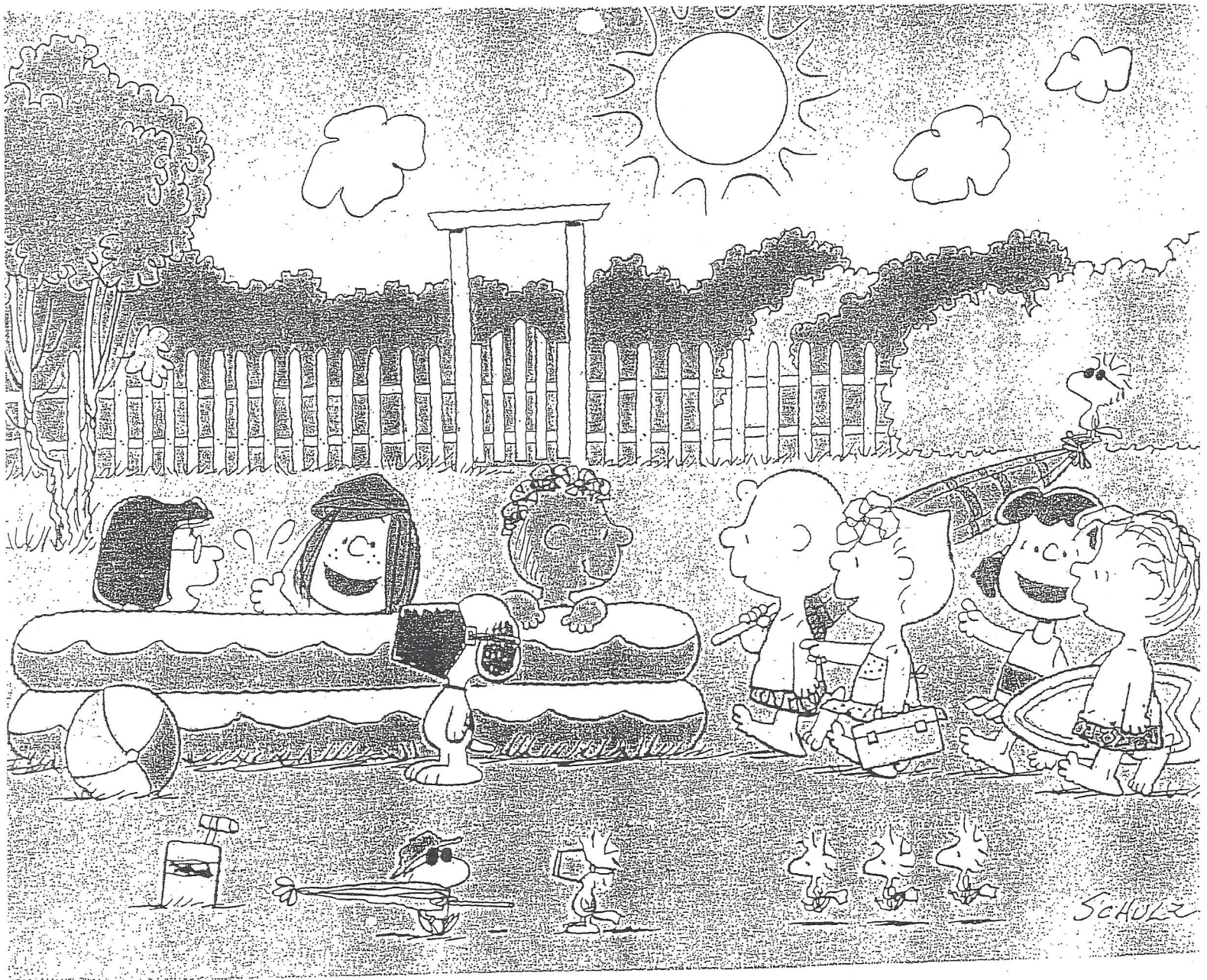


# SWIMMING POOLS





TO ASSIST YOU IN YOUR DECISION TO PURCHASE A SWIMMING POOL (ABOVE GROUND OR IN-GROUND). THE BUILDING DEPARTMENT HAS DEVELOPED THE FOLLOWING GUIDLINES.

