

## **Growing our rapid transit system: longer vehicles, more vehicles**

As described earlier in this draft strategy, capacity poses the most significant challenge to our vision for supporting sustainable growth. Patronage growth is expected to continue, with capacity challenges anticipated in coming years. Whilst the nature of some trips may have changed, the critical issue of providing enough rapid transit capacity remains.

Providing additional capacity by increasing service frequency on Metrolink or suburban rail services is extremely difficult due to limited track capacity, particularly in the city centre. The subject of providing a step change in Regional Centre rapid transit capacity is tackled later in this draft strategy. In contrast, there is potential to provide additional capacity on the busway by increasing service frequencies.

Growth in demand for rapid transit will therefore be accommodated as far as possible by acquiring longer trams for Metrolink, by promoting the use of longer trains (and platforms) for suburban rail, and by considering frequency on the busway.

### **We will:**

- **40: Progress the development and procurement of Metrolink 'Next Generation Vehicles' (NGV).** In the past we have been able to address crowding issues by buying new M5000 trams and coupling them together as 'doubles', but the contract for procuring these has come to an end. As the existing fleet ages, there will be a decrease in their reliability and availability. Eventually they will need replacing. Progressing the development and procurement of NGV for Metrolink will therefore be vital to maintain and improve capacity. We expect that they would be walkthrough vehicles making full use of existing Metrolink platforms. In length, they would be much like the current 'double' trams – but would eliminate the space occupied by central driver cabs and couplers to provide an increase in carrying capacity. Any contract for procuring them would need to be future-proofed so that more could be ordered for any new or enhanced Metrolink services, including tram-train capability. The supporting systems including power, signalling, depots and stabling would also need to be carefully considered, as would customer features. In the interim, it will be important to maximise the reliability and availability of the existing fleet.
- **41: Promote the use of longer trains (and platforms) for suburban rail.** One of the most straightforward improvements we can seek is to provide longer trains to meet growth in demand and address overcrowding. This will be particularly important if we are to meet our Right Mix vision. Longer trains may need platform lengthening, but can generally be delivered without the need for additional network capacity. We will work with the rail industry to influence service planning with the aim of increasing passenger capacity on services across the network.

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- **42: Continue to be responsive to demand on the busway.** Opened in 2016, the Leigh-Salford-Manchester busway has become an established part of our rapid transit system. The success of the busway can be seen in the considerable growth in demand for the service. On becoming part of our Bee Network in September 2023, frequencies were increased and more buses deployed. We will continue to be responsive to demand on the busway as part of the structured, transparent, area-based 'Network Reviews' that are set out in the [GM Bus Strategy](#).



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## **Growing our rapid transit system: new stops and stations**

Major population or employment centres located near to existing rapid transit lines could benefit from improved access to public transport by delivering new stops and stations, with third party investment as appropriate. It is easy to underestimate the costs of additional stops and stations – including the journey time impacts for existing services making extra calls. Lack of network capacity on a constrained network to accommodate those extra calls can also make new stations particularly difficult to deliver for suburban rail, and it may only be with investment in transforming the network infrastructure (see later in this draft strategy) that they become possible.

### **We will:**

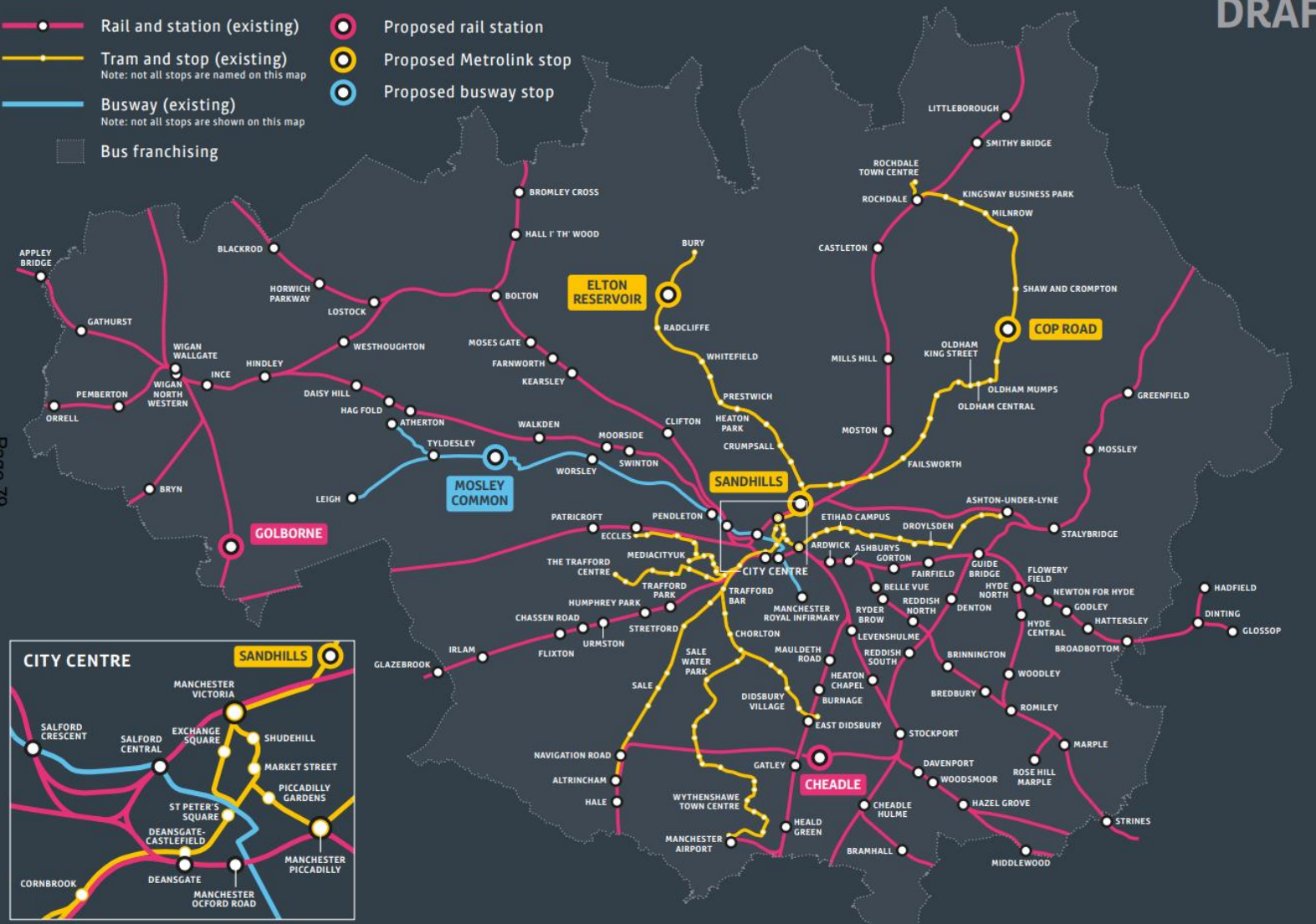
- **43: Bring forward new stops and stations.** The following proposals are currently in different stages of development and delivery, in some cases working with the rail industry:
  - **Cop Road** on the Oldham & Rochdale Metrolink line, serving the Beal Valley and Broadbent Moss developments in Oldham that comprise approximately 1,900 homes and 22,000 square metres of employment space.
  - **Elton Reservoir** on the Bury Metrolink line, serving the Elton Reservoir development in Bury that comprises approximately 3,500 homes, three schools and two local centres.
  - **Sandhills** on the Bury and Oldham & Rochdale Metrolink lines, serving the Victoria North development in Manchester that comprises approximately 15,000 homes and other amenities.
  - **Mosley Common** on the busway, serving the North of Mosley Common development in Wigan that comprises approximately 1,100 homes.
  - **Golborne** rail station on the West Coast Main Line, five miles south of Wigan North Western station and one mile north of Golborne Junction – near to the site of the previous Golborne Station.
  - **Cheadle** rail station on the Mid Cheshire Line connecting Cheadle into the regional public transport network, transforming accessibility to Stockport Town Centre and beyond.
- **44: Undertake further work with partners to identify suitable locations for new stops and stations** that have a strong business case and that support GM's ongoing growth. Again, only major centres are likely to be able to present a compelling business case that secures the necessary funding for them, and network capacity needs to be considered.



