

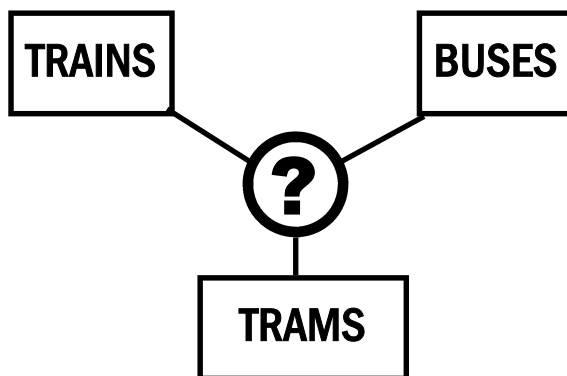
LIGHTWEIGHT SUBURBAN RAILWAYS

New technology to suit the needs of shorter lines
12 environmentally-friendly, congestion-busting attributes
in one Intermediate Mode



IN THE THREE decades prior to 1980, thousands of miles of railway routes in Britain went out of public transport use. This was a period when the conventional wisdom was that, due to massive investment in roads, branch lines were unlikely to be needed in the future. Many of the vacated corridors remain clear to this day, some with the track lifted or with it left in place for possible future freight use, others as leisure lines used to run historic rolling stock lovingly preserved by volunteers. Such has been the growth of traffic on local roads that resumption of passenger rail services can now be contemplated – but not in their original form. Rail patronage is growing strongly year by year but the industry is running out of ways of providing additional capacity on existing tracks – and the pressures are greatest on urban commuting. With limited funds available, how do we increase the provision of suburban rail transport? A need for some fresh thinking...

