

GREATER MANCHESTER INTEGRATED TRANSPORT AUTHORITY**REPORT FOR RESOLUTION**

COMMITTEE: Capital Projects

DATE: 15th January 2010

SUBJECT: The Implications of the Carriage of Bicycles on Trams

REPORT OF: Metrolink Director, GMPTE

PURPOSE OF REPORT

To provide Members with an update following the receipt of a report by consultants into the implications of the carriage of bicycles on trams.

RECOMMENDATIONS

1. Members are asked to endorse the decision to continue with the current policy to forbid the carriage of bicycles on trams with the exception of folding cycles which should be fully encased.
2. Members are also asked to endorse that GMPTE should continue to provide investment for cycle facilities on the Metrolink network, rail stations and in any future proposals, such as the anticipated Park and Ride facilities.

BACKGROUND DOCUMENTS

Information held on file in GMPTE offices.

CONTACT OFFICERS

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1. Background

- 1.1. Under the current Manchester Metrolink By-laws, bicycles are not permitted at any time on any part of the Metrolink network unless they are folded and fully encased.
- 1.2. Greater Manchester Passenger Transport Executive (GMPTe), as the Promoter of Metrolink, continues to receive representations from cycling groups to permit the carriage of bicycles on trams and recognises the importance and growing interest in cycling but needs to consider safety and operational implications. GMPTe is therefore considering whether it is safe to permit the carriage of bicycles on trams and whether such a practice could be adopted.
- 1.3. In October 2002 GMPTe issued a statement that indicated “in line with national and local policies on integrated transport, GMPTA has given its backing to the principle of allowing cycles on Phase 3 trams during non peak hours, subject to resolving a number of important concerns. Whilst there is a clear realisation that this is not possible on existing trams, the authority is committed to exploring the possibility of allowing cycles on Phase 3 trams subject to:
 - assessing the interior layout of Phase 3 trams for carrying cycles in respect of safety;
 - assessing the potential conflict with disabled passengers and those with mobility impairments; and
 - assessing the issues of enforcing the permitted times of travel.
- 1.4. GMPTe engaged consultants, who have previous knowledge/understanding of this issue, to undertake a research study to assess readily available information in relation to this subject, identify the issues which may arise and discuss viable measures that may help address the issues.

2. Current Policy

- 2.1. Metrolink’s policy with regard to the carriage of bicycles is similar to that of all other UK light rail systems in that they do not permit at any time bicycles to be carried on normal passenger services. However, on a limited number of occasions bicycles have been carried by special arrangement (for particular events) on Sheffield Supertram and Docklands Light Railway (DLR). The majority of light rail systems in Europe do not permit cycles to be carried but a limited few do at weekends, during off peak periods or in a very few cases at any time.
- 2.2. Her Majesty’s Rail Inspectorate (HMRI), now part of the Office of Rail Regulation (ORR), has raised no fundamental objection to the carriage of bicycles on trams but have some concerns which are expressed in a letter enclosed at appendix 1. HMRI would look to the relevant duty holder, Stagecoach Metrolink Limited (SML) as the Operator, to manage the risks so far as reasonably practicable. Under the Railways and Other Guided Systems (Safety) regulations (ROGS), the Operator is required to self certify the safe operation of the system. It is therefore ultimately for SML to determine whether

they will accept and can manage the associated risks. Appendix 2 contains a letter from Stagecoach Metrolink Limited outlining their concerns.

- 2.3. The requirement for cycle carriage is reduced when secure storage facilities are available at point of boarding. A number of stops on the existing system have both stands and lockers and the recent stop improvement programme on the Altrincham line provided the opportunity to assess and enhance the provision of cycle storage facilities. As a result, storage facilities were introduced at Cornbrook, GMEX, Timperley and Trafford Bar stops and have been enhanced at Dane Road, Navigation Road, Old Trafford and Sale stops. A similar approach will be taken on future stop improvement projects.
- 2.4. All stops on the Phase 3a extension have cycle parking facilities incorporated into the design guide. These facilities are further enhanced on 17 stops where the solution is deemed appropriate and can be accommodated.
- 2.5. A review of the customer facilities at the stops on the Bury and Eccles lines is currently underway. Enhanced provision for cycles at the stops will be part of the improvement programme that will be rolled out in 2010.
- 2.6. Under the Transport Fund a number of Park and Ride facilities are proposed for the Metrolink and train networks. Cycle storage facilities will be integrated into these proposals hence providing improved access for cyclists to the Metrolink and train networks.

