

IOWA

# Architect

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Wind, Fire, Water ...

## Rebirth





# JOURNAL

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## Iowa State Picks Up and Moves

For three weeks in October 2009, the U.S. Department of Energy will host the Solar Decathlon—a competition in which 20 teams of college and university students compete to design, build and operate the most attractive, effective, and energy-efficient solar-powered house. The Solar Decathlon is also an event to which the public is invited to observe the powerful combination of solar energy, energy efficiency and the best in home design.



The Solar Decathlon consists of three major phases that include building, moving to the Solar Village and competing. During the building phase, in addition to designing houses that use innovative, high-tech elements, students have to raise funds, communicate team activities, collect supplies and work with contractors. When it's time for the Solar Decathlon, the teams transport their houses to the National Mall in Washington, D.C. and rebuild them on site. During the competition itself, the teams also receive points for their performance in several contests and open their homes to the public.

Iowa State University is the first team from Iowa chosen to compete in the Solar Decathlon. Construction on the ISU team's entry, the Interlock House, started in February. The concept of "interlock"—to fit together closely and operate as a unit—defines both the team and their house. With 75 students from 11 majors, the team personifies the interlocking, interdisciplinary quality of sustainable design. Their design demonstrates how passive design principles, community-minded design and spatial organization can work together to interlock a house with its environment, its occupants and the surrounding development.

The Interlock House integrates passive design features, such as sun porches, louvers, and clerestory lighting, with photovoltaics and evacuated tubes to reduce energy demands. Innovative technologies include passive tracking louvers (photovoltaic louvers that use dampers, balancing fluids and shades to passively track the sun); a biobased spray polyurethane foam insulation made of soybean oil (rather than petroleum products) with an R-value of 7 per inch; and a liquid desiccant dehumidifier to control humidity, which reduces the cooling load.

To view the ISU team's progress, visit their Webcam at [www.solar.iastate.edu/project/webcam](http://www.solar.iastate.edu/project/webcam) ●

## A West Des Moines Motif That's Anything but Predictable

A Pattern Book for West Des Moines Neighborhoods is a product of the City of West Des Moines' Affordable Housing Initiative, a program that encourages homeowners to retain the integrity and character of their homes within the older, affordable neighborhoods of the city. This initiative is part of the larger nationwide community service program of the American Institute of Architects, "Blueprint for America: A Gift to the Nation," which is the primary program of AIA 150 created in coordination with the Central Iowa Architects.

This workbook, which recently won an Outstanding Planning Award for Best Practice from the

Iowa Chapter of the American Planning Association, was designed as a resource that provides useful, easy-to-follow ideas for residents of the city and outlines the basics of updating or renovating a home using good design practices. The 45-page book targets West Des Moines homes built between 1900 and the 1970s, but the information applies to an array of homes and styles that are common throughout the Midwest. Prior to the book's inception, help from the architectural community was enlisted in identifying the prevalent character and architectural styles of the neighborhoods in the city and identifying ideas for logical ways to expand and update these older homes. A group of three neighborhoods within the city was identified for the initiative to focus on, and actual homeowners were asked what they most wanted or needed.

What resulted was a step-by-step guide to help homeowners navigate the home-improvement process, from "just thinking" about adding on or remodeling to financing, to design, to building permits. The book incorporates some design 'do's and don'ts' and takes into account things like proportion, style, context and the all-important details while addressing accessibility, landscaping, and "green" building. The information it contains may empower homeowners and allow a more informed discussion with design professionals and contractors while educating potential clients on terminology and common home styles and typologies in West Des Moines.

While the book is design savvy, perspectives on issues of budget are also offered. Homeowners are presented with practical questions that include advice on how to determine a reasonable budget while cautioning owners to fully understand whether their desires match their means and when to consult a design professional and a contractor. The book concludes with resources that actively engage the homeowner in the design process and tools and contacts are offered. Thanks in part to a grant from a local lending institution; the printed copies of the pattern books are available to West Des Moines residents at no cost. The pattern book is also available for free download via the News page of the City's web site at [www.wdm-ia.com](http://www.wdm-ia.com). ●

