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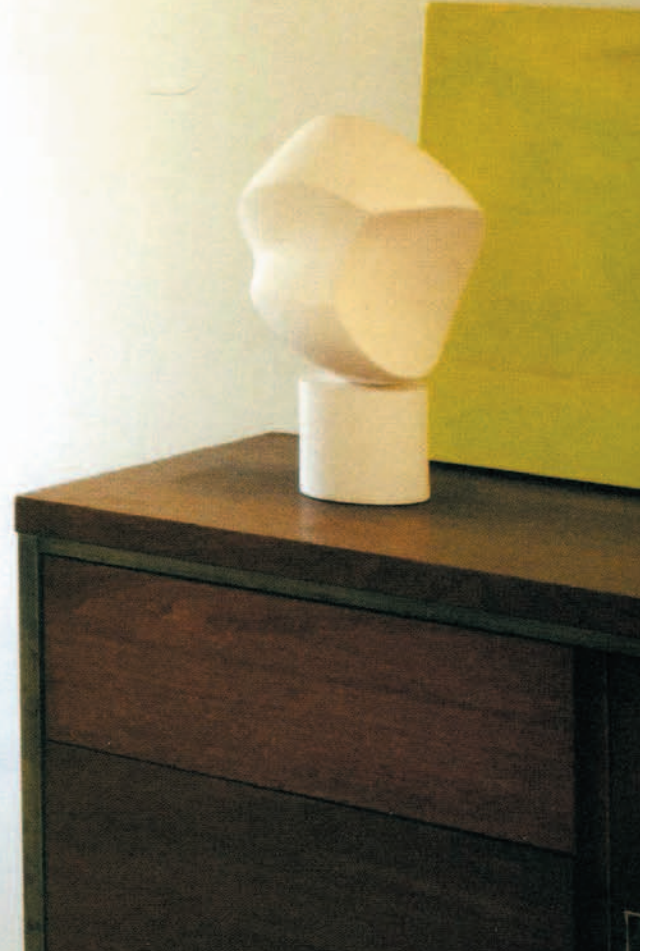
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THE NEW FLORIDA HOME



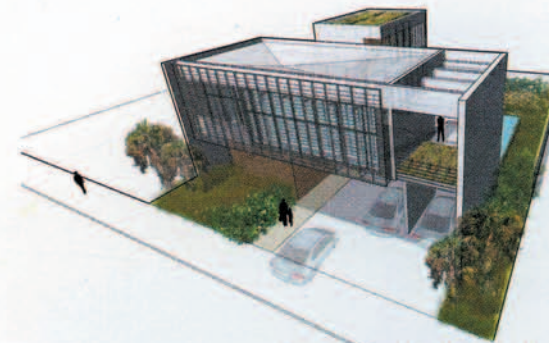
Over the past few months, we have announced **The New Florida Home**, a reinterpretation of the case study house program. It's a new year and we are ready – with new architecture. We inaugurate **The New Florida Home** with a proposal from Deborah Berke & Partners Architects.

The architects were given a very simple challenge: Design a home for a small family that could work on a standard Florida lot (75 feet x 100 feet). We wanted something that makes sense in 21st-century Florida, a building that combines eco-sensitivity with modern convenience all at a scale that keeps costs down, but in a package anyone would envy.

Installments to this series, **The New Florida Home**, will appear on our pages every other month. Look for the next project in our March 2007 issue.

NEW FLORIDA HOME No.1

House and a Half



PRESENTED WITH THE PROBLEM of how to create a new vision for a traditional Florida housing lot, Deborah Berke & Partners Architects carefully considered program, materials and relationship to the environment. The result is a green attitude that doesn't wildly call attention to itself but gets the job done elegantly—a tribute to this office's established record in residential design.

