Cycle Carriage on Metrolink

a report

by the Greater Manchester Cycling Campaign

Greater Manchester Cycling Campaign

www.gmcc.org.uk

Foreword

Using a bicycle in conjunction with a rapid transport system such as Greater Manchester Metrolink provides the only effective means of competing with the private car for widespread accessibility and door-to-door convenience. A rapid transport system alone is not flexible and attractive enough.

The Greater Manchester Passenger Transport Executive is now providing more bike parking facilities at stations and supporting the campaign for Safe Cycle Routes to Stations led by Sustrans. However the GMPTE remains opposed to passengers taking their bicycles onto trams on grounds of space and safety. The planned expansion of Metrolink over the next decade offers an opportunity to resolve these differences.

The benefits of introducing cycle carriage will extend beyond existing cyclists

- **Metrolink would become a more attractive alternative to the car**
- **More people would cycle for commuting, shopping and leisure**
- **Metrolink operators would derive greater revenue**
- **The natural and built environment of Greater Manchester would be enhanced.**

This report will highlight the precedents for carriage of bicycles on light rapid transport systems. It will show how the safety issues can be overcome.

The benefits to all the people of Greater Manchester will be stated. Finally there will a review of transport policies at all levels which support the full integration of cycling into the Metrolink network.

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Contents

1 Introduction

1.1 Metrolink, the Light Rapid Transport(LRT) system serving Greater Manchester, is due to treble in size over the next decade. It promises "transforming our future" creating "a network for the 21st century". This will extend from Rochdale in the north to Manchester Airport in the south, from the Trafford Centre in the west to Ashton-under-Lyne in the east. The Greater Manchester Passenger Transport Executive (GMPTE) claims "Metrolink offers an accessible mode of transport to all members of society" (ref 1).

1.2 On 24 August 2001 the GMPTE presented a report on Cycle Carriage Facilities on Metrolink to the Greater Manchester Passenger Transport Authority's (GMPTA) Metrolink/Smartcard/Rail Refranchising Working Party. It chose to focus on the negative aspects of cycle carriage, recommending a continuation of the ban in Phase Three (ref 1)

1.3 This report is a response by the Greater Manchester Cycling Campaign (GMCC). It charts the history of Metrolink Phases One and Two and the current ban on cycle carriage. Many LRT systems in Europe and North America allow cycles. Safety issues raised by Her Majesty's Railways Inspectorate (HMRI) are discussed. There is a full review of all the objections to cycle carriage followed by an examination of the design options available. Official policies at all political levels promote the integration of cycling into LRT in the interest of multi-modal public transport. This is supported by the European Commission, UK government and local authorities.

2 The history of Metrolink

2.1 Metrolink is an LRT system serving Greater Manchester. Phase One opened in 1992. It runs for 31 kilometres along existing railway lines from Bury in the north through Manchester Victoria to Altrincham in the south west. Cyclists were allowed on the original rail network. When Metrolink replaced this line they were banned.

2.2 The Phase Two extension to Eccles via Salford Quays opened in 2000. The 6.4 km line runs mainly on-street. The ban on normal cycles continued. The GMPTA blamed the 1987-92 Conservative government. Their funding restrictions limited the number of vehicles purchased. Soon the system was operating close to capacity particularly during peak hours - with no room for cycles.

Sustrans / J Bewley/ Folding bikes at Victoria Station

CYCLIST WITH FOLDING BIKES AT VICTORIA STATION

2.3 The early failure to integrate cycling into transport planning was highlighted by a 1995 GMPTE survey at Altrincham (ref 2). At that time the Metrolink station offered park and ride facilities to motorists but not cyclists. The survey showed 29.8 per cent of passengers arrived by car (of which 45 per cent had driven less than 1 mile to the station). No passengers arrived by bicycle. In contrast, 32 per cent of Dutch rail passengers arrive at their station by bicycle (ref 3). Belatedly cycle parking has now been provided outside Altrincham station.

2.4 The GMPTE is currently reviewing tenders to build and operate Phase Three of Metrolink. The following lines are planned:

- Oldham and Rochdale, **replacing the railway on which cycles are currently carried**
- South Manchester and Manchester Airport
- East Manchester and Ashton-under-Lyne

The contract will also include extensions to Trafford Park, the Trafford Centre, East Didsbury and Stockport and The Lowry Centre.

2.5 The Phase Three contract for Metrolink has specified some measures to promote the integration of cyclists. It requires the concessionaire to provide stands for a minimum of ten cycles at each Metrolink stop. Also it must use its best endeavours to provide secure storage facilities (such as lockers) for a minimum of five cycles at each stop.

2.6 GMCC considers that much more needs to be done in Greater Manchester. European and North American LRT operators welcome cyclists as part of a general strategy to reduce car use and congestion. New guidelines from Europe, the UK Government and policies of the GMPTA and District Councils support cycle carriage on LRT systems.

3 Cycle carriage in the United Kingdom

3.1 Cycles are permitted by all train companies operating on the National Rail network although there can be regulations on the number of bicycles carried at any one time (ref 5).

3.2 The London Underground, the busiest Metro system in the UK, allows off-peak cycle carriage on its overground sections although there are restrictions on both non-folding bicycles and prams during peak hour travel (ref 4).

3.3 There are proposals to allow cycle carriage on new LRT systems beneath Portsmouth Harbour and on the Nottingham NET Line.

