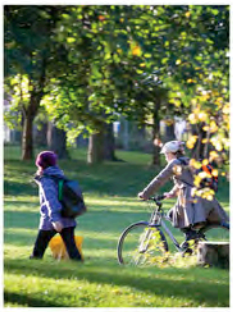
Transport for Greater Manchester

GMCA
GREATER MANCHESTER COMBINED AUTHORITY

Greater Manchester Local Transport Plan 3:
Progress Report 2014

August 2014









www.tfgm.com/ltp3

Greater Manchester Local Transport Plan 3: Progress Report, 2014

1. Introduction

Greater Manchester's Third Local Transport Plan was published in April 2011. The years since then have seen significant changes in the way transport is managed in Greater Manchester, and in the scale and type of improvements being made to the network. This report summarises our progress in delivering improvements to meet the objectives and priorities set out in LTP3.

The establishment of the Greater Manchester Combined Authority (GMCA) in 2011 led to the creation of Transport for Greater Manchester (TfGM). TfGM was given responsibility for some conurbation-wide highway functions, such as traffic lights, strategic traffic management and co-ordination of active travel and smarter choices activity, as well as all the former public transport GMPTE functions. Through the adoption of the Greater Manchester Strategy (GMS), GMCA has established a single set of priorities aimed at increasing economic growth and spreading the benefits of that growth to all parts of the area. In terms of transport, this has led to increased levels of collaboration to agree and fund priority schemes that support GMS objectives.

In terms of funding, the creation of the £1.5 billion GM Transport Fund has enabled us to begin to deliver some of our most important major transport schemes. At the same time, the Government has made significant funding for small schemes, often with a particular focus on cycling, available through funding competitions. Success in these competitions has enabled us to greatly increase our focus on cycling and smarter choices.

This report has been complied just over half way through the five years of LTP3, enabling us to review progress as we begin work on LTP4.

2. Investment Summary

Capital Funding

Funding for transport capital schemes in the period since 2011 has come from the following sources:

- Major Schemes (DfT)
- GM Transport Fund
- Local Transport Capital Block Funding (DfT)
    - Integrated Transport Block (Minor Works)
    - Highway Maintenance
- Competitive Funding Bids
- Other Capital (Local Authority/Developer).

Major Schemes

Funding for the £11.5million Rochdale Transport Interchange project was approved by DfT in 2011. Since then major schemes have been funded through the GM Transport Fund (see below).

GM Transport Fund

At its meeting on 12 May 2009, the Association of Greater Manchester Authorities (AGMA) Executive agreed to establish a Greater Manchester Transport Fund (GMTF). This incorporated prioritised schemes based on delivering the maximum economic benefit (GVA) to Greater Manchester, consistent with positive package level social and environmental outcomes. The GMTF programme is funded from a combination of grants from the Department for Transport; a 'top slice' from the Greater Manchester Integrated Transport Block (ITB) LTP funding over a period of 9 years from 2010/11; and from a combination of borrowings, to be undertaken by GMCA, and partly from local/third party contributions and local resources (including LTP and prudential borrowings).

The following schemes have either been completed or are under construction:

- Metrolink to East Didsbury (completed)
- Metrolink to Oldham and Rochdale (completed)
- Metrolink to Ashton-under-Lyne (completed)
- Metrolink to Manchester Airport (under construction)
- Metrolink 2nd City Crossing (under construction)
- Leigh-Salford-Manchester Busway (under construction)

- Cross-city Bus Package (under construction)
- Park and Ride at Horwich Parkway, Cheadle Hulme, Guide Bridge, Rochdale, Derker, East Didsbury and Hollinwood (completed)
- Park and Ride at Radcliffe and Whitefield (under construction)
- Ashton Northern Bypass (completed).

Integrated Transport Block

As described above, the GMTF included a 'topslice' from the Integrated Transport Block Funding for small schemes. Subsequent cuts to funding at the national level reduced Greater Manchester's ITB allocation to a point where there was only sufficient to fund the topslice. This meant that there was little ITB available for small schemes in the early years of LTP3. However success in competitive funding bids is enabling the delivery of a range of small schemes from 2012-2015.

Maintenance

The Highways Capital Maintenance settlement for Greater Manchester was £27.434m in 2011/12 and £26.153m in 2012/13.

Competitive Funding Bids

Greater Manchester has been successful with a number of funding bids since 2011, bringing in significant investment. In most cases the bid schemes are for delivery by the end of March 2015. The successful bids are summarised below.

Funding Bid	Date	Value (£m)	Scope
Local Sustainable Transport Fund (LSTF) – Key Component	2011	4.94	Commuter Cycling Project (town centre Cycle Hubs and adult cycle training/cycle maintenance classes).
Local Sustainable Transport Fund (LSTF) – Large Project 'Lets Get to Work'	2012	32.5	Package of schemes to improve sustainable access to work and reduce congestion. The four components were active travel, Community Transport, smart technology and travel choices.
Better Bus Area Fund	2012	5.0	Package of schemes to enhance local bus services and facilities.
Green Bus Fund	2011/ 2013	1.85	Purchase of new low emission vehicles.
Clean Bus Technology	2013	0.68	Pollution control equipment for Yellow School

Fund			Buses.
Cycle Safety Fund	2013	2.12	Safety improvements at local accident hotspots and key junctions.
Pinch Points	2013/ 2014	13.27	Relieve 'pinch points' which cause congestion or inhibit the development of a site.
Cycle City Ambition Grant 'Vélocity'	2013	20.0	Network of strategic cycle routes within the M60 ring, 'Cycle and Ride' stations/stops and cycle promotion.
Department of Health funding - 'Get Active in Greater Manchester'	2013	0.25	Encourage people with low levels of physical activity to walk regularly.
Congestion Performance Fund	2011	0.47	Identification of best traffic management interventions on the most congested routes to the Greater Manchester key economic centres.
Plugged in Places	2011	1.7	Electric Vehicle Charging Points.

Other Capital Funding

District Councils have also provided funding for specific schemes through developer contributions or their own resources.

Revenue Funding

Through the Council Tax levy, DfT grants and other monies, spending on the transport functions provided by TfGM has been as follows.

Expenditure Type	2011/12	2012/13
Concessionary fares – all modes	£66.4m	£67m
Supported bus services	£31.2m	£34.6m
Accessible Transport	£6.1m	£5.7m
Passenger Services and Facilities	£38.5m	£39.7m
Grant Funded Costs	£82m	£2.2m
Rail Support		£62.5m
Financing		£70.6m
New Responsibilities	£1.4m	

3. Meeting Our Objectives

This section summarises the progress against each of the LTP3 objectives and provides case study examples of some of the most important schemes we have delivered to date.

Objective 1: Economy

'To ensure that the transport network supports the Greater Manchester economy to improve the life chances of residents and the success of business'

LTP3 Priority	Key Schemes Delivered	Key Schemes in Progress
Major transport schemes to create maximum economic benefit	Metrolink extended to: Ashton, East Didsbury, Rochdale Rochdale Interchange Park and ride sites Rail station improvements	Metrolink extensions to Manchester Airport, Second City Crossing(2CC) Cross-city Bus Package Leigh-Salford-Manchester Busway Altrincham and Bolton Interchanges Park and Ride sites
Access to key education and employment areas	Cycle access to Salford Quays (LSTF) Improved bus access to Trafford Park/Salford Quays (Better Bus Area Fund) Continued support for network of non-commercial bus services	Local Sustainable Access Projects, funded through LSTF Continued support for network of non-commercial bus services
Access for freight		Freight study in progress
Surface access to Manchester Airport	Improved bus links from Wythenshawe (LSTF)	Metrolink extension to Airport A6 to Airport Relief Road (scheme development)
Efficiency, reliability and capacity of rail and road networks.	Saddle Junction improvement, Wigan GMRAPS	LSTF Smart Travel Strategic Network Management Pinch Point schemes Rail Electrification (Network Rail scheme)

The Greater Manchester Strategy (GMS) is focussed on increasing economic growth and spreading the benefits of that growth throughout the conurbation. Therefore a priority for the LTP is to deliver a programme of major schemes, funded through the GM Transport Fund, that would best contribute to economic growth whilst also contributing to environmental and

social benefits. The early focus of that programme has been on the expansion of the Metrolink network.

