

ICC-ES Evaluation Report



ESR-2014

Effective Date: November 2023

This listing is subject to re-examination in one year.

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A Subsidiary of the International Code Council®

DIVISION: 13 00 00—SPECIAL CONSTRUCTION Section: 13 11 13—Below-Grade Swimming Pools

REPORT HOLDER:

LATHAM POOL PRODUCTS, INC. dba VIKING POOLS, BLUE HAWAIIAN POOLS, TRILOGY POOLS, LIBERTY COMPOSITE POOLS, NARELLAN POOLS, LATHAM GRAND, LATHAM SELECT, AND HYDURA FIBERGLASS www.lathampool.com

EVALUATION SUBJECT:

LATHAM POOL PRODUCTS, INC. FIBERGLASS SWIMMING POOL AND SPA SHELLS

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2024, 2021, 2018, 2015, 2012 & 2009 International Building Code® (IBC)
- 2021, 2018, 2015, 2012 & 2009 International Residential Code® (IRC)
- 2021, 2018 & 2015 International Swimming Pool and Spa Code® (ISPSC)
- 2024, 2012 & 2009 International Plumbing Code® (IPC)
- 2021, 2018, 2015 and 2012 Uniform Swimming Pool, Spa & Hot Tub Code® (USPSHTC)
- 2022, 2019, 2016, 2013 AND 2010 California Residential Code® (CRC)
- 2023, 2020 and 2017 City of Los Angeles Residential Code® (LARC)
- 2013 Abu Dhabi International Building Code (ADIBC)†

[†]The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

Compliance with the following standards:

- ANSI/APSP/ICC 5-2011, Standard for Residential Inground Swimming Pools
- ANSI/APSP/ICC 3-2014, Standard for Permanently Installed Residential Spas and Swim Spas
- IAPMO/ANSI Z124.7-2013(R18), Prefabricated Plastic Spa Shells
- AC274, ICC-ES Acceptance Criteria for In-ground Residential, Fiber-reinforced Plastic Swimming Pools and Permanently Installed Plastic Spas, dated December 2006 (editorially revised July 2017)

2.0 USES

The fiberglass pool and spa shells are for recreational use as swimming pools or spas in residential applications with water circulated through a filter in a closed system. The pools comply with ANSI/APSP/ICC-5 as Type O or Type I pools. The spas comply with ANSI/APSP/ICC-3 and IAPMO/ANSI Z124.7.

3.0 DESCRIPTION

3.1 General:

The fiberglass pool and spa shells consist of one-piece fiberglass construction shop- formed over a mold. The material is minimum ¹/₄-inch-thick (6.4 mm), fiberglass-reinforced plastic (FRP), composed of isophtalic resin, vinylester resin, fiberglass, and ceramic (ceramic in Viking Pools only). The surface finish is a neopentyl glycol gel coat.

The overall dimensions, depths and capacities are shown in Table 1 for pools, Table 2 for spas and Table 3 for models that are permitted to be installed up to 191/2 inches (495 mm) above ground.

Notice: The pool and spa shells are designed to remain full of water at all times. The shell may be damaged if the water level is allowed to drop below the skimmer. When appreciable drawdown is noticed or if it becomes necessary to drain the pool or spa, contact Latham Pool Products Inc., or its dealers for instructions.

3.2 Aboveground Pools and Spas:

Models intended for installation up to 19¹/₂ inches (495 mm) above ground, listed in Table 3, have vertical supports consisting of 1-inch-by-1¹/₂-inch-by-36-inch-long (25 mm by 38 mm by 914 mm), Douglas fir, No. 2 wood members encapsulated in the FRP process at 4¹/₂-foot (13372 mm) intervals.

4.0 INSTALLATION

4.1 General:

The swimming pool and spa shells must be permanently installed in-ground or, in the case of the models shown in Table 3, up to 19¹/₂ inches (495 mm) above ground. All plumbing and electrical installations must comply with the relevant codes in effect at the construction site at the time of construction

Subject to the code official's approval, the pool or spa shells may be installed without a soil investigation by a registered design professional, provided none of the following conditions is encountered at the site:

 The existence of groundwater within the excavation, where the pool or spa floor will contact the soil at the time of installation.

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- The existence of an uncompacted fill in contact with any portion of the pool or spa shell.
- The existence of any expansive-type soils.
- The existence of any soil types with an angle of repose that will not support the walls of the excavation at desired slopes.
- Danger to adjacent structures posed by the proposed pool or spa location.