Cycle Concepts, 2000, Published by The Road Directorate, Denmark

4 Cycle carriage in Europe

4.1 Many European LRT operators have welcomed cyclists onto their systems as part of a general strategy to reduce car use and congestion. A study commissioned by Hampshire County Council of 17 European LRT systems found that 12 provided cycle carriage facilities (ref 21).

5 Cycle carriage North America

5.1 In the USA and Canada at least 17 systems allow cycle carriage, many with unrestricted access (ref 22).

Conditions of cycle carriage on light transit systems in Europe and North America

EUROPE

A study by Transdev (21) on behalf of Hampshire County Council found that 12 out of 17 LRT systems surveyed provided cycle carriage facilities. Some of these are set out to the right.

LOCATION	METHOD	TIME RESTRICTIONS
Stuttgart, Germany	Trailer	Unknown
Basel, Switzerland	Trailer	None
Bern, Switzerland	2 per unit	Peak hour ban
Bremen, Germany	2 per unit / Shared Space	None
Koln, Germany	2 in every entrance area	Unknown
Montpellier, France	Unknown	Peak hour ban
Nantes, France	4 in centre of vehicle	Not Mon-Sat, 7:15-18:30
Zurich, Switzerland	At rear of vehicle	Unknown

NORTH AMERICA

A study by Kent Epperson at RTD Denver (22) showed the following systems allow cycle carriage.

LOCATION	METHOD	TIME RESTRICTIONS
Atlanta MARTA	Away from doors and aisles	No restrictions
Boston MBTA	Held at end of cars	Off-peak/Reverse Peak only.
Santa Clara VTA	4 bikes on racks 2 held in centre sections	No restrictions
Chicago CTA	2 held near either end	Off-Peak only
Dallas DART	2 held in wheelchair area	Off-peak only
Denver RTD	6 held at end or cars	Off-peak / Reverse peak only
Edmonton Transit System	Held in middle	Off-peak / Reverse peak only
Los Angeles MTA	Held at end of cars	Off-peak only
Maryland MTA	2 held	No except certain events
New Jersey Transit	2 with Tiedowns or held	Off-peak only
Philadelphia SEPTA	Unknown	Unknown
Portland Tri-Met	6 per car held	No restrictions
Salt Lake City UTA Trax	6 held at fronr/rear	No restrictions
San Diego MTS	1 rush hour / 2 other times Held at rear of car	No restrictions
San Fransisco BART	No limit / held	Peak hour on certain services.
St. Louis Metrolink	Stand with bike at front/rear	No restrictions.
Washington, D.C. Metro	2-4 held at front/rear	Off peak onlytt

LONDON UNDERGROUND

LOCATION	METHOD	TIME RESTRICTIONS
London	Held near door	Off-peak only

6 Safety: the view of HM Railway Inspectorate

Metrolink comes under the jurisdiction of Her Majesty's Railways Inspectorate (HMRI).

6.1 The initial draft of the GMPTE's report was issued to HMRI on 2nd July 2001. Their response was received on 18th July 2001. HMRI's concerns relate primarily to the impact cycles may have on the safe operation of the tram vehicles both in normal and emergency service conditions.

- Trams have better braking capabilities than heavy rail. Therefore cycles would have to be restrained to prevent them becoming dangerous projectiles.

- HMRI would have no objection to cycles on trams provided they are carried in secure areas where they are restrained against movement in normal and emergency conditions and do not obstruct passenger movement.

- HMRI conclude that bicycles can be carried on trams subject to a suitable facility being available to carry them.

6.2 No evidence has been given by the GMPTE or HMRI that cycle carriage on Metrolink would have any greater impact on safety than on any European or North American system that currently allows the unrestrained carriage of cycles.

TAKING BIKES ABOARD SWISS TRAINS, (PHOTO: CTC)

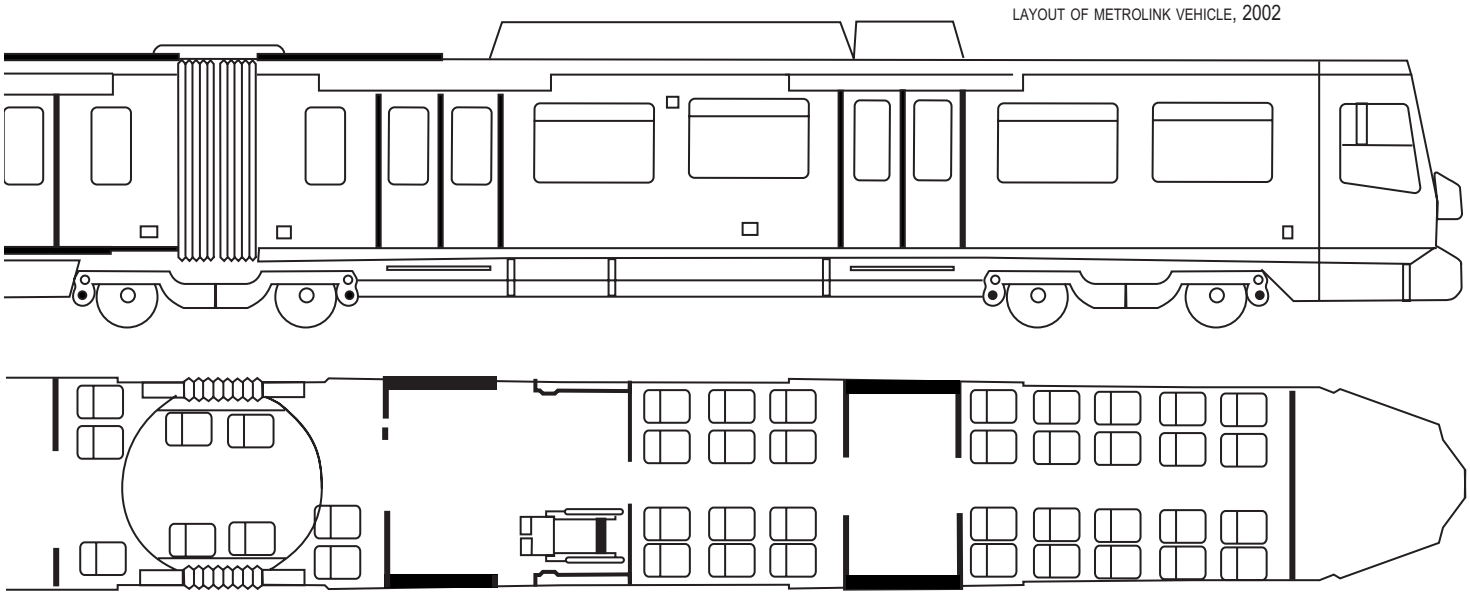
No problems have been encountered that have led prams and wheelchairs to be segregated and restrained. Cycles present no greater risk.

