

# TRANSPORT INNOVATOR

VOLUME 3, No. 2

Mar/Apr 2008

Welcome to *Transport Innovator*, a free newsletter dedicated to sharing information about innovative, cost-effective transportation solutions. We welcome comments and ideas for future stories. Please feel free to contact us – we look forward to hearing from you. Free subscriptions are available at [www.gobrt.org](http://www.gobrt.org)

## Table of Contents

<i>Editorial</i> .....	2
Linking Bus Rapid Transit and Land Use.....	2
<i>Guest Columns</i> .....	3
Transforming Bus Travel.....	3
Cambridge BRT.....	4
The Road to Change: How Santa Clara Valley Transportation Authority Transformed its Bus Service, becoming “The New VTA”.....	6
<i>BRT and Innovative Bus</i> .....	8
Auckland, New Zealand: Record busway patronage, second started.....	8
New York City: Bronx BRT to begin in June; photo enforcement under consideration.....	9
Lagos, Nigeria: “BRT Lite” pilot corridor launched.....	9
Brisbane, Australia: Soliciting bi-articulated buses for busway.....	10
Belfast, Ireland: Bus rapid transit network selected over rail.....	10
Chicago, Illinois: Federal funding awarded for BRT.....	10
Karachi, Pakistan: BRT planned.....	10
Jerusalem, Israel: Blue Line Busway under development.....	11
California: BRT and bus lane projects funded.....	11
Delhi, India: BRT tested, general-purpose traffic chaotic.....	11
Durham, Canada: BRT funding approved.....	12
Hanoi, Vietnam: BRT projects approved.....	12
<i>Transportation Policy</i> .....	12
Santiago, Chile: IDB approves Transantiago loan; environmental performance stressed.....	12
Seattle, Washington: Rail cut from Route 520 plan, focus on BRT.....	13
Cleveland, Ohio: BRT naming rights sold.....	13
Washington, D.C.: Express bus network proposed.....	14
Boston, Massachusetts: MBTA to expand Silver Line.....	14
<i>Alternative Fuels</i> .....	14
New Zealand, Scotland: Buses powered by waste cooking oil.....	14
Nottingham, UK: Ethanol-powered buses hit the road.....	15
Pontypridd, Wales: Hydrogen triple-hybrid minibus developed.....	15
<i>Odd News</i> .....	15
Brisbane, Australia: Grave concerns.....	15

## Editorial

### **Linking Bus Rapid Transit and Land Use**

Integrating land use and public transportation has many benefits, including increasing public transport ridership and reducing emissions. As the number of bus rapid transit systems continues to grow, the question increasingly arises: can BRT systems support transit-oriented development (TOD), and will real estate developers embrace BRT?

We recently completed a draft study of transit-oriented development around BRT in six cities: Boston, Massachusetts; Cleveland, Ohio; Ottawa, Ontario; Brisbane, Australia; El Monte, California; and the York Region, Ontario. Although the types of BRT service and the level of infrastructure investment differs among these cities, all have experienced significant development interest around BRT.

For example, Brisbane is developing a fully grade-separated busway network characterized by frequent service, high quality stations and other passenger amenities, and a bus subway under the downtown near city hall. The network is promoting TOD of at least three general types: existing development that exhibits many TOD characteristics, but previously lacked a dedicated transit connection; green field development near stations; and urban infill, including air rights development.



Entrance to King George Square busway station with the Brisbane City Hall in the background



Rendering of Simcoe Promenade, currently under construction in Downtown Markham (courtesy The Remington Group)

By contrast, the VIVA BRT in the York Region, Ontario is an arterial rapid bus service with enhanced shelters, signal priority, and other improvements, but without dedicated busways, rail-like stations, and other amenities found in Brisbane. Nevertheless, the VIVA system is the central feature of one of the largest TOD's we found: Downtown Markham, a 243-acre master planned community anchored by Simcoe Promenade, a shared-use civic mall open only to pedestrians and the VIVA BRT.

Developers also were enthusiastic about BRT. Through written surveys and personal interviews, we found that almost every developer characterized proximity to BRT as having a "very positive" impact on their property. Roughly half of the developers indicated that proximity to BRT increased

property value by 3-5% as compared with similar properties not in proximity to BRT. Most surveyed developers also refer to BRT in their marketing materials and expressed high enthusiasm for developing future projects in close proximity to BRT.

