

Leicester's Local Transport Plan
2011-2026

Leicester City's Network Management Plan 2011-2015



**LEICESTER'S LOCAL TRANSPORT PLAN
2011 – 2026**

**LEICESTER CITY'S
NETWORK MANAGEMENT PLAN
2011 - 2015**

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1 Introduction

The Network Management Plan (“NMP”) is an operational plan that is part of Leicester’s Local Transport Plan 2011 – 2026.

This Network Management Plan (“NMP”) sets out how Leicester City Council is addressing the objectives of the Network Management Duty (“NMD”) imposed on all local authorities under the auspices of the Traffic Management Act 2004 (“TMA”).

Whilst the production of this Plan is not a statutory requirement, the Network Management Duty is and the existence of the Plan shows the Authority’s commitment to the Duty and its ultimate objective of reducing traffic congestion within Leicester.

Integrated systems and established communications are of paramount importance in achieving the objectives of the Duty. The processes and systems detailed in this Plan collectively help meet the Duty by enabling efficient and effective network management to take place, thereby minimising traffic congestion.

This NMP sets out the authority’s approach and describes the actions considered and taken to addressing the Duty obligations.

1.1 Consultation

Production of this plan has been an authority-wide approach with input from different service areas whose day-to-day business impacts on traffic management and ultimately the authority’s ability and approach to carrying out its objectives under the Network Management Duty.

2 Traffic Management Act 2004 (TMA)

The Traffic Management Act received Royal Assent on 22nd July 2004.

Prior to the implementation of the TMA local authorities had limited powers under the New Roads and Street Works Act 1991, Highways Act 1980 and the Road Traffic Act 1984 to address the issue of congestion. The main purpose of the TMA is to give local authorities the responsibility and additional powers to deal with traffic congestion and reducing disruption on the road network.

Part 2 of the Act, came into force on 4th January 2005 placing a network management duty on local traffic authorities. The Department for Transport (DfT) published the statutory guidance on the Network Management Duty (NMD) in early 2005. This required the appointment of a Traffic Manager and highlighted many other issues essential to the management of the road network that affect all departments within the council.

2.1 Network Management Duty

Section 16(1) of the TMA states:

“It is the duty of a local traffic authority to manage their road network with a view to achieving, so far as may be reasonably practicable having regard to their other obligations, policies and objectives, the following objectives:

- (a) securing the expeditious movement of traffic on the authorities road network; and**
- (b) facilitating the expeditious movement of traffic on road networks for which another authority is the traffic authority.”**

The term traffic is not restricted to motorised vehicles but includes all categories of road user, including pedestrians and cyclists.

The duty is qualified in terms of practicability and the other responsibilities of the authority, such as road safety, and should compliment other policies and actions. To achieve this balance, the city council has embedded the desired outcomes and appropriate policies and plans under the Network Management Duty within Leicester’s Local Transport Plan 2011 to 2026 in order to achieve a coherent approach.

The action to be taken by an authority in performing the duty, as described in Section 16(2) of the TMA, includes any action which will contribute to securing:

- (a) the more efficient use of the road network; or
- (b) the avoidance, elimination or reduction of congestion or other disruption to the movement of traffic on the network or a road network for which another authority is the traffic authority.

In essence, the duty requires local traffic authorities to do all that is reasonably practicable to manage the network effectively to keep traffic moving. The overall aim of the expeditious movement of traffic implies a network that is working efficiently without unnecessary delay to those travelling on it.

2.2 Key Objectives of Network Management Duty

The key objectives of the duty are:

- Considering the needs of all road users;
- Co-ordinating and planning works and known events;
- Gathering and providing information needs;
- Incident management and contingency planning;
- Dealing with Traffic Growth;
- Working with all stakeholders – internal and external;
- Ensuring parity with others; and
- Providing evidence to demonstrate network management.

Traffic Manager

The TMA requires the appointment of a Traffic Manager to perform the tasks required to fulfil the network management duty. The current Traffic Manager for Leicester City Council was appointed in November 2008 and is the Head of Traffic Management within the Regeneration, Highways and Transportation Division.

