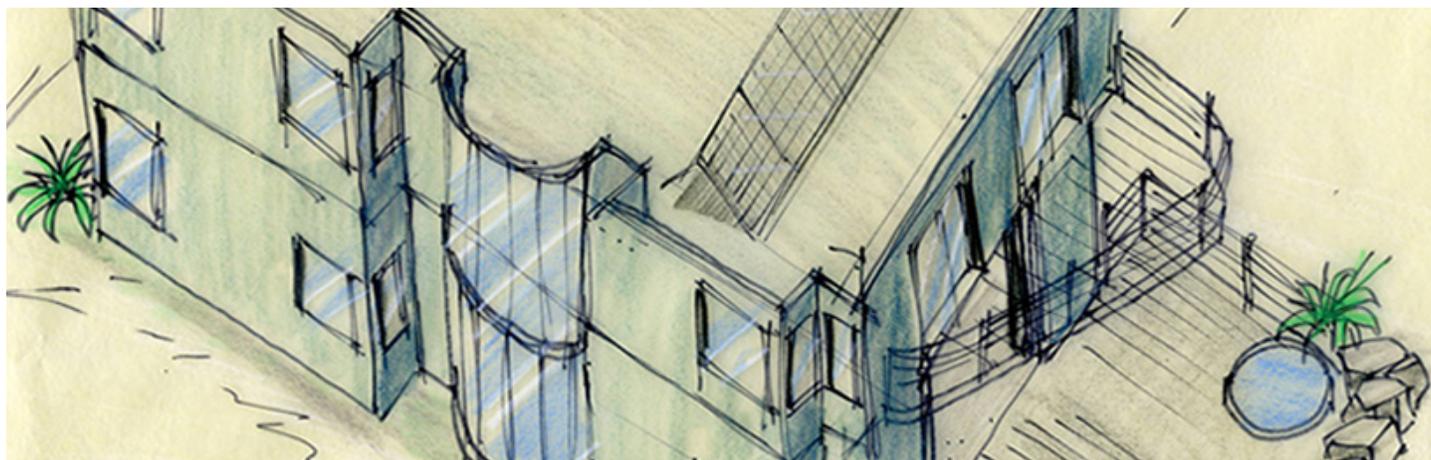


3PALMS PROJECT

VENTURA COUNTY, CALIFORNIA, USA



Set on the beach in Southern California, the 3Palms Project is a model for cost effective, sustainable design and construction. Featuring environmentally sustainable design features and materials, including Icynene spray foam insulation, the owner of this unique beachfront property is seeking Passive House and LEED for Homes (Platinum) certification.

Overlooking the Pacific Ocean in Ventura County in Southern California, the 3Palms Project brings together the best in green sustainable design and functionality in a 2,450 sq. ft., three-bedroom family home.

Multi Emmy® award-winning actor, Bryan Cranston from *Breaking Bad*, together with wife Robin, sought to create an aesthetically pleasing sustainable family home that combined both form and function while being a living example to others that green living can be achieved without compromise.

Bringing together a team of sustainable design and construction experts, the 3Palms Project is currently seeking Passive House and LEED for Homes (Platinum) certification. The environmental initiative driving the 3Palms Project will be featured on the weekly 'Real Green' television program throughout the United States in 2013.

The Challenge

To achieve their green home objectives, the owners invited a panel of green building experts including Allen Associates, Turturro Design Studio and Alliance Design Group to provide input into the home's design and construction.

With the project's focus on sustainability and sustainable practices, the design and construction teams were challenged with a series of key criteria that needed to be addressed. Designers had to pay strict attention to material durability, economic feasibility, occupant comfort and indoor air quality. Additionally, in order to achieve net-zero status (completely avoiding the use of fossil fuels for energy), the designers needed to consider high-performance materials or processes that optimized energy efficiency. The emphasis on green design was pushed to the max.

My goal with this home is to show the world that living responsibly and living comfortably are not mutually exclusive.

Bryan Cranston, Owner

The home had to be virtually airtight adhering to the stringent industry-based performance standards and had to include super insulation.

The design teams also had to consider the location of the home - on the beach - which



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presented some challenges in the design and materials used. Designers had to consider the long-term durability of the home being exposed to the elements of the Pacific Ocean - windstorms, shifting sands, salt and erosion.

For the owners, the project was an endeavour into understanding green construction - the opportunities as well as the limitations in creating the perfect green family home.