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- Rail and station (existing)
- Proposed rail station
- Tram and stop (existing)
- Proposed Metrolink stop
- Busway (existing)
- Proposed busway stop
- Bus franchising

Page 79



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## **Growing our rapid transit system:** **key connecting links in the Regional Centre**

Inner Salford (including The Quays and MediaCityUK), Piccadilly and Manchester Airport are areas to which rapid transit links already exist, and that need to continue their major jobs growth whilst keeping us on a pathway to the 'Right Mix'.

At present, accessing Salford Quays and MediaCityUK from many parts of GM requires an interchange from bus or train onto a tram in the Regional Centre, or an interchange from a train onto a bus at Salford Crescent. The Bee Network is expected to make these multi-modal trips seamless for our customers. However, our customers' journeys could still benefit from faster rapid transit journeys to this major growth area.

From much of the north of GM, access to Piccadilly and its connections to Manchester Airport is poor. A change is required at either Victoria or Salford Crescent onto services that are both crowded at peak times and of limited frequency.

Key connecting links in the Regional Centre could be improved. **We will:**

- **45: Seek options for improved links to Inner Salford (including The Quays and MediaCityUK).** This will be undertaken in the round, considering a multi-modal approach and taking into account proposed rail industry improvements such as the addition of a third platform at Salford Crescent. Improving links here could provide faster journeys for many of our customers, and assist with relieving the congested central area of the rapid transit system.
- **46: Seek options for improved links between Victoria and Piccadilly.** On the Metrolink network, there are currently only 5 trams an hour on this link, all of which come from the Bury line. This represents the lowest frequency connection between stops within the city centre and acts as a constraint to customer journeys to Piccadilly and onward to Manchester Airport. Whilst interchange is a natural feature of a high frequency rapid transit network, the low frequency on this key connecting link means that journeys from Metrolink's Oldham & Rochdale line require an interchange with a relatively long waiting time. This issue applies also to train services that only call at Victoria, such as those that come from the Atherton corridor. Increasing the Metrolink frequency between Victoria and Piccadilly is not possible within the current network design. On the rail network, at present only one train per hour uses the Ordsall Chord which enables direct services to run between the key transport hubs at Victoria and Piccadilly – enabling through journeys from across the wider network. The rail industry investment in the Ordsall Chord is currently underutilised due to wider capacity constraints, and proposals have been developed by the rail industry's Manchester Task Force for achieving two trains per hour. We will continue to press for infrastructure investment to realise the full potential of the Ordsall Chord.

Ultimately, the only solution that facilitates a seriously improved link between Victoria and Piccadilly may involve major new capacity to and through the Regional Centre.





## **Transforming our rapid transit system: serving major centres away from existing lines**

Improved connectivity for population and employment centres that are located away from the existing rapid transit system will be achieved in the first instance by 'first and last mile' interventions through multi-modal integration as part of the Bee Network (which has been described earlier in this draft strategy). This can help build the market for future rapid transit lines. For major centres that are away from existing rapid transit lines, there may be a case for new lines or extensions.

### **We will:**

**47: Ensure that any proposals for new or extended rapid transit lines facilitate services that are frequent and fast – running on mainly segregated alignments – and provide excellent access to and/or through the major demand drivers for rapid transit (the Regional Centre today, and Manchester Airport in the future) as well as connecting our major town centres.** Experience from the Metrolink network – and from rapid transit systems elsewhere – shows that services that achieve a good degree of financial independence by covering more of their running costs need to do this. It allows them to attract high volumes of the middle distance trips for which rapid transit is best suited, and to generate greater revenue. The higher speed and reliability of current and former rail corridors allow them to provide the excellent access that is attractive to our customers, enabling these lines to make a more positive contribution to network finances. The lower speed and reliability of street-running lines can cause them to be less attractive to our customers and make a less positive contribution.

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**48: Prioritise proposals for new or extended rapid transit lines, develop business cases for those that have nearer term potential, and reserve space for those that have longer term potential.** Our Five Year Transport Delivery Plan 2021-26 contains over 30 proposals for potential new, extended and converted rapid transit lines to expand the system. It is vital now to prioritise these options to facilitate the development and delivery of new phases of rapid transit system expansion across GM. Our aim is a steady, rolling pipeline that builds up development and delivery skills and moves them from scheme to scheme, driving efficiency and applying lessons learned. Where schemes are considered longer term prospects, space-saving of the corridors will be recommended. This is an approach historically used in GM to set out rapid transit routes in Local Plans, and seek to reserve space for their potential future delivery when relevant planning applications along the route arise.

**Further details are given later in this draft strategy in 'Our expansion options'.**

## **Transforming our rapid transit system: serving major centres on existing lines**

The National Rail network in GM is an intensively used mixed-use railway with a legacy of two-track alignments. Services interact with each other at flat junctions, and these contribute greatly to capacity limitations and performance issues. There are also key capacity constraints, including the longstanding issues on the Castlefield Corridor in central Manchester and emerging issues in and around Stockport. These issues lead to infrequent and unreliable suburban rail services on some existing lines.

Despite increasing patronage, in recent years several suburban rail lines have seen service reductions. This is partly due to competition for track capacity with inter-city services, which generate a greater financial return to the rail industry and central government. The focus on revenue does not take sufficient account of the wider benefits that suburban rail services can bring to local communities, and this is one of the issues that the GM Rail Board seeks to address.

Another legacy feature is that the Regional Centre stations – Piccadilly, Oxford Road, Deansgate, Victoria, Salford Central and Salford Crescent – are at the periphery and do not provide excellent access to the heart of the city centre. In contrast, the Metrolink network does achieve excellent access for passengers to much of the city centre. But track capacity in the city centre means that there is a limit on additional Metrolink services that can run through the core.

### **We will:**

- **49: Promote suburban rail frequency enhancements, working with the rail industry.** There are several stations with a sizeable population catchment that are served only by hourly trains or less. Whilst limited network capacity in the central area may be a constraint to improving service frequencies (in this case, there are other options – see item 50 immediately below) the potential benefits and associated trade-offs should be explored, and we will work closely with the rail



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industry to make the case for the necessary improvements to infrastructure and services. In practice, a minimum service level of two trains per hour will help to make suburban rail a viable alternative to the car. An improvement to at least four trains per hour will provide a turn-up-and-go service. The significant increase in capacity needed to achieve our Right Mix vision will require this sort of improvement.

As one clear example, Mossley and Greenfield stations have high demand potential which is not realised due to low service frequencies – an hourly service in the off-peak, with limited extra services in the peak. The Transpennine Route Upgrade will increase capacity and reduce journey times along the line through Mossley and Greenfield. We will use new mechanisms as part of the ‘Trailblazer’ devolution deal to work with the rail industry to influence the programme to improve services at these stations.

