

# New in Homes

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## NIGHT AT THE OPERA

These mother of pearl glasses deserve a round of applause, **H10**



## RAW DESIGN

Young, hip and trendy, architectural firm is taking on the 'new frontier,' **H14**

Your New Home Warranty Explained

Tarion.com

## GREEN RENOVATION

# Building for the future

Small architectural firm remade homes to accommodate growing families — and make them energy efficient



DANIEL HARRISON PHOTO

Remodelling to allow passive solar heating and replacing oil heating with geothermal has changed the energy dynamic and look of this 1945 two-storey High Park house.

**DONNA LAPORTE**  
REAL ESTATE REPORTER

Showing visitors around his recently remodelled High Park home, Terence Woodside exclaims, "This house has this incredible view off the back."

Come summer, you won't be able to see a thing, as a green canopy unfolds below.

Green is what Woodside was aiming for when he and his wife, Suzanne Hamilton, hired Moss Sund Architects to create a modern, energy-efficient home out of a 1945 double brick two-storey structure that would still fit into the neighbourhood.

Moss Sund is a boutique architectural firm based in Toronto with a strong focus on sus-

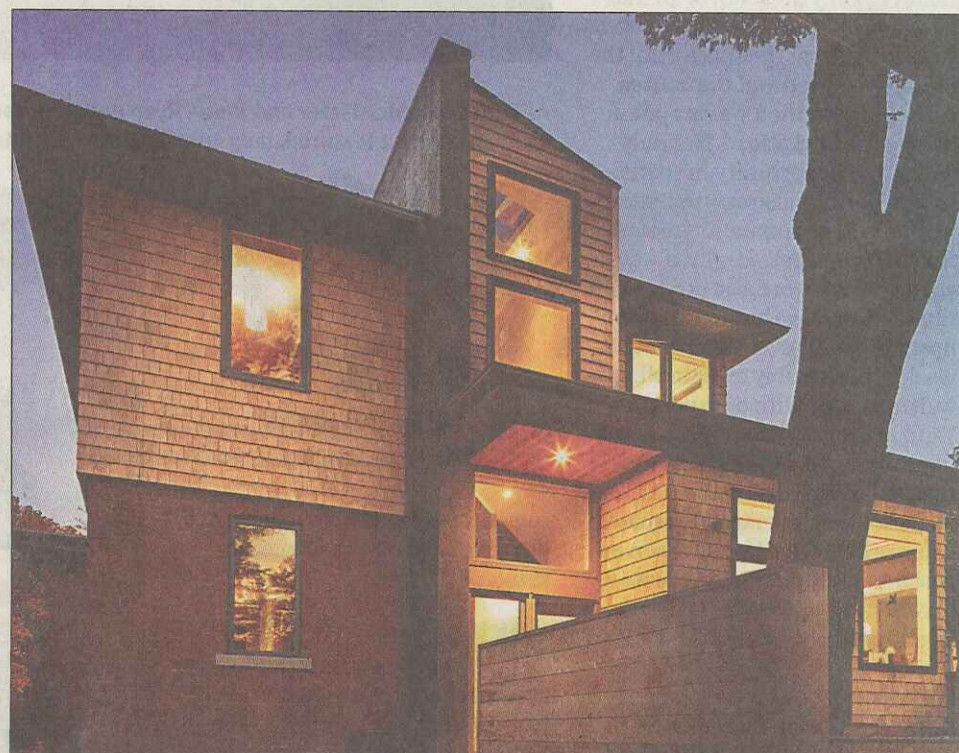
tainable design.

The original home was about 1,800 square feet, but with two children and many out-of-town guests, the couple needed to "grow" their house, increasing the light and reducing their environmental footprint.

Changing from oil to geothermal heating — in which three 60-metre-deep loops of piping were sunk deep into the front yard, then sent back into the house about 1.2 metres below ground — and passive solar heating would go a long way toward reducing yearly energy costs of \$4,000.

"The ground is doing half the work," Wood-

HIGH PARK continued on H8



DANIEL HARRISON PHOTO

Back view of a renovated Beach house shows how light pours into the second story and warms a slate wall, allowing for passive solar heat. It also has geothermal heating.

