



Bold Vision in Vancouver

by Jim Duffy, editor

A new transit authority is taking over for BC Transit.

It is called the Greater Vancouver Transportation Authority. Why and how it came into existence is an important lesson for cities and transit agencies currently struggling to find new paradigms for 21st century urban transport.

BC Transit is a descendant of earlier Vancouver transit organizations dating back to the early half of this century. The agency has served Vancouver well, but cracks in the organizational structure began to appear by the late 1980s when new technologies like SkyTrain far outdistanced the organizational infrastructure. It became clear to the local and provincial governments of British Columbia that BC Transit and its authority structure were not sufficient to identify and solve modern-day problems associated with exploding populations, suburban sprawl, traffic congestion and pollution.

By the 1990s, citizen groups and the local media were becoming increasingly impatient with the agency. The population of the Greater Vancouver region had grown to 1.8 million people by 1997, with projections reaching 3 million by 2021. The time to create a new organizational structure had come.

The need for a more responsive transportation authority was further punctuated by the publication of the *Livable Region Strategic Plan*, a collaboratively developed blueprint for managing the region's growth over the next 25 years. Among other things, the plan was designed to preserve the natural environment which makes Vancouver one of the most attractive and economically successful cities on the Pacific Rim. Investment in public transportation and transportation demand management were identified as key ingredients for better growth management.

As the plan evolved, current funding and governance arrangements between province and region appeared woefully inadequate for achieving the objectives of the regional growth strategy. A new

funding arrangement was proposed and, in order to make efficient use of new funding dollars, the outdated organizational structure would be replaced with a dynamic new one — the Greater Vancouver Transportation Authority. From the start, the issues of funding and organization were tied together.

New paradigm in public transit

The new Greater Vancouver Transportation Authority (GVTA) will officially begin operations April 1, 1999. Bob Lingwood is overseeing the transition as president and CEO of BC Transit. Among other things, Lingwood



Inter-modal stations like this one will anchor tomorrow's town centers in the Vancouver region. Already 121 of the region's 176 bus routes feed SkyTrain stations.

is chairman of the Transit Cooperative Research Program (TCRP) board, which is funded by the FTA. He has taken a keen interest in aiding research which identifies the real issues the transit industry faces over the next 10 years. Says Lingwood, "We developed a statement of our research effort which we

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call New Paradigms for Public Transit. Through a fairly exhaustive process, major issues were identified that the industry needs to address. One is organizational structure. Those of us who

were involved in the process ended up with a fairly strong opinion that some of the basic organizations that we've set up to deal with and help to deliver transit services are also major problems. If you look at some of the large systems, I think they are not as cost effective as either the managers or boards would like them to be. They don't respond to market needs as fast as managers and boards would like them to. We can't change that without rethinking the structure.

"Like any business, if we want to be successful 10 and 20 years from now, we have to set up agencies that are more dynamic than they are today."

Lingwood points out that a transit agency needs to be able to make good decisions regarding transportation and public investment. "Whether we're talking about transit, roads or something else, decision makers need some way

of optimizing those decisions. We're probably 20 years past the time when we could afford big road systems and transit systems and everything else. There was a time when we consumed as though we had the money to do all of it. I think here, in Canada, we realize we can't do that anymore. We have to optimize. We should optimize anyway if we want hospitals and schools and those other things, too. In this region, the quality of life as it relates to urban development is very, very important. There has been a lot of effort to design a *Livable Region Strategic Plan*. Everyone realizes that we can't get there without a transportation system that matches. For one thing, 75% of the bad air in Vancouver comes from transportation sources. So the solution must be transportation based. We're trying to



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The crown jewel of Vancouver's transit system is SkyTrain.

take a comprehensive look at the problems, how we might solve them, and how we might work through the solutions."

Livable region strategic plan

British Columbia's *Livable Region Strategic Plan* emphasizes the need for a coordinated approach to land use, transportation and transportation demand management. Because population and congestion have grown at a phenomenal rate, and given the geography of the region, it's very difficult to build freeways from a land point-of-view. There are mountains to the north and east, a number of major water inlets, two branches of the Fraser River and the U.S. border on the south. "Those sorts of barriers mean we are always building bridges and such things, which are expensive," says Lingwood. "Now with the existing land-use pattern, the movement to put in a new standard freeway system, or even expand what we have, is really not an option. So, with rapid growth, the focus is on the transit system."

Although the transit system has grown over the years, it hasn't kept up with rapid population growth. The regional growth strategy acknowledges today's problems and plans for smoother growth with less transportation-related problems over the next 20 years. The core of the strategy revolves around

developmental densities located along major transportation systems like SkyTrain. Bus feeder systems will bring passengers from outlying areas into the major SkyTrain stations. Already 121 of the region's 176 bus routes feed SkyTrain stations.

