



**PENNSYLVANIA
DEPARTMENT OF
ENVIRONMENTAL
PROTECTION**
SOUTHEAST
REGIONAL, PA

A single question—what is the most environmentally benign building material?—has long been the favorite query of green building expert John Boecker. Now, since the design of the Southeast Regional Office, it's a question he's able to answer with a single word: nothing.



* Please note that some products shown are not manufactured by Haworth.

The five major elements of a green building project:

- 1. Sustainable site design:** A key principle is to minimize urban sprawl and needless destruction of valuable land, habitat, and green space.
- 2. Water conservation and quality:** Preserving the existing natural water cycle and designing the site to closely emulate the natural predevelopment hydrological systems (use of gray water and storm water).
- 3. Energy and environment:** Minimizing adverse impacts on the environment and maximizing the use of renewable energy, resulting in high performance energy savings.
- 4. Indoor environmental quality:** Providing a healthy, comfortable, and productive environment for occupants, including the best possible air quality, ventilation, thermal comfort, and natural daylighting.
- 5. Conservation of materials and resources:** Minimizing the use of non-renewable construction materials and other resources through efficient engineering, design, planning, construction, and recycling of construction debris.

As outlined in the Pennsylvania Governor’s Green Government Council publication *What is a green building?* Fundamental Principles of Green Buildings and Sustainable Site Design by Paul M. Zeigler, P.E.

“The answer is nothing because that which you don’t use has no negative impact on the environment,” says Boecker, the project architect.

What you don’t use also has less impact on the budget. The greatest savings for Boecker and his team came in the form of insulated prefabricated steel wall panels, which use a technology borrowed from refrigerators. The enormous prefabricated sheets, which are taken off the truck and bolted directly to the building, take the place of what usually would be represented by six layers of traditional building materials. The result is a strong, highly-insulated wall with less waste and lower labor costs.

“Finding this material just set the tone for what else we could eliminate and do without,” Boecker says.

Choosing a site for a green building can be just as critical as deciding which materials to use. The 85,000-square-foot building, completed in early 2004, sits in the once blighted, urban area of Norristown where it serves as the cornerstone of a revitalization effort. Building on an urban brownfield was a very intentional choice for the DEP, who encourages others in the state to look for alternatives to urban sprawl.

“Downtown Norristown had many vacant lots and run-down buildings,” says Sally Langianese of the DEP. “Our location, directly across from the courthouse and adjoined to a historically significant train station, has made us a key

element in Norristown’s revitalization efforts. This is something we really believe in and want to model.”

Demonstrating how green buildings positively affect employees is another aspect of the Norristown facility, which features a central four-story atrium garden. By letting natural light into all of the building’s “people spaces,” the atrium not only reduces the need for artificial light but also enhances the working conditions and productivity of employees. A sunny café area with raised Haworth TecCrete flooring and comfortable Zooey Chu and Improv seating pulled up to Tactics tables makes the most of natural light.

In addition to letting in light, the glass atrium contains a 5,000 gallon cistern for collecting storm water runoff. The water then travels to a glass-walled pump room where it is pumped into restrooms and used for flushing toilets, reducing overall water use in the building by 83 percent.

Other green aspects of the Southeast Regional Office include recycled glass tiles in the lobby and restrooms, and recycled rubber floor coverings in the restrooms and locker rooms. At the time of publication, the DEP was expecting this facility to receive a LEED Gold certification.



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CUSTOMER PROFILE

Pennsylvania's Department of Environmental Protection has become a national model for green building practices, which preserve and restore natural habitats. While the state's green efforts have a considerable history, they were intensified in 1998 when the Governor's Green Government Council was established. The Council has helped the state government embed environmental sustainability through both its policymaking and operational processes.

For more information about Pennsylvania's Governor's Green Government Council, and to order videos and publications about green building practices, go to www.gggc.state.pa.us

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