SECTION 6.5.5 – FIELD INSPECTION GUIDE
SWIMMING POOL / SPA

1.0 DEFINITIONS

1.1 Swimming Pool: Any structure for swimming or recreational bathing that contains water over 18 inches (457 mm) deep. Swimming pool includes in-ground and above-ground structures and includes, but is not limited to, hot tubs, spas, portable spas and non-portable wading pools.

1.2 Spa: A product intended for the immersion of persons in temperature-controlled water circulated in a closed system, and not intended to be drained and filled with each use.

1.3 Barrier: A fence, wall, building wall or combination thereof that completely surrounds the swimming pool and prevents access to the swimming pool except at designated areas.

1.4 Setback: (Side Yard, Rear Yard) Is the required distance that a building/structure, or other designated item must be located from the property line.

2.0 APPLICATIONS

2.1 These inspection standards and/or requirements pertain to private, single family residential pools only.

3.0 STANDARDS AND CODES

3.1 ISPSC – 2015 Edition
3.2 California Building Code-2016 Edition
3.3 California Electrical Code-2016 Edition
3.4 California Mechanical Code-2016 Edition
3.5 California Plumbing Code-2016 Edition
3.6 Hanford Municipal Code
3.7 State of California Health and Safety Code, Section 115920-115928

4.0 INSPECTIONS

The approved plans, stamped by the City of Hanford, must be on the jobsite for all inspections.

4.1 STEEL / BOND / DRAIN INSPECTION

4.1.1 Steel placement as per structural drawings signed by a Registered Engineer in the State of California. Verify size and spacing of steel, including special conditions, to accommodate surcharge loading, for added features such as rocks, waterfalls, etc. Minimum clearance to soil shall not be less than 2''.

4.1.2 Equipotential Bonding Grid shall be constructed as per (2016 CEC 680.26) and shall bond the following items per (2016 CEC 680.26 (B)), such as:

4.1.2.1 All metallic parts of the pool structure including reinforcing Steel

4.1.2.2 Diving board frame or embed
4.1.2.3 Slide frame or embed
4.1.2.4 Any metal handrails at the pool
4.1.2.5 Any metal within 5'-0" horizontally from the pool wall or within 12'-0" above maximum water level
4.1.2.6 Any forming shell and mounting brackets of a no-niche fixture
4.1.2.7 All metal fittings within or attached to the pool structure which are over 4" in any dimension and do not penetrate into the pool structure more than 1".
4.1.2.8 Metal parts of electrical equipment associated with the pool water system, including pump motors
4.1.2.9 Metal parts associated with pool covers

4.1.3 Drain test of minimum 25 psi (2015 International Swimming Pool and Spa Code, 311.9)

4.1.4 Must provide at least two pool drains, hydraulically balanced, and a minimum of 36" apart (H & S Code 115928)

4.1.5 Verify proper width of "Point A" of the dive envelope if a dive board, platform, or rock are specified.

4.2 PRE-DECK INSPECTION

4.2.1 Equipment Location

4.2.1.1 Minimum of 5'-0" from property line at side yard, except in the rear 15 ft. set back, it may be at property line if adjacent to other rear yards (HMC 17.10.130)

4.2.1.2 Minimum of 5'-0" from edge of pool. If less than 5'-0", must be separated with a solid barrier or fence (2016 CEC 680.12 and 2016 CEC 680.24 (B) (2) (b)).

4.2.1.3 Heaters: Heaters shall be located or protected so as to minimize contact with hot surfaces. Clearances shall be maintained as to not interfere with combustion air, draft hoods, or vent or relief terminations. Installation shall be per the manufactures instructions and the listing. (2016 CMC 928.0)

4.2.2 Pool Location

4.2.2.1 Minimum of 5'-0" from property line to inside wall of pool (HMC 17.10.130 (C))

4.2.3 System Water Piping

4.2.3.1 Minimum test pressure of 25 psi (2015 International Swimming Pool and Spa Code 311.9)

4.2.3.2 Minimum 12" burial depth except if under pool deck it may be reduced to 6"

4.2.4 Gas Piping

4.2.4.1 Minimum 18" burial dept for plastic (PE pipe) with steel risers to above grade

4.2.4.2 Minimum 12" burial depth if steel pipe (galvanized or black) with proper protection or wrap

4.2.4.3 Minimum 10 psi test for 15 minutes. If welded pipe, minimum test of 60 psi for 30 minutes

4.2.4.4 If plastic (PE pipe) is used, a minimum of 30" horizontal to be steel pipe before vertical riser. Riser to extend a minimum of 6" above grade, with protection. A shorter horizontal dimension may be allowed if an approved one-piece 90 degree transition fitting is used. A tracer wire must be installed with all plastic piping.

4.2.5 Electrical

4.2.5.1 Conduit (2016 CEC, Article 300.5, 680.10, & 680.20)

4.2.5.1.1 Use schedule 40 or 80 PVC, rigid metal, or intermediate metal conduit suitable for direct burial

4.2.5.1.2 Burial depths shall be: 18" min. for PVC, and 6" min. for rigid metal or intermediate metal conduit suitable for direct burial. These dimensions may be reduced to 4" if under the pool deck.

4.2.5.1.3 Above grade use rigid metal, intermediate metal conduit or schedule 80 PVC. (If PVC is used, any material with less than 18" cover and above grade must be schedule 80)

4.2.5.2 Wiring

4.2.5.2.1 No wiring is allowed within 5'-0" of the pool sides, except pool wiring. If space limitation does not allow this separation, wiring must be installed in conduit and buried as noted above.