**DONNA LAPORTE**  
REAL ESTATE REPORTER

One look at the bike hanging in the entryway of Lee and Angie Fletcher's home tells you everything you need to know about what you are about to see.

The powder blue "super-plastic" aluminum bike, designed by Australian designer Marc Newson for Biomega, is both functional and aesthetically beautiful, perfect for the short ride to Lee Fletcher's nearby office.

Both he and his wife love modern design — he's an industrial designer; she has worked in interior design and set design — but they also wanted their home to be sustainable.

So when they set out to buy a house that would suit their vision, they hired Carolyn Moss, of Moss Sund Architects, to ensure the house would be a suitable candidate for renovation or teardown.

Daughter Lily, 2 1/2, attended play school nearby and they wanted her to continue her schooling in the area, so they moved from Danforth-Woodbine to the Beaches. Angie had changed schools several times growing up and didn't want that for her children. (Their other daughter, Ella, is 5). Lee, too, had crossed continents several times between Canada and England.

BEACH continued on H8

# Family goes green in High Park

HIGH PARK from H1

side, 38, explains.

The cost to install a forced-air furnace and ducts was \$30,000 and he says he expects it will pay for itself in seven to 10 years. He got rebates worth \$10,000, including \$7,000 from both provincial and federal government programs.

His total energy costs now (including natural gas for hot water and cooking) are about \$1,400 per year. "I don't worry about the bills any more," Woodside says.

In fact, costs dropped so dramatically, "we got a phone call to say our meter is broken," he adds.

Extra heat goes to a storage tank hooked to a pumping system for radiant floors. The heat pump takes care of most needs. Woodside says that an auxiliary backup, "like a big toaster," is only needed in the

morning on the coldest days of the year.

Passive solar heating does the rest. Architect and principal Carolyn Moss admits that "it's quite difficult to use passive solar in the city."

She set the two-storey addition at the rear of the house on piers.

Generous energy-efficient windows on the eastern and southern sides allow the low winter sun to heat the back rooms. In summer, sunshades keep rooms from overheating.

The master bedroom on the second floor offers the same stunning views.

Floors are reclaimed West Lincoln barnboard, 100-year-old ash.

Moss has drawn plans for a back deck, to be built in spring.

Woodside, with industrial design partner Lee Fletcher, is working with Moss on a rainwater harvest-

ing system through their company, fig forty.

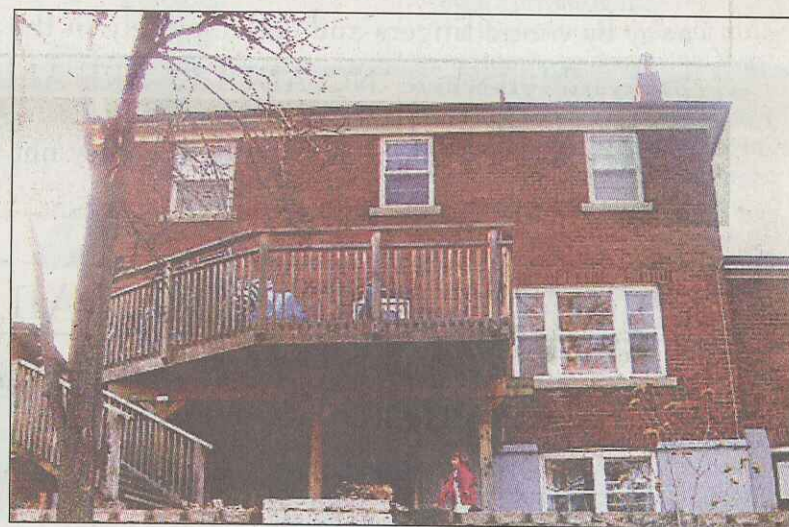
Moss used Icynene spray foam insulation, manufactured locally, to wrap the outside of the existing masonry building. Then, she covered it with stucco. She estimates the R-value was increased by R20 to R24, from R4.

Enviroshake roof shingles, manufactured in Chatham, Ont., look like weathered cedar and are made of recycled wood/plastic composite.

In front, a 6-foot by 10-foot entry vestibule was created with an extension to create a large green roof canopy of 222 square feet.

Construction began in May 2007. The family moved out in summer and returned in October. The bulk of the work was completed by March 2008.