A further scheme to be completed has been the new Rochdale Interchange. By relocating the existing bus station, this has allowed integration with Metrolink, provided a higher quality facility and will facilitate wider town centre re-development proposals.

FEATURE SCHEME 1: METROLINK EXPANSION

Background

Metrolink opened in 1992 connecting Manchester city centre with Bury to the north and Altrincham to the south of the city. In 2000 it was further extended to Eccles in Salford, to comprise 30km of tramway and 36 stops with 32 trams and a spur to MediaCityUK opened in 2010.

Scheme Description

Since 2011 Good progress has been made on expanding the Metrolink network, to connect more communities with job opportunities, in Manchester City Centre, town centres and major employment areas.

Extensions have been completed to:

Ashton-under-Lyne, linking densely populated residential areas with the town centre and the Ashton Moss employment area and improving access to the Etihad Campus, which is developing into a leisure development of national significance;

Oldham and Rochdale, providing improved public transport to communities along the route with direct access into the two town centres, and improved links to employment sites such as Hollinwood, Kingsway Business Park and Central Park; and

East Didsbury, providing fast and efficient public transport to a heavily residential corridor, encouraging modal shift from car to tram to ease congestion.

The new lines include new park and ride facilities at East Didsbury (302 spaces), Ashton Moss (200), Ashton West (200), Hollinwood (195), Derker (254) and at Rochdale station (217).

The new M5000s light rail vehicles, which have replaced the original T68 fleet, are up to four times less likely to develop a disruptive fault than the old T68s. As they are ten tonnes lighter, they will also reduce energy costs and prolong the life of the existing rails by several years. The new trams mean that passengers will experience quieter, smoother journeys, less crowding at peak times (due to the internal layout) and a more reliable service..

The network is now controlled from the new Trafford Depot, which provides the capacity to operate and maintain the trams required for the full extended network.

Work is also well underway on the extension to Manchester Airport, via Wythenshawe, significantly enhancing access to the airport, one of the north west's largest employers, and supporting developments such as Airport City. A start has also been made on a second Metrolink line across Manchester City Centre, which is crucial to delivering the full programme of Metrolink extensions. It will increase the operational capacity through the city centre to run more services and improve the reliability of services. It will also enhance the penetration of Metrolink into the heart of the city.

Scheme Cost

Schemes referred to are part of a wider package of works.

Outcomes

The network as a whole now comprises 77 stops on 77 kms (48 miles of track), providing an alternative to the car on key corridors. Over 1,600 new park and ride spaces have been provided. Reliability has been improved and energy consumption reduced. Access has been improved to a number of key employment areas.

Work is underway on two key bus priority schemes. The Leigh-Salford-Manchester Busway combines an off highway guided section (Leigh – Ellenbrook) with on highway bus priority measures along the A580 to the M60 at Boothstown and further on highway measures linking Wigan to the guided section of the busway at Tyldesley. This scheme links with the Cross-city Bus Package, which involves bus priority measures along four separate corridors:

- the A580 East Lancashire Road in Salford
- the A664 Rochdale Road in Manchester and Rochdale
- the Oxford Road Corridor in Manchester
- the Regional Centre, in Manchester.

This will link areas of social deprivation to the North and West of Manchester with key areas of employment, education and healthcare opportunities within the city centre, along the Oxford Road Corridor and also in the Chapel Street area of Salford.

Also under construction are two major new interchanges. At Altrincham, improvements at the existing facility include the construction of a new bus interchange, improvements to the rail / light rail passenger environment and the provision of a cycle centre. At Bolton, the project involves the relocation of the existing bus station from Moor Lane to a new site adjacent to Bolton Rail Station and incorporates a direct, wholly enclosed, pedestrian footbridge between the two facilities. Both schemes are part of wider town centre regeneration plans.

Network Rail has begun a major programme to electrify 300 kms of route between Manchester, Liverpool, Preston, Blackpool and Leeds, with the Manchester-Liverpool line due for completion at the end of 2014. A significant upgrade of Manchester Victoria station, allowing more trains to pass through or terminate, is also underway.

Improvements have also been made to local stations through the National Stations Improvement Programme (NSIP) which, along with local contributions aims to improve the environment at stations for the benefit of passengers. Improvements have been made at Blackrod, Wigan North Western and Wigan Wallgate, Eccles and Guide Bridge.

Linking communities to employment and education is an important element of our strategy. We have continued to provide support for non-commercial bus services and some school services, to provide important links. However successful funding bids have provided an additional opportunity to improve access in a number of areas, not only by bus but by making it easier to walk and cycle. The Local Sustainable Transport Fund will see more than 60km of new walk/cycle routes and over 30 junction improvements being delivered by March 2015. These will improve access to locations such as Bolton, Bury, Leigh and Stockport town centres, employment areas including Trafford Park, Salford Quays, Tame Valley, Agecroft and Chadderton, and rail and Metrolink stations and stops in Oldham, Rochdale, Tameside and Stockport. An example of one of these schemes, Cycle access to Salford Quays is shown below.

The Better Bus Area Fund is also funding access improvements such as an improved bus link to Trafford Park and Salford Quays from Urmston, Flixton and Davyhulme and improved service frequency to Stockport College

FEATURE SCHEME 2: CYCLE ACCESS TO SALFORD QUAYS & MEDIACITYUK

Background

Since its redevelopment in the mid-1980s Salford Quays has grown to become a major employment destination, with over 25,000 jobs by 2009 in financial, service, media and leisure industries. The MediaCityUK development houses both the BBC (2,500 jobs) and part of the University of Salford (1,500 staff and students). Further development at MediaCityUK is expected to bring an additional 15,500 jobs by 2030.

In addition Salford Quays has over 1,500 residents and the tourist and leisure attractions, such as the Lowry Theatre and Outlet Mall, bring in 5 million visitors per annum.

Salford Quays is situated in the south east of the city on the bank of the Manchester Ship Canal. Limited crossing points over the canal and major roads to the north and east (M602 and Trafford Road) can make access difficult. While Metrolink provides good access from the city centre, links from neighbouring residential areas, such as Weaste, Langworthy, Ordsall and Pendleton, are limited.

The scheme

The cycle routes to Salford Quays package consists of five routes, being delivered in 3 phases.

Phase 1 – Broadway. A 1.4km shared use pedestrian and cycle route along Broadway, between South Langworthy Road and Pacific Way was completed in March 2013. The route provides traffic free access at the rear of MediaCityUK and completes a missing link in the route from Eccles, which is now continuous. The scheme consisted of the conversion of an existing grass

verge alongside Broadway to provide a wide shared use path, and the implementation of route and directional signage.

Phase 2 – Phase 2University to Quays Link. Around 2,000 students and staff are `based at the University of Salford's new satellite campus at MediaCityUK, approximately 2km away from the main campus. The new link connects the two campuses and also improves the connections between Salford Crescent Rail Station and Salford Quays / MediaCityUK. It links with the Phase 1 route at South Langworthy Road. The cycle route provides a combination of on highway cycle lanes, signed quiet routes and shared use pedestrian and cycle facilities, with priority for cyclists at side road crossings and destination/route signage.