3. Analysis of Identified Risks

- 3.1. As outlined in the consultants report, a bicycle within the saloon of a tram introduces objects that are hazardous to passengers, e.g. sharp points such as handlebars and pedals.
- 3.2. Should the carriage of bicycles be permitted then there is an increased risk of passengers incurring minor injuries through collision with bicycles whilst bicycles are manoeuvred on to and off a tram.
- 3.3. In addition, as a result of the effects of jerk, standing passengers (which can be significant in number for large parts of the day), would be at an increased risk of injury from falling into or against part of a bicycle.
- 3.4. The level of risk is increased as our operating speed varies from 50mph to 25mph in the city centre, coupled with the use of emergency braking (the need for which can arise particularly with city centre running) and in the highway environment, where we share the space with other vehicles.
- 3.5. The carriage of cycles could only be permitted within the space currently designated for wheelchairs and pushchairs. There is a potential for conflict between cyclists and wheelchair/pushchair users if a cycle is taking up the required space for a wheelchair occupant or pushchair user who wishes to board. Metrolink has an obligation under DDA regulations to enable wheelchairs to be accommodated.

4. Operational Issues

4.1. The carriage of bicycles aboard a tram raises a number of operational/compliance issues, including:

- An interaction between cyclists and other priority users (particularly the mobility impaired) that would need to be carefully managed through the application of an appropriate policy. The compliance/policing of such a policy can only be overseen by the driver who may or may not be aware of the passenger interface issues within the tram saloon.
- A high risk of damage and or soiling of passengers clothing will occur. This could be particularly prevalent given the Manchester climate.
- Some other tram systems do allow restricted carriage of bicycles, however the operational environment is different in that the running speeds are lower, there is no segregated/street running conflict with line of sight operation and in the majority of cases there is a member of staff on board the tram thereby managing the compliance to the system regulations which reduces delay attributed to the requirement for driver involvement.
- As cycle facilities would need to be limited to one cycle per tram car (i.e. two bikes per tram in service) difficulties arise for cyclists travelling together, e.g. parents with children if the number of bicycles carried on a single tram were to be limited. The compliance/policing of this would again be a potential problem for the driver.
- There will be two types of tram in service (from 2010), one with and one without space in which bicycles could be secured. Cyclists would find it difficult to know whether a bicycle is permitted aboard a tram once the entire fleet is in the same livery.
- Extended dwell times, and hence journey times, could potentially result from:
 - The additional time for a cyclist to secure the bicycle with a restraint system.
 - Resolving issues arising from the application of priority users regulations.
 - Resolving issues arising from the mixed vehicle fleet; and;
 - The need to assess, with reference to passenger loading, whether it is safe for a bicycle to board a tram or remain aboard a tram.

4.2 As the network is expanded and the operation becomes more complex the impact of extended dwell times would be more profound on overall service reliability. The Stagecoach Metrolink letter in Appendix 2 confirms this view from the operator's point of view.

5. Risk Mitigation

- 5.1. To significantly reduce the level of the risk, in terms of the likelihood of occurrence, it may be possible to minimise the number of passengers exposed to the associated hazards by restricting the time periods during which the carriage of bicycles would be permitted.
- 5.2. However, Metrolink trams can be heavily loaded at most times during the operational day, not just during the peak periods, with a significant number of standing passengers. In addition, growth in passenger numbers is inevitable with the future expansion of the network and the issue of over 60`'s concessionary fares encouraging large numbers of people to use the trams in off peak periods.
- 5.3. Complete segregation of bicycles and passengers on trams is not considered practical as it would have a detrimental impact on the passenger capacity of the tram.
- 5.4. A bicycle could be adequately secured with restraints during transit to minimise the extent of the hazard it presents to passengers by movement of the cycle itself, but this does not mitigate the risk of passenger movement causing contact with the cycle.
- 5.5. The layout of the new M5000 trams could readily incorporate such features (with some modification), but the existing T68/T68A trams would require significant internal modification and the issue of compliance with both types, in terms of the number of cycles which can be accommodated, would still exist especially when more than one cyclist wishes to board.
- 5.6. The point at which the risks might be reduced to an acceptable level is difficult to define. The carriage of bicycles may be acceptable where the number of passengers aboard the tram is not substantially greater than the seated capacity, thereby minimising the number of passengers standing. Such levels of usage are not uniform by time of day across the various lines, and the Phase 3 extensions will complicate matters further.
- 5.7. Further dedicated personnel on each tram may be required to ensure the enforcement of rules of carriage and mitigate the associated operational problems.
- 5.8. Even with the risk mitigations described above, the potential for passenger and bicycle interaction, and therefore the risk of injury, continues to exist with resultant increase in the number of compensation claims.

