



REQUIRED POOL & SPA INSPECTIONS

- **Underground Electrical Inspections** – This inspection occurs after the underground electrical conduits have been installed. All work shall be left completely exposed until after the inspection has been approved.
- **Underground Plumbing Inspection** – This inspection occurs after gas and/or water lines are installed and prior to backfill. When gas lines are installed, they shall be tested with air. Piping up to 1 ¼ inch, the test shall hold 10 psi for 15 minutes with a 30 lb. test gauge. For gas piping 1 ½ inch and larger, the test gauge must be with a mercury gauge (manometer) and shall hold a 6-inch column of mercury.
- **Pre-Gunite Inspection** – This inspection occurs after the pool has been excavated and all reinforcement steel has been installed. Setbacks are checked at this time. Also, forming shells of light niches fixtures with extended raceway shall be installed and shall be bonded to the reinforcement steel at this inspection. All bond tails to be installed, including bonds to forming shells. A preliminary check of overhead wire clearances is made at this time.
- **Potting/Pre-Plaster/Fence/Latch/Alarm Inspection** – This inspection occurs after the pool is gunited. Light fixtures shall be placed on top of the pool deck coving. A Number 8 copper insulated ground wire is required at all light fixtures and shall terminate at the inside of the forming shell. The ground terminal on the light fixture shell shall be coated with a UL listed potting compound. The potting compound package shall be left next to the light fixture so the inspector can verify that the compound used is an appropriate type. Fence enclosures must be installed per city requirements see current Benicia Municipal Code.
- **Pre-Deck Inspection** – This inspection occurs after the deck reinforcing steel has been installed and prior to concrete placement of the pool deck. The pool deck steel reinforcement must be tied together with the tie wires at all rebar intersections and ties shall be wrapped tightly. Reinforcing steel or metal wire mesh shall be bonded to bond coil originating from the forming shell. The code required that all metal within 5 feet of the water's edge be bonded together unless separated by a permanent barrier. Examples: pool equipment motors, metallic pool equipment (such as, filter housing), steel reinforcement (rebar), deck steel (rebar), forming shells (housing light fixtures), diving boards, slides, ladders, pool cover motors and metallic fences. Bonding clamps must be installed per their listing. Bonding clamps for direct burial or concrete encasement shall be brass, copper or copper alloy.

- **Final Inspection** – This inspection occurs after all other required inspections have been signed off. The pool must be full of water and the following items completed.
 - a. Pool re-fill piping (if installed) must have appropriate back flow device CPC 2019 section 603.4.5.
 - b. Glazing in windows and doors within 5 feet of the edge of the pool must be safety glazing. Chapter 24 glass and glazing hazardous locations CBC 2019.
 - c. At least one electrical receptacle shall be installed outdoors between 10 and 20 feet of the pool's edge. This receptacle shall be protected with a Ground Fault Circuit Interrupter (GFCI). No electrical outlets are allowed less than 10 feet from the pool.
 - d. GFCI protection of required lights, receptacles and hot tubs
 - e. Junction box clearances – minimum 8 inches above water; minimum 4 inches above the deck; minimum of 4 feet from the water's edge.
 - f. Pool equipment to be bonded.
 - g. Main electric panel checked for size adequacy. Load calculations may be required if the main electrical panel is **100 amps or less** and there is a spa and A/C unit.
 - h. Overhead wire clearances – Per the NEC.
 - i. Pool and spa heating systems meet California Energy Requirements. The following five items are mandatory per the Energy Code:
 - 1. At least 36 inches of pipe between filter and heater for future solar heating.
 - 2. Cover for heated outdoor pools and outdoor spas.
 - 3. Heating system is certified with 78% thermal efficiency; has on/off switch; and weatherproof operating instructions. (Electric resistance heating and gas pilot lights are not allowed.)
 - 4. Directional inlets that adequately mix the pool water.
 - 5. Circulation pump must have a time switch.
 - 6. Pool piping system, a. The suction side pipe is straight for at least 4 pipe diameters before entering the pump. b. All elbows are sweep elbows, or an elbow type that has a pressure drop that is less than the pressure drop of a straight pipe with a length of 30 pipe diameter.
 - 7. Pool filters and valves, if a backwash valve is used: the diameter of the backwash valve is at least 2 inches, or the diameter of the return pipe, whichever is greater.

****For public swimming pools, contact the Solano County Environmental Management Department Environmental Health for additional requirements.**