



# Insulated Basement Wall Panels Oldcastle Precast

## Sustainable Building and Practices

**Steven Winters Associates, Inc. (SWA)** has been working with Oldcastle Precast, a manufacturer of precast concrete components, to develop a new concrete basement wall panel called the Oasis panel. Delivered to the jobsite on a flatbed truck, Oasis panels are erected by crane, creating a basement in a single day. With a 3-inch-thick layer of expanded polystyrene, Oldcastle Precast's R-10 Oasis panels have twice the R-value of its competitors' R-5 panels.

Engineers at Oldcastle Precast developed the Oasis panel with help from consultant William Zoeller, a senior architect at Steven Winter Associates in Norwalk, Connecticut. "The dominant energy codes basically require basement walls to have a nominal value of R-10, so that's what we were aiming for," Zoeller explained. "Our involvement with the project flowed out of basement insulation research we were doing in Chicago for Building America. It didn't take long to realize that standard basement insulation systems don't work." When precast panels are fitted with factory-furnished insulation, installation errors and jobsite improvising are greatly reduced. To minimize mold problems, the Oasis foundation system includes no fiberglass batts, poly vapor barriers, or conventional drywall. The 6,000-psi concrete in Oasis panels is virtually waterproof. Each 10-inch-thick panel measures 8' 6" high. The panels can be manufactured to any length up to 30 feet, so that a simple rectangular foundation may require only six panels. At the concrete factory, the inside of the panels is covered with fiberglass-faced (paper-free) gypsum board (DensArmor Plus from Georgia Pacific). The R-value of the panels varies from R-13 in the bays between the concrete ribs to a mere R-4 at the end of the ribs; its whole-wall R-value is 10. Final interior finishing requires only joint taping and painting.



*Client:* Oldcastle Precast  
*Location:* Nationwide  
*Project Type:* Residential Technology Improvement  
*Project Status:* Ongoing

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