If any of the above conditions is encountered, excavation must cease immediately. The specified conditions at the site must then be reviewed, and recommendations made, by a registered design professional. The code official must approve the registered design professional's recommendations; subject to the code official's approval, pools and spas may be installed in expansive-type soils in accordance with Section 4.2 before work is resumed.

The pool or spa excavation profile must coincide with the contours of the pool or spa. The over excavation must be approximately 6 to 24 inches (152 to 610 mm) on the sides and ends. The over excavation at the pool bottom must be a minimum of 3 inches (76 mm). The backfill for the pool or spa bottom must consist of a layer of bedding material as outlined in our current installation guides, formed to match the pool or spa profile. The pool or spa shell must sit firmly on the bedding material and levelness of pool or spa to be within industry guidelines. Simultaneous waterfill and backfill operations must then commence. The backfill must be compacted with a tamper. The installer must ensure that the backfill level and water level are approximately the same throughout the filling procedure.

After completion of the backfill, the bond beam and decking must be installed in accordance with the manufacturer's published installation instructions and approved by the code official.

4.2 Expansive soils:

For installation of pools or spas in expansive soils, the following additional installation details must be followed subject to the code official's approval:

- All surfaces adjacent to the pool or spas must be excavated to a depth of 12 inches (305 mm) beneath the pool bottom and 6 inches (152 mm) behind the horizontal pool walls.
- 2. Any soft or loose soils exposed by step 1 must be removed until exposed material is solid. If the soil is still soft and loose, the upper 6 inches (152 mm) of all horizontal excavation surfaces must be scarified and compacted with mechanical equipment. The compacted surfaces and the excavated wall surfaces must be maintained in a moist condition until the first lift of backfill or fill is placed against the surface. The term compaction implies any method necessary to consolidate the native and fill materials to keep the pool or structure from settling.
- The excavated bottom area of the pool or spa must be backfilled with granular import material to approximately 6 inches (152 mm) below the bottom of the pool or spa, wetted and compacted.
- 4. The remaining 6 inches (152 mm) must be backfilled beneath the pool or spa and behind the pool walls with clean sand and compact. The pool or spa must be filled with water as backfilling progresses to a level equivalent to that of the backfill. The backfill must be placed in compacted layers of approximately 6 inches (152 mm) while a uniform height of backfill is maintained around the pool or spa.

5. Positive surface drainage away from the perimeter of the pool and surrounding deck is required and critical to installations in highly expansive soils. Surface area drains and surface drainage swales or subdrains must be placed as needed to prevent ponding or saturation of the soil around the perimeter and vicinity of the pool to prevent excessive shrink-swell or volume changes in the soil.

4.3 Aboveground Pools and Spas:

Models shown in Table 3 may be installed up to 191/2 inches (495 mm) above ground. These pool and spa shells may be placed with or without concrete or wood decking. Unless the elevated external portions of the units are protected from sunlight by soil berms, decking, etc., these portions must be coated with a UV-inhibiting opaque paint that is compatible with the laminate.

5.0 CONDITIONS OF USE

The pool and spa shells described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 The pool and spa shells must be constructed and installed in accordance with this report and the manufacturer's published installation instructions. In the event of conflict, this report governs.
- 5.2 Electrical and plumbing installations must comply with the relevant codes in effect at the construction site at the time of construction.
- 5.3 Clearances of the pools and spas from slopes set forth in IBC Section 1805.3, CRC Section R403.1.7, IRC Section R403.1.7 or UBC Section 1805.3.3 must be observed.
- 5.4 A barrier must be installed in accordance with IBC Section 3109, ISPSC Section 305, IRC Section AG105, or UBC Appendix Chapter 4, as applicable.
- 5.5 Slip resistance is outside the scope of this evaluation report. Reports of slip resistance tests that demonstrate compliance with Section 8.1 of ANSI/APSP/ICC-5 for swimming pools, or Sections 5.4.1, 5.6.3.2 and 5.6.4.4 of ANSI/APSP/ICC-3 for spas, shall be submitted for approval by the code official.
- 5.6 Diving equipment may only be installed on Type I pools and must meet the minimum requirements of, and be installed in accordance with, Section 5.8 of APSP/ANSI-5.
- 5.7 Pools located in flood hazard areas established in accordance with Table R301.2(1) of the IRC must comply with Sections AG101.2 and AG103.3 of the IRC, Section AG101.2 of CRC or Section 304 of the ISPSC.
- 5.8 Suction outlets must be designed and installed in accordance with IBC Section 3109.5, CRC Section AG106, ISPSC Section 310 and IRC Section AG106.1.
- 5.9 The pool and spa shells are under a quality-control program with inspections by ICC-ES.

