



Bee Network Committee

Date: Thursday 12th December 2024
Subject: Bikes on Metrolink Pilot Evaluation
Report of: Danny Vaughan, Chief Network Officer, TfGM

Purpose of Report

To provide a progress update on the guided pilot of the carriage of non-folding bikes on Metrolink trams and outline the next steps.

Recommendations:

The Committee are requested to:

1. Note the contents of the report; and
2. Endorse the development of designs, cost estimates and a programme to enable the carriage of bikes on Metrolink.

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Equalities Impact, Carbon and Sustainability Assessment:

Recommendation - Key points for decision-makers

It is recommended that as the proposal to allow bikes on Metrolink is taken forward, TfGM continues to work with targeted groups to inform the designs and operational procedures to ensure that any potential adverse impacts are mitigated.

Impacts Questionnaire

Impact Indicator	Result	Justification/Mitigation
Equality and Inclusion	A	People with additional accessibility needs using trams may be affected by people bringing their bikes on Metrolink, mitigations will be implemented. Allowing bikes on Metrolink will provide the opportunity to link journeys with Metrolink and cycling (in the off-peak). This may enable more people to cycle.
Health	G	Physical and mental wellbeing of some passengers could be improved by enabling linked journeys of cycling and Metrolink.
Resilience and Adaptation		
Housing		
Economy		
Mobility and Connectivity	G	Mobility and connectivity across GM will be widened by allowing people with bikes to travel on Metrolink during off-peak times.
Carbon, Nature and Environment	G	Allowing bikes on Metrolink would allow an alternative option for some car journeys and therefore may enable reduction of carbon emissions.
Consumption and Production		
Contribution to achieving the GM Carbon Neutral 2038 target		Allowing bikes on Metrolink would allow an alternative option for some car journeys and therefore may enable reduction of carbon emissions.
Further Assessment(s):	Equalities Impact Assessment and Carbon Assessment	
G Positive impacts overall, whether long or short term.	A Mix of positive and negative impacts. Trade-offs to consider.	R Mostly negative, with at least one positive aspect. Trade-offs to consider.
		RR Negative impacts overall.

Impacts Questionnaire – Equality and Inclusion is rated as amber

Carbon Assessment				
Overall Score	[Blue Box]			
Buildings	Result	Justification/Mitigation		
New Build residential	N/A			
Residential building(s) renovation/maintenance	N/A			
New build non-residential (including public) buildings	N/A			
Transport				
Active travel and public transport	[Blue Box]	Allowing bikes on Metrolink would provide the opportunity to link cycling journeys with tram.		
Roads, Parking and Vehicle Access	N/A			
Access to amenities	[Green Box]	Allowing bikes on Metrolink would provide the opportunity to link cycling journeys with tram and may improve access for some people.		
Vehicle procurement	N/A			
Land Use				
Land use	[Green Box]			
No associated carbon impacts expected.	[Green Box] High standard in terms of practice and awareness on carbon.	[Blue Box] Mostly best practice with a good level of awareness on carbon.	[Yellow Box] Partially meets best practice/ awareness, significant room to improve.	[Black Box] Not best practice and/ or insufficient awareness of carbon impacts.

Carbon Assessment – rated as blue

Risk Management

Risks are considered in section 3 of the report and will continue to be managed in line with TfGM’s procedures during the next phase of work.

Legal Considerations

Discussions with the operator’s and TfGM’s insurers are underway and the insurers will require further details of modifications to the network and operating procedures once defined.

Financial Consequences – Revenue

The guided pilot was funded through the revenue budget. There is no expectation that allowing bikes on trams will have any significant impact on future Metrolink revenue. The proposal is that bikes will only be allowed on trams in the off-peak, which will negate any impact on capacity. Further revenue funding has been identified for the next phase of work.

Financial Consequences – Capital

It is estimated that approximately £5m - £8m in capital funding will be required to design and implement modifications to the Metrolink vehicles and infrastructure to allow the safe carriage of bikes. This will be sought through the capital pipeline but has not yet been allocated.

Number of attachments to the report:

None.

Comments/recommendations from Overview & Scrutiny Committee

Not applicable.

Background Papers

The guided pilot was recommended in a paper to the BNC in January 2024. The paper summarises the safety and operational implications of allowing bikes on Metrolink.

Prior to this, the carriage of non-folding bikes on Metrolink was last considered formally by the Transport for Greater Manchester Committee in 2010. Technical studies and papers considered at that time are available on request.

Tracking/ Process

Not applicable.

Exemption from call in

Not applicable.

Overview and Scrutiny Committee

Not applicable.

