

PINEY BRANCH ELEMENTARY SCHOOL BRISTOW, VIRGINIA

A LEED® SILVER GOAL FOR PRINCE WILLIAM COUNTY

Size: 104,000 SF
Budget: \$21,000,000
Bid: \$15,799,000
Est. Completion: 2011



The new Piney Branch Elementary School for Prince William County Public Schools will be constructed on Linton Hall Road in the Bristow area of the county. The new school will accommodate approximately 850 students and 80 full-time staff. The team implemented design strategies to provide a functional and durable school building to accommodate their growing student population, as well as incorporate sustainability to reduce this building's impact on the environment.

The process for preparing for LEED® (Leadership in Energy and Environmental Design) certification was unique in that Prince William County Public Schools was directed to pursue LEED Silver certification for all new schools. During meetings with the owner the team was able to identify the issues that were most important, including a highly functional and durable building, as well as interior air quality and material selection were at the top of the list. Additionally the owner wanted to save on operational costs on both energy used as well as water savings. High performance strategies that are part of the schools' design and construction include:

- re-designing the county's previous "standard" mechanical system which resulted in a system that scored 26 percent more efficiently over minimum ASHRAE 2007 standards;
- installing two 25,000 gallon cisterns on site to capture stormwater roof runoff, which results in a non-potable water irrigation system;
- using low-flow fixtures to reduce water usage by over 30 percent;
- providing over 40 percent vegetated space to promote biodiversity;
- installing highly reflective roof materials to reduce the heat island effect and help keep the building cool;
- reducing the heat island effect by utilizing concrete for a minimum of 50 percent of the site's hard surfaces;
- promoting a healthy indoor air environment by choosing non-toxic paints, adhesives and materials which contain no or low volatile organic compounds;
- implementing a green cleaning program and non-toxic interior pest management practices;