Phase 3 – Residential Links. The final phase, for completion in the summer of 2014, will improve connections between the residential areas of Ordsall, Weaste and Langworthy and the employment opportunities available at Salford Quays and the Regional Centre. Cycle facilities including on highway cycle lanes, crossing points and signage will be provided on the routes along Regent Road, Weaste Lane and Langworthy Road. Regent Road is a very heavily trafficked road, which is unpopular with cyclists and a shared use route on the footway will provide a direct link to Salford Quays from the east. The routes will connect to the existing National Cycle Network (NCN) route 55 along Eccles New Road and the recently completed route along Broadway.

Costs / Funding

£725,000 (£507,000 of LSTF funding, and £218,000 from Salford City Council's transport capital programme).

Benefits / Outcomes

The 12km of new cycling facilities will provide accessible routes for low cost modes of travel, from neighbourhoods with low car ownership and high levels of unemployment to the job opportunities at Salford Quays and the Regional Centre.

Four additional or improved Local Link services have also been provided through LSTF, designed to provide access for early/late shifts or 24/7 operations not covered by conventional bus services. These have improved links to Manchester Airport, Kingsway Business Park, Trafford Park and locations in the Hattersley area.

The efficiency of the highway network is essential for the local economy, both for the movement of goods and for trips which cannot easily be made by other modes. We have analysed the performance of the Key Route Network (KRN), which consists of the major road links to and between the key economic centres in Greater Manchester. The KRN also includes the primary bus network routes and links to the motorway network. The work undertaken has enabled us to identify the best interventions that would safely minimise delays to all road users on the most congested routes.

To help tackle the problem of disruption caused by roadworks we have introduced the Greater Manchester Road Activities Permit Scheme (GMRAPS) - the first joint Permitting regime for all

road works in England. People or organisations wishing to carry out road works/street works must have a permit, which covers a set time period. This provides an incentive to complete the works on time. The GMroadworks.org website uses data from GMRAPS to provide information to the public regarding road works.

Technology has an important role to play in traffic management and work is underway to deliver a new active travel management system to speed up bus journeys and better manage travel flow across Greater Manchester. This involves “real-time” monitoring of the status of traffic conditions on key routes of the highway network, enabling interventions such as changing signal timings and advising of congested conditions. It also provides real time information for Variable Message Signs (VMS) and journey planning, enabling people to change routes or travel modes if disruption occurs. The installation of 35 Automatic Traffic Counters (ATC) on the Key Route Network and 2 Weigh in Motion (WiM) devices (which check the weight of lorries), at key locations in Trafford Park and Cadishead, has already been completed and the fitting of Bluetooth passive sensors that will be used to monitor journey times is underway.

While increasing highway capacity can be self-defeating, because it encourages more traffic, there are some circumstances where highway improvements or new roads are essential to support new development or to bypass sensitive areas. An example of the former, Saddle Junction, is shown below.

The SEMMMS A6 to Manchester Airport Relief Road is part of a package of measures, originally proposed as part of the South East Manchester Multi-modal Study (SEMMMS), which offers significant congestion relief benefits to the south of the conurbation and around the Airport and the Airport City Local Enterprise Zone (LEZ). This scheme is currently going through the planning process.

FEATURE SCHEME 3: SADDLE JUNCTION

Background

The Saddle Junction forms the main node for all traffic travelling to and from the west of the town centre and is the convergence point of three Principal roads: Ormskirk Road (A577), Victoria Street (A571), and Warrington Road (A49). Additionally, Scot Lane/Robin Park Road feeds into the western side of the junction, supplying traffic from the areas to the northwest including the Robin Park Retail Park and DW Stadium.

The Wigan South Central Masterplan, funded and endorsed by NWDA, identified a programme of highways and traffic related interventions and associated development activity critical in realising major development opportunities in this area of Wigan over a 10 to 15 year period.

The Saddle junction at its narrowest point was constrained by having only a single lane in each direction, due to the road having to pass under the arch of a railway viaduct. This caused long vehicle queues with traffic backing up the full length of Pottery Road, Caroline Street and Chapel Lane during the evening peak period with journey times of more than 30 minutes (for little over one kilometre) not uncommon. The narrow footways and traffic lanes also provided poor pedestrian facilities and a hazard for cyclists.

Scheme description

Saddle Link Road (Southgate) / Saddle Junction Gyratory

The scheme involved diverting the westbound traffic away from Pottery Road and the single lane approach to Saddle Junction onto a new section of road (Southgate). This now passes through the former bus depot site and under the existing viaduct, giving the westbound approach two new lanes and allowing the existing stretch of Wallgate that passes under the viaduct to become two lanes in the eastbound direction. A new shared cycle/pedestrian riverbank route on the south side of Southgate together with on street and off-street cycle facilities and combined pedestrian / cycle crossings around the periphery and through the Saddle junction itself were constructed.

Western Approaches to the Saddle Gyratory

The Warrington Road / Victoria Street junctions were realigned so that the eastbound traffic now merges at the same location reducing delays significantly. Westbound traffic wishing to pass from Warrington Road into Victoria Street is now accommodated without its own traffic signal phase, further reducing waiting times. New cycle facilities through the junction were also constructed.

Total scheme costs

£7.6M, funded from LTP Integrated Transport Block, LTP Transport Infrastructure Fund (TIF), Council Revenue, Section 106 contributions, Heritage Lottery, and Working Neighbourhoods Fund.

Outputs / Outcomes

Since officially opening in early 2013 the scheme has facilitated a significant increase in capacity and much needed improved accessibility, potentially instigating the economic regeneration of the whole area.

Objective 2: Carbon/Climate Change

'To ensure that carbon emissions from transport are reduced in line with UK Government targets in order to minimise the impact of climate change'

LTP3 Priority	Key Schemes Delivered	Key Schemes in Progress
Integrated spatial and transport planning	Principles included in 5 approved Core Strategies/ Local Plans	Principles included in 5 draft Core Strategies/ Local Plans
Integrated smarter travel choices programmes	Travel Choices Programme Smart Travel Information Smart Ticketing	
Delivery of lower carbon travel options	3 Metrolink Extensions Electric Vehicle charging points Cycle measures (see Objective 3)	Rail electrification (Network Rail)
Improved environmental performance of transport fleets and infrastructure	Green Buses Horwich Parkway Wind Turbine Rochdale Interchange Archimedean Screw	Traffic Signals Upgrade
Effective management of travel demand		Broadband
Best practice procurement to minimise the carbon	New Metrolink vehicles	
Improved resilience of the transport system to climate change	Winter maintenance	

Smarter travel choices

The major achievement in this area has been the establishment of an integrated Travel Choices programme for Greater Manchester, aimed primarily at embedding sustainable travel within

businesses, commuters and jobseekers. The Travel Choices Access to Employment programme is now well-established (see below), while a 10,000 household pilot of Personal Journey Planning began in Audenshaw, Droylsden and Didsbury in January 2014. These neighbourhoods were selected due to the existing range of sustainable transport choices available, recent improvements to the sustainable transport offer, the high levels of car ownership and commuting patterns.

FEATURE SCHEME 4: TRAVEL CHOICES ACCESS TO EMPLOYMENT

Background

The Travel Choices programme, funded through the Local Sustainable Transport Fund (LSTF) looks to provide a package of interventions aimed at embedding sustainable travel within businesses, commuters and jobseekers.

Scheme description

The core aims of the programme are to: tackle jobseeker's travel issues, helping to remove barriers to employment; share travel planning skills to expand jobseekers' travel-to-work horizons; and give jobseekers access to those hard-to-reach job opportunities.