7 Other concerns

7.1 Existing vehicles can be redesigned to store cycles.

The original Phase One vehicles were designed to have a 30-year life expectancy, with a ten yearly major overhaul. As the vehicles are now ten years old any provision of cycle facilities

LAYOUT OF METROLINK VEHICLE, 2002



Photograph by Sustrans

MANY COUNTRIES SEE THE INTEGRATION OF CYCLING WITH OTHER FORMS OF TRANSPORT AS PART OF A GENERAL STRATEGY TO REDUCE CONGESTION AND POLLUTION

could be installed at the same time the vehicles are overhauled, keeping costs to a minimum. The proposal for either an expanded central carriage or additional rolling stock on Phase One and Phase Two lines would provide an additional opportunity to cater for cycle carriage.

7.2 Disabled passengers will not be disadvantaged if space is allocated to cycles.

Disabled passengers have rights under the 1995 Disability Discrimination Act. If cycle storage is linked to shared space priority for disabled is accepted.

7.3 Loading/unloading of cycles would not cause increased dwell times at stops

European LRT operators who allow bikes do not report any increase in dwell times due to bicycles boarding (ref 21 and 28).

Cycle access is considerably easier on Metrolink than on heavy rail. Bicycles can be wheeled on and off vehicles instead of being lifted on and off carriages or stored in a separate guards van.

7.4 A Metrolink driver could regulate use of cycles

Many European and North American systems that operate with a single driver carry cycles even during peak periods. Single drivers currently regulate the use of folding bikes in carrier bags on Metrolink plus other bylaws controlling smoking and the consumption of alcohol. They will presumably have to regulate the proper storage of luggage for airport travellers.

Once the principle of cycle carriage is accepted the practicalities can be addressed. One option is a permit system, as used on several US systems. This would ensure cyclists were aware of any conditions of carriage. This could be removed by Metrolink staff or the section of police officers assigned to Metrolink if any terms of condition were abused.

7.5 There will be no need for additional staff

No evidence was given by the GMPTE of additional staffing requirements. The system will continue to be operated by a single driver, regulated by inspectors and the police assigned to Metrolink. The cost of issuing any cycle permit could be recouped by a single charge.

7.6 Pedestrians and cyclists can share platforms without conflict

Cyclists and foot passengers have been sharing platforms on National Rail and London Underground stations with few if any problems.

7.7 Cyclist and pedestrian passengers can co-exist with minimal conflict

There is no evidence of significant disputes from London Underground, European or US LRT operators. Brent Ward, of US operator Tri-Met, which allows unrestricted access, reports 'There are minor conflicts with passengers and bikes. We keep track of how many there are, but so far none have been serious and there have not been enough to warrant any changes. We do provide guidelines for conduct, but I believe the vast majority of riders accept bikes as having equal rights and share accordingly' (ref 30).

7.8 Metrolink users would soon learn to share space with cyclists.

Phase One - Traditionally cyclists were allowed on the heavy rail system before it was replaced by Metrolink. Users will initially need to be re-educated in the sharing of the system with cyclists.

Phase Two - This is the most recent section. Users will initially need to be re-educated in the sharing of the system.

Phase Three - Users are already used to sharing facilities with cyclists on the current heavy rail service that will be replaced by Metrolink. The other part will be new to both cyclists and pedestrians. They will all be using the system from the start under new conditions.

There are no perceived problems with passengers sharing facilities with wheelchairs and prams. We cannot foresee any new problems arising from sharing with bicycles.

7.9 Trams could cater for cyclists even during peak periods

An increase in demand for cycle carriage led German Operator Kolner Verkehrsbetriebe (KVB) to remove peak hour restrictions after a successful six month trial during which there were few disturbances. A spokesperson for KVB stated that 'Even in the peak, people can still get on and there is no visible conflict' (ref 27).

The system could regulate itself. Cyclists would soon realise when access would be restricted due to trams being full to capacity. Trams travelling opposite to the peak flow would not be overcrowded.

8 Cycle carriage options inside the tram

Some European LRT operators carry cycles on the outside of the vehicles. This is not favoured by the GMCC. Instead the various internal options should be examined.

8.1 Flexible Space presently available

On Phase One and Two vehicles an area is currently designated for wheelchair or pushchair use. There are fold down seats for occasional use. In peak periods the space is utilised by standing passengers. However this space is not adequate as a standard cycle will not fit horizontally. On heavy rail rolling stock fold down seating space has been designed to cater for bicycles and wheelchairs. A similar arrangement could be provided on Metrolink.