The case studies make clear that BRT is capable of attracting high quality transit-oriented development and gaining the support of the real estate development community. BRT is a strong option for any city seeking better integration of public transport and land use, especially given the cost, flexibility, and other advantages of BRT systems. The draft report currently is out for comment and the final version should be released this summer.

---

## **Guest Columns**

### **Transforming Bus Travel**

Rafael Cuesta

Head of Service Development, CENTRO

A key transport objective for the West Midlands region in Birmingham, England is to achieve a significant modal shift away from the car towards more sustainable forms of transport. For most residents, the main alternative will be the bus. Ensuring that buses are more readily accepted is at the heart of Transforming Bus Travel, a new vision published by the West Midlands Passenger Transport Authority.

Transforming Bus Travel sets forth two main elements for transforming bus travel:

- Network Modernization – a new network that is more relevant to the travel patterns of existing and potential users (including car users), that is simpler to 'sell' to users, and makes more efficient use of vehicles and staff; and
- Total Quality – a shift in culture to a greater focus on passengers and their needs, including minimum standards for vehicles and infrastructure.

The changes will build upon improvements that have been delivered through a re-branding and information initiative completed in 2007, which has revolutionized the way the travel is presented and supported by good information, marketing and customer care.

Implemented in full, these changes are forecast to increase bus use by up to 18% over a three-year period. Higher rates of growth have occurred in other UK towns and cities, sometimes as a result of less comprehensive changes than those in Transforming Bus Travel.

Transforming Bus Travel considers partnership with all stakeholders to be critical for its success. This will require a commitment from the public sector

to the delivery of infrastructure investment, traffic management and punctuality. In return, bus operators need to deliver the quality passengers expect through a clear commitment to invest in service improvements.

The Transforming Bus Travel project is currently at consultation stage. Following this consultation process in 2008, further project development will take place and funding will be identified.

*Transforming Bus Travel can be viewed on [www.networkwestmidlands.com/tbt](http://www.networkwestmidlands.com/tbt) and questions may be emailed to [transformingbustravel@centro.org.uk](mailto:transformingbustravel@centro.org.uk).*

---

## Cambridge BRT

Michael May

Steer Davies Gleave

Historic Cambridge – the centuries-old county town in the south east of England – is well-known as a university town and as the United Kingdom’s ‘Silicon Valley’, but it’s also gaining attention for its ground-breaking bus rapid transport (BRT) scheme.

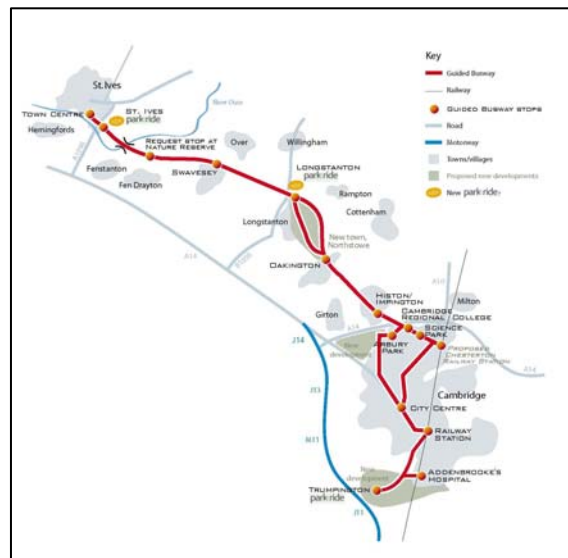
Over the last 15 years, Cambridge has experienced huge growth due to an information technology industry boom and subsequent demand for housing. The growth of the city and surrounding area is predicted to continue over the next 20 years, by about 50%. This success has brought with it major challenges, like congestion and the provision of effective public transit. An initially successful park and ride strategy has reached the limit of what can be achieved and, given the substantial growth planned over the next 20 years, severe congestion is expected unless more significant solutions are pursued.

