

CASE STUDY

By Debra J. White

Green has Gone to the Dogs

THE BUILT ENVIRONMENT IS CONSIDERED WHILE DESIGNING SEVERAL ANIMAL SHELTERS.

In animal shelters that were built for unwanted dogs and cats, things like energy efficiency, water use and air filtration were not priorities. But that's all changing as shelters go green.

and protect the environment at the same time.

Water Usage

The concept of going green poses unique challenges for shelters.

for the new Potter League for Animals in Middletown, R.I., slated to open in November 2008. A 15,000-gallon cistern will capture stormwater runoff. The water will be recycled, of course, after it's disinfected and used for cleaning. Captured water will not drain into the sewer system or the surrounding wetlands.

According to Lucy Schläffer, principal architect with ARQ, "With the cistern, Potter will be the first shelter to demonstrate success in water reduction in their new green building." Water reduction projects are also working at the Dallas Animal Services in Texas and planned for the new shelter at Humane Society Silicon Valley in California. Water is, of course, thoroughly disinfected before reuse; none of the projects involve potable water.

Air Filtration

Animal shelters, like hospitals, rely on efficient air filtration systems to help prevent airborne diseases like kennel cough in dogs and upper respiratory infections in cats. Systematic air changes keep the air healthy and curtail disease. New green buildings employ ventilation systems that provide for 10 to 12 air exchanges an hour. Use of heating and/or cooling recovery coils can further cut expenses because they save wasted energy by pre-heating or pre-cooling exhausted air.

James E. Owens of Rauhaus Freedenfeld & Associates says, "The benefit of a green building is fresh air. More is brought in to cut down on contamination." Owens says green buildings benefit workers as well by curtailing sick



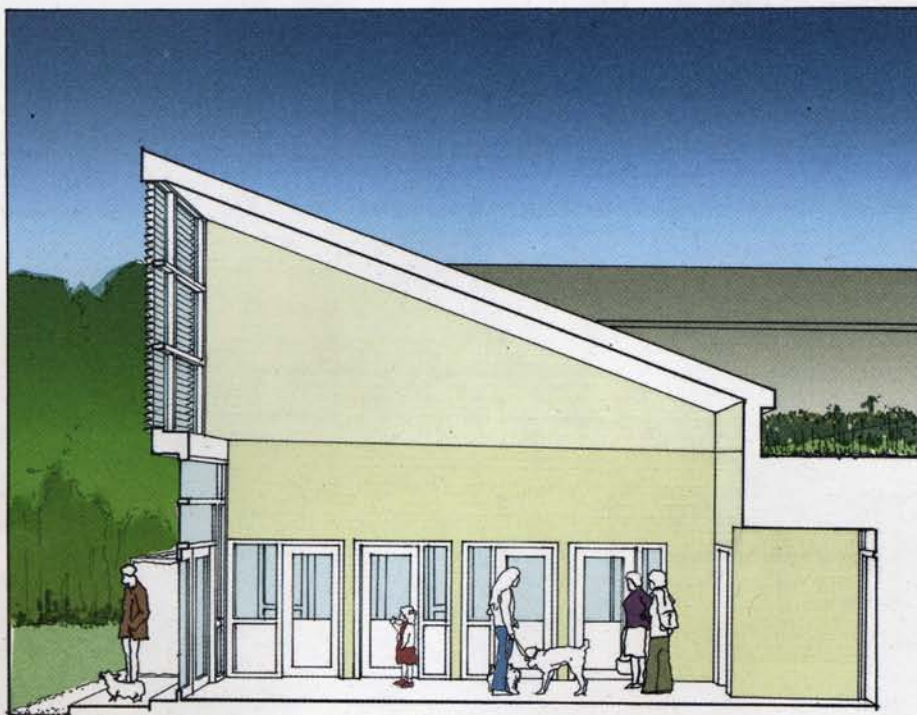
THE TOMPKINS COUNTY SPCA WAS THE FIRST ANIMAL SHELTER IN THE NATION TO EARN A LEED SILVER RATING; OTHERS ARE NOW FOLLOWING SUIT. PHOTO COURTESY OF PAUL BONACCI, ARQ ARCHITECTS.