The strategy calls for population concentrations in six regional town centers. With limited current and future highway capacity, these concentrated regional town centers would not be feasible without a robust mass transit system or a coordinated political system among municipalities. Says Lingwood, "Our six regional town centers are designed to be the focus of future commercial and residential development. It's quite an effort to get it all formalized with as many municipalities as we have

The strategy calls for population concentrations in six regional town centers.

here. But it's moving in the right direction.

"First thing we did, when we realized that all urban centers were required to have a plan without it relating to its neighbors' plans, we changed that. The province devised the regional growth strategy section to our municipal act. It now requires a regional strategy to all

these multi-jurisdictional centers. The plans of the individual municipalities within those regions have to relate. This is the first test, right now, going through that process."

New authority

Lingwood says the discussion between province and Vancouver has been going back and forth for decades over transportation problems, specifically funding and delivery of services. The debate heated up in 1996 and, in April of 1997, the Provincial government and the Greater Vancouver Regional District (GVRD) appointed negotiators to find a solution. A completely new governance and funding arrangement was proposed, ratified and ultimately approved by the Provincial legislature in July 1998.

The key provision in the agreement is the creation of a Greater Vancouver Transportation Authority (GVTA), a single accountable authority to exercise local control over transportation planning, policy, service levels, budgets and financial agreements. The agreement also establishes secure and stable funding for the Authority. With the creation of the GVTA on April 1, 1999, BC Transit and the Vancouver Regional Transit Commission will cease their roles in Greater Vancouver.

The GVTA will be guided in principle and legislatively by the provincial *Going Places*, the GVRD's *Livable Region Strategic Plan* and other official community plans. Specifically the GVTA will be responsible for improving transit and transportation demand management (TDM) programs, supporting a network of major roads, and providing infrastructure and services that support the region's growth strategy and air-quality objectives.

Lingwood says the GVTA will have responsibility for all transit systems, including a couple of ferry systems, as well as the major roadway network. This includes major urban arterials through



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some 20 municipalities. The Authority will also have responsibility for a portion of the provincial highway system, including three bridges. Transportation demand management (TDM) will be given a boost with the agreement, which gives a formal legislative mandate for it.

The legislation requires that new transportation infrastructure and associated development conform to the regional land-use development strategy and air-quality objectives. Says Lingwood, "In many jurisdictions, we have tried to do this through goodwill.



The people of Vancouver are proud of SkyTrain, partly because of its uniqueness, but also because it works so well for the population.

Now there is a legislative prerogative that mandates conformance. In other words, if we put together a major transportation initiative and it doesn't conform with land-use plans or air-quality plans, it can be overturned on that basis.

"Similarly, developers must comply. We may have a major bus route, but a new development may go in that doesn't allow easy access. In too many cases, the potential of a transit system gets eroded development by development.

This review process is designed to ensure that those situations are addressed properly."

New funding

Under the old system, a seven-member commission made all decisions pertaining to service plans, fares and local taxes. The commission's primary role was defining and pricing transit services. BC Transit provided service, including contracts and controls expenditures, and the province had responsibility for developing the budget and authorizing capital expenditures.

The new agreement recognized the problematic nature of these funding arrangements, especially in relation to long-term transit planning, land-use and air-quality issues. Most unusual about the new funding arrangement is the fact that there is no cost sharing with the provincial government (with the exception of major projects like a new SkyTrain). For all normal expenditures, the GVTA has its own sources of revenue. The province has given the authority tax room, which Canadian provincial governments rarely do.

The GVTA will start with 8 cents (total) a liter on motor fuel tax. That's 32 cents a U.S. gallon. Pure cash flow. Under current arrangements, that number will go up to 40 cents a gallon by the year 2005. That's not new tax; the tax won't increase. It's just moving the share of the tax from the Provincial revenue into the Authority's revenue.

The GVTA will also start with a substantial amount from property taxes, and it will have the ability after the year 2001 to pass a vehicle charge. Says

Lingwood, "We went from a very complex decision-making process in dealing with funding to a very effective one."

The new authority will be responsible for a substantial part of the roadway infrastructure. Until now the provincial government controlled provincial highways through the region, and the 20 municipalities took care of their own roads. There was no formal way of coordinating the process of bus lanes and other inter-community roadways from one town to the next. Now there will be one authority with a board of elected officials representing the local regions. The roadways which are included account for about 60% of the daily trips in this region. Says Lingwood, "The new authority will have quite a bit of clout in planning and implementing transportation services."

