

City of Escondido (COE) Pool Guidelines and Requirements

This handout is a reference for owners, contractors, and designers. It establishes plan submittal guidelines, fencing and drowning prevention requirements, and inspection sequence and requirements.

Authority: California Code of Regulations Title 24, AB 2977, EMC Sec. 33-1109, International Swimming Pool and Spa Code, and The Swimming Pool Safety Act.

Definitions:

Approved Safety Pool Cover: pool cover that meets all of the performance standards of the American Society for Testing and Materials (ASTM), in compliance with Standard F1346.

Enclosure: permanent fence, wall, or other barrier that prevents access to a swimming pool or spa

Exit Alarm: Audible and continuous alarm that sounds when any door that permits access from the residence to the pool area. May be battery operated or connected to the electrical wiring. Must be capable of providing 85dB at a distance of 10 feet. Placed no lower than 54 inches above the floor. Shall not be equipped with on/ off switch.

Swimming Pool: structure intended for swimming or recreational bathing that contains water over 18 inches deep, including in-ground, above-ground, and on-ground swimming pools and fixed-in-place wading pools. Note: Spas and hot tubs must comply with these requirements except for self-contained hot tubs or spas equipped with a locking safety cover that is listed to comply with ASTM F 1346.

Plan Guidelines

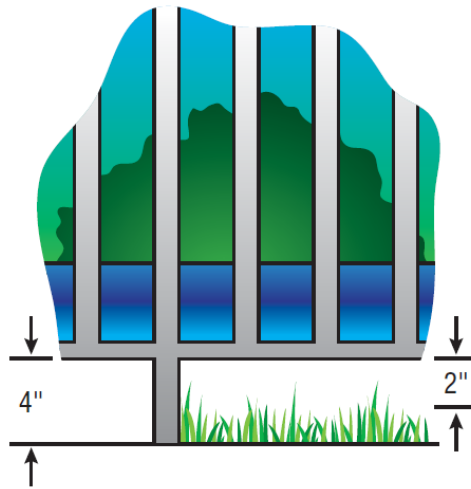
- Three sets of plans and a PDF of the site plan showing all existing structures, public utilities, easements, and proposed work with setbacks.
- If you are encroaching in an easement, apply for your encroachment permit through our online portal at <https://cwols.escondido.org/Portal/>
- Provide a statement on the Title Sheet stating that this project shall comply with the current edition of the California Building Codes: 2019 CBC, 2019 CRC, 2019 CEC, 2019 CPC, 2019 CPC, 2019 CGC, 2019 Energy Code
- Provide the property Owner's name and address
- Provide the Contractors Name, Contractors State License number, and the Contractors contact information.
- Provide a site plan showing all existing structures and proposed work with setbacks.
- Provide the structural plans and structural details for wall sections and reference them on site plan.
- Clearly indicate on the plans the pool's water edge shall be set 5 feet minimum from property line
- Pool equipment shall be set 5 feet minimum from property line

- Pool equipment shall be enclosed by a natural barrier, wall, fence, or other structure having a minimum 5-foot height.
- Swimming pool shall not cover more than 50 percent of the lot area.
- Provide note on plans that the fencing shall comply with the Pool Safety Act and EMC Sec. 33-1109.
- Permanent fencing at the property line shall serve as the approved enclosure and comply with the swimming pool safety act.
 - o Exception – Properties greater than 1 acre may apply for a variance. The request for variance will be reviewed by the Planning and Building Department. If the variance is granted, the permanent fencing and approved barrier may be constructed around the pool.
- Indicate on the plans the required additional two drowning prevention features that will be provided per the Swimming Pool Safety Act and the EMC Sec. 33-1109. The two methods in addition to the enclosure must be listed on plan.
- Identify location of gas meter and electrical service panel
- Identify BTU of equipment and any other gas appliance or features. Please provide the equipment Manufacturer’s specifications. Make note on plan - 78 Thermal Efficiency of Heater and 36-inch pipe between filter and heater for future solar
- Identify location of new gas line, length, material, size, and burial depth.
- Identify Location of a GFCI receptacle between 6 and 20 feet of the water’s edge.
- For Jacuzzis and Spas, make note on plans that a disconnect shall be readily accessible, within sight, and within 5 foot of the waters edge.
- Make note on plans that all exterior receptacles must be GFCI with In-use covers.
- Make note on plans that any glazing less than 5 feet from the bottom edge of the glazing to the ground and less than 5 feet from the water’s edge shall be safety glazing
- Make note on the plans that any metallic structures or surfaces 5 feet or less from the water’s edge shall be bonded
- Any overhead electrical must be show on the plans with vertical separation from the water surface.
- All sheets of plans must be signed by the person responsible for their preparation

