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Managing to do the Right Thing

O'Shanter takes the green road

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Toronto-based O'Shanter Development Company Ltd. has spent the past 30 years developing green building management practices that are not only environmentally friendly, but add to the company's bottom line.

By Randy Threndyle

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Left to right: Randy Daiter, General Manager; Adam Krehm, Principal; Jonathan Krehm, Principal; Bill Scott, Maintenance Manager

For many multi-residential property managers, energy conservation and green building methods are a relatively new concept. In many cases they are ideas that have been forced on them by high energy costs or government policies that dictated change.

For one multi-residential property manager however, green is a way of life. O'Shanter Development Company Ltd., a Toronto-based company, has spent the last 30 years developing green building management practices aimed at lowering energy costs and reducing the company's carbon footprint.

O'Shanter was founded in the 1950s by William Krehm, who was a homebuilder. Later the company branched out into the multi-residential rental business. Today O'Shanter manages about 2,600 rental units in the Greater Toronto Area. It has an ownership position in about 1,600 units and about 1,000 are managed on a third-party basis. O'Shanter is now owned by William's sons, Adam and Jonathan. Both brothers joined the company in the late 1970s.

As early as 1979 the Krehm brothers were implementing policies aimed at making the company's buildings more energy efficient. In those days, when most building managers took the view that energy conservation measures were a costly venture with little potential for payback, the brothers took the view that energy conservation was both the right thing to do for the environment and something that would lower operating costs and add to the company's bottom line.

"We've always approached it with a view that we would only invest in energy conservation measures if it was profitable," says Adam Krehm. Over the years the company has made something of a science out of predicting the outcome and profitability of energy conservation methods.

One of the ways they are able to do that is through constant monitoring of utilities. Constant monitoring has created a large database that allows the company to compare the past and present energy consumption of any building in the portfolio. Their latest tool is a Web-based energy monitoring system that allows O'Shanter to measure the natural gas, electrical and water consumption of each of the company's buildings every 15 minutes.

"We are able to use that database to evaluate energy conservation projects on an ongoing basis," says Krehm. Without the database, he says, it would be difficult to identify operating inefficiencies. Krehm first started collecting data on energy use more than 30 years ago. In those days collecting gas, water or electrical consumption figures was done manually. Today, that information is available on-line in real time.

Bill Scott, the company's Maintenance Manager, says the real time data flows to the company through a

website known as Energy Brain. The website connects a building's utility meters to the Internet and allows building owners to compare actual energy consumption with weather conditions and the performance standards expected from the building and installed equipment. Using the data, building owners and managers can compare consumption against historical benchmarks and accurately predict future consumption. Any loss of performance or sudden increase in consumption generates an alert to the building manager.

While the Energy Brain system gives a building owner real time data, its true value is in measuring energy consumption over time. O'Shanter, says Scott, has made large investments in energy saving boilers, lighting systems and water reduction plumbing fixtures. That's significantly reduced the company's energy and water consumption.

Brentwood Towers, a 957-unit, five-building complex in the Yonge and Davisville area of Toronto, has had many energy-related upgrades since it was purchased by O'Shanter in 1984. In one change, aimed at lowering utility costs, the company installed new low-flush six litre toilets in all the units. At first, says Krehm, the company recorded "excellent results" and significantly lower water bills. "You could see it graphically, from the data," he says. "But after about five years we started to notice that water consumption going up and we couldn't understand why."

Leaky Low-Flush Toilets

After a thorough investigation, he discovered that plumbers servicing the low-flush toilets were replacing the original flapper valves with standard flapper valves. The standard flapper valves all leaked. "We had created a massive number of leaking low-flush toilets," says Krehm.

The valves were replaced with proper low-flush valves and the problem was solved, but, says Krehm, if the company hadn't had been monitoring water usage and comparing it against historic averages, they might never have picked up on the problem.

Other problems that can be identified through the monitoring system are boiler controls that are malfunctioning, makeup fans being run too aggressively or apartments that are being overheated. Often, says Scott, building managers install new energy efficient boilers, but they fail to install control systems that will allow the boilers to operate to their true efficiency standards.

"In the past people just installed systems and walked away from them," says Scott. "You can't just install it and forget about it, you have to monitor and maintain the system."

