

# TRAMWAYS & URBAN TRANSIT

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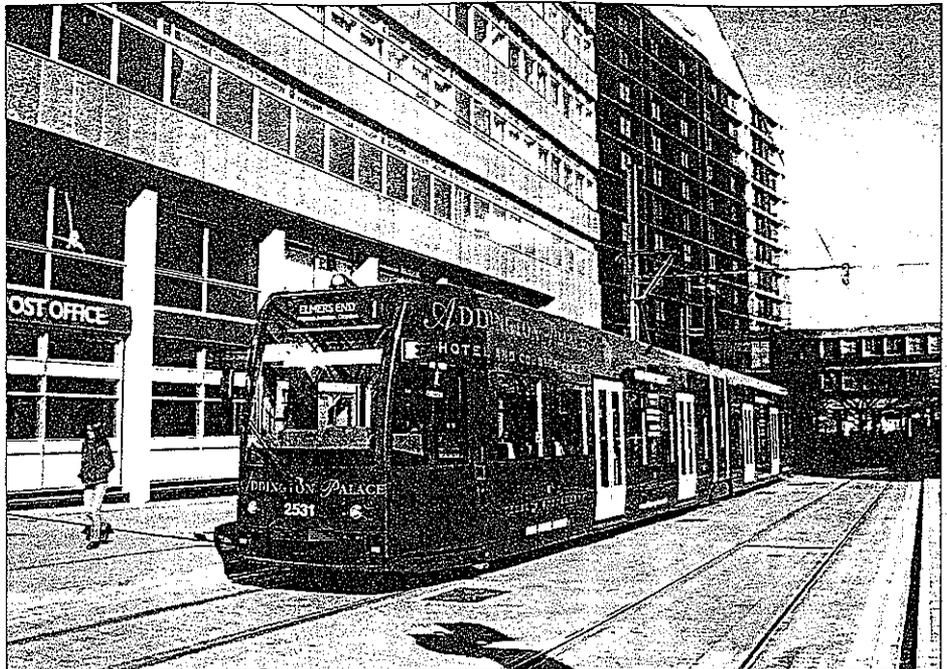
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The loneliness of Croydon tram drivers was due to end as we went to press with the opening of the first sections of the south London system. Advertising tram 2531 fails to attract attention as it passes near East Croydon railway station between the NLA tower and Addington Palace complex. **Alan Pearce** 3290

**NEWS** Tram cheaper than bus - could Government opt for light rail? Reliability dips again on Midland Metro; 40 people hurt after Great Orme trams collide; May building start for Nottingham; Legal problems turn Croydon opening delay into a farce; Merseyrail revives rapid transit; Watford: Speedbus or GLT? Compiled by UK News Editor John Symons. 204

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With the twin towers of New York's World Trade Center providing an impressive backdrop, North America's newest light rail line was opened on 15 April, linking Jersey City and Bayonne. On the first day of the public services, 16 April, car 2027 of the Hudson-Bergen system is seen approaching Jersey Avenue station. *Charles Lietwiler*

# New lease of life for



Why build new trams when you can refurbish for just 15% of the price? **C. J. Wansbeek** reviews a low-cost solution in the Netherlands.

**P**ainted in elegant soft-tone greens-and-blues, LRV 5002, of a strikingly modern outward design, was presented to the public on 8 April.

The venue was the tram depot at Nieuwegein, home to all 27 articulated double-ended Swiss-built LRVs which make up the fleet of the suburban Utrecht light rail system. Inaugurated in 1983, this two-route network was among the first of the new wave of tram projects to see the light of day, and the Utrecht success inspired many cities in France, Spain, Italy and the UK to go ahead with their tramway projects.

What one now can see is a carefully-planned metamorphosis. All Utrecht LRVs needed a drastic rejuvenation, and the government decided to make money available. The result is a face-lift of a type never seen before in Holland: the front and rear sides of each LRVs are replaced. Softly-rounded fronts now replace the earlier angular profile. It seems as if entirely new trams are being delivered. But Utrecht needs no new trams, thanks to the excellent quality of the smooth-riding, sturdy rolling stock. Instead the choice was made to refurbish the fleet, at roughly 15% of the cost



The Utrecht-Nieuwegein line is worked by high-floor trams serving high platforms throughout, offering full accessibility.



An unrebuilt tram set at Nieuwegein Centre tram station suggests that the temptation of advertising revenue may soon supplant the new livery.



# Utrecht *Sneltram*

**Left: The streets of the Dutch city of Utrecht are now enlivened by the first of 27 trams to be refurbished and repainted in a new green livery. 5002 was unveiled to invited guests on 8 April. Photographs C. J. Wansbeek**

of what otherwise would have been the price tag of an entirely new fleet. A further advantage is this approach is that it avoids all thinkable and unthinkable sorts of teething troubles.

By March 2001, all LRVs 5001-5027 will be back at their home base Utrecht, after drastic surgery by engineers of PFA at Weiden, Germany. This company is the now-privatised successor company to the former DB railway repair works at Weiden, and the Utrecht operation is seen a breakthrough for PFA on a hitherto unknown foreign light rail market. Each tram takes four weeks to undergo the surgery at PFA.

PFA was awarded the Utrecht order after an EU-wide tendering procedure.

The construction of the Utrecht *Sneltram* lines, laid on reservation over their full 18-km length, has been, in hindsight, a sound decision, all speakers emphasised during the presentation of LRV 5002. The *Sneltrams* of Utrecht carry an average of 33 000 passengers daily. The fast rise in transport demand in the Utrecht area, one of Holland's most prosperous, high-growth zones, makes the role of the *Sneltram* pivotal. On 2 July 2000 the IJsselstein branch will be extended by 2 km to reach the new suburb Zenderpark, where most houses are still being built. High-quality light rail will be present there before the expected heavy commuter traffic makes itself felt.

More than ever, we believe in our regional *Sneltram*, and together we are investing in its future. This message was given by the government of Utrecht, one of the twelve provinces of the Netherlands. This view was also presented by the local councils involved (Utrecht, Nieuwegein and IJsselstein respectively, all three served by the *Sneltram*). And of course transport undertaking Connexion seized the opportunity to express its belief in a common approach to further light rail upgrading.

In 1998 the province, together with the local authorities and Connexion outlined the programme.

*Sneltram* service should be made completely reliable and punctual. All tram stops should be fully modernised before the end of 2001. Measures to improve safety should be implemented, including the installation of closed-circuit TV cameras at all stops. A challenging project, compounded by the fact that the *Sneltram* is increasingly hindered by road traffic at several complicated level crossings. Moreover, during rush hours, trams are so full that boarding and alighting takes more and more time. In the summer of 2000, TRAIL, an innovative technique, will be introduced, a new approach to warn motor car drivers of the approach of a tram, by intense flashing-light devices spread over the entire level crossing. This optical solution was preferred over noisy acoustic devices.

With the LRVs now undergoing

## Alstom DMUs head for Schwerin

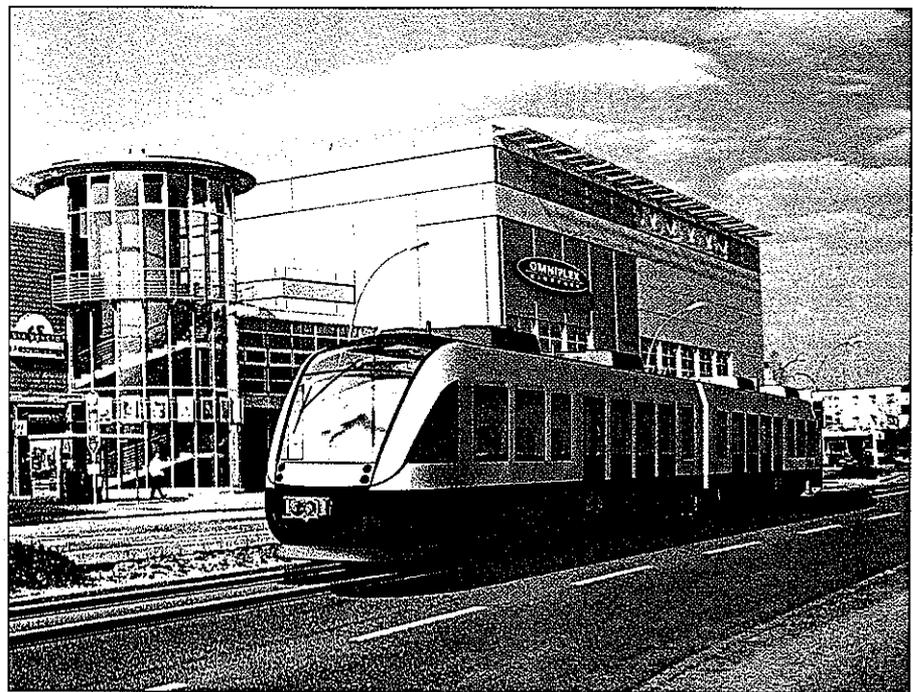
The harbour city of Schwerin lies inland from Germany's Baltic coast. An industrial city with a population of 105 000, it was formerly in the DDR and is still somewhat off the beaten track. With Germany re-united, Schwerin had hopes of being the intermediate stop on the future Berlin-Hamburg Transrapid high-speed mag-lev line, but this hope has been dashed by the unaffordability of this technology, resulting in DB's decision not to go ahead with the project.

The city has 1000 years of history, and boasts a number of medieval buildings, including the Schweriner Schloss, formerly the castle home of the Grand Dukes of Mecklenburg. Trams have served this city since 1908 and today's five-route 22.2-km system is the backbone of local public transport, carrying 18 million passengers/year. Extensions to new suburbs have all the characteristics of light rail.

Some 170 Tatra T3 trams make up a standardised fleet, with most modernised since 1991, and fitted with AEG chopper control to reduce current consumption. However this 1960s design still has increasing maintenance costs and does not represent the latest ideals of passenger comfort. From July 2001 DWA of Bautzen will start delivery of 28 low-floor articulated cars (and there is an option for 10 more after 2005).

These 30-m trams, with electrical equipment from Kiepe, will each replace a three-car Tatra set. The local transport undertaking is now getting into the railway business, with the decision that from May 2001 Stadtwerke Schwerin will operate the self-contained rail lines to Rehna (north-west) and Parchim (south-east), totalling 80 km and sharing tracks with DB just through the Hauptbahnhof. To work this line SWS has ordered from Alstom's Saizgitter factory (formerly LHB) six two-car Coradia diesel units with low floor (600 mm above rail) over 50% of each car. The 41.8-m Coradia Lint 41 units will be delivered in March/April 2001 at a cost of DEM 23.76 million, with each carrying 129 seated passengers.

The artist's impression issued by Alstom may give the impression that the trains will run in service on Schwerin's streets, but this is not the case. However the picture is not as fanciful as some publicity shots, for the diesel units will be maintained at Haselholz tram depot in the southern suburbs by the tramway undertaking. To facilitate this a single-track connecting line will be laid along the street to connect the nearby railway alignment with the depot, a distance of over 1 km (but not to be traversed at their maximum speed of 120 km/h). It will be an impressive sight to see a 63.5-tonne, 2.75-m wide unit running on street track.