OPTARE SOLO CYCLE STORAGE, UNDER TRIAL IN THE UK, COMBINING CYCLE STORAGE AND WHEELCHAIR SPACE

8.2 Shared Luggage Space to cope with airport travellers.

Cycles could share the extended luggage space required for air travellers. By 2005 Manchester Airport will handle 30 million passengers each year. The Local Transport Plan projects that 25 per cent of them will arrive by public transport. The new Metrolink line will be significant in achieving this target. There will be a need for areas on the new carriages to store luggage.

If airport luggage is to be allowed on Metrolink why not bicycles?

- Loose luggage can cause injuries in the event of an emergency stop.
- Luggage left on the floor would be a trip hazard to passengers, and could obstruct egress in an emergency.
- The trams are too crowded to cater for luggage, particularly peak periods in peak flow direction. A problem compounded by a group/family travelling together.
- The carriage of luggage is not cost effective as each air traveller's luggage can take the space of up to three passengers.
- Existing vehicles have no dedicated space to store luggage.
- Increased dwell times at stops due to loading/unloading of luggage.

MANY PEOPLE FIND VERTICAL RACKS DIFFICULT TO USE BECAUSE OF THE WEIGHT OF THE BIKES (Photo by CTC)

- Possible detriment to the disabled if space is allocated to luggage.
- A single driver usually operates the LRT system. He/she could not be expected to regulate use if luggage is permitted only at certain times of the day.

Clearly any problems associated with cycle carriage will be largely the same for luggage, especially in relation to safety and peak hour capacity problems.

Unless the carriage of luggage is also going to be prohibited, a possible option would be to create a dual cycle/luggage area.

8.3 Securing bicycles within the vehicle

The HMRI consider unsecured cycles to be a hazard as they are likely to move around easily. Under severe changes of speed and direction cycles may become an injury-causing projectile. Some overseas tram operators require cyclists to stand with their cycles. In the UK it is unlikely that cycles will be left unattended due to fear of theft/vandalism. However, even when holding the cycle the user will be unable to arrest its movement under heavy braking. This risk could be removed by incorporating a fixing system into the vehicle interior.

This can take two forms:

Securing by straps

Floor straps can present trip hazards on the floor or strap to head injuries near the ceiling. The preferred option is wall mounted retractable straps similar to car seat belts as used already in some new heavy rail rolling stock.

Securing by racks

The rack option is used on a number of overseas tram systems plus Anglia Railways. It consists of forked holders and hooks which retain the bike in a vertical or horizontal position. When not in use, fold down seats can be provided.

German Railways (ref 24) carried out field tests comparing carriage on vertical racks with multi-purpose space. Their findings:

- Hanging bikes took up the same amount of space as an identical number of leaning bikes.
- Racks were difficult to use due to the heavy weight of the bike
- The motion of the moving train can cause accidents.

They concluded that they would stow bikes in the traditional, lean-to way.

A permit system could make users fully aware of any facilities, with the permit being removed if any proposed methods of securing cycles are used improperly.

Such a scheme could be backed up with clear signage and leaflets to cyclists. Tri-Met Oregon offers cyclists a video on using cycle facilities.

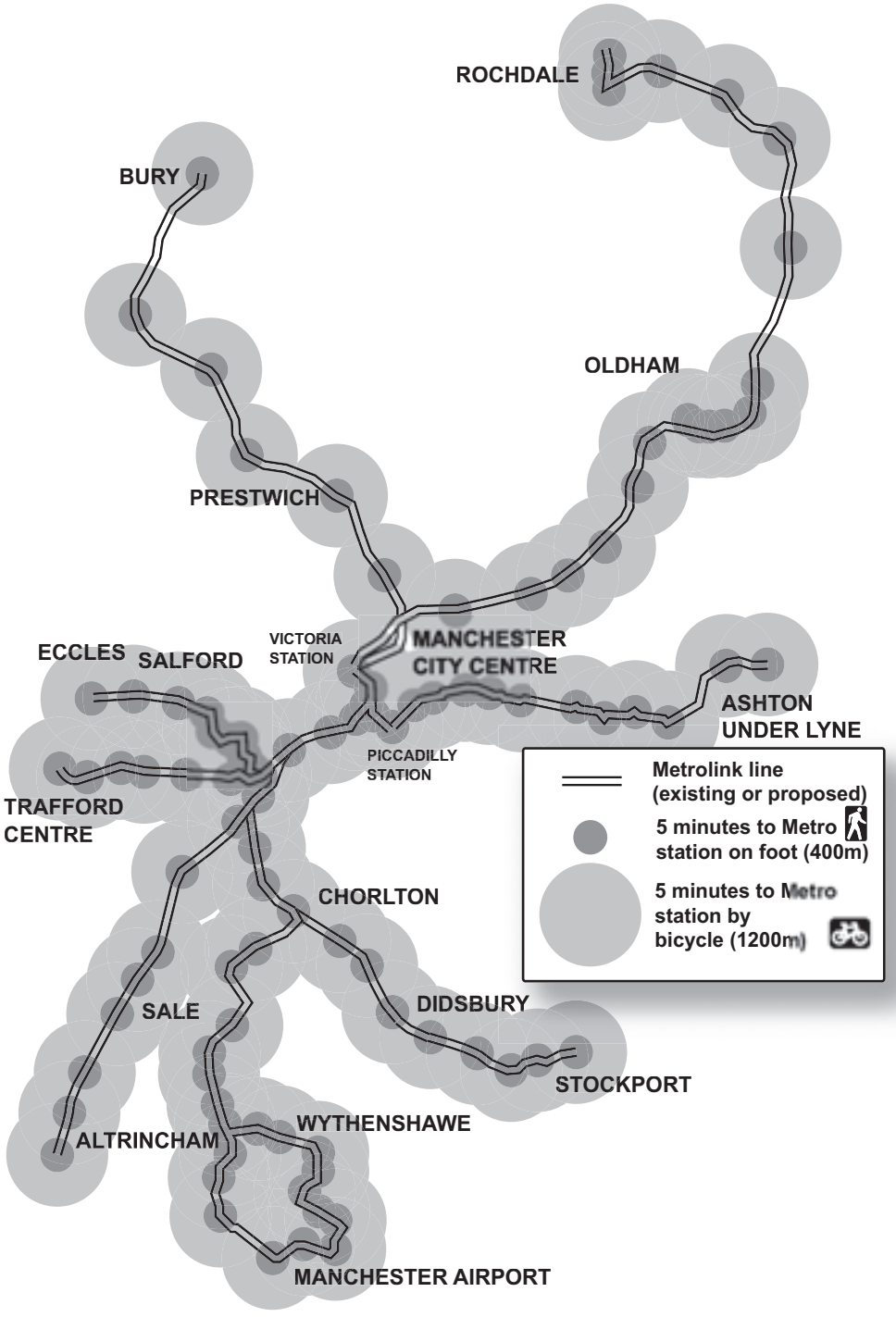
9 The benefits of cycle carriage on Metrolink

