

ICC-ES Evaluation Report

ESR-1142

Reissued July 1, 2011

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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:****HAWAIIAN FIBERGLASS POOLS, INC.**
17031 MUSKRAT AVENUE
ADELANTO, CALIFORNIA 92301
(760) 246-7665
www.hawaiianfiberglasspools.com**EVALUATION SUBJECT:****FIBERGLASS SWIMMING POOL SHELLS****ADDITIONAL LISTEE:****ALOHA FIBERGLASS POOLS, LLC**
5205 NORTH I-27
PLAINVIEW, TEXAS 79072
(760) 246-7665**1.0 EVALUATION SCOPE****Compliance with the following codes:**

- 2012, 2009 and 2006 *International Building Code*® (IBC)
- 2012, 2009 and 2006 *International Residential Code*® (IRC)
- 1997 *Uniform Building Code*™ (UBC)

Properties evaluated:

- Physical properties
- Durability

2.0 USES

The Hawaiian fiberglass pool shells are permanently installed in-ground and are intended for recreational use as swimming pools in residential applications with water circulated through a filter in a closed system. The pools are classified as Type O in accordance with ANSI/NSPI-5.

3.0 DESCRIPTION

The fiberglass pool shells consist of one-piece fiberglass construction shop-formed over a mold. The materials are mat and woven roving fiberglass, hand laid over a mold and bonded with vinylester and polyester resins. The exposed surface is factory-coated with an isophthalic gel and barrier coat to a minimum 30-mil (0.76 mm) thickness. The completed pool has a minimum cured thickness of $\frac{5}{16}$ inch (7.9 mm).

The overall dimensions, depths and capacities are shown in Table 1.

Notice: The pool shells are designed to remain full of water at all times. The shell may be damaged if the water level is allowed to drop more than 3 inches below the skimmer. When appreciable drawdown is noticed or if it becomes necessary to drain the pool, the manufacturer must be contacted for instructions.

4.0 INSTALLATION

The swimming pool shells must be permanently installed in-ground by trained contractors. 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 shells may be installed without a soil investigation by a registered design professional, provided none of the following conditions is encountered at the site:

1. The existence of groundwater within the excavation, where the pool floor will contact the soil at the time of installation.
2. The existence of uncompacted fill in contact with any portion of the pool shell.
3. The existence of any expansive-type soils.
4. The existence of any soil types with an angle of repose that will not support the walls of the excavation at desired slopes.
5. Danger to adjacent structures posed by the proposed pool location.

If any of the above conditions are 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 report before work is resumed.

Details specifically for installations in expansive, clay, or adobe soils apply only when supported by the registered design professional's recommendations and approved by the code official.

The pool excavation profile consists of removing the existing soil from the proposed area with an over-excavation of approximately 6 to 18 inches (152 to 457 mm) on all sides. The bottom of the excavation must coincide with the profile and contours of the pool floor. The over-excavation of the bottom must allow for a minimum 4-to-6-inch (102 to 152 mm) layer of clean bedding sand that coincides with the contours of the pool bottom. The sand layer at the pool bottom must be compacted using a manual tamper and water. The pool shell is lifted into the excavation and set on the prepared sand bed and must be set level to within $1\frac{1}{2}$ inch (25.4 mm). The pool must be

filled with water simultaneously with the placing of clean sand, beginning at the deepest part of the pool where water will collect first. The clean sand must be carefully placed with water to ensure that there are no voids under the pool floor, and thoroughly compacted up beyond the radius of the wall/floor. Backfilling and compacting sand must be continued upward, maintaining an approximate uniform height around the sides of the pool at all times. The pool must be simultaneously filled with water as the backfilling continues, with the water level not exceeding the level of the sand layer being placed on the outside of the pool shell. After the backfill is complete, a concrete bond beam must be poured under the pool edge, embedding at a minimum of the outside flange of the pool, as detailed in Figures 1 through 4. The concrete must have a minimum compressive strength of 2,500 psi (17.2 MPa) at 28 days.