*ZONING PERMIT:*

1. A plot plan indicating the location of the pool on your lot.

A homeowner is permitted to draw this plot plan.

*CONSTRUCTION PERMITS:*

*All pools are required to have a Building, and Electrical permits issued before the pool is installed.*

*ABOVE GROUND:*

- a. The State of New Jersey has placed many safety code requirements on this type of pool:

1. Measuring from the top of ground to the top of the pool, the code requires a measurement of 48". In most situations, the average pool is 48" and by the time you level the pool this measurement is less than 48" minimal. Hence, to solve this problem you can either buy a 52" pool or purchase the small railing (fence) that can be installed around the top of the pool.
2. If the pool comes with a metal deck the only code requirement is with the fold-up ladder. That is, the code requires that the ladder be protected. To solve this situation one of the following must be implemented.
  - a. Construct a small enclosure around the ladder. Attached "B" is two enclosures depicting this installation. The gate to this enclosure must meet following standards.
    1. See attachment B, item #8
  - b. Surround the entire pool with a 4" foot fence and a gate.
    1. See attachment "B", Section 3109.7.1  
Item # 1 to # 9.1
  - c. If your are planning to construct your own deck (wood), a plan of the deck depicting the sizes of all wood members. In addition, the steps must meet the same requirements as the ladder requirements.  
attach: Item # 8 to # 9.1

*IN- GROUND POOL*

1. All in-ground pools are required to be designed by a NJ Licensed Engineer.
  - a. In most cases, the Pool Manufacturer will provide the pool plans to you or you can have the Pool Company applied for the permits.
  - b. The pool fence and the gate must complied with the same requirements as the above ground pools. See attachment "B", Section 3109.7.1  
Item #1 to # 9.1

## SWIMMING POOLS, SPAS AND HOT TUBS

Any structure intended for swimming or recreational bathing that contains water, provided that these regulations shall not be applicable to any such pool less than 24 inches (610 mm) deep or having a surface area less than 250 square feet (23.25 m<sup>2</sup>). This includes in-ground, aboveground and on-ground swimming pools, hot tubs and spas.

### SWIMMING POOL, INDOOR.

A swimming pool that 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.

3109.3 In-ground public pools. In-ground pools shall be designed and constructed in conformance with ANSI/NSPI-1 as listed in Chapter 35.

3109.4 In-ground Residential pools. In-ground residential pools shall be designed and constructed in conformance with ANSI/NSPI-5 as listed in Chapter 35.

3109.5 Permanently installed public spas and hot tubs. Permanently installed public spas and hot tubs shall be designed and constructed in conformance with ANSI/NSPI-2 as listed in Chapter 35.

3109.6 Portable residential spas and hot tubs. Portable residential spas and hot tubs shall be designed and constructed in conformance with ANSI/NSPI-3 as listed in Chapter 35.

3109.7 Enclosures for private swimming pools, spas and hot tubs. The provisions of this section shall control the design of barriers for residential swimming pools, spas and hot tubs.

3109.7.1 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 48 inches (1,219 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 two 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 four inches (102 mm).

2. Openings in the barrier shall not allow passage of a four-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 (1,143 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 (1,143 mm) or more, spacing between vertical members shall not exceed four 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 1.25-inch (32 mm) square unless the fence is provided with slats fastened at the top or the bottom that 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 (1,372 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 three 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 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:

- 9.1. The ladder or steps shall be surrounded by a barrier that 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 four-inch-diameter (102 mm) sphere.

3109.8 Barrier exceptions. Spas or hot tubs with a safety cover that complies with ASTM F 1346, as listed in Chapter 35, shall be exempt from the provisions of this section.

3109.9 Enclosures for public swimming pools, spas and hot tubs. Public swimming pools shall be completely enclosed by a fence at least four feet (1,290 mm) in height or a screen enclosure. Openings in the fence shall not permit the passage of a four-inch (102 mm) diameter sphere. The fence or screen enclosure shall be equipped with self-closing and self-latching gates."