Steer Davies Gleave, an international transportation consulting firm, is undertaking Cambridge’s BRT project, known as the Cambridgeshire Guided Busway. The busway will offer the speed and permanence of a light rail system with the cost and flexibility of a bus.

### The philosophy

To achieve a modal shift from the private car to public transit, the following objectives were adopted:

- high quality of ride and facilities;
- high service frequency and reliability;



- high quality, distinctive and attractive vehicles with low emissions;
- high quality, safe, secure and accessible stations;
- real time information and efficient ticketing system; and
- distinctive branding and marketing.

The project has been in planning since 2002 and will connect residential areas to some of the main employment and education centers in and around Cambridge – providing direct access to some 50,000 jobs. The corridor runs parallel with the A14, one of the most congested dual carriageway roads in the UK.

The busway also will incorporate substantial transit-oriented development. For example, the 10,000-house new town being built at Northstowe, to the north-west of Cambridge, is being designed and integrated around the BRT and will have a completely segregated and dedicated BRT running right through its centre, as well as an express route around it. The route also goes straight through the Science Park, one of the major employment areas on the northern fringe of Cambridge, and to the south of Cambridge it is being integrated into the major housing development in a similar manner to Northstowe. A separate arm of the BRT system was also developed to Addenbrookes Hospital, one of the leading teaching and research hospitals in the UK, and to a large research park on its western flank.

### **The scheme**

Our feasibility study concluded that a BRT system with services running every five minutes would provide the most cost-effective solution appropriate to the predicted demand and the constraints of the historic city. The route is 26km long, of which 22km is on a completely segregated route along a disused railway line. The remainder will lie on roads with priority lanes and signals as well as priority over other traffic.

Steer Davies Gleave determined that the system should have twin tracks and use kerb-guided technology. The guided technology means that drivers don't need to steer the vehicles on the guideway. The system also will have a cycleway and bridlepath along its entire length, giving greater accessibility and sustainable credentials to the communities along the whole route.

One of the advantages of BRT systems is that the vehicles can run on normal streets, as well as the guideway. This means that they can provide feeder services to the core guided network – giving flexibility for expansion and new demand develops.

### **Delivery**

The cost of the construction work is fixed on a target cost basis, which equates to about £4m/km. Construction started in 2007 with completion expected in 2009.

The guideway is made of 15m-long sections of pre-cast concrete guide beams to very high tolerance (+/- 1mm in 15m length). The beams are supported at each end on either pad foundations or mini piles, depending on ground conditions. In all, some 6,000 beams are required for the project and a dedicated pre-casting facility has been established on site.



A 4km section of track has now been completed and initial vehicle test running has been undertaken. The quality of ride has proven to be exceptional, at least as good as a steel wheeled tram.

The project is progressing on schedule and operators have already signed service agreements. Steer Davies Gleave is confident that the end result will demonstrate that a BRT system can be built to the highest level of quality with the mindset of a light rail system, revolutionizing the perception of BRT in the UK.

*Michael May is an associate at Steer Davies Gleave and has nearly 30 years' experience in civil engineering, transport strategies and project management for major public transport schemes.*

*Steer Davies Gleave is an international transport consultancy and has been involved in many BRT schemes around the world including in Delhi, Cape Town and Transmilenio in Columbia. We have also been instrumental in developing most of the BRT schemes in the UK, such as in Liverpool, Cambridge, Bristol, Manchester, Leeds and London.*

*We are also developing the long-term transport strategies for Sacramento, California, and Edmonton and Ottawa in Canada, in which BRT strategies look set to play an important role.*

---

## **The Road to Change: How Santa Clara Valley Transportation Authority Transformed its Bus Service, becoming “The New VTA”**

Linh Hoang

Santa Clara Valley Transportation Authority

In January 2008, the Santa Clara Valley Transportation Authority (VTA) revamped its entire bus system in an effort to attract new ridership. This move was necessary because, despite VTA's best efforts, ridership remained low following an economic downturn, with 102,123 average daily boardings in 2007, compared to 151,480 average daily boardings in 2000.

The process began in 2005, when the VTA Board of Directors authorized the General Manager to conduct a Comprehensive Operations Analysis (COA). The COA was a rich learning experience that brought together the data, public opinion, and political will necessary to achieve a successful transformation of VTA's bus system.



