



## Swimming Pool and Spa Plan Submittals

The swimming pool/spa plan submittal shall include three (3) site plans drawn to scale. The site plan shall include:

- All structures located on the property
- Proposed pool/spa location
- Equipment size and location (including sub-panels, filters, heaters, etc.)
- Pool fencing location, fencing type and height and how you will comply with drowning prevention safety measures (shown below).
- All distances to the pool/spa and the equipment shall be indicated from: property lines, existing/proposed structures.
- Indicate size, location, and type of material for the gas line (if applicable)
- Floor plan of the existing home showing any windows or doors with glazing within 5 ft. of the pool/spa.
  - Any pool equipment must be a least 4 feet from any operable window, door or air inlet into the building.
- Additional construction such as slides, raised rock coping, grottos, BBQ's, walls etc. shall be clearly shown.
- Pool construction plans shall be highlighted for soil conditions and applicable construction details.
- Pool equipment schedule including manufacturer's specifications and listing information. (size and type of heater, filter, pumps, etc.).
- Show location of P-Trap for indirect discharge of backwash.
- Show location of pool fill valve with anti-siphon device.



### Standard Notes and General Information

1. A temporary construction fence and gate shall be in place upon commencing pool construction if the yard fence/wall will be open during construction.
2. Show the method of providing equipotential bonding grid, pool water, pool structure, deck, etc.
3. Location of the electrical service pole and overhead conductor clearance. Overhead conductor shall meet the minimum clearance requirements per Table 680.9(A) of the Electrical Code.
4. Prior to steel inspection, a soils memo shall be given to the inspector stating "Pool excavation is suitable for the support of the structure and the design assumptions are considered adequate".
5. A statement shall be shown on plans requiring a special inspector registered with the City of Downey for concrete placement to be present during all concrete and gunite placement for pools and spas. The special inspector shall submit all required reports to the City inspector. [Statement of Special Inspections](#)
6. Identify a minimum 3 feet separation between all drains and note that the system is hydraulically balanced.
7. Spa shall have 1 drain shown on the bottom and 1 drain on the side where 3 feet separation requirements on the bottom cannot be met.
8. All swimming pools, spas, and hot tubs shall have at least two circulation drains per pump that shall be hydraulically balanced and symmetrically plumbed through one or more "T" fittings that are separated by a distance of at least 3 feet in any dimension between the drains.

### Future Unlimited



9. Suction inlets that are less than 12 inches across shall be covered with an anti-entrapment grate that cannot be removed. All swimming pools, spas and hot tubs will need to have anti-entrapment covers installed over any suction inlet/drain whenever new pools are installed or to existing pools that are modified.
10. All pools and spas shall contain a separate skimmer or approved perimeter overflow to comply with California Building Code requirements. Discharge piping shall be connected directly to the pumped circulation piping flowing through pool/spa filtration system.
  1. California Building Code Section 3109, California Plumbing Code Section 813.0 Pipes carrying wastewater from pool/spa drainage and backwash from filters shall be installed as an indirect waste. Such drainage shall connect to the sanitary sewer system by means of an approved engineered system, or by an air gap to an approved 3" p-trap, or equivalent device with flood level rim at least 6" above ground.
11. Notice encroachment permit is required curb cuts, curb coring for area drains, etc., as well as the storage of material in the public right of way.
  - Show the method of providing equipotential bonding grid, pool water, pool structure, deck, etc.
  - Pool shell and perimeter surfaces shall be bonded to the pool reinforcing steel or copper conductor grid at a minimum of 4 points uniformly spaced around the perimeter of the pool. [CEC 680.26 (B) (1-7)]
  - Bonding of the perimeter surfaces shall be accomplished with a minimum #8 AWG bare solid copper conductor and be attached with an approved clamp. [CEC 250.8.]
  - All fixed metal parts within 5 feet of the inside wall of the pool and less than 12 feet vertically above the maximum water level must be bonded to the equipotential grid. [CEC 680.26(B)(7)]
    - Examples: Metal-sheathed cables and raceways, metal piping, metal awnings, metal fencing, metal post bases for adjacent patios, metal doors or window frames.
  - Metal Fittings: All metal fittings within or attached to the pool structure shall be bonded. Isolated parts that are not over 4 inches in any dimension and do not penetrate into the pool structure more than 1 inch shall not require bonding. [CEC 680.26 (B)(5)]
  - Electrical equipment associated with pool water circulation shall be bonded: CEC 680.26(B)(6). Such as Pump Motors, Metal parts of pool cover equipment & Electric Motors.
  - If a double insulated Water Pump Motor is provided, a solid #8 AWG copper conductor still needs to be provided for a replacement motor in the future. [CEC 680.26(B)(6)(a)]
  - Pool and/or spa lights shall be on-site, connected, wired and ready for installation at the time of the pre-plaster inspection.

