

## **Borrego Springs Zero Energy Demonstration Home will be Erected In One Day Using STYROFOAM\* T-MASS\* Residential Pre-Cast and Poured in Place Insulation System**

### **WHAT:**

Clarum Homes, California's largest zero energy home production builder, is building four (4) zero energy demonstration homes in the extreme desert climate of Borrego Springs, California to study energy reduction for cooling in the hot, dry desert climate. This project is being built in partnership with the U.S. Department of Energy's Building America Program, ConSol and Davis Energy Group.

On Thursday, July 28<sup>th</sup>, in just one day, the walls of one of the four demonstration homes will be erected using STYROFOAM T-MASS Residential Pre-Cast Insulation System. The T-MASS wall system is one of the three wall systems being used in this demonstration project to study reducing energy use for cooling.

### **AVAILABLE FOR MEDIA INTERVIEWS:**

- Builder – John Suppes, Clarum Homes
- Energy Consultant – Rob Hammon, PhD, ConSol
- Daniel Kitts, Dow Chemical Company Building and Construction (T-MASS)
- Architect – Michael Frerking, Living Systems Architecture & Construction

### **WHERE:**

- 3485 Country Club Drive, Borrego Springs, CA

### **WHEN:**

- Thursday, July 28, 2005; 8:00am – 12:00pm

### **PROJECT SUMMARY:**

- Four Single-Family Homes on four home sites in Borrego Springs, California
- One Floor Plan Design – Three Bedroom/Three Bathrooms, approx. 2000sf.
- Four Sets of Energy Features
- Three Types of Wall Systems – StyrofoamT-MASS, Structural Insulated Panels (SIPS) & High Efficiency 24" o.c. Optimum Value Engineered (OVE) Wood Framing
- Three Cutting Edge Cooling Systems:
  - Two homes feature Speakman 2 stage evaporative coolers
  - One home features a Freus water cooled condenser and AC
  - One home features a Lennox 20.5 SEER AC
- All homes will feature 3.2 kW Kyocera photovoltaic solar systems
- All homes will have exterior shade screens

## PROJECT GOALS:

- Design and build highly energy efficient sustainable production housing for the entry level and one-move-up market
- Achieve up to 90% energy reduction in cooling
- Build energy efficient homes with highly sustainable characteristics while meeting zone 4 structural requirements
- Collect data on cost, construction schedule, production feasibility, energy efficiency, product lifecycles, embodied energy, and cost and energy savings
- Study data to determine cost effectiveness of sustainable technology applications in relation to affordable, entry level and one-move-up homes in a production format
- For 30 days prior to occupancy, run tests to evaluate energy efficiency for the National Renewal Energy Laboratory (NREL) and publish data at [www.clarumzeroenergy.com](http://www.clarumzeroenergy.com).
- For 12 months after completion, run tests to evaluate energy efficiency for the National Renewal Energy Laboratory (NREL) and publish data at [www.clarumzeroenergy.com](http://www.clarumzeroenergy.com).

## ABOUT STYROFOAM T-MASS:

STYROFOAM T-MASS Residential Pre-cast and Poured in Place Insulation Systems insulate the home through a concrete wall solution. STYROFOAM is sandwiched between exterior and interior walls of concrete, creating a solid wall that delivers superior energy efficiency through edge-to-edge uninterrupted insulation, moisture resistance and noise reduction for the homeowner. Concrete is poured into steel forms and "pre-cast" prior to on-site delivery. The concrete panels are then delivered and assembled using a crane. The foundation is cured, making for an easy, one-day assembly process.

**PROJECT WEBSITE:**        [WWW.CLARUMZEROENERGY.COM](http://WWW.CLARUMZEROENERGY.COM)

## BUILDER:

Clarum Homes – 599 College Avenue, Palo Alto, CA 94306 – [www.clarum.com](http://www.clarum.com)

John Suppes, Principal  
650.322.7069, x22 - [john@clarum.com](mailto:john@clarum.com)

Nicole Gittleson, Marketing  
650.322.7069, x24 – [nicole@clarum.com](mailto:nicole@clarum.com)

## ENERGY CONSULTANT:

Rob Hammon, PhD, Principal – ConSol  
209.473-5073 – [Rob@Consol.ws](mailto:Rob@Consol.ws)

## DOW CHEMICAL COMPANY BUILDING & CONSTRUCTION:

Daniel Kitts  
925.484.1252 - [dckitts@dow.com](mailto:dckitts@dow.com)

## ARCHITECT:

Michael Frerking, Living Sustainable Architecture & Construction  
[michael@michaelfrerking.com](mailto:michael@michaelfrerking.com)

\*Trademark of the Dow Chemical Company