9.1 Allowing bicycles on Metrolink will boost passenger numbers

Even when the planned expansion of the system is complete most places in Greater Manchester will not be easily accessible from a Metrolink

EXISTING AND PROPOSED MANCHESTER METROLINK LINES

showing five minute station catchment areas for pedestrians and bicycles



station. Tram passengers will continue to require a bus or taxi to complete their journey. For many people driving the whole way will still be the faster and cheaper option.

The huge advantage gained by being able to cycle to your destination from a Metrolink station is illustrated in a map (previous page) showing 5 minutes station catchment areas for cyclist and pedestrians.

The catchment map shows the fully extended Metrolink system in Greater Manchester, the areas within five minutes' walk of a station and those within a five minute bicycle ride. Each station serves about four and a half square kilometres for the cycling option, compared with only half a square kilometre for walking.

If you can leave a tram and cycle to your final destination the situation changes dramatically. Cycling is three times faster than walking. The number of destinations that can be reached by bicycle is at least three times as many as can be reached on foot in the same time where stations are sited close together. Where stations are further apart the number increases nine fold.

9.2 The carriage of cycles could increase revenue

The loss of some seating could increase standing capacity. Cycle carriage could increase passenger journeys by 0.7 per cent (ie 350,000 new passengers journeys a year). Based on a journey of a single zone (at £0.90) the additional revenue generated would be at least £315,000 annually. (Ref 25).

Cycle carriage would appeal to the many potential passengers currently reluctant to leave bikes at stops. Cyclists are a potential new lucrative market for Metrolink.

Additional separate baggage storage for travellers to the airport could double as cycle storage space - generating additional revenue from air travellers and cyclists.

Photo by Julia Bayne, Sustrans

CYCLE ACCESS TO METROLINK WOULD SUPPORT 'SAFE ROUTES TO SCHOOL' AND REDUCE THE IMPACT OF THE SCHOOL CAR RUN, RESPONSIBLE FOR 16 PERCENT OF PEAK TIME TRAFFIC

9.3 Social Inclusion

The provision of cycle carriage facilities will significantly increase the catchment area 15-fold for those currently unable to combine Metrolink with Park and Ride or Public Transport. (ref 26).

As more households own bicycles than cars there is a huge untapped potential for increasing combined journeys by tram and bicycle.

Off peak / weekend passenger numbers and revenue would increase due to leisure cycling, increasing passenger revenues. This Green Tourism has a less detrimental impact on the environment.

GMPTE leaflets already publicise combined Metrolink/Walking routes. If carriage was permitted such promotions could include Metrolink/Cycling routes embracing the Trans-Pennine Trail and stretches of the National Cycle Network.

9.4 Safe Routes To School

There is growing concern over the lack of freedom and unfitness of young people. Secondary school children, particularly when travelling in the opposite direction to peak flow, would benefit from increased cycle access to Metrolink. This could reduce the impact of the school car run (responsible for 16 per cent of peak time traffic).

Photo: CTC

10 European Union support for cycle carriage

European policies highlight cycling as an essential component of integrated transport.

10.1 European Transport Policy for 2010

"Continuity of journey - Adapting public transport to carry bicycles is another way of encouraging a certain form of intermodality over short distances." Part 3 - Placing Users at the Heart of Transport Policy (ref 6).

10.2 Cycling: The Way Ahead for Towns and Cities

"It must not be forgotten that bicycles can be an ally to public transport when attempts are made to minimise the impact of cars in town. Not only must the competitiveness of each of these two modes of transport be increased, but complementarity between cycling and public transport must be stepped up. Above all, this means being able to leave a bicycle safely at public transport stops and being able to take it on board public transport vehicles." Chapter 1, Why the bicycle (Ref 7).

11 UK government support for cycle carriage

UK government policies support cycle carriage on Light Rapid Transpor.t

11.1 National Cycling Strategy

Cycle carriage should be included in all new LRT projects by 2002 (ref 9).

