

# SWIMMING POOL CONSTRUCTION REGULATIONS AND REQUIREMENTS

## TYPES OF POOLS

### Swimming Pool Type 1:

Any swimming pool constructed wholly or partially below the natural or graded surface of the surrounding area.



### Swimming Pool Type 2:

Any swimming pool constructed wholly above the surface of the terrain.



## INSPECTIONS

**Building Inspection:** For the first inspection, you must have the exact location of any property line within 50' of the pools edge marked. This is required for both type 1 and type 2 pools prior to pouring concrete, construction, setup or insulation. For type 1 pools only, call for a back-fill inspection when all forms are in place. A final inspection takes place after all other inspections are completed including the electrical final inspection. You must have any required fence installed, all gates installed, all locks installed, all ladder securing devices installed, and all alarms installed and available for testing.

**Electrical Inspection:** Type 2 pools typically require one inspection if all of the necessary items are installed and exposed for inspection. Type 1 pools will require two inspections in most cases.

Basic items that will be inspected on Type 1 and Type 2 pools: All electrical bonding and grounding must be in place and exposed for inspection.

Bonding of the pool filtration system and bonding of the metal edge of each side of the pools must be in place. Exposed bonding around the entire pool perimeter within 6" to 24" of the pool edge, under surface 6" to 8" if bare earth or grass. All wiring and GFCI plug within 10' of pool pump must be exposed for inspection including all underground wiring for the outdoor plugs.

**Mechanical Inspection:** If gas piping is installed it must be fully exposed and connected to the heating unit. Call the Thomas Township Mechanical Inspector for an inspection at (989) 781-6973.

## BONDING THE POOLS WATER AT THE FILTER

Swimming Pools must have the filter bonded. Pictured below are examples of what this may look like.



## BONDING THE POOLS SUPPORT

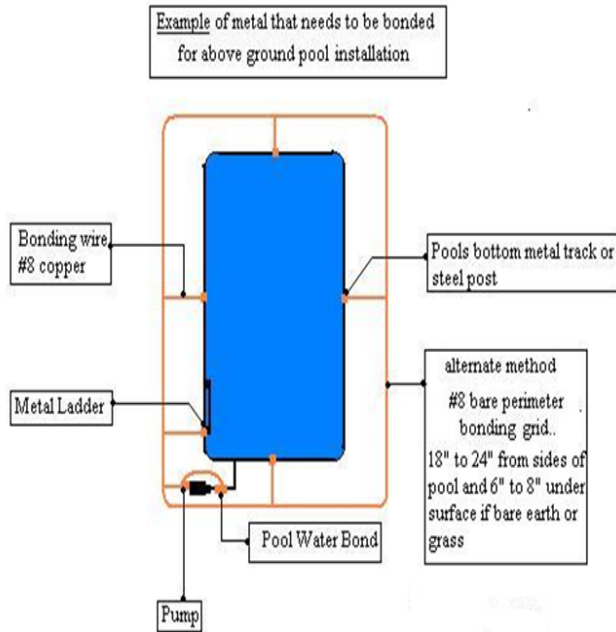
Swimming Pools must be bonded on the sidewalls and the top liner edge. This is an example of how to bond the support on your pool.



When the Electrical Inspector visits the location, the bonding must be installed and must be done according to the Michigan Electrical Code. If improper connectors or lugs are used, or improper wire size or type, it will be rejected. Please know the Electrical Code requirements or have a licensed Electrician do the work according to the Michigan Electrical Code.

## REQUIRED BONDING

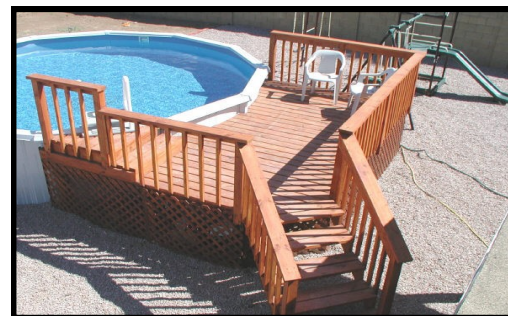
One of the most important electrical bonding requirements is running a continuous # 8 solid copper wire with no cuts or breaks around the entire pool perimeter. The wire must bond the support structure as well. The ladder and diving board must also be bonded according to the code. The perimeter bonding wire must be buried between 6" and 8" deep, and must be between 18" and 24" from the sides of the pool. Keep all bonding wire exposed until it is inspected by the Electrical Inspector and you are told you can cover them.