The program for a two-bedroom house for a small family was slightly modified by Berke and her team. The architects felt that while many Florida homes take up small percentages of their respective lots, they liked the idea of filling the lot in more fully by including an additional wing that can accommodate a visitor, renter, home office or health-care worker. This added section or "Half", has its own bathroom and cooking facilities and can be accessed either through the main house (a removable feature) or separately via its own entrance. With the inclusion of the Half house, the total square footage after construction will be over 2600 square feet instead of the original 1800-square-foot concept.

Text Hilary Lewis

ABOVE: Perspective view of the final design, looking at the south façade and carport. Note water collection system on the roof. **BOTTOM:** Proposed house overlaid onto a typical south Florida neighborhood.

DEBORAH BERKE & PARTNERS ARCHITECTS

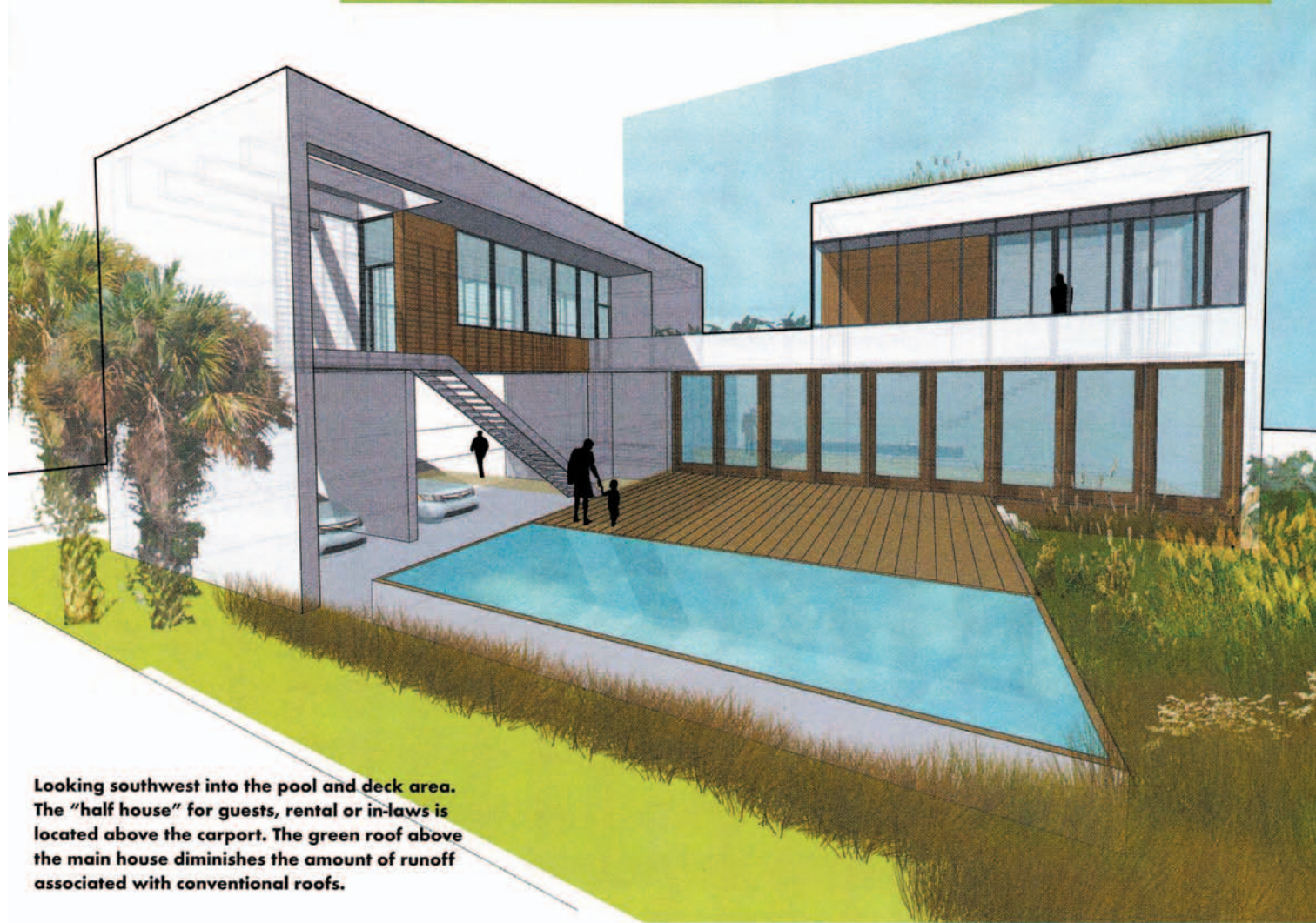


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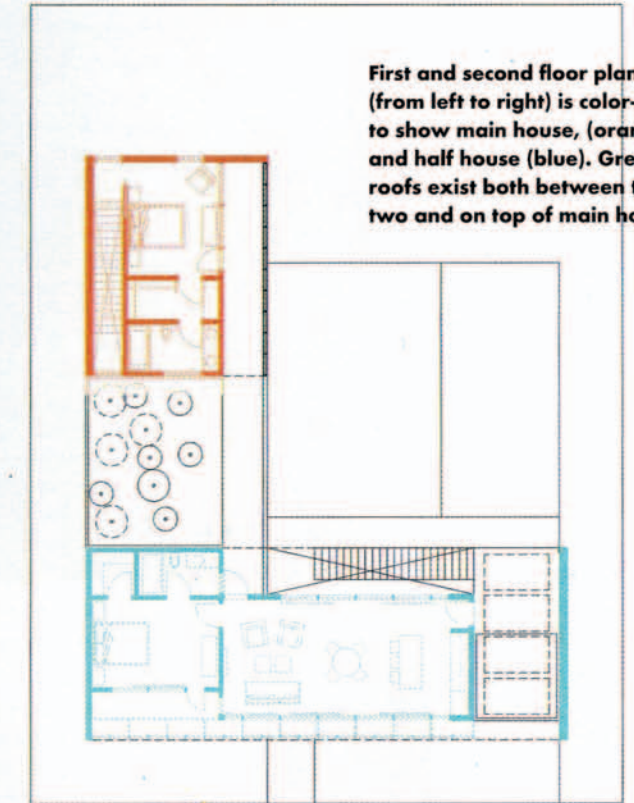
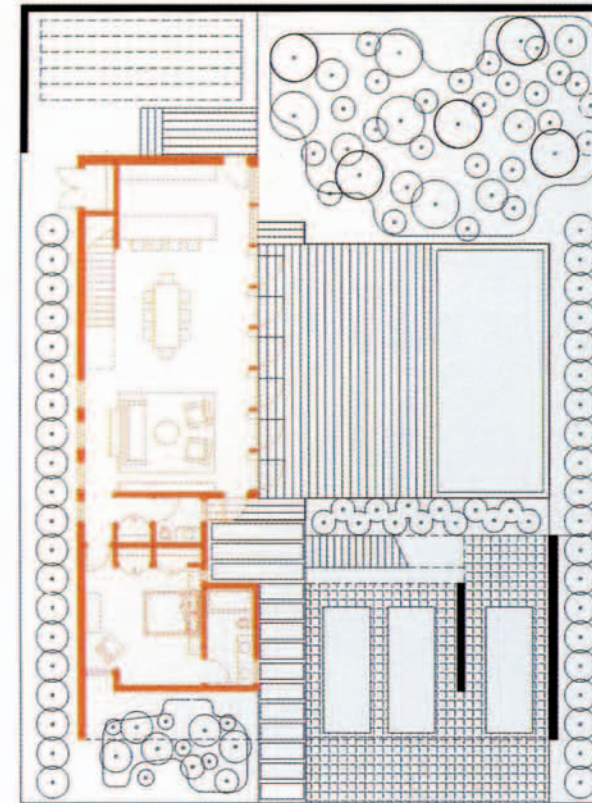
HOME FORT LAUDERDALE

