

Super-fast magnetic train floats above the track

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Phyllis Wilkins looks forward to the day when residents of her city will be able to levitate 64 kilometres to Washington, D.C.

Toronto's Maglev

Long before France's groundbreaking TGV, with speeds up to 560 km/h, and maglev projects boasting top speeds close to 600 km/h throughout the U.S., Japan, Germany and China, a 60 km/h maglev train was being built in Toronto.

It was in 1972 and called the Go-Urban magnetic levitation system. The four-kilometre test track around the CNE would serve as the model for urban transit in Toronto, the rest of the province and the entire world.

"That's where I cut my teeth on maglev," says Jim Parker, one of the project's lead engineers for the Ministry of Transportation and Communications in the early 1970s.

Parker now has his own firm, Kingston-based Parker and Associates, a Delcan company.

The province's plan in the 1970s was to build a 90-kilometre network of the unmanned trains throughout Toronto at a cost of \$756 million. There was heavy opposition from advocates of a modern streetcar system.

William Bidell, an assistant deputy minister, told the *Star* in 1974, after the CNE test project was half-finished: "I don't care what anybody says – for the kind of environmentally clean and virtually noiseless rapid transit system we want in Metro, there's just no way streetcars can do the job."

The following year, the project was scrapped due to mounting criticism.

Wilkins is executive director of Maglev (Magnetic Levitation) Maryland, part of the City of Baltimore's Development Corp.

And she's a busy woman.

In 2006, Baltimore city council voted to build a 64-km long maglev high-speed train line, for travel at 420 km/h between the city centre and downtown Washington, with one stop in between at Baltimore Washington International Airport.

The project was included in the city's 10-year master plan and with the approval of Washington's mayor is now set to begin once federal infrastructure funding is secured to cover part of the \$5.83 billion (U.S.) budget.

"The drive times in the best of traffic from downtown Baltimore to downtown D.C. is 45 minutes," Wilkins says.

"In bad traffic it's an hour and a half, easy. With maglev it will be 18 minutes."

Wilkins, who hopes construction will begin in 2013 with completion by 2017, says the broader plan is to link up maglev lines throughout the U.S. Northeast, to New York and Boston, and south to Charlotte and Atlanta.

It would eliminate highly inefficient and heavily polluting short-haul air travel (which accounts for more than a third of all flights in

the U.S. northeast), while in some cases cutting overall trip times in half.

Right now, the only passenger-carrying maglev train in the world is in Shanghai. That 31-km line, which carries people at 431 km/h, is now being extended beyond the city south to Hangzhou, and will cut what's typically a two-hour car trip down to 12 minutes.

In Canada, maglev lines, which are best used in high-density corridors up to 1,000 kilometres in length, have long been talked about, particularly for the Windsor to Montreal corridor.

There was even a prototype line being built in Toronto during the 1970s (see sidebar).

But Jim Parker, who was involved in the prototype project and is an advocate of high-speed rail, doesn't think the economics of a maglev system connecting southern Ontario and Quebec make sense.

"We were always challenged by how are we going to cope with freezing rain and snow. You could keep the system running with blowers right on the cars. But we just don't have the population density you need to make it a revenue-neutral system.

"But if there was, say, a private partnership in Canada, maglev or high-speed rail would be much more efficient with much lower energy use per passenger than cars or planes, there's no question about it."

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