SWIMMING  
POOL

POOL ENTRY LADDER SYSTEM (PELS)

52" CLEARANCE

23" X 23"

LATCH RELEASE

59"

KEY LOCK

SELF LATCH

HIGH FENCE

4"

POOL WALL

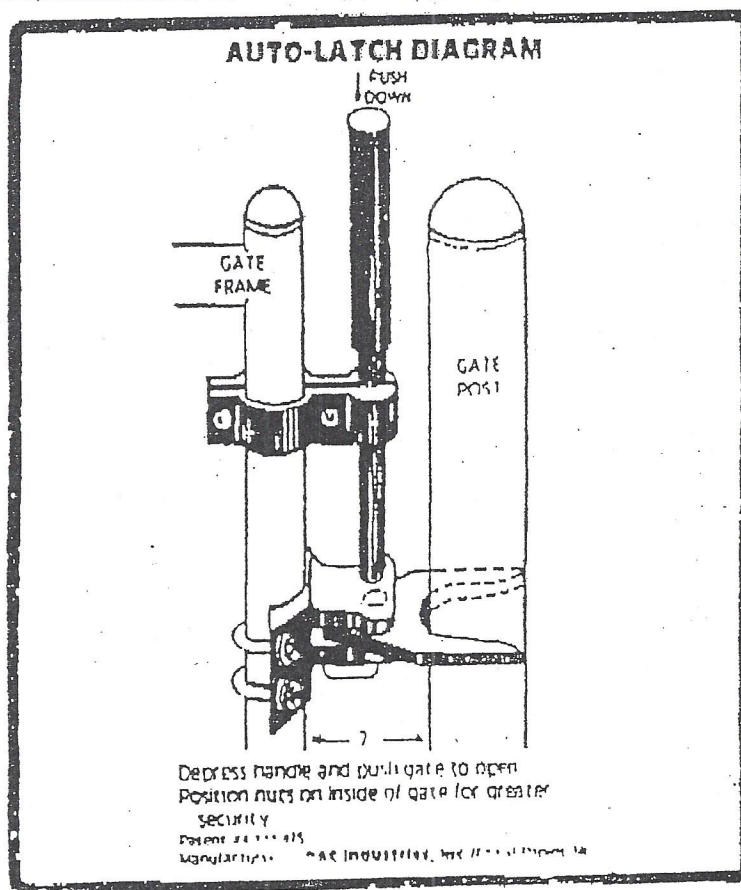
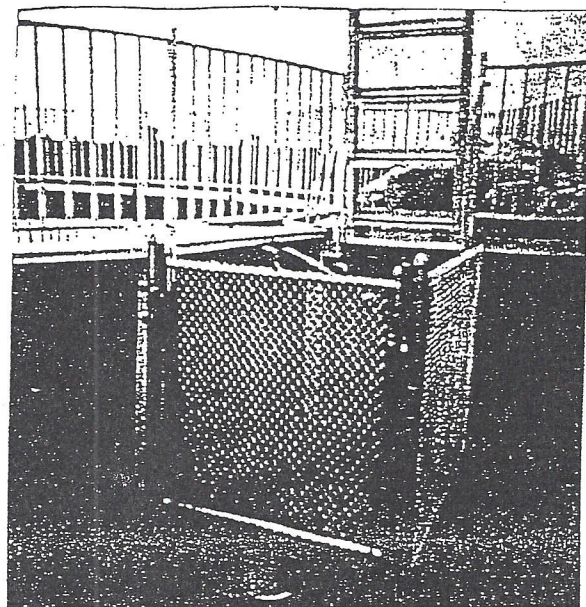
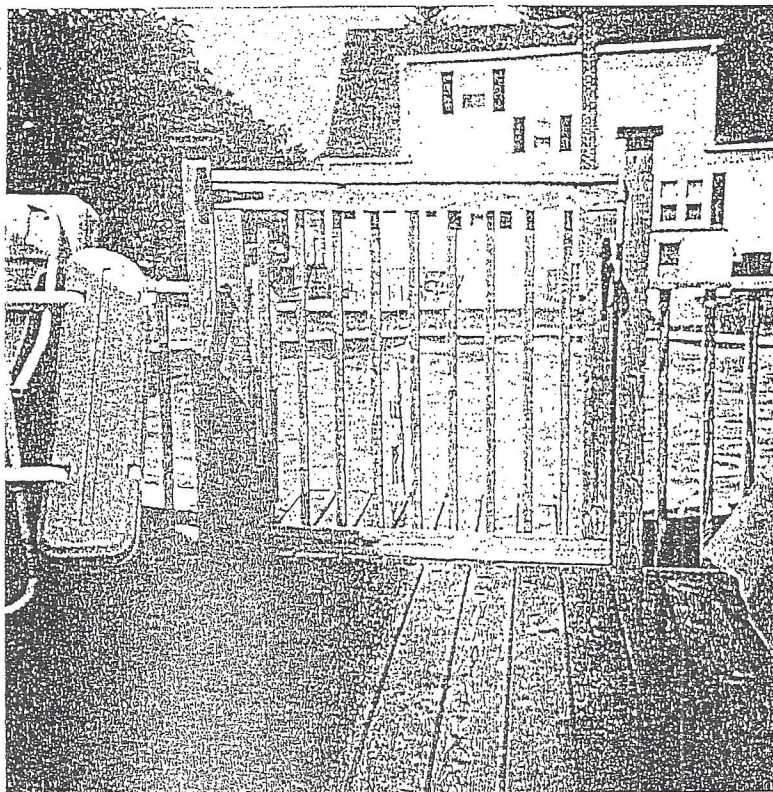
FIGURE 5

