BUILDING & SAFETY



SWIMMING POOL GUIDELINE

www.LasVegasNevada.gov/BuildingPermits

Phone: (702) 229-6251

This document is a guideline and does not supersede code, manufacturer installation instructions, or product listings.

FOR PLANS PROVIDED BY A CONTRACTOR: List each contractor's name, license number, and name of person who prepared plans in a prominent location on the front sheet of each set of plans. The electronic signature of each contractor shall accompany this information. In the case of electrical or plumbing work, the signature must be that of the Master or Qualified Employee. The contractor must sign all portions of the plans they designed and assume responsibility. The stamp and signature of the Nevada registered structural engineer is only for that structural portion of the plans unless the structural engineer assumes responsibility and signs for all portions; the engineer must note this on the plans.

FOR PLANS PREPARED BY AN OWNER/BUILDER: List owner's name that prepared plans in a prominent location on each sheet of each set of plans. The electronic signature of the owner/builder should accompany this information.

NOTE: During construction of the pool, a 15 feet section of the block wall may be removed on the same permit. After the pool is completed, the wall must be restored to code compliance.

NOTE: Las Vegas Valley Water District (LVVWD) approved an update the to the LVVWD Service Rules that limits the total combined water surface area of new swimming pools, spas, and water features on single-family residential parcels to a maximum of 600 square feet per property. LVVWD must approve all permits for pools/spas/water features prior to permit issuance.

Note: Plans shall be kept on site in a weatherproof tube or envelope. Post the "Permission to Enter" sign for all inspections. A 2" CLEARANCE BETWEEN COOL DECK AND STUCCO WEEP SCREED MUST BE MAINTAINED Per 2018 (IBC) section 2512.1.2 or (IRC) section 703.7.2.1

POOL REQUIREMENTS:

- 1. Plot plans dimensioned and drawn to a reasonable <u>scale</u> and showing at least the following:
 - A. Property lines, easements, right-of-way of record, and overhead utilities.
 - B. Existing structures, fences, retaining walls, irregular grades (2-1 slope or greater), and other relevant characteristics adjacent to the pool/spa or waterscape area may add a structural surcharge to the pool wall if closer than 5'. A detailed cross section and structural review is required showing at least the following:
 - 1) Grade to property line/structure, adjacent property, pool wall, raised bond beam, spa, waterfall, etc.
 - 2) Design and location of footings for structure, fence/retaining wall, house, etc.
 - C. The proposed pool/spa or waterscape, shape and type, dimensioned and located to show setbacks from the water's edge, side yards and clearances from existing structures adjacent to the pool/spa or waterscape area.
 - D. The proposed mechanical equipment pad dimensioned location in the relation to setbacks and side yards.
 - E. All diving and deck equipment items if included.
 - F. The proposed deck work configuration showing its anticipated drainage.
 - G. Show all deck heights, stairs, platforms, guard and handrails required to comply with IBC/ IRC.
 - H. Show site built slides and grottos with minimum 5' to property line
- 2. Structural working plan showing at least the following:
 - A. The type of construction. Fiberglass pools must have current ES reports to accompany submittal.
 - B. Pool/spa or waterscape dimensions, including the depth, surface area, and adequate cross-sections drawn to scale.
 - C. Computations, stress diagrams, and other data sufficient to show the correctness of the plans, including the reinforcing steel schedule and detail, if applicable.
 - D. Contractor's structural calculations (digitally signed/stamped by a registered engineer) for pool, spas, dam walls, raised bond beams, surcharges (within 5 feet of structures/property lines), waterscape and all other unusual conditions.
 - E. Detailed working drawings of the items in D, shall be stamped and signed by the engineer of record and show:
 - 1) Plan view, Cross sections, both width and length,
 - 2) Reinforcing steel size & steel spacing, Thickness of walls
 - F. The Building Department accepts stamped/digitally signed calculations, working drawings for repetitive use and the originals are kept on file. They can be used by any contractor for repetitive use with written approval from the engineer or a site plan that refers to the repetitive use details stamped from the engineer. The original letter is also kept on file. When submitting plans, wet-stamped calculations/ details will not be required.

- G. For approval of the original calculations:
 - 1) Submit calculations and working drawings for review and approval. This is not for the issuance of permits.
 - 2) After approval, and payment of fees, the responsible party (engineer or contractor) can download the plans

NOTE: structural calculations are used to substantiate the drawings not to replace them; separate detailed drawings are required.

