

“Home Improvements” If You Want To Install A Swimming Pool

Many home improvement projects are subject to community zoning and building code restrictions and do require a permit. This information sheet has been written to help you with your construction project. It lists the information needed to be submitted with an application for your specific project.

IMPORTANT NOTE – It is vitally important that all projects be accompanied with site/plot plans (plot plans can generally be found with the legal documents on your property. Sometimes they may be referred to as site plans or mortgage surveys).

Please submit the following information:

- Submit a copy of your site/plot plan.
- Indicate the location of the swimming pool on your plot plan.
- Indicate the location of all above ground and below ground utilities on your plot plan.
- Submit information concerning the type of pool (above ground or in ground).
- Submit information concerning the water supply system, including the pump and filtering system, and the method for drainage and water disposal system.
- Identify the location of the ground fault circuit interrupter supplying electricity to the pump system. (All electrical installations must be made in accordance with Article 680 of the 2011 National Electrical Code).
- Fill out the building permit application.
- You will be required to call for a pool grounding inspection, electrical equipment inspection, enclosure (fence) inspection, and a final inspection.
- Submit a separate permit application for the proposed fence enclosure around the swimming pool. Enclosures are required to be a minimum of four 4' feet in height. Openings, holes or gaps in swimming pool enclosures cannot permit a four 4" inch ball to pass through. All access gates must be self-closing and self-latching. (See Home Improvements Fence Guidelines).
- Submit a separate permit application for the proposed deck if applicable. (See Home Improvements Deck Guidelines).

Important Note – Swimming pools are required to meet minimum setback requirements of the Zoning District in which they are located.

R-1, Single Family Residential District

- Swimming pools are not permitted within the front yard setback, or within any utility or storm water easement.
- Side yard setback is 8'. **(Corner lots have special setback requirements, set back not less than the distance required for residences from side streets).**
- Rear yard setback is 8'.
- Required setbacks may vary dependent on the zoning district in which you reside.

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Swimming Pool Electrical Information: Please see the follow sheets for specific electrical requirements and clearances per 2011 NEC.

SWIMMING POOLS, OUTDOOR SPAS, & HOT TUBS				
Equipment Location	Wiring Method	Equipment Grounding Required	Equipotential Bonding Required	GFCI Required
Feeders (from service to subpanel) 680.25	<ul style="list-style-type: none"> •RMC/IMC •RNMC/LFNMC •On/in buildings: EMT •In building: ENT 	<p>Yes</p> <ul style="list-style-type: none"> •Insulated CU/AL •Min. #12 •Table 250.122 	<p>No</p> <ul style="list-style-type: none"> •Not allowed within 5' of pool or spa 	No
Existing Feeders & Panelboards 680.25 (A) exception	<ul style="list-style-type: none"> •Same as feeders •MC cable, LFMC/ other approved cable 	<p>Yes</p> <ul style="list-style-type: none"> •Same as feeders •Insulated/covered 		
Wet niche 680.23(B) & no niche 680.23(D) fixtures from forming shell to J-Box & 680.23(F) branch circuit supply	<ul style="list-style-type: none"> •Brass •Approved corrosive-resistant RMC/IMC •RNMC/LFNMC w/ #8 encapsulated, insulated copper bonding jumper 	<p>Yes</p> <ul style="list-style-type: none"> •Insulated copper •Min. #12 @ ≤ 20 mps •Min. #10 @ ≤ 60amps •Size per Table 250.122 Equipment Grounding 	<p>Yes</p> <ul style="list-style-type: none"> •#8 solid copper to grid •680.23(B)(1) •680.26 	<p>Yes</p> <ul style="list-style-type: none"> •680.23(A)(3) •Limitations on locations 680.24
Dry-niche fixtures 680.23(C)	<ul style="list-style-type: none"> •Brass •Approved corrosion-resistant RMC/IMC •RNMC •On/in buildings: EMT 	<ul style="list-style-type: none"> •Insulated, encapsulated, solid or stranded #8 CU bonding jumper at RNMC/LFNMC 	<p>Yes</p> <ul style="list-style-type: none"> •All metal forming shells 	<p>Yes</p> <ul style="list-style-type: none"> •680.23(A)(3) •Limitations on locations 680.24
Area lighting fixtures, lighting outlets & ceiling fans 680.22(B)	<p>Chapter 3 method</p> <ul style="list-style-type: none"> •Clearances 680.22 (B) •Outdoors: 12' above within 5' •Indoors: same as outdoors except enclosed fixtures or damp location fans on GFCI circuit: 7'-6" above •Existing: 5' above water within 5', rigidly attached and GFCI protected 	<p>Yes</p> <ul style="list-style-type: none"> •250.110 	<p>Yes</p> <ul style="list-style-type: none"> •When within 5' •680.22(B)(4) 	<p>Yes</p> <ul style="list-style-type: none"> •Unless 10' and rigidly attached 5' above water •680.22(B)(4)
Pool-associated motors, pool pump motors 680.21 & pool cover motors 680.27 (B)	<ul style="list-style-type: none"> •5' from pool •RMC, IMC, RNMC/ MC cable listed for the application •On/in buildings: EMT •In buildings: any Chapter 3 method with min. #12 insulated /covered equipment ground 680.21(A)(4) •Where flexibility required: MC cable, LFMC/LFNMC permitted •Cord & plug: Max. 3' 680.21(A)(5) 	<p>Yes</p> <ul style="list-style-type: none"> •680.21(A)(1) •680.27(B) •Min. #12 insulated CU •Table 250.122 	<p>Yes</p> <ul style="list-style-type: none"> •680.26(B)(6) •#8 solid CU •Grid to motor •Non-grounded systems: motor to equipment ground •Double insulated motors: bond tail for future use required 	<p>Yes</p> <ul style="list-style-type: none"> •680.27(B)(2)