The Travel Choices' Access to Employment service has been offering training to Jobcentre Plus staff and Prime Work Programme contractors. It aims to enhance advisor skills in providing customers with comprehensive, informed advice on travel options, particularly the new journey planning options, including cycling and walking, that will be developed through the LSTF project and beyond. More than 140 Jobcentre advisors have attended courses to date, with further sessions and follow-ups planned.

Travel Choices is offering on-going advice and support to the advisors, along with further resources to help remove barriers to jobseekers finding work. This includes a free one-month travel pass when entering employment, a discounted ticket for up to a further 3 months, and a bike back to work scheme. The latter involves making recycled bikes, access to cycle training, and cycle maintenance classes available to jobseekers who wish to cycle. Jobseekers will be able to apply for a bike, via Jobcentre Plus advisors, once they have secured work.

To support businesses wishing to promote sustainable commuting and business travel, a toolkit has been developed. This includes a series of webpages for businesses (www.tfgm.com/businesstravel), a travel survey tool, access to a Sustainable Travel Grant of up to £10,000, a free commuter car sharing tool and personal travel planning for employees. A small team of Business Travel Advisors also work individually with larger businesses to help them develop action plans and deliver improvements as well as smaller businesses through workshops and self-help material.

This work is focussed on businesses in key employment areas, including Media City UK, Trafford Park, Kingsway Business Park, Airport Enterprise Zone, Oxford Road Partnership, the regional centre and the main town centres.

The first Sustainable Transport Grant has been awarded to Kelloggs to provide cycle access onto the Bridgewater Way as part of an overall package of measures to encourage sustainable commuting to the site. In addition, nearly thirty businesses have expressed an interest in applying for grants, with more expected as further Action Plans are developed.

Personal Travel Planning will start to be rolled out later this year to 10,000 households, with the project becoming fully operational early next year based on the findings from the initial stages. Personal Travel Planning will target communities located near new or improved transport infrastructure and services, with a particular focus on cycling where new or improved.

Cost/Funding:

£6.6 million (Local Sustainable Transport Fund)

Outcomes

Before the start of the programme, 38% of Jobcentre advisors stated they were 'not confident' or 'not at all confident' at giving travel advice to jobseekers. Following the training, 100% stated they were 'fairly' or 'very confident' in dispensing travel advice.

Over 300 businesses, with over 260,000 employees, have signed up to TFGM's sustainable transport network, against a target of 400 businesses by March 2015.

Two technology-based improvements will make it easier for people to choose sustainable travel. Firstly, the 'get me there' smart ticketing system is being introduced across all modes, starting with Metrolink in 2014, followed by bus. This ITSO system, supported by DfT funding, will enable customers to pay for travel through a pay-as-you-go e-purse or through products such as season tickets loaded onto the card. This system will then be rolled out to the bus network and then to the rail network through the franchise renewal process.

Secondly the Smart Travel Information system will provide information to travellers specific to their needs, allowing them to make better informed travel decisions. This is being delivered via an online traveller information system with an intelligent journey planner. The new system will utilise real-time public transport and road network information and allow for trips to be planned using multiple modes including cars, park and ride trips, Demand Responsive Transport (DRT) journeys, cycling and improved walking information.

Beyond encouraging the use of sustainable transport, a number of measures are directly reducing the carbon footprint of the transport network. Work to upgrade all traffic signals within Greater Manchester is almost complete. Through the Traffic Signal Asset Replacement Programme (ARP), via a partnership agreement with Siemens, the existing halogen lamps are being replaced with LED equipment. This upgrade significantly reduces the energy requirements; typically a 50w halogen lamp is being replaced with a 7w LED lamp. LED equipment has a greater life expectancy which negates the need to undertake annual bulk lamp changes; a LED lamp typically lasts 7–10 years as opposed to the 6–12 months life of a halogen lamp.

Similarly the original Metrolink trams are being replaced by vehicles that are significantly lighter in weight, which means that they require less energy.

LTP3 described our success in bringing 88 low carbon buses into operation on TfGM funded services, through bids to the Green Bus Fund. A further bid in 2010 added eight low-carbon small single deck vehicles for use on general network contracts and three larger, low-carbon single deck dual purpose vehicles for use on TfGM's schools' services. In addition local operators have been able to purchase a further 57 vehicles.

The European Project 'Ticket to Kyoto' enabled us to introduce micro-generation facilities at two locations. A Wind Turbine has been installed at Bolton's Horwich Parkway railway station, supplying half the station's power needs and cutting carbon dioxide emissions by 289 tonnes over its lifetime. At the new Rochdale Interchange, which is next to the Rover Roch, a water powered turbine has been installed. This is driven by an 'Archimedean screw', driven by the weight of the water to generate electricity. A fish pass, funded by the Environment Agency, allows fish to swim upstream past the turbine to migrate and spawn. The hydroelectric turbine produces up to 86,000kWh of electricity every year, which will help to reduce the interchange's carbon footprint by over a quarter.

Electrification has the potential to reduce carbon emissions, provided the electricity is from renewable sources. The expansion of Metrolink (see Objective 1) and the electrification of rail lines by Network Rail are both underway. Through the Government's 'Plugged in Places' initiative we have installed more than 250 charging points for electric vehicles, with the aim of stimulating demand. About one quarter of these are in fleet depots and private car parks with the remainder in public car parks and on-street parking bays.

Objective 3: Public Health and Wellbeing

'To ensure that the transport system facilitates active, healthy lifestyles and a reduction in the number of casualties; and that other adverse health impacts are minimised'

LTP3 Priority	Key Schemes Delivered	Key Schemes in Progress
Increased levels of walking		'Get Active in GM'
A network of safe cycle routes in support of increased levels of cycling	Cycle network improvements Cycle training Cycle parking Cycle safety	
Reduced incidence and severity of casualties on the network	Drivesafe 20mph zones	
Enhanced safety and security on public transport		
Reduced harmful emissions, and noise from road transport	Green Buses	
Improved access to health facilities		Cross-city Bus (see Objective 1)

Our work in this area has seen a much greater focus on walking and cycling. This has been made possible by success in a number of national funding competitions (see section 2) aimed at increasing levels of active travel, particularly for travel to work. Much of this work is still in progress, but should be complete by 2015. The key elements of our programme are described below.

Cycle Parking – we are providing a number of cycle hubs in town centres, providing secure parking with CCTV coverage and swipe card entry which allows members to use any of the hubs. Three are already open, in Ashton-under-Lyne, at Bury Interchange and a larger, regional Hub at City Tower in Manchester's Piccadilly Gardens, which includes shower and changing facilities and a retail unit. As of January 2014 the hubs had over 230 members. Further hubs will be included in the new Altrincham and Bolton Interchanges, which are under construction, and a further five are in the planning stage. Development work has also started to deliver 'Cycle and Ride' stations for Gatley, Irlam, Flixton and Guide Bridge railway stations and at Prestwich, Hollinwood and East Didsbury Metrolink stop, as part of the Cycle City programme).

We are also working with Northern Rail as part of a Department of Transport's scheme to provide cycle hubs at six Greater Manchester train stations.

Routes for Walking and Cycling – the Local Sustainable Transport Fund is enabling us to make a series of often small-scale improvements to make it easier to walk or cycle to/around some of our key local employment areas and town centres. The improvements are varied in nature, including: the upgrading of canal paths and sections of existing off-road cycle routes, improved crossings and other on-highway measures, and improves access to rail stations and Metrolink stops. Almost half of the 32 schemes are now complete. One of the canal towpath schemes, involving parts of the Bridgewater Way, is described below. Building on these initial schemes, we have begun development work to deliver a major new network of strategic, integrated and, where possible, segregated cycle routes to employment centres, schools and leisure facilities, funded through the Cycle City programme.

