#### **CITY OF ALEXANDRIA PERMIT CENTER**

**OFFICE**: 703.746.4200



### RESIDENTIAL SWIMMING POOL SUBMITTAL REQUIREMENTS

This Building Plan Submission Checklist serves as a guide to assist applicants in the permit application/plan submission process. The applicant **must** include all the following required information for the proposed project's scope of-work:

# **GENERAL REQUIREMENTS**

- Swimming pool building permits are required for any pool as follows:
  - Surface area greater than 150 square feet (sf)
  - Pool Capacity over 5000 gallons (gal)
  - Pool depth of 24" inches (in) or 2 feet (ft) or more
- Design codes used for outdoor pools, spas and hot tubs should comply with the 2018 International Swimming
  Pool and Spa Code (ISPSC), the 2018 Virginia Residential Code (VRC), and the 2017 & 2018 National Electric Code
  (NEC).
- All submitted plans shall include Name, Address, and occupation of the designer.

## **ARCHITECTURAL & STRUCTURAL REQUIREMENTS:**

- Survey of property showing pool location. (ISPSC 105)
- Site or grading plan will be required showing all dimensions and equipment locations. Plan must show all easements, property lines, dimension of pool with setbacks from pool to each property line. Show the distance between pool and all structures to includes fences, decks and any other accessory structure. Show any overhead and/or underground power lines (ISPSC 105).
- Provide geotechnical parameters at the project site. Provide a copy of the Geotechnical Investigation Report and all pertinent information about the soils at the site.
- Provide structural/construction detail and completed sections and specifications for walls and ground slab, surrounding deck, specifying the materials of construction, with dimensions and showing thickness size and spacing of reinforcing bars, compressive strengths of the concrete to be used, design loads, provide assumed bearing capacity of the soil and the design lateral soil pressure and specify requirements for excavation and fill (ISPSC 105.3 VRC405).
- Please provide signed and seal details for the required structural design of the pool shell (ISPSC 105.3)
- Ladder and Step locations (ISPSC 322).
- Diving board for residential pools (drawings required) shall comply with TABLE 804.1 and Figure 804.1 of the 2015 ISPSC.
- Skimmer locations (ISPSC 315.1)
- Return inlet locations (ISPSC 314.4)
- Homeowner's Association or Architectural Review Board Approval Letter (If required). (ISPSC 102.5)

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PROJECT/SITE ADDRESS:
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### **ELECTRICAL REQUIREMENTS**

A Permit is required for the installation of any electrical system for pool and spa installation. All electrical work must comply with the current adopted NEC Code. Electrical work to be done by an electrician who is properly registered or certified in Virginia.

- Location of electrical Service (power source) (ISPSC 105)
- Lighting locations (ISPSC 105)
- Automatic cover specifications (ISPSC 305.1 see POOL BARRIER AND SAFTEY REQUIREMENTS)
- Location of pump and Filter / circulating equipment. (pump must be 10ft away from pool)
- Please provide a detailed plan for the electrical requirement for the pool equipment, bonding of pool/rails/ladders (wire size, conduit size, breaker size, panel location etc...) All metal parts must be grounded. See the currently adopted electrical code. (ISPSC 105.4)

## **PLUMBING REQUIREMENTS**

New, alternations, renovations, or repairs to any pool plumbing system require plumbing permit.

- Provide pool's water system plans and specifications indicating supply and return pipes sizes, design
  maximum flow rate, the water velocities and maximum system flow rates at each branch and in main line
  (ISPSC 310.1 & 311.3)
- Provide equipment schedule for water pumps and water filter, indicating equipment manufacturer, model number, type, capacity, etc. (VCC 109.3 and ISPSC 104.1) (Also, clarify in plans if a pool water heater will be provided and if applicable provide specifications for the heater and gas riser diagram.)
- Clarify how make up water supply is protected against backflow. (ISPSC 318.2)
- Provide Calculations demonstrating that water circulation system is sized to provide a turnover of the pool water not less than once every 12 hours (ISPSC 810.1)
- Provide detail of suction outlet location at bottom of pool and spa and clarify the method used for suction entrapment avoidance. In accordance with APSP 7 5.5 a single unlockable cover shall have the size 3" x 31" or 18" x 23" otherwise parallel dual outlets separated by a minimum of 3ft shall be provided. (ISPC 310.1 ANSI/APSP- 72006 5.5)

### **MECHANICAL REQUIREMENTS:**

- Provide a mechanical ventilation system with minimum capacity of 1 cfm/1sq ft of floor area of pool chemical storage room, as required for spaces used for storage room is required for spaces used for storage of corrosive materials. The system shall operate during the time the space is occupied. (VMS 502.1 VCC T 307.1(2) VSFPC 5401.1)
- Please note that Alexandria Health Regulation Sec. 11-11-38 requires that a filter rooms and chemical storage rooms to be equipped with mechanical cross- ventilation that provides one air change per minute.

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## **POOL BARRIER AND SAFETY REQUIREMENTS**

All outdoor pools, spas and hot tubs must be protected with a barrier (fence) that meets the requirements of the International Swimming Pool and Spa Code, Section 305. The requirements for pool barriers are intended to provide protections against accidental drownings by preventing children from entering the pool area unattended. (ISPSC 305.1-305.4)

Powered safety covers for pools and lockable safety covers for spas and hot tubs can be substituted for barriers if designed to meet ASTM 1346.

### Must have one:

- The swimming pool, spa, or hot tub will be equipped with an approved safety pool cover that complies with ASTEM F1346-91 (Standard Performance Specifications for safety Covers for Swimming Pools, Spas and Hot Tubs)
- The Swimming Pools, spa, or hot tub will be isolated by an enclosure that meets the barrier requirements of 2015 ISPSC 305: The barrier must be located entirely on the same property as the pool.

## \*\*Where a wall of a dwelling serves as a part of the barrier one or both of the following shall apply\*\*

- 1. All doors and windows providing direct access from the home to the swimming pool, spa, or hot tub shall be equipped and maintained with an exit alarm complying with UL 2017. The alarm shall sound immediately after the door is opened and be capable of being heard throughout the house during normal household activities (305.4 2015 ISPSC)
- 2. All doors providing direct access from the home to the swimming pool, spa, or hot tub shall be equipped and maintained with self-closing, self-latching devices with release mechanisms placed no lower than 54" inches above the threshold, which are approved by the Building Official.