**An artist's impression of the Alstom Coradia Lint 41 low-floor diesel train running past the multi-plex cinema on street track in Schwerin. Alstom**

refurbishment, the extension to Zenderpark was given top priority. The entire *Sneltram* renewal scheme proved pretty complicated to orchestrate. It could succeed only if all parties involved were willing to co-operate, and agreements were signed to that effect. One might say that upgrading a light rail line in 2000 is far more difficult than was the construction of an entirely new line 20 years

ago - given the constraints in an already densely built-up area, and in a country where a booming economy fuels traffic demands to extreme levels. In the more tranquil period around 1983, the Dutch State Railways (NS) simply built the line as a green-field project through an area which was almost uninhabited. A complicating factor which came into play recently is the political decision that public



transport should be entrusted to privatised market players, and this is not the easiest way to encourage major infrastructure projects. In 1998, the provincial government, local government and the transport undertaking defined six priorities:

- 1 The tram's image should become more striking; the tram should symbolise the good life;
- 2 The passengers' subjective feeling of speed should be increased;
- 3 A better punctuality in operations;
- 4 Improved accessibility to the trams, both by improving physical access and by improving the public information system;
- 5 Improvement of the social safety inside the trams and in the areas surrounding the tram stations;
- 6 Improved comfort of vehicles and stops.

These priorities were established after 20 000 tram passengers had been interviewed. This resulted in 3000 suggestions from the passengers. Jan Willem van de Wetering, regional managing director of Connexxion said, "We have done our utmost to incorporate as many suggestions as possible from our customers. We have learnt that we should listen much better to our clients. Any further improvement of the sneltram service can be reached only by listening to what our passengers tell us."

Two of the four platforms of the LRVs have been enlarged by removing passenger seats there. At other points, folding seats were removed, resulting in an overall increase of room for standees. Above each door a special information panel has been created, with details on public transport routes, rules, important phone numbers. The driving cabs were ergonomically rebuilt, based on a 100-mm increase of the average stature of tram drivers. A further innovation is the automatic voice announcement of the next stop, and ticket-vending machines issuing simple one-way tickets will be installed inside the vehicles.

Social safety is now high on the list. Roving ticket inspectors, normally operating in groups of six, are often seen in the Sneltram, where passengers unable to produce a valid ticket may expect a NLG 60 fine. The ticket inspectors also have semi-police tasks, to better protect both passengers and tram drivers. A



A map of the Utrecht-Nieuwegein system, showing the extension from Achterveld to IJsselstein Zuid (Zenderpark) due to open on 2 July. The 5000-series numbers are zone designators for the Dutch zonal fare system.



daily average of 35 fines are issued by the inspectors, who admit that bringing arguments under control is a normal part of their jobs.

Connexxion, which in 1999 placed orders for a total of 600 new buses, is Holland's leading regional transport undertaking. It is a private company born from a merger of several former affiliates of the railways.

This process of mergers has brought the Sneltram of Utrecht under the same Connexxion umbrella as the fully renovated trolleybus network of Arnhem, which is now the only surviving Dutch trolleybus system. As the outcome of the EU-wide liberalisation, the infrastructure has now been severed from the transport undertaking. So the tram tracks of the Utrecht system are now owned by Railinfrabeheer, an affiliate of NS.

The date 8 April saw the launch of the first rebuilt and refurbished tram for Sneltram Utrecht—Nieuwegein, the Dutch light rail system opened in 1983, and now undergoing complete renovation. The tram refurbishment work, including repainting in a new livery, has been carried out by the German firm PFA Weiden.

Theoretically, after some future tendering procedure, yet another operator might be awarded the franchise to operate the sneltram, but after the turmoil of recent years, no one even dares to speculate about such a scenario. As things stand now, what comes first is the undisputed role of the Sneltram.

In February 1999, this magazine described the history of the Utrecht suburban tram. It also described the unsuccessful efforts to extend the Sneltram, which is basically a north-south line, to caused all such plans to be shelved, and even the much vaunted guided busway alternative seems to have disappeared off the agenda. Politicians cannot resist the temptation to interfere in the running of this light rail line. The regional parliament of Utrecht devoted a debate to the colours of the trams, and vetoed

Connexxion's original scheme to repaint the trams in a striking combination of greyish colours. In fact, it was a group of local politicians who, despite all rhetoric about a receding government, imposed the new colour scheme for the trams on the light rail line operator.

## Efficient Maglev was a victim of neglect

I strongly agree with E. Relton's views on monorails and 'monorails' (usually anything but). He is however unduly harsh about the Birmingham Airport Maglev line.

From the time it was opened, it worked reliably and economically. Maglev is ideally suited to a junctionless unattended system and the lack of moving parts reduces the maintenance requirements quite considerably.

The end came when the makers (GEC) due to a change of management lost interest in supplying spare parts for a small one-off system at an acceptable price and showed no interest in extending the line to the new 'Eurohub' terminal which would have been necessary to keep the line viable.

As for the notion that GEC went bankrupt over this or indeed anything - really!

**John R. Batts**  
Banbury, Oxon

## What is the true cost of street LRT?

Following recent events in Vancouver, Canada, I would like to ask a question: How much does it cost to build LRT on a city street?

This question comes about because of our SkyTrain mini-metro - LRT debate, which the consultant from BRW, put the cost of building light rail on a city street at CAD 60 million/km! Further, the consultant claimed that on street light rail construction is about three times that of building LRT on disused railway right-of-way!

The recent Sheffield and Croydon projects, as well as numerous projects in the USA, indicate much cheaper construction costs for LRT.

Has light rail construction costs been inflated to make mini-metro subway construction (about CAD 150 million/km) costs more palatable to the taxpayer?

I wonder if anyone could enlighten me on this subject.

**D. Malcolm Johnston**  
The Light Rail Committee  
Vancouver, Canada  
[dmjohnston@imag.net](mailto:dmjohnston@imag.net)

## Do trams make homes worth more?

As a small property investor I am very interested to know if the opening of tram services in the United Kingdom, for example in Manchester or Birmingham, has had a noticeable effect on house prices in the affected areas.

I would guess that areas that have been afforded a new easy access link to the city centre would experience a small inflation of house prices, especially those within easy reach of a tram station, (perhaps with the exception of those right next to the line). Is this in fact the case?

I would be very interested to hear of any experience or knowledge *Tramways & Urban Transit* readers have regarding this subject, and point me in the right direction for any additional information on the topic.

**Tom Bell**  
By e-mail

# The gloves are off as Livingstone for better public transport for

The election of Ken Livingstone as the new London Mayor on 5 May has really put the cat among the pigeons - because he is already at odds with the Government on how its public transport system can return to world-class status.

While not dismissing as any less important the other significant social issues such as education, employment, and law and order, it has been fascinating to see the election campaign driven by the issue of buses and the Underground. All the major candidates had to quickly develop an acute understanding of the problems of under-investment and reducing road traffic congestion because of its potential as a vote winner.

Ken Livingstone has now won public confidence for his policies - many would say heavily based on his personal charisma - and it will now be most interesting to

see if he is able to get his own way. How will he demolish the Labour Government's plan to press ahead with involvement of the private sector in the Underground through what Deputy Prime Minister John Prescott has labelled the Public Private Partnership? (He has used a simpler phrase - 'sell-off'.)

Whether he will get his own way remains to be seen, because it seems likely the Government that will stitch up its PPP deals before handing over responsibility to the new GLA. Mr Livingstone has however already threatened messy intervention through the courts to prevent it.

What are we being primed for in the medium term? According to Mr Livingstone, frozen tube and bus fares for four years, and a central London congestion charge. Can it also be suggested here... a dusting down of

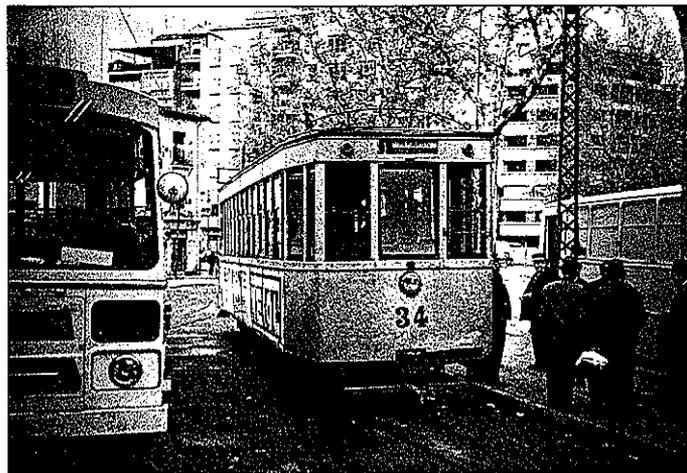
long-shelved light rail schemes along the principal corridors.

There is so much to be done, and no-one is clear yet where the money will come from. London Transport, already bracing itself for considerable upheaval as it comes under the umbrella of the new Greater London Authority, is certainly not short of passenger business, so that's the least of its worries.

Only a few weeks ago, LT admitted that it expects the bus business to mount up a further £34 million loss for the next financial year. Although this is minute by world standards, it still reflects that fundamental flaw of British transport policy for almost a century - and unwillingness to subsidise transport in the same way as other social items.

As everyone knows from when Mr Livingstone was last in a senior public post as leader of

## Granada - good days and not so good...



Letters from Michael Hyde (February) and Simon Brown (April) concerning the tramways in Granada in Spain stirred memories of a holiday I took in Spain in January 1972.

On a visit to Granada I took a picture of tram 34 (pictured left) which may be of interest, although I am afraid I have no details of either the vehicle or the extent of the system at that time.

**Michael J Pocock**  
Newbury, Berks

As previously reported, the system closed in early 1974 - Editor



In common with other tramways, Granada was not free of troubles, especially motorists who chose to park across the rails, lock up and walk away regardless of the effects on public services.

I enclose a copy of the photograph that I took on 1 February 1972. Two trams are stopped, while staff and volunteer passengers are removing a car parked over the tracks. This was a common feature. An inspector, on the right with a dark dress, is taking the car's registration number ready to dole out a fine.

**Dr. Albert Gonzalez Masip**  
Barcelona



## e fights ondon

the Greater London Council in 1981, ideology can often get in the way of economics. While the 'fares fair' policy slashed fares, he also fell foul of then Conservative Prime Minister Margaret Thatcher when it added over £230 million to the annual rates bill.

Efficiency has to go hand in hand with development, and Mr Livingstone's public comments such as re-introducing conductors on to buses, while another obvious vote-winner, are unhelpful because they demonstrate that he is sometimes out of touch with the real world of economics.

Through all this, at least we're all talking about transport - and I am sure we all look forward to the next episode of the Livingstone saga with great anticipation.

John Warner  
Hatfield, Herts

## Benefits of easier access to capital's Tube trains

I have always thought that London Transport could do two things better. Do readers agree?

First, There are dozens of places where Tube and railway stations are just too far apart to walk conveniently between them. But the advantages of linking them to create a unified net would be enormous.

What technology could be used to link them? To bring costs down it has to be an adaptable technology that can be used for most links, it would have to be easy to install in the very varied circumstances of these stations and be able to climb the steep slopes there often is between them. Speeds could be modest. Any suggestions?

Second, London Transport is now raising platforms to give wheelchair (and pushchair!) access to Underground trains. All very commendable, but is it the right answer? Why not reduce the access height of the vehicles?

