

## Atlantic Coast Beach House



### 2011 "1st Runner Up" Unlimited Residential

The Dewey Beach area on Delaware's Atlantic coast encompasses some of the country's most beautiful scenery but is prone to winds in the range of 75-100mph, hurricanes, and flooding. This can be disastrous for many traditionally built homes. To protect this 7,100sqft custom home from the ravages of coastal living, and accommodate the complex design requirements, Turnstone Builders chose to build with concrete using Quad-Lock Insulated Concrete Forms (ICF) and Quad-Deck. This showcase home utilizes Quad-Lock ICF on all exterior walls with 6" and 12" of concrete as well as a Quad-Deck rooftop deck. The energy efficiency, air quality and sound attenuation of this home will keep the occupants comfortable and safe for many years to come.



### Why Quad-Lock was Chosen

- ▶ Able to withstand extreme storms, high winds and tidal surges prevalent on the Atlantic coast
- ▶ Resistance to mold, rot, pests and deterioration from salt water
- ▶ Availability of multiple R-Values (R-22 and R-38 combinations)
- ▶ Easily create varied angles on site with multiple wall transitions
- ▶ Seamless integration with Quad-Deck to add to overall energy savings
- ▶ 40% reduction in size of HVAC system
- ▶ Virtually no maintenance and upkeep

### Interesting Facts

Location:	North Indian Beach, DE
Completion Date:	June 2011
Building Size (Total):	7,100sqft
Quad-Lock Walls:	7,000sqft
% of Exterior Walls:	100%
Quad-Deck:	2600sqft Roof Deck
ICF Installation Time:	2 months
Total Construction Time:	11 months
Wall Bracing:	Panel Jacks
Exterior:	Stucco
Waterproofing:	Enkadrain



# Quad-Lock Project Profile - Atlantic Coast Beach House

## The Design Vision

Turnstone Builders envisioned a custom built, high-end home that would demonstrate how the challenges and risks of building in coastal areas can be mitigated by using insulating concrete form building systems. With varying angled walls on each level and multiple corners, this home was not a 'run-of-the-mill' box. Quad-Lock allowed for all of these unique design elements to be constructed on site with no special order components. With the use of 20ft pilings, steel beams and rebar varying from No. 4 to No. 8, Quad-Lock was easily adapted to integrate with these design specifications. The developers were also able to downsize the HVAC by 40%, another benefit of ICF construction.



Quad-Lock Slab Tie Bracing system utilized on 3rd level for Quad-Deck roof

*"We chose Quad-Lock because of the complexity of the house. It is a very versatile product and as far as doing the angles, the changes in the wall thicknesses between 6" and 12", Quad-Lock was the better product."*

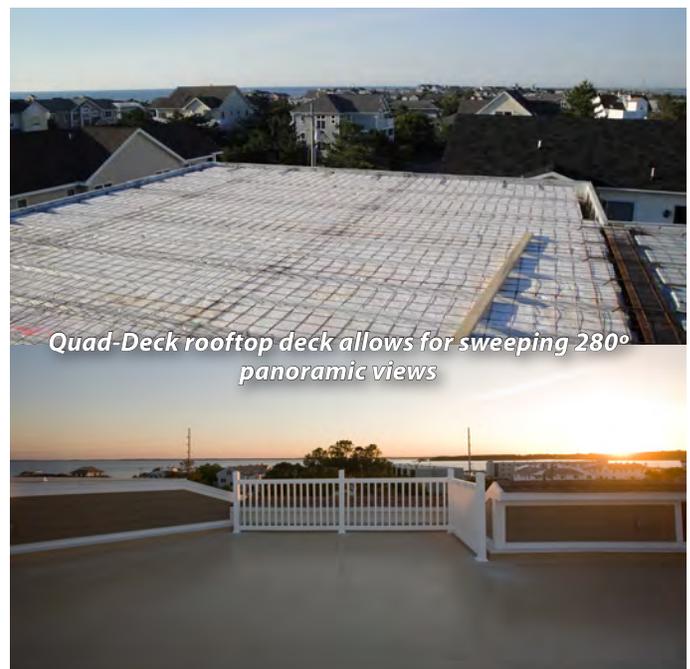
**Harvey Ryan  
Turnstone Builders**

*"We believe that ICF homes will be the new high standard of coastal living."*

**Dave Eppes  
Turnstone Builders**

## Project Partners

Owner/Developer: Turnstone Builders, DE  
General Contractor: Turnstone Builders  
Architect: Susan Frederick  
Engineer: MacIntosh  
Quad-Lock Dealer: Cropper Concrete  
Additional Partners: GNP Inc.  
Iron Works, Structural Steel  
Atlantic Concrete



Quad-Deck rooftop deck allows for sweeping 280° panoramic views