6.0 IDENTIFICATION

6.1 The pool and spa shells are identified by the following information imprinted on the top step of the pool or spa shell: manufacturer's name (Latham Pool Products, Inc. dba Viking Pools, Blue Hawaiian Pools, Trilogy Pools, Liberty Composite Pools, Narellan Pools,

6.2 A permanent sign, bearing the following statement, must be attached to the pumping equipment:

Notice: The pool and spa shells are designed to remain full of water at all times. The shell may be damaged if the water level is allowed to drop below the skimmer. When appreciable draw-down is noticed or if it became necessary to drain the pool or spa, contact Latham Pool or its dealers for instructions.

6.3 A permanent label must be attached adjacent to the above sign indicating the Latham Pool Products Inc., distributer's name, address, and telephone number. Latham Grand, and Latham Select) and address, pool or spa shell designation, a coded serial number and the evaluation report number (ESR-2014).

6.4 The report holder's contact information is the following:

LATHAM POOL PRODUCTS, INC. dba VIKING POOLS, BLUE HAWAIIAN POOLS, TRILOGY POOLS, LIBERTY COMPOSITE POOLS, NARELLAN POOLS, LATHAM GRAND, LATHAM SELECT, AND HYDURA FIBERGLASS

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TABLE 1—POOLS

SERIES	LENGTH (ft-in)	WIDTH (ft-in)	MAX DEPTH (ft-in)	CAPACITY (gal)	POOL TYPE
AC	39'	16'	6'	16,700	Type O
AL	26'	12'	5'6"	7,000	Type O
AP	38'	16'	5'10"	17,500	Type O
ARU	22'	11'	5'	5,200	Type O
AT	40'	16'	8'	21,000	Type 1
В	25'5"	11'10"	4'6"	8,100	Type O
BAR	38'	16'	7'	18,500	Type O
BFF	25'7"	12'	6'	9,000	Type O
BH38	18'	11'	4'-1"	3,600	Type O
BHBI	34'	15'	6'-6"	13,000	Type O
BHBY	29'-10"	14'-6"	6'-6"	10,000	Type O
BHCC	32'-10"	13'-6"	6'-2"	,	
				11,300	Type O
BHPL	24'	11'	5'-6"	5,000	Type O
BHSY	32'	14'	5'-5"	10,000	Type O
BHVI	28'	12'	6'-10"	8,000	Type O
CA	31'	14'	6'	12,000	Type O
CC	35'	16'	6'6"	14,000	Type O
CCX	35'	16'	6'-6"	11,500	Type O
CD	33'	16'	5'5"	14,000	Type O
CM	23' 11"	12'3"	5'	6,000	Type O
CP	31'	12'	5'	10'500	Type O
CRSBL	30'	14'	6'	11,300	Type O
CRSBM	24'	12'	5'6"	6,700	Type O
CRUD	26'	12'	4'7"	4,400	Type O
CRUJ	35'	16'	6'6"	11,600	Type O
CRUL	30'	14'	6'	8,000	Type O
CRUM	26'	12'	5'	5,300	Type O
CTL	16'	10'	4'	2,450	Type O
EDE03	11' 5"	11' 4"	5' 4"	4,000	Type O
EDE04	14' 9"	11' 4"	5' 4"	5,300	Type O
FDM	30'	14'	6'	12,000	Type O
FF	30'	13'8"	6'	12,000	Type O
FJI	34'	15'	6'	12,000	Type O
FP	25'1"	12'	5'5"	6,000	Type O
FSP	25'	12'	5' 6"	8,700	Type O
		12'	5'8"	7,600	
FR12	26'	14'			Type O
FR14	30'		6'	11,200	Type O
FR16	35'	16'	6'6"	15,250	Type O
FRX	40'	15'10"	7'	15,600	Type O
GRA07	24' 3"	14' 2"	5' 4"	6,900	Type O
GRA11	37' 4"	14' 2"	6' 5"	12,900	Type O
GC	39'7"	15'10"	7'11"	19,600	Type 1
GS	34'8"	15'7"	5'10"	15,000	Type O
HAR01	11' 10"	7'	1'-5"	580	Type O
JV	26'9"	12'	5'5"	6,800	Type O
L	31'6"	14'	7'	13,700	Type O
LCN	30'	14'	5'9"	10,800	Type O
LD	19'9"	9'10"	5'	3,750	Type O
LG	30'	14'	6'	10,000	Type O
LGX	30'	14'	6'	9,000	Type O
LN	36'	16'	7'	18,000	Type O
MR	40'	16'	6'6"	17,000	Type O
NIR05	17'-11"	9'-6"	4'-9"	3,200	Type O
NIR06	20'-11"	9'-6"	4'-9"	4,000	Type O
NIR07	24'-3"	9'-6"	4'-9"	4,800	Type O
OB	40'	16'	5'8"	18,900	Type O
PAN05	17'-11"	8'-3"	4'-9"	3,000	Type O
PAN08	27'-2"	8'-8"	4'-9"	4,800	
	37'	8'-3"	4'-9"		Type O
PAN11				6,600	Type O
PRT	23'	12'	5'5"	6,700	Type O
RN14	30'	14'	6'	7,600	Type O
RP	30'	14'	5'11"	10,000	Type O