5.0 CONDITIONS OF USE

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

- 5.1 The pool shells must be constructed and installed in accordance with this report, the applicable code, and the manufacturer’s published installation instructions. In the event of conflict between this report and the manufacturer’s published installation instructions, 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 from slopes set forth in IBC Section 1805.3, 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, IRC Section AG105, or UBC Appendix Chapter 4, as applicable.
- 5.5 The pool shells are designed to remain full of water at all times. The shell may be damaged if the water level is allowed to drop more than 3 inches (76 mm) below the bottom of the skimmer. When appreciable drawdown is noticed or if it becomes necessary to

drain the pool, contact the manufacturer for instructions.

- 5.6 Slip resistance is outside the scope of this evaluation report. Reports of slip resistance tests that demonstrate compliance with Section 8.1 of ANSI/NSPI-5 must be submitted for approval by the code official.
- 5.7 The pools are classified as Type O pools and therefore are not intended for use with diving boards or other diving equipment.
- 5.8 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.
- 5.9 Suction outlets must be designed and installed in accordance with IBC Section 3109.5 and IRC Section AG106.1.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for In-ground, Residential, Fiber-reinforced Plastic Swimming Pools and Permanently Installed Plastic Spas (AC274), dated December 2006.

7.0 IDENTIFICATION

The pool shells are identified by recessed lettering displaying the manufacturer’s abbreviated name (AHFP), model name, serial number, date of manufacture and the evaluation report number (ESR-1142).

A permanent label must be applied to the pool equipment stating the following:

Notice: The pool shells are designed to remain full of water at all times. The pool shell may be damaged if water level is allowed to drop more than 3 inches below the pool skimmer. When appreciable drawdown is noticed or if it becomes necessary to drain the pool, the manufacturer must be contacted for instructions.

A pressure-sensitive label is applied adjacent to the above sign indicating the Hawaiian Fiberglass Pools, Inc., or Aloha Fiberglass Pools, LLC, name, address, and telephone number.

TABLE 1—POOL DIMENSIONS AND CAPACITIES

MODEL	LENGTH (feet)	WIDTH (feet)	MAX. DEPTH (feet)	CAPACITY (gallons)
0714	7.75	14.75	4	3,400
0818A	16	8.4	4.1	3,200
0818M	18	8	4	4,050
0820	20	8.5	5	6,375
0832	32	8.5	6	7000
0836	36	8	4	8,640
1118	18	11	4.5	4,500
1120A	20	11	5	4,700
1120B	20	11	4	6,600
1123	23	11	5.5	5,100
1125	25	11	4	6,100
1127A	27	11	5	9,467
11237R	27	11	5.5	6,000
1141	41	11	4	10,200
1221	21	12	4	7,560
1222	22	12	4	5,200
1224K	24	12	5.5	6,400

(Continued)

TABLE 1—POOL DIMENSIONS AND CAPACITIES (Continued)

MODEL	LENGTH (feet)	WIDTH (feet)	MAX. DEPTH (feet)	CAPACITY (gallons)
1226	26	12	5	9,360
1227A	27	12	5.5	8,100
1227B	27	12	5.5	10,935
1228A	28	12	5	10,710
1228K	28	12	6	7,000
1329	29	13	5.5	12,724
1333	33	13	6	15,283
1428	28	14	6	14,700
1430	30	14	5.5	9,200
1431	31	14	5	13,834
1432A	32	14	6	15,960
1432B	32	14	8	19,320
1432C	32	14	6	10,200
1432D	32	14	8	19,320
1432E	32	14	5.5	10,300
1432F	32	14	5.5	15,120
1432G	32	14	8	19,320
1432H	32	14	5.8	14,280
1528A	28	15	6	10,700
1532	32	15	6	11,400
1533A	33	15	7	13,500
1533B	33	15	5	12,500
1533C	33	15	6	12,600
1534A	33	15	6.5	10,300
1534B	34	15	6	13,500
1534C	34	15	6.5	19,125
1537	37	15	8.5	23,934
1540	40	15	8	25,875
1632A	32	15	6.5	19,200
1632C	32	16	6	18,240
1632K	32	15	5	15,300
1632M	32	16	5	11,100
1634A	34	16	6.5	20,400
1634B	34	16	6.5	20,400
1634C	34	16	7	21,420
1634D	34	16	8	23,460
1634AV	34	16	5.5	12,800
1635	35	16	6	12,900
1638SP	38	16	6	13,500
1638A	38	16	7	23,900
1638B	38	16	7.5	25,080
1640	40	16	8	15,800
1641M	41	16	6.5	14,200
1641R	41	16	6.5	24,600
1642	42	16	8	17,900
1745a	45	17	5.5	25,819
1745B	45	17	9.5	37,294