SELF LATCH

2"

MODEL BARRIER CODE ENCLOSURE



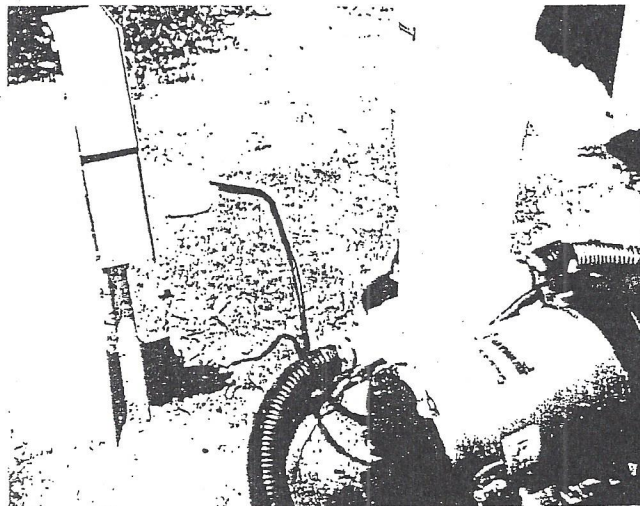


to raise height of closer  
For 48" to 54"



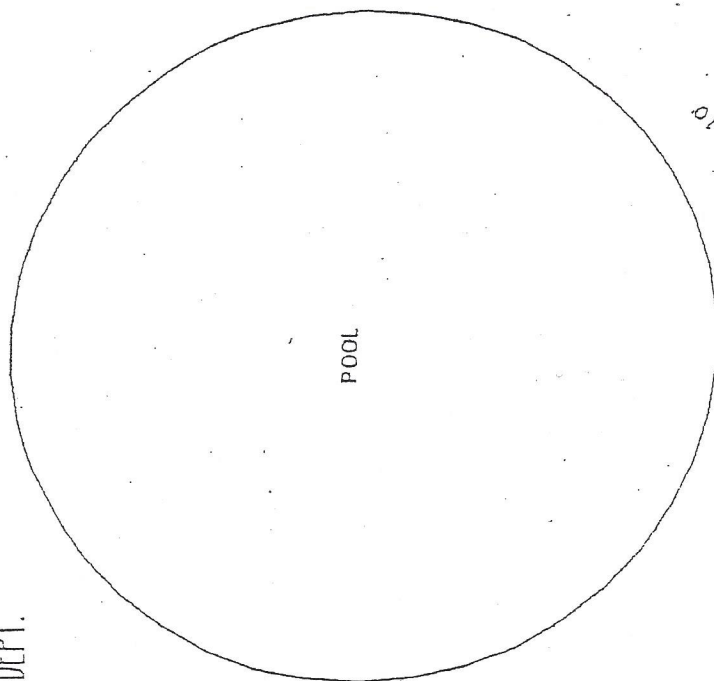
ABOVE GROUND POOLS-ELECTRICAL WIRING SHALL  
COMPLY WITH NEC ARTICLE 680 BELOW ARE SOME  
HELPFUL HINTS

1. All wire, including the cord shall be 12 AWG, minimum.
2. 12/2 with ground is acceptable INSIDE the house ONLY! Type UF, NM (romex) or MC.
3. Outdoors or in the earth, conductors SHALL be in conduit, buried 18 inches minimum.
4. A GFCI protected 120 volt convenience receptacle located outdoors is REQUIRED to be located NOT less than 10 feet nor ,more than 20 feet from the inside wall of the pool. This receptacle may be existing, the wiring need not be in conduit and it does not have to be on the same circuit as the pool, BUT IT MUST BE GFCI PROTECTED NOT MORE THAN 20 FEET FROM THE POOL!
5. If you wish to have the receptacle for the pool pump located less than 10 feet from the pool, you may, provided it meets the following requirements:
  - a. It CANNOT be less than 5 feet from the pool.
  - b. It must be 20 amp, Rated twist lock.
  - c. The cover SHALL be capable of being closed with the plug inserted.
6. No matter what the guy sold you where you purchased the pool, the cord MUST be 12 AWG NOT LONGER THAN 3 FEET.