There is no need to lower the power cars - the trailers only would

## Can we bring 'Baby Grand' back from the United States?

I feel the brief item in the April issue on the return to the rails of the Liverpool Priestly bogie car 762 somewhat understates the work involved in its restoration.

The statement 'using parts from Glasgow and Portugal' no way covers what has been done by of the members of the Merseyside Tramway Preservation Society in transforming the remains of the car into the magnificent vehicle that it now is.

Starting with only the lower saloon, without mechanical or electrical equipment, they have built entirely new platforms with vestibules, replaced the missing deck ends over the platforms, built new staircases and an entire new top deck with stairwell vestibules. The lower saloon has been refurbished, new seating has been installed, and new handbrake columns have been made.

Mechanical and electrical parts have come from various sources including a pair of trucks from Blackpool, unfortunately not of the

correct type but neither Priestly 'Monomotor' nor EMB 'Lightweight' trucks could be had. Additional equipment, such as low voltage lighting and extra external lights, were required by HM Railway Inspectorate to enable the car to operate in public service on the Wirral Tramway.

In the same issue, Irv Cuevas reports on the achievements at the Seashore Museum in restoring cars in bad shape to their original splendour, but when mentioning the double deck cars on show he omits Liverpool 'Baby Grand' 293.

I doubt this car is on display because the museum is ashamed to let it be seen. Here is a car that was received in working order and has been allowed to rot to the point where it will never run again.

Perhaps the museum would permit its repatriation to Merseyside where the MPTS team would give it a good home and coax it back to life.

Leo J. Taylor  
Dunstable, Beds

## South Hampshire's light rail problems are very few

Joseph Pestel's letter (April) implies a failure to appreciate either the South Hampshire proposals or who operates the heavy rail service in question.

My knowledge of the area may a little out of date (I moved away in 1966) but my last visit in mid-1999 suggested that no insurmountable problems should arise for street running between St Denys and Royal Pier.

This would serve St Mary's, the lower part of The Ditches, relieve the Itchen bridge and stimulate a still evidently deprived zone. Should what used to be BP at Hamble still be rail served, its needs could happily co-exist with the LRT. Perhaps even, to eliminate third rail risks whilst retaining electric traction, perhaps a few Class 73 electro-diesel locomotives might be equipped with pantographs.

Further north, at Eastleigh, the

be enough, which could be done easily enough by reducing the diameter of wheels and modifying bogies.

This would allow level access to be provided quickly rather than over the course of decades, and would do away with the need for

South to East Chord would actually improve the Cardiff - Portsmouth service. At present this has to cater for two totally different markets whose needs are diametrically opposed.

Class 158 DMUs are hardly shopper-friendly and long distance passengers have their journey time extended by probably a good half hour to meet the others' demands.

I doubt if many Bristol-Bursledon tickets have ever been issued whereas Salisbury-Southampton Airport-Portsmouth could prove lucrative. Sufficiently so, even, to require a frequency boost.

One fly in the ointment is however, the operator's record elsewhere. Just ask commuters on the Gunnislake-Plymouth and Exeter-Barnstaple routes or, even worse the good burghers of St Ives (Kernow), how they are treated!  
Roger Hardman by e-mail

vastly expensive and awkward station rebuilding.

In the very long run, would allow coaches to be built to take tall men like me (6ft, not very tall) without bending.

Michael Bell  
Hitchin, Herts

## How Yokohama loses out to Croydon

Colin Brown's 'Japan: Nation of Quality Tramways' (May issue) was very interesting.

Having come from Yokohama, where the tram disappeared in the 1960s, it is nice to see Tramlink gearing up for operation in Croydon UK, where I live now.

Trams were extremely popular in Tokyo in the early 20th century. We even have a song called 'Densha Shoka' (train song) composed by Wasaburo Ishihara in October 1905. The description starts with Imperial Palace and depicts most stations, and the verses number 52. Indeed, this is a 'virtual' tour of Tokyo tramways!

Sanae Konno  
Croydon, Surrey

## Rio also has a 1100 mm gauge tramway

In his article on the Braunschweig tramway, C. J. Wansbeek notes its 1100 mm gauge and states that the German city is 'the sole survivor in the world with the odd gauge'.

The Santa Teresa tramway in Rio de Janeiro has used 1100 mm gauge since its electrification in 1896, one year longer than Braunschweig (which opened in 1897). If, as the author speculates, Braunschweig might want someday to shelve its narrow-gauge trams, it might find a ready market in Brazil!

Allen Morrison  
by e-mail

## Light rail on the net

I have been featuring *Tramways & Urban Transit* on my website with a link to your site for the past two months.

Readers might like to know that it has transport-related database/search engine with over 1600 sites as well as many unpublished photographs from my collection.

John Bradshaw  
[www.transport-of-delight.com](http://www.transport-of-delight.com)

## More to see in London

With reference to Mr Bell's letter in the March issue on the existence of tram track in London, at the rear of Fulwell Bus garage, the former LUT depot, a full track layout exists.

You don't have to trespass into the bus depot to see this. It is blocked off and you just walk around. At Manor House, there was a tramways office with a track leading into a yard at the side.

H. Luff  
London

## Other end of the line

Your May news item regarding the Porto city centre extension should have stated that it starts from the Carmo end of the existing line, not from Boa Vista. The cost is 1.8 billion escudos. A re-extension from Boa Vista would also be most welcome!

Martin Petch  
Southampton

**! Please write - but  
please be brief!**

# WORLDWIDE REVIEW

## ARGENTINA

**BUENOS AIRES.** Metro line D was extended from Juramento to the new Congreso de Tucumán station on 27 April. (A. Morrison)

**MAR DEL PLATA.** Service on the beach heritage tramway has been suspended until next summer (December) and both ex-Lisboa cars are now at the depot in Parque Camet, 4 km north of the city. Construction is underway on an additional 3 km of tramway within the park. (A. Morrison)

## AUSTRALIA

**SURFERS PARADISE.** The draft Integrated Regional Transport Plan for South-East Queensland, issued for consultation, identifies light rail as a future option for the corridor Southport-Surfers Paradise-Broadbeach. (A. Buchanan)

**MELBOURNE.** The 59 *Combino* trams ordered from Siemens will be double-ended cars split between 19-m and 29-m models. The contract includes a repair and maintenance provision for 15 years. W7 tram 1011 has been repainted in City Circle livery, the first of four being reliveried in readiness for the extension of the service through the Docklands. (TA)

**SYDNEY.** The official opening of the New Southern railway to the airport was due to take place on the weekend of 20-21 May. (TA)

## AUSTRIA

**WIEN (VIENNA).** The new series of type V *U-Bahn* trains will include control trailers 5401-22 and motor cars 2401-2522 and 2801-2922; the prototype set is formed 5401+2401+2402+2801+2802+5402. (EB)

## BELGIUM

**ANTWERPEN.** New ticket machines are being installed at 30 locations which issue a one-hour ticket, a 10-ride ticket and a day ticket. Instructions are given in Dutch, French, German and English, coins and notes accepted, and change given. (OR)

**BRUXELLES/BRUSSEL.** French consultancy Semaly has been awarded a contract to examine options for the future of the north-south subway, including light rail, light metro, metro and RER. Any change is unlikely before 2010. The fourth PCC to be rebuilt as a double-ended works car will be 7055. (T-2000)

**GENT.** The opening date for the extension of routes 21 and 22 to Zwijnaardebrug has been fixed for 28 May, 35 years after the last trams on route 5 were withdrawn at the end of May 1965. (T-2000)

## BRAZIL

**SANTOS.** The first rails were laid on 26 April for the 2.2 km heritage tramway under construction on the streets of the Valongo district, near the railway station. Operation is scheduled to begin in August with



In Braunschweig, north Germany, one of the Duewag six-axle trams has been rebuilt with a low-floor centre section and renumbered 0051. It is seen at the depot with preserved LHB-built six-axle tram 15 of 1969. C. T. Wagner

open tram 84, built at the beginning of the last century by Hurst Nelson in Motherwell, Scotland. (A. Morrison)

## CANADA

**CALGARY.** An additional 21 SD-160 LRVs will be purchased from Siemens Transportation Systems by Calgary Transit, bringing to 32 the number of cars currently on order. When all have been delivered in 2004, the CT fleet will total 117 Siemens vehicles. The SD-160s feature state-of-the-art AC propulsion with insulated gate bipolar transistor propulsion technology and four 145 kW traction motors. The bodies will be fabricated at the company's car shell facility in Carson, California, with assembly and testing at its Sacramento manufacturing plant. (J. Wolinsky)

**MONTREAL, QUEBEC.** The government of Quebec announced on 11 April that it plans to spend more than CAD 1560 million on public transit projects in the next 10 years, mostly for metro extensions, north to Laval, east to Anjou and south to College Edouard Montpetit in Longueuil. There will be 6.9 km of new metro tunnels and eight new stations plus a new commuter rail route to Mont-Saint-Hilaire. These are in addition to a previously announced three-station metro extension to Laval costing CAD 350 million that would connect with the commuter route to Blainville at the St. Martin intermodal station. Line 5 will reach St-Léonard-Anjou while Line 4 will be pushed deeper into Longueuil and reportedly will be extended on the city centre end from its current terminal at Berri-UQAM to the McGill station. Each line would get four new stations. (J. Wolinsky)

## CHILE

**SANTIAGO.** On 3 March metro line 5 was extended 2.8 km from Baquedano to Santa Ana station, where it connects with line 2. (A. Morrison)

## CHINA

**XI'AN.** Plans have been unveiled for a 19.4-km east-west metro to be built in 2002-6. (RGI)

**SHANGHAI.** Alstom, in partnership with Shanghai Electric Corporation) is to supply 152 cars (with an option for a further 148) for the Xinmin light metro line in a contract worth EUR 148 million). Alstom is already supplying 28 six-car trains for metro line 3, and will now supply the signalling and train control system. (Alstom)

## CZECH REPUBLIC

**OSTRAVA.** Current tram routes are:

- 1, Hlavní Nádraží-Vitkovice-Dubina;
- 2, Hlavní Nádraží-Mírové nám-Vyskovice;
- 3, Vresinská-Mírové nám-Vyskovice;
- 4, Hlucinská-Martinov;
- 5, Vresinská-Zátiší;
- 6, Vystaviste-Mírové nám-Hulvácká-Martinov;
- 7, Vresinská-Hulvácká-Vyskovice;
- 8, Hlavní Nádraží-Vresinská;
- 9, Vozovna Poruba-Vystaviste-Nová Hut Jizní Brána;
- 10, Vystaviste-Vitkovice-Dubina;
- 11, Vystaviste-Hulvácká-Zábřeh;
- 12, Hlucinská-Hlavní Nádraží-Hulvácká-Dubina;
- 13, Hranecník-Vystaviste-Mírové nám-Zábřeh;
- 14, Vystaviste-Mírové nám-Dubina;
- 15, Vystaviste-Mírové nám-Nádraží Vitkovice;

17, Vresinská-Hulvácká-Dubina;  
18, Martinov-Hulvácká-Nádraží  
Vítkovice-Dubina;  
19, Martinov-Mírové nám-Dubina.  
A 24-hour ticket costs CZK 29.