6. Conclusions

- 6.1. The current policy on Metrolink should remain unchanged as the measures possible to mitigate the risks of injury, damage and operational problems are not guaranteed to reduce the risk significantly enough to warrant a change in policy regarding the carriage of bicycles on trams and would incur additional costs.
- 6.2. The requirement for cycle carriage is reduced when secure storage facilities are available at point of boarding. It is recommended that GMPTE continues to incorporate and enhance cycling facilities at all stops to encourage cyclists to use the Metrolink system whilst leaving their cycles at their boarding point.
- 6.3. GMPTE should continue to provide investment for cycle facilities on the Metrolink network, Train stations and in any future proposals, such as the anticipated Park and Ride facilities.

Philip Purdy
Metrolink Director

Appendices

Appendix 1 : HMRI letter dated 11th December 2009 re. carriage of bicycles on trancars.

Appendix 2 : Stagecoach Metrolink letter dated 16th September 2009 re. The Safe Carriage of Bicycles on Trams



OFFICE OF RAIL REGULATION

Mr P Purdy
Metrolink Director
GMPTE
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Our Ref

Case Ref

11 December 2009

David Keay
HM Railway Inspectorate

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Dear Sir

GMPTE - CARRIAGE OF BICYCLES ON TRAMCARS

I refer to your recent letter and subsequent discussions with members of your team regarding the proposal to carry bicycles onboard the Manchester tramcars.

In principle bicycles could be conveyed onboard tramcars providing that they were considered to be projectiles having the propensity to cause harm to passengers, especially under emergency braking conditions. Bicycles would therefore have to be secured and stored in such a position to protect passengers from handlebars, pedals, chains etc and prior to implementing such measures the Inspectorate would wish to examine in some detail your assessment of the risks and the controls provided to prevent harm.

Bicycles are generally prohibited on passenger carrying vehicles and consideration should be given not only to the matters of restraint and protection but also to any reduction in space within the tramcar, thereby reducing capacity and the attendant implications.

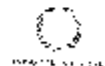
From a practical perspective I have concerns about the ability to regulate the boarding of bicycles and to ensure that they are secured throughout the journey. During peak periods such regulation would be most difficult and negotiating a bicycle through a crowded tramcar to the designated storage space could well be problematic and cause disruption.

Should you wish to pursue this idea further I would be pleased to receive your assessments and proposals for controlling the risks.

I trust the above is of assistance but should require any further guidance on this matter please do hesitate to contact me.

Yours sincerely

Mr Ing David Keay
HM Principal Inspector of Railways



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16th September 2009

Mr P Cushing
GMPTE
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Dear Peter

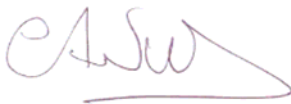
The Safe Carriage of Bicycles on Trams

After reviewing the document supplied by you regarding the above I write to notify GMPTE that Stagecoach Metrolink support the recommendation therein that the current prohibition on the carriage of bicycles on trams should remain.

The report clearly identifies increased levels of injury risk to passengers from bicycles being carried within the confines of a tram; also, the policing of such a proposal would present a significant performance risk to the network by impacting system journey time reliability. Even with cycle racking and further risk mitigation I feel that the potential for passenger injury remains high and therefore, at this time, we cannot foresee a situation where this would be acceptable. I further believe that this view would be supported by ORR (HMRI) who has been taking a keen interest of late regarding this issue.

If, in the future, further arrangements are proposed then Stagecoach Metrolink will be happy to review these in partnership with the GMPTE.

Yours sincerely



C A Williams
General Manager

Stagecoach Metrolink Ltd

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