AT A GLANCE: NEW FLORIDA HOME No. 1

ARCHITECT: Deborah Berke & Partners Architects LLP
PROJECT NAME: House and a Half
SQUARE FOOTAGE: 1850 sq. ft. (half unit 800 sq. ft.)
GREEN QUALITIES: Orientation to take advantage of east and north light
 Raised off the ground with ventilated crawl to cool floor slab
 All rooms have windows on opposing walls for cross ventilation
 Masonry contains recycled hurricane-resistant wood waste that doesn't rot (durisolbuild.com)
 Plumbing fittings and fixtures conserve water
 Rain collection cisterns (16,000 gal. capacity) under pool deck for use in pool + irrigation
 Bath waste water (except toilets) to be filtered through bio-retention native plantings
 All pavers are permeable to allow water to seep into the ground
 Green roofs on the house also act as filters and diminish the amount of run-off
 Pool is heated by sun through pipes that are laid on top of half-house
 Pool is cleaned through ionization rather than chlorine (ecosmarte.com/poolspa.html)
BUILDING MATERIALS: Siding: cementitious stucco on 'block' + Forest Stewardship Council certified wood siding
 Windows: thermally broken alum sash with insulated glass in most areas
 Flooring: 1st floor polished concrete with built-in radiant heating
 Flooring: 2nd floor cork flooring with radiant heating
 Millwork: bamboo or another rapidly renewable resource or made by val cucine (valcucine.it)



Looking southwest into the pool and deck area. The "half house" for guests, rental or in-laws is located above the carport. The green roof above the main house diminishes the amount of runoff associated with conventional roofs.



First and second floor plan (from left to right) is color-coded to show main house, (orange) and half house (blue). Green roofs exist both between the two and on top of main house.

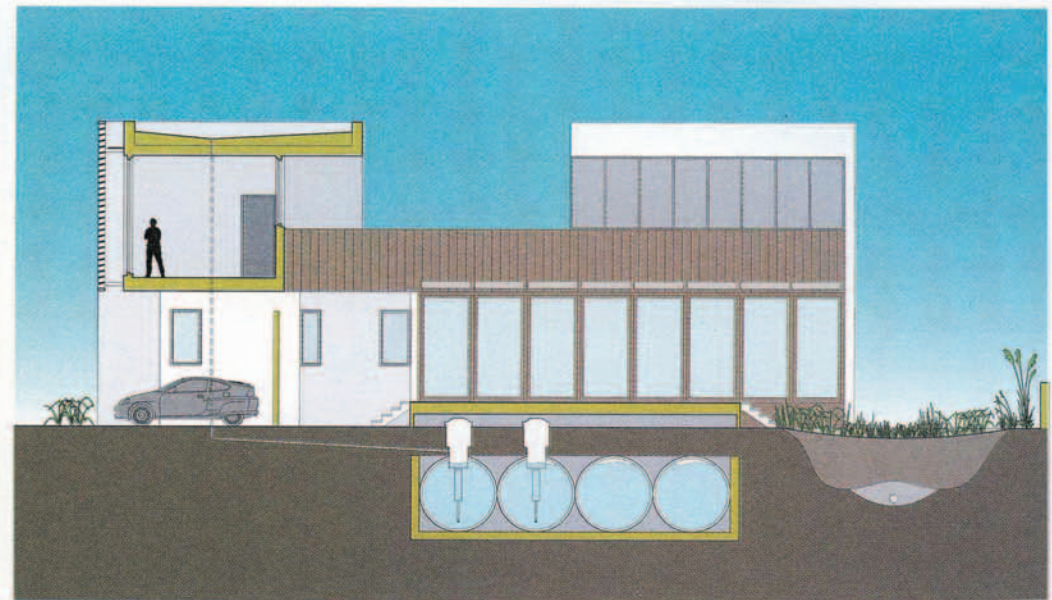
THE RESULT IS A GREEN ATTITUDE THAT DOESN'T WILDLY CALL ATTENTION TO ITSELF BUT GETS THE JOB DONE ELEGANTLY—A TRIBUTE TO THIS OFFICE'S ESTABLISHED RECORD IN RESIDENTIAL DESIGN.