Funding, planning and development of the roadways will be done by the authority in close cooperation with the municipalities. "Given that we can't substantially increase the size of the highway network (because of densities), we will be in a much better position to add such things as high occupancy vehicle lanes," says Lingwood. "Those sorts of measures were difficult to accomplish, particularly in a region with many municipalities. We wanted to be better able to coordinate the process along the line. Now we will have an authority that can do those things."

SkyTrain

The crown jewel of Vancouver's current transit system is SkyTrain. Built in anticipation of EXPO'86, SkyTrain has proven to be reliable, fast and user-friendly. Most importantly for continued growth of the system, SkyTrain offers unprecedented opportunity for increased capacity. The automated train already carries 120,000 passengers a day, with two-minute headways and 31 trains running concurrently across the system.

"We're still a long way from a realis

tic capacity, and much further away in design capacity. During EXPO'86, we ran trains, fully automatic, with 90-second headways between two busy stations. That's possible across the entire line. We could run six car trains with 90-second headways. The problem wouldn't be the SkyTrain system if it ever came to that. We would have to expand the stations to handle that many people."

In the beginning, there was a lot of risk involved with SkyTrain. The operators worried about the linear induction motors and all other aspects of a new technology. After 20 years of performance, the technology has proven to be exceptional.

Future expansion

In 1994, the provincial government announced a 10-year plan which included a light rail component. As planners looked in more detail at constructing light rail, they began to anticipate many underpasses, overpasses and diverting traffic to major streets. The potential cost of engineering began to escalate, as did potential disruption to traffic patterns.

"The city of Vancouver then suggested that the train go underground," says Lingwood. "But the cost was very similar to SkyTrain, a proven system which we already have. Shortly after, a decision was made to expand SkyTrain."

The first line of expansion will run from the Columbia station in New Westminster north to the Lougheed Mall, then east until it connects to the Broadway station in Vancouver. This phase is budgeted at \$1.2 billion and is scheduled for completion before 2001.

The second phase involves extending the line further west along the more densely developed Broadway corridor. Lingwood concedes that tunnelling may be necessary in this area. This phase also involves an eastern extension to the Coquitlam Center.

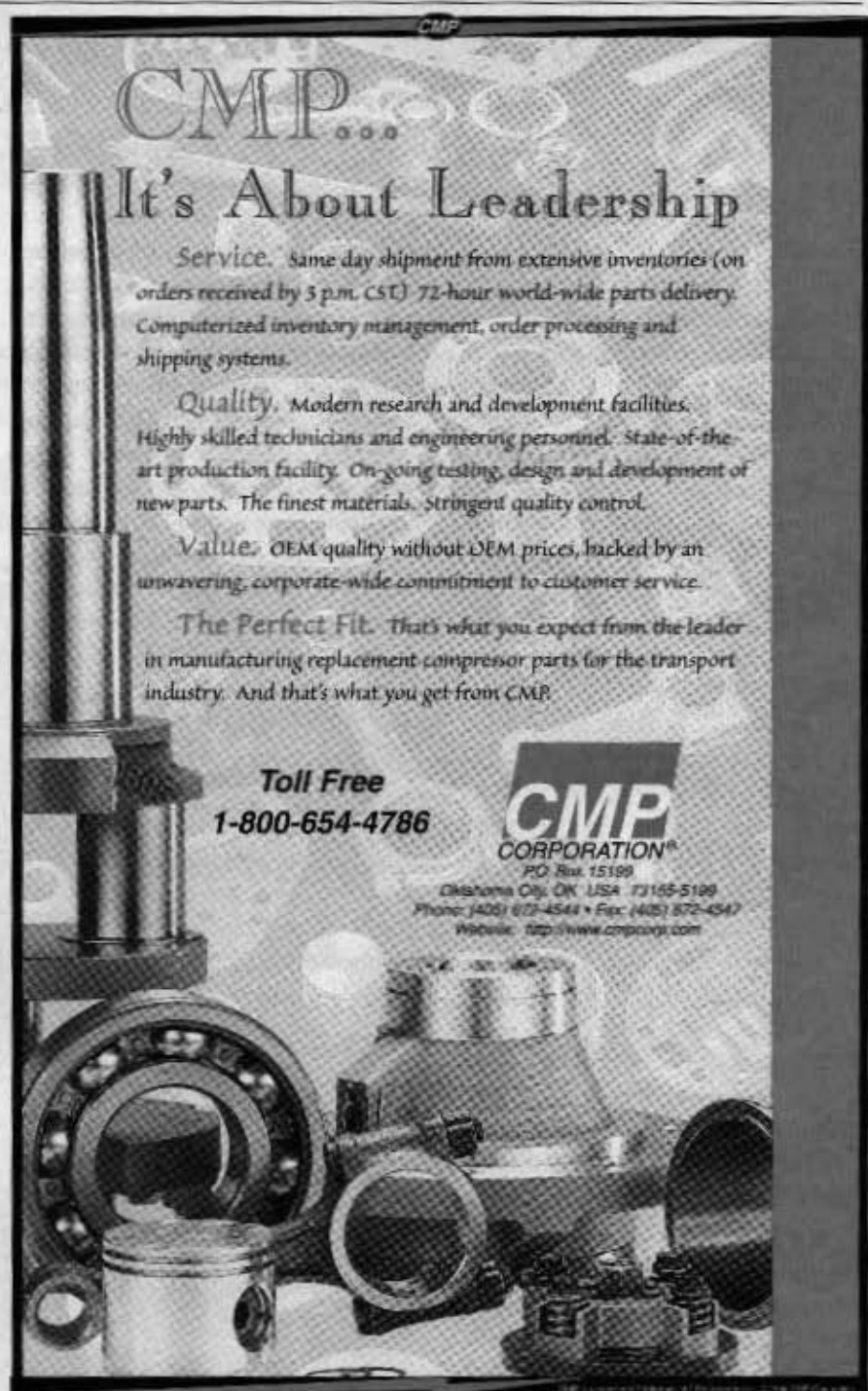
The people of Vancouver are proud of SkyTrain, partly because of its