(M. Swift)

## FRANCE

**BORDEAUX.** The reconsideration of bids for the new tramway system took place on 14 April, when the committee again chose the Aistom-led consortium for the FRF 1700 million contract. It is still hoped to open the 22.5-km tramway at the end of 2002 or early in 2003.

**CLERMONT-FERRAND.** Contrary to our May report, the politicians decided to choose rubber-tyred 'trams' for their north-south segregated transit line, and tenders have now been invited on this basis. It is hoped to start public service in 2004. (VdR)

**INDUSTRY.** The Vivendi Group has decided that all its CGEA passenger transport subsidiaries in 16 countries will adopt the name Connex (already used for their train operating companies in the UK). (TP)

**LYON.** The first of 39 *Citadis* TGA302 low-floor trams made its first outing on Lyon tram tracks on 13 April, between Saint-Priest depot and Porte-des-Alpes. Delivery is proceeding at the rate of four/month in readiness for the December inauguration of the system. (VdR)

**NANCY.** The first TPGN vehicle (*Tramway sur Pneu du Grand Nancy*), essentially a guided trolleybus, was unveiled by Bombardier at its Crespin factory in late March. (VdR)

**TOULON.** The tramway project has received a favourable decision from the inspector who conducted the



public inquiry, and is expected to receive its declaration of public utility this summer. Work could start in 2002. However the University is holding out against an alignment which enters its grounds. (VdR)

**TOULOUSE.** Work will start later this year on the 2.5-km extension of VAL line A from Jolimont to Baima-Gramont, following the signing of an FRF 361-million contract with Matra Transport. Public service is expected in June 2004. Design work continues for the 16-km line B. (Matra)

## GERMANY

**BREMEN.** The DEM 70-million package to extend tram route 4 from Horn-Lehe to Borgfeld was agreed by the city senate on 28 March. Work should be complete by September 2002. Studies for a regional Stadtbahn have recommended links between the tramway system and local rail lines to permit through services from the city centre to Neustadt/Deimenhorst/Hude/Nordham/Oldenburg, and from the city centre to Osterholz/Rotenburg/Würmme/Oyten. For expenditure of DEM 28 million the first section could be operating by 2004. (RGI)

**DORTMUND.** Consultants examining options for links between DB tracks and the Stadtbahn have recommended a four-step approach:

(i) a single-track link between the Westfalenstadion Stadtbahn turning circle and the adjacent railway (DEM 11.6 million);

(ii) doubling of this track (DEM 17.8 million);

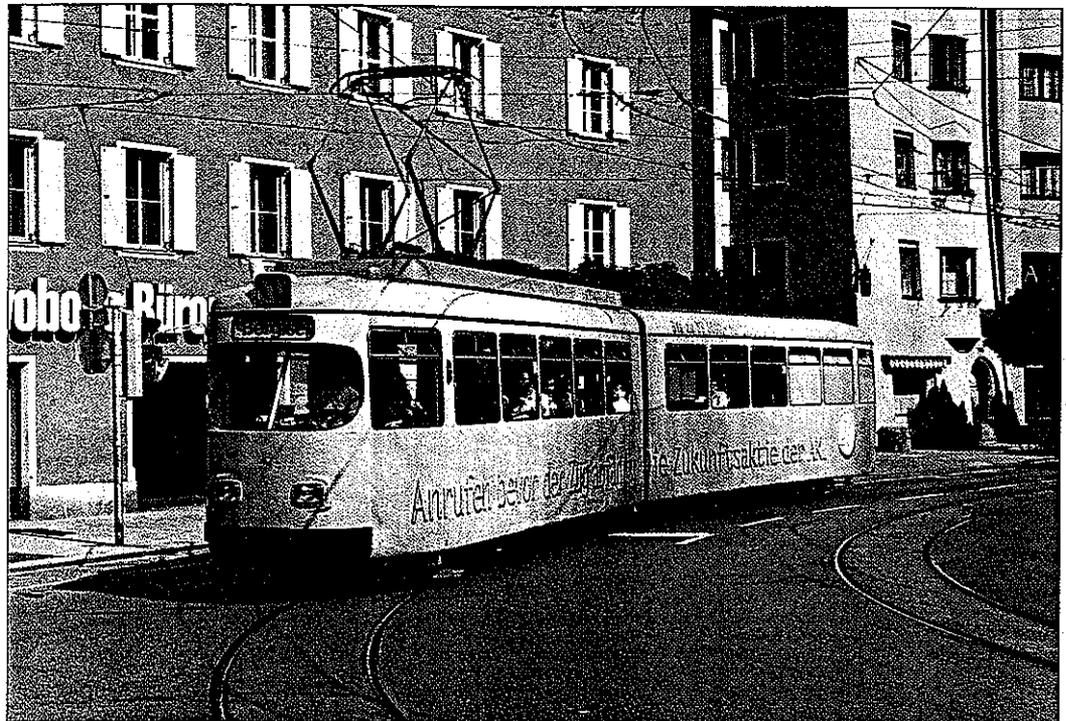
(iii) a second connection, at Hacheney (DEM 11.5 million);

(iv) a third connection in the median strip of Ruhrallee (DEM 4.1 million).

The City Council has applied for financial assistance for the project from the provincial government of Nordrhein-Westfalen. (WAZ)

**HANNOVER.** To cope with the EXPO 2000 traffic, the route network from 21 May to 4 November is as follows:

- 1, Langenhagen-Laatzten-Sarstedt;
- 2, Alte Heide-Laatzten Krankenhaus-Rethen;
- 3, Lahe-Waterloo-Wettbergen;
- 4, Gerbsen-Roderbruch;
- 5, Stöcken-Kirchrode;



Now available from LRTA Publications is our new history of trams and trolleybuses in Innsbruck, the capital of the Austrian Tirol. Innsbruck 42 is a 1963 Düwag tram recently repainted in advertising livery for a mobile phone company, Johnny Dobson

6, Haltenhoffstrasse/Nordhafen-EXPO/Ost;

7, Fasanenkrug-Waterloo-Wettbergen;

9, Lahe-Waterloo-Empelde;

10, Ahlem-Steintor-Aegidientorplatz;

11, Zoo-EXPO/Ost;

14, Misburger Strasse-EXPO/Ost;

16, Königsworther Platz-EXPO/Ost;

17, Wallensteinstrasse-Steintor-Aegidientorplatz;

18, Hbf-EXPO/Nord.

Trams on route 6 to/from Haltenhoffstrasse/Nordhafen divide/combine at Strangenriede. Planning procedures have started for the 1.1-km extension of route 5 from Kirchrode to Anderten, which should be ready in 2003. (SV)

**KARLSRUHE.** Work is in progress on the 1.5-km extension of route 4 from Waldstadt to Europaschule; it is hoped to open this in the autumn. It is

planned to extend line S5 from Wörth-Rathaus to Wörth-Badepark (1.5 km), where the terminus will include a two-track depot, and a layout facilitating a future link to DB tracks for extension over the railway to Kandel. When this extension is opened next year the line through Wörth will be fed at 750 V dc, requiring installation of a voltage changeover point between Bienwaldhalle and Bürgerpark. Plans are being drawn up for a new depot at Gerwigstrasse to replace Tullastrasse (which would remain for buses). (SV)

**MAINZ.** The single-track steep gradient section of tramway in Gaustasse, which features interlaced track, is to be rebuilt as double track following demolition of six properties. (SV)

**NAUMBURG.** Trams will be operating on 27/28 May, 22-25 June and 29/30 July. (OR)

**SAARBRÜCKEN.** Two-system LRVs 1016-28 are being delivered from Bombardier-Wien on their own wheels, running at 15 kV ac under OeBB and DB electrification, after testing between Wien-Nord and Gänserndorf. (EB)

**SCHÖNEICHE.** This metre-gauge tramway in the eastern suburbs of Berlin is under threat of closure in August due to the need to find DEM 1 million for track diversion work between Schöneiche and Rüdersdorf at the same time that one of the financing authorities, Kreis Märkisch-Oderland has reduced its annual subsidy from DEM 320 000 to DEM 120 000. Museum tram 73 should be operating on 17/18 June, 2 July and 10 September. ('Berliner Zeitung', OR)

**WOLTERSDFORF.** KSW 7 + trailer 22 will be in service on 11 June, 9 July and 10 September. (OR)

## ITALY

**MESSINA.** The 7.7-km north-south tramway will be operated by 15 Fiat-

built low-floor tram similar to the Roma 9200-series, for delivery in 2001. (TR)

**ROMA (ATAC).** Tram routes operating in mid-April were:

3, Stazione Travestere-Piramide-Piazza Thorwaldsen;

8, Casaletto-Lago Torre Argentina;

14, Stazione Termini-Togliatti;

19, Piazza del Gerani-Piazzale Mancini;

225, Piazzale Mancini-Viale Pinuriccio;

516, Piazza del Gerani-Stazione Termini.

In the evenings route 19 is extended to replace route 225. (R. J. Elliott)

## NETHERLANDS

**AMSTERDAM.** Consultants have released a damning report on the new central workshops, criticising the design and the productivity; it says most practices have simply been carried over from the old establishment at Tollenstraat. It recommends closing the works, carrying out repairs and maintenance at depots and retraining the staff as tram drivers to meet the current shortage. Transfer of trams to and from the works under their own power started on 3 April. The extension of route 51 beyond Amstelveen to Loethoelilaan is now expected to open in September 2002. It will serve a new Park+Ride facility at Spinnerij. The date for the tram parade to park the centenary of the GVBA has been fixed for 16 September. Work has started to lay new track in Fred Petterbaan for the extension of route 10. (HOV, OR)

**DEN HAAG.** 11 November 2000 has been fixed as the date for the return of trams to Grote Marktstraat. Den Haag tram friends have a new website for PCC enthusiasts - <http://members.xoom.com/haagsetram/pcc/overzppcc.htm>. (OR)

**INDUSTRY.** The electrical equipment

## Paris set for tram expansion

The Regional Assembly of Ile-de-France has approved an agreement with the State for a FRF 20 180 million budget for public transport investment in 2000-2006, including six metro extensions and significant expansion of tramway operation towards the goal of a suburban orbital system.

The Saint-Denis-Bobigny tramway will be expanded in both directions, from Saint-Denis to Gennevilliers and Le Luth (4.6 km) by 2005/6, and from Bobigny to Nolsy-le-Sec (3 km) by early 2003, continuing to Val-de-Fontenay (8.3 km) in 2006. In 2005 there will be a branch from Saint-Denis to Eplnay-Villetaneuse (9.5 km). These extensions will require investment of FRF 4438 million.

The Val-de-Seine tramway will also be extended at each end, from La Défense to Pont de Bezons (4.1 km) in 2004/5, and from Issy-Plaine to Porte de Versailles (2.7 km) in 2005. These extensions will cost FRF 1450 million. Completely new tramway lines planned are Châtillon-Vélizy-Viroflay (13.5 km, 2005/6, FRF 2700 million) and Villejuif-Athlis-Mons (14.5 km, FRF 3100 million, 2007). Light rail operation over SNCF tracks is proposed for Aulnay-Bondy (10 km) and Sénart-Evry (1.5 km).