A typical control sensor installed a few years ago might, says Scott, have a range of four degrees Celsius. A military spec sensor, on the other hand, will control temperature to plus or minus half a degree. When you are controlling the temperature of people's apartments, says Scott, a range of plus or minus two degrees, is simply not good enough.

Along with controlling the temperature inside the units, sophisticated control systems also monitor the makeup air in the building, ensuring both a more energy efficient building and a healthier building.

Accurate controls, along with new boilers and windows, have helped reduce gas consumption at the Brentwood Towers complex from 2.8-million-cubic metres of gas per year to 1.8-million-cubic metres of gas per year. Throughout the entire portfolio, electricity consumption was reduced by 15 percent, water use decreased 43 percent and gas consumption was slashed by 45 percent. This resulted in the company receiving two awards for environmental achievement—one from the Federation of Rental-housing Providers of Ontario and the other from the Recycling Council of Ontario.

In fact, the company has reduced its energy consumption so much over the past few years that it is considered to be compliant with the Kyoto Accord.

While there is no legislation requiring companies to meet the targets of the Kyoto Accord, Krehm says, "We thought it was important to meet the Kyoto Accord targets because of our sense of social responsibility. We also felt it was very important to document it carefully because, if and when there is mandatory

compliance with the Kyoto Accord, we don't want them to come to our efficiently operated buildings and say: 'Now reduce the energy consumption another 25 percent.' We wanted to show where we came from, to where we are now."

By keeping track of the fuel consumption, and the reduction in consumption that the company has achieved, Krehm says O'Shanter can prove it has met the requirements set out in the accord.

Another area where O'Shanter is leading the way is in converting buildings with bulk electrical metering to individual metering. So far the company has put individual meters in a 64-unit building and a 72-unit building. Three more buildings are slated for conversion this year. Krehm says over the long haul the company would like to convert all its buildings to individual metering as it would further reduce energy costs.

"We are of the view that if people pay their own electrical bill they will use the commodity more responsibly," he says. However, the program has been put on hold pending a clarification of an opinion memo recently released by the Ontario Energy Board. The board takes the position that rental building owners cannot use individual meters installed after 2005 to charge tenants for their electrical consumption.

While increasing the energy efficiency of the company's portfolio is something that O'Shanter has done voluntarily, other green initiatives, such as waste diversion and recycling are taking place as a result of legislation put in place by municipal governments.

In July of last year the City of Toronto launched a program aimed at diverting 70 percent of the waste generated by multi-family buildings away from landfill by 2010. That's created a tremendous challenge for the owners of older multi-residential buildings. Owners that do not meet the targets will pay increased fees for garbage removal.

Randy Daiter, O'Shanter's General Manager, says currently the company is far exceeding the city's targets for waste diversion.

Engineer, Educate and Enforce

The company's success in recycling and waste diversion is the result of a three-pronged program, described as Engineer, Educate, and Enforce. The 3-E program was aimed at making recycling and waste diversion part of a tenant's everyday activities.

From an engineering perspective, says Daiter, the company went through key buildings looking for areas where they could build a centralized recycling depot. They also created stations where tenants could drop off batteries and CFL light bulbs. Since the city is now charging landlords for the volume of garbage that is being sent to landfill, O'Shanter has looked at ways to increase both the use and efficiency of garbage compactors.

"We wanted to make recycling as convenient and accessible as possible. There is a correlation between diversion rates and convenience," says Daiter. To make recycling convenient for tenants the company located its recycling rooms across from elevators in the parking garage or near a laundry room. In some cases underground parking spaces were converted to recycling centres. That way people did not have to go outside and recycling was convenient 12 months of the year. Tenants were given bags to carry items for recycling, so if a tenant is on their way to their car, they can drop off their recycling and simply fold up the bag and take it with them.

ISO Certification Guarantees Dependability

As the only ISO 14001 Environmental Management and ISO 9001 Quality Management certified multi-residential property management company in Canada, O'Shanter Development Company has come to view the dual certifications as a way to create a dependable business model. The certifications both hold the company to a high standard of environmental practices, and ensure that the company's day-to-day business practices are carried out using good methods and practices.

Jonathan Krehm, a co-owner of O'Shanter with his brother Adam, says the company began considering ISO certification because they found that companies which had ISO certification, where simply better and easier to do business with.

When you have a large group of buildings, he says, "You need to get people to do things either the same way or in a rational way. That way everyone knows what is going on and is going in the same direction. With a quality management system you can do that."