uniqueness, but also because it works so well for the population. Vancouver's GM Place stadium is home to the city's professional hockey and basketball teams. SkyTrain stops right at the facility and offers a walkway into the stadium. The stadium hosts over 200 events each year and, on average, 25% of atten-

dees arrive via SkyTrain.

Lingwood says, "SkyTrain is well operated in terms of reliability, cleanliness and customer treatment, and it's very efficient. It works well for customers and taxpayers."

On June 24, 1998, British Columbia Premier Glen Clark



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The trolley system on Broadway carries 60,000 trips a day including the new express articulated low-floor buses, an expanded service which started in September 1998.

announced a partnership with Bombardier which finalized the choice of SkyTrain technology for the expansion. The first result of the partnership, a \$165 million contract for 60 Mark II SkyTrain cars, which will be built in a new Bombardier manufacturing facility located in Vancouver.

"This is a significant agreement with Bombardier. It will see Vancouver become a center for SkyTrain technology."

Bus service

While SkyTrain continues to please the masses, Vancouver's bus system has endured its share of public criticism over the years. The new authority has promised to improve things. Lingwood notes that the establishment of GVTA is a result of discussions going back to the 1980s relating specifically to bus problems. "All parties realized that significant improvements couldn't be made without funding," says Lingwood. "As the discussion evolved, it focused on the bigger issues of transportation. Ultimately it was determined that we needed a mandate for change and a governance board that would be fully accountable, which is what we are now putting into place."

Lingwood notes that there is need throughout the region for additional bus service. "We're in the final design stage

of a new garage for our rapid bus service from Richmond to downtown," says Lingwood. "About the time that facility opens, we'll be working on the design and building of another bus facility. The overall buildup of the bus system is as equally important as the more visible projects, like SkyTrain."

Annually, more than 120 million revenue passengers ride the buses. There are 176 bus routes throughout Vancouver, from Lion's Bay in the north to White Rock in the south, from Aldergrove in the east to the University of British Columbia — the second largest destination in the transit system — in the west. The trolley system on Broadway carries 60,000 trips a day including the new express articulated, low-floor buses (see Rapid Bus article, p. 32), an expanded service which started in September 1998. Says Lingwood, "Our 244 trolleys, alone, carry 60 million passengers a year in our major core area."

New bus initiatives include a Rapid Busway planned from Richmond to downtown Vancouver. It will include center-laned, barriered busway facilities. Along Granville Avenue, which has a huge amount of bus traffic, there will be more bus lanes, better signaling and more efficient traffic movement. Says Lingwood, "Cities like Richmond and Surrey need better quality local service. HOV lanes, which will soon have bus service, have been

constructed on the Trans Canada Highway going into Vancouver. Key bridges are being upgraded and augmented with transit priority measures to add capacity. So the system will continue to improve in coming years."

Expansion of services makes even more vital the need for a strong authority. How it will be managed and funded after April 1, 1999, is very different from how it worked in the past. The story here is about quality of life, and about transit's role in the long-term regional development strategy. Before committing more dollars to aid that process, British Columbia chose to reorganize the transit agency to assure better efficiencies. That's a lesson other agencies could learn. Concludes Lingwood, "It's a good system made better by the new structure. There are no guarantees, but we have a better chance of being successful now." ■



Bus stations like this one (right portion of photo) feed the major SkyTrain stations (stairway entrance at left). SkyTrain transports 120,000 passengers daily.