



General Information

- Post site card in front window, visible from the street.
- Before you dig call Miss Dig at 800-482-7171

Zoning Ordinance Requirements

- Please see the attached Frequently Asked Questions (FAQs) page.
- The Zoning Ordinance impacts the allowed placement of a pool, spa, or hot tub. It is recommended that you understand the provisions pertaining to your zone district before proceeding.

Building Code Requirements

(This information is excerpted from the 2003 Michigan Residential Code®, which is based upon the ICCF 2003 International Residential Code®)

SECTION AG101 GENERAL

AG101.1 General. The provisions of this appendix shall control the design and construction of swimming pools, spas and hot tubs installed in or on the lot of a one- and two-family dwelling.

SECTION AG102 DEFINITIONS

AG102.1 General. For the purposes of these requirements, the terms used shall be defined as follows and as set forth in Chapter 2.

ABOVE-GROUND/ON-GROUND POOL. See "Swimming pool."
BARRIER. A fence, wall, building wall or combination thereof which completely surrounds the swimming pool and obstructs access to the swimming pool.

HOT TUB. See "Swimming pool."

IN-GROUND POOL. See "Swimming pool."

RESIDENTIAL. That which is situated on the premises of a detached one- or two-family dwelling or a one-family townhouse not more than three stories in height.

SPA, NONPORTABLE. See "Swimming pool."

SPA, PORTABLE. A nonpermanent structure intended for recreational bathing, in which all controls, water-heating and water-circulating equipment are an integral part of the product.

SWIMMING POOL. Any structure intended for swimming or recreational bathing that contains water over 24 inches (610 mm) deep. This includes in-ground, aboveground and on-ground swimming pools, hot tubs and spas.

SWIMMING POOL, INDOOR. A swimming pool which is totally contained within a structure and surrounded on all four sides by walls of said structure.

SWIMMING POOL, OUTDOOR. Any swimming pool which is not an indoor pool.

SECTION AG103 SWIMMING POOLS

AG103.1 In-ground pools. In-ground pools shall be designed and constructed in conformance with ANSI/NSPI-5 as listed in Section AG108.

AG103.2 Above-ground and on-ground pools. Above-ground and on-ground pools shall be designed and constructed in conformance with ANSI/NSPI-4 as listed in Section AG108.

SECTION AG104 SPAS AND HOT TUBS

AG104.1 Permanently installed spas and hot tubs.

Permanently installed spas and hot tubs shall be designed and constructed in conformance with ANSI/NSPI-3 as listed in Section AG108.

AG104.2 Portable spas and hot tubs. Portable spas and hot tubs shall be designed and constructed in conformance with ANSI/NSPI-6 as listed in Section AG108.

SECTION AG105 BARRIER REQUIREMENTS

AG105.1 Application. The provisions of this chapter shall control the design of barriers for residential swimming pools, spas and hot tubs. These design controls are intended to provide protection against potential drownings and near-drownings by restricting access to swimming pools, spas and hot tubs.

AG105.2 Outdoor swimming pool. An outdoor swimming pool, including an in-ground, above-ground 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 48 inches (1219 mm) 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 (51 mm) 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 aboveground 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 (102 mm).

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2. Openings in the barrier shall not allow passage of a 4-inch-diameter (102 mm) sphere.
 3. Solid barriers which do not have openings, such as a masonry or stone wall, shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.
 4. 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 (1143 mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed 1.75 inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) 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 mm) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) in width.
 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:
 - 8.1. The release mechanism shall be located on the pool side of the gate at least 3 inches (76 mm) below the top of the gate, and
 - 8.2. The gate and barrier shall have no 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 as part of the barrier one of the following conditions shall be met:
 - 9.1. The pool shall be equipped with a powered safety cover in compliance with ASTM F1346; or
 - 9.2. All 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 its screen, if present, are opened. The alarm shall sound continuously for a minimum of 30 seconds immediately after the door is opened and be capable of being heard throughout the house during normal household activities. The alarm shall automatically reset under all conditions. The alarm system shall be equipped with a manual means, such as touchpad or switch, to temporarily deactivate the alarm for a single opening. Such deactivation shall last for not more than 15 seconds. The deactivation switch(es) shall be located at least 54 inches (1372 mm) above the threshold of the door; or
 - 9.3. 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 aboveground 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:
 - 10.1. The ladder or steps shall be capable of being secured, locked or removed to prevent access, or
 - 10.2. 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. located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.
- AG105.4 Prohibited locations.** Barriers shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.

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AG105.5 Barrier exceptions. Spas or hot tubs with a safety cover which complies with ASTM F1346, as listed in Section AG107, shall be exempt from the provisions of this appendix.

SECTION AG106: ENTRAPMENT PROTECTION FOR SWIMMING POOL AND SPA SUCTION OUTLETS

AG106.1 General. Suction outlets shall be designed to produce circulation throughout the pool or spa. Single outlet systems, such as automatic vacuum cleaner systems, or other such multiple suction outlets whether isolated by valves or otherwise shall be protected against user entrapment.

