

St. Christopher Catholic Elementary Ontario's Most Energy Efficient School

by Danielle Breault

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

And now, as children from across North America prepare to return to school, the students of St.

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"We brought this project in \$350,000 under budget," Passa says proudly. With financial incentives offered during both the design and construction phases and the annual expected cost savings of about \$25,000 on gas, electricity and water bills, this significant savings of dollars just makes good sense.

Passa cites good insulation and good detailing in the design phase 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 inch layer of high tech soil.

This helps insulate the building and also provides cooling in the summer.

Unlike traditional asphalt roofs which absorb heat, a green roof helps to deflect heat and also helps to improve air quality. Joseph Passa indicates that on a broader scale,



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

green roof technology should be adopted and implemented.

"The only way to combat global warming is to cool the planet," he explains. "To do that, we need to increase the amount of green space."

This school in the City of

Windsor can be used to help educate others about the environmental and economic benefits of energy efficient design, and it's a model not just for school boards across the country, but it's also worthy of consideration in the construction of all commercial buildings.