Clean and quiet transit at an affordable cost



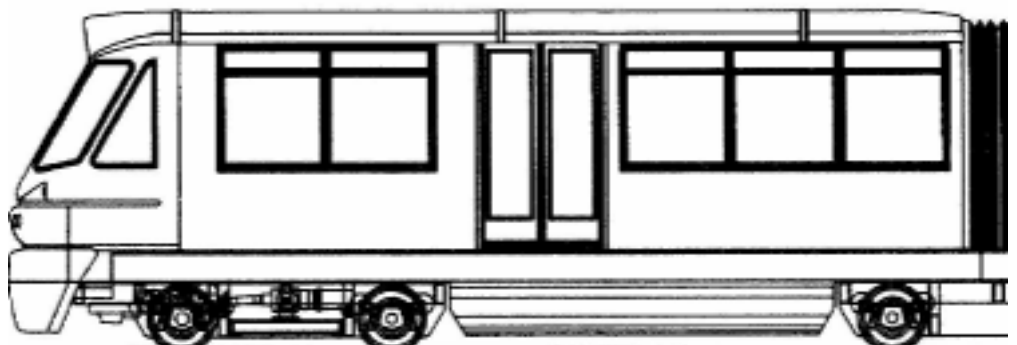
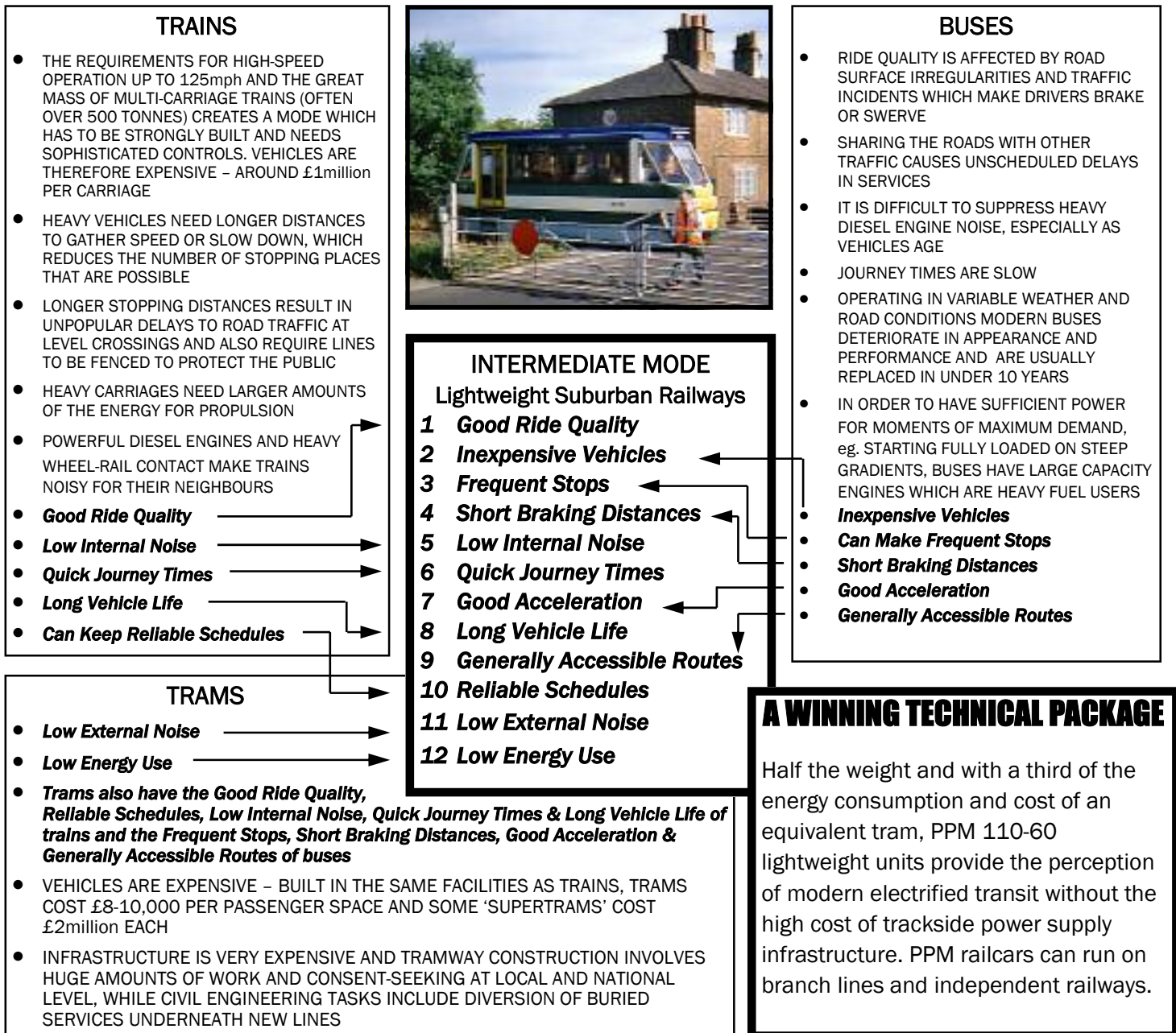
THE CASE FOR A RAIL-BASED
INTERMEDIATE MODE ANALYSED
– see overleaf

TRAINS, BUSES, TRAMS AND THE INTERMEDIATE MODE

The three predominant public transport modes all have their virtues, which determine the form and function of each of them. Considerable overlap occurs in the performance and role but each has certain disadvantages which rule out any chance of universal applicability. The following exercise

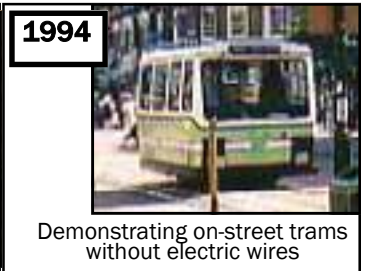
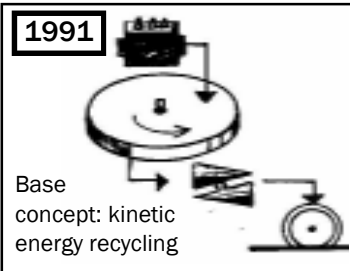
illustrates how, by filtering out all the clear disadvantages it is possible to compile an optimum specification for an INTERMEDIATE MODE for suburban operation: a transport system which combines the best attributes of trains, buses and trams for local passenger networks.