The Tompkins County Society for the Prevention of Cruelty to Animals (SPCA) in Ithaca, N.Y., opened an eco-friendly shelter in 2004 — the first in the nation to receive a LEED Silver rating. The project features recycled-content materials, FSC-certified woods, a geothermal heat pump and other environmentally considerate products and systems.

Numerous green shelters in the United States and Canada are now open, under construction or in the planning phases. Shelters have found they can save animals

Water use is huge. Workers sanitize and hose down kennels daily with disinfectants to control disease. Reliable estimates are hard to come by, but the average shelter might use at least 1,000 gallons per day. Large shelters in cities like Phoenix, Dallas and Chicago use considerably more.

In planning a green building, reducing water use is crucial, especially for LEED certification. ARQ Architects, with offices in Kittery, Maine, and San Francisco, designed a novel approach



THE NEW GREEN POTTER LEAGUE FOR ANIMALS SHELTER IN MIDDLETOWN, R.I., IS OPENING IN NOVEMBER 2008. IMAGE COURTESY OF THE POTTER LEAGUE FOR ANIMALS.



THE POTTER LEAGUE FOR ANIMALS SHELTER FEATURES A VEGETATIVE ROOF FROM THE APEX GREEN ROOF CO.

building syndrome. Shelters under construction in Michigan, California and Rhode Island are designed with similar types of air filtration systems to prevent the spread of airborne disease to otherwise healthy animals, which could result in unnecessary euthanization.

Energy Conservation

Shelters are also incorporating energy conservation into their design. The Humane Society of Huron Valley (currently under construction in Michigan) says that at least 65 percent of heating and cooling needs will come from renew-

able energy. The new system, says Jaci Nicols, development director, will be a closed-loop vertical geothermal system. The Winnipeg Humane Society also has a geothermal heating system.

Very few shelters have installed solar techniques, citing cost or location as the reason. However, the Humane Society Silicon Valley plans include a photovoltaic system on the building's roof that's expected to generate 40 percent of the facility's energy needs. A dog park called Jackass Acres in Phoenix — made entirely from reused and recycled material — is entirely solar powered.


Innovative Examples and Results

The Potter League for Animals shelter, opening in November, includes an innovative feature: a vegetative roof from the Apex Green Roof Co., Somerville, Mass. Charlie Sinkler of Apex selected plants such as sedums, alliums, lavenders and grasses that are tolerant to wind, heat and drought. Sinkler says this garden will include at least 3,000 plants that will limit stormwater runoff, reduce greenhouse gases, and keep the building cooler.

Spring Farm CARES (www.springfarmcares.org), an animal sanctuary spread over 400 acres in upstate New York, is home to 300 dogs, cats, horses, goats and other critters. The sanctuary plans to install three 10-kW wind turbines on 120-foot towers to meet its energy needs. Currently, Spring Farm CARES is on an ambitious fundraising project to raise the \$300,000 needed to begin installation in the summer of 2009.

Going green has benefits besides befriending the environment. The Washington Animal Rescue League in Washington, D.C., opened an eco-friendly shelter in October 2006, and according to Dr. Gary Weitzman, executive director, "Adoptions went up 100 percent." He said the new facility was so attractive that people who had never considered adoption before came in and adopted pets.

Architecture firms like ARQ and Rauhaus Freedenfeld take calls daily from interested shelter managers. They say that building green animal shelters isn't just a trend; it's the way of the future. Green buildings not only cut down on pollution, greenhouse gas emission and encourage recycling, but they improve the quality of life for unwanted animals and the people who care for them.

According to the Potter League for Animals, constructing a building with a social conscience fit into their mission of "making a difference and enriching lives for both people and animals." 

DEBRA J. WHITE IS A FREELANCE WRITER IN TEMPE, ARIZ., WHO VOLUNTEERS WITH THE PHOENIX ANIMAL CARE COALITION, THE GOVERNOR'S OFFICE, AND GABRIEL'S ANGELS. VISIT HER WEBSITE AT WWW.DEBRAJWHITE.COM.