11.2 The New Deal for Transport - Better for everyone

Cycling has a key role to play within an integrated transport system; it is sustainable, clean, cheap and reliable and not just for short journeys, it can also combine with public transport or walking to form part of longer journeys.

11.3 Cycle Friendly Infrastructure

Guidelines for Planning and Design recommends that where LRT replaces a heavy rail service, cycle carriage should be sought at all times (ref 10).

12 Greater Manchester support for cycle carriage

Both at a county level and district level official policy supports cycle carriage on LRT.

12.1 Greater Manchester Cycling Strategy

Policy 2 states that local strategies should ensure that effective liaison takes place with the GMPTE and other transport providers to secure methods of transporting cycles on public transport to allow multi-modal journeys, where appropriate (ref 11).

12.2 The Greater Manchester Local Transport Plan (LTP)

Cycle carriage is important in helping the GMPTA achieve several major aims to promote social inclusion and widen travel choice that are fundamental and central to the Local Transport Plan (ref 12).

Without cycle carriage, the following LTP policies will not be achieved:

Measures to Promote Social Inclusion

It is fundamental to our strategy that all members of society should have equal access to transport, by a choice of mode. Increasing facilities for cycling can be a way of providing the opportunity for low cost travel.

Widening Travel Choice

Central to our strategy of reducing car use is the need to make public transport, walking and cycling more attractive, and to give people a genuine choice in how they travel.

A 'Hearts and Mind' Approach

In order to achieve a modal shift away from car travel, it is not sufficient to improve public transport and restrain the growth in car usage. Walking and cycling are ideally suited to short trips. Measures need to be implemented to make these healthy, non-polluting modes more attractive. On a wider front, people need to be encouraged to use the mode most appropriate for their journey.

Photo: Ted Lawson

CYCLE SCULPTURE, DEANSGATE STATION , MANCHESTER

The Greater Manchester LTP "Investing in Excellence" sets out some key themes for implementing the overall strategy (ref 13).

Cycle carriage on Metrolink is complementary to the following key themes:

- Sustainable regeneration
- Consistency
- Improving the quality of life
- Providing access for all
- Widening travel choice
- Changing attitudes to travel
- Getting the small things right

District Councils in Greater Manchester have Cycling Strategies that support the principle of cycle carriage on Metrolink.

12.3 Bury Cycling Strategy

Cycling to be integrated where possible with public transport to facilitate longer journeys (ref 14)

12.4 Manchester Cycling Strategy

The City Council will work with the PTE and public transport operators to ensure that cycle provision is not forgotten when defining, improving and developing the public transport network and links to long distance leisure routes.

Ensure that the actions contained in this strategy are compatible with those contained in the Unitary Development Plan (UDP) for Manchester, the GMLTP and additional strategies that complement cycling (ref 15).

12.5 Oldham Cycling Strategy

Policy 12: Integration with public transport

Continue to work with GMPTE and operators to

Cycle Concepts, Road Directorate, Denmark

IN DENMARK, 1 IN 5 JOURNEYS ARE BY BICYCLE. 17% OF THE POPULATION COMMUTE BY CYCLE COMPARED WITH 2% IN THE UK.

integrate cycling with public transport including cycle carriage in trams and buses (ref 16).

12.6 Stockport Cycling Strategy:

Objective No EG10 - The Authority will seek to ensure that cycling is fully integrated with public transport.

Objective No EG11 - The Authority will integrate measures to facilitate cycling with those that aid pedestrians and people with mobility difficulties and combat social exclusion (ref 17).

In its Action Plan for Cycling 2000/2001 Stockport Metropolitan Borough Council (MBC) has requested Passenger Transport Operators provide carriage for cycles if practicable and safe (ref 18).

12.7 Tameside Cycling Strategy

Statement of Intent - 'The Council will lobby for improvements of opportunities for combined cycle/rail or Metrolink journeys' (ref 19).

12.8 Trafford Cycling Strategy

'The Council will try to ensure that cycling is fully integrated with public transport to facilitate cycle use as part of longer journeys' (ref 20).

13 Conclusion

Metrolink is a great asset to the travelling public of Greater Manchester. The introduction of cycle carriage would give added value. There is now a chance to correct the injustice of Phase One when cycle carriage was removed from the Bury/Altrincham line. Metrolink vehicles are ten years old and due to be overhauled. New vehicles will be commissioned for the Oldham Rochdale Loop where cyclists enjoy the right to carry their bikes onto the existing trains. The airport line will have to cope with air passengers' luggage.

The provision of adequate secure cycle parking at every Metrolink station is important. However in itself it is not enough to increase bike use and reduce car dependence. Only the ability to carry your bike on the tram offers that essential flexibility.

The most practical way to enable people to cycle to their final destination after getting off a tram is to allow them to accompany their bicycle on the tram. The implementation of this policy would expand ninefold the catchment area from which passengers can combine cycling and tram travel.

Both the GMPTE and HMRI have no objection in principle to cycle carriage on trams. Their primary concern is the impact cycles may have on the safe operation of the vehicles. Evidence from LRT systems abroad that include cycle carriage show that these anxieties can be overcome. The technical knowledge already exists to provide secure cycle space on tram vehicles. All that remains is political commitment.

European, national and local government policies support cycle carriage on public transport including trams as part of a multi-modal integrated transport system. Unrestricted cycle carriage is not just the dream of a few die-hard cyclists. Cycle carriage could make a significant contribution to the government's target to increase the percentage of total journeys taken by bike.