AG106.2 Suction fittings. All Pool and Spa suction outlets shall be provided with a cover that conforms with ANSI/ASME A112.19.8M, or a 12" x 12" drain grate or larger, or an approved channel drain system. Exception: Surface skimmers

AG106.3 Atmospheric vacuum relief system required. All pool and spa single or multiple outlet circulation systems shall be equipped with atmospheric vacuum relief should grate covers located therein become missing or broken. Such vacuum relief systems shall include at least one approved or engineered method of the type specified herein, as follows:

1. Safety vacuum release system conforming to ASME A112.19.17, or
2. An approved gravity drainage system

AG106.4 Dual drain separation. Single or multiple pump circulation systems shall be provided with a minimum of two (2) suction outlets of the approved type. A minimum horizontal or vertical distance of three (3) feet shall separate such outlets. These suction outlets shall be piped so that water is drawn through them simultaneously through a vacuum relief-protected line to the pump or pumps.

AG106.5 Pool cleaner fittings. Where provided, vacuum or pressure cleaner fitting(s) shall be located in an accessible position(s) at least (6) inches and not greater than twelve (12) inches below the minimum operational water level or as an attachment to the skimmer(s).

SECTION AG107 ABBREVIATIONS

AG107.1 General.

ANSI - American National Standards Institute
11 West 42nd Street, New York, NY 10036

ASTM - American Society for Testing and Materials
100 Barr Harbor Drive, West Conshohocken, PA 19428

NSPI - National Spa and Pool Institute
2111 Eisenhower Avenue, Alexandria, VA 22314

SECTION AG108 STANDARDS

AG108.1 General.

ANSI/NSPI

ANSI/NSPI-3-99 Standard for Permanently Installed Residential Spas AG104.1
ANSI/NSPI-4-99 Standard for Above-ground/On-ground Residential Swimming Pools AG103.2
ANSI/NSPI-5-99 Standard for Residential In-ground Swimming Pools AG103.1
ANSI/NSPI-6-99 Standard for Residential Portable Spas AG104.2
ANSI/ASME A112.19.8M-1987 Suction Fittings for Use in Swimming Pools, Wading Pools, Spas, Hot Tubs and Whirlpool Bathing Appliances AG106.2

ASTM

ASTM F 1346-91 (1996) Performance Specification for Safety Covers and Labeling Requirements for All Covers for Swimming Pools, Spas and Hot Tubs . AG105.2, AG105.5

ASME

ASME A112.19.17 Manufacturers Safety Vacuum Release Systems (SVRS) for Residential and Commercial Swimming Pool, Spa, Hot Tub and Wading Pool AG106.3

(Source: 2003 Michigan Residential Code®)

Application Requirements

A completed Pools, Spas & Hot Tubs Application is required to obtain a permit. An application form is available on-line at www.grandrapidsmi.gov/devcenter.

The following plans also are required:

- Site Plan showing property lines, existing and proposed structures, driveways, sidewalks, streets, easements, and overhead power lines

Who Should Apply for a Permit?

While homeowners may apply for permits, the City will hold the applicant responsible for the work, regardless of the party that actually performed it.

If a contractor is performing the work, it is recommended that the contractor apply for the permit. In order to apply, a contractor must be licensed with the State and registered with the City.

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Review Process

1. Applicant submits a completed Pools, Spas & Hot Tubs Application form and required plans
2. Development Center staff identifies required reviews
3. Applicant obtains all required sign-offs by reviewers
4. Development Center staff collects building permit fee and issues building site card
5. As applicable, applicant submits Electrical and Plumbing Permit Applications and fees to the Development Center and obtains those permits

How Much Time Does It Take?

The Development Center's goal is to review single family residential projects the same day a complete application (including required plans) is received. An incomplete application form and/or inadequate plans will delay the process. Simple projects may be approved within a few minutes.

Fees

The building permit fee for an above-ground pool is \$63.

The building permit fee for an in-ground pool is based upon the cost of construction (materials and labor) stated on the permit application form, and is calculated as follows:

- \$63 for the first \$1,000 cost of construction
- \$6.80 for each additional \$1,000, or part thereof

The City may require supporting documentation such as a copy of a contract or itemized list of materials. In the absence of such documentation, the City may use International Code Council tables to determine the construction cost.

Inspections

Once a permit is issued, construction may begin. As the project progresses, the Building Inspections Division will need to inspect the work being performed. The following inspections are required for most pools, spas & hot tubs:

1. **Rough Electrical Inspection.** After all fixtures, wires, and boxes are installed with grounds and neutrals tied together
2. **Final Electrical Inspection.** After all electrical equipment, switches, plugs, covers, and fixtures are installed and operational
3. **Final Building Inspection.** After completion of the pool and finish grading

Additional Inspections for In-Ground Pools:

1. **Electrical Bonding Inspection.** When re-rod, wire mesh, equipotential, pool side, coping, lighting, ladder, etc. are bonded together with a #8 solid copper PRIOR TO CONCRETE POUR
2. **Rough Plumbing Inspection.** After all piping to be concealed has been installed
3. **Final Plumbing Inspection.** After all fixtures are installed and operational

Other Inspection. In addition to the above inspections, the inspector may require other inspections to ensure compliance with the Code.

Please call the building inspector listed on the site card to request an inspection. Every effort is made to perform an inspection within two (2) business days following the request. You should have your address available when you call. Inspectors' work schedules fill up quickly at certain times of the year. Calling more than a day in advance can help to avoid potential delays in the progress of your project.

Time Limitations

If work is not started within 180 days of the issuance of a permit, the permit will have expired. Likewise, if work on the project is suspended for a period of 180 days, the permit will have expired.

For More Information

www.grandrapidsmi.gov/devcenter

City of Grand Rapids Development Center
1120 Monroe Ave. NW, 3rd Floor
Grand Rapids, MI 49503
Telephone: 616.456.4100