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Canadian Highways was proud to win an award of excellence for our work on the 407 Express Toll Route. However, we would like to note the contribution of four consulting engineering firms who participated in the project and whom Canadian Highways omitted to mention in our submission and credits.

Dillon Consulting, Giffels Associates, Proctor and Redfern and Totten Sims Hubicki Associates came together under one roof as Canadian Highways Design Consortium (not Canadian Infrastructure Design Consortium) and did an outstanding job on the 407 project.

Thanks to the jurors who generously gave their time to judge the competition. Congratulations are also due to the other winners and the organizers of the first-class awards gala at FIDIC '98.

*Frank Switzer*

*Communications Manager, Canadian Highways International Corporation Mississauga, Ontario.*

*Canadian Consulting Engineer* welcomes letters or e-mail from readers on any subject.

## Opening night looms for Air Canada Centre



Toronto consulting engineers had to put their skates on to keep up with the client changes on the Air Canada Centre. It will open in February with a game between the Toronto Maple Leafs and the Montreal Canadiens. The new sports arena was originally designed for the Toronto Raptors basketball team and was already under construction when Maple Leaf Gardens bought the downtown facility and announced the hockey team would be moving in as well.

The centre is a cast-in-place concrete "bowl" with a long-span steel roof adjacent to a 15-storey office tower. It sits on the site of the historic 1939 Post Office south of Union Station, of which only two facades remain.

The adaptations that had to be made to the new facility's original design to accommodate the hockey team added about \$30 million to the \$217 million budget. The major changes included the loss of balconies at the east end, and the addition of a media "gondola" and private boxes suspended from the roof.

Structural engineers are the Yolles Partnership, with Le Groupe Canam Manac in charge of engineering research and development. Other consulting engineers are Mulvey + Banani (electrical), Mitchell Partnership (mechanical), Marshall Macklin Monaghan (civil), Brook van Dalen (building envelope) and Leber Rubes (code). Brisbin Brook Beynon and HOK are the architects.

## On-site sewage treatment movement grows

Tonia Jurbin



Royal Roads University, the site of the converted Military College 20 kilometres west of Victoria, offered a tranquil setting for the inaugural conference of the British Columbia Onsite Sewage Association (BCOSSA). The conference, held October 18-20, was

on "New Thinking—the Technology Revolution in Wastewater Treatment, Disposal and Reuse."

BCOSSA (be-caw-sa) was formed in the spring of 1996 to bring engineers, researchers, regulators, manufacturers, and public health officials together to explore how decentralized wastewater management might become a safe and permanent alternative to transporting effluent through miles of municipal sewers to large treatment plants. New technologies are making on-site systems more economical than tying into the "big pipe," which may be inadequately sized, far away from the community it serves, or leaking and polluting groundwater en route. On-site

systems collect, treat and reuse wastewater for individual homes, clusters of homes, remote communities, and small industrial and commercial facilities. Judging from the quality of the program and the diversity of the members, BCOSSA has quickly demonstrated a leadership role in this field.

Dr. George Tchobanoglous delivered the keynote address: "Decentralized Wastewater Management: a Paradigm for the Future." About 200 delegates heard him explain why we must replace wastewater "disposal" with "reuse" in the future paradigm for on-site treatment. Wastewater is a valuable resource. In a closed loop system different effluent streams can be used as sources of non-potable water for toilets, laundry, baths

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and showers, car washes, fire-fighting, irrigation, or to be fed back to the septic tank. Economically treating wastewater to a high quality effluent through a combination of recirculation loops, filters, biofilters, denitrification, and electro-technologies has resulted in reduced water consumption with treatment levels that consistently meet or exceed levels found at municipal facilities. The setting of the conference, in a traditional ballroom at the heart of Hatley Park with its gardens, wildlife, and ivy-covered castle, made the atmosphere relaxing and conducive to exploring the "New Thinking" theme.

The conference was also used to officially open the BCOSA Training and Research Centre, the first of its kind in Canada. For information call (250) 748-8500.

*Report by Tonia Jurbin, P.Eng.*

### Geoscientists join Manitoba engineers

The Manitoba legislature passed a new Engineering and Geoscientific Professions and Consequential Amendments Act in June. The last time the province's engineering act was significantly revised was 15 years ago.

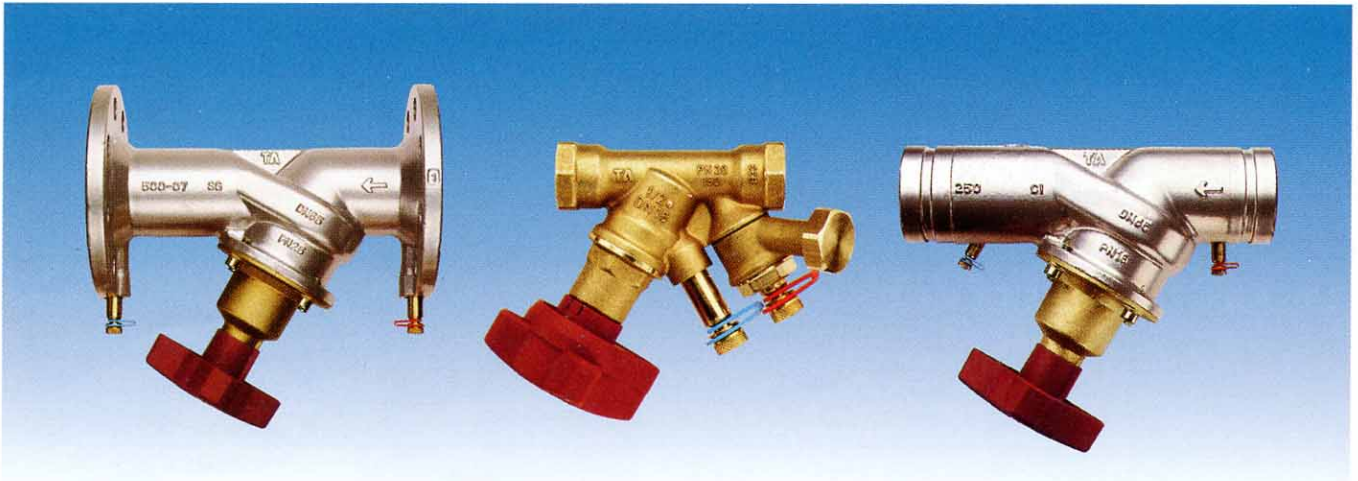
One of the chief changes brought about by the new legislation is that geoscientists will now have to be registered with the newly named Association of Professional Engineers and Geoscientists of Manitoba. About 80 geoscientists are already registered as engineers, but it is estimated that up to 500 other individuals will be affected.

The new act in Manitoba also enables APEGM to require its members to undertake professional development activities. That issue has been put to a ballot, with results due out this month. Elaine Madison, executive

director of Consulting Engineers of Manitoba, says her members are not too concerned about the issue. "Any consulting engineers I have spoken to say they are already doing professional development activities," she says. "And if we don't do professional development ourselves, then we may be forced to do it by government."

### Mergers and new names

Giffel's subsidiary, NGC Architects, and NORR Partnership of Toronto have merged and become NORR Limited under the Giffels corporate umbrella. Hatch of Toronto and Beddows and Company of London, England have merged their management consulting businesses. Stanley Technology Group has decided to change its name to "Stantec." Its purpose is to adopt a "single, global brand identity."



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