SWIMMING POOL

- ❑ Equipotential bonding 680.26
 - Min. #8 cu solid bonding conductor
 - Pool shells
 - Perimeter surfaces 680.26(B)(2)
 - ♦ Walking surfaces within 3' of inside walls of the pool, paved or unpaved, shall be bonded to the pool shell at a min. of 4 points uniformly spaced around the perimeter of the pool except non-conductive pool shells.
 - ♦ The required conductor shall be 18" to 24" from the inside walls of the pool.
 - ♦ Secured between 4" & 6" below the subgrade.
 - Metallic components of the pool structure.
 - Underwater lighting
 - Metal fittings
 - Electrical pool equipment
 - Fixed metal parts less than 5' horizontally of the inside walls of the pool and within 12' vertically from the max. water level of the pool. (including metal pipes, window frames, foundation vents, gutters, etc.)
 - Pool water
 - Diving board, ladders, pool covers, drain, etc.

Receptacles 680.22(A)(3)&(4)

- ❑ Locate between 6' and 20' from the inside wall of pool
- ❑ GFCI protected

Lights 680.22(B)

- ❑ GFCI protected
- ❑ Pool/spa light potting 680.23(B)(4)

Panels

- ❑ Verify properly identified circuits for pool in panels.
- ❑ Verify breakers and panel compatibility
- ❑ Verify conductor size for the breaker

**TABLE 680.8
Overhead Conductor Clearances**

Clearance Parameters	Insulated Cables, 0-750 Volts to Ground, Supported On and Cabled Together With a Solidly Grounded Bare Messenger or Solidly Grounded Neutral Conductor ft	All Other Conductors Voltage to Ground	
		0-15 kV ft	Over 15-50 kV ft
A. Clearance in any direction to the water level, edge of water surface, base of diving platform, or permanently anchored raft	22.5	25	27
B. Clearance in any direction to the observation stand, tower, or diving platform	14.5	17	18
C. Horizontal limit of clearance measured from inside wall of the pool	This limit shall extend to the outer edge of the structures listed in A and B of this table but not to less than 10'.		

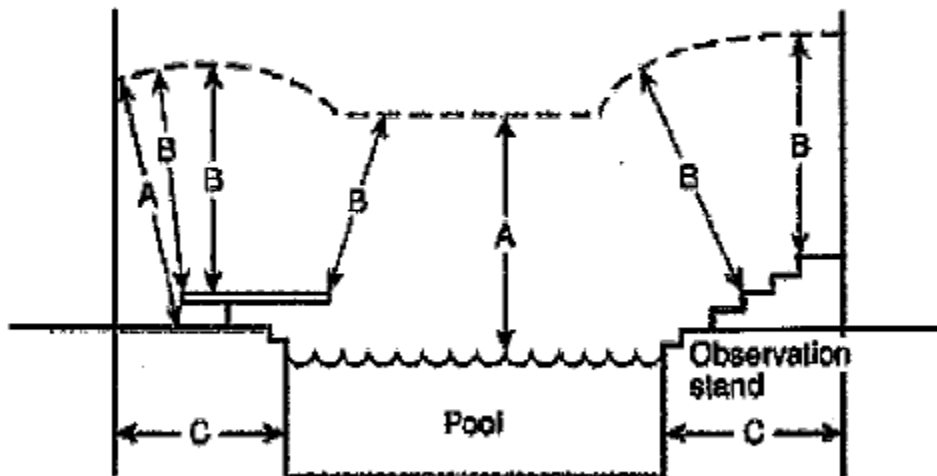


Figure 680.8 Clearances from Pool Structures.

Equipotential Bonding Grid [680.26]