According to the analysis, Santa Clara County's travel market can be divided into two groups. The first are passengers who tend to be tolerant of the transit experience and less time-sensitive, but very price sensitive. The second are passengers who tend to be intolerant of transit, more time sensitive, yet not as sensitive to price. Although this second group is harder to attract to

transit, they are the largest potential growth market, because they make up more than two-thirds of the overall population within the county.

The analysis also evaluated the geographic service design to determine how to better allocate resources to routes. By combining existing customers' travel patterns with the overall travel market data, and factors such as land use, parking costs and congestion, it was determined that several highly competitive transit origins exist throughout the county.

Finally, the analysis evaluated VTA's existing transit operations and performance. The evaluation found a very high concentration of ridership centered on a handful of transit corridors - only six of VTA's 80-plus bus lines carry approximately 50 percent of the average weekday ridership. VTA therefore planned a complete reconfiguration of its bus system around these corridors, and planned to invest the savings from eliminating or consolidating unproductive routes in historically more productive areas, providing the best opportunities for ridership growth.

The new service was launched in January 2008 and includes increased service frequencies on 19 lines, two new express lines, and 11 new community bus routes. By all accounts, the launch was a success. The community understood the need for change, staff was committed to the process, and both employees and the public were prepared on the day of the launch.



Of course, the real test of the effectiveness of the New VTA will be the net effect on ridership. Although data is still preliminary, the early signs are promising: in the first full month of implementation, VTA noted a 5.6% increase in average weekday bus ridership compared to the same month in 2007. VTA's average weekday system ridership for February 2008, which combines bus and light rail ridership, was up 5.9% over the same period last year and the highest since February 2003.

The COA has provided VTA the framework for a process of continual improvement of transit services in Santa Clara County. A commitment to continual evaluation and providing service that meets the evolving transportation needs of the county will ensure the long-term health and vitality of our transit system.

*Transport Innovator* welcomes guest columns on any topic related to sustainable transportation. Submissions should be no more than 1-2 pages in length and may include graphic materials. Although we may edit for length and style, we will obtain the author's permission to publish edited columns. Please send all guest columns to [info@gobrt.org](mailto:info@gobrt.org).

## BRT and Innovative Bus

### **Auckland, New Zealand: Record busway patronage, second started**



The Auckland Regional Transport Authority reports that the Northern Express bus service, which operates along the recently-opened Northern Busway, served 82,373 passengers during February 2008. This is 66% greater than the same period last year, when the service operated along the adjacent Northern Motorway, and is also 38% greater than the 2008 forecasted ridership. The Albany and Constellation Station feeder bus services are also 40% greater than 2007 ridership figures.

Construction on Auckland's second dedicated busway corridor was slated to begin in April 2008. The "Central Connector" will be located between city's central business district and Newmarket, offering links to both the Northern busway and rail services. Ridership is anticipated to be as many as 65,000 passengers each weekday. The Central Connector will debut in early 2010.

Sources: [www.scoop.co.nz/stories/AK0803/S00144.htm](http://www.scoop.co.nz/stories/AK0803/S00144.htm),  
[http://www.nzherald.co.nz/location/story.cfm?l\\_id=261&objectid=10499544](http://www.nzherald.co.nz/location/story.cfm?l_id=261&objectid=10499544) and  
<http://www.scoop.co.nz/stories/AK0804/S00060.htm>

## New York City: Bronx BRT to begin in June; photo enforcement under consideration

New York City's first BRT line will debut in June, operating between northern Manhattan and the Bronx. Called "Select Bus Service", the uniquely branded BRT will feature bus-only lanes painted for high visibility, signal priority at intersections, multi-door boarding, fewer stops and pre-boarding fare payment via curbside ticket machines. A proof-of-payment enforcement system is now under development. Additional BRT lines are planned, but implementation will depend upon available funding.

A bill has been introduced in the New York State Assembly to allow cameras to enforce bus-only lanes in the new BRT system. The cameras would operate between 7 a.m. and 7 p.m. and could be mounted on buses. Violators would be photographed and receive a \$115 fine in the mail. According to New York City Transit, London achieved a 60 percent reduction in bus lane violations using a similar enforcement system.