It is the Traffic Manager's responsibility to deliver a coordinated, planned, and effective response to the Network Management Duty across the whole organisation and utilities, and to ensure that agreed actions are implemented. The Traffic Manager provides a focal point within Leicester City Council and champions the need to consider the duty in all areas of work.

Secretary of State Intervention

Should it be considered that the authority is, or may be, failing to perform all or some of its Network Management Duty the TMA provides the Secretary of State with the power to intervene and appoint a Traffic Director to perform that Duty. The Traffic Management (Guidance on Intervention Criteria) (England) Order 2007 outlines how the Secretary of State will determine how a local authority is performing its network management duty prior to taking a decision on any intervention measures.

3 Strategies and Policies

Leicester City Council has adopted a number of inter-connected strategies and policies that impact on one another. They are also influential in their impact on the Network Management Plan and vice versa.

3.1 One Leicester

Leicester's new 25 year strategy – One Leicester – contains 7 key priorities which the council, with its partners, will be focussing on over the next 25 years. The strategy was agreed and launched in March 2008. The seven priorities are:

- Investing in our children
- Planning for people not cars
- Creating thriving and safe communities
- Reducing our carbon footprint
- Investing in skills and enterprise
- Improving wellbeing and health
- Talking up Leicester

The following extracts from the One Leicester Strategy are identified as the key areas that are intended to have a direct positive impact not only on traffic congestion but also on pedestrians and cyclists:

3.1.1 Planning for people not cars

We want to make Leicester a city for people and families, rather than a city for cars. Over the next 25 years we will use the planning system and investment to transform Leicester into a city of attractive buildings, leafy walkways, cycleways and pleasant, open spaces.

This will not only change the feel of the city but by getting people out of their cars, will create a friendlier, safer feeling and a healthier city.

We want to make it easy to get from any part of the city to any other part of the city without using a car. Pivotal to achieving this is making sure that, when any plans are considered, pedestrians and cyclists are considered first.

Creating walking and cycling networks

We will develop a network of safe routes for cycling and walking. This network will cover journeys into and around the city centre from all major destinations, between key places within the city and along routes used by schoolchildren to get to school. We will create safe, dedicated cycleways – not just lines painted on the side of roads – and encourage school children to walk or cycle to school. We will also improve cycle training for children and provide more safe places to lock bicycles.

3.1.2 Reducing our carbon footprint

We want Leicester to play its part in tackling global warming by having the lowest 'carbon footprint of any major city in Britain. Global warming is a fundamental issue facing the world and we can take the lead in tackling its effects.

We have a world-class expertise in the technology of renewable energy and energy efficiency in the city. By building on our track record, not only can we make a major

contribution, but also position Leicester as a progressive city that is looking to the future.

Leicester's Approach to Reducing Emissions – progress so far

Leicester city council has had a long-standing commitment to tackling climate change, with a Climate Change Strategy first published in October 2003 and a long term aspirational target to reduce city-wide carbon dioxide emissions to 50% of the 1990 level by 2025/26 established corporately in 2006/07. We had a Local Area Agreement target to reduce per capita CO2 emissions in the city area, from 6.9 to 6.1 tonnes by 2010/11 as measured through National Indicator NI186.

The council has been working on the basis that the city-wide target will require broadly equivalent pro rata emissions cuts from each of the main emissions sources: domestic, commerce/industry and transport. On this basis, and taking account of the city's 2007 emissions levels compared to its 1990 baseline, an average reduction rate of 3.5% (over 12,000 tonnes) per annum would be required for transport. This is about three times the rate inferred from the Government's 2020 target. This city-wide target is mirrored by an equivalent target to reduce the council's own emissions by 50% of the 2008/09 level by 2025/6 and the authority has recently signed up to the 1010 campaign, committing to an 8.95% reduction of its CO2 emissions by July 2011.