7. If the pool pump is cord and plug connected, the circuit SHALL be GFCI protected.
8. Type PVC CONDUIT is permitted, do not use water pipe.
9. Free standing receptacles, switches etc. shall be supported by something other than the conduit.
10. The ground wire in the conduit shall be insulated.
11. The BONDING WIRE SHALL be 8 AWG minimum, lugs shall be copper, brass or stainless.
12. A ground rod is NOT required at the pool.
13. The following SHALL be bonded together: the pool structure, pump motor, metal ladder, metal fence and any other metal objects within 5 feet of the pool.



# GUIDE LINES FOR SWIMMING POOL WIRING

CONSTRUCTION DEPT.



POOL FT. FROM HOUSE  
AND ALL OTHER  
STRUCTURES ON PROPERTY  
AND LOT LINES

DWELLING

MAIN CIRCUIT  
BREAKER PANEL

POOL WIRING SHALL BE INSTALLED  
IN PVC SCHD. 40, IMC OR RMC  
18 INS. BELOW FINISHED GRADE  
3 #12 AWG 1 BLACK 1 WHITE  
1 GREEN INSULATED ALL THE WAY  
TO PANEL EQUIPMENT GROUND

125 V 20 AMP. TWIST-LOCK  
RECPT. GFCI PROTECTED  
GREATER THAN 5 FT. AND LESS THAN 10 FT.  
FROM INSIDE WALL OF POOL  
ARTICLE 680-6 (a) (2)

5-10

10-40

GFCI PROTECTED CONVENIENCE  
RECEPTACLE GREATER THAN 10 FT.  
AND LESS THAN 20 FT. FROM  
INSIDE WALL OF POOL  
ART. 680-6 (a) (2)

PVC TYPE LB  
ALL PVC TO BE GRAY  
AND APPROVED BY UL

NO OTHER RECEPTACLES ON PROPERTY  
WITHIN 10 FT. OF THE INSIDE  
WALL OF POOL (ART. 680-6 (a) (1))