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

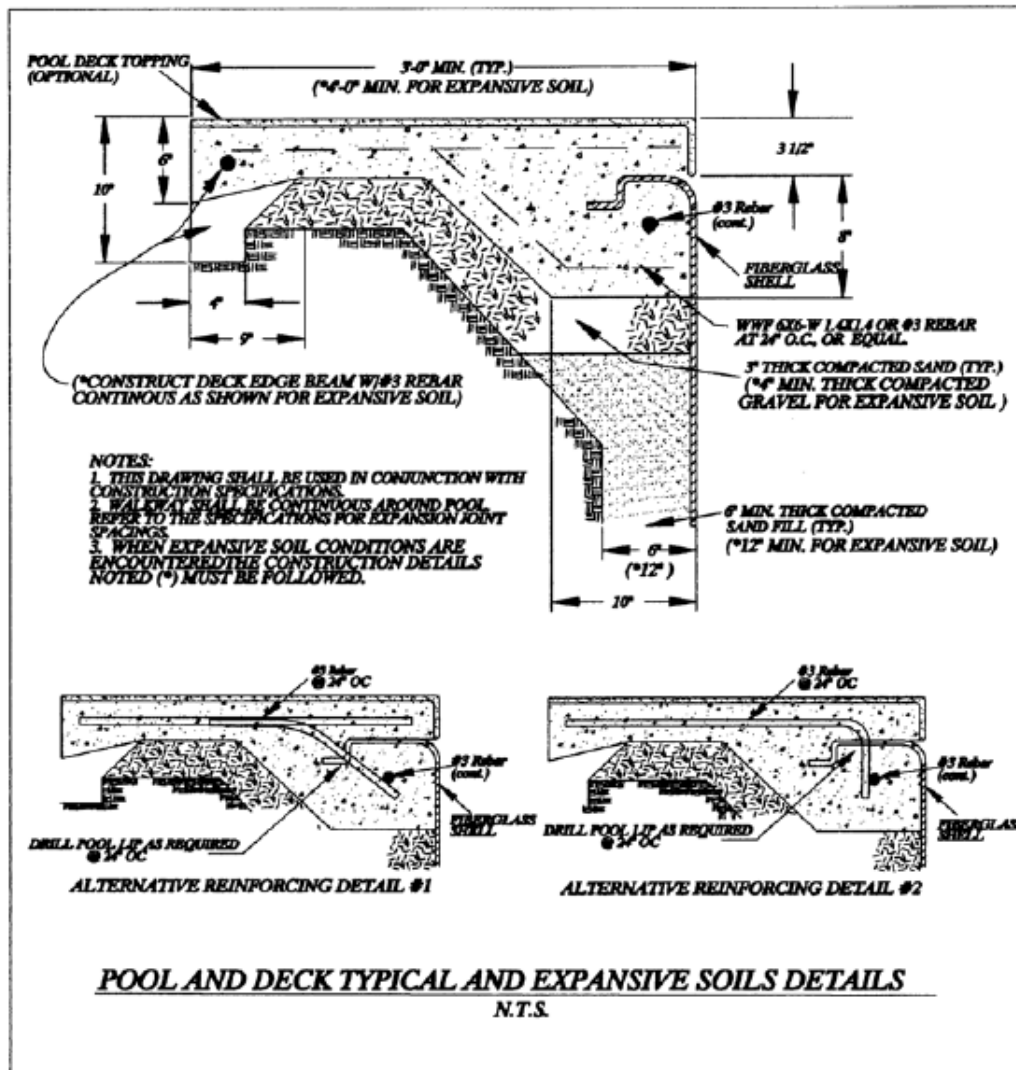


FIGURE 1—CANTILEVERED DECK OPTION

