Building Division	**POOL, SPAS AND FOUNTAINS** County of San Benito (CSB) Building Inspection 2301 Technology Ave. Inspection Request: (831) 637-1041	Revision Date: 1/19/2023 General Requirements/Checklist for: **Residential**
	Online Submittals Link: https://aca-prod.accela.com/SANBENITO/Default.aspx	Codes Enforced: 2022 CRC, CBC, CMC, CEC, CPC Health and Safety Code sec. 115920 San Benito Municipal Code (SBMC)
The information provided in this document is general and intended as a guide only. Each project is unique and additional requirements may be enforced as deemed appropriate.		

WARNING

- Failure to complete items below prior to inspection may result in a re-inspection fee.

IMPORTANT

- Owner/Contractor shall locate underground utilities before digging. Call Underground Service Alert (USA) land line only at 800-227-2600

Anti-Entrapment requirements

- **Existing pools shall comply with the health and safety code for meeting the anti-entrapment requirements (115922)**

Public Pools

- All public pools require separate permits and inspections by County of San Benito Department of Environmental Health" all permitted work shall be signed off prior to CSB final inspection. Department of Environmental Health (831)636-4035
- Web-site: http://hhsa.cosb.us/divisions/environmental-health/

Required CSB Inspections

1. Pre-gunite
2. Pre-Deck
3. Pre-plaster: Fence, Alarm
4. Final: Whole house gas test, Anti-entrapment certificate

☑ PRE GUNITE

☐ Diving boards-if installed, the pool shape and water envelope shall comply with ANSI/NSPI-5
☐ Verify accessible sewer clean out at pool equipment, within 10', for backwashing filters and draining of pools/spas (CPC 813.0)

Clearance to conductors

☐ Underground wiring: 5' horizontally from the inside wall of the pool. (CEC 680.10)
☐ Overhead: 22'-6" from water level, 14'-6" from diving board/platform *CEC table 680.8 (a)*

☐ Overhead communications: 10' above diving board/platform. *CEC 680.8 (b)*

Bonding

☐ Bonding clamps shall be listed/marked for direct burial and burial in concrete.

☐ Equipotential Bonding at Pool Deck/Perimeter Surfaces**:** The equipotential bonding of the perimeter surface shall extend for (3 ft) horizontally beyond the inside walls of the pool and shall include unpaved surfaces as well as poured concrete and other types of paving and shall be attached to the pool deck structural reinforcing steel rods bonded together by the usual steel tie wires at a minimum of four (4) points uniformly spaced around the perimeter of the pool with a min. 8 AWG copper conductor. *CEC 680.26 (B) 2.*

☐ For pools with unpaved decks, at least one (1) min. #8 AWG bare solid copper conductor shall be provided which follows the contour of the pool and located between 18" to 24" from the inside edge of the pool, secured within or under perimeter surface four (4) to six (6) inches below the subgrade and attached at four (4) points equally spaced. CEC 680.26 (B) 2 (b) 1-5

☐ For pools with non-conductive pool shells (i.e. fiberglass, vinyl lined, or encapsulated rebar), a copper conductor grid shall be provided, consisting of min. #8 AWG bare solid copper conductors bonded to one another at each point of crossing, arranged in a 12" X 12" grid, and secured within or under the pool no more than six (6) inches from the outer contour of the pool shell. CEC 680.26 (B) 1 (B) 1-4

☐ An intentional bond of min. nine (9) square inches shall be installed in contact with the pool water and connected to the equipotential bond. CEC 680.26 (C)

☐ Pool light (wet niche) (CEC 680.23 b.)

☐ Pool shell rebar (CEC 680.26 b.)

☐ Pool cover motor (CEC 680.26 b. (4))

☐ Pigtail for pool deck rebar/wire mesh (CEC 680.26 c.)

☐ Pool mechanical equipment (CEC 680.26) b (4)

☐ No-niche (unless listed non-metallic) (CEC 680.26 b (2)

☐ Bonding clamps shall be listed/marked for direct burial and for rebar. *CEC 250.8*

Main Drain

☐ Verify correct pump size and plaster ring being installed.

☐ Verify anti-entrapment cover to be installed. *CBC 3109.5, ab2977*

Rebar

☐ Verify size and spacing based on pool depth per plans.