- **50: Examine de-coupling rapid transit lines from their constraints using tram-train technology and underground technology.** The scope for full conversion of suburban rail lines to tram-only operation – as was achieved by Metrolink with the Bury and Altrincham lines in the 1990s and the Oldham and Rochdale line in the 2010s – is now probably exhausted. The two main options to release the suburban rail constraints described above are use of tram-train technology (so that services can run onto the central area Metrolink network) and use of underground technology (so that services can run into a tunnel in the central area).

The most obvious example for tram-train technology is extending existing Metrolink services that run through the city centre and terminate at Piccadilly out towards Glossop, Hadfield, and Marple. With appropriate infrastructure, this would take trains off key junctions on the approach to Piccadilly and out of the surface platforms there – freeing up capacity for other services. It would also make better use of trams that currently terminate at Piccadilly by carrying passengers from the Glossop, Hadfield and Marple lines to and through the city centre without the need for interchange. For other lines, the opportunities to connect into the central area Metrolink network are less clear cut, and underground technology might be the best approach to improve services (including for existing Metrolink lines). Depending on the approach that is pursued, there are opportunities to:

- release capacity for wider regional, inter-city, and freight services;
- provide more attractive ‘turn up and go’ rapid transit service levels;
- provide the opportunity for customers to travel between a suburban station and a city centre stop in a single journey, and make cross-city trips;
- add new stops to serve major population and employment centres.

The use of tram-train technology has a further advantage by making maximum use of existing light rail and heavy rail infrastructure by joining it together without major new construction such as a tunnel – convenient for our customers whilst also being cost-efficient and carbon-conscious.



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**51: Develop a tram-train Pathfinder to unlock future schemes.** Whilst tram-train technology has successfully been implemented in the UK and around the world, it has not been done in GM. Recognising this, TfGM have planned a phased approach that seeks to mitigate risks. This is by developing an initial Pathfinder project as a proof-of-concept that is designed to maximise the learning for larger scale and longer term projects.

Three potential schemes were identified within Our Five Year Transport Delivery Plan 2021-26. Following detailed consideration, the Pathfinder North scheme was identified as the preferred option to be progressed. This comprises an extension of the existing Metrolink Oldham and Rochdale line, joining the National Rail network for the section between Rochdale and Castleton, and connecting onwards to Heywood and Bury via the East Lancashire Railway heritage corridor.

The scheme would require new and upgraded Pathfinder Infrastructure on both the heavy rail and light rail networks, and new tram-trains – along with the careful planning that would allow the new service to run across both networks. The Metrolink 'Next Generation Vehicles' described earlier in this draft strategy would be procured with tram-train capability to serve the scheme.

Our Five Year Delivery Plan 2021-26 sets out an aim to complete a business case for early delivery as far as Heywood, and a commitment to develop options for the next phase to Bury. Following the announcement of a funding allocation within the Department for Transport's City Regional Sustainable Transport Settlement (CRSTS), TfGM is developing an integrated business case for the proposed Pathfinder infrastructure and the 'Next Generation Vehicles' needed for the route. The business case will need to be agreed with the Department for Transport.

- **52: Prioritise proposals for rapid transit line conversions to use tram-train and underground technology, develop business cases for those that have nearer term potential, and reserve space for those that have longer term potential.**

The actions here are the same as in item 48.

**Further details are given later in this draft strategy in 'Our expansion options'.**



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## **Transforming our rapid transit system: a second rapid transit hub around the Airport**

The growth of the Manchester Airport area is expected to make it a second main demand driver for rapid transit in Greater Manchester (the first being the Regional Centre).

There are more than 20,000 jobs at Manchester Airport, which puts it at the same scale as the larger Greater Manchester town centres. The proportion of middle distance trips to work – to which rapid transit is well-suited – is much higher than to our town centres. Manchester Airports Group envisions a future in which 59,000 jobs are located at the Airport. Wider development envisaged in the area – including up to 10,000 jobs at Airport City North and further jobs growth around Wythenshawe Hospital and Medipark – will further increase travel demand.

A large increase in the number of trips to Manchester Airport and the immediate surrounding area is therefore expected by 2040. Achieving the Airport's growth targets will require significant increases in public transport mode share for staff and passengers for social and environmental reasons, and also for purely economic reasons in relation to avoiding congestion and slow journey times. Rapid transit will need to play its part in this.

As well as supporting proposed improvements to the existing Manchester Airport station, **we will:**

- **53: Continue to maintain the powers for the 'Western Leg' of the Metrolink Airport line and seek modifications where needed.** Originally planned as the western part of the full Metrolink Airport line, this scheme had a Transport and Works Act Order granted in 1997 and statutory powers required for its construction and operation remain in place. Recent work has focussed on integrating the route with the proposed Manchester Airport High Speed Station as part of High Speed 2 and Northern Powerhouse Rail, and we secured the inclusion of proposed amendments to the High Speed Rail (Crewe - Manchester) Bill in the government's second 'Additional Provision', deposited in Parliament in July 2023. Clearly, whilst the cancellation of the northern sections of HS2 introduces much uncertainty into years of strategic transport planning, Greater Manchester's ambition remains a new Manchester Airport High Speed Station that accommodates Northern Powerhouse Rail and a multimodal interchange including with Metrolink. The 'Western Leg' powers will be considered in that context, working with partners.
- **54: Develop complementary rapid transit options to facilitate expected growth in and around the Airport.** New rail-based rapid transit lines to the Airport would tend to focus on using existing rail infrastructure, with bus-based rapid transit tending to focus on locations more distant from existing rail infrastructure. A range of ambitions for new rapid transit services to the Airport are proposed. Some offer alternative ways of serving the same trips, and so it will be necessary to make choices between these alternatives – and care has to be taken that the markets served would see a genuine improvement. For some longer distances it will be as quick or quicker, if using public transport, to travel via the Regional Centre and connect with trains to the Airport (today) or to use Northern Powerhouse Rail (in future).





## **Transforming our rapid transit system: a step change in Regional Centre rapid transit capacity**

There is a serious possibility that the rapid transit system in the Regional Centre will not have sufficient capacity to accommodate expected 2040 demand, driven by continued population and economic growth – and the need for non-car modes to accommodate a higher proportion of that increased travel demand in line with our Right Mix vision for a doubling of rapid transit trips.

Work undertaken over a number of years by TfGM suggests that this problem will exist even after the measures to lengthen trains and trams described earlier in this draft strategy are taken up, and will be particularly acute on the south-west to north-east axis via the Metrolink core, and the north-west to south-east axis via the Castlefield Corridor.

A major increase in Regional Centre rapid transit capacity could accommodate a substantial increase in travel demand, while facilitating more conversion of suburban rail services than would be possible by tram-train extensions of existing Metrolink services alone. In turn, that could release capacity on the National Rail network to create room for growth on remaining services. And it could allow increased capacity on existing Metrolink lines through frequency uplifts.

This would not just be about capacity for trips to and from the Regional Centre though – it would be about connectivity, allowing faster and more frequent cross-city trips through the Regional Centre, joining up the city-region with new direct and indirect services to create new journey opportunities.



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**We will:**

- **55: Explore tunnelled options to enable faster, more frequent and higher-capacity rapid transit services to, from and through the Regional Centre – working with the rail industry.** Previous work on additional surface-level routes, running mainly on-street, has shown that these would only be capable of delivering modest and uncertain improvements in capacity, and could be disruptive during construction. Early work to explore tunnelled options has considered the various connections that could be made between existing rapid transit lines to enable through-running of services across the Regional Centre and beyond. These could be ‘Regional Metro’ style solutions – similar to the Paris RER, the Munich S-Bahn and London’s Elizabeth line – with some longer distance versions being similar to Thameslink, which spans London and the South East.