TABLE 1—POOLS (Continued)

SERIES	LENGTH (ft-in)	WIDTH (ft-in)	MAX DEPTH (ft-in)	CAPACITY (gal)	POOL TYPE
RS	30'	14'	6'6"	12,500	Type O
RT12	25'	12'	5'5"	5,100	Type O
RT14	30'	14'	6'	8,200	Type O
RT16	40'	15'10"	7'	15,400	Type O
SE14	30'	14'	6' 1"	7,900	Type O
SER06	20' 7"	12' 6"	4' 10"	5,300	Type O
SER07	23' 11"	12' 6"	5' 0"	6,600	Type O
SER08	27' 2"	12' 6"	5' 2"	7,900	Type O
SER09	30' 5"	12' 6"	5' 4"	9,200	Type O
ST	27'7"	14'6"	5'10"	10,000	Type O
SYM05	17'-3"	11'-4"	5'	3,700	Type O
SYM06	20'-7"	11'-4"	5'-2"	5,000	Type O
SYM07	23'-11"	13'-2"	5'-6"	6,100	Type O
SYM08	27'-2"	14'-2"	5'-9"	7,900	Type O
STM09	30' 5"	14' 1"	5' 11"	11,100	Type O
SYM10	33'-9"	14'-1"	6'-2"	11,100	Type O
SYM11	37'	14'-2"	6'-5"	12,200	Type O
SYM12	39'-1"	14'-1"	6'-2"	13,200	Type O
TGEM	32'7"	16'	5'4"	9,000	Type O
TGEN	40'2"	16'	8'6"	17,000	Type 1
THEL	24'	12'	5'4"	7,500	Type O
TND	44'	16'	7'	19,300	Type O
TPIC	24'-1"	12'-2"	5'-4"	5,600	Type O
TSYN	40'-2"	16'	6'-3"	16,000	Type O
V	33'	14'	5'4"	11,700	Type O
VG14	30'	14'	6'	8,880	Type O

For **SI:** 1 inch = 25.4 mm, 1 foot = 305 mm, 1 gallon = 3.785 L.

TABLE 2—SPAS

SERIES	SHAPE	DIAMETER OR WIDTH (ft-in)	DEPTH (ft-in)	CAPACITY (gal)	
BOS	Octagonal	8'4"	8'4" 3'		
BOSSW	Octagonal	8'4"	3'	475	
CS	Octagonal	8' x 12'5"	3'	700	
CSSW	Octagonal	8' x 12'5"	3'	700	
LOS	Dodecagon	7'6"	3'	450	
LOSSW	Dodecagon	7'6"	3'	450	
LRS	Round	7'	3'	420	
LRSSW	Round	7'	3'	420	
M	Round	10'	3'4"	550	
MSW	Round	10'	3'4"	550	
NEP01	Rectangle	8'11" x 7'1"	3'	580	
RG	Freeform	8' x 10'	3'4"	600	
RGSW	Freeform	8' x 10'	3'4"	600	
RY	Rectangle	8' x 10'	3'4"	600	
RYSW	Rectangle	8' x 10'	3'4"	600	
RS	Round	5'8"	3'0"	275	
RSSW	Round	5'8"	3'0"	275	
TMRD	Square	7'-9"	2'-11"	675	

For **SI**: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 gallon = 3.785 L.

TABLE 3—ABOVEGROUND POOLS AND SPAS (191/2 INCHES MAXIMUM ABOVE GRADE)

POOLS				SPAS			
AL	EDE03	NIR07	SYM05	BOS	LOSSW	os	RY
ARU	EDE04	PAN05	SYM06	BOSSW	LRS	OSSW	RYSW
В	FP	PAN08		CS	LRSSW	RG	SSSP
BFF	MFF	PAN11		CSSW	М	RGSW	SSSW
СР	NIR05	RT12		HAR01	MSW	RS	
CTL	NIR06	SP		LOS	NEP01	RSSW	