Sources: [http://www.nydailynews.com/news/2008/03/25/2008-03-25\\_mta\\_is\\_onboard\\_with\\_prepay\\_plan-2.html](http://www.nydailynews.com/news/2008/03/25/2008-03-25_mta_is_onboard_with_prepay_plan-2.html); <http://www.streetsblog.org/2008/03/25/nyc-to-launch-bus-rapid-transit-in-the-bronx/>; [http://www.silive.com/news/index.ssf/2008/05/will\\_cameras\\_halt\\_buslane\\_scof.html](http://www.silive.com/news/index.ssf/2008/05/will_cameras_halt_buslane_scof.html)

## Lagos, Nigeria: "BRT Lite" pilot corridor launched

In mid-March, a 22-km dedicated pilot "BRT lite" route was introduced in Lagos to help relieve the city's heavy traffic congestion. One hundred twenty-six buses serve along the new route, operating on four-minute headways and visiting twenty-six new "world-class bus shelters" and two terminals. Passenger fares are prepaid. The BRT program is being implemented in phases to replace many of the city's 75,000 privately-operated, unregulated "molue" and "danfo" buses that provide the primary form of public transport for the city. The city experiences 6 million passenger trips each day.



Lagos' planned BRT network. Map courtesy of LAMATA.

Sources: <http://www.sunnewsonline.com/webpages/features/newsonthehour/2008/mar/18/newsbreak-18-03-2008-001.htm> and <http://www.sunnewsonline.com/webpages/news/businessnews/2008/mar/17/business-17-03-2008-001.htm>

### **Brisbane, Australia: Soliciting bi-articulated buses for busway**

The South East Queensland state government plans to purchase 100-passenger, bi-articulated buses that will be deployed on Brisbane's busway network and along other busy routes, as needed. Companies are invited to bid and submit designs for various engine and fuel types. Trials for the new bi-articulated vehicles could begin in 2009.

Source: <http://www.brisbanetimes.com.au/articles/2008/03/23/1206206901084.html>

### **Belfast, Ireland: Bus rapid transit network selected over rail**

Government officials are planning to develop a £147 million, high-speed bus rapid transit network for Belfast, beginning with three pilot routes that will travel to different parts of the city center. Segregated lanes will be used as much as possible. The transport department decided to proceed with a bus-based plan after determining that light rail was not economically viable and would attract only 600 more passengers than BRT. Work on the first part of the scheme will begin by 2011.

Sources: <http://www.belfasttelegraph.co.uk/news/local-national/article3591944.ece> and <http://www.ireland.com/newspaper/breaking/2008/0408/breaking24.htm>

### **Chicago, Illinois: Federal funding awarded for BRT**

The federal government has awarded \$153 million in federal funding to Chicago to develop 10.2 miles of BRT in four pilot corridors. Plans include the use of dedicated peak period bus lanes, signal priority, fewer stops, off-board fare collection, and front and rear boarding on new hybrid, articulated buses. The city will also increase costs for on-street parking to encourage transit use and discourage driving. The BRT could be operational within a year. The city plans to expand the BRT program to cover 100 miles of roadway.

Sources: <http://www.suntimes.com/news/transportation/921357,traffic042908.article>

### **Karachi, Pakistan: BRT planned**

Karachi's District Government plans to develop a BRT system along three of the city's corridors, offering an anticipated carrying capacity of 20,000 passengers/hour/direction. More than \$200 million in funding is being provided by the Asian Development Bank. Design studies were to begin in March 2008. System completion is anticipated within 18-24 months.

Source: <http://www.uniquepakistan.com/news/general/adb-and-cdgk-to-start-bus-rapid-transit-system-in-pakistan-20080226.html>

## **Jerusalem, Israel: Blue Line Busway under development**

Jerusalem's Blue Line busway, which bisects the city on a north-south axis, is largely completed and major bus service re-routings have begun that will eventually affect almost every line in the city. A number of the city's suburban bus routes will be used to serve local neighborhoods before accessing the high-speed busway to travel to the downtown area, while other suburban bus routes will be converted to feeder lines to deliver passengers to major bus transfer centers or to the Red Line light rail system. Routes will feature high-capacity, articulated vehicles and bi-articulated buses may be added in the future. The first set of bus re-routings was scheduled to begin in March.