Clearly, the capital cost of any of the tunnelled solutions described above would be multi-billion. Whilst it would be expected to be lower in cost than the longer tunnel required for the Elizabeth line (which contains several very large underground stations) it is recognised that there is much work to do to on the business case for any such investment. Options that interact with existing National Rail lines also need to be developed working with the rail industry and – as described earlier in this draft strategy – with an integrated approach to new inter-city lines. However, finding a long-term solution to Regional Centre rapid transit capacity is crucial for the continued economic growth of GM, the North and the UK.



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## **Integrating rail into the Bee Network by 2028**

The Bee Network is already a reality with Metrolink and the Starling Bank bike hire scheme joined by the first buses brought under local control from September 2023. We have now franchised 50% of the bus network. This has yielded ridership growth of 5% in the last 6 months through strongly improved reliability, customer service and fleet. All buses will be franchised, and the first phase of the Bee Network complete, in 2025.

Building on the 'Trailblazer Deeper Devolution Deal with central government, we are collaborating with the rail industry to integrate rail services into the Bee Network by 2030. As part of the second phase of the Bee Network, 8 suburban rail corridors have been prioritised for integration by 2028. Numbered clockwise from north, they are:

1. Rochdale stopping services
2. Ashton-under-Lyne and Stalybridge
3. Glossop, Hadfield and Rose Hill Marple via Guide Bridge
4. Alderley Edge and Buxton via Stockport
5. Airport stopping services
6. Wigan via Golborne
7. Wigan via Atherton\*
8. Wigan via Bolton\*

\* continuing to Southport

The integration of these rail lines is a significant milestone in seamlessly connecting rail services within the Bee Network. This integration will enhance convenience, offer more choices, and promote a low-carbon lifestyle made possible by integrated land use and transport planning.

### **Delivery Plan:**

#### **Bee Network integration by 2028 and beyond**

Between now and 2028 rail integration delivery will focus on 8 priority corridors across GM. This will bring customer-facing improvements that align rail services with the Bee Network, including consistent branding, information, fares, accessibility, and station enhancements. This will deliver early realisation of customer benefits, create an environment for passenger growth and provide the first step in establishing a single cohesive recognisable 'Bee Network' product that incorporates rail.

Building on work undertaken as part of the GM Rail Integration Case for Change, we have developed a GM Rail Integration Proposition, which is based five Customer Integration Pillars (overleaf).



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The GM Rail Integration Proposition and five Customer Pillars will be the focus areas of Bee Network Rail Integration, and will form the basis of our approach to integrate the rail network into the Bee Network at pace by 2028, followed by ongoing, wider rollout thereafter.

While progress is being made towards rail integration, it's essential to lay the groundwork for a lasting partnership with both the rail industry and government that extends beyond 2028. This partnership will serve as a catalyst for economic growth, providing access to opportunities, boosting ridership, and ultimately decreasing the need for financial subsidies.

There is a compelling case that local accountability will deliver value, efficiencies and return benefits locally, regionally and nationally. This can only be achieved through a meaningful and accountable partnership with the rail industry and government. This means GM needs to work directly with Great British Railways (GBR), being the Co-Client for rail outputs, taking a lead role in the specification of fares, services, and customer standards in the GM and North West area.

It's vital that developing such a relationship ensures mutual benefits for both the government and GM, and results in:

- Driving growth and attracting investments into the rail and public transport systems.
- Ensuring local accountability, empowering authorities to tailor services to meet specific customer needs, leading to a more efficient utilisation of resources.
- Enhancing performance and reliability, instilling trust and confidence among customers in the public transport system.
- Improving accessibility to homes and job opportunities, thereby enhancing overall connectivity and economic potential for residents.
- Supporting decarbonisation efforts by encouraging public transport usage over private vehicles, consequently reducing congestion and environmental impact.
- Encouraging private sector investments, further stimulating economic growth and development across the region.





# The rail industry proposal delivered by 2028

To facilitate the delivery of the 8 priority corridors by 2028, we have developed a collective understanding of what Bee Network Rail Integration means. This is known as the GM Rail Integration Proposition and takes a strategic approach through five Customer Integration Pillars.

## Bee Network Development

Network and service enhancements across all local GM routes, with minimum frequencies of at least 2 trains per hour (tph) at all stations, with 4 tph where demand warrants (many stations only have 1 tph).

New, environmentally friendly rolling stock serving GM local services, with improved on-board facilities and step-free boarding. Due to start rolling out from 2027.



## Station Facilities, Accessibility

By 2028 majority of routes and journeys on GM local services to be fully accessible.

By 2028 significant increase in number of GM stations that are fully accessible.

By 2040 all stations fully accessible, including modal interchanges and step-free boarding.



## Customer Experience, Information, Branding

Bee Network branding across all trains and stations.

Bee Network customer service standards fully implemented across all parts of the multi-modal network.

Fully integrated digital proposition for the Bee network that provides a seamless customer experience (e.g. Multi-Modal info at stations and on trains, Bee Network App, frontline, customer facing staff).



## Fares & Ticketing

PAYG across eight priority corridors by 2028, with full roll out by 2030.

Launch of integrated fares within Bee Network cap.

Multi-Modal Fares simplification across GM and wider travel to work area by 2030.



## Transit Orientated Development and Regeneration

Deliver Golborne and Cheadle new stations by 2026 – 2027.

Urban realm and regen opportunities delivered by 2028 at central Manchester, Salford and Stockport stations, and then wider thereafter.





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## Our expansion options

### Prioritisation

The timeframe for opening a new, extended or converted rapid transit line is typically 8 to 10 years, due to the need to make a case, finalise funding, obtain statutory powers, and design, construct and commission the line – and the timeframe is longer if major new central area capacity is needed.

It is therefore vital to prioritise our options for new, extended or converted rapid transit lines, to facilitate the development and delivery of new phases of rapid transit system expansion across Greater Manchester.

This will allow us to focus our finite scheme development resources on those lines that would most effectively move us towards our Right Mix vision – and to understand better the likely future pressures on central area rapid transit capacity.

Prioritising will also allow us to maintain a proper focus on all the other key actions described earlier in this draft strategy that do not involve new, extended and/or converted rapid transit lines.

In line with national requirements, we are currently carrying out a refresh of our Local Transport Plan, starting with the GM Transport Strategy 2040 and continuing to creation of the next Five Year Delivery Plan (2027-2032). This draft strategy will play a key role in shaping our priorities for new, extended and/or converted rapid transit lines within these documents.

### A principles-based approach

A principles-based prioritisation has been undertaken to identify c.15 emerging priorities that will go forward for further detailed prioritisation in 2024. Derived from the earlier sections of the rapid transit strategy, the following principles have been applied. These set out that expansion of our future rapid transit system with new, extended and/or converted lines should:

- make best use of existing network infrastructure
- serve major centres, whether on or away from existing lines, and link to jobs in key growth areas
- provide frequent and fast services – running on mainly segregated alignments
- provide excellent access to and/or through the main demand drivers for rapid transit – the Regional Centre today, and Manchester Airport in the future
- consider integration with land use planning, and existing and new inter-city rail services and lines

These principles will also be relevant for taking a view on any proposals for expansion of our rapid transit system that emerge in the future.



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## **Emerging priorities** **for new, extended and/or converted rapid transit lines**

The outcomes of the principles-based prioritisation are set out below, including commentary on scheme development work undertaken to date. For some schemes many years of work have shaped the current position, whilst others are at an earlier stage of development.