Metro extensions are line 4 to Marie-de-Montrouge (1.5 km), line 8 to Créteil-Sud (1.8 km), line 12 to Pont de Stains (2.3 km), line 13 to Gennevilliers-Le Luth (1.8 km) and the two extensions to Météor line 14 already under construction to Saint-Lazare (600 m) and Olymplies (700 m). Metro extension will cost FRF 5340 million. (VdR)



The new track layout at Braunschweig rail station features dual-gauge track to permit possible future through operation between the 1100-mm gauge tramway and local rail services. The ADtranz low-floor tram is on route 1. C. T. Wagner

manufacturer Traxis of Ridderkerk has been purchased by Alstom from the Royal Begemann Group.

(C. J. Wansbeek

**ROTTERDAM.** In consultation with the city council, RET has decided that the tram livery should remain as green and white rather than the green and silver recently applied to 715/38, 828/31. During the period of the EURO 2000 football tournament (until 2 July) a new daily tourist tram service will run from Centraal Station every 30 minutes 10.00-17.30 for city sightseeing, including a visit to the new route 23 (Stadion Feyenoord). It is expected that trams 1628/9 will be used. A special day ticket is available. The regular summer heritage tram service 10 will run Tuesday-Thursday and Saturday/Sunday from 8 July to 10 September (excluding 29 July and 12 August). 515/23/37/65 should be available for route 10. (OR

**UTRECHT.** The extension to IJsselstein Zenderpark is scheduled to open on 2 July. The first tram to be rebuilt and repainted into the new livery was 5002. (HOV

**NORWAY**

**OSLO.** Work started on 1 May to build the first of the new links which will form the T-bane ring line (Ullevål-Storo). This should open in 2003, followed by Sinsen-Carl Berners Plass in 2006. (MFSS

**POLAND**

**SZCZECIN.** A new bridge is under construction across the river Regalica to permit the extension of the Basen Górnicy tramway to the new housing development on the east bank of the river at Sloneczne and Bukowe. Ulica Mieszka is being widened to create a link to the Poznan motorway, also creating a wide central reservation for a new tramway which will branch from the present route to Pomorzany. A total of 14 low-floor trams are due for delivery in 2000/1. Current fares are PLZ 1.50/2.30/3 for 20/60/120-minute journeys. (R. Gee

**PORTUGAL**

**PORTO.** A visit to the city during March found the tram service worked by cars 191, 205/13/8/20/1/2 and 275/87. Coal tram 77 was also in use. (I. Cresswell

**RUSSIA**

**MOSKVA.** It is reported that to facilitate road construction Krasnopresnenskoe tram depot will be relocated to Strogino by 2002. The new facility will serve routes 6, 10, 21 and 28. Route 27 will be isolated and run from a yard at the new metro Dmitrovskaya terminus. When the road construction is completed, route 27 will be re-extended to metro Schkinskaya (also

to be the terminus of route 28, cut back from Sokoi). Prototype **LT-10** tram 2300 has been transferred to the museum fleet as it has become clear that the Ukrainian manufacturer Luganskteplovoz has no prospect of mass production. Roving conductors have been introduced on a number of routes from Krasnopresnenskoe and Oktyabr'skoe depots. (N. Semyonov  
**NOGINSK.** The Glukhovo bridge is still closed for repair and tramway operation continues with **KTM-8k** 3 and 6, and **KTM-8km** 2 and 5. **RVZ-6** 7 remains in reserve. (N. Semyonov  
**SANKT PETERBURG.** On trial is the prototype **LM-99** four-door bogie tram from TMZ (Tramwayno-Mechanicheskiy Zavod) in green livery. It will probably go on a demonstration tour to other Russian systems. TMZ has also unveiled plans for 100% low-floor articulated trams designated **PTV-2000**, to be built in co-operation with local high-tech companies. Six and eight-axle cars are proposed, 24.47 and 32.42 m long respectively, and accommodating 177/242 passengers. (N. Semyonov  
**VOLGOGRAD.** TMZ St Peterburg has delivered a prototype **LVS-8.2.93** LRV for trials, a double-ended eight-axle articulated car with thyristor control. The system's only Tatra **KT8**, 5834 (built in 1989 as Moskva 0003) is out of service awaiting spare parts. (N. Semyonov

**SPAIN**

**SANTA CRUZ DE TENERIFE.** The Canaries government has invited expressions of interest for the construction of the planned Plaza de España-Los Rodeos-La Laguna north-south light rail line, with the object of completing the project in 2006. Studies are in progress for two further lines. (G. Mackinger  
**VALENCIA.** The 3900-series metro sets on line 3 are to be boosted from three to four cars with 18 new Alstom-built trailers. (RGI

**SWEDEN**

**GÖTEBORG (GOTHENBURG).** M31 eight-axle trams with low-floor centre sections are 301-5/9/16/21. By the end of 2000 307/8/10-5/7/920/3/5-7 will also have appeared in this form. All 80 M21 trams will have been dealt with by the end of 2001. However it is hoped to order a batch of new 32-m low-floor trams this summer that can enter service from summer 2002. It is hoped to open the new section of tramway through the Chalmers tunnel in autumn 2001, followed by Skånegatan in 2003 and Badhuslänken in 2006. The Ringlininen museum tram service will operate on Saturdays from 15 April to 23 September (daily 1 July-6 August). (MFSS

**STOCKHOLM.** Museum trams will be operating on the Djurgårdslinjen service between Norrmalmstorg and Waldermarsudde daily from 27 May to 3 September, and at weekends until 17 December. It is reported that the city council has agreed plans to extend the line from Norrmalmstorg to Centralen rail/metro station. (Tåg, J. Codrington

**SWITZERLAND**

**GENEVE.** The light rail service provided by CFF between Geneve and La Plaine will be extended to Bellegarde in France in a timetable change planned for 3 December. (TR  
**RHÄTISCHE BAHNEN (RHB).** Stadler has delivered 10 panorama coaches, first-class 1291-3 and second-class 2501-7, for use in the Bernina-Express and the Heidi-Express services. (EB

**ZÜRICH.** The VBZ has offered to confirm an order with ADtranz for 58 more Cobra low-floor trams on condition they are built in Switzerland. The first six cars are under construction at Pratteln, with electrical equipment from Oerlikon, but ADtranz has announced the planned closure of both these works. The first Cobra is now expected to be ready to enter service on route 9 in spring 2001. (SV

**USA**

**AUSTIN, TX.** A newly released report from the Federal Transit Administration shows strong support for Capital Metro's proposed light rail system. When compared with nearly 200 other LRT projects, Austin was about in the middle of all categories including financial planning and community need for rail transit. It also received praise for potentially increasing mobility, improving the environment and having a positive impact on land development. However, despite receiving a 'recommended' rating, FTA officials pointed out there is still room for improvement. Capital Metro is planning to ask the FTA for half the USD 642.7 million cost of the initial 23.3 km line from McNeil Road to downtown that would open in 2007. A vote to approve the local share is scheduled for November. Subsequent segments include a USD 204 million route to South Austin and USD 72.8 million extension to East Austin. (J. Wolinsky  
**BUFFALO, NY.** The Niagara Frontier

**Moskva opts for light rail**

Approval has been given for the construction of three, mostly elevated, light rail lines by 2003:

- Metro Vlkhino-Zhulebino (5.5 km, 9500 passengers/hr);
- Metro Buljar Dmitriya Donskogo-Yuzhnoe Butovo (7 km, 8500 passengers/hr);
- Metro Novogiryeyvo-Novokosino-Krematorium No. 2 (8 km, 11 200 passengers/hr).

The lines to Zhulebino and Novokosino would later be connected by orbital tracks along Ullitsa Saltikovskaya. Rolling stock is likely to be four-car trains, with interest shown by ZREPS (Sokol metro workshops in partnership with GKD), but not Metrovagonmash (which builds Moskva metro cars). (N. Semyonov



Transportation Authority has hired Parsons, Brinkerhoff, Quade & Douglas to conduct a six-month, USD 120 000, feasibility study on possible extensions of the 10-km Metro Rail line. Among the questions to be answered are whether an expanded light rail system would meet federal construction funding guidelines and if the region can support the additional operating costs. The issue of operating costs has stymied previous plans for more track because NFTA felt local governments would be unwilling to subsidise the service. But local rail transit advocates have insisted that the agency has been too fearful in seeking funding and should move ahead with an expansion plan that could eventually increase the system by 46 km. A public opinion poll released by the Greater Buffalo-Niagara Regional Transportation Council in November found that 80 percent of those polled would like to see Metro Rail extended. (J. Wolinsky

**KENOSHA, WI.** The planned opening date for the 3.2-km heritage tramway connecting the Metra commuter rail station with the Harborpark development is 17 June, to be certain that teething troubles are eliminated by 4 July, when the city and county will be celebrating their 150th anniversary. The fifth car livery to be used will represent Minneapolis. It is hoped three PCCs will be available on opening day. Operation will be counter-clockwise, and officials believe wheel wear will not be a real problem, although they intend to keep curves well greased. The line will serve planned commercial and residential districts on the site of a former auto assembly complex that has been demolished. A developer is expected to start construction shortly of 400 townhouses adjacent to the tracks. (R. F. Corley, J. Wolinsky

**LOS ANGELES, CA.** Construction on the long-delayed 22-km light rail line between central Los Angeles and Pasadena is finally ready to resume. On 12 April the Pasadena Metro Blue Line Construction Authority awarded the joint venture of Modern Continental/JNTB a USD 20.62-million contract for a 1.1-km double-track viaduct from Union Station to Chinatown. Their low bid was USD 1.1 million under engineers' estimates. The agency voted unanimously to move ahead even though all of the financing for the USD 683.7-million project is not yet in place. However, California Gov. Gray Davis has included USD 40 million for the Blue Line in his state transportation plan, which would almost close the funding gap if the programme wins approval from the legislature and the electorate. The Chinatown segment, one of the most complex parts of the job, is scheduled for completion by January 2002. Revenue service on the entire route is set to begin in July 2003. (J. Wolinsky

**MEMPHIS, TN.** The MATA board has voted to increase the tram's regular fare from USD 0.50 to USD 0.60 on 2 July. Staff had recommended increasing the base fare to USD 1. The recommendation was revised after considering the system's limited service area and its potential for



The delivery of new low-floor trams to the Norwegian capital Oslo has seen the end of operation of the Høka bogie tram sets. 208 is seen hauling an ex-Göteborg trailer from Fred Olsens gate into Jerbanetorget. C. Stannard

## Siemens' success in N America

Siemens Transportation has gathered orders for 32 more high-floor LRVs for American transit systems. The SD160 car is a development of the SD100 (with an ancestry going back to the German U2 design) updated with AC drive IGBT propulsion technology. Calgary will take 21 of these cars in 2003/4, while Salt Lake City has ordered six, to take its total fleet of Siemens LRVs to 28 in readiness for the 2002 Winter Olympics. Denver is sticking with the SD100 design, and with existing orders already need to cope with demand, six additional cars have been ordered ready for the opening of the Central Platte Valley line in 2002. They will bring Denver's fleet to 37. (Siemens

economic development and impact on tourism. Bus fares will rise from USD 1.10 to USD 1.25. (J. Wolinsky