## Drowning Prevention Safety Measures

As of January 1, 2018, new and remodeled swimming pool/spa shall be equipped with at least 2 of 7 specified drowning prevention safety features to reduce the serious risk of drowning

1. An enclosure that meets the requirements of Section 115923 and isolates the swimming pool or spa from the private single-family home. An "Enclosure" means a fence, wall, or another barrier that isolates a swimming pool from access to the home. Compliance with this section includes, but is not limited to, the following:
  - Any access gates through the enclosure must open away from the swimming pool, and must be self-closing with a self-latching device placed no lower than 60 inches above the ground.
  - The enclosure must be a minimum height of 60 inches, measured from the side of the enclosure that faces away from the swimming pool/spa.

### Future Unlimited



- Access gates shall open away from the pool and have a self-closing, self-latching device located no lower than 60 inches above the ground; barrier shall have no openings within 18 inches of the release mechanism.
  - The maximum vertical clearance from the ground to the bottom of the enclosure shall be no more than 2 inches to rough grade and no more than 4 inches to hardscape.
  - Any gaps or voids in the enclosure shall not allow passage of a sphere equal to or greater than 4 inches.
  - The outside surface shall be free of protrusions, cavities, or other physical characteristics that would serve as handholds or footholds that could enable a child below the age of five years to climb over the enclosure.
  - The enclosure shall isolate the swimming pool or spa from the private single-family home. [Health and Safety Code 511922 (a)(1)]
2. A removable mesh fencing that meets American Society for Testing and Materials (ASTM) Specifications F2286 standards in conjunction with a gate that is self-closing and self-latching and can accommodate a key lockable device. Must comply with the fence and gate requirements shown elsewhere in this code.
  3. An approved safety pool cover, as defined in subdivision (d) of Section 115921. This is an ASTM F1346-91 compliant automatic or manual pool cover.
  4. Exit alarms on the private single-family home's doors that provide direct access to the swimming pool or spa. The exit alarm may cause either an alarm noise or a verbal warning, such as a repeating notification that "the door to the pool is open." Exit alarms are also required on ANY door or window that permits access from the residence to the pool area without an enclosure between the pool and the home. The exit alarm must make a continuous audible sound when the door or window is open and or ajar.
    - Alarms shall be permanently affixed.
    - Provide the product specifications and UL listing for any proposed door alarm system on site for inspector's review at pre-plaster inspection.
  5. A self-closing, self-latching device with a release mechanism placed no lower than 54 inches above the floor on the private single-family home's doors providing direct access to the swimming pool or spa; required on ANY door opening in to the pool area.
  6. An alarm that, when placed in a swimming pool or spa, will sound upon detection of accidental or unauthorized entrance into the water. The alarm shall meet and be independently certified to the ASTM Standard F2208 "Standard Safety Specification for Residential Pool Alarms," which includes surface motion, pressure, sonar, laser, and infrared type alarms. A swimming protection alarm feature designed for individual use, including an alarm attached to a child that sounds when the child exceeds a certain distance or becomes submerged in water, is not a qualifying drowning prevention safety feature.
    - If a portion of the house or garage is used as part of the barrier or fence, that portion shall have alarms on all the doors giving direct access to the pool area.
  7. Other means of protection, if the degree of protection afforded is equal to or greater than that afforded by any of the features set forth above and has been independently verified by an approved testing laboratory as meeting standards for those features established by the ASTM or the American Society of Mechanical Engineers (ASME).

---

## Future Unlimited

---





## Energy Information

- Any pool or spa heating system or equipment may be installed only if the manufacturer has certified that the system or equipment has all of the following:
  1. Efficiency. A thermal efficiency that complies with the Appliance Efficiency Regulations; and
  2. On-off switch. A readily accessible on-off switch, mounted on the outside of the heater that allows shutting off the heater without adjusting the thermostat setting; and
  3. Instructions. A permanent, easily readable, and weatherproof plate or card that gives instruction for the energy efficient operation of the pool or spa heater and for the proper care of pool or spa water when a cover is used; and
  4. Electric resistance heating. No electric resistance heating; and
    - EXCEPTION 1 to Section 110.4(a)4: Listed package units with fully insulated enclosures, and with tight-fitting covers that are insulated to at least R-6.
    - EXCEPTION 2 to Section 110.4(a)4: Pools or spas deriving at least 60 percent of the annual heating energy from site solar energy or recovered energy.
- Any pool or spa system or equipment shall be installed with all of the following:
  1. Piping. At least 36 inches of pipe shall be installed between the filter and the heater or dedicated suction and return lines, or built-in or built-up connections shall be installed to allow for the future addition of solar heating equipment; and
  2. Directional inlets and time switches for pools. If the system or equipment is for a pool:
    - a. The pool shall have directional inlets that adequately mix the pool water; and
    - b. A time switch or similar control mechanism shall be installed as part of a pool water circulation control system that will allow all pumps to be set or programmed to run only during the off-peak electric demand period and for the minimum time necessary to maintain the water in the condition required by applicable public health standards.
  3. Solar covers. A cover for outdoor pools or outdoor spas that have a heat pump or gas heater.
    - Solar covers shall be on-site for final inspections.

---

### Future Unlimited

---