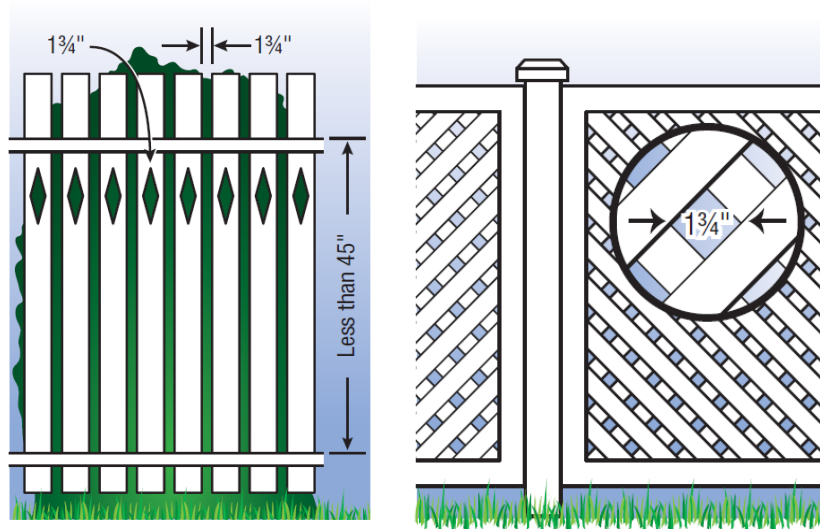
Fencing and Drowning Prevention Requirements

The COE requires a permanent enclosure, permanent fence, wall, or other barrier that prevents access to a swimming pool or spa and (2) Drowning Prevention Features

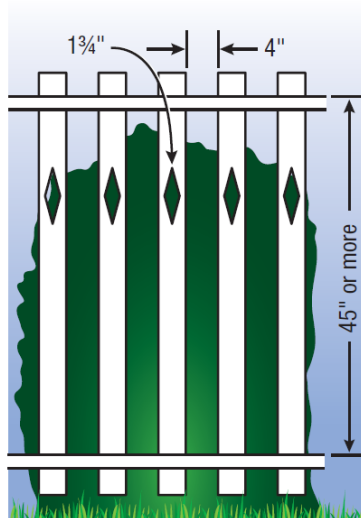
1. Permanent enclosure at the property line, to include the self-closing, self-latching device.
 - Enclosures shall be a minimum height of 60 inches measured on the side of the enclosure that faces away from the swimming pool with no opening greater than 4 inches.
 - Enclosure shall not be scalable or climbable
 - Maximum vertical clearance from the ground to the bottom of the enclosure shall be 2 inches. The maximum vertical clearance at the bottom of the enclosure may be increased to 4 inches when the grade is a solid surface such as a concrete deck or when the enclosure is mounted on the top of the above-ground pool structure.



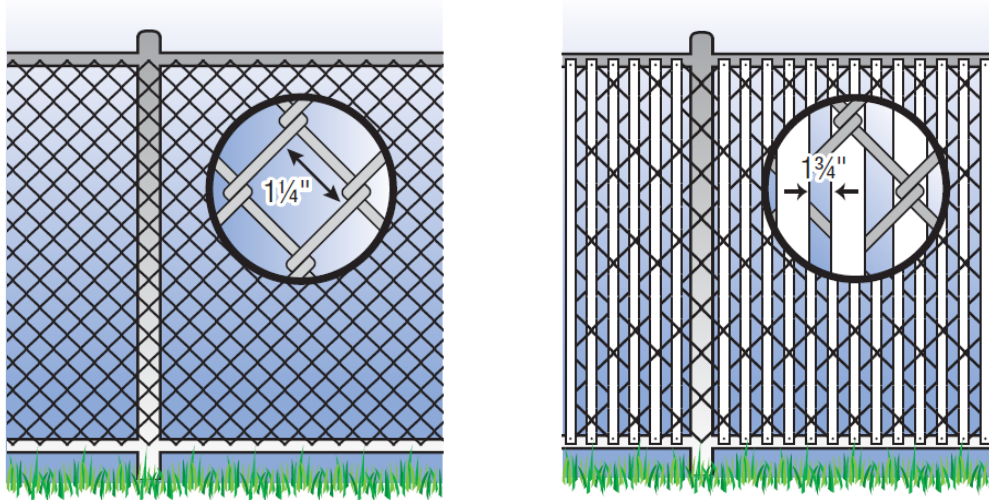
- Enclosures shall have an outside surface free of protrusions, cavities or other physical characteristics that would serve as handholds or footholds that could enable a child below the age of five years to climb over.
- Gaps or voids, if any, shall not allow passage of a sphere equal to or greater than 1-3/4 inches in diameter.



