

Category C Nomination for the Futuro House located at 4388 Deep Grass Lane, Houston, DE 19954

1. The history of the Futuro house:



The house nominated for the National Register is a Futuro house, one of some 52 that still remain out of 98 that were built [1]. The Futuro house was designed by the Finnish architect Matti Suuronen who lived from 1933 to 2013. In 1968 Yrjö Ronkka did the structural engineering, Sven Lindfors did the production engineering and Peter Stude supervised the construction. Hannu Laitinen supervised the project. They were assisted by technicians

Matti Suuronen 1933-2013 äikkanen. The project was funded by the director of Polykem. In March, 1968 the first Futuro prototype from the Polykem plant in Hiekkaharju, Finland was assembled on a ski slope in Turenki, Finland.



The Futuro made its United States debut in 1969. Carl-Johan Olander, who was an engineer for Polykem, signed a licensing agreement with Leonard Fruchter, who owned Casa II corporation which had its headquarters on Rittenhouse Square in Philadelphia. The American factory that manufactured Futuro houses was nearby in New Jersey. The American edition of the Futuro

The first Futuro

Finnish edition that was being built in Europe and New Zealand. In addition to its sixteen elliptical windows about its perimeter, the Finnish design had four smaller elliptical down facing windows. The American edition has only two, which allowed a higher floor so that floor-space could be increased to 500 square feet. The Finnish edition had six couches that extended into beds. The American edition replaced the couches with one large couch and a separate bedroom with a queen-sized bed. The vestibule was made narrower to increase usable floor-space.

Joseph R. Hudson was the dealer for Futuro houses in Delaware.

Several things went wrong with the Futuro enterprise. During the 1970's the rising price of oil made the fiberglass resin from which the shell was constructed too expensive for the Futuro to be profitable to sell. There were other problems that were not economic. Banks would not make mortgages on them and insurance companies would not cover them. They were banned from most municipal limits because they did not fit any contemporary architectural classification.

There was also public hostility against such unconventional structures and some were vandalized. By 1976, manufacturing of Futuro houses came to an end.

2. Description of the Futuro house:

The Futuro house is a shell made of an inner and outer layer of fiberglass in resin with two inches of polyurethane foam insulation sandwiched between the two layers. The shell consists of eight sections with steel framework inside the edges of each section and the sections are bolted together. It is 26 feet in diameter and 13 feet from the top of the shell to the bottom. The assembled shell is an oblate spheroid with its major axes normal to gravity. It is mounted on eight steel legs that converge to four steel feet that are bolted to four concrete footings. It has a retractable set of stairs for entry and exit and the ramp bearing the stairs on some models was operated by an electric winch that raised and lowered the ramp through a system of cables and pulleys. Most Futuros did not keep the ramp retractable.



The United States version of the Futuro which is the Futuro submitted for nomination to the National Register

The Futuro house nominated for the National Register is at 4388 Deep Grass Lane, Houston, DE 19954. It is owned by Dr. Robert Barnes Vincelette Jr. who purchased it early in 1977. He moved in and became its resident on June 7, 1977, making payments to New Dimensions in Lewes DE till 1992, when the deed was transferred to Robert Vincelette and Carol Ann Vincelette shortly after they married (and Carol Vincelette moved in with Robert Vincelette.)

According to the county records that are included in this submission, the Futuro house at 4388 Deep Grass Lane was manufactured by Casa 2 Corporation, with headquarters in Rittenhouse Square, Philadelphia, PA, in its factory on Delilah Road in Pleasantville, NJ in 1974 and delivered to what was Road 384 and what is now 4388 Deep Grass Lane, Houston, DE 19954 where it was assembled in that same year. It was delivered on two Low Boy truck trailers in two half-sections and bolted together on site and mounted on four concrete footings with threaded studs and nuts securing it into place.

Since its construction it has undergone the following modifications:

1978 the fire pod and chimney at the center of the house was removed and replaced with an 18-inch diameter acrylic dome skylight.

1993 The electric cable and winch system, which consisted of steel tubes through which the cable was guided by pulleys, was replaced with a direct 12 Volt boat winch that is used for raising and lowering the door.

1998 A 7-foot movie screen and projector along with two movie theater seats were installed in the house.

2014 The 18-inch acrylic dome and its sheet-metal mount that had been part of the old chimney skylight was replaced with a 34-inch diameter acrylic dome skylight. This was done to solve the problem of rainwater leaking around the smaller dome.

2015 The heating and air-conditioning system, including the ductwork under the floor and the relay switch panel were removed and replaced by a Geothermal climate control system.

2015 A solar panel array of 25 elements was mounted in a field East of the Futuro house and incorporated into the electric system.

References

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Suggested Reading

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Suggested Websites

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