Public health will be boosted by cycle carriage. More people would be encouraged to exercise, lose weight, choose alternatives to the car

school run, explore the countryside by two wheels instead of four. The option of taking a bike on tram will complement national initiatives such as Safe Routes to Schools and Safe Routes to Stations.

The GMPTA in their Local Transport Plan has stressed the importance of providing a fully accessible and socially inclusive system where people are given a genuine choice of travel.

As a result of these commitments Greater Manchester has been named a Centre of Excellence in Integrated Transport Planning. Without cycle carriage on Metrolink the GMPTA will risk losing this cherished status. It will be forced to look on while other UK operators get the credit for showing how safe cycle carriage on LRT - and true multi-modal integrated public transport - can be achieved.

The time is ripe. The planned extension of Metrolink and the purchase of new carriages offer an ideal opportunity to end the ban on cycles and create a fully accessible, integrated public transport system for Greater Manchester.

G.L. Jones, Sustrans, contra-flow cycle lane

IF ONE PART OF THE JOURNEY IS UNRELIABLE, UNSAFE OR UNATTRACTIVE, PEOPLE MAY CHOOSE NOT TO MAKE THAT JOURNEY BY BICYCLE. FOR THIS REASON, THE IMPORTANCE OF A GOOD CYCLE INFRASTRUCTRE TO AND FROM STATIONS CANNOT BE UNDERESTIMATED.

CTC

A CYCLE PARK OUTSIDE A DUTCH STATION DEMONSTRATES THE SUCCESS OF STRATEGIES TO ENCOURAGE COMMUTING BY CYCLE

14 Appendices

14.1 Letter from Richard Fowler, Assistant Secretary, Rail Passengers Committee, North West England, to the GMPTE, 4 March 2002

Dear Sirs

RE: GMPTE CONSULTATION ON TRANSPORTING CYCLES BY TRAM

I am writing on behalf of the Rail Passengers Committee for North Western England in connection with the above consultation.

In principle, this Committee fully supports the initiative to allow passengers to carry their cycles on all three phases of th Metrolink network. Having noted the questions posed in your consultation document, the Committee takes the view that Metrolink should provide sufficient storage capacity to allow passengers to carry their cycles on trams in such a way that it does not impinge upon the safety and comfort of all other passenges.

While there are clearly capacity issues involved with allowing cycles on trams during peak hours, this Committee would welcome any initiative to accommodate cycles during the peak on the basis that many of those wishing to carry their cycles may wish to do so as part of their journey

Cycling Concepts,2000, published by Road Directorate, Denmark

to work. It is the Committee's view that such provision would constitute an important step towards enhancing integrated public transport within Greater Manchester.

The committee would have difficulty in supporting any proposal which would reduce the current level of benefits offered to pasengers on the existing heavy rail link between Manchester, Oldham and Rochdale, which ultimately would form part of Phase 3 of the network. Additionally, in anticipation of any future expansion of the network, it is the Committee's view that existing benefits enjoyed by users of trains within Greater Manchester should be maintained. This Committee would also welcome proposals from GMPTE in respect of the provision of secure bicycle parking facilities at Metrolink stations as a complementary measure (**not an alternative**) to on-train provision.

14.2 Cycle access to interchanges: a Cyclist Touring Club report on the importance of a safe cycling infrastructure for 'door to door' bike/rail transport options.

To date, rail companies in Britain have focused little attention on how people travel to and from stations and little attention on the complete 'door to door' chain of transport of which the train is just one part. We understand that the Strategic Rail Authority (SRA) is now interested in this and will be seeking improvements to the 'door to door' journey through the Replacement Franchise Process.

Netherlands Railways (privatised in 1995) is concerned with improving 'door to door' journey times. They recognise that it is hard to improve the journey time of the train itself - cutting five minutes off a journey time might involve massive investment into new track and rolling stock and although the end result might be a massive engineering project launched with big media attention - how relevant is this investment to most peoples journeys? Dutch Railways consider that it is actually easier and more relevant to focus on improving the journey times of transport to and from stations and to reduce other journey delays at the station such as time spent queuing for tickets etc. Whilst you might be able to shave five minutes off a high speed train's total journey time, perhaps ten minutes could be saved at each end of many people's 'door to door' journey.

Netherlands Railways recognise that it is the whole journey experience which is important and that if one part of the journey is unreliable or unattractive, people may chose not to make that

Sustrans

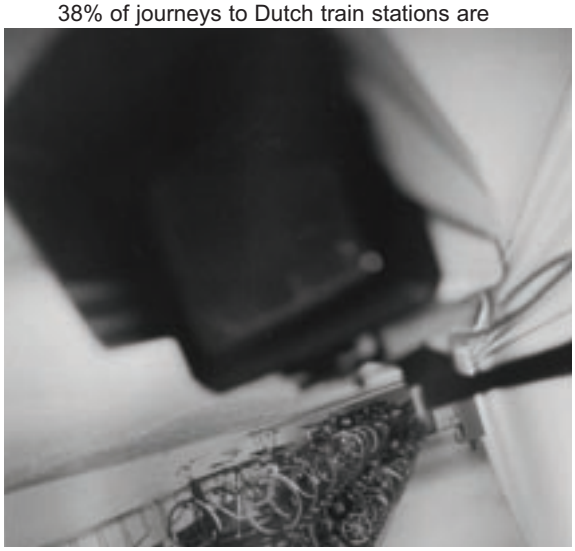
TRAIN STATIONS SHOULD ALSO HAVE LINKS TO LEISURE CYCLING AND TOURIST ROUTES IN ORDER TO ENCOURAGE SUSTAINABLE TOURISM.

