

City of Walker
Community Development
4243 Remembrance Rd. NW
Grand Rapids, MI 49534

Phone: (616) 791-6858
Email: cdd@walker.city
Website: www.walker.city

RESIDENTIAL POOL / SPA PERMIT REQUIREMENTS

STEP 1: SUBMIT ALL REQUIRED DOCUMENTS FOR REVIEW to: cdd@walker.city

- BUILDING PERMIT APPLICATION - Required for any pool that holds more than 24" (2 ft) of water.
- SITE PLAN - Plan should include lot lines, existing and proposed structures, setbacks, easements, and dimensions.
- BARRIER AND INSPECTION RESPONSIBILITY AGREEMENT
- ELECTRICAL PERMIT APPLICATION - Required for inground pools & permanently placed pools.
- MECHANICAL PERMIT APPLICATION - Required for all pools with heaters.
- KENT COUNTY ENVIRONMENTAL HEALTH REVIEW FORM - Required for properties with well and/or septic.

STEP 2: PERMIT ISSUANCE. PAYMENT FOR THE PERMIT WILL BE COLLECTED WHEN THE PERMIT IS APPROVED. THE COST IS BASED ON PROJECT VALUE INCLUDING MATERIALS AND LABOR PLUS THE ZONING REVIEW FEE.

STEP 3: INSPECTION REQUIREMENTS

ELECTRICAL

- UNDERGROUND
- BONDING
- FINAL

MECHANICAL

- UNDERGROUND
- FINAL

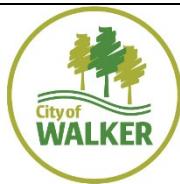
BUILDING (POOL)

- FINAL INSPECTION IS PERFORMED AFTER THE ELECTRICAL AND MECHANICAL INSPECTIONS ARE COMPLETED AND APPROVED.

STEP 4: OBTAIN CERTIFICATE OF USE AND OCCUPANCY

POOL MAY NOT BE USED OR OCCUPIED UNTIL ALL INSPECTIONS HAVE BEEN COMPLETED, APPROVED, AND A CERTIFICATE OF USE AND OCCUPANCY HAS BEEN ISSUED. FAILURE TO OBTAIN A CERTIFICATE OF OCCUPANCY MAY RESULT IN ENFORCEMENT AND/OR MUNICIPAL CIVIL INFRACTION CITATION.

This information presented in this guide is intended to help you with your pool / spa project. Each project may have additional requirements. If you have any questions, please contact us.



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POOL PERMIT: BARRIER REQUIREMENTS AND RESPONSIBILITIES

1. LOCATION OF POOL

ADDRESS

2. OWNER

NAME	TELEPHONE NO.	EMAIL	
ADDRESS	CITY	STATE	ZIP CODE

3. GENERAL INFORMATION

- a) A POOL BARRIER MUST BE INSTALLED AS REQUIRED BY SECTION 305 OF THE 2015 INTERNATIONAL SWIMMING POOL AND SPA CODE.
- b) POOL MAY NOT BE USED OR OCCUPIED UNTIL ALL INSPECTIONS HAVE BEEN COMPLETED, APPROVED, AND A CERTIFICATE OF USE AND OCCUPANCY HAS BEEN ISSUED. FAILURE TO OBTAIN A CERTIFICATE OF OCCUPANCY MAY RESULT IN ENFORCEMENT AND/OR MUNICIPAL CIVIL INFRACTION CITATION.

4. CONTRACTOR

I, AS THE CONTRACTOR, HAVE READ AND AGREE TO INSTALL THE BARRIER AS REQUIRED BY SECTION 305 OF THE 2015 INTERNATIONAL SWIMMING POOL AND SPA CODE:

NAME	TELEPHONE NO.		
ADDRESS	CITY	STATE	ZIP CODE
EMAIL			
SIGNATURE OF CONTRACTOR		DATE	

5. HOMEOWNER

I, AS THE HOMEOWNER, HAVE READ AND AGREE TO INSTALL THE BARRIER AS REQUIRED BY SECTION 305 OF THE 2015 INTERNATIONAL SWIMMING POOL AND SPA CODE:

