



Front Entrance way, all natural plantings and retained treescape

# Dennison Homes Builds with the Future in Mind

By **Marylene Vestergom**

For Sandy Nelson of Kincardine, Ontario, winning an environmental responsibility from her employer Bruce Power awakened her inner environmentalist. Her commitment to reducing her footprint began with a magical month aboard yacht "2041". Sandy was a member of an environmental cleanup team on King George Island and explored the waters around the Antarctic Peninsula.

Sandy and her fiancé Bill Harper bought a piece of property just north of Kincardine eight years ago, in anticipation of building a life together. "At that time the standard for environmentally-friendly building was R2000," says Sandy. They interviewed three qualified local builders, including Steve Dennison of Dennison Homes in Port Elgin. Coincidentally, the week that the Canadian Green Building Council emailed her the brand new standard, LEED® Canada for Homes, Steve called to say that with very few changes, their house would be a good candidate for LEED certification. "He was on the same

path and even signed up for courses on how to build to LEED standard. Since he was so enthusiastic it made our decision easy," says Sandy.

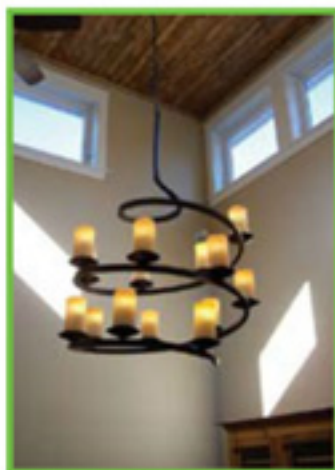
"This was definitely a learning process," says Steve.

When building any house, you have a million choices to make. But when you're trying to build green, your choices are narrowed with limited information to guide you.

Jim Hill, a local supplier in Hanover came on board to build the kitchen cabinetry. "It's not just about energy," points out Steve. "LEED is also about the house as a home; about the health of its inhabitants. To avoid off-gassing, all the finishes, paints, insulation, MDF – everything has to be low VOC."

"There are a lot of competing rating systems out there," says Steve. "You think you've found the right product and everything seems to check out, but it doesn't meet the LEED recycling content. Building to a LEED standard requires a huge investment in the education process."

Researching for the right vendors and products was a team effort. Sandy was very involved sourcing the partners to pull off this project. It started with acquiring the building design. Sandy found Sun Plans™, specialists in passive solar homes, online.



Atrium with Reclaimed Pine ceiling

"Bill and I fell in love with 'Atrium 2' and bought the blueprint," she says. "The atrium creates a very dramatic space. Its ceiling is finished with reclaimed pine flooring and we installed a fabulous chandelier."

Steve recommended Greg Williamson, an architectural technologist in Lions Head, Ontario, to make changes to meet the Ontario Building code. He also incorporated ideas like Smart Framing, which is something that LEED recognizes.

"Instead of building on traditional 16-inch centres, we built on 24-inch centres. It still complies with code, gives you more space for insulation, and uses less lumber," explains Steve.

The house has a simple layout. "It's basically a box with three covered porches and wide overhangs that provide character," he says.

The two-storey atrium provides natural light and ventilation that eliminates the need for air conditioning. The kitchen, dining, and living areas are all open to the atrium. The two main walls of the living space face south so the master bedroom, den and living room have windows that get direct sunlight during the day. The kitchen and utility areas (mudroom/laundry room, stairwell and front entrance) are on the north side of the house. The house is expected to meet LEED Gold.

Adhering to the LEED checklist meant considering every detail, including CFL lighting and ENERGY STAR fans and appliances. A local plumbing contractor took care of all the low-flow plumbing fixtures and the heating system, which includes an HRV system with an ECM motor and a high-efficiency Envirosense™ hot water tank to supply both domestic hot water and the in-floor heating system.

"Products are either built locally, or are environmentally friendly, but you don't often get both," says Sandy. "One exception is the decking. Northern Composite Products in Fergus use rice hulls, recycled glass



Exterior side yard, all natural plantings

and plastic to make decking that is durable, beautiful and environmentally friendly."

There was compromise on the home front as well. Sandy originally considered a green "living" roof, but ultimately opted for an aluminum roof that's recycled and durable.

The success in this project was in the learning. As for LEED certification, Steve's advice is, "build as energy efficient and environmentally friendly as you can, but don't chase points by incorporating things that may not be practical for you."

All things said and done, the cost of the home was around \$500,000. "We could have done it for less," says Sandy, noting higher end finishes for countertops and flooring and two custom built showers upped the ante. "I like to think of our house as a practical green home that is just right for us." GB



Southern exposure for passive solar design