## St. Chirstopher Catholic Elementary **Ontario's Most Energy Efficient School**

by Danielle Breault

hen the time came to undertake a major renovation and expansion at Christopher Catholic Elementary School, the Windsor-Essex Catholic District School Board made an outstanding decision design to save energy." to do so in an environmentally friendly way.

across North America prepare to return to school, the students of St.

required to be by the Ontario Building Code.

working toward," says Passa, a member of Greenpeace for more than 30 years. "I've always tried to expected cost savings of about

software, it is now possible to quan-And now, as children from tify energy savings and compare them to the National Energy model.

With financial incentives offered during both the design and construction phase, and the annual expected cost savings of about \$25,000 on gas, electricity and water bills, this significant savings of energy and dollars just makes good sense.

most energy efficient school... elementary or secondary... in the School Board in 2002. Province of Ontario, and the fourth best in all of Canada!

Passa, the school is 60 percent more energy efficient than the national is approximately 10 percent better Building Code.

Christopher is about 70 percent tional budget for a "standard to improve air quality. Joseph Passa space." more energy efficient than it's school".

Christopher will head back to the building energy efficient schools to the Windsor-Essex Catholic District

A renovation at Mount Carmel School was the first project to focus Designed by architect Joseph on energy efficiency. Since then, the Board has mandated that all new inch layer of high tech soil. buildings and renovations are to be energy efficiency.

than the standards set in the Ontario Interesting and noteworthy is the fact that this state of the art facility In essence, this means that St. was actually built under the tradi-

"We brought this project in \$350,000 under budget," Passa says "This is what we've always been proudly. With financial incentives offered during both the design and construction phases and the annual \$25,000 on gas, electricity and And with the advent of new water bills, this significant savings of dollars just makes good sense.

Passa cites good insulation and good detailing in the design phase He first brought the idea of as the key to energy efficiency.

In the St. Christopher design, he also incorporated a number of innovative practices, including waterless urinals, a heating system and radiant cooling that runs through the floor slab and fiberglass window frames that are warm to the touch, even on the coldest days of winter. Sensors have been installed that automatically shut off light fixtures once a room is no longer occupied.

Large main areas such as the entry atrium and stairwells are all fitted with large windows and sunshading, and the lights in these areas shut off when daylight is sufficient.

Perhaps most exciting is the 5,000 square foot green roof covered with native plants and a six

This helps insulate the building model of energy efficiency, which constructed to meet the model of and also provides cooling in the summer.

> Unlike traditional asphalt roofs which absorb heat, a green roof helps to deflect heat and also helps indicates that on a broader scale.



St. Christopher's sleek and modern appearance is designed with energy efficiency

adopted and implemented.

warming is to cool the planet," he

This school in the City of commercial buildings.

green roof technology should be Windsor can be used to help educate others about the environmental and "The only way to combat global economic benefits of energy efficient design, and it's a model not explains. "To do that, we need to just for school boards across the increase the amount of green country, but it's also worthy of consideration in the construction of all