Moving clockwise around the city-region – the schemes are numbered in this clockwise order, not in any particular priority order – a balanced approach to the potential expansion of the rapid transit system within Greater Manchester can be seen. This provides a strong platform for further detailed prioritisation and scheme development.

At the end of this section, maps are provided that show the rapid transit network as it exists today, the 8 rail lines to be integrated into the Bee Network by 2028, the emerging priorities for new, extended and/or converted rapid transit lines, complementary Quality Bus routes, and potential options for a step change in Regional Centre rapid transit capacity.

### **Northern and Eastern**

The North East Growth Corridor – focussed on the Atom Valley developments – is a major new employment opportunity for the city-region, with the potential for over 20,000 new jobs as well as 7,000 new homes. The majority of the new jobs are anticipated to be at the Northern Gateway site, which is of a transformative scale in its own right. With the Kingsway and Stakehill sites also playing important roles, the corridor has the potential to significantly change the economic growth potential of the wider area. Our emerging priorities could connect areas across the Growth Corridor and provide connections to surrounding areas via sustainable public transport infrastructure.

#### **1. Bury – Heywood – Rochdale – Oldham**

TfGM is currently using funding allocated in the Department for Transport’s City Region Sustainable Transport Settlement (CRSTS) to develop an Outline Business Case for the introduction of a Tram-Train Pathfinder route connecting Bury, Heywood, Rochdale, and Oldham – plus the Metrolink ‘Next Generation Vehicles’ that would be needed to operate the service. The total route length of around 25km already has rails in use by Metrolink, National Rail and the East Lancashire Railway. All existing passenger and freight services must be considered in planning any new service. The scheme could make use of existing network infrastructure, link people to jobs across the key growth area of Atom Valley, and connect the major population centre of Heywood to the wider rail network at Castleton and Rochdale (this has not been the case since 1970). The route as a whole could be mainly segregated and provide a fast orbital journey – as an example, cutting public transport journey times between Rochdale and Bury in the peak from around 40 minutes to around 25 minutes. Lessons learned on Pathfinder will be crucial to developing viable business cases for tram-train schemes on a larger scale, which could unlock the future expansion of Greater Manchester’s rapid transit system.

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## **2. North Manchester to Middleton and Northern Gateway corridor**

There is a clear gap in the rapid transit system between the Metrolink Bury line and the National Rail Calder Valley line. In seeking to fill this gap, work to date has identified some challenges for Metrolink to Middleton, including navigating the physical features of any route and achieving a viable business case for investment. However, the significantly increased development coming forward as part of [Places for Everyone](#) (as well as potential alternative approaches such as bus-based rapid transit) means that proposals for Metrolink to Middleton continue to be examined as part of a broader study of the transport issues and opportunities in the corridor connecting North Manchester with Middleton, the Northern Gateway development and Heywood. This work is considering also the areas of Victoria North, North Manchester General Hospital and Harpurhey, Blackley and Langley, as well as considering integration with potential future bus services to Northern Gateway from Bury and Oldham. The role of the Calder Valley line is a further consideration at the edge of this corridor.

## **Eastern**

The principles-based prioritisation exercise supports the Eastern Growth Cluster which is proposed to create a significant new employment engine in Tameside by linking key development opportunities there, including investment in the town centres of Ashton-under-Lyne and Hyde, 2,000 new homes around Godley Green Garden Village, and key centres for education and skills.

## **3. East Manchester to Glossop, Hadfield and Marple corridor**

In addition to seeking improvements to the existing suburban rail service as part of bringing these lines into the Bee Network by 2028, the potential introduction of tram-train services on the existing lines to Glossop, Hadfield and Marple (including service options via Hyde) performs well against our prioritisation principles. With appropriate infrastructure investment, conversion to tram-train operation could have potential to raise service frequencies beyond those that could be achieved by suburban rail alone (through bypassing some of the intensively used sections, flat junctions, and central area capacity constraints described earlier in this draft strategy).

These potential services would make use of existing network infrastructure, be fast and frequent by running on mainly segregated alignments, and provide excellent access to and through the Regional Centre for customers. They could make good use of Metrolink services that currently terminate on the city fringe at Piccadilly. Previous study work has suggested that there could be a strong case for investment, but also that these services must be considered holistically – including consideration of improving the existing suburban rail service, the relationship with other rail services, and appropriate phasing and integration of infrastructure with wider transport and land use proposals in the Piccadilly area. That includes proposals for High Speed 2 and Northern Powerhouse Rail – on which, as set out earlier in this draft strategy, we will continue to work together with partners for the best outcome following the cancellation of High Speed 2 infrastructure to Manchester in 2023.

In the nearer term, the corridor to Glossop, Hadfield and Rose Hill Marple is one of the 8 priority corridors for integration into the Bee Network by 2028, as discussed earlier in this draft strategy.



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#### **4. Tameside to Stockport via Denton and Reddish**

Study work in the mid-2010s showed that tram-train services between Tameside and Stockport, on the line via Denton and Reddish, were likely to have a weak case for investment. More recent Restoring Your Railways study work has shown that the case for train services is also weak. Population density along this route has large gaps to the west at the Audenshaw Reservoirs and to the east at Reddish Vale. Despite this, the important strategic resource of the existing railway line via Denton and Reddish means that further assessment is still recommended as part of a potential wider network of services, so that this route is not precluded from playing its part in the future – for example by linking Tameside with other proposals between Stockport and the Airport.

### **Southern and Airport**

The principles-based prioritisation exercise supports, in addition to the potential for tram-train services on the line to Marple described above, other emerging rapid transit priorities for the Airport and Southern Growth Corridor. This corridor – with the potential for 22,000 new jobs – supports the realisation of Greater Manchester’s international potential, the growth of employment across the Manchester Airport area, and the continued redevelopment of Stockport town centre and Wythenshawe town centre. The cancellation of the northern sections of High Speed 2 means that Stockport’s role as the southern gateway into GM is more important than ever – and any rapid transit expansion needs to take into account the proposed redevelopment of Stockport railway station, which would help to secure this role. Whilst Altrincham town centre lies just outside the Airport and Southern Growth Corridor, its role as a growing business location and prosperous residential area mean that its connections to the Airport also need consideration as part of any rapid transit expansion. Overall, there has been a longstanding desire to achieve sustainable transport routes across the south of the city-region as a counterpart to the highways network. The emerging priorities in this section seek to address this.

#### **5. South Manchester to Stockport / Hazel Grove**

Metrolink to Stockport from East Didsbury has a long history of proposals, with an extension having been poised for a Transport and Works Act Order application in the early 2000s. In previous work it consistently showed a business case that was weaker than the other Metrolink Phase 3 extensions that ultimately progressed to construction and operation. However, there are now significant new opportunities to be re-considered, including development within Stockport town centre (with 4,000 new homes where public transport and active travel will be the first option) and wider economic opportunities across the Airport and Southern Growth Corridor. Stockport Council’s ‘Next Stop Stockport’ programme provides a vehicle to bring together partners in pursuit of the economic opportunities and to embed these benefits in the Metrolink business case. Work is in progress and will continue to establish the business case, including potential tram and tram-train options as part of a wider future network to link with services between Stockport and the Airport, between Stockport and Ashton via Denton and Reddish, and to Hazel Grove using the Adswold freight line.

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## **6. Stockport to Airport**

For a potential tram-train service between Stockport and the Airport, recent business case work shows promise for making greater use of the Mid Cheshire line via the new station at Cheadle. This service would depend on the prior completion of the Metrolink Airport line 'Western Leg' (described earlier in this draft strategy, and again below). There is also an opportunity to consider a joined up approach with rapid transit services from East Didsbury to Stockport and/or Hazel Grove – these schemes might share infrastructure or become combined services.