**MINNEAPOLIS, MN.** On 26 April, Minnesota governor Jesse Ventura announced that federal agencies will allow the Hiawatha Avenue light rail project to move forward in final design and will permit the use of USD 70 million in airport funds to help build it. Construction still hinges on a commitment by the Federal Transit Administration to pay half of the USD 548 million cost, a decision not expected until October. The project includes a USD 117 million tunnel underneath the Minneapolis-St. Paul International Airport, with stations at the Humphrey and Lindbergh terminal buildings. (C. Lietwiler

**NEWARK, NJ.** The four-year old, 3-km, USD 354 million, ADtranz monorail system serving the airport will be closed for three months from September for essential repairs estimated to cost USD 25 million. Problems have been discovered with winter de-icing system. (NYT

**PITTSBURGH, PA.** Ceremonies marking the start of construction on the Port Authority's Stage II Light Rail Transit Project were held on 12 April at the South Bank stop of the former Overbrook tram line. Contractors will modernise 19.3-km of right-of-way and convert it into a modern LRT system. In addition, the Operations Control Centre at South Hills Village will be expanded and

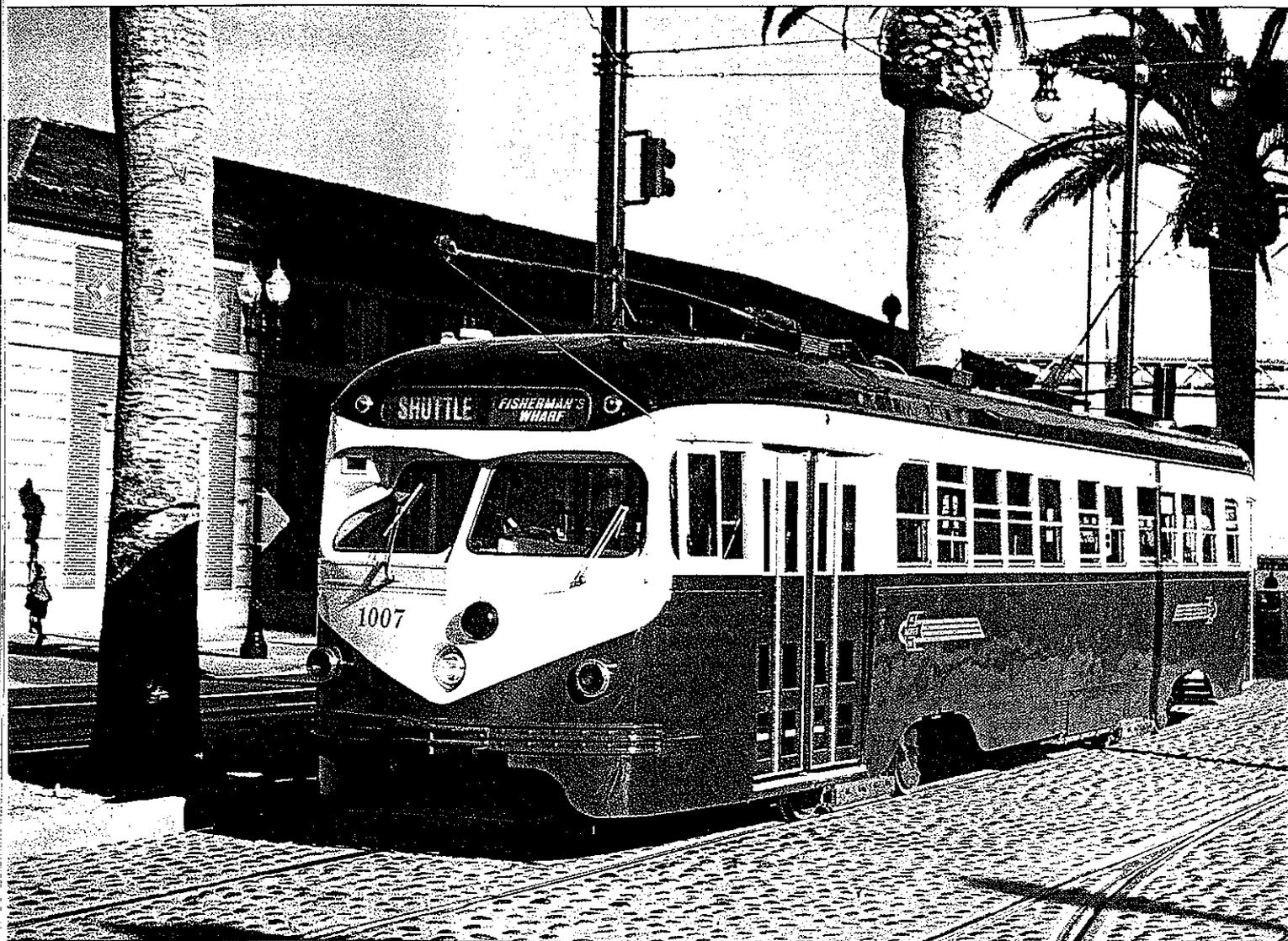
updated, 28 new light rail vehicles will be purchased and a mid-life overhaul performed on the existing fleet of 55 Siemens LRVs. Stage I was completed more than 10 years ago and included a short city centre subway and reconstruction of the former Dormont-Mt. Lebanon route to Castle Shannon and South Hills Village. The Overbrook Line closed in 1993 due to the deterioration of bridges and the track bed. When it reopens in late 2003, there will be a fast and efficient connection to central Pittsburgh. Funding is being provided by the Federal Transit Administration (80%), the Commonwealth of Pennsylvania (16 2/3 %) and by Allegheny County (3 1/3 %). (J. Wolinsky

**PORTLAND, OR.** Track laying is now in progress along Airport Way for the Airport light rail line. The last of the six additional SD660 LRVs, 252, arrived on 10 April. (S. J. Morgan

**ST. LOUIS, MO.** The Federal Transit Administration on 16 March released a further USD 49 million appropriated by Congress last year for continued construction of the St. Clair County MetroLink extension to Southwestern Illinois College in Belleville. The line is scheduled to open in the summer of 2001. Meanwhile, federal hearings will soon be held into the proposed extension from Belleville to Scott Air Force Base and MidAmerica Airport. That 14.3-km project is in trouble

due to low ridership estimates, and may not be federally funded. A five-year, USD 40.75-million contract to manage design and construction of the 12-km MetroLink extension to Shrewsbury was awarded by the Bi-State Development Agency on 14 April. The joint venture team, led by Parsons Brinckerhoff, Sverdrup, STV and Kwame Building Group, consists of 26 consultant firms. The USD 403.9 million LRT project, now called the cross-country route, will serve University City, Clayton and other communities and is scheduled for completion in 2005. (J. Wolinsky

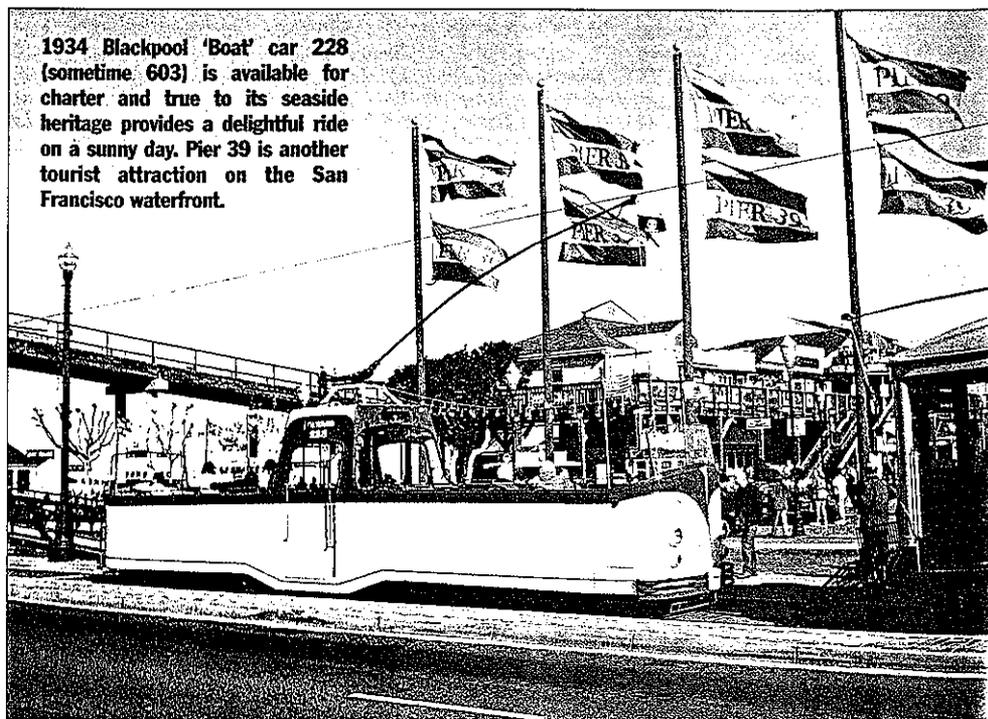
**SALT LAKE CITY, UT.** SLC Rail Constructors has been selected by the Utah Transit Authority for the design-build contract on the 4-km TRAX light rail extension to the University of Utah. But the increasing cost of construction must first be reduced. Originally estimated at USD 105 million, the price tag reached about USD 131.5 million in recent weeks. Unable to find any additional funding, UTA must now cut USD 14 million from the construction budget, still leaving it USD 13.5-million above original estimates. Already, USD 6 million has been cut including eliminating rebuilding an underpass on the University campus and reducing some of the risk that the contractor originally was to assume. Among other items being considered is using asphalt instead of concrete to pave the street surface around the tracks. The federal government is expected to supply USD 84 million, and in mid-March UTA was notified it had pre-qualified for a full-funding grant agreement. The Salt Lake City Council has tentatively approved elimination of USD 2.3 million in aesthetic amenities it had requested. Additional money could come from the Wasatch Front Regional Council, asked to contribute nearly USD 13 million in federal air quality funds for the five Siemens SD-160 LRVs that have been ordered for the line. The