The Solution

Design and construction teams banded together to assess the challenges they faced. As result, the teams were forced to think outside the box and consider new, unique ways of doing things. Consideration was given to the types of materials used, the use of various sustainable energy sources as well as improvements to the design itself.

*With 3Palms, the Cranstons have offered a unique opportunity for our team and affiliates to design, build and showcase a house of ideas, comfort, quality and sustainability.
John Turturro, Turturro Design Studio*

Designers looked to include photovoltaic solar panels to generate 100% of the home's electricity while solar thermal units contributed to generating a hot water supply throughout the home.

In the construction of the home, the highly efficient SIP wall system was used while any lumber used had to be sourced from a FSC-certified, sustainably harvested forest. Furthermore, all the concrete used throughout the property had to have a 50% fly ash mix.

Inside the home, designers had included radiant heated floors to help keep the occupants comfortable without excessive energy use. The inclusion of LED lighting solutions and Energy Star rated appliances helped the home adhere to the design goals of energy efficiency. Outside, a system for rainwater collection for irrigation was included. High-performance windows and doors were included to address the long-term weather durability.

To address the criteria of air tightness, occupant comfort, indoor air quality and super insulation the design team adopted a series of measures. One material that helped designers address all of these criteria in one step was the inclusion of Icynene spray foam insulation. Santa Barbara-based licensed Icynene contractor, Insulate SB was enlisted to



spray the foam in the 3Palms project.

As a modern material, Icynene spray foam insulation both insulates and air-seals a home for total occupant comfort and assurance. Icynene spray foam expands within seconds to completely seal a building envelope and provide air tightness that helps promote optimal indoor air quality and mitigate excessive energy use. In a typical home, Icynene spray foam can help homeowners significantly reduce their heating and cooling energy bills by up to 50%.

The insulation's airseal will also help minimize the entry of allergens, moisture and other external pollutants into the home. The airsealing qualities in the 3Palms home were vital due to its position on the beach and its exposure to the elements.

By using Icynene spray foam insulation within their home, the owners have recognized the benefits that a one-time installation cost of spray foam insulation is far less than the potential costs of repairing unexpected severe moisture damage.

The Result

Bringing together the best in green design and sustainable materials has been a rewarding and educational exercise for the Cranstons as well as the design teams involved with the





project. With an expected completion date of Spring 2013, the 3Palms Project is on track to achieving its initial goals of net-zero living, LEED Platinum certification and Passive House certification.

The materials and design of the 3Palms home work in harmony to ensure that the home functions in a sustainable manner for the long-term.

The challenge of selecting building materials to achieve the highest 'green' rating has been very rewarding.

Larry Graves, Alliance Design Group

The project was officially launched at a grand opening event in Summer 2012 where dignitaries, civic and business leaders and media were invited to learn more about the green and sustainable efforts of the project while the project is expected to be



featured over several weeks on the 'Real Green' television program on major television networks throughout the United States in 2013. The feature will offer homeowners the opportunity to learn more about the project and how they too could implement green practices in their homes.

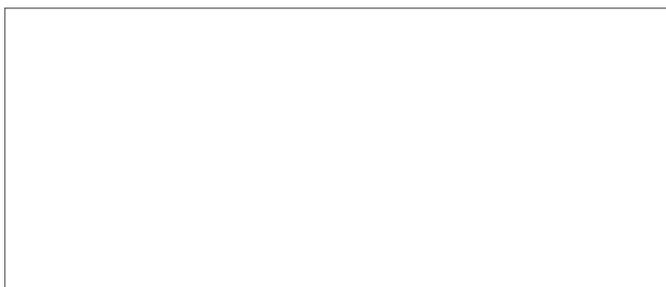
A series of home tours of the 3Palms project will also allow locals to better understand how the home functions as a net-zero home and what materials were used throughout the home to achieve it.

The 3Palms project is a living example of how green, sustainable living is within reach for homeowners without having to compromise on quality, comfort or lifestyle.

Footnotes:

1. Use of all drawings, renderings, models and architectural images are courtesy of and remain property of Turturro Design Studio.
2. 3Palms Project information is available and courtesy of KNB Associates on behalf of Owner, Bryan Cranston. <http://3palmsproject.com>
3. Use of the word Emmy® remains the property of and all rights are reserved by The National Academy of Television Arts and Sciences.
4. Icynene Inc. would like to thank KNB Associates LLC, Turturro Design Studio, Allen Associates, Alliance Design Group and Icynene contractor, InsulateSB for their assistance with this document.

For further information, contact your local licensed Icynene dealer.



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