Note: To ensure that options are kept open, TfGM and Stockport Council are working with Network Rail on their replacement of the life-expired Greek Street and Stockholm Road bridges. In 2023, a Strategic Outline Business Case to use City Region Sustainable Transport Settlement (CRSTS) funding to safeguard space for potential future tram-train routes at these bridges was approved. Work continues with Network Rail to implement the required options at each of these bridges.

### **The wider Airport area as a second rapid transit hub**

In the longer term, the expected growth of employment and housing in and around Manchester Airport will bring the potential for the area to become a second rapid transit hub in Greater Manchester. Growth targets for the Airport – considering both air passengers and workers accessing jobs in the Airport area – should be achieved with a step change in non-car mode share. With a large catchment area for both air passengers and workers, rapid transit investment is expected to be needed to achieve this for middle distance trips. The following schemes need a holistic approach:

#### **7. Metrolink Airport line Western Leg**

Proposals for the completion of the 'Western Leg' of the full Metrolink Airport line have previously been supported by a business case, and some powers required for its construction and operation remain in place. Recent work has focussed on integration with the proposed Manchester Airport High Speed Station, and we secured the inclusion of proposed amendments to the High Speed Rail (Crewe - Manchester) Bill in the government's second Additional Provision, deposited in Parliament in July 2023. Greater Manchester's ambition remains a new Manchester Airport High Speed Station that accommodates Northern Powerhouse Rail and a multimodal interchange including with Metrolink, and we will work together with partners towards this.

The Western Leg could serve a number of key growth areas including Wythenshawe Hospital and Medipark, existing and proposed housing at Newall Green and Davenport Green, and the expanded Terminal 2 and Airport City – as well as offering additional services on the Airport line and a substantial reduction in journey times compared to the existing Eastern Leg via Wythenshawe Town Centre. Consideration should therefore be given to phasing of the Western Leg, with the potential for earlier phases to be brought forward whilst proposals for Manchester Airport High Speed Station are resolved. With Metrolink referred to in the mitigations for the [Places for Everyone](#) allocation at Davenport Green, there is also potential for this development to make proportionate land or financial contributions.



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### 8. Tram-train services to the north-west, west and south-west of the Airport

The Western Leg is envisaged as a core component of unlocking a network of future services to the Airport zone using tram-train technology. Potential services between the Airport and Stockport have already been described on the previous page. Study work has shown there could be a case for rapid transit services between the Airport and areas to its north-west, west and south-west, particularly for options that directly connect the Metrolink Altrincham line to the Airport via the existing Mid Cheshire line and the proposed Western Leg.

### 9. Busway corridors to the west and east of the Airport

Busway corridors to the west and east of the Airport could also provide more local connections. From Trafford to the west, this would be through the Davenport Green development to provide a more attractive alternative to the car for journeys between Altrincham and the Airport. From the east, this could enable enhancements to a range of bus routes connecting into Stockport and Cheshire East, including from Bramhall, Cheadle Hulme, Handforth, Hazel Grove, Heald Green, Poynton, Stanley Green, Woodford, and Wilmslow. However, the extent to which these corridors could truly achieve bus rapid transit conditions with segregation from general traffic remains an open question. These bus-based options will also need to be considered against rail-based proposals which could provide alternative forms rapid transit to the Airport.

## **Western and Central**

This section of the principles-based prioritisation exercise supports two key growth locations, the Western Gateway – which could create 25,000 new jobs, capitalising on the unrivalled port connectivity and planned new significant employment, retail and leisure developments – and the western side of the Central Growth Cluster including the Salford Quays and Salford Crescent area.

### 10. Trafford Park line

A short extension of the existing Metrolink Trafford Park line could effectively serve the major developments at Trafford Waters, Salford Stadium and Port Salford, and could provide a frequent and relatively fast service running to and through the Regional Centre on a mainly segregated alignment. Those factors mean that this proposal performs reasonably well against our prioritisation principles. Whilst previous business case work has not yet identified a strong enough case for investment, proactive reservation of space for potential routes has taken place – and further assessment of the options and business case for this scheme is recommended.

### 11. Warrington (CLC) line

Introduction of tram-train services on the National Rail route to Warrington (CLC line) performs strongly in the principles-based prioritisation exercise. This corridor has large existing and planned population catchments (Urmston, Irlam, Cadishead, Partington and New Carrington) that are

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currently not well-served by rapid transit. However, this route does not have the same advantage that the Glossop, Hadfield and Marple routes enjoy – of potentially being able to extend existing Metrolink services that currently terminate on the city fringe to become tram-train services.

Instead, introducing tram-train services on the Warrington (CLC) line would require additional city centre Metrolink capacity to accommodate any new services. Given the great difficulties of providing this via the on-street Metrolink network, this line also needs to be considered as a candidate for the use of underground technology – either by routeing its services via tunnel as part of a potential step change in Regional Centre rapid transit capacity (see overleaf) or taking advantage of surface capacity freed up by other routes being routed via tunnel.

Whilst previous work has not to date identified a viable business case for re-use of the former railway between Cadishead, Partington, New Carrington and Timperley, further assessment of a short spur stemming from the Warrington (CLC) line is still recommended when the broader options for that line are considered. In addition to the existing communities at Cadishead and Partington, the New Carrington development anticipates approximately 5,000 homes in total and 350,000 sqm of employment floorspace for industry and warehousing.

### **12. Salford Quays to Salford Crescent**

A short Metrolink extension of less than 1.5km of new construction could connect The Quays and MediaCityUK with the National Rail network at Salford Crescent. The most obvious benefits would be to customers on the rail lines going north-west from Salford Crescent via Bolton and Wigan. However, many cross-city train services also call at Salford Crescent – trains from Rochdale, Ashton, Stalybridge and the Airport call there today, and others could do in future. This short extension could make use of existing network infrastructure, link to jobs in key growth areas, provide a frequent and fast service running mainly on a segregated alignment, and integrate with existing and new inter-city rail services – it therefore performs very well against our prioritisation principles. With customers potentially enjoying a single interchange at Salford Crescent to access The Quays and MediaCityUK, rather than lengthier and slower trips via the city centre, its benefits could be more widespread than they first appear – and it could assist with relieving the congested central area of the rapid transit system. Our Five Year Delivery Plan 2021-26 sets out the aim to complete a business case for early delivery of a Quality Bus route in this area. These two schemes could follow different routes and complement each other, as demand for public transport in this area increases.

### **13. Further connections between Salford Crescent, Inner Salford, and Manchester city centre**

Building on the immediately above, in the longer term there is potential for the introduction of further new Metrolink connections between Salford Crescent, Inner Salford, and Manchester city centre. Whilst there could be some duplication with bus services on the A6, including busway services, transformative proposals for the A6 are proposed as part of local development frameworks at Salford University that bring opportunity for further expansion of the rapid transit system. Considerations include the role that a shorter Metrolink spur from St. Peter's Square to Spinningfields or Salford Central could play, and interfaces with the Atherton line (see overleaf).



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## Wigan and Bolton

The Wigan-Bolton Growth Corridor anticipates the creation of 12,000 new quality homes, employment growth, and health innovation opportunities.

### **14. Leigh, and Wigan via Atherton considering spurs to Bolton and/or Leigh**

The Leigh–Salford–Manchester Busway has proved highly successful since it first opened in 2016, as set out earlier in this draft strategy. With 3 million trips in the year 2019/20 prior to the pandemic and over 2.6 million trips in 2023/24, patronage continues to recover and grow. In the nearer term, the potential of the busway should be fully exploited now that it is part of the Bee Network – including consideration of services (routes, frequencies and stopping patterns) as part of the structured, transparent, area-based ‘Network Reviews’ that are set out in the [GM Bus Strategy](#).