Source:

<http://www.jpost.com/servlet/Satellite?cid=1203518560197&pagename=JPost/JPArticle/ShowFull>

## **California: BRT and bus lane projects funded**

In March, California Governor Arnold Schwarzenegger announced \$394 million in bond funding for 106 transit projects in an effort to stimulate the state's economy. The transit projects are expected to create 7,200 jobs and provide more than \$256 million in wages. The funded projects include:

- \$12.1 million to the Santa Clara Valley Transportation Authority to construct improvements in the Santa Clara Street / Alum Rock Avenue corridor to be used by two BRT lines.
- \$171 million to the Metropolitan Transportation Authority for a wide range of transit improvements, including \$5 million to convert 12 miles of an existing lane on Wilshire Boulevard between Los Angeles and Santa Monica to a bus-only lane.

Source: <http://gov.ca.gov/index.php?/press-release/8950/>

## **Delhi, India: BRT tested, general-purpose traffic chaotic**

A trial of Delhi's first BRT corridor, a 5.6-km (3.5-mi) median busway, is being blamed for major increases in traffic in adjacent traffic lanes. Bumper-to-bumper traffic congestion has increased commute times significantly and irate drivers have been jumping lane dividers in an effort to reach their destinations. Unruly drivers have also been running red lights and blocking the marked crosswalks, making it difficult for pedestrians to cross the roadway to access the median bus stations. One traffic marshal has indicated that schoolchildren were forced to wait 30 minutes before crossing successfully. Other pedestrians are trying to cross the roadway outside the marked crosswalks.

Travel times improved noticeably by the fifth day of the trial, with traffic lights functioning correctly (albeit manually) and an increased number of policemen available to direct commuters.

Notably, little attention press has been given to the bus performance during the trial, or to passenger commentary. However, a few reports indicate that the BRT buses are arriving at their destinations in one-third the time of the previous bus service.

The city's chief minister called an emergency meeting regarding the chaotic trial, admonishing several agencies for the traffic problems and requiring that improvements be made. Moreover, a decision was reached to test a Pilot Plan B, locating bus lanes on the right, rather than in the center median, for a segment of the corridor. In the meantime, other planned BRT corridors have been placed on hold and the first BRT corridor's official debut has been postponed.

Sources: [http://timesofindia.indiatimes.com/articleshow/msid-2986997\\_prtpage-1.cms](http://timesofindia.indiatimes.com/articleshow/msid-2986997_prtpage-1.cms),  
[http://timesofindia.indiatimes.com/Cities/Delhi/BRT\\_Spillover\\_chokes\\_south\\_Delhi/articleshow/2980482.cms](http://timesofindia.indiatimes.com/Cities/Delhi/BRT_Spillover_chokes_south_Delhi/articleshow/2980482.cms),  
<http://www.ndtv.com/convergence/ndtv/story.aspx?id=NEWEN20080047895>,  
<http://www.ndtv.com/convergence/ndtv/story.aspx?id=NEWEN20080048233&ch=4/29/2008%209:41:00%20AM#> and  
[http://online.wsj.com/article\\_email/SB121062492711886077-1MyQjAxMDI4MTEwNDYxMjQ0Wj.html](http://online.wsj.com/article_email/SB121062492711886077-1MyQjAxMDI4MTEwNDYxMjQ0Wj.html)

### **Durham, Canada: BRT funding approved**

The Province of Ontario will provide CAN\$82.3 million to Durham Region Transit to introduce a BRT system between the area's Oshawa and Pickering growth centers. Phase One of the BRT will use existing HWY 2 mixed traffic lanes, followed by Phase Two introduction of exclusive HOV lanes along the HWY 2 corridor.

Source: <http://www.durhamregiontransit.com/durham/index.aspx?ArticleID=475&lang=en-CA>

### **Hanoi, Vietnam: BRT projects approved**

The Hanoi People's Committee has approved new urban transport development projects involving construction of two bus rapid transit corridors and a new ring road. Total investment in the transport projects is \$452.42 million, which includes a World Bank loan of \$134 million.

