102mm) sphere.



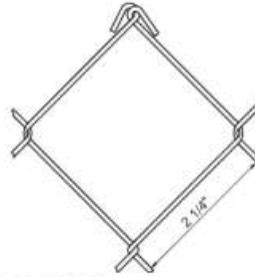
For St: 1 inch = 25.4 mm.

Figure 3109.4.1.1
BARRIER OPENINGS

3. Solid barriers which do not have openings, such as masonry or stonewall, shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.
4. When the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches (1143mm), the horizontal members shall

be located on the swimming pool side of the fence, or shall be so constructed as to not provide a climbable surface. Spacing between vertical members shall not exceed 1.75 inches (44mm) in width.

5. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1143) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Where there are decorative cutouts within vertical members, spacing within cutouts shall not exceed 1.75 inches (44mm) in width.



For St: 1 inch = 25.4 mm.

Figure 3109.4.1.6
CHAIN-LINK FENCE MESH FOR PRIVATE SWIMMING POOLS

6. Maximum mesh size for chain link fences shall be a 2.25-inch (57 mm) square unless the fence is provided with slats fastened at the top or the bottom which reduce the openings to not more than 1.75 inches (44 mm).
7. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall not be more than 1.75 inches (44 mm).
8. Access gates shall comply with the requirements of Section AG105.2, Items 1 through 7, and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool and shall be self-closing and have a self-latching device. Gates other than pedestrian access gates shall have a self-latching device. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from the bottom of the gate, the release mechanism and openings shall comply with the following:
 - a. The release mechanism shall be located on the pool side of the gate at least 6 inches (152 mm) below the top of the gate.

- b. The gate and barrier shall have not opening greater than 0.5 inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.
9. Where a wall of a dwelling serves a part of the barrier one of the following conditions shall be met:
 - a. The pool shall be equipped with a powered safety cover in compliance with ASTM F1346; or
 - b. 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 and labeled in accordance with UL 2017. The deactivation switch(es) shall be located at least 54 inches above the threshold of the door(s); or
 - c. Other means of protection, such as self-closing doors with self-latching devices, which are approved by the governing body, shall be acceptable so long as the degree of protection afforded is not less than the protection afforded by Item 9.1 or 9.2 described above.
 10. Where an above-ground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure and the means of access is a ladder or steps, then:
 - a. The ladder or steps shall be capable of being secured, locked or removed to prevent access, or
 - b. The ladder or steps shall be surrounded by a barrier which meets the requirements of Section AG105.2, Items 1 through 9. When the ladder or steps are secured, locked or removed, any opening created

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

AG105.3 Indoor Swimming Pool. All walls surrounding an indoor swimming pool shall comply with Section AG105.2, Item 9.

AG105.4 Prohibited Locations. Barrier shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.

AG105.5 Barrier Exceptions. Spas or hot tubs with a safety cover which complies with ASTM F 1346, as listed in Section AG107, shall be exempt from the provisions of this appendix.

AG106 Entrapment Protection for Swimming Pool & Spa Suction Outlets. Suction outlets shall be designed and installed in accordance with ANSI/APSP-7.

PERMIT FEES:

Below are standard examples of permit fees without code barrier fees, which can vary in costs:

1. Public Swimming Pool:	\$197.00
2. Private In-ground Swimming Pool (over 5,000 gallons):	\$133.75
3. Private In-ground Swimming Pool (less than 5,000 gallons):	\$103.25
4. Public In-ground Spa	\$166.50
5. Private In-ground Spa:	\$103.25
6. Private Above Ground Pool/Spa:	\$41.75