In addition to continuing to ensure the busway is delivering maximum benefits for Leigh and surrounding area, it is intended to consider if there is a case for Leigh as a Metrolink terminus. This work will include assessment of the potential economic and regeneration opportunity for the area along the route, in addition to gaining an understanding of the technical implications of converting any sections of the busway to Metrolink operation.

Further to this, introduction of tram-train services on the National Rail route to Wigan via Atherton performs strongly in the principles-based prioritisation exercise. This corridor has large population catchments that are currently not well-served by rapid transit. However, like the Warrington (CLC) line, it does not have the same advantage that the Glossop, Hadfield and Marple routes enjoy – of potentially being able to extend existing Metrolink services that currently terminate on the city fringe to become tram-train services.

Instead, introducing tram-train services on the Wigan via Atherton line would require additional city centre Metrolink capacity to accommodate any new services. Given the great difficulties of providing this via the on-street Metrolink network, this line also needs to be considered as a candidate for the use of underground technology – either by routeing its services via tunnel as part of a potential step change in Regional Centre rapid transit capacity (see below) or taking advantage of surface capacity freed up by other routes being routed via tunnel.

When options for tram-train or metro services on the Atherton line are examined, consideration is to be given to spurs toward Bolton and Leigh. Whilst previous work has not to date identified a viable business case for these spurs, the new opportunities brought by the Wigan-Bolton Growth Corridor merit revisiting this.

In the nearer term, the Atherton line is one of the 8 priority corridors for integration into the Bee Network by 2028, as discussed earlier in this draft strategy.

Complementing this work, options for extending Merseyrail services from Headbolt Lane into the bay platform at Wigan Wallgate could also be investigated in partnership with the Liverpool City Region.

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## Central and pan-GM

The **Central Growth Cluster** is expected to create over 90,000 new jobs, and rapid transit would need to play a significant role in supporting this growth potential. Meeting our ambitious 'Right Mix' vision will require a step change in capacity at the centre of our rapid transit system – facilitating growth in movements both to and through the heart of the Regional Centre. Early-stage work has explored a range of potential tunnelled options to deliver this step change.

### 15. A step change in Regional Centre rapid transit capacity

Emerging findings suggest that the strongest options for capacity and connectivity would be:

- The **north-west to south-east axis** – connecting the Bolton and Wigan (via Atherton) rail lines with the Airport and Stockport rail lines. This could deliver high-frequency, high-capacity services using a longer distance 'Regional Metro' approach similar to the Paris RER, the Munich S-Bahn and London's Elizabeth line. Given the longer distance nature of some of the services on the Bolton, Wigan, Airport and Stockport lines, this could also be seen as similar to Thameslink. It would be expected to release vital capacity on the Castlefield Corridor which acts as a considerable constraint to connections and reliability today.
- The **south-west to north-east axis** – our emerging findings show that even if longer, walkthrough trams were implemented across the Metrolink network as part of a roll-out of Next Generation Vehicles, capacity could still be on the limit or exceeded in 2040. Connecting Metrolink lines (particularly those that have no on-street running i.e. Altrincham, East Didsbury and Bury) using a tunnel could allow even longer vehicles and higher frequencies on these lines, and free up capacity on the remaining Metrolink lines to run higher frequencies and new services. This axis also has potential for wider National Rail connections including the routes to Warrington (CLC) and Rochdale (Calder Valley).

With a view to longer term evolution of a tunnelled system across the Regional Centre, implementation of the options described above would still leave a north-south gap in the rapid transit system. Future work on options development is expected to consider a 'Local Metro' solution – alongside consideration of other non-tunnelled options – for this gap.

## Mapping the emerging priorities

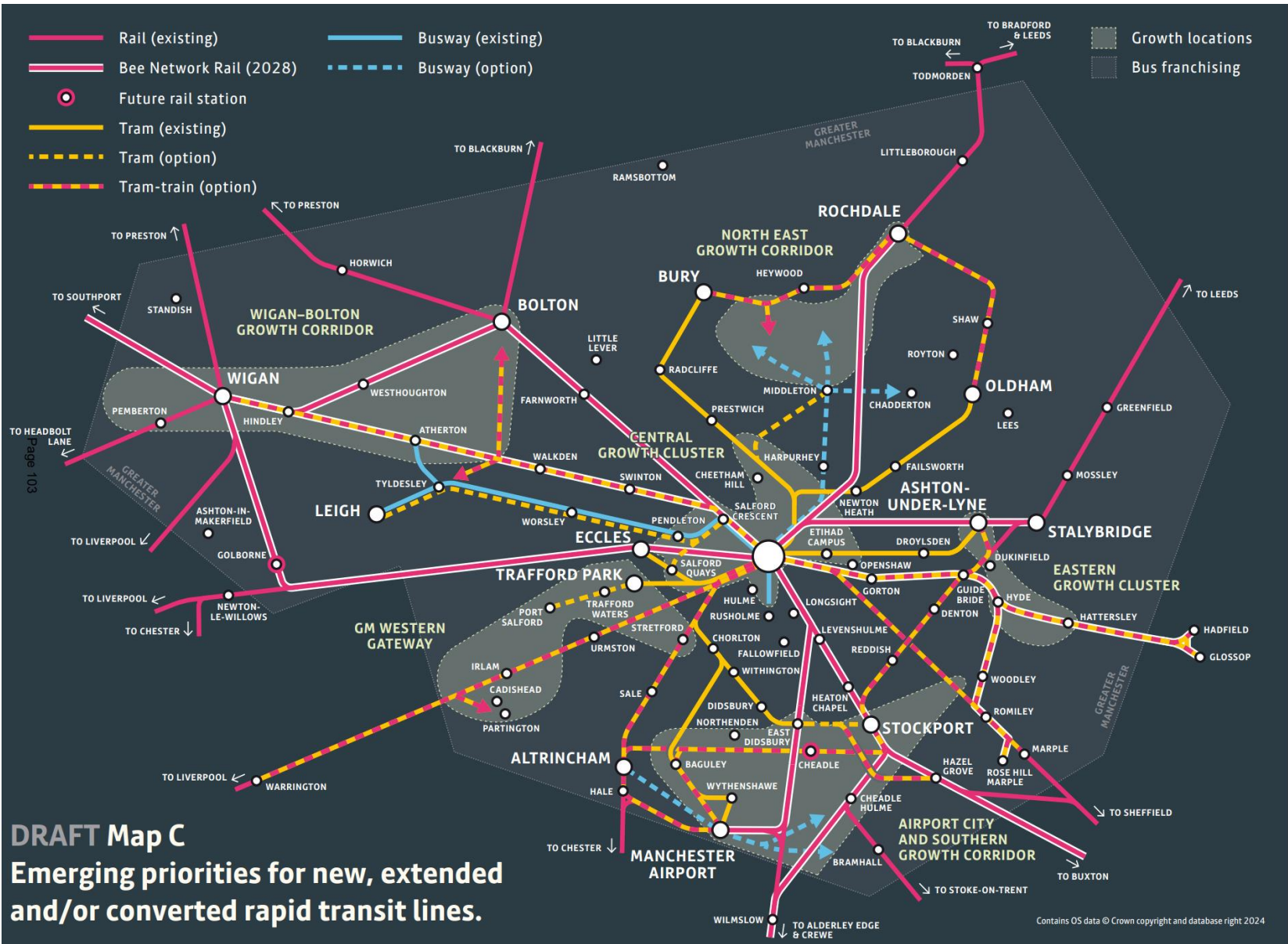
The emerging priorities for rapid transit system expansion following the principles-based prioritisation set out above are summarised overleaf in draft map form:

- **Draft Map A:** The rapid transit system as it exists today.
- **Draft Map B:** Bee Network rail integration – 8 priority corridors by 2028.
- **Draft Map C:** c.15 emerging priorities for new, extended and/or converted rapid transit lines.
- **Draft Map D:** Complementary Quality Bus routes (selected corridors in relation to rapid transit).
- **Draft Map E:** Emerging options for a step change in Regional Centre rapid transit capacity.