☐ Verify clearances to earth (CBC 1907.7.1)

Custom pools

☐ Soils report. *CBC 1802.6*

☐ Under pool drain-field per plan. *CBC 3109.5.3*

☐ Hydrostatic relief valve(s)

Underground piping systems

Gas piping

- ☐ No gas piping shall be installed in or on the ground under any building or structure unless installed/sleeved in gastight conduit, and all exposed gas piping shall be kept at least 6" inches above grade or structure. The term "building or structure" shall include structures such as porches and steps, whether covered or uncovered, breezeways, roofed porte-cocheres, roofed patios, carports, pool equipment pad, covered walks, covered driveways, and similar structures or appurtenances. See "Under Structure Gas Pipe" and "Fire Pit/BBQ" guidelines for approved sleeving.
- ☐ Gas test provide a gauge with 1/10 pound increments at house meter location. 3 psi for 10 minutes. Test gauges shall not be greater than twice the pressure applied. (CPC 319.1, .2, .4 CPC 1204.3.2)
- ☐ Verify pipe sizing – natural gas (CPC table 12-7,8) propane (CPC table 12-7)
- ☐ Underground metallic gas pipe that is extended below grade requires a dielectric/ isolation fitting union to be installed at a minimum of 6" above grade CPC 316.2.4 underground non-metallic gas piping shall be installed with #14 AWG yellow tracer wire CPC 1211.1.7 (c)

Electric conduit

- ☐ Burial depth (CEC Table 680.10 & Table 300.5)
- ☐ Junction box shall be a minimum 8" above maximum water line (CEC 680.24(1), (2) (b)).
- ☐ J-box shall be listed for pool/spa lights (CEC 680.24 (a)(1)

Re circulation pool piping

- ☐ Pressure test. *CBC 103.5.3.1*
- ☐ Burial depth-12" min. (CPC 720.0)
- ☐ Minimum schedule 40 PVC
- ☐ Bond wire should follow piping to equipment.
- ☐ Bottom drain suction fittings – split drains shall be required for each pump system and be separated by 3' minimum (health and safety code sec. 115928)

Pool cover vault

- ☐ Provide 3" minimum diameter drainpipe to daylight-per manufacturer

☑ PRE DECK INSPECTION

- ☐ When installing metal deck drains, they shall be suitable for pool installations and have an approved bonding method to attach a #8 solid copper bond wire.

Deck reinforcement – if provided

☐ Verify clearance to earth (CBC 1907.7.1)
☐ Verify bonding to pool shell rebar (CEC 680.26 (b)(1)
☐ Verify rebar spacing and size per plan

Bond all metal parts within 5' of water edge (CEC 680.26 (b)(5)

☐ Include frames/grates, metal diving board, railing, downspouts, etc…

Provide adequate protection of pool piping

☐ For recalculating and electrical piping, at thickened edge, concrete shall not bear on piping systems.

☑ PRE PLASTER AND BARRIOR INSPECTION

- **Prior to plaster or filling: pool barrier, alarms, and pool cover, if applicable shall be installed and fully operable.**

Barrier

Alarm

☐ Where a wall of a house serves as part of the barrier, one of the following shall apply:

1. Doors or windows with direct access to the pool through that wall shall be equipped with an alarm that produces an audible warning when the door and/or its screen, if present, are opened. The alarm shall be listed in accordance with UL 2017. Indoor alarms shall be installed a minimum of 54" above floor and shall be operable.
2. The pool shall be equipped with a power safety cover that complies with ASTM F 1346.
3. An approved self-closing door with self-latching devices, so long if the protection is not less than items 1. or 2. *CBC 3109.4.1.8 (1, 2, 3)*

Barrier height and clearances

☐ Barrier height shall be a minimum 60" high measured from outside of the pool walking surface. *CBC 3109.4.4.3* (Public pools shall be 60" above walking surface) *Health and Safety Code sec. 115923*
☐ Distance from bottom of fence to grade is a max. 2". *CBC 3109.4.1*
☐ Openings in the barrier shall not allow passage of a 4" sphere. *CBC 3109.4.1.1*
☐ If horizontal bars/members are present, they cannot be any closer than 45" to resist climbing, if closer than 45 inches horizontal members shall be located on the pool side of the barrier/fence. *CBC 3109.4.1.3*
☐ Where the horizontal members closer than 45" the vertical members shall not be closer than 1-¾", where more than 45", vertical members shall not be closer than 4".
☐ Maximum mesh size for chain link fences shall be 2.25 inches.

Gate

☐ Pedestrian access gates shall be equipped to accommodate a **locking device** and open outward away from the pool and shall be self-closing and have a self-latching device. Locking device hardware or padlocks shall remain locked at all times when not in use. Gates other than pedestrian access gates shall have a self-latching device.

☐ Latch shall not be less than 54" from the bottom of the gate. Where latch is located less than 54" from bottom of gate, it shall be located on the pool side of the gate at least 3" below top of gate, and the gate and barrier shall have no openings greater than 1/2" within 18" of latch (CBC 3109.4.1.7)

☐ Gate shall swing outward away from pool, be self-closing and self-latching. CBC 3109.4.1

Pool cover

☐ Cover shall be listed per ASTM FI346-91 and labeled
☐ Motor shall be listed/labeled for exterior wet conditions.
☐ Motor for cover to be GFCI protected.
☐ **Verify** bonding of all metal framing and guide rails to pool shell rebar (bonding method should be tin plated solid copper lay-in lug. (i.e. ILSCO, BURNDY or equal)
☐ Provide 3" minimum diameter drainpipe to daylight – per manufacturer.