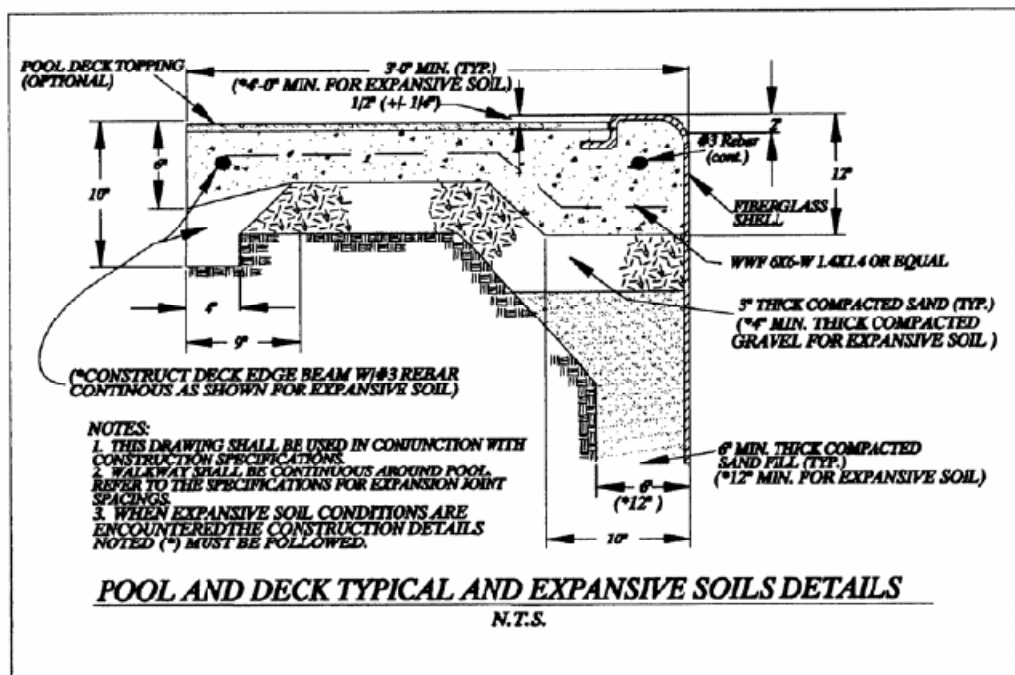


FIGURE 2—EXPOSED LIP DECKING OPTION

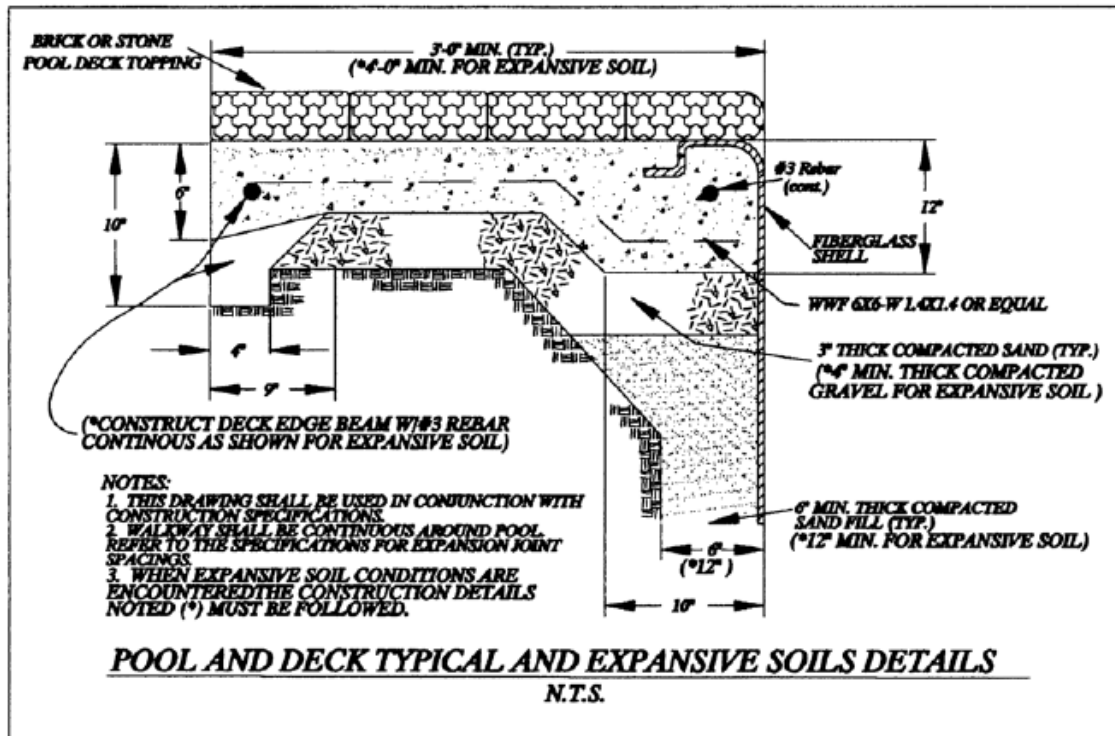