FEATURE SCHEME 5: BRIDGEWATER WAY

Background

The Bridgewater Way is a major regeneration project which ultimately aims to provide a high quality route for walkers and cyclists over the complete 65km length of the Bridgewater Canal between Runcorn, Leigh and Manchester City Centre. The project is led by the Bridgewater Canal Trust, a partnership which includes the Bridgewater Canal Company and representatives of each of the local authorities through which the canal passes.

Scheme description

The project involves is a major upgrade to the canal towpath which, as well as greatly improving conditions for walkers, will enable cyclists to use the path for the first time. Access points to the towpath and links between the canal and community facilities are also provided.

Within Trafford the route of the canal is ideal for utility cycling as it provides a direct link between the Borough's three main town centres, Manchester City Centre and Trafford Park – the largest concentration of employment in Greater Manchester outside of Manchester City Centre. To date, 4 sections of the Bridgewater Way have been completed within Trafford, measuring a total of approximately 4 miles, with a further 5 miles of canal towpath improvements, alongside a programme of new and improved access points and connections to community facilities. This will provide a high quality walking and cycling route from Altrincham and Timperley in the southwest of the conurbation, into the heart of the Regional Centre by March 2015.

Scheme Cost

£5.9 million for phases 1-7, including connecting routes and new accesses. Funding from Local Sustainable Transport Fund (£1.3m), Trafford Council (£1.3m), Cycle City Ambition Grant (£1.2m), Sustrans (£0.9m), Bridgewater Canal Trust/Company (£0.7m), Trafford Council S106 (£0.3m) and Trafford Partnership (£0.1m)

Outcomes

Completed sections so far have been highly successful in persuading more people to leave their cars at home and walk or cycle to work. Figures from the Sale and Stretford sections of the Bridgewater Way indicate that numbers of cyclists using the towpath have increased by around 370%, and numbers of pedestrians by around 80%.

Cycle Training – LSTF funding has enabled us to provide Adult cycle training, which has now helped over 2,000 people. A Learn to Ride course provides basic training for beginners in an off-road environment, while On the Road training helps existing cyclists to improve their confidence ad skills. Cycle maintenance courses provide the knowledge to keep a bike on the road and make sure it is safe. An intermediate level course is aimed at community/workplace champions who have an interest in getting others cycling. In Oldham, a new initiative has been offered to all Key Stage 5 pupils, as a pre-cursor to bikeability and involving child's scooters. In the summer 2013 term, there were over 500 children on the course. Feedback has been extremely positive regarding this exciting and fun approach to Road Safety education.

Cycle Safety- In addition to the creation of cycle routes, specific cycle safety funding is allowing the installation of 'trixi' mirrors (convex mirrors which increase visibility for HGV's and buses) and advanced stop lines at key junctions, as well as tackling a number of safety blackspots.

Promotion of Active Travel – A Cycling e-Newsletter now keeps 6,300 subscribers up to date with the latest developments. This is supplemented by specific campaigns e.g. 'Get Ready for Winter' providing hints and tips for winter cycling and also promoting adult cycle training.

As part of our ambitious cycle city programme we have also begun work with a number of partner schools and colleges to improve cycle facilities to help encourage cycling as a travel choice for younger people. The "Get Active in Greater Manchester" programme, which the

Department of Health is funding until March 2015 involves joint working between various authorities and agencies in relation to existing walk related programmes, to target people who do not meet the required physical activity levels. The aim is to encourage more people to become regular walkers, making journeys on foot for a variety of purposes including leisure and travel to work, with the most significant benefit being to participants' physical and mental health and well-being.

Our vital work to improve road safety has continued through the Greater Manchester Casualty Reduction Partnership which has a long-term commitment to making fundamental changes in the public's attitude towards road safety and their behaviour. Drivesafe, the marketing name for the Casualty Reduction Partnership, delivers a programme of publicity and campaigns targeting the key road safety issues and road user groups identified by statistical analysis of KSI (Killed and Seriously Injured) figures. They also administer national driver re-education courses, as described below.

FEATURE SCHEME 6: NATIONAL DRIVER INTERVENTION SCHEME

Background

The Greater Manchester Casualty Reduction Partnership (marketing name 'DriveSafe') 'is managed by the Joint Road Safety Group. A key part of it's remit is the facilitation of Driver Intervention Schemes which aim to positively influence driver behaviour and support responsible road use.

The scheme

The aim of the scheme is to influence driver behaviour and support responsible road use by providing driver educational courses.

The aim of the scheme is to influence driver behaviour and support responsible road use by providing driver educational courses which include information on the causes and consequences of offending. Those who attend do not receive the fine or penalty points. There are currently 4 courses delivered by JRSG.

Speed Awareness Course - for drivers who have committed a speeding office by a small margin (an error or lapse in concentration). A driver who is detected driving at the speed identified as suitable to be offered a course as an alternative to paying a fixed penalty and receiving penalty points on their driving licence (and who has not previously attended a similar course within a 3 year period.) This course involves listening to information and group discussion

Driving Alertness Course - for drivers who have been allegedly been driving 'without due care and attention or reasonable consideration to other road users' and have usually been involved in a road traffic collision. This course involves theory and practical on-road driving

'What's Driving Us' Course - for drivers who have been involved in wilful or deliberate offence. This course involves listening to information and group discussion

'Driving 4 Change Course'- for drivers who have been involved in an incident as result of a skulls deficiency. This is a practical driving course.

Costs / Funding: tba

Benefits / Outcomes

Around 70,000 clients attend the courses in Greater Manchester. There are more than 375 courses per month over 5 venues. There are 70 self-employed Approved Driving Instructors.

This work complements road safety measures and local campaigns introduced by District councils, an example of which is shown below.

FEATURE SCHEME 7 –TAILORED ROAD SAFETY APPROACHES

Local Authorities have a range of different approaches to reduce child accidents.

The text below demonstrates two different types of intervention. The introduction of 20mph zones outside Rochdale schools and the implementation of a school safety vehicle in Oldham.

20mph Zones, Rochdale

Rochdale has introduced 20mph zones outside the Borough's schools. These are a combination of self-enforcing through engineering interventions, temporary and part time schemes. The DfT approved the part time 20mph speed limits in May 2012. Once approval was received there is a formal legal process in place that needs to be followed involving statutory consultation and objection periods (drafting legal orders, advertising on lamp-posts, newspapers, consultation with members and emergency services) before the 'traffic regulation order' can be put in place. In this case, the 'order' was able to be sealed from Feb 14 2013.

Cabinet gave approval for introduction of proposals in March 2011, and allocated a budget circa £1million. A priority list was drawn up using accident data.

There are currently 81 schools within the borough, and 41 were already outside existing 20mph zones. Rochdale has now enabled 20 mph zones in all but four of the schools in the Borough.

Oldham's School Safety Vehicle

In 2011, 53 children were injured on Oldham's roads. Oldham has invested in tow school safety vehicles to deter motorists from parking in identified danger spots. Motorists who park illegally run the risk of receiving a penalty charge notice for the mobile enforcement team.

CCTV camera enforcement is primarily used to tackle dangerous parking at schools, and also acts as a strong visual deterrent. When the vehicle is not in use during school start and finish times it us deployed to other areas affected by problem parking.

The Rail Station Improvement Strategy (RSIS) was established to improve existing passenger security and information systems at 51 smaller rail stations across Greater Manchester, as funding becomes available. To date passenger help points, CCTV, real time information screens and public announcement systems have been delivered at 37 rail stations.

