

Carlisle Barracks goes 'green' all year-round

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Construction workers deconstruct a 'smurf home' in the College Arms housing area. Materials from the home were recycled, aiding in the Carlisle Barracks mission to reduce its environmental and energy footprint. File photo.

April 22, 2009 – Thousands of trees will be planted across the United States this week in celebration of April's annual holiday, Earth Day. Along with our nation, Carlisle Barracks will take part in the festivities of Earth Day, Tree City USA, and Arbor Day on April 24, at 10 a.m. at the Delaney Field Clubhouse. The event will include a visit from Smokey Bear, a tree planting, and performances by CDC children.

While having such an event to commemorate green practices is a tradition for Carlisle Barracks, the post is actively doing its part to help the environment all year-round -- not just on Earth Day.

As a part of an Army-wide mission to reduce its energy footprint, Carlisle Barracks is engaged in several projects that are environmentally friendly and energy efficient.

Energy saving projects from stimulus money

Carlisle Barracks, along with several Pennsylvania military facilities, was awarded stimulus funds for improvement projects as a part of the American Recovery and Reinvestment Act of 2009.

The post will see approximately \$2.5 million for specific projects in energy and efficiency upgrades for the post. With these additional funds, Carlisle Barracks will be able to tackle their to-do list of upgrades sooner than expected. It is estimated by the Directorate of Public Works that the projects will reduce energy consumption in the upgraded buildings by over 30%.

The stimulus funds are currently slated for the following green projects:

- Energy efficiency upgrades for the Chapel, DPW, and Armstrong Hall
- Provide energy saving lighting to Root Hall
- Replace aging high voltage cables throughout post
- Retrofit street lighting with energy fixtures throughout post
- Install sewer line metering throughout post
- Evaluate Water Plant for future upgrades
- Provide roof repairs throughout post

Installing geothermal heat pumps

In 2003, the post installed its first geothermal heat pumps in houses and offices to make both heating and air-conditioning more efficient. Since their installment, Carlisle Barracks has been saving both energy and money.

The post estimates it has saved more than \$679,000 to date in energy and related maintenance costs, said Gary Sweppenhiser, general engineer with Public Works here.

This type of heating has been called the most eco-friendly, cost-effective and efficient system according to the Environmental Protection Agency.

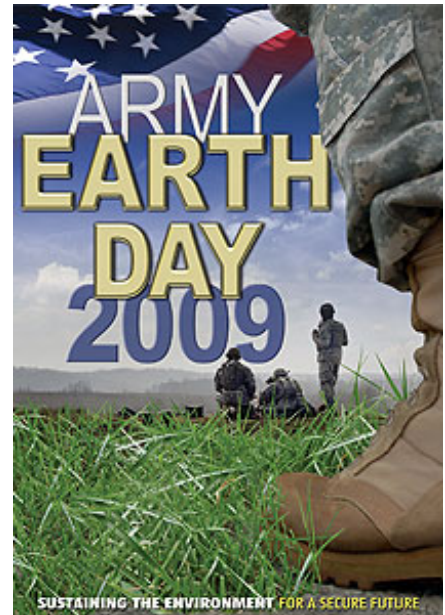
Geothermal heat pumps take advantage of the earth's relatively constant temperature to provide heating, cooling and hot water. The systems are electrically powered and utilize "geothermal" or "ground source" heat pumps to get the work done and will allow the post to save in maintenance and manpower costs.

All of the new homes, including those in The Meadows, Marshall Ridge, and Heritage Heights, are being built with geothermal heat.

Major construction leads to recycling

Carlisle Barracks is giving new meaning to the saying "*what comes up, must come down.*" As a part of one of the largest construction periods Carlisle Barracks has seen, the demolition of old homes and buildings is a major aspect of the transformation.

The post has made strides in green construction practices and that includes recycling demolition



materials, which include lumber, drywall, metals, and masonry. Instead of simply knocking down the old homes along Marshall Ridge and former College Arms, construction crews have engaged in "deconstruction". The process of deconstruction is more time consuming, but it means that some of the original material can be recycled as an alternative to throwing materials in a landfill.



Root Hall, the main academic building for the Army War College, will receive new energy saving lighting thanks to the stimulus money provided by the government. Carlisle Barracks will receive approximately \$2.5 million as a part of the American Recovery and Reinvestment Act of 2009 for energy and efficiently upgrades throughout the post.

New lighting saves energy

Additionally, the post has been installing energy efficient lighting throughout major buildings. The new lights use significantly less energy and will reduce Carlisle Barracks overall energy-footprint. The commissary, for example, upgraded its lighting in 2004 and has since saved approximately \$96,000 in electricity.

Recently, Public Works has been testing the efficiency and effectiveness of LED and induction lighting in post parking lots. Both of the lights are considered far superior to traditional street lamps and claim to reduce wattage energy by approximately 50%.

Keeping our water clean

Carlisle Barracks received good news from the Department of Environmental Protection. The DEP conducted an unannounced water inspection on post last week.

"We passed with flying colors," said Tom Kelly, director, DPW.