1. Introduction

- 1.1. TfGM is considering permitting the carriage of non-folding bikes on Metrolink. Consideration is also being given to adapted bikes used as mobility aids, scooters and a broader range of mobility scooters than are currently permitted.
- 1.2. Allowing bikes to be carried on Metrolink would contribute to network integration and enable active travel for the first/last mile of more journeys.
- 1.3. Metrolink currently allows folded bikes and provides cycle parking at most stops. Certain sizes of mobility scooters are also allowed, subject to a permit scheme.
- 1.4. The Metrolink network is designed to be as accessible as possible, with level boarding and step-free access at all stops, with some requiring lifts for this purpose. The trams are designed with two wheelchair spaces, which can also be used for pushchairs, prams and certain types of mobility scooters.
- 1.5. The idea of allowing bikes on Metrolink has been considered several times since Metrolink launched in 1992. TfGM is once again reconsidering this, to understand the physical or operational changes that are needed, if any, to permit the carriage of non-folding bikes on trams.
- 1.6. Last year TfGM commissioned a technical report on these issues and to learn lessons from other light rail and tram networks that permit bikes on board. To study the impact of non-folding bikes and adapted bikes on trams in practice, TfGM undertook a guided pilot during March and April 2024.
- 1.7. This report summarises the findings of the technical report and the guided pilot and makes recommendations to the Bee Network Committee regarding how to allow bikes to be carried on Metrolink. In summary, with modifications to the trams and tram stops, and with suitable operating procedures, the carriage of bikes on trams could be enabled during off-peak times.
- 1.8. If the committee is supportive of the policy change, TfGM will seek funding to further define the benefits and develop the proposal to enable an accurate cost plan and programme to be developed for full approval.
- 1.9. TfGM has drafted an Equality Impact Assessment for the proposed policy change and has engaged with several groups regarding the proposals. TfGM will continue to develop the EQIA to enable the proposed policy change to accommodate all passengers' needs and mitigate against any negative impacts identified.

1.10. The existing tram fleet is currently being modified for several safety-related projects including a project to prevent trams from over speeding, an enhanced radio system and another to detect and prevent tram-surfing. A renewal of the tram CCTV system is also required. Fleet modifications to accommodate the carriage of bikes would be added to this programme.

2. Benefits of allowing bikes on Metrolink

- 2.1. Allowing bikes on Metrolink would align with the Greater Manchester Transport Strategy 2040 and the Active Travel Mission, which aims to build a world-class walking, wheeling and cycling network with a newly refreshed focus on the integration of public transport and active travel.
- 2.2. Allowing bikes to be carried on Metrolink will improve the interconnectivity between modes (tram, train and cycling) and this should then enable more combination trips by public transport and bike. However, it is difficult to assess the potential demand from customers wanting to take their bike on the tram. Currently, around 1% of passengers arrive at a tram stop by bike¹ whilst 73% walk. By allowing the carriage of bikes during off-peak times the catchment area of Metrolink could be widened as people may choose to cycle a little further than they are prepared to walk to get to a tram stop. This could boost patronage by tapping a new market during off-peak times when the services have capacity.
- 2.3. Allowing bikes to be carried on Metrolink will improve the accessibility of the network for those using an adapted bike as a mobility aid. It would also allow connection with national rail journeys, where bikes can already be carried.
- 2.4. People requiring adapted bikes are sometimes not able to use the shared cycle hire schemes and therefore being able to carry their own bike on Metrolink would enable more sustainable journeys. People living in areas not served by shared cycle hire schemes would benefit from being able to take their own bike on a tram.
- 2.5. Adapted bikes will be catered for through improvements to the mobility scooter policy, which will be broadened and simplified to remove barriers to access.

¹ Tram Passenger Survey 2024

3. Issues for Consideration

3.1. Previous studies into the carriage of bikes on trams highlighted several factors that must be addressed prior to implementation of a permanent solution. The main issues are listed below:

- Reduction in space for passengers on board the tram
- Sudden braking of the tram causing injury to customers
- Creating difficulties for circulation of passengers
- Obstructing boarding and alighting during short dwell times – resulting in timetable and reliability impacts
- Unstaffed trams making it difficult to enforce rules
- Reduction in capacity of some tram stops
- Difficulties in accessing some tram stops (lifts, ramps, steps, track crossings)
- Ease of travel for a range of passengers e.g. visually impaired and people using wheelchairs, prams and travelling with assistance dogs

3.2. Additionally, from discussions with user groups and a review of customer complaints, the existing Metrolink Mobility Scooter Permit Scheme has been found to present several barriers for those wanting to access the network on their scooters. A simplified Bee Network Mobility Policy, covering both bus and Metrolink, would seek to remove barriers to access and co-ordinate requirements across all modes in GM. This new policy could include using adapted bikes as mobility aids.

