

Since opening two years ago, Clark College at Columbia Tech Center has recovered its investment in energy-efficient building practices.



Photos by STEVEN LANE/Columbian files

Clark campus takes 1-point LEED

Tech Center site certified gold for energy efficiency

By TOM VOGT
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Trailing by a point and with time running out, Penguin Nation headed for the parking lot.

Not to give up on the game, though: The parking lot was where Clark College picked up the point it needed to achieve LEED gold certification for its newest campus.

That designation was recognized Tuesday at Clark College at Columbia Tech Center.

LEED is the nation's pre-eminent program for the design, construction and operation of green buildings.

By using less energy and water, buildings certified by LEED (Leadership in Engineering and Environmental Design) also save money, said Bob Williams, Clark's vice president of administrative services.

Washington requires all new state-funded buildings to achieve a minimum of silver certification, said Timothy Buckley, Vancouver architect and LEED consultant. (The highest LEED rating is platinum.)

Clark officials thought the building

was designed with enough items on the LEED checklist to achieve gold status when the campus opened in September 2009.

At the final tally, however, Clark wound at the top of the silver category.

"We had to look around to make up that one last point. We could have gotten more points just by paying for stuff, but they were not really functional,"

said Jim Watkins, project manager.

"We could have bought more bike racks, but that would give us more than we would use.

"We could have painted the roof white," which reflects sunlight, Watkins said. "But that's very bright and very hot if people are working up there on air condition-

ing. We went with a gray roof. It cost us a point, but it makes more sense from our perspective.

"We wouldn't buy these things just to get LEED gold," Watkins said.

Eventually, Clark scored that point in the parking lot, at the cost of some paint and signs. It provided 20 pre-

Did you know?

■ About 95 percent of the construction waste (232 tons) that was generated in the Clark College at Columbia Tech Center project was recycled or salvaged.



With solar panels in place, a small wind turbine goes on the roof during construction of the Clark College at Columbia Tech Center building in February 2009. The renewable energy sources are primarily for instruction, but they do send power to the building's power grid.

Clark gold:

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mium parking spaces for fuel-efficient and low-emissions vehicles — and they don't have to be electric.

"There are hybrids, and some gas- and diesel-powered vehicles," Watkins said. "The low-emissions list has about 600 different vehicles."

Significant energy savings were designed into the building.

"The building is 35 percent more energy efficient," Williams said. "That will save \$20,000 a year in energy costs."

All classrooms have sensors that measure incoming sunlight and provide only as much interior lighting as necessary.

"We built a trombé wall — a two-story black solar wall on the south side," Watkins said. "It absorbs heat and preheats air drawn into the air system in the winter."

The building saves about 1.4 million gallons of water a year through low-flow restroom fixtures and landscaping that doesn't need as much irrigation.

For flooring, "We use a lot of polished concrete, which reduces maintenance costs," Watkins said. "It's easier to clean than vinyl or carpeting."

Clark installed a couple of renewable-energy sources funded by grants: two photovoltaic panels and two small wind turbines. They're more of an instructional resource, helping train students for jobs in the renewable-energy field.

But they are tied into the building's power grid. "Over time, it will be a significant amount of energy," Buckley said.

The state estimated that the efficiencies would pay for themselves in two years, so the Columbia Tech Center campus — which opened in September 2009 — has already recaptured its investment.

The \$29.5 million project also came in \$500,000 under budget.

The college's other partners in the project were LSW Architects and Todd Construction.