Filtering out the *Positive* attributes from the **NEGATIVE** aspects!



FIFTEEN YEARS OF EVOLUTION: INNOVATIVE, LIGHTWEIGHT

Leading firms in the transport industry have provided crucial help to JPM Parry & Associates, Parry People Movers Ltd's project managers, in the long and painstaking process of designing and building a series of prototypes. These increased in passenger capacity from 10 to 50 – the largest railcar built to date.



2005

Stourbridge today: running on a separate line but integrated with timetabled public services on the national network



In the closing weeks of 2005, the regulatory bodies that control access to all lines of the national railway network issued the necessary certificates and exemptions for the PPM 'Class 999' railcar to run on Sundays in the uncomplicated circumstances of the Stourbridge Town Branch – a short single track line which is operated separately from the mainline. The first railcar entered passenger service on December 11th 2005.

1998-2001

POTENTIAL TO EXTEND LINES TO RUN

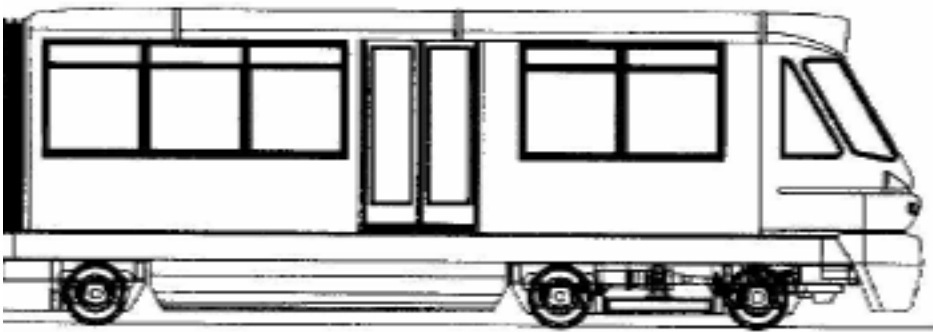
2007?



Bristol Harbourside: a great technical success, but shouldered aside by the city council's then enthusiasm for a supertram scheme that was subsequently dismissed by the transport ministry as not viable



Stourbridge tomorrow? Model showing the branch extended to the heart of the town, revolutionising both local transport and the urban environment



On-street operation will call for PPM trams that are 'skirted' to conceal the running gear and built with low-floor access for reduced-height platforms. Innovative track and associated construction systems are being developed by Parry Associates in order to cut down the weight and expense of structures. To speed up the installation of street track, work is underway with industrial partners to develop further a concept first demonstrated in the early 1990's (above).

SOME BRITISH TOWNS AND DISTRICTS WHICH HAVE RAILWAY CORRIDORS & STRUCTURES BUT LACK PUBLIC SERVICES IN THE WORKING WEEK

Re-instatement of rail services would cut road traffic while speeding up and reducing the cost of routine journeys



