



WinterGREEN

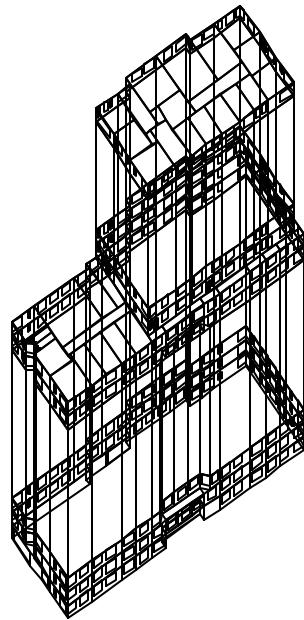


A BIMONTHLY UPDATE ON STEVEN WINTER ASSOCIATES, INC.'S WORK IN THE REALM OF ENERGY EFFICIENCY AND SUSTAINABLE BUILDINGS

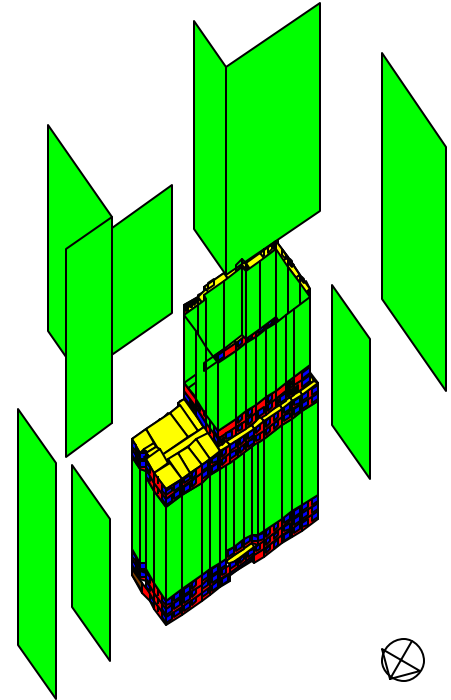
Volume I, No. 3

October/November 1999

Curbing Energy in Manhattan Housing



Analysis of a new residential project now in design has revealed a number of strategies for cutting energy consumption and reducing the building's heating and cooling load. Twenty-two River Terrace, designed by **Gruzen Samton Architects Planners Interior Designers** and to be built by **ROCKROSE** at New York's Battery Park City, is a 27-story building with 304 apartments. Common areas are located on the first floor and basement. **Steven Winter Associates, Inc., (SWA)** was contracted by the **New York Energy Research and Development Authority (NYSERDA)** and the **Battery Park City Authority** to perform an energy analysis of the high-rise. A computer model of the building was created using state-of-the-art DOE-2.1E energy analysis software (an axonometric view as modeled with surrounding buildings is shown at right; wire frame is shown at left). **SWA** determined that energy costs could be reduced by 17% (22% compared to the state's Energy Conservation Construction Code) by employing a number of energy efficiency measures, such as high performance glazing, high-efficiency refrigerators and packaged terminal AC units, premium efficiency motors for circulating pumps and hot water storage, and variable flame low NOx efficient boilers.

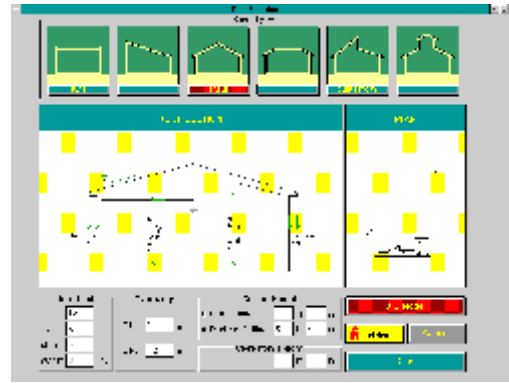


Greening Federal Buildings

A study commissioned by the **General Services Administration (GSA)** to investigate opportunities to incorporate "green" features in the design and construction of all federal office buildings has provided GSA with a clear and analytical review of 143 specific sustainable building design and construction recommendations from five categories: site, energy and water use, air quality, productivity, and building operation. This green list was developed by a nationally recognized panel of experts, including **SWA's** Adrian Tuluca. The list was then evaluated by a design and value engineering team, with **SWA** as energy cost analysts. The result is a tiered system of low-, medium-, and high-cost strategies, and is the genesis of a bench-marking process that will yield standards for federal building sustainability.

Software for Sustainable Modular Classroom Buildings

The October issue of *Construction Specifier* magazine carries an article by **SWA's** John Amatruda on the research and development of a software package that can help architects and school officials to design, specify, and build more energy efficient and sustainable modular classroom buildings. The research was undertaken by **SWA** for the **U.S.**



Department of Energy to create a graphic, user-friendly software (screen photo at right) to facilitate the specification, design, and construction of modular classrooms with reduced energy use, improved indoor air quality, and environmentally conscious materials. **SWA** plans to release its final version of the tool, called SCHOOLSPEC, in 2000.

EnviroDesign Conference

This past Spring, the third EnvironDesign conference drew a large crowd to Baltimore to discuss the nature of green design and building. Co-sponsored by the U.S. Green Building Council, the conference was kicked off by industry leaders, including **SWA's** Steven Winter, who is also Council chairman.

Builders Tour Green Home

As part of the first-ever National Green Building Conference in Denver, sponsored by the National Association of Home Builders and *Professional Builder* magazine, attendees had the chance to tour a house designed by **SWA** in collaboration with **Wonderland Custom Builders** of Denver for the U.S. Department of Energy's **Building America Program**. The house was part of the 1999 Metro Denver Parade of Homes, and includes such features as passive solar design, low-e glass, structural insulated panel construction, computer automated HVAC and lighting systems, and a host of low-VOC building materials and finishes. The home earned an ENERGY STAR rating and a Home Builders of Denver "Built Green" designation.

Industrial Hygienist at Work



At the recent American Industrial Hygiene Association conference in Toronto, **SWA's** Catherine Coombs (left) gave a talk on interior environmental quality (IEQ) and the challenges of translating IEQ information into forms usable by architects and designers. Coombs, who is an industrial hygienist, noted that design professionals are subject to information overload and must sort through often contradictory health claims about building materials, equipment, and products, trying to determine fact from fiction. She also noted that often the IEQ issue is overlooked in green design, as more emphasis is typically placed on energy efficiency and sustainable materials. Coombs offered some basic design guidance, such as avoiding cooling towers which can become habitats for *Legionella pneumophila* (also known as Legionnaire's Disease) and interior finishes that require the use of hazardous cleansers (soil resistant finishes can be specified instead). A synopsis of Coombs' talk can be found on the **SWA** website at: www.swinter.com/skills/IEQ.html.

WinterGREEN is published bimonthly by Steven Winter Associates, Inc., 50 Washington Street, Norwalk, CT 06854. **SWA** is solely responsible for content and cost of publication. For further information contact Michael J. Crosbie at **SWA**, phone 203-857-0200, fax 203-852-0741, e-mail: mcrosbie@swinter.com. Visit our web site at www.swinter.com.