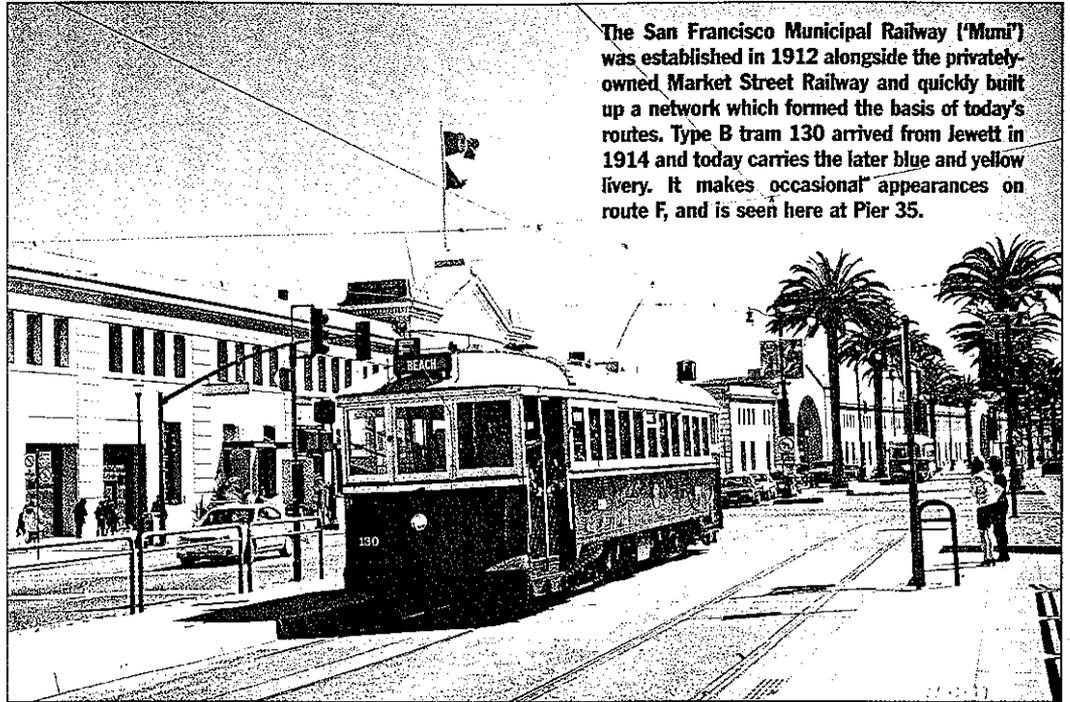
San Francisco, the Californian city by the Bay, has spent USD 140 million to build a new tramway linking Market Street with the tourist mecca of Fisherman's Wharf. Service started on 4 March, extending route F, already famous for its fleet of heritage trams, including colourful restored PCCs representing liveries from across America, its own museum trams, and a collection of imported cars. These provide a daily public transport service from Fisherman's Wharf to the Ferry terminal and along the length of Market Street to the cosmopolitan Castro district (9.6 km). A Timeline tour in March gave LRTA and TMS members a chance to discover the delights of this line for themselves. Photos from Mike Taplin.

## WORLDWIDE REVIEW F

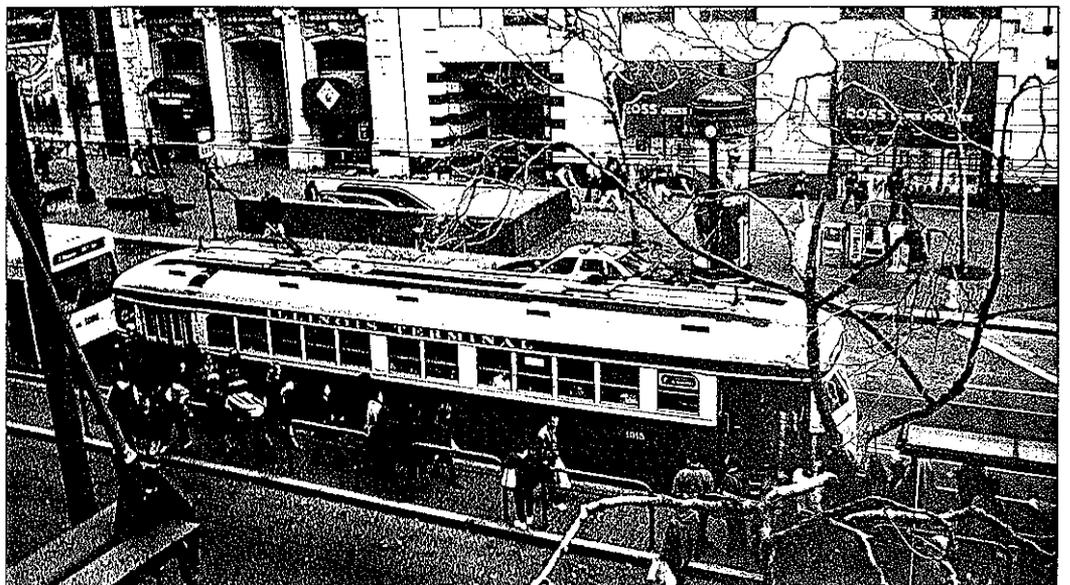
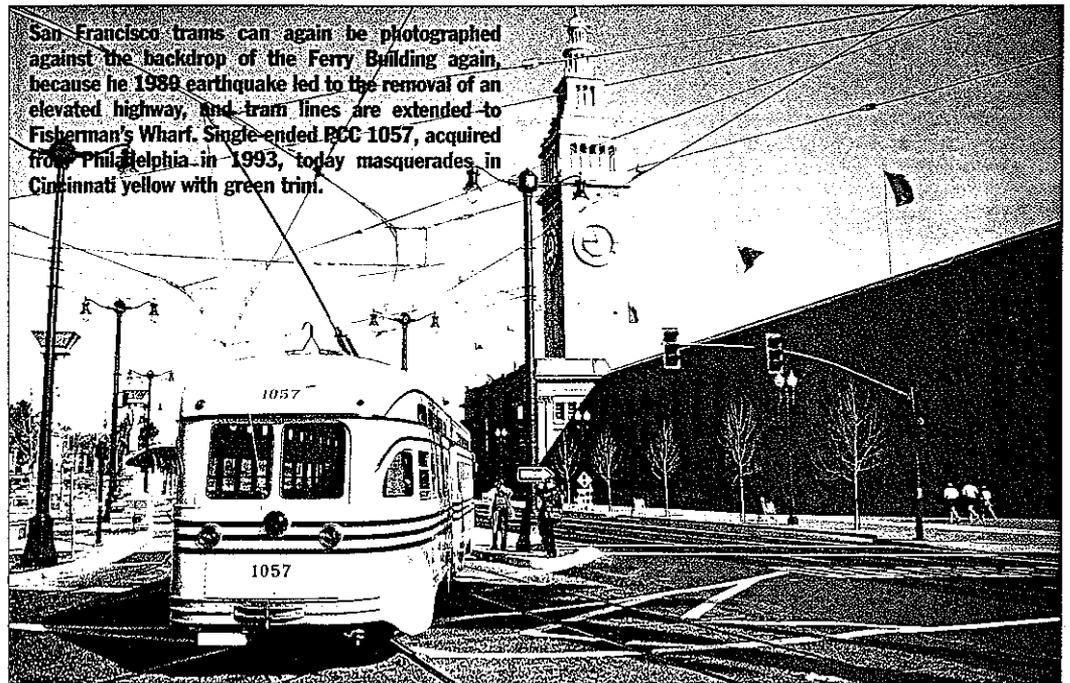
1934 Blackpool 'Boat' car 228 (sometime 603) is available for charter and true to its seaside heritage provides a delightful ride on a sunny day. Pier 39 is another tourist attraction on the San Francisco waterfront.



The San Francisco Municipal Railway ('Muni') was established in 1912 alongside the privately-owned Market Street Railway and quickly built up a network which formed the basis of today's routes. Type B tram 130 arrived from Jewett in 1914 and today carries the later blue and yellow livery. It makes occasional appearances on route F, and is seen here at Pier 35.



San Francisco trams can again be photographed against the backdrop of the Ferry Building again, because the 1989 earthquake led to the removal of an elevated highway, and tram lines are extended to Fisherman's Wharf. Single-ended PCC 1057, acquired from Philadelphia in 1993, today masquerades in Cincinnati yellow with green trim.



**MAIN PICTURE:** Muni acquired its first true PCCs in 1948, double-ended cars 1006-1015. The double-ended facility was later eliminated as unnecessary, but will soon be needed again when route E is introduced to link Fisherman's Wharf with the stub terminal at the Caltrain station (4th/King streets). Meanwhile 1007 was painted in the colour scheme of the Philadelphia suburban 'Red Arrow' system (which had 14 similarly-styled cars).

**RIGHT:** On Market Street in the commercial centre of San Francisco, another double-ended PCC, 1015 in the green Illinois Terminal livery representing the St Louis interurban system, picks up rush-hour crowds at the Powell St interchange with Muni Metro, on its way to Castro.

# CTORIAL



The Swedish city of Göteborg is receiving increasing numbers of articulated trams rebuilt with low-floor centre sections, and an order for new low-floor trams is expected soon. 316 is seen on route 3 in Redbergsvägen. Dr F. van Dam

UTA board on 22 March voted to risk USD 3 million and start construction in June or July even if a federal grant has not been received. If all goes to plan, work might be completed just prior to the 2002 Winter Olympics. However, that requirement will not be in the contract with SLC Rail Constructors. (J. Wolinsky)

**SAN ANTONIO, TX.** A Dallas LRV was displayed here from 21 April until the light rail ballot took place on 6 May. ('San Antonio Express')

**SAN JOSE, CA.** Construction of the Tasman East LRT segment between

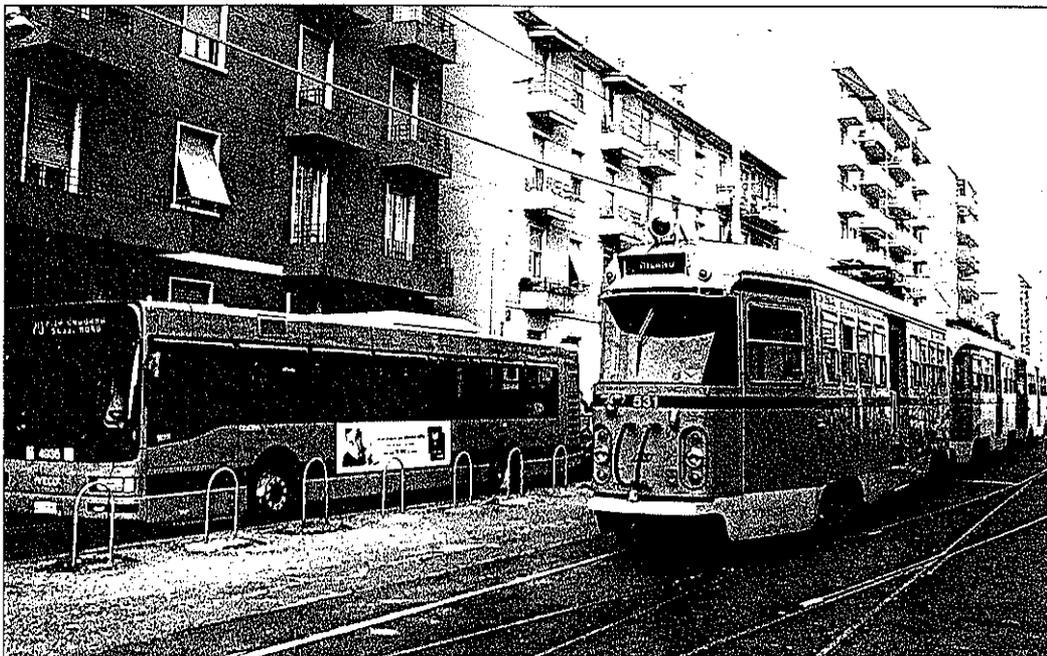
Zanker Road in San Jose and Interstate 880 in Milpitas remains on schedule, with the start of revenue service planned for May 2001. A tender for the aerial guideway contract in Milpitas is about to be advertised, with construction to start this summer. The Vasona Light Rail Project is on schedule as well, with construction bids to be advertised by the end of this year. The Federal Transit Administration has signed the Final Environmental Impact Statement and the Santa Clara Valley Transportation

Authority board will review the document at its May meeting. The Capitol Light Rail Project is beginning to move ahead, with real estate appraisals now underway and offers to property owners set to be mailed over the next few months. Progress is being made on two additional LRT proposals. A status report on both the Downtown/East Valley Major Investment Study and the Downtown San Jose Light Rail Alignment Study was presented at a meeting of a citizen advisory board on 27 April. Also on the agenda was an

Evaluation of Alternatives working paper, a description of the various light rail alignments that are being considered for the Downtown/East Valley project. VTA staff is evaluating the alternatives to determine ridership, capital and operating costs and potential impacts and will release a report in June. (J. Wolinsky)

**SEATTLE, WA.** On 15 March a King County Superior Court judge ruled Initiative 695 unconstitutional, but that will not mean any restoration of transit funding. Judge Robert Alsdorf said 695, which was passed by 56% of Washington state voters in November, was flawed in several areas. However he allowed the flat USD 30 motor vehicle excise tax to remain in force until the planned appeal to Washington Supreme Court could be acted upon. Alsdorf found that the measure violated the requirement that it stick to one subject because it not only reduced a specific tax, it required approval by the electorate for any future increases in taxes, fees or "monetary charges". The initiative was first challenged in a lawsuit by the Amalgamated Transit Union that represents workers in Seattle and two other counties. Six other court cases are pending. The excise tax raised about USD 750 million annually, primarily for transportation, but it had little support among citizens. Thus a bill has now been introduced in the state legislature that, in effect, will keep the fee at USD 30 despite what the Supreme Court might decide. Lawmakers also went into special session to find new sources of income for transit agencies that are being forced to drastically curtail service.