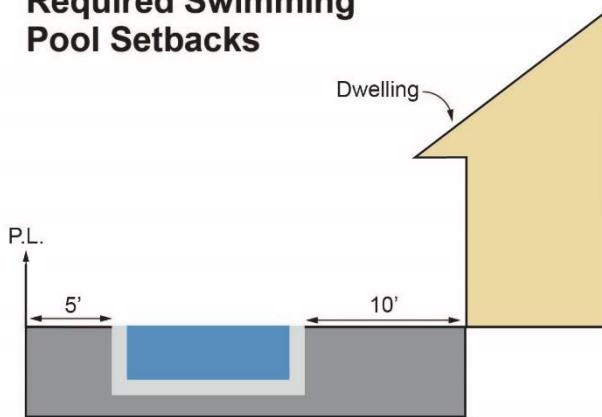
HOMEOWNER NAME	
HOMEOWNER SIGNATURE	DATE

C. **Private Residential Garages.** For each residential dwelling to be constructed, erected or moved upon any lot in the "A," "A-2," "SA," "S" or "AA" districts, there shall also be a private garage at least 12 feet in width by 22 feet in length; provided further, that there shall be a private garage, as described above, for each residential unit within a residential dwelling located in the "A-2" duplex district, two-family residential.

D. **Swimming Pools.**

- 1) All accessory buildings shall be located within the rear yard and at least ten feet away from any other building. If any private garage is located less than ten feet from a dwelling house, the garage shall be made fire resistant in the manner required for attached garages.
- 2) Swimming pools constructed, erected or placed in or on the ground as accessory to a residential dwelling unit shall be located within the rear yard. A wall of a swimming pool shall be located at least five feet from a side or rear property line and at least ten feet from a dwelling. The requirements of this subsection shall apply to any swimming pool for which a building permit is required under the building code of the city.

Required Swimming Pool Setbacks



E. **Drainage Easements.** No accessory building, swimming pool, or other structure that materially impedes the flow of stormwater shall be constructed or located within a drainage or utility easement described in a final subdivision plat or a final site condominium project plan, or within a drainage or utility easement of the city or other governmental entity which is recorded with the Kent County Register of Deeds or otherwise established by law.

F. **Decks and Porches.** An unenclosed deck or porch may be erected as an accessory structure attached as a part of a residential dwelling. A deck or porch may be located in the rear or side yard provided that no part of the deck shall be less than five feet from the rear and side lot lines. A deck or porch may be located in the front yard, provided that the deck or porch does not extend more than 40% of the distance between the front wall of the frontmost principal building (i.e., the house) and the front lot line. See Section 2.02 for the definitions of "deck," "porch", and "enclosed."

Pool / Spa Electrical Guidelines

Based on the 2015 MRC and 2017 MEC

1. Work cannot be started until an electrical permit is obtained.
2. **Storable pools** do not require an electrical permit if the storable pool can be installed per installation instructions. If the storable pool pump motor can be plugged into an existing exterior outlet without using an extension cord additional electrical will not need to be installed.
3. A permit may be issued to a homeowner who occupies or intends to occupy a single-family dwelling located on the same lot intended for use by the homeowner for which the permit is obtained and who will install the electrical equipment as certified by the homeowner on the permit application pursuant to the act.
4. It is the permit holders' responsibility to call for all necessary inspections prior to the concealment of any electrical wiring or equipment. If work is covered prior to an inspection the wall and or floor covering may be ordered to be removed.
5. Permits will expire if work is not started within 6 months of the permit issue date or if the work has been abandoned for a period of 180 days. A permit may be extended 180 days if requested by the permit applicant and approved by the Building Official.

Key points:

1. **Receptacle outlets:** Shall not be located closer than 6 feet to the inside wall of a pool or hot tub. At least one receptacle outlet is required no more than 20 feet from a pool or hot tub. Receptacle outlets installed outdoors in a wet location shall be listed weather-resistant type and shall include an enclosure that is listed extra duty and is weatherproof while in use and cord is attached.
2. **Switches:** Shall not be located closer than 5 feet from the inside walls of a pool or hot tub. A disconnecting means located within sight of the motor is required. Cord and plug connection is considered a means of disconnecting therefore an additional switch is not necessary.
3. **Luminaires / paddle fans / ceiling fans:** Around outdoor pools and hot tubs shall not be installed over the pool or the area extending 5 feet from the inside walls of the pool or hot tub except where no part of the luminaire / paddle fan/ ceiling fan is less than 12 feet above the maximum water level. Existing luminaires that are located within 5 feet from the inside walls of a pool or hot tub and are not less than 5 feet above the maximum water level are permitted to remain if the luminaires are rigidly attached to the structure and is protected by a ground fault circuit interrupter.
4. **Underground wiring:** Shall not be installed under or within the area extending 5 feet from the inside walls of the pool or hot tub unless the wiring is necessary to supply the pool equipment. Cover requirements are for PVC – 12", UF – 18", RMC – 6".
5. **Timers:** Must be installed to automatically turn off pool pumps and pool heaters.
6. **Flexible Cords:** Shall not exceed 3 feet in length. Flexible cords shall include a copper equipment grounding conductor not smaller than 12 AWG.
7. **GFCI protection:** Required for all outdoor receptacles, pool pump motors, underwater lighting, hot tubs, electrically operated pool covers, and pool heater gas ignition circuits.