- Fencing composed of vertical and horizontal members, the spacing between vertical members may be increased up to four inches when the distance between the tops of horizontal members is 45 inches or more.



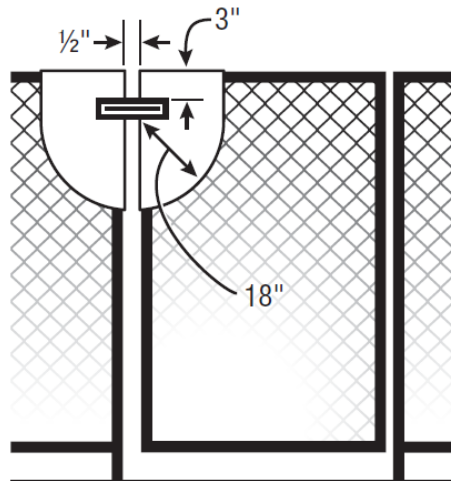
- Chain link fences used to separate the swimming pool from neighboring properties shall not be less than 11 gauge and the mesh size shall not be larger than 2-1/4-inch unless the fence is provided with slats fastened at the top and bottom that reduce the opening to not more than 1-3/4-inch in its largest dimension.



- Gates shall open away from the swimming pool.



- Gates shall be self-closing with a self-latching device located a minimum of 54 inches from the bottom of the gate.
- Where the release mechanism of the self-latching device is located less than 54 inches from the bottom of the gate, the release mechanism shall be located on the pool side of the enclosure at least 3 inches below the top of the gate and the gate and enclosure shall have no opening greater than 1/2 inch within 18 inches of the release mechanism.



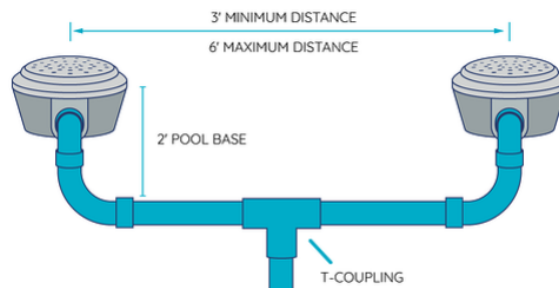
- Vehicle access gates shall be equipped with lockable hardware or padlocks and shall remain locked at all times when not in use.
2. One Drowning Prevention Feature from the following:
 - Removable mesh fencing that meets ASTM F2286 with a self-closing and self-latching lockable device
 - Safety pool cover, manual or power-operated, that meets ASTM F1346
 - Exit Alarms, listed UL 2017, on all doors that provide direct access to the swimming pool.
 - Pool alarm that will sound upon detection of accidental or unauthorized entrance in to the water that meets ASTM F2208.
 3. Second Non-redundant Drowning Prevention Feature from the following:
 - Removable mesh fencing that meets ASTM F2286 with a self-closing and self-latching lockable device
 - Safety pool cover, manual or power-operated, that meets ASTM F1346
 - Exit Alarms, listed UL 2017, on all doors that provide direct access to the swimming pool.
 - Pool alarm that will sound upon detection of accidental or unauthorized entrance in to the water that meets ASTM F2208.

Pool Inspection Sequence and Requirements

- Pre-Gunite:
 - Setbacks
 - Pool and equipment must be located per plan.
 - Swim pool/spa steel
 - Pool steel must be installed per Engineered plan
 - 3-inch clearance from steel to soil.
 - SWIM POOL/SPA BONDING
 - Grounding clamps must be listed for direct burial



- #8 AWG Copper required at 4 corners for future equipotential bonding grid around pool
- #8 AWG Copper required from pool steel to Equipment
- Water bond
 - Must consist of at least nine square inches of conductive material
 - Shall be in contact with the water 24/7, whether the circulation system is running or not
 - Connector (lug) must be unable to “back off” at any time
 - Bonded metal wet niche complies
- HYDROSTATIC VALVE
 - Required when the water table is high, as required by the Engineer of Record or the Building Department
- UNDERGROUND PLUMBING
 - Plumbing must be under a static working pressure: 35 PSI for minimum of 15 minutes
 - PVC requires purple primer for verification and glue for solvent weld
 - No leaks
 - Anti-entrapment requires a minimum of two 2 inlets separated 3 feet apart with anti-entrapment covers