**DRAFT Map C**  
**Emerging priorities for new, extended and/or converted rapid transit lines.**

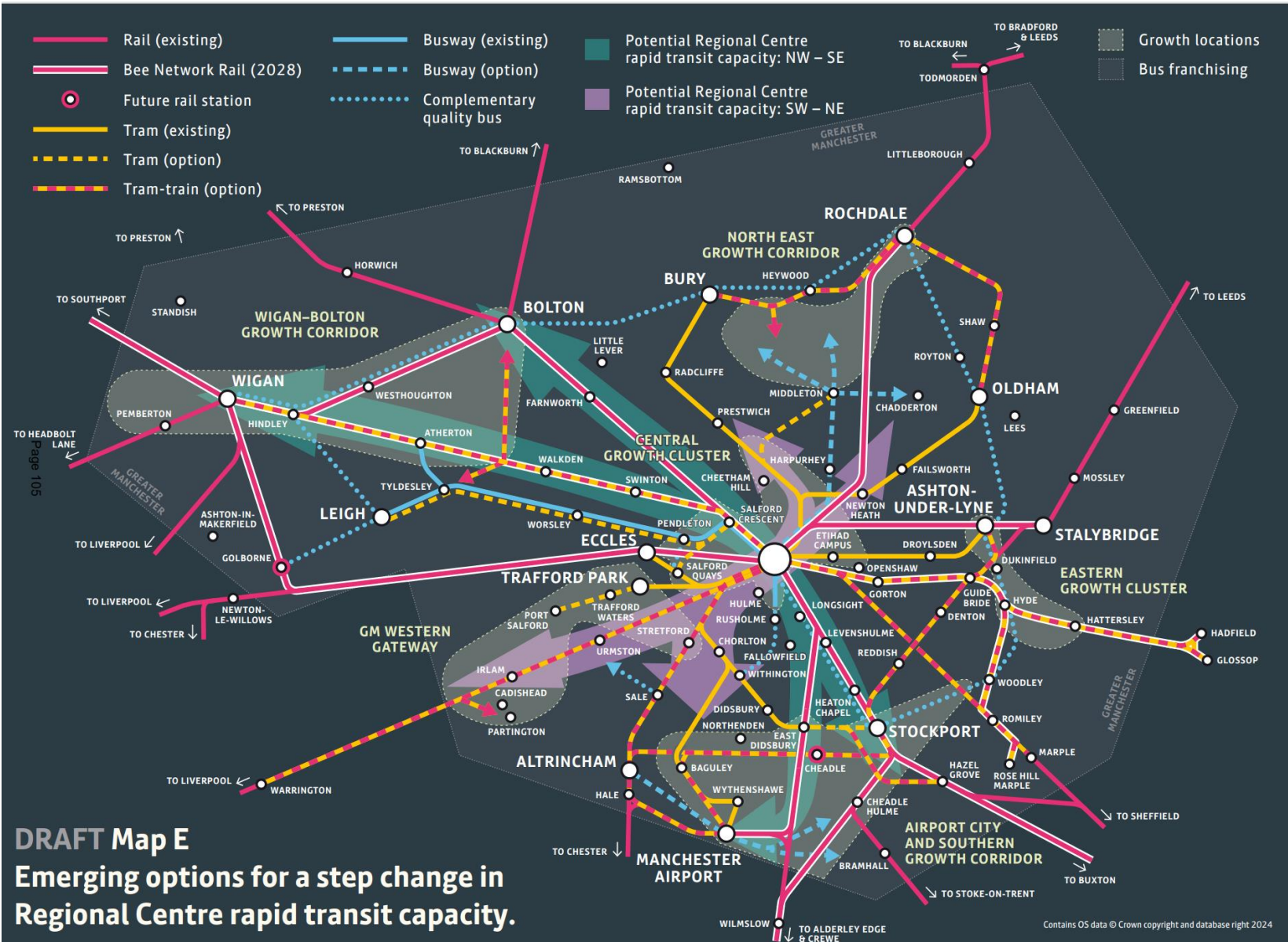
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Page 103









**DRAFT Map E**  
**Emerging options for a step change in**  
**Regional Centre rapid transit capacity.**

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## Looking ahead – where we go next



Whilst this draft strategy has set out the ways in which we intend to act and gives clear examples, its fullest ambitions would require significant funding to be delivered – along with statutory powers for some of the items such as new, extended and/or converted rapid transit lines.

It is anticipated that a number of delivery plans – for example, concerning the full integration of rail into the Bee Network – will come forward over time to support implementation of the draft strategy.

The main next steps for the draft strategy itself are:

- **Wider engagement** on the contents of this draft strategy alongside our Local Transport Plan refresh (which starts with refreshing the GM Transport Strategy 2040 and is followed by the creation of the next Five Year Delivery Plan covering the years 2027-2032). A key next step is therefore commencement of targeted engagement sessions through 2024 to hear a wide range of opinions on what our future rapid transit network should look like and help shape the final contents of the strategy. These sessions will be planned:
  - with groups of people who could be affected in different ways by the contents of the draft strategy (for example, the Disability Design Reference Group);
  - with business (for example, the Business Transport Advisory Council);
  - with government (for example, the Department for Transport).



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This engagement process will continue as our plans evolve in support of the strategy, including consideration of place-based and community approaches to engagement.

- Further work on **future funding** arrangements, including as part of the Single Settlement and for the anticipated City Region Sustainable Transport Settlement 2 (CRSTS2) period 2027/28 to 2031/32 – with an indicative overall CRSTS2 allocation of £2.5 billion for GM, subject to further engagement and agreement with central government. This work, which will need to consider better use of existing funding and new forms of funding, will run alongside further work on prioritisation of new, extended and/or converted rapid transit lines, which are some of the largest potential schemes in this draft strategy.
- Continued development and delivery of our **existing commitments** including those in the City Region Sustainable Transport Settlement 1 (CRSTS1) Delivery Plan 2022/23 to 2026/27 that will **sustain** and **grow** our rapid transit system, and are a foundation for future success.
- Continuing work on **transforming** our rapid transit system:
  - Working with the rail industry to fully integrate rail into the Bee Network, with 8 priority corridors to be integrated by 2028 and interim milestones of the contactless ticketing pilot by 2025 (Stalybridge to Victoria and Glossop to Piccadilly) and co-branding by 2027. A key next step is agreeing our long-term partnership with the rail industry to embed local accountability for our rail network.
  - Development of the Metrolink Next Generation Vehicles and Tram-Train Pathfinder through their Outline Business Case stage. These will be crucial to addressing capacity challenges and developing viable business cases for tram-train schemes on a larger scale respectively – unlocking future expansion of GM's rapid transit system.
  - Further detailed prioritisation during 2024 of the c.15 emerging priorities for new, extended and/or converted rapid transit lines, to sequence a potential future expansion programme – this is alongside ongoing business case development, working with local authorities to space-save for potential future routes in Local Plans, and planning for central area capacity and network optimisation.