## DECKS AROUND POOLS

When building a deck by or around a pool, the basic deck requirements are as follows:

1. If the deck has a finished floor height greater than 30" from grade, a guard (rail) is required. The minimum height can not be less than 34".
2. If stairs are required:
  - Maximum riser size 8-1/2 "
  - Minimum tread size 9"
3. If stairs have 4 or more risers, a handrail is required on at least one side of the stairway. The handrail height is measured from the nose of the tread and shall not be less than 34" and not more than 38" in height.
4. Opening Limitations: (Spindles) shall not allow a passage of a sphere 4" in diameter.



## GFCI OUTLET REQUIRED

One GFCI protected outlet is required within 10' of the pump. The outlet must be installed with a wire buried a minimum of 24" deep, protected by ridged conduit or PVC schedule 40 piping.



## POOL DOOR ALARMS

All houses that have doors with direct access to the pool shall be equipped with an alarm which produces an audible warning when the door and its screen are opened. (Michigan Building Code)



## COMMON Q & A ABOUT SWIMMING POOLS ?

**Q. Do I need a permit to put up a swimming pool on my property?**

- A. The simple answer is "YES" if your swimming pool is 24" deep or deeper you are required to obtain permits prior to installing the pool.

**Q. What permits are required?**

- A. You will need two permits in most cases. A Building Permit and an Electrical Permit. You may also need a Mechanical Permit if a gas heater is going to be installed.

**Q. Why do I need an Electrical Permit?**

- A. The State of Michigan requires that a swimming pool has several very important safety features related to the electrical system being installed to protect anyone using the pool. You are required to have a GFCI plug or outlet within 10' of your pools pump. The pools filtration system or filter as well as the pump must be bonded or grounded in a very specific way. The entire swimming pool must have a wire running around its perimeter to bond the pool and it must be a continuous # 8 AWG copper wire with no splices or breaks. The pool itself must have a bond on each side connecting it to a ground. All of this must be done according to the Michigan Electrical Code and in the manner required or it will not be properly protected and someone may be harmed.

**Q. Why do I need a Building Permit for a blowup pool?**

- A. Every property has setbacks from neighboring properties that must be met. Some pools with short sidewalls must have a fence installed around them. If a home is used as part of the fence surrounding the pool, the door leading into the home and or garage must have an audible alarm indicating when it is opened.

**Q. How much are the cost of the permits to install a new pool?**

- A. The Building Permit is \$35.00, and the Electrical Permit varies depending on how extensive the electrical work

## LADDER SAFETY

All swimming type 2 above ground pools shall be constructed so that the ladder, steps, or other means of access to the pools shall be removed or raised and firmly fastened in such a manner so as to prevent use by children not under authorized supervision.

Swimming pools type 2, where the sides are not 4' above the graded surface of surrounding area, must be fenced in the same manner as swimming pools type 1.



## FENCE & ENCLOSURES

A fence shall enclose all private swimming pools type 1, and shall be at least 4' in height above the grade. The fence shall be constructed as not to have any opening, holes, or gaps large enough for a child to use as a ladder. If a picket fence is erected, the space between pickets shall not exceed 4".

A house or other building may be used as part of an enclosure, in such cases any door opening directly into a house must be equipped with an audible alarm. Any gate in the fence shall be equipped with a self-closing and self-latching device to keep the gate securely closed at all times when not in use.



## SWIMMING POOL SAFETY PRECAUTIONS

**Vacant Houses:** If a pool is abandoned and not made safe the Township will have the authority to enter the property and make such pool safe. Per court order all cost of making such pool safe shall be a lien against the property on which said pool is located.

**Construction Standards:** Swimming pools shall be constructed in compliance with the applicable provisions of this ordinance.

**Electrical Wiring and Fixtures:** All electrical wiring and fixtures shall comply with the National Electrical Code at the time a swimming pool is installed.

## MICHIGAN BUILDING CODE

You must follow all provisions found in the Michigan Building Code under swimming pool enclosures and safety devices. Contact the Thomas Township Building Inspector for a copy of the provisions in the Michigan Building Code. *This hand out is only intended to highlight some of the fencing requirements and some of the safety requirements.*