- 3. Mechanical plan showing at least the following:
 - A. The volume, system flow rate in gallons per minute (GPM's) and turn over in hours.
 - B. The type and size of filtration system and the means of waste disposal.
 - C. The type and size of the pool heater, including the method of venting and provisions for combustion air, if applicable.
 - D. A pool-piping schedule listing the types of materials and size of materials used, showing the location of the main outlets, surface skimmers, inlets. and main drain(s) and catch basin drains (Suction Entrapment Avoidance APSP 7)
 - E. The means of adding make-up water and backflow prevention.
 - F. The size, length, material and routing of the gas line from the gas meter to heater, if applicable. A separate permit is required for gas lines that are *not* directly related to the pool/service equipment. Ex: Fireplaces, Fire Pits, Fire Tables, Tiki Torches and BBQ's. The Pool Heater and Fire Features associated with the pool would be included within the scope of the Pool Permit. An Owner/ Builder can extend the gas line only to these appliances without the requirement for a separate permit.
 - G. The size and location of existing electrical service.
- 4. An electrical load calculation will be required if the size of the main electrical service is **less** than 200 AMP **or** two (2) or more pumps are installed.
- 5. Section 314.4 of the 2018 Uniform Plumbing Code requires:
 - A. Excavations shall be completely backfilled as soon *after inspection* as practicable. Take precaution-ensuring compactness of backfill around piping without damage to such piping. Backfill trenches in thin layers to 12 inches (305 mm) above the top of the piping with clean earth, which shall not contain stones, boulders, cinder fill, frozen earth, construction debris, or other materials that will damage or break the piping or cause corrosive action. Mechanical devices such as bulldozers, graders, etc., shall be permitted to then be used to complete backfill grade. Fill shall be properly compacted. Precautions shall be taken to ensure permanent stability for pipe laid in filled or made ground. Underground thermoplastic pipe and fittings shall be installed in accordance with the UPC Chapter 12.
- 6. Soils Information:
 - A. Contractor / Owner may choose to exercise "Option A" or "Option B".
 - 1) Option A: Have the structural designer clearly state in a cover letter to accompany the pool plans or stamp plans that the pool and deck have been designed for worst-case soil conditions (Design utilizes a minimum lateral bearing pressure of 60 psf/ft and an exposure class S2 (Severe Sulphate exposure level). In this instance, no further soils report will be required.
 - 2) Option B: Provide a site-specific soils report for the property. You may obtain an "excavation only" permit without a soils report, but no inspections are performed, and no pool permit will be issued until the site-specific soil report is received.
- 7. When submitting plans for permits:
 - A. Submit the site plan, engineer/city-approved detail working drawings, and engineer's approval letter.
 - B. Submit a copy of the engineer/city-approved calculations. Please note:
 - 1) All submittals must be complete even if others are doing the work.

<u>CONTRACTOR IS INFORMATION</u>: Questions concerning the interpretation of what can and cannot be done by an A-10 license contractor should be directed to the State Contractor's Board at (702) 486-1100.

Per NAC 624.150, commercial and residential pools (sub-classification A-10): "The construction, alteration and repair of commercial and residential pools and spas, used for swimming, therapy or decoration, including appurtenant equipment." We have interpreted this to mean:

A-10 licensed contractor can construct the items below and are included with the pool permit:

- Up to 15 feet of block wall removed and replaced code compliant.
- Block/retaining walls intrinsic to the design of the pool, bond beams, etc., must be done to engineer's design.
- All electrical, gas lines, potable water lines and sewer lines that are **intrinsic** to the construction of the pool/ spa with an appropriate sub classification or license. (A-10, A10-(f), C-1, C-1(d)(g)(h), or C-2, C-2(f)

A-10 licensed contractor cannot construct the items below but are included with the permit. Subcontractors that are properly licensed can call for inspection from the items listed below:

- Gas lines require an A-10(f), C-1 or C-1(d)(g)(h) license; plumbing plans must be signed by that contractor
- Potable water requires a A-10(f),C-1 or C-1(d) license; plumbing plans must be signed by that contractor
- All electrical work requires a C-2, C-2(f) license; electrical plans must be signed by that contractor

A-10 licensed contractor can construct the items below but require a separate permit:

- Block walls around equipment
- Footings that are part of the deck for future patio covers, gazebos, etc.

A-10 licensed contractor cannot construct the items below and require a separate permit:

- Patio covers, gazebos, room additions, built-in-place pool covers, pool house, etc.
- Block walls or retaining walls that have no bearing on the construction of the pool.
- All electrical, gas lines, potable water lines and sewer lines that are **NOT** intrinsic to the construction of the pool. This includes BBQ's, Fireplaces, Fire Pits, Fire Tables, Tiki Torches, etc.

SWIMMING POOL INSPECTIONS:

- 1. 901 Inspection Pool Pre-Gunite
- 2. 903 Inspection Pool Gas Test
- 3. 905 Inspection Pre-Deck
- 4. 908 Inspection Spa Only
- 5. 910 Inspection Pool Pre-Plaster/Final-Excav/Gas Tag
- 6. 950 Inspection Pool Other

Plans reviewed under The 2018 International Swimming Pool and Spa Code (ISPSC), Amendments and all other applicable codes.