Cameras have been fitted to bus shelters in targeted areas throughout Greater Manchester. Body-Worn video technology- a small video camera worn on the head of the user with a recording unit on the belt- is also being used to further deter anti-social behaviour and gather evidence for the courts if necessary. Following a trial at Leigh bus station, body-worn video technology is now regularly in use at Wigan, Bolton, Shudehill and Oldham bus stations.

Our gateway checks at Metrolink stops and interchanges are a direct action to reduce the risk of anti-social behaviour. These have seen significant results in terms of the number of fraudulent tickets recovered and arrests made.

The various measures to make the use of public transport and active travel more attractive as well as measures to reduce carbon emissions will all help to reduce air pollution, which have a serious impact on health. In addition, we are in the process of upgrading 30 of the oldest Yellow School Buses, which are between five and ten years old. The vehicles, which run on diesel – will be retrofitted with air pollution control equipment to cut down on harmful emissions of nitrogen oxide and particulate matter.

Objective 4: Sustainable Neighbourhoods and Public Spaces

'To ensure that the design and maintenance of the transport network and provision of services supports sustainable neighbourhoods and public spaces and provides equality of transport opportunities'

LTP3 Priority	Key Schemes Delivered	Key Schemes in Progress
Improved access to areas of opportunity	Metrolink extensions to Oldham, Rochdale and Ashton (see Objective 1) Walk/Cycle improvements (see Objective 3) 4 Improved Community Transport services (see Objective1)	Walk/Cycle improvements Cross-city Bus Package Leigh-Salford-Manchester Busway
Improved access for all	Cheadle Hulme, Littleborough and Marple stations (Network Rail)	Oxford Road, Victoria and Stalybridge stations (Network Rail)
Reduced impact of road traffic	20mph schemes (see Objective 3)	
Improved quality of public realm	Chapel Street, Salford Victoria Street, Manchester	
Reduced impact of traffic on biodiversity and protected natural sites	Environmental Impact Assessment for all major new transport schemes	

Disability Design Reference Group

The DDRG has worked with TfGM across hundreds of activities while it delivers the expanded Metrolink system, including:

- the design of all of the 57 new stops being delivered as part of the £1.4 billion Metrolink expansion;
- the designs for 10 new park and ride sites;
- upgrades to all 39 stops on the existing network – including Piccadilly, Deansgate-Castlefield, St Peter's Square and Victoria;
- modifications to the seating arrangements on the new M5000 trams; and

- The improvements the DDRG has influenced have ranged from inclusion of additional safety rails to assist guide cane users to the development of a comprehensive, network-wide Access Guide with maps to assist disabled people.

The approach that TfGM has taken with the DDRG is now recognised as a model of best practice by the Equality and Human Rights Commission.

Scooters on trams

Following publication of guidance from the Government, we have launched a scheme to manage the introduction of mobility scooters on the network. From 31 March 2014 people who live in Greater Manchester and hold an England National Concessionary Travel Scheme (ENCTS) Disabled Person's Pass or a TfGM Travel Voucher pass were able to apply for a permit that will allow them to use their mobility scooter on the network. This will be part of an initial six-month trial. Under the trial, which will help us develop plans to introduce a permanent, full-time scheme on the network, both drivers and scooters will be assessed against set criteria.

Access for All schemes

Network Rail made access improvements to the stations at Cheadle Hulme, Littleborough and Marple, providing either ramps or lifts.

Public Realm

Improvements in the public realm not only improve people's living environment but improve the image of an area, so encouraging investment. Reducing the dominance of the car is central to making places more 'liveable'. Two examples are shown below.

FEATURE SCHEME 8: CHAPEL STREET HIGHWAY AND PUBLIC REALM IMPROVEMENTS CASE STUDY

Background

Chapel Street is a key route into Manchester City Centre, lined with heritage buildings, running through the University district and historic civic core of Salford. Over recent years the corridor had become a heavily congested commuter route, bisecting neighbourhoods and creating a hostile, polluted pedestrian environment. Salford City Council, the former Urban Regeneration Company and the English Cities Fund recognised that improving to Chapel Street was key to unlocking the comprehensive regeneration of the area, where 220,000 sq. m commercial space, 11,000 new jobs and 849 new homes could be delivered in a £650 million investment over a 15 - 20 year period as part of the Salford central masterplan.

Completed in May 2013, the works involved:

- creating a single lane for cars each way and a high quality combined bus / cycle lane in each direction, with speed cushions and new traffic regulation orders to slow traffic down to 20 mph

- providing high quality bus waiting facilities and cycle racks (in the central reservation) to encourage use of sustainable transport
- footpaths of up to 8 metres in width, with high quality paving
- street trees in the central reservations to soften the landscape
- high quality street furniture, including seating and a new signage and way-finding system
- new 'supercrossings', allowing the street to be crossed in one continuous movement.

To facilitate the anticipated reduction in traffic on Chapel Street, enabling works were carried out along three other primary access routes into Manchester city centre to increase road capacity across the network.

Scheme Cost: £10m (North West Development Agency and European Regional Development Fund).

Benefits / Outcomes

Chapel Street has been transformed into a pedestrian friendly city centre environment, with the feel of a European Boulevard, while still retaining its function as a principal public transport corridor. Peak time traffic volumes have been reduced from 1800 to 1200 vehicles per hour, with speeds reduced by 33%, to 20mph.

FEATURE SCHEME 9 - VICTORIA STREET, MANCHESTER

Background

A key element of the masterplan for the Regional Centre was the pedestrianisation of Victoria Street to provide a continuous pedestrianised space from Corporation Street via Cathedral Gardens to the River Irwell linking the central retail area to the heart of medieval Manchester. This would link to significant public realm improvements in the Chapel Street and Greengate areas of Salford and are a key element of the Irwell River Park vision.

The closure aimed to reduce the volume of through traffic using Deansgate and Victoria Street by encouraging greater use of the Inner Ring Road, also providing more capacity on the city centre's roads for public transport, cyclists and pedestrians.

Completed in 2013, the work involved:

- closure of Victoria Street between its junctions with Cathedral Approach and Chapel Street, initially as an Experimental Order
- changes to direction signs along the whole of Deansgate starting at Chester Road in the south to direct through traffic on to the Inner Ring Road
- alteration of the junction layout at Liverpool Road / Deansgate to encourage more motorists to use the Inner Ring Road by reassigning the left hand lane for left turning traffic only and creating a buildout to enforce this.

Reducing the volume of traffic using Deansgate allowed the closure of Victoria Street, which has in turn allowed significant improvements to the public realm.

Scheme Cost

£1.4m (equally split between Manchester and Salford City Councils)

Benefits/Outcomes

Analysis of traffic survey data shows traffic flows on Deansgate have fallen by approximately 20%, and it is quicker for motorists to use the Inner Ring Road instead of travelling along the length of Deansgate at most times of the day.

The reduced traffic volumes along Deansgate now mean that new cycle infrastructure can be installed, with new cycle lanes and advanced stop lines scheduled for 2014. A shared cycleway was provided through the Victoria Street closure to provide movements in different directions for cyclists.

The closure of Victoria Street has allowed the development of a new green space in the city centre including a children's play area.

Objective 5: Value for Money

'To maximise value for money in the provision and maintenance of transport infrastructure and services'

LTP3 Priority	Key Schemes Delivered	Key Schemes in Progress
Maximised efficiency of networks	Retaining Walls	
Effective prioritisation of spending	GM Transport Fund	
Maximised additional third party funding	National Funding Bids Quality Partnership Scheme Developer Contributions	
Best practice procurement to drive value for public money	Co-ordinated scheme delivery Winter Maintenance Community Transport	
Improved satisfaction with the performance of GM's transport network	Monitored through Passenger Focus Surveys	

Value for money is a key part of the business case for all our transport schemes, in accordance with DfT best practice. This section highlights examples where value for money has been further increased through innovative working and partnership.

