

## Letter to the Editor

Re: Older schools might withstand quake, test shows, April 2

Sun coverage of this story correctly points out that the brick wall, constructed to closely resemble the walls of many of BC's aging schools, performed better than expected when subjected to testing. What wasn't clear in the story, nor in quotes from me, is that the wall was considered to be partially retrofitted with a seismic upgrade, unlike most schools. It is good news indeed that even partial retrofits can significantly increase the structural integrity of our schools — but it is important to note that very few of our schools are presently retrofitted.

The research being carried out at UBC is ongoing; it will be wonderful if it reveals that there may be more cost-effective solutions to creating sustainable, disaster-resilient communities. The research developed for the school project could have broader local and global applications.

In the post-tsunami world, we all understand how many lives could have been saved with preventive interventions like warning systems and structural mitigation. BC's recognition of the safety and education of children, as an infrastructure priority, is a shining example for the world, of having our priorities in the right place. We can't stop nature from unleashing her forces, but the ensuing disaster can often be prevented.

Tracy Monk

## **Older schools might withstand quake, test shows**

### **In a simulation, a brick and mortar wall is hit with the force of a strong earthquake**

David Hogben, Vancouver Sun

Saturday, April 02, 2005

The 4.5-metre brick wall shook violently back and forth.

The top quarter teetered precariously, before settling back to almost the same position it had been at before the 45-second shaking.

The wall withstood the force of an earthquake, albeit a simulated one.

"It's an optimistic message," Tracy Monk said later.

A mother and family physician, Monk has been an activist along with hundreds of other parents who have worked to ensure children in B.C. schools will be as safe as reasonably possible in the event of an earthquake.

Monk, along with reporters and research scientists, watched Friday as a brick and mortar wall, much like many found in older schools, was tested on the University of B.C.'s shake table to see if it could stand the rigours of an earthquake.

As it was hit with the force a 7.1-magnitude earthquake could provide from a distance of 50 to 70 kilometres, the wall rocked, was badly damaged, but would not have fallen.

It did not survive the force a similar-strength earthquake would produce from a distance of 10 kilometres.

Friday's exercise was part of a joint project between the University of B.C. and the Association of Professional Engineers and Geoscientists of B.C. to determine how safe suspect schools are and how they can be made cost-effectively safer.

School officials have been dealing with anxious parents since a 1989 survey indicated many Vancouver and Victoria schools, especially those unreinforced brick and mortar schools built last century, were at high risk of crumbling in a moderate earthquake.

Like Monk, UBC Professor Ken Elwood was pleased with what he saw and learned at the UBC tests.

"I have been very impressed by the level of ground motion that these walls can sustain without collapsing," Elwood said Friday.

The wall being tested at the university was built to simulate what exists in many older Vancouver and Victoria schools. It was unreinforced brick and mortar, but was bolted to the floor.

"They are much safer than people thought," Elwood explained of the results, which will be passed on to the provincial education ministry.

As a doctor who believes in preventive medicine and a mother who wants to feel her children are safe, Monk was somewhat reassured with what the experiments revealed.

But it is how the knowledge is applied that is also important for Monk.

She said knowledge gained from the UBC experiments means schools can be made safer more easily and economically than previously thought.

"It's going to be much simpler than we thought," Monk said.

Last month, B.C. Education Minister Tom Christensen promised \$254 million over three years as an installment on the \$1.5 billion forecast for school seismic upgrading over the next 15 years.

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