Improving Travel Planning

National research indicates that commuter car driving can be reduced by 10-30% by implementing workplace travel plans and school travel plans can reduce traffic by 8-15%. We have up to now dedicated only limited resources to facilitate travel plans. It is a very cost effective way to reduce vehicular traffic. The best way to move forward against our objectives and targets will be to direct dedicated staff resources towards travel plan development at businesses within the Central Transport Zone (CTZ) and to all city schools. Travel plans will also be required for all new commercial development as part of the planning process. The traffic reduction will help us to reduce nitrogen dioxide levels.

We will expand the work we are currently doing to improve journey planning and car sharing to support all large and medium sized organisations in the city. This programme of work will be linked to targets for reduced car use, impacting on our congestion reduction under the Network Management Duty.

3.2 Leicester's Local Transport Plan 2011-2026 (LTP3)

The LTP3 is the council's key document detailing various strategies that will deliver the council's longer-term transport strategy.

Our proposed vision for Transport in Leicester is:

'To help transform Leicester into Britain's sustainable city that will be a great and prosperous place to live but also somewhere that does not place a burden on the planet in future years.'

Successful delivery of our local transport plan will enable us to take a really big step forward towards realising this ambition. It will also enable us to make more rapid progress in delivering attractive alternatives to car travel and to cater for some of the highest levels of housing growth in the country to 2026 and beyond whilst:

- Keeping congestion under control and improving accessibility for all, but particularly for deprived groups, to support a new prosperity with economic growth and new jobs
- Encouraging more people walking, cycling and using public transport to reduce carbon emissions
- Providing a transport system that facilitates for a safer and healthier way of life

Locally this translates into many more residents walking and/or cycling the shorter journeys in and around the city and using the bus for longer journeys, particularly into Leicester city centre, instead of using the car.'

Our proposed local transport goals and objectives are listed below:

Goal: Economic Growth Supported – Leicester is more prosperous

- **Objective:** To Reduce Congestion and Improve Journey Times

Goal: Carbon Emissions Reduced – Leicester' carbon footprint is reduced

- **Objective:** To Reduce Carbon Emissions

Goal: Equality of Opportunity Promoted – Leicester's people are more confident

- **Objective:** To Improve Connectivity and Access

Goal: Better Safety, Security and Health – Leicester's people are more healthy, safe and secure

- **Objective:** To Improve Safety, Security and Health
- **Objective:** To Improve Air Quality and Reduce Noise

Goal: Quality of Life and a Healthy Natural Environment are improved - Leicester is a more attractive place

- **Objective:** To Improve Quality of Life
- **Objective:** Manage to Better Maintain Transport Assets

Goal: Population Growth is supported – Leicester's Population is increased in a sustainable manner

- **Objective:** To Reduce Congestion and Improve Journey Times

3.3 Our Congestion Strategy – Reduce Congestion and Improve Journey Times

We have endeavoured to produce a strategy that is realistic with regard to the resources that we are likely to have available and flexible enough to adapt to changing circumstances. Thus, our approach to the delivery of this objective is split into short-term and medium to longer-term. We have concluded that a strategy

based on buses will give the best value for money outcomes for Leicester and the suburbs (Central Leicestershire). We have successfully delivered bus improvements to key corridors into the city and worked hard on park and ride in partnership with the county council. As a consequence bus patronage is high. However we have not invested in bus improvements in the city centre itself and there is now a substantial city centre deficit in terms of both quality and quantity for the bus service.

Short Term

Our immediate focus will be in delivering a package of city centre bus improvements in order for us to realise the key transport outcomes for Leicester. Encouraging walking and cycling will also be part of the strategy.

We want to maintain the current direction and increase the momentum by doing more of the same better, with help from the softer measures. This will allow us to further increase bus user satisfaction and bus patronage. Buses allow for full flexibility within a concentric area such as Central Leicestershire. This currently provides the best value for money and buses are able to share the available road space with other modes in a reasonable and equitable way to get the most out of the available space. This helps us in tackling congestion, carbon emissions and air quality without adversely affecting car travel in a value for money way. We acknowledge that many journeys will still be made by car either because there is no reasonable alternative or a car is the preferred mode of travel. We will increase the efficiency of the network by improved coordination of traffic signals and junction improvements that will help all modes.

Thus, our approach to the delivery of this objective, at