- UNDERGROUND GAS
 - Metallic piping may be black or galvanized, but must be protected with factory applied coating
 - Metallic piping must be buried minimum of 12 inches
 - Plastic Pipe/ PE may not be used aboveground. Transition from PE to metallic must with approved transition fitting a minimum of 30 inches horizontal.
 - Plastic pipe/ PE must be buried 12 inches below grade if not subject to damage and ran with a #18 AWG tracer wire
- GAS LINES
 - Gas line size per plan and IAW with Chapter 12 of the CPC
- Pre- Final:
 - GAS TEST
 - 10 pounds for 15 minutes
 - UNDERGROUND ELECTRIC
 - Minimum burial depth 18 inches
 - Schedule 40 PVC underground and schedule 80 PVC or metallic above ground
 - Verify size of conduit – Size of conduit is not on plans
 - ROUGH ELECTRICAL
 - Inspect subpanel and verify isolated ground
 - Conductors sized based on OCPD
 - Verify lugs are tight
 - Verify required receptacle 6-20 feet from pool
 - No receptacles within 6 feet of pool
 - Any receptacle within 20 feet of pool must be GFCI protected
 - Pool junction boxes must be located 4 feet from pool and 8 inches above the ground level
 - Pool lights must be GFCI protected
 - Existing light fixtures closer than 5 feet, must be 5 feet above ground level and GFCI protected
 - ROUGH MECHANICAL AND PLUMBING
 - All mechanical shall be secure to a concrete base above grade
 - Manufacturers installation instructions must be on site and available at time of inspection
 - Heater vent must terminate 4 feet from any window or air inlet
 - Exposed plumbing must be painted
 - Anti-entrapment cover shall cover all outlets
 - No pilot light
 - 78 Thermal Efficiency of Heater.
 - 36 inch pipe between filter and heater for future solar
 - Equipotential Grid
 - Verify 4 corners are tied together with one continuous #8 AWG Copper around the perimeter of the pool or #4 rebar around the perimeter of the pool.
 - Ground clamps must be listed for Direct Burial
 - Bonding grid must extend 3 feet horizontally from the inside of the pool
 - All metal parts within 5 feet of the inside of the pool shall be bonded with a #8 AWG.
- Final
 - POOL SHALL BE FILLED WITH WATER
 - POOL BARRIERS
 - Verify enclosure, permanent fence, wall, or other barrier that prevents access to a swimming pool or spa and (2) Drowning prevention safety features
 - Other
 - Glazing within 5 feet of the pool must be rated as safety glazing/ tempered

Pool Demo Inspection Sequence and Requirements

- Pool Demo Inspections:
 - Demo and Bottom Inspection
 - Swimming pools shall be drained to the sanitary sewer clean out. Swimming pools shall not be drained to street, gutter or storm drain.
 - If the shell of the pool is to remain, a minimum of four holes (each a minimum 1' in diameter) shall be drilled into the bottom of the pool floor or septic tank (one of the holes shall be at the deepest point).
 - The pool shell shall be filled (The stockpiling of the demolition or fill materials in the City right-of-way is prohibited)
 - Option 1: with crushed rock material (3/4" minimum size to 1-1/2" maximum size) for a minimum of 12" deep at the bottom and then clean fill, or other approved material, can be added on top to match adjacent grade level. Soil Special Inspection Required. 90% compaction required. Special Inspector must be registered with the City.
 - Option 2: crushed rock material (3/4" minimum size to 1-1/2" maximum size) must be on site at the time of bottom inspection for hole verification. No special inspection required.
 - When pool coping is removed, it shall be removed to a minimum depth of 18 inches below the finished grade. (Removal of the coping is not a requirement.)
 - All gas, water, and sewer lines to the pool shall be securely capped off with an approved fitting.
 - All electrical pool equipment, including the breaker in the electrical panel, shall be removed.
 - Removal of all above ground pool plumbing including pumps and heaters is required.
 - Final
 - If utilizing option 1 for backfill, special inspection report is required at final inspection. 90% compaction is required.
 - Site shall be clean of all debris and material
 - Site shall be graded away from building and conform to side drainage.