The Half house makes for a very flexible property. A young couple might feel the best use for such a space is a rental property if local zoning permits. An elderly couple or single person might prefer to have live-in assistance, but with the advantage of full privacy for both parties. Occupants with larger families or friends who visit—and who doesn't get visitors in Florida?—should welcome the option of a guesthouse-like accommodation on site.

The architects determined that block construction was appropriate for a hurricane zone and could be produced from recycled materials. Lifting the house off the ground was not required but the architects selected this option in order to enhance air circulation. Cross ventilation is created through substantial windows on opposing sides of all rooms. The site orientation takes advantage of light from the east and north with shaded exposures, using metal screens, on the south and west sides.

The designers paid close attention to water use at the house and investigated how conservation could be implemented. The roof area, 1500 square feet, is designed to collect rainwater that can be used for a variety of purposes. A green roof will diminish the amount of runoff from the property. Rain water is held in cisterns under the pool deck and can be used to refill the pool. A bio-retention area has been placed just beyond the pool area and will accept household water runoff, from sources not including wastewater, using native plantings and soil to filter the water before returning it to the groundwater supply. The outdoor space includes porous pavers that can be used alone or with plantings. The pool will be heated by the sun via rooftop waterpipes and ionization, as opposed to chlorine, will be used to keep the pool clean.

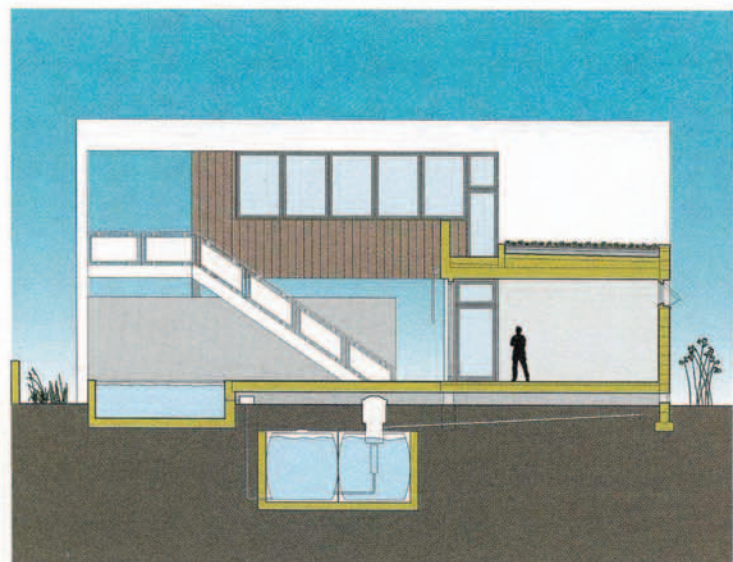
PROJECT TEAM
 Deborah Berke
 Stephen Brockman
 Christopher Yost
 Terrence Schroeder



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Berke suggests the use of Durisol, or a similar product, as part of the basic concrete construction. This is a mix of Portland cement and natural wood shavings that forms a material that is lightweight and porous but not prone to fungus growth. Both made of recycled materials and fully recyclable, Durisol has a high strength-to-weight ratio. It is thermally insulating, sound absorptive and noncombustible. It marries the utilitarian with the eco-sensitive.

Aesthetically, Berke and her team have created a very clean container for family life. The main house has a bedroom on each floor and living space upstairs that will take advantage of the elevated views to the courtyard below. While both the main house and the half house view the pool, neither residential area has views directly into the other's spaces, providing additional privacy. ■



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TOP: Cutaway elevation shows water collection system on top of half-house roof as well as cistern collection tanks placed below grade. Bio-retention native plantings are located to the right of the pool, where shower and bath wastewater is naturally filtered before returning to the water table.
LEFT: Cutaway elevation view of house looking south toward street. Note collection tanks under decking to feed the ionization-cleaned lap pool.