Underwater lighting

☐ Luminaries shall be listed wet-niche and shall not be less than 18" below the normal water level (CEC 680.23 (a)(5)
☐ Forming shells shall be bonded (CEC 680.23 (b)(1)
☐ When non-metallic conduit is used, provide #8 AWG insulated solid or stranded copper bonding jumper (CEC 680.23 (b)(1)
☐ The termination of the #8 bonding jumper shall be concealed by a listed potting compound (CEC 680.23 (b)(1)(b) contractor should leave an empty container of potting compound in forming shell for inspection.

☑ FINAL INSPECTION

☐ Verify barrier, alarms, and pool cover if applicable are installed and fully operable. *CBC 3109*
☐ Verify atmospheric vacuum breaker is installed at water supply inlet. *CPC 603.4.5 (3)*
☐ Verify gas meter is sized properly for the demand Safety barrier (fence or cover)
☐ Anti-entrapment certificate (provide copy for inspector) See attached form. *Health and Safety Code Sec. 115928*
☐ Verify that anti-entrapment covers (main drain/bottom suction and skimmer equalizer(s) covers) are installed. CBC 3109.5
☐ Whole house gas test**:** Provide a gauge with 1/10 pound increments at house meter location. 15 psi for 10 minutes. Test gauges shall not be greater than twice the pressure applied. (CPC 319.1, .2, .4 CPC 1204.3.2)

Lights and plugs

☐ Wall mounted lights, min.18" below water line unless listed for use at lesser depths (CEC 680.23 (a)(5)
☐ Lights shall be GFCI protected (CEC 680.23 a (3) (turn on lights and trip to check for GFCI) spa can be on a separate circuit
☐ No lights or receptacles closer than 5' from edge of pool (CEC 680.22 b (1))
☐ Lights and receptacles within 20' shall be GFCI. CBC 680.22 a (5)

Additional requirements

☐ At time of final, pool must be full of water

- ☐ At pre-gunite, verify continuous bond wire from pool shell rebar to each motor, heater location and pool controller panel
- ☐ Bond any metal covers and frames greater than 4" in diameter
- ☐ Inspect sub panel/control panel
- ☐ Secure liquid tight flexible nonmetallic conduit (CEC 356.30)
- ☐ Secure and anchor all equipment (i.e. motors, heaters and filters)
- ☐ Use liquid tight flex conduit from panel to motor (for movement)
- ☐ Electrical inspection at panels verify termination and sizing for feeders and equipment ground. Confirm neutral conductors are not bonded to equipment ground. Use only exterior listed bonding clamps.
- ☐ Where more than one branch circuit supplies a separate structure/building, a separate grounding electrode system is required at each structure/building (i.e. ground rod, water service bond) (CEC 250.32 (a))
- ☐ Provide back flow prevention on water make up/ auto fill to pool. *CBC 3127 b.2*
- ☐ Vanishing edge pool systems-verify depth of water in gutter does not exceed 18"

☑ **SPECIAL CONSIDERATIONS** *CEC 680.8*

- ☐ Overhead conductor clearances *CEC 680.8* insulated conductors 0-750 volts.
  - Underground wiring: 5' horizontally from the inside wall of the pool. (CEC 680.10)
  - Overhead: 22'-6" from water level, 14'-6" from diving board/platform *CEC table 680.8 (a)*
  - Overhead communications: 10' above diving board/platform. *CEC 680.8 (b)*
- ☐ Area lighting, receptacles, and equipment CEC 680.22, 680.22
- ☐ Lighting systems 30 (VAC) or less 411.4 (b) not allowed within 10'-0" of pools, spas, fountains or similar locations.
- ☐ Recommend-vanishing edge pools-gutter should have split drains separated by 3' minimum

Anti-Entrapment Codes and Regulations

New Construction & Remodel:

Beginning January 1, 2007 all **permitted new construction and remodels** have been required to install **dual main drains** for each pump and **anti-entrapment covers** per the California Commercial Building Code for both residential and commercial/public swimming pools and spas or install an **unblockable drain** which is defined as a minimum of 12" X 12" (see further notes pertaining to an unblockable drain). Anti-entrapment drain covers had included anti-vortex covers until the 2007 ANSI/ASME standards were published which clearly distinguish a difference between anti-vortex and anti-entrapment covers.