As a hands-on manager, he says one of the biggest frustrations was going to a building and finding that someone had changed a system or a process, but hadn't told anyone. That, he says, led to problems.

The certification, which was granted in 2002, took two years to complete and involved weekly meetings where every job function in the company was analyzed and every process defined. "Generally you don't do that. I had been in business for 20 years and I had never done that before," he says, adding, "It was a long arduous process to sit down and think about everything our company did."

Once the process is complete, all job functions and processes are documented. If something needs to be changed, the changes are documented. In order to maintain certification the company goes through a yearly external audit, much like a financial audit.

Its biggest advantage, says Krehm, is that it gives the owner of the business "dependability." A quality management system creates a set of procedures that both you and your employees are paying attention to, he says. "You are measuring what you do. It makes things more transparent and rational."

The ISO system also adds a sense of dependability when he's away from the office. "I can leave for two weeks and I know things are well run. I get the odd email or phone call. Ten years ago I had to worry more about that."

While items like cans, bottles and newspapers can all go in one recycling bin, a separate bin is needed for organic garbage. Organic garbage is largely made up of kitchen scraps and waste food items. Homeowners in Toronto have used green bins to separate organic garbage from the landfill stream for several years, but multi-residential has been exempt from organic recycling. O'Shanter is part of a special roll-out program launched by the City of Toronto aimed at bringing multi-residential buildings into the green bin program.

Daiter says the green bin program may be difficult for some building owners as an organic recycling area has to control odours and prevent the organic garbage from attracting rodents and other pests. Despite the difficulties, Daiter expects that approximately 40 percent of the company's apartments will have organic waste disposal by June of this year.

On the education side of the program the company began informing tenants about the changes six to eight months before the program was launched. Letters were sent to tenants and signage was put up inside the buildings. O'Shanter updated its website and recycling obligations were incorporated into tenancy agreements and new tenant orientation packages.

In order to create signage the company studied recycling posters across North America. Eventually they modelled their recycling posters after one from the City of Seattle. "They had the best poster in terms of simplicity and universality, for tenants whose first language is not English," says Daiter. "We wanted it to be intuitive."

In addition to the posters, existing tenants where given an information package. New tenants receive an information package when they move in. On the weekends, the company set up information and outreach kiosks where tenants could get information on both what could be recycled and the reasons for the new program. They also set up websites explaining the program. In a unique educational effort, they partnered with the tenants' associations to create an outreach program for kids. Children who participated would get credit for community service by volunteering to help elderly and disabled tenants with the new recycling program.

As a result, says Daiter, "We've had tremendous buy-in from tenants."

On the enforcement side, the company has made an effort to restrict access to garbage areas to prevent illegal dumping. They've installed signs warning that the recycling areas are under video surveillance and that illegal dumping could result in a $5,000 fine.

Recycling a Social Responsibility

Jonathan Krehm says tenants have been positive and cooperative in the company's recycling efforts. Most, he says, tend to see recycling as part of their social responsibility. But, he says, the best efforts of tenants and building owners have not eliminated all the problems with the new program. A big issue facing building owners, he says, is calculating how the city will bill for waste that is not diverted from landfill.

Under the city's plan, each unit would be allowed to throw out no more than two-thirds of a green garbage bag every two weeks. Despite the waste diversion efforts put forward by the company, initial estimates indicated that O'Shanter might face a bill of $250,000 per year under the new program.

At present, he says, it's difficult for building managers to judge how much extra they will pay for waste removal. Originally, he says, building owners understood that the city was going install transponders on bins, which would count the number of bin lifts generated by each building. That, apparently, had problems and the city has reverted to a system where the bins are simply counted manually. The problem, says Jonathan Krehm, is that there is no sure way to verify the bill.

"They (the city) are saying: 'Just trust us.' To me that's not a very adequate response." In order to minimize potential disputes the company has decided to video tape garbage pickups at some locations in order to verify the amount of garbage being picked up.

Jonathan Krehm says unlike other utility bills, the city is not regulating the way it measures how much garbage is being picked up. Water, gas and electricity bills, he points out, are metered and the meters that measure usage are regulated by independent government agencies.

The bills for the new program are just starting to be issued and Jonathan Krehm says there are already discrepancies in the company's accounts with the city. "Most people are just starting to get the bills and to be fair, when you are starting a new system there are things that are in doubt. Hopefully that will change. We will see." CAM