Other features include a low-flow toilet by Toto, a leader in Japanese



MOSS SUND ARCHITECTS PHOTO

The back exterior of High Park house before it was renovated.

toilet technology; a second toilet is gas-assisted, working by pressure.

As for the financial tally for the 2,340-square-foot home, Woodside says, "I'm afraid to look at total costs."

But, he estimates, all in, it will be \$300,000 for the renovation.

When asked about his favourite room, Woodside doesn't hesitate: it's the family/rec room with its rich, warm floors.

With a 4-year-old son, Sam, and 6-year-old daughter Katie, Woodside says, "The floor is so great to sit on and play on."

# Reno puts firmer roots down in Beach

BEACH from H1

Being rooted in the neighbourhood would provide stability.

Other roots were important, too. A 100-year-old oak tree in the backyard would have a starring role in the renovation.

Construction began in September 2007. The original two-bedroom bungalow, built in the early 1900s, was gutted to the brick. Three themes were paramount: walnut, slate and white.

As well, geothermal heating and passive solar — as in the home of Fletcher's business partner, Terence Woodside — were key.

Integrating passive solar was a challenge, Moss says, as another house sits right beside them to the south: "We really struggled with it."

She solved this by creating a central staircase with three skylights angled toward a slate wall, made of Eramosa stone from an Ontario quarry. Light pours into the second storey and warms the wall, radiat-

ing heat back at night. The oak tree, cabled for stability, shades the skylights in summer. The centre skylight is operable to draw heat up and out of the house when necessary. Additionally, the back wall of the landing has two windows to showcase the tree, which Fletcher says is "amazing in autumn."

On one side of the staircase sits a cozy den and on the other, a minimalist kitchen. There are no upper cupboards. Lower drawers are accessible for the girls, so they can learn to pitch in. Sliding glass doors hide storage of cereals and pantry items.

Slate covers both an island and main counter. "I wanted a really open kitchen," Angie, 38, says.

Beautiful walnut floors tie the whole look together.

Light pours into the house, as each room has at least two windows. The windows, from a company in Concord, are double-paned thermal glass, with fibreglass frames.

"Glass and fibreglass move at the



MOSS SUND ARCHITECTS PHOTO

Back exterior of Beach house before Moss Sund Architects renovation.

same rate," Moss explains. "It doesn't cause seal problems."

Upstairs, there's a master bedroom with an ensuite that natural light spills into, along with two bedrooms for the girls, and another bathroom with an oversized tub.

As the couple often has family visiting from England, the basement has a guest area shielded by a privacy organizer, as well as a full bathroom. An office for the Fletchers includes an area for the girls to "work." An alcove beside the stairway functions as a play area.

The basement floor was in such rough shape, they had to dig down six inches to rip out concrete and the rotten subfloor, replacing it

with polished concrete.

Soy-based foam insulation, sourced locally, was used throughout the house, along with synthetic drywall containing 99 per cent recycled content. The new walls are now R32 and the ground floor walls were increased to R18 from R4.

While geothermal piping supplies heating and cooling via four 150-foot-deep loops, auxiliary heat is provided by a hot water heater.

They can't compare heating and electricity costs, as they didn't live in the house before its renovation, says Fletcher, who turns 40 this month.

Their previous house, a two-storey with no insulation, "cost a for-

tune to heat," he adds.

Work was essentially completed by May 2008. A 526-square-foot green roof has been created and a rainwater harvesting system is to come. Although the house now measures 2,185 square feet, the footprint has hardly changed, Moss says, with only two feet added.

Fletcher describes it as having "a nice, human scale."

Neighbours, too, are pleased, especially that they didn't sever the lot.

Both parents love the living room, where the gas fireplace is augmented with small rocks the children picked up off the beach, which they love to walk to. The couple sold one of their two cars, as it was collecting cobwebs.

Asked whether there is anything they would change, they admit all those hard surfaces create extra noise.

"It's not acoustically warm yet," Fletcher admits.

Angie has used rugs, where possible, to absorb some of the noise.

During storms, when large raindrops hit the skylights and metal roof, it can create quite a cacophony, although watching lightning storms out the back is "fabulous," he says.

Fletcher estimates total costs for the renovation at about \$560,000.