National Pool & Spa Safety Act:

President Bush signed the Virginia Graeme Baker Pool & Spa Safety Act on December 19, 2007. The act requires several layers of protection regarding fencing/enclosures and entrapment. For information regarding the fencing/enclosure requirements please refer to the Swimming Pool & Spa Safety Act.

This legislation requires every drain cover to be manufactured, sold or purchased in the United States beginning on December 19, 2008 to be an anti-entrapment cover tested and certified to ADME A1112.19.8 most current standard or successor…

This means that every drain cover available on the market today is required to be recertified as an anti-entrapment drain cover by December 19, 2008 or it can no longer be manufactured, or installed or sold after that date.

The act requires every commercial/public pool and spa be equipped with anti-entrapment drain covers and every commercial/public swimming pool/spa with a pump which has a single drain also have installed an additional anti-entrapment device by December 19, 2008.

Anti-entrapment devices can be any of the following: Safety Vacuum Release System (SVRS), Suction-Limiting Vent System, Gravity Drainage System, Automatic Pump Shut-Off System or Drain Disablement.

The act defines an unblockable drain as having a minimum dimension of 18" X 23".

The act also provides grant money to states which pass legislation that meets the minimum requirements of the Act and pertains to all swimming pools and spas within the state. This money must be used for the hiring and training of enforcement personnel and the training of swimming pool professionals, contractors/builders, service companies and the public.

Summary:

Effective January 1, 2007 all new construction and remodels (residential and commercial/public) where a building permit is issued will require dual main drains per pump, anti-entrapment covers and additional anti-entrapment devices.

Effective December 19, 2008 all drain covers manufactured, sold or purchased shall be an anti-entrapment cover. All commercial/public pools and spas in existence and in the future will be required to have anti-entrapment drain covers installed and all pumps which have a single drain are required to have an additional anti-entrapment device installed.

NOTICE TO HOMEOWNERS AND CONTRACTORS

Anti-entrapment cover is required to be installed on existing swimming pools, toddler pools, or spas for single-family remodel building or new construction permits effective January 1, 2007

According to the U.S. Consumer Product Safety Commission, there were 13 confirmed deaths between 1990 and 2004 resulting from drowning that were caused by a body or limb being held against the suction outlet by a pool circulation pump. Last year, California Assembly Bill (AB) 2977, amending Health & Safety Code Section 115928, was signed into law to require that whenever a Building Permit is issued for the modification of a single-family home with an existing swimming pool, toddler pool, or spa, the permit shall require that the suction outlet be retrofitted with anti-entrapment cover meeting the current standards of the American Society for Testing and Materials or the American Society of Mechanical Engineers." AB 2977 became effective on January 1, 2007.

The City of San Benito Building Inspection Division is now requiring all single-family remodel Building Permits (excluding re-roof permits and permits for electrical, plumbing and mechanical work not associated with a swimming pool, toddler pool or spa) to comply with AB 2977. Owners, contractors, or permit applicants will need to declare whether there is an existing swimming pool, toddler pool or spa on the property at the time of permit application. **PRIOR TO FINAL OF THE BUILDING PERMIT**, the permittee needs to certify that an anti-entrapment device meeting the standards of the American Society for Testing and Materials or the American Society of Mechanical Engineers is installed at the existing swimming pool, toddler pool, or spa.

Additional information about the enforcement of AB 2977 by the County of San Benito Building Inspection Division may be obtained by calling (831) 637-1041.

POOL AND SPA ANTI-ENTRAPMENT COVER CERTIFICATION FORM

BUILDING PERMIT #: _____

Property address: _____ in the County of San Benito

I am the ☐ Permit Applicant; ☐ Contractor; or ☐ Owner and certify that:

☐ The property does not have a swimming pool, toddler pool or spa

☐ The property has a: ☐ swimming pool; ☐ toddler pool or ☐ spa

Signature: _____ Date: _____

Please print name: _____

PLEASE BE ADVISED: Building Permits cannot be signed-off and finaled until this form is completed, signed and received by the Building Inspection Division.

I hereby certify that an anti-entrapment cover meeting the current standards of the American Society for Testing and Materials or the American Society of Mechanical Engineers is installed at the ☐ swimming pool, ☐ toddler pool, or ☐ spa at:

_____
Property Address

_____ _____
Signature (Owner or Authorized Agent) (Date)

_____ _____
(Please print name) (Phone Number)

_____
Mailing Address

California Health and Safety Code Section 115928 "(d) Whenever a building permit is issued for the remodel or modification of a single family home with an existing swimming pool, toddler pool, or spa, the permit shall require that the suction outlets of the existing swimming pool, toddler pool, or spa be upgraded so as to be equipped with an anti-entrapment suction cover meeting the

current standards of the American Society for Testing and Materials (ASTM) or the American Society of Mechanical Engineers (ASM).