FIGURE 3—BRICK OR STONE DECKING OPTION

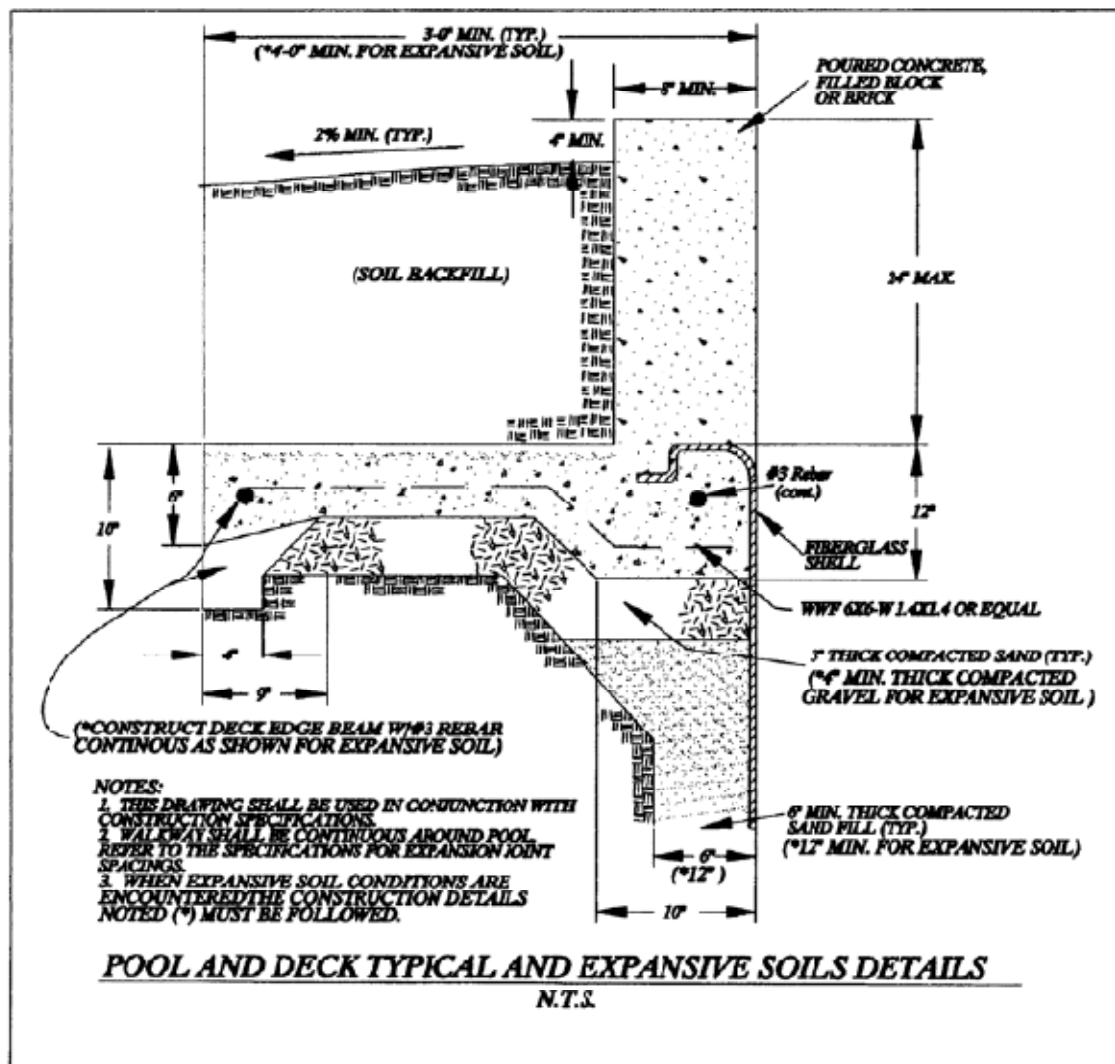


FIGURE 4—RAISED BOND BEAM DECKING OPTION