

Research suggests huge savings from automated e-permitting

by Ian Harvey Nov 3, 2017

Automated e-permitting could trigger savings of up to \$500 million a year if employed in the Greater Toronto Area (GTA) alone, suggests research from the **Residential Construction Council of Ontario (RESCON)**, which wants to set up a pilot project in the province.

The council has been working with Ryerson University's Centre for Urban Research and Land Development and last summer released a report looking at how other jurisdictions are incorporating e-permitting and auto e-permitting into their approvals process.

University of Toronto professor Arash Shahi, the associate director of the Building Tall Research Centre in the Department of Civil Engineering, is also investigating how e-permits have been working and is part of a working group formed to investigate a pilot project in the GTA.

"We're talking really of a two-stage process, where the first stage is e-permitting, the submission of plans and applications electronically, which are reviewed manually at the municipality," says Shahi. "The second stage, which produces the most savings, is automated e-permitting, where those plans and applications are submitted online and then automatically reviewed using software — and there are quite a few companies making this software."

The key to making it all work is adoption of Building Information Modeling (BIM), says RESCON's director of building regulatory reform and technical standards Michael de Lint, which would provide a seamless data link between the design on the CAD document, programmed with local codes and standards.

RESCON has struck a working group to look into the feasibility of a pilot project in Ontario that would provide a base comparison level of process efficiencies as well as quantify the learning curve and implementation challenges and costs.

At the approvals level, the software would flag any configurations that weren't to code based on what is loaded into it on the municipal approvals side.

This would have the net effect of dramatically speeding up approvals and cut costs and overhead for developers who are caught in limbo while their applications are processed, de Lint says.

At least some of those savings could reduce the cost of housing, says RESCON, since the average approvals process means it can take 28 months to get a condo project up and running. Citing a Fraser Institute report, de Lint pointed out that for every six-month delay in approvals, housing growth shrinks 3.7 per cent.

According to the World Bank, Toronto is 57th in the world out of 190 jurisdictions, in terms of being development friendly.

Clearly, says de Lint, there's room for improvement. Toronto has a long way to go to catch up with Singapore whose CORENET e-permitting system claims overall time savings of 65 per cent, and 44 per cent less manpower with a 72 per cent cut in printing costs.

Shahi says his report will be released by the end of this year but the initial findings are promising.

Evolta, a Finish software company involved in this sector, came to Toronto last summer, says de Lint, and met with a group of municipalities to explain the permit point system that is widely used in their country.

The key is the implementation and adoption has to be driven from the top down, says de Lint, with provincial ministries taking a leadership role.

The system is a platform that connects all stakeholders, such as the Ministry of Environment, Ministry of Housing and Ministry of Transportation with the local municipalities and other agencies who would normally be part of the applications process.

As each stage is signed off, the application moves down the line electronically to the next step.

"While there are online submissions today in Toronto, they end up printing off the documents and reviewing them," says Shahi.

"What we're talking about is reviewing the documents on large screens the size of televisions and using software to automate the process."

Design errors add about seven per cent to construction costs, says de Lint, and there are savings to be found in reducing those errors.

"If you take the GTA residential construction market, it's over \$2 billion," he says, noting reducing the seven per cent to 3.5 per cent would result in \$70 million in savings.

For the ICI sector the numbers are up to \$18 billion, meaning savings would be conservatively in the \$350 million range, he adds.

"No matter what it's a lot of money," says de Lint, adding the seven per cent figure could be further reduced with technology over time and the developer's cost efficiency would push the savings even higher.

Both Shahi and de Lint say for jurisdictions like Toronto or the surrounding GTA municipalities, there would have to be a co-ordinated, phased effort led by the province.

Experiences in New York, Chicago and other large cities have shown there are substantial gains to be made.