Bonding:

1. **Equipotential bonding:** Required for permanently installed pools and hot tubs to reduce voltage gradients in the prescribed areas. This is done to reduce shock hazards if a person comes in contact with two separate conductive surfaces at the same time. You are required to connect each separate metal part and conductive surfaces together, so they all have the same potential. This is done either mechanically or by connecting a #8 AWG or larger solid copper conductor to each object and surface. You must use connections that are listed for the location such as direct

burial or concrete encased. Machine screws must engage not less than two threads or be secured with a nut. Sheet metal screws shall not be used. This bonding wire is not required to be connected to any remote panelboards or to any ground rods. The prescribed areas required to be bonded together are as follows:

2. **Fixed metal parts:** All metal parts located within 5 feet of the pool or hot tub walls shall be bonded. These metal parts include but are not limited to metal piping, metal awnings, metal fences, metal door and window frames, metal post, metal pool ladders, and metal underwater lighting.
3. **Metallic components:** All metallic parts of the pool structure shall be bonded.
4. **Metal fittings:** All metal fittings within or attached to the pool shall be bonded except small parts not over 4 inches in any dimension and do not penetrate into the pool more than 1 inch.
5. **Electrical equipment:** Metal parts of electrical equipment associated with the pool water circulation system including pump motors and pool covers shall be bonded.
6. **Underwater luminaires:** All metal forming shells and mounting brackets except low voltage nonmetallic forming shells.
7. **Conductive pool shells:** Conductive pool shells shall be bonded. These are pools constructed of poured concrete, pneumatically applied or sprayed concrete, and concrete block. Vinyl liners and fiberglass composite shells are NOT considered conductive pool shells.
8. **Perimeter surfaces:** You are required to bond the perimeter surface extending 3 feet beyond the inside walls of the pool and shall include unpaved surfaces, poured concrete surfaces and other types of paving. This is done by running a #8 AWG or larger copper conductor around the pool 18 to 24 inches from the pool wall and buried 4 to 6 inches below the surface or secured within the concrete. If the pool has a conductive pool shell the perimeter surface bond shall be attached to the pool reinforcing steel at a minimum of 4 points uniformly spaced around the pool.
9. **Pool water:** Where none of the bonded parts are in direct contact with the pool water, the pool water will need to be bonded by a conductive surface not less than 9 in² in contact with the pool water at all times. This could be achieved by a corrosion resistant plate installed in the pool strainer or a water bonding fitting installed in the circulation lines.

Storable Pool Electrical Guidelines *Based on the 2015 Michigan Residential Code*

1. **Storable Swimming pools:** Those that are constructed on or above the ground and are capable of holding water with a maximum depth of 42 inches, **OR** a pool with nonmetallic, molded polymeric walls or inflatable fabric walls regardless of the dimensions.
2. **Cord and Plug:** Connected pool filter pumps shall be provided with a ground fault circuit interrupter that is an integral part of the attachment plug or located in the power supply cord within 12 inches of the attachment plug.
3. **Ground-fault circuit-interrupters:** Required for all 125v, 15- and 20-amp receptacles that are located within 20 feet of the inside walls of a storable pool.
4. **Receptacle outlets:** Shall not be located less than 6 feet from the inside walls of a storable pool.
5. **Supply Cords:** Shall not be ran through any doorways or windows.
6. **Extension cords:** May **NOT** be used for supplying pool pumps for storable pools.
7. **Storable pools:** Shall be used according to the listings and installed according to the manufacture installation instructions.