Source: <http://www.nhandan.com/vn/english/business/120408/business-hn.htm>

## **Transportation Policy**

### **Santiago, Chile: IDB approves Transantiago loan; environmental performance stressed**

The Inter-American Development Bank (IDB) has approved a \$400 million loan to Santiago's Transantiago transit system to help improve operation and quality of bus and subway services. The Breakthrough Technologies Institute (the publisher of this newsletter) and the Clean Air Institute have been

working with the IDB and Transantiago to develop an action plan as part of the loan. The purpose of this action plan is to require, as part of the conditions of the loan, a set of activities that will improve Transantiago's environmental performance. These activities include installing more emission filters on buses, improving fleet management, improving operations through more infrastructure investment, developing an environmental management system, and preparing a comprehensive plan to ensure the long-term environmental and social sustainability of Transantiago.

A further \$10 million loan from the IDB will support the establishment of a Metropolitan Transportation Authority to help manage Transantiago. The Chilean government also is considering a subsidy bill for Transantiago, which experiences operating costs of about \$1.3 billion per year.

Source: <http://www.revistafator.com.br/imprimir.php?not=37492>

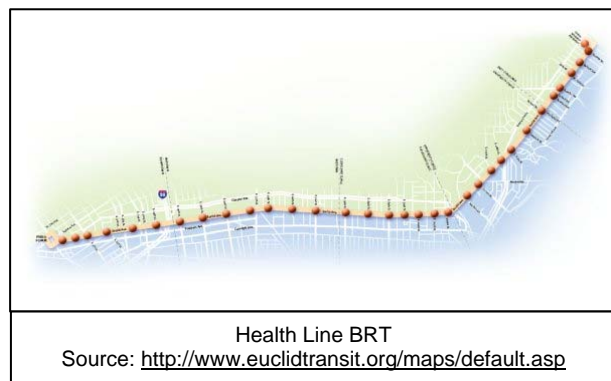
### **Seattle, Washington: Rail cut from Route 520 plan, focus on BRT**

Sound Transit has announced that light rail is not a technically feasible option for the bridge portion of State Route 520, which would have required an eight-lane design. Instead, a six-lane design will be developed that could include four general-purpose traffic lanes and two separate lanes or tunnels for buses. Renewed interest is also being expressed in developing BRT along Seattle's I-90 corridor, using middle lanes that have been converted to high-occupancy vehicle lanes.

Source: [http://seattlepi.nwsource.com/transportation/355421\\_520lightrail18.html](http://seattlepi.nwsource.com/transportation/355421_520lightrail18.html)

### **Cleveland, Ohio: BRT naming rights sold**

The Greater Cleveland Regional Transit Authority (GRCTA) has sold Euclid Corridor BRT naming rights to the Cleveland Clinic and University Hospitals, which has agreed to pay more than \$6 million over a period 25 years to re-dub the line the "Health Line". The nine-mile dedicated bus route, which was formerly called the "Silver Line", is now under construction and will open later in 2008. GRCTA also plans to sell naming rights for about 60 stations located along the BRT corridor.



Source: <http://www.cleveland.com/newsflash/cleveland/index.ssf?/base/news-38/1204241690126330.xml&storylist=cleveland>

## Washington, D.C.: Express bus network proposed

Washington, D.C.'s Metro transit agency is proposing the development of a 24-corridor express bus network to serve the Washington-Maryland-Virginia region, operating on highway shoulders and area roadways. Metro has already debuted five express bus routes that have shown a travel time savings of up to 20% and a ridership growth of 15-20%. A sixth express bus line will begin service in June. The capital cost for the full network is \$326 million, which includes the purchase 135 new buses, development of transit centers and infrastructure improvements. Metro anticipates that adding a further 18 express bus lines will lead to an increase of at least 10,000 trips per day.