3.3. If the carriage of bikes on trams cannot be accommodated, then TfGM would explore alternative options such as improved cycle parking at stops, expansion of the cycle hire scheme area, enabling folded bikes to be purchased by those on lower incomes, and other factors which could improve connectivity between modes.

4. Guided pilot and research recommendations

4.1. TfGM commissioned a technical report into the safe carriage of bikes on trams. The main recommendations are that the potential sharp application of tram brakes requires bikes to be secured when on board the tram to prevent injury. The report also recommends changes to some tram stops and identified that some stops will not be suitable for bikes on the platform due to overcrowding. Operational procedures and enforcement of guidance will also need to be considered and developed carefully with user groups and the Metrolink operator.

- 4.2. TfGM undertook a guided pilot earlier in 2024 to gain more insight into how the carriage of bikes could be accommodated safely. Working with the Metrolink Operator, Keolis Amey Metrolink (KAM), TfGM invited volunteers to take their bikes on specific journeys on Metrolink, accompanied by staff to ensure passenger safety. Further volunteers were recruited with a range of disabilities to understand the impact that bringing non-folding bikes on trams would have on them.
- 4.3. The pilot allowed closer observation of some of the issues listed above which provided insight into the identified risks and issues of this policy change. This guided approach enabled a pilot to take place whilst controlling the safety and operational risks as far as possible.
- 4.4. TfGM appointed researchers to observe the guided pilot, interview the volunteers, customers and staff and produce a report which has informed the safety risk assessment, Equality Impact Assessment (EQIA) and operational considerations in relation to requirements to enable a potential policy change.
- 4.5. The feedback from the guided pilot and discussions with disability groups revealed that the main concern was that the accessible spaces on the tram should be retained for use by disabled people, therefore, it is recommended that two separate spaces are provided on each vehicle for bikes. This means that the tram interiors and seating would need to be reconfigured to allow the safe carriage of bikes.
- 4.6. The recommendations of both the technical report and guided pilot are summarised here. Addressing these would enable bikes to be carried on Metrolink under certain conditions:
 - Bikes should be allowed only during quieter periods.
 - Bikes should not be allowed when football matches and other special events are taking place across the network.
 - All 147 trams need to be modified to reconfigure seats and provide 2 spaces for bikes to be carried and restrained (separately from the existing accessible spaces).
 - All 99 Metrolink stops, platforms and approaches to be assessed and risk mitigation measures to be installed if necessary (likely to be signage, floor markings, and possibly fencing).
 - Bikes to be loaded / unloaded using separate tram doors from the accessible boarding doors, to minimise interaction with passengers with accessibility needs.

- Clear signage is required on the trams and tram stops to communicate what is permitted.
- Clear rules and operating procedures need to be communicated and enforced by staff.
- The size and weight of bikes will need to be limited.
- Bike storage at Metrolink stops to be improved to enable people to leave their bikes at stops.
- Policy change proposals to be developed with the operator and equalities representatives to ensure that they are practical and suit the Metrolink network passengers.

5. Programme and next steps

- 5.1. Subject to feedback from Bee Network Committee members, TfGM will engage a rolling stock (tram) designer to prepare designs for the modification of the 147 tram vehicles. The features of the designs will likely include modification of some seating, restraining equipment for bikes being carried, signage and other features inside the trams.
- 5.2. TfGM will engage with affected parties to optimise the design, considering the needs of passengers using wheelchairs, assistance dogs, prams and any other needs.
- 5.3. In tandem, TfGM will assess all 99 stops in depth across the Metrolink network and design and implement any modifications required to mitigate safety and operational risks. It is anticipated that several stops will not be suitable for bikes and this will be included in the communication of the rules and operating principles once the policy change is launched. For example, Market St stop is likely to be too narrow to accommodate bikes and crowds queuing for trams.
- 5.4. At the same time as designs are progressing, TfGM will liaise with the operator and affected parties to design the operating procedures to implement the policy change. Considerations will include clear communication of expectations of passengers, rules and regulations, and procedures for enforcement.
- 5.5. A more detailed cost estimate and benefits realisation plan will be developed to enable the decision for allocation of funding for implementation. However, early estimates range between £5 million and £8 million.

- 5.6. The outline programme is dependent on a number of factors, mainly a more detailed cost estimate, the timely allocation of funding, availability of contractors and maintaining fleet availability for good Metrolink network performance. The availability of the tram fleet is currently prioritised for the installation of several safety-related and renewal projects.
- 5.7. The earliest estimate for fully modified trams operating on any given route is late 2025.