Turning a brownfield site into a Brownie award

KILMER BROWNFIELD EQUITY FUND

Eighty-five per cent of the waste from the demolition of the 215,000-square-foot aircraft component manufacturing plant was diverted. Approximately 27,000 tonnes of concrete were crushed on site and used as a cover base on the property.

DAN O'REILLY
CORRESPONDENT

The onsite bio-remediation and reuse of treated soils coupled with an 85 per cent recycling of building materials on a large Montreal brownfield site has generated a prestigious Brownie award for the remediation developer.

In early October, Kilmer Brownfield Equity Fund received a Sustainable Remediation Technologies and Technological Innovation award in the Category 2 division of the Canadian Urban Institute's Brownie Awards.

It was one of seven awards — in seven categories — presented during the institute 12th annual conference in Niagara Falls. The awards are sponsored by Canada Mortgage and Housing Corporation.

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Toronto-based Kilmer is an equity fund developer which purchases and then remediates brownfield properties to the point they can be sold as "shovel ready" sites to more traditional developers.

"Banks tend to shy away from financing such projects," says Harper, in explaining the unique role Kilmer provides.

In 2009, the company purchased a 13-acre former aircraft component manufacturing plant in the Borough of Saint-Laurent in Montreal. The plant had been operating since the 1950s, but had closed the year before.

The impetus for the purchase was the site's location and long-term redevelopment potential in an area "that is transitioning from heavy industrial uses to medium density housing."

New residents and young families are being attracted to the area, which is just west of downtown Montreal and within close proximity of the city's subway system, he says.

"We selected a team of experts as it's in their backyard," says Harper, in reference to the selection of LVM/Dessau as its environmental consultant, Biogenie as the environmental remediation contractor and demolition contractor Panzini.

Demolition of the 215,000-square-foot (19,974-square-metre) plant took place between March and October 2010, with 85 per cent waste diversion achieved. Approximately 27,000 tonnes of concrete were crushed on site and used as a cover base on the property, while materials such brick and wood were segregated and trucked to offsite recyclers.

The demolition, however, was not without unforeseen complications due to "dated" asbestos reports.

"Asbestos abatement regulations are more stringent in Quebec than in Ontario," says Harper, pointing out Kilmer had to pay an extra $300,000 for the abatement of asbestos in materials such as wallboard.

The next step, after obtaining a number of regulatory approvals, was the on-site bio-remediation and reuse of the impacted earth. From June to November 2011, approximately 30,000 tons of soil was treated with the use of two 10,000-ton-capacity cells which were built by placing some of the crushed concrete on the parking lot. The excavated earth was placed in the cells, covered with backfill, and then fed with micro-based supplements to increase the natural degeneration. After the treatment process, the soils were returned to the same spot where they had been dug, he says.

Not all the site was contaminated and the areas that were consisted of hydrocarbons and chlorinated solvents, says Harper.

Based on similar projects Kilmer has undertaken, the treatment resulted in a 75 per cent reduction in greenhouse gases compared to the traditional "dig and dump" method of excavating and transporting impacted soil to an approved landfill.

But onsite remediation isn't always practical.

"At least 5,000 cubic metres of contaminated material are needed to make it cost effective."

That's the reason demolition of gas stations — a predominant source of hydrocarbon contamination — is basically a "dig and dump" operation. There is also simply not enough space to build the treatment cells, he says.

Under Quebec law, however, if onsite remediation isn't technically or financially possible, contaminated soil has to be trucked to a licensed treatment facility. That's in marked contrast with Ontario where the only option is to take it to a landfill, says Harper.

The now totally cleaned-up property is up for sale at price tag of $16 million, with Kilmer in negotiations with potential purchasers, as well as applying for a municipal rezoning. When the property is ultimately built out, there will be approximately 800 to 1,000 condo units, with prices ranging from $280,000 to $300,000, says Harper.

Demolition CCTV camera helps catch thief

Continued from Pg. 1

All told, 15,000 cubic yards of concrete were crushed for re-use. The demolition was substantially completed in mid-November as crews prepared to apply engineered backfill.

Babey recorded the entire demolition process on CCTV camera, inadvertently nabbing a thief on the first day the camera was installed.

"Someone broke into the building and stole the demolition contractor's generators," he says.

"He parked his van right up to the camera with his licence plate front and centre, so we got them back."

MERIT CONSTRUCTION INC.

Initial plans for the Moose Jaw Civic Centre demolition included implosion, but that proved too costly. Crews used excavators with jackhammers to hammer at the bottom of the structure.

Weather readiness needed municipally

"With the threat of natural disasters, whether it's earthquakes or hurricanes, we have a need to constantly update our infrastructure to ensure it can withstand those pressures. Otherwise, human lives are at risk."

Given the horrendous hit New York City took from Superstorm Sandy, you might think that statement came from the city's mayor, Michael Bloomberg. You'd be wrong: it came from Gregor Robertson, mayor of Vancouver, talking about the need for stable long-term funding so that Canadian cities can do much-needed work on their infrastructure.

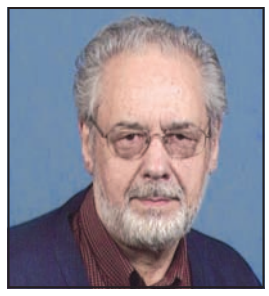
Robertson was in Ottawa recently for a meeting of the Big City Mayors' Caucus of the Federation of Canadian Municipalities. The entire group is concerned about the state of the infrastructure in their hometowns, and the need for long-term federal funding. They have suggested that Canada's cities and towns need another $2.5 billion a year from the feds for infrastructure, and they would like to see it committed in next year's federal budget.

That, they say, would bring the total to $5.75 billion a year from the federal government — funding they say would be matched by the provinces and the municipalities. Of that amount, at least $1 billion a year should be dedicated to fighting the traffic gridlock they say is costing the country $10 billion yearly in lost productivity.

Robertson mentioned earthquakes because there have been a couple recently in the ocean west of Haida Gwaii that shook things up a bit without doing any real damage. But many on the West Coast worry that a really big quake is probably due, and none of the communities there is ready.

Being ready is something we're all going to think more about in the wake of Sandy. New York City and the communities on the Jersey Shore weren't ready, and the cost is likely to be somewhere north of $50 billion.

Being ready also means we've got to look at our infrastructure from two perspectives: First, we must spend enough to renew old and build new to accommodate the growth of our cities. And, second, we must build the "just in case" projects — the storm surge barriers, the underground electrical grids,



Construction Corner
Korky Koroluk

and other things we need to have in place to help us through the bigger, more destructive storms that are almost certainly a part of our future in a warming climate.

All this will certainly mean a re-ordering of spending priorities by governments at all levels, and that will test everyone's ingenuity. Federal and provincial governments have always been loath to give cities much, preferring to remain in control of the purse strings themselves.

But the cities are where the need is. Calgary is a fairly typical example. Mayor Naheed Nenshi has said that the budget, while strained, can cover the non-capital spending that's needed. But major capital works can cost as much as the city's entire operating budget. He cited a proposed new $3 billion light rail line as an example.

He doesn't expect senior governments to send a cheque for the amount, but says the city needs some kind of assurance that it will be able to pay for the line over a long period of time.

The mayors have noted that at present, for every dollar of taxes Canadians pay, the municipalities get only eight cents. That led Saskatoon Mayor Don Atchison to comment that "on eight cents, we just can't get it done."

Politicians in the past have often talked about a "new deal for our cities." And no one can dispute the need.

The old model is broken. It doesn't work anymore. We have to replace it. Building a new model based upon present and future infrastructure needs would be a good place to start.

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