4.2.5.2.2 No Romex wiring allowed

4.2.5.2.3 No non-GFCI circuits are allowed in the conduit on the load side of the GFCI circuit

4.2.5.3 Receptacles (2016 CEC 680.22)

4.2.5.3.1 Receptacles that provide power for water-pump motors, or other equipment for the circulation and sanitation system shall be located at least 10' from the inside wall of the pool, or not less than 5' from the inside walls of the pool if they (1) consist of a single receptacle, (2) employ a locking configuration, (3) are of the grounding type, and (4) have GFCI protection.

4.2.5.3.2 Where a permanently installed pool is installed, no fewer than one 125-volt, 15- or 20-ampere receptacle on a general purpose branch circuit shall be located not less than 1.83 m (6 ft.) from,

and not more than 6 m (20 ft.) from, the inside wall of the pool. The receptacle shall be located not more than 2.0 m (6 ft. 6 in.) above the floor, platform, or grade level serving the pool.

4.2.5.3.3 All 125V receptacles located within 20'-0" of the inside wall of the pool shall be GFCI protected

4.2.5.3.4 Pool lights shall be on a GFCI circuit or low voltage (2016 CEC 680.23)

4.2.5.4 Height Clearances Above Pool (2016 CEC 680.8)

4.2.5.4.1 Insulated service wires rated 0-750 Volts shall be located a minimum of 22'6" in any direction above water level, edge of water surface, base of diving platform, or permanently anchored raft and 14'6'' above diving platforms.

4.2.5.4.2 All other service wires rated 0-15 kV shall be located 25' above water level and 17' respectively. All other service wires rated 15-50 kV shall be located 27' above water level and 18' respectively.

4.3 PRE-PLASTER INSPECTION

4.3.1 Barriers

4.3.1.1 Shall be installed at all single family residences

4.3.1.2 Barriers shall consist of at least one of the following safety features:

4.3.1.2.1 The pool shall be isolated from access to the home by an enclosure meeting the following:

4.3.1.2.1.1 Any gated access through the enclosure must open away from the swimming pool, be self-closing with a self-latching devise placed no lower than 60" above the ground.

4.3.1.2.1.2 A minimum height of 60"

4.3.1.2.1.3 A maximum vertical clearance from ground to the bottom of the enclosure of 2"

4.3.1.2.1.4 Gaps or voids, if any, do not allow the passage of a sphere equal to or greater than 4"diameter

4.3.1.2.1.5 An outside surface 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

4.3.1.2.1.6 If chain link fence is used the openings shall not allow the passage of a sphere greater than 1.75''

4.3.1.2.2 The pool must be equipped with an approved safety cover meeting ASTM standard F1346

4.3.1.2.3 The residence shall be equipped with exit alarms on those doors providing direct access to the pool

4.3.1.2.3.1 Alarms shall be secured to the wall or frames with screws

4.3.1.2.3.2 Alarms shall not have an on/off switch. They may have a momentary delay button

4.3.1.2.3.3 The alarm shall sound a continuous tone which is different from the house alarm system whenever any door is open or left ajar

4.3.1.2.4 Swimming pool alarms that, when placed in the pool, will sound upon detection of accidental or unauthorized entrance into the water. The pool alarms shall meet and be independently certifies to ASTM standard F2208, "Standards for Pool Alarms".

4.3.1.2.5 Removable mesh pool fencing that meets ASTM standard F2286 in conjunction with a gate that is self-closing and self-latching and can accommodate a key lockable device.

4.3.1.2.6 Other means of protection, if the degree of protection afforded is equal to or greater than afforded by any of the devices set forth above, as determined by the Building Official or the jurisdiction issuing the permit

4.3.1.3 Other than Pedestrian Gates

4.2.1.3.1 Shall be equipped with lockable hardware or padlock and remain locked at all times when not in use

4.3.1.4 Glazing in walls or fences, when used as a barrier, must be safety glass when <u>both</u> of the following conditions are present:

4.3.1.4.1 The bottom edge of the glazing is less than 60" above the pool deck <u>and</u> the glazing is within 60" of the pool or spa water's edge (2016 CBC, Section 2406.4.5)

4.3.2 Dive Envelope

4.3.2.1 Verify that the dive envelope requirements are met for all diving apparatus, including dive rocks as per the Residential

In ground Swimming Pool Standard, (2015 ISPSC, Section 804)

4.3.3 Verify that the anti-siphon devices are installed on hose bibs

4.3.4 Verify entry / exits in shallow and deep ends of the pool

4.3.5 All stair risers, at the centerline, shall have a maximum uniform height of 12''. All treads shall have a minimum unobstructed horizontal depth of 10'' and a minimum unobstructed surface area of 240 square inches

4.3.6 Inspect retaining walls if applicable as per approved project plans and specifications

4.4 FINAL INSPECTION

4.4.1 The pool shall be filled with water and any diving equipment must be installed and operational

4.4.2 Time clock is grounded

4.4.3 All equipment is grounded

4.4.4 Light niche wiring is sealed

4.4.5 All wiring is completed and secured

4.4.6 Equipment piping, above ground, painted to match equipment

4.4.7 Test GFCI protection for all pool lights

4.4.8 Diving equipment shall be permanently labeled and affixed to the diving equipment or jump boards and shall include, but not be limited to the following:

4.4.8.1 Manufactures Name and Address

4.4.8.2 Date of Manufacture

4.4.8.3 Minimum water envelope required for each diving board and diving stand combination

4.4.8.4 Maximum weight limitation of the user as specified by the board manufacturer

(END OF SECTION 6.5.5)