A Oswestry



B Bedale



C Alnwick



D Llangefni



E Bewdley



F Wirksworth



G Bodmin



H Winchcombe



I Quorn



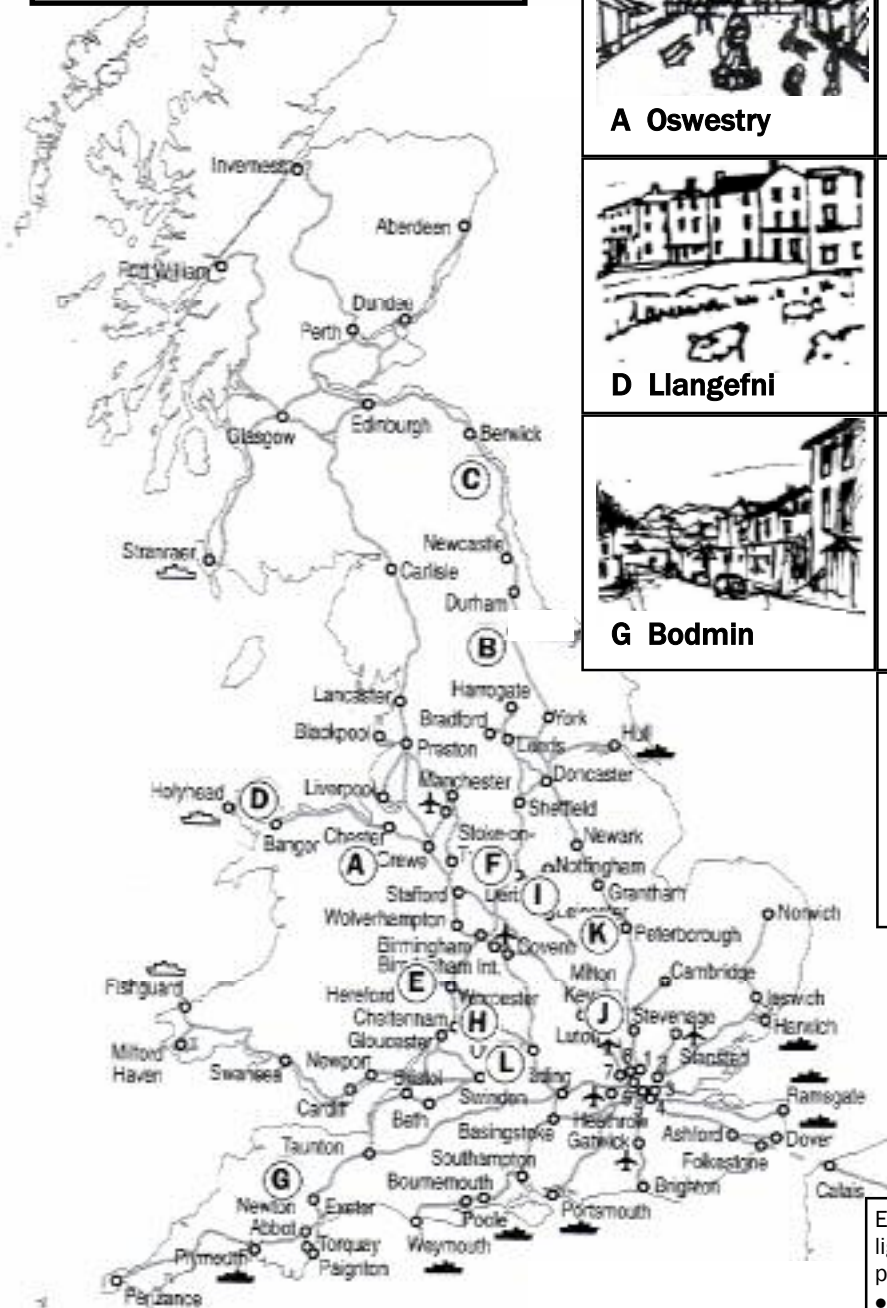
J Dunstable



K Corby



L Wallingford



Future construction of new lightweight rail lines need not incorporate the features familiar to the Victorians. They built the original network with tunnels, viaducts, deep cuttings and embankments. Because of the much superior gradient-climbing ability of the new railcars, track constructed for the intermediate rail mode can follow natural contours instead. Where rail crosses road, the technology used to avoid collision will be that commonly installed at road intersections, e.g. traffic lights. Where former rail corridors remain, these will often provide the most immediately usable paths for the lines. Best of all, where the managers of weekend leisure railways are prepared to co-operate by sharing their existing facilities, services can be initiated without major civil works because the rails are already in place.

Examples of candidates for new construction of lightweight suburban lines include several cities which presently have areas without suburban rail:

- Birmingham – north and south west
- Oxford – east and south
- Leicester – east and south
- Cambridge – west
- Stoke-on-Trent – east and west
- Doncaster – most districts
- Leeds – most districts
- Coventry – north, south and east
- Bristol – south, west & north east

In England, significant towns without rail connections include Buckingham, Brownhills, Leek, Hornsea, Easington/Peterlee, Gosport, Wellington and Bideford (Somerset), and Canvey Island. In Scotland, Hawick, Lossiemouth, Peterhead and St Andrews; and in Wales, Newton/the Mumbles, Aberavon/Clydach and Penycwm.