Sound Transit is considering a compromise 9-km light rail alignment

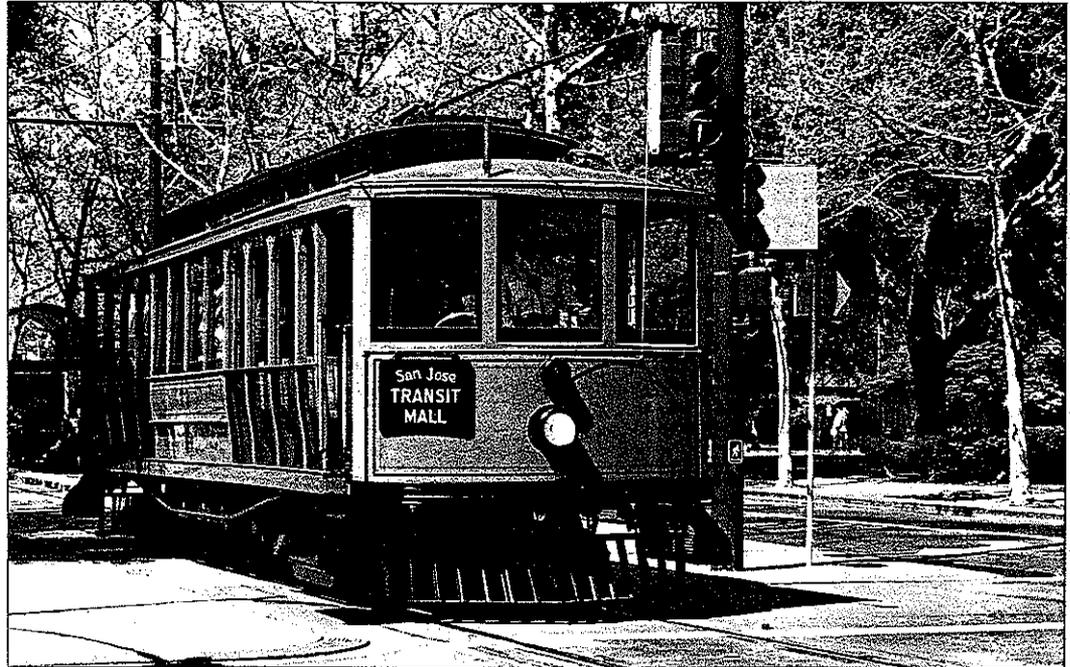


The Milano interurbans live on, but can be reached from the city centre only by feeder bus. This is the inner terminus of the Limbiate line at Affori, as the low-floor bus stands ready to take the passengers on the three-car train of high-floor trams. M. Eastaol

through Tukwila that would eliminate many of the objections voiced by the city when the full 33.8-km route was selected last November. The alternative route, which is about 1.8-km longer, heads south from Boeing Access Road along East Marginal Way South and links up with state road 599 to Interstate 5. It then parallels I-5, turns west along state route 518 past highway 99 and rejoins the original route. Few environmental problems are expected, but Sound Transit says it will cost an estimated USD 46 million more to build, would lengthen trips times by about a minute and attract 200 fewer weekday riders.

Sound Transit has reached a tentative deal with Burlington Northern Santa Fe that would clear the way for commuter rail service providing up to 18 daily trips between Seattle and Tacoma. The USD 310 million draft agreement was due to be finalised on 1 May. Sound Transit expects to start limited service by September, with three round trips daily. The trip is expected to take about 55 minutes, which includes stops at Puyallup, Sumner, Auburn, and Kent. It is hoped to run 18 trips daily by the end of 2002. The capacity of the tracks must be increased before Sound Transit can go to a full schedule. A new signal system must be installed, and connections must be made between the two lines. The work, which should be completed by the end of 2002, would allow trains to run in both directions simultaneously and switch tracks as needed.

(J. Wolinsky)



The Californian city of San Jose enjoys the sort of climate that attracts visitors to ride around the central loop Transit Mall on this 1913 Jewett-built semi-open car, restored after 55 years use as residential accommodation. Janet Taplin

### Contributors

NEWS items for this column are always welcome and should be sent to M. R. Taplin, 3 Pine Way, Gloucester GL4 4AE (fax + 44 (0)1452 419900; e-mail miketap@globalnet.co.uk).

Topical good-quality photographs, particularly of new lines or rolling stock, are also welcome. Photos with plenty of people in them are very welcome. Original colour slides (dias)

are preferred, but prints may be used if they are good quality. Items to be returned should be clearly marked with the sender's name and address, and accompanied by a stamped addressed envelope or IRC.

In addition to individual contributions, acknowledgement is also due to magazines as listed: BS *Blickpunkt Strassenbahn*, CBT *Committee for Better Transit New York Streetcar News*, EA *Eisenbahn Amateur*, EB

*Eisenbahn*, FACS *Chemins de Fer Regionaux et Urbains*, HOV *Het Openbaar Vervoer*, IRJ *International Railway Journal*, LT *Lokaltrafikk*, MFSS *Meddelanden från Svenska Spårvägssällskapet*, OR *Op de Rails*, PRm *Passenger Rail Management*, PT *Passenger Transport*, RGI *Railway Gazette International*, RS *Regionale Schienen*, SM *Strassenbahn Magazin*, SV *Der Stadtverkehr*, TA *Transit Australia*, TP *Transport Public*, TR *Today's Railways*, TT *Tramway Topics*, TW *Trolley Wire*, T-2000 *Tram 2000*, UTI *Urban Transport International*, VdR *La Vie du Rail*, VK *Város Közlekedés*, VT *Verkehr und Technik*.

## California goes for rapid transit growth

A transportation program of unprecedented size and scope was unveiled by California Gov. Gray Davis on 6 April. If carried out in full, it would provide much of the financing for many long-sought rail transit projects in the state's most congested urban areas. The total cost of the Traffic Congestion Relief Plan would be USD 1500 million. A third would come from the state and would be used to leverage USD 10 000 million in federal and local funding. Davis is calling on the legislature to appropriate about USD 3000 million in cash from budget surpluses over the next four years and he will ask voters to approve another USD 200 million in bonds. As is common in such mega-proposals, a majority of the money would be funnelled into highway expansion and maintenance, but rail transit would be assigned an unusually high proportion of the pie. For example, Los Angeles County would get USD 1000 million for transit but only USD 550 million for highways. The major transit spending initiatives for rail include:

- USD 236 million to help the Los Angeles MTA build a light rail line from Union Station to East L.A.;
  - USD 40 million to help close a deficit in the construction budget of the Los Angeles-Pasadena LRT line;
  - USD 100 million for triple-tracking much of the Metrolink/Amtrak line between East L.A. and Fullerton plus run-through tracks at Union Station that will cut travel time for trains heading south and east;
  - USD 760 million to extend BART from Fremont to San Jose;
  - USD 127 million for five trainsets (five locomotives and 15 cars) plus new passing loops and other infrastructure upgrades to create a three-stop Caltrain express service that would cut the 90-minute commute between San Francisco and San Jose to 45 minutes;
  - USD 55 million to extend Caltrain from Gilroy to Salinas and increase service between San Jose and Gilroy from eight to 20 weekday trains;
  - USD 28 million for track upgrades and the purchase of a fourth trainset for the Altamont Commuter Express which would be used on a route from Modesto in the San Joaquin Valley to San Jose;
  - USD 140 million for the San Francisco Muni's cross-town subway, connecting the proposed Third Street light rail line to Chinatown;
  - USD 75 million to help Sacramento RT buy 14 more LRVs and extend the proposed 10.1 km South LRT line another 8 km, from Meadowview Road to Calvine Road;
  - USD 25 million to Sacramento RT for the purchase of four new LRVs and track straightening and double-tracking on the LRT line between the Watt/I-80 and Swanston stations, permitting express service;
  - USD 20 million for the planned Sacramento LRT route from Mather Field Road to Folsom and a short extension from downtown to the nearby Amtrak station;
  - USD 161 million that would fund parts of four projects in San Diego County including a 5.5-km tramway extension north from Old Town to Balboa Avenue (USD 10 million), a diesel light rail connection between Oceanside and Escondido (USD 90 million), double-tracking of the former Santa Fe mainline in San Diego and Orange counties used by Coaster and Metrolink commuter trains plus a new maintenance facility (USD 47 million), and one new locomotive and five cars for the Coaster (USD 14 million).
- No funding was included for the Orange County Transportation Authority's controversial CenterLine light rail proposal or for the badly needed Green Line LRT extension to L.A. International Airport. OCTA had asked for USD 12 million to USD 15 million to design CenterLine but heavy opposition from several cities and numerous elected officials apparently swayed the governor to steer clear of this project.

(J. Wolinsky)

## MUSEUMS

**MALMÖ (SE).** The 2.6-km museum tramway opens at weekends and holidays from 13 May to 3 September (daily 1 July-6 August). (*Tåg Malmö*) (SE). The museum tramway operates on Saturdays and Sundays from 28 May to 1 October. (*MFSS*)

**ASTORIA, OR (US).** The heritage tramway operated on some weekends during the winter, but only in sunny weather (and subject to crew availability). Regular service, 12.00-18.00 every weekend, resumed in April and this is expected to become daily in June. Oregon Gov, John Kitzhaber and US Representative David Wu rode the line on 19 April in connection with a ceremony launching Mill Pond Village, a project that will redevelop an abandoned plywood mill at 23rd St. (*S. J. Morgan*)

**PORTLAND, OR (US).** The Willamette Shore Trolley has reduced its service this year; there was no service in January/February and weekends-only service until late May. From 27 May to 4 September the line will run Thursday-Sunday, plus major holidays, then on weekends until the year's end. Blackpool double-decker 48 will be the primary car during the summer months, with Portland Brill 813 in reserve, and during cooler months. (*S. J. Morgan*)