*****If there is not an exterior GFCI protected receptacle outlet located for the storable pool pump motor to plug into without using an extension cord you will need to add a receptacle outlet. An electrical permit will be required prior to the installation of any electrical wiring.**

1. Before beginning any electrical work you must first apply for and receive a written electrical permit. **Work cannot be started until an electrical permit is obtained.**
2. A permit may be obtained by a homeowner who occupies or will occupy a single-family dwelling and other accessory structures located on the same lot intended for use by the homeowner for which the permit is obtained and who will install the electrical equipment as certified by the homeowner on the permit application pursuant to the act. **Homeowner electrical permits cannot be obtained for rental properties or commercial properties. An Electrical Contractor licensed by the State of Michigan shall obtain electrical permits for rental properties and commercial properties.**
3. It is the permit holders' responsibility to call for all necessary inspections prior to the concealment of any electrical wiring or equipment. If work is covered prior to an inspection the wall and or floor covering may be ordered to be removed.
4. Permits will expire if work is not started within 6 months of the permit issue date or if the work has been abandoned for a period of 6 months.

Spa/Hot Tub Information

Items needed for spa/hot tub installation:

1. Building Permit
2. Electrical Permit (if applicable)
3. Site Plan showing placement of hot tub, all existing structures, property line, setbacks, easements.
4. Hot tub must have a cover that locks
5. Hot tub must be 5 feet from house if there is a window within 5 ft. The glass must be tempered.
6. Hot tub can be set closer if no window (glass) within 5 ft.
7. Proof of structure to hold the weight of the hot tub or spa.

Additional information from Chapter 10 - Portable Residential Spas and Portable Residential Exercise Spas

1. **Scope:** This chapter shall govern the installation, alteration and repair of portable residential spas and portable exercise spas intended for residential use.
2. **General:** In addition to the requirements of this chapter, portable residential spas and portable residential exercise spas shall also comply with the requirements of Chapter 3.
3. **Listings:** Equipment and appliances shall be listed and labeled and installed as required by the terms of their approval, in accordance with the conditions of the listings, the manufacturer's instructions and this code. Manufacturer's instructions shall be available on the job site at the time of inspection.
4. **Certification:** Factory-build portable spas and portable exercise spas installed in a residential application shall be listed and labeled in compliance with UL 1563 or CSA C22.2 No. 218.1.
5. **Installation:** Spa equipment shall be supported to prevent damage from misalignment and settling in accordance with the manufacturer's instructions.
6. **Access:** Electrical components that require placement or servicing shall be accessible.
7. **Instructions and safety signage:** Instructions and safety signage shall comply with UL 1563 or CSA C22.2 No. 218.1 the manufacturer's recommendations and the requirements of the local jurisdiction.

This information presented in this guide is intended to help you with your pool / spa project. Each project may have additional requirements. If you have any questions, please contact us.

POOL BONDING

Standard summary of NEC 680.26 / MRC E4204.2

*This is for illustrative purposes only and does not address all standards of the Michigan Electrical and Building Code

Water Bonding 3 possible options listed below [680.26(C), E4204.3]



Perma cast PBAG



Burndy BWB680



PB 2008

Perimeter Bonding

[680.26(B)(2),E4204.2(2)]#8 solid copper 18"-24" out and located in concrete pad or buried 4"-6" below grade



Pump and Conductive pool bonding

[680.26(B)(3),680.26(B)(6),E4204.2(3),(6)]



DRAINING YOUR SWIMMING POOL?

**3 easy steps to drain your residential pool
while protecting the environment**

1. Dechlorinate

- **Sunlight**

- Stop adding chlorine and expose to sunlight for two weeks
- Continue to run pump during this time

OR

- **Chemicals**

- Purchase dechlorination agent that meets EPA standards
- Vitamin C-based dechlorination tablets are also acceptable and safer to handle
- Follow directions provided by manufacturer



2. Infiltrate

- Find a grassy area, garden, or other natural area on your property
- Slowly pump pool water into designated area and allow to soak into ground

- **Salt Water Pools**

- NEVER drain a salt water pool into a storm sewer
- Drain in stages on your property where water can absorb
- Too much salt in one spot may kill vegetation and no longer sustain growth

- **Failure to pump slowly may flood the drainage area**

3. Storm Grate

- If you don't have a natural area available, you may slowly pump dechlorinated pool water to storm drain (salt water pool discharges prohibited!)
- **Failure to remove chlorine or sediment from pool water before draining may result in fines**