Sources: <http://www.wtop.com/?nid=25&sid=1405696> and <http://www.washingtonpost.com/wp-dyn/content/article/2008/05/16/AR2008051603827.html>

## Boston, Massachusetts: MBTA to expand Silver Line



Photo: Silver Line bus at Logan Airport  
[http://www.mbta.com/about\\_the\\_mbtanews\\_events/?id=13495&month=&year=](http://www.mbta.com/about_the_mbtanews_events/?id=13495&month=&year=)

The Massachusetts Bay Transportation Authority (MBTA) plans to spend \$81.5 million for an expansion of the Silver Line BRT. The funding will cover planning and design expenses, but not construction. All funds are expected to come from federal grants and borrowing, and funding could be rescinded if the federal grant is not approved. The \$81.5 million BRT funding is part of MBTA's new \$562 million, five-year capital investment program, which will also fund replacement of Orange Line and commuter rail cars.

Source:  
[http://www.boston.com/news/local/massachusetts/articles/2008/03/25/amid\\_woes\\_t\\_expects\\_to\\_spend\\_mightly/](http://www.boston.com/news/local/massachusetts/articles/2008/03/25/amid_woes_t_expects_to_spend_mightly/)

## Alternative Fuels

### **New Zealand, Scotland: Buses powered by waste cooking oil**

In the Far North of New Zealand, a community bus will soon begin trials using waste vegetable oil as fuel. Collection facilities will be set up at 12 locations to accept both commercial and domestic waste oil, which will be filtered and purified for use in the community's leased mini-bus. Waste oil is presently poured down drain where it can lead to waterway pollution.

In the Kilmarnock area of Scotland, commercial bus and coach operator Stagecoach Group is also trialing biodiesel fuel made from waste cooking oil. Five thousand containers were passed out to households located along the bus route, and participants who exchange their oil at local recycling centers

are offered reduced fare coupons for Stagecoach buses. About nine tons of used oil was collected during the program's first two months. Eight Stagecoach buses are participating in the project.

Sources: [http://www.nzherald.co.nz/section/story.cfm?c\\_id=39&objectid=10503895](http://www.nzherald.co.nz/section/story.cfm?c_id=39&objectid=10503895) and [http://www.biodieselmagazine.com/article.jsp?article\\_id=2253](http://www.biodieselmagazine.com/article.jsp?article_id=2253)

### **Nottingham, UK: Ethanol-powered buses hit the road**

Nottingham will soon debut the UK's first ethanol-fueled buses. The City Council secured grant funding for the buses, which will be demonstrated for 18 months, as well as for development of an ethanol fuelling station next to Nottingham City Transport's headquarters. The buses are anticipated to reduce carbon dioxide emissions by 30 tonnes per bus each year, and to reduce nitrogen oxide and particulate matter. The city of Reading also plans to introduce ethanol-fueled double-decker buses in 2010.

Sources:

<http://www.thisisnottingham.co.uk/displayNode.jsp?nodeId=134487&command=displayContent&sourceNode=134482&contentPK=20267363&folderPk=78489&pNodeid=134461> and [http://www.getreading.co.uk/news/s/2025917\\_probably\\_the\\_best\\_bus\\_in\\_the\\_world](http://www.getreading.co.uk/news/s/2025917_probably_the_best_bus_in_the_world)

### **Pontypridd, Wales: Hydrogen triple-hybrid minibus developed**

Glamorgan University in Wales has developed a triple-hybrid bus powered by hydrogen fuel cells, batteries and ultra-capacitors. The vehicle, which emits no harmful carbon dioxide pollutants, holds 16-passengers and can travel at a maximum speed of 55 miles per hour for up to 150 miles. The minibus will serve as a shuttle on the university campus. A commercial version of the bus will be developed for sale in the European and American markets, with an anticipated cost of \$190,000 each.

Source:

[http://www.businesswire.com/portal/site/google/?ndmViewId=news\\_view&newsId=20080314005813&newsLang=en](http://www.businesswire.com/portal/site/google/?ndmViewId=news_view&newsId=20080314005813&newsLang=en)

## **Odd News**

### **Brisbane, Australia: Grave concerns**

Unmarked graves have been discovered on property reserved for development of Brisbane's Boggo Road Busway. An advocacy group is concerned that busway construction will cause damage to the newly discovered graves and the cemetery's boundary is presently in dispute. The Boggo Road Busway, which will be completed by mid-2009, is expected to carry 600 buses and 13,000 passengers daily.

<http://www.brisbanetimes.com.au/news/queensland/premier-buries-graveyard-concerns/2008/04/14/1208025079697.html>