BIKES PARKED AT SHEFFIELD RACKS, AND SUBSEQUENTLY VANDALISED. (PHOTO, CTC)

journey. They therefore look at the quality of the journey to and from the station. The Market Research and Advice Department of Netherlands Railways works with 'chain managers' (people who manage the chain of transport options serving stations). The modal split of each station (the modes of transport used by people to get to and from the station) is researched.

Based on the findings, the 'chain managers' work with the companies who provide transport services (bus companies, cycle hire companies, taxi companies) and the managers of station facilities (e.g. cycle parking providers) in order to achieve optimal integration of the various links in the transport chain.

38% of journeys to Dutch train stations are currently made by cycle or scooter and 10% of journeys from stations are made in this way. Netherlands Railways are currently investing 460 million guilders (around £140M) in supplying 18,000 new cycle storage racks and cages to their stations.



SECURE, CAMERA-MONITERED PARKING FACILITIES, DENARK (photo, Linda Handsen, Collection of Cycling Concepts, Road Directorate, Denmark, ISBN 87-79223-034-2

There are no figures available to show the modal spilt for British stations but it is estimated that less than 1% of rail passengers cycle to/from stations. Neither are there any figures to show the average length (in miles) of journeys to and from stations in Britain.

Journey times and in particular journey times by sustainable transport means to and from stations can often be improved. In order to increase the proportion of train passengers arriving at stations by sustainable transport, it may be useful to apply a hierarchy of needs approach when station improvements are planned. Based on the aim of encouraging sustainable transport and improving the safety of vulnerable road-users such a hierarchy might place the needs of pedestrians and those with mobility handicaps at the top, followed by the needs of cyclists, then bus users etc. All too often the provisions made at stations for car users actually make access by other means more difficult and dangerous suggesting that a new approach is needed. Railtrack and station managers could apply this hierarchy to all their stations and be encouraged to carry out an access audit of their stations for cyclists.

Specific provisions to help those travelling to and from stations by cycle include the following:-

1. The provision of high quality cycle routes to stations

- Cycle routes to/from stations which link into other local cycle routes.
- These routes should be: coherent, direct, attractive, safe and convenient. These five requirements are described more fully in the publication: "Cycle Friendly Infrastructure Guidelines" published by DETR/IHT /CTC/BA and available from CTC.
- Most local authorities have now drawn up or are

GMEX STATION, MANCHESTER

in the process of drawing up cycle route networks. These networks link into public transport interchanges and it is important for the links to be implemented through partnerships between public transport operators, Railtrack and local authorities in order to maximise the benefits to cycle users.

- Routes will then exist which link residential areas, employment centres, schools and shops to public transport interchanges. Train stations should also have links to leisure cycling and tourist routes in order to encourage sustainable tourism.

- Sustrans, the DTLR and Railtrack are working on a joint Safe Routes to Stations project which seeks to improve access to 100 stations over three years. Cyclists are invited to send specific station route proposals to Nick Farthing, Safe Routes to Stations, Sustrans, 35 King Street Bristol BS1 4DZ

2. cycle routes to stations to be properly signposted

- It's no use having special facilities e.g. painted white lines on the road if people don't know what these are. For example provisions might look like either walking routes or hard shoulders on the road and it will not be obvious to anyone that they are actually cycle routes. Cycle logos painted on the ground and clearly visible on signposts can help identify these as cycle routes.

- Neither is it helpful to have routes if people don't know where they go! Signposts showing the route destinations in both directions (town centre, station etc) are needed.

- It is also helpful for signposts to indicate how far it is to cycle to the town centre or train station so signposts to indicate this e.g. "Train Station 3 miles" etc are needed.

- Train stations themselves need to be clearly sign-posted from adjacent cycle routes and urban centres catering for both leisure and commuter cycle use of the railways.

All of the above are important for (1) visitors to the area and sustainable tourism (2) as a means of highlighting the presence of cyclists to other road users and (3) as a means of promoting the idea of cycling to those who do not currently cycle.

3. easy access into/out of station entrances and to/from platforms.

- It is not enough to 'point cyclists in the general direction of the station' and leave them to find their own way to the station building. Road networks around stations are often hostile and intimidating involving one-way gyratory systems, hazardous road crossings and long detours.

- On station land, the route to the station entrance may also involve a one-way road system feeding into long stay car parks. Cyclists find themselves not only making long (unnecessary) detours, but also having to overtake taxis moving along taxi ranks and to weave in between short-stay car-parkers with emerging vehicles and opening doors creating real hazards.

- CTC research at Leeds City Station 1999 showed that despite the provision of cycle parking at the newly refurbished station, the most frequently cited reason why people didn't use it was because of the hostile road environment around the station.

- Once at the station cyclists' needs are in common with those of wheelchair users and many pedestrians too and include the provision of lifts and ramps between platforms and clear signposting of these facilities. The Disability Discrimination Act sets a deadline of the year 2004 for stations to become 'fully accessible' and many of the improvements for disabled people can be designed at the same time to also benefit

photo: Ted Lawson

TOWN HALL, MANCHESTER

cyclists.

· Wheel gullies alongside steps can be helpful to allow a cycle to be wheeled up and down stairs; this type of facility is more common in continental Europe than in Britain. Wheel gullies must be designed so that there is enough space between the wheel gulley and the wall to manoeuvre a bicycle loaded with luggage. (N.B. A wheel gully has recently been installed at Redhill Station in Surrey).

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