FEATURE SCHEME 10 - GREATER MANCHESTER MAJOR RETAINING WALLS SCHEME

Background

In the Pennine areas of the conurbation the hilly terrain means that a large number of roads have retaining walls, which either:

- Support the land and/or property, which is alongside and above the level of the highway, these are referred to as "Retaining Walls"
- Support the highway or support an embankment carrying the highway, these are referred to as "Burr Walls".

Over recent years, the level of funding for repairs and maintenance to the walls s has not been adequate. The increasing use and volume of traffic on the roads, along with a lack of funding for maintenance, has led to the gradual deterioration of the retaining wall, many of which are over 100 years old.

Together, Oldham, Rochdale, Stockport and Tameside councils, led by Stockport, submitted a business case to the government in 2008 to repair/reconstruct some 120 of the most high risk retaining walls. This bid was successful, but with the proposed five year programme of works condensed to three.

Scheme Description

Each Council identified a prioritised programme of works, based on the need to ensure safety, accessibility to key locations, reduce the maintenance backlog and maintain biodiversity and landscape quality. The following table details the number of retaining walls that each Council identified as requiring strengthening works and the actual number of retaining walls that were actually strengthened as part of this scheme.

Authorities	Number of retaining walls identified as requiring strengthening works	Number of retaining walls actually strengthened
Oldham	26	34
Rochdale	14	18
Stockport	57	58
Tameside	11	12
Total	108	122

The schemes vary considerably in both location and scope with some schemes located on roads in the rural Pennine foothills whereas others are located in the main urban town centres. Structures in rural locations were seen as equally important, as they play a key role in the economic regeneration prospects for the boroughs as a whole.

Cost/Funding:

£45 million, made up of a DfT contribution of £40.5 million and £4.5 million of local funding.

The individual retaining wall scheme costs vary between £2,000 and £1,768,000, which reflects the diversity of the works undertaken and the size of the retaining walls worked upon.

Outcomes

This funding has enabled the four borough councils to implement long term solutions to repair or replace these retaining walls. This has been vital to ensure the continued future use of these roads in the future.

TfGM, Manchester City Council and Stockport Metropolitan Borough Council previously invested in bus priority measures along the A6 bus corridor which operates with the most frequent single bus service in Greater Manchester (the 192-carrying almost 10 million passengers every year). Bus operators also invested in new vehicles for the route. The authorities have now made a bus quality partnership scheme (QPS) for the A6 between Manchester City Centre, Stockport and Hazel Grove. This brings the Authorities and bus operators together in a formal partnership to deliver improved standards and a commitment to maintain quality infrastructure to address the needs of passengers in a reliable, accessible, sustainable and cost-effective manner. The purpose of the Scheme and the Voluntary Partnership Agreement (VPA) is to maintain a high standard of service and travel experience for passengers as part of the wider Bus Strategy for Greater Manchester. The potential local benefits to passengers of a QPS include: better customer service, stability of services, improved security and cleanliness, better reliability and punctuality and higher quality vehicles. The QPS commenced on 1 April 2012 and will run for an initial period of five years, until 31 March 2017.

In recent years, TfGM has introduced Local Link door-to-door services as an alternative to uneconomic bus services in areas of low demand. In order to increase competition and therefore reduce tender prices it has also supported the Community Transport sector to enable local CT organisations to bid for contracts. The 'Train, Learn, Drive, Earn' scheme trains unemployed people as CT drivers. 11 trainees have now commenced the TLDE training programme, with 90 candidates currently on the waiting list for the course.

Development of the new and improved e-learning platform for Community Transport is underway. This resource will support Community Transport Operators to help in the training and development of their employees, including those trainees taking part in the TLDE programme, with a particular focus on improving access to employment.

Progress is being made on the improvements to the booking, scheduling and dispatch system which will allow customers to book amend, cancel trips 24/7 without needing to speak to an operator. This increases customer contact centre capacity and therefore fewer lost calls.

Co-ordinated scheme delivery

An example of the advantages of planning two transport schemes together is provided by the Manchester Airport Metrolink extension and the A6 to Manchester Airport Relief Road. The new road, which is still in the planning stage, crosses over the Metrolink line, which is currently under construction. By planning the two schemes together, it has been possible to build a

bridge and a subway for trams to pass under the line of the road as part of the Metrolink contract. Construction has been easier as there is more space to work, and future disturbance has been avoided. The joint planning has been made possible by the long term certainty of delivery of both schemes.

A further example is the delivery of a range of infrastructure projects within Manchester City Centre over the next five years. These include Metrolink second city crossing, the Cross City Bus Package, Network Rail's Northern Hub and Ordsall Chord projects, the regeneration of Manchester Victoria station and the regeneration of St Peter's Square. This is in addition to a series of other private sector projects and statutory utilities works across the highway network within the city. All of these projects involve significant partnership working and will require a significant level of coordination to allow delivery whilst keeping Manchester city centre open for business during the construction period.

A city centre coordination group has been established to oversee the delivery of the schemes and manage and mitigate the potential impact on all city centre visitors and users. By setting up this group it is anticipated that cross project working will improve and savings and efficiencies will be found across the diverse programme.

As part of the major Metrolink expansion and the Leigh-Salford-Manchester Busway, ducting has been laid which will facilitate the delivery of 'next generation' broadband.

4. Performance monitoring

Progress monitoring is through a suite of Key Performance Indicators. Our approach to monitoring performance is based on three types of projection: targets, where performance contributes to a specific existing Greater Manchester policy objective; standards, where expected levels of performance have been defined, for example in franchise agreements; and forecasts, which are non-binding descriptions of expected values for all remaining KPIs.

Progress in relation to each of the KPIs is set out in table form below, highlighting the baseline value, projection and the most recent performance data. The key conclusions are as follows.

Travel Demand

A slight increase in bus patronage in 2012/13 suggests that the long term decline in bus patronage may be stabilising. Rail saw an increase in peak patronage but a drop in off-peak patronage, probably reflecting the economic climate, with fewer discretionary journeys being made. Metrolink patronage is continuing to increase as the network expands and the system is upgraded.

Cycling has remained on trend but has not maintained performance against the baseline. This may be due to the poor weather conditions in winter 2012, with commuter cycling performing better than leisure trips. No update on walking levels is available due to a delay in accessing DfT data.

Modal Share

The proportion of trips made by non-car modes to the regional centre continues to increase, due to increased rail patronage and the opening of new Metrolink lines. However this has not been the case in the main town centres, where bus trips have decreased in most cases. This may be due to factors such as increased unemployment, increased fares, changes to concessions and Metrolink expansion.

System Performance

Rail over-crowding has become marginally worse as the increases in capacity have not kept pace with increases in demand. Metrolink network performance, measured by the proportion of scheduled mileage operated on the system, is exceeding the contractual standard. Significant improvements have been achieved in both bus network performance and fleet quality, reflecting the increased focus on this issue by bus operators who are signatories to the Code of Conduct.

Maintenance

Provisional data indicates that carriageway maintenance has improved and that the deterioration of principal, non-principal and classified roads has been less than anticipated.

Environment

CO2 emissions from vehicles fell, influenced by the reduction in vehicle kilometres and improvements in vehicle and engine technology. Similarly, the indicator for NOx emissions is on track to meet the forecast.

Road Safety

We are on track to meet the forecast 40% reduction in accidents that lead to the death or serious injury by 2020.

Access to Network

Alternative measures of accessibility are being investigated due to problems with the current KPIs, either due to the supply of data or the ability to produce consistent results.