TIMER BOXES ARE NOT PERMITTED AS A DISCONNECT FOR	PUBLIC POOLS AND SPAS SHALL COMPLY WITH ALL LOCAL, STATE
MOTORS. NEC 680.13, 110.3B, 430.103	AND FEDERAL ACCESSIBILITY REQUIREMENTS.
THIS PERMIT IS FOR THE POOL ONLY. SEPARATE PERMITS	PROTECTIVE BARRIERS MUST COMPLY WITH SECTION 305 OF THE
ARE REQUIRED FOR FENCES, PATIO COVERS, BARBECUES,	SOUTHERN NEVADA AMENDMENTS TO THE 2018 INTERNATIONAL
POOL BUILDINGS, ETC	SWIMMING POOL AND SPA CODE.
POOL STEPS SHALL HAVE A MAXIMUM UNIFORM RISE OF	ALL POOL PANELS MUST HAVE A MINIMUM #10 WIRE FEEDER
12", A MINIMUM RUN OF 10", AND WALKING SURFACE A	AND 30 AMP BREAKER AND AN INSULATED GROUND WIRE TO
MINIMUM 240 SQ. IN. ISPSC 411.2, 809.5	THE EXISTING PANEL. NEC 225.39(B), 240.4(D)(7)
ALL GAS LINES UNDER SLABS, AND/OR FOUNDATIONS, SHALL BE SLEEVED PER THE 2018 UPC SECTION 1210.1.6	OUTDOOR HEATED POOLS AND SPAS WILL BE PROVIDED WITH A VAPOR RETARDANT COVER OR OTHER MEANS PER SECTION 303.1.3 ISPSC
DECKS SHALL SLOPE AWAY FROM THE POOL PER 306.5 AND TABLE 306.5, DEPENDING ON DECK SURFACES, ISPSC. PUBLIC POOL DECKS MUST ALSO COMPLY WITH SECTION 406 ISPSC	TWO (2) MAIN DRAINS (SUCTION OUTLETS) WITH A MINIMUM THREE(3) FOOT SEPARATION, OR ONE (1) MAIN DRAIN AND ONE (1) SKIMMER OR 1 MAIN DRAIN WITH UNBLOCKED CHANNEL OUTLET REQUIRED TO BE ON THE SAME SUCTION LINE OR ANY APPROVED INSTALLATION AS PROVIDED IN ANSI/APSP/ICC-7 2013.
THE CONTRACTOR OR OWNER RESPONSIBLE TO VERIFY PROPERTY LINES PROXIMITY PRIOR TO EXCAVATION.	PROVIDE MEANS TO DRAIN POOL TO PUBLIC SEWER OR TO THE PREMISES TO AN APPROVED DISPOSAL SYSTEM ON THE PREMISES OR BY METHODS APPROVED BY STATE OR LOCAL AUTHORITY, 320.1 ISPSC AMEND.
SITE DRAINAGE SHALL BE PROVIDED TO DIRECT ALL	APPROVAL OF ANY PLAN DOES NOT ALLOW THE DESIGN
DRAINAGE FROM THE SITE, PERIMETER DECKS AND ROOFS	PROFESSIONAL OR THE CONTRACTOR TO VIOLATE THE
AWAY FROM THE POOL OR SPA AND ADJACENT BUILDINGS	EQUIPMENT CLEARANCE REQUIREMENTS OF THE
AND STRUCTURES, ISPSC 324.3 AMEND.	MANUFACTURER'S INSTALLATION INSTRUCTIONS.
A GEOTECHNICAL INVESTIGATION REPORT IS ALWAYS REQUIRED UNLESS THE STRUCTURAL DESIGN UTILIZES A MINIMUM	

LATERAL BEARING PRESSURE OF 60 PSF/FT AND AN EXPOSURE CLASS S2 (SEVERE SULFATE EXPOSURE LEVEL). THE STRUCTURAL DESIGN SHALL ACCOUNT FOR THE EFFECTS OF ANY SURCHARGE LOADING THAT IS PRESENT. ISPSC AMEND. SECTION 307.2.2

POOL EQUIPMENT SHALL NOT BLOCK THE ONLY ACCESS TO MECHANICAL EQUIPMENT. MAINTAIN A MINIMUM 24" PATH. ELECTRICAL LOAD CALCULATIONS ARE REQUIRED IF THE DESIGN INCLUDES TWO OR MORE PUMPS/MOTORS OR THE MAIN SERVICE PANEL IS LESS THAN 200 AMPS.



