

Great Seneca Creek Elementary School

Germantown, Maryland

Architect: Grimm + Parker Architects

Great Seneca Creek Elementary School is Montgomery County Public School's (MCPS) LEED® Gold rated school. The client wanted to pilot a new program: to create a new "green" prototype elementary school for their growing jurisdiction. Two new schools were to be built concurrently; one school would be registered, tracked, and certified under the U. S. Green Building Council's (US-GBC) Leadership in Energy and Environmental Design (LEED®) program. Its sister school, Little Bennett Elementary School, also opened in 2006, shares the majority of the green features and materials as Great Seneca Creek, but wasn't tracked in the LEED® program. One year after both schools have opened, MCPS is repeating the school again.

The planning process as the first LEED® public school in the state was an extensive introduction and integrated planning process. Starting with a "Design Charette" in 2003 to introduce the community, the Board of Education, and the staff to LEED® concepts and requirements, the design team and owner worked together to develop stringent energy and environmental goals for the school.

The building acts as a 3-D environmental textbook to teach the students about the green features and energy-saving aspects of the building. The compact, two-story school footprint with an open-air educational courtyard allows for minimal site disturbance while still maintaining maximum daylight spaces and views to the exterior. The mechanical system is designed to utilize a ground source well field and individual heat pumps and temperature controls. Electric needs are completely covered by green power. Low-E, double-glazed insulated fiberglass window units and an Energy Star roof coating contribute to



the energy savings. Water usage is reduced by over 40% through the use of waterless urinals, dual flush toilets, low-flow aerators and showerheads, and sensed faucets. Products include strawboard casework with rapidly renewable content as well as plastic toilet partitions, structural steel, and fly ash concrete that all contain a large percentage of recycled content.

Montgomery County has a Green Building MCPS website and numerous curricular tools for the staff. Signage throughout the building identifies the green elements and ideas. Virtual tours and maps that are recycled into paper question and answer games help the students understand the green features. Recycling and Green Cleaning programs keep the students and staff fully involved in the environmental life of the building. A digital display monitor runs environmental and school news and updates. The building design concept includes two "natural" axes – the Water Axis and the Garden/Solar Axis. Upon entry to the school, visitors are reminded of the natural water cycle by a mural

at the front entry to the rear of Main Street, which overlooks the natural wetlands and Great Seneca Creek. Students and staff are encouraged to appreciate nature along the Garden/Solar Axis, which connects the exterior play areas with the interior, open-air, educational courtyard.



Excited students, parents, and staff have embraced the uniqueness of both Great Seneca Creek Elementary and Little Bennett Elementary and learn a little more each day about how inspiring a stimulating and healthy school environment can be.

LEED® Gold

MANUFACTURERS

DIV. 4: Brick: **Carolina Ceramics.**

DIV. 7: Roofing: Johns Manville, Tamko.
Metal Roof Panels, Metal Wall Panels, Metal Shingles: ATAS.

DIV. 8: Entrances & Storefronts:
EFCO Corporation; *Windows:* Fibertec.

DIV. 9: Ceilings: **Armstrong;** *Flooring:* Tarkett; *Paint:* Duron.

DIV. 26: Lighting: Lightolier, Hubbell, Columbia, Prescolite.

EXTENDED PRODUCT INFORMATION

Brick: **Carolina Ceramics**

See advertisement on page 41.

Entrances & Storefronts: **EFCO Corporation**

See advertisement on page 3.

Photos Courtesy of
Kenneth M. Wyner Photography, Inc.