Equality Act 2010 Compliance (Disability Discrimination Act DDA)

The network average for the percentage of wheelchair accessible buses and the percentage of accessible bus stops with a kerb height of 125mm or above have both seen increases, while the programme to improve access to platforms on rail stations continues, through Network Rail's 'Access for All' programme.

Key Performance Indicators

Type	KPI Definition	Status	Baseline Value & Year Recorded	Projected Value/ Change	Latest Value
Travel demand	1 Modal split - travel to work Proportion of journeys to work by GM residents made by non-car modes.	Forecast	26% (2010)	26% (2016)	32% (2011) Exceeding forecast
	2a Patronage – bus Number of passenger trips.	Forecast	225.3m (2010/11)	202.8 m or -10% change (2016/17)	219.7m (2012/13) Stable
	2b Patronage – rail Number of passenger trips.	Forecast	22.7m (2010/11)	28.1m or 24% change (2016/17)	25.3m (2012/13) Exceeding forecast
	2c Patronage – Metrolink Number of passenger trips	Forecast	19.2m (2010/11)	41.7 m or +117% change (2016/17)	24.5 million (2012/13) Stable
	2d Patronage - Annual vehicle km Number of annual vehicle-km made on local (A and B) roads.	Forecast	7,104m (2010)	+ 3.5% change (2016) +15.0% change (2026)	-1% (provisional figure) Stable

System Performance	3 Overcrowding – rail Proportion of trains arriving between 07:00 and 09:59 (weekdays) in central Manchester over total capacity.	Forecast	9.6% (2010/11)	14% (2016/17)	8.4% (Q2 2013/14) Improving performance
	4a Reliability / Punctuality – bus Reliability: proportion of scheduled bus journeys operated. Mid-Point Punctuality: proportion of scheduled bus journeys departing on time (<60 secs early or < 5m59s late). Mid-Point Regularity: proportion of frequent (equal or more frequent than one every ten minutes) services operating at an acceptable headway (< twice the headway).	Standards in Bus Code of Conduct	98.02% (2010/11) 72.18% (2010/11) 96.08% (2010/11	As Code of Conduct 97% 70% 97%	97.97% (2012/13) Stable 77.46% (2012/13) Maintaining performance 96.50% (2012/13) Maintaining performance
	4b Reliability / Punctuality - rail Proportion of Northern Rail trains arriving at their destinations on time (<5m late) in the Manchester/Liverpool PMU area. Train overcrowding (average Load Factor of trains by corridor)	Standard, in Joint Performance Improvement Plan	91.83% (March 2011) 58.6 (2010/11)	92% (2013/14) 49% (April 2014)	90.40% (moving monthly average, period 4) Declining performance 57% (Q2 2013/14) Improving performance
	4c Reliability - Metrolink Proportion of scheduled mileage operated.	Standard agreed with operator	98.93% (2010/11)	98%	99.06% (2012/13) Exceeding forecast
	4d Reliability - key strategic highways	Forecast	41% (2009/10	No deterioration	37% (2011/12)

	Difference between the 5% slowest journeys and the average journey time, expressed as a percentage of the average (median). Calculated for the morning peak.		academic year)	(2015/16)	Exceeding forecast
Maintenance	5a Carriageway Maintenance - principal roads Proportion of principal roads where structural maintenance should be considered.	Forecast	7% (2010/11)	8% (+/-2%) (2014/15) revised from 11%	6% (2012/13) Improving performance
	5b Carriageway Maintenance - non principal, classified roads Proportion of non-principal classified roads where maintenance should be considered.	Forecast	6% (2010/11)	7% (+/-2%) (2014/15) revised from 12%	5% (2012/13) Improving performance
Environment	6 CO2 emissions from vehicles on GM major roads Tonnes CO2 emitted from vehicles on GM roads (motorways, A,B and minor) (Source: DECC)	Interim target linked to GM Climate Change Strategy	4.76 m tonnes (2005)-revised from 4.806m tonnes	-19.0% change (2020)	4.28m tonnes (2011) Maintaining performance
	7 Emission of NOx from road traffic Tonnes NOx emitted from vehicles on GM major (including motorways) and minor roads.	Forecast	12,682 tonnes (2010) revised from 10,831 tonnes	6,975 tonnes or -45% change (2016)	11,428 tonnes (2011) Maintaining performance
Travel demand	8 Cycling levels Index of cycle use, from up to 60 automatic cycle counters.	Forecast	Index = 100 (2010)	+18% change (2016)	Index= 107 (2012) Exceeding forecast
	9 Walking trips Average number of trips/person/year where walking is the main mode (by distance).	Forecast	226 (2009/10) revised from 223	-10% change (2015/16)	226 (2009/10) N/A
Road Safety	10 Total KSI on roads Number of people killed or seriously injured on roads in	Forecast achievement of standard suggested	916 (2005/09 annual	-31% change (2005/09 to 2016) -40% change	664 (April 2012 March 2013)

	Greater Manchester.	by DfT	average)	(2020)	Exceeding forecast
	11 Casualty rates - head of population Number of people killed or seriously injured on GM roads / GM resident population.	Forecast achievement of standard suggested by DfT	357 / m population (2005-09 annual average)	-35% change (2005/09 to 2016) -45% change (2020)	247 (April 2012-March 2013) Exceeding forecast
Mode share	12a and 12b Trips to key town centres Proportion and numbers of trips by non-car modes entering the Regional Centre and the town centres of Bolton, Bury, Oldham, Rochdale, Eccles, Stockport, Ashton, Altrincham, Wigan in the AM peak (07:30-09:30).	Forecast	Regional Centre: 70.2% (2011) Other key centres: 46.6% (2010/11)	Regional Centre: 72% (2016) Other key centres: 47% (2015/16)	72.7% (2013) Improvement in performance 45.8% (2012/13) Decline in performance
	12c Trips to key centres - airport Vehicles / passenger to Manchester Airport	Target from Ground Transport Plan	1.34 (2009)	1.28 (2015)	No data due to temporary removal of traffic counters
	12d Mode of Travel to School Usual method of travel to school (% non-car split) (following the Government's removal of the obligation on schools to supply this information data has been collated locally with varying degrees of reliability).	Forecast	72.7% (2010/11)	Not set yet	73.0% (2011/12) Improvement on forecast

Access to Network	13 Access to public transport services Percentage of households with moderate access to the public transport network, as measured by Public Transport Accessibility Level (PTAL) scores.	Forecast	46%(2010)	Not set yet	No data
	14 Access to employment and education Percentage of population with access within 40 minutes by public transport to the town centres of the Regional Centre, Bolton, Bury, Oldham, Rochdale, Stockport, Ashton-under-Lyne, Altrincham, Wigan, Eccles, Middleton and Leigh by 08:45	Forecast	98.6% (2010)	Not set yet	No data
	15 Equality of accessibility Ratio of the overall time taken for a defined set of trips (am peak GM car commuter) made by public transport compared to car	Forecast	5.7:1 (2010)	4.8:1 (2016)	No data
Equality Act Compliance	16a DDA Compliance – bus vehicles Proportion of low floor buses observed.	Target	90.4% buses (2010/11)	100% of: single deckers by 2016 double deckers by 2017	96.6% (2012/13) Maintaining Performance
	16b DDA Compliance – bus stops with raised kerbs Proportion of bus stops with raised kerbs.	Forecast	41.5% of stops > 125mm 25.8% of stops > 160mm (2010/11)	Being developed based on work programmes	43.75% Maintaining performance No data available

	16c DDA Compliance – Access to platforms at rail stations	Forecast	53.1%, 51 accessible rail stns, (Q4 2010/11)	58.3% (56 of 96 stns) (2013/14)	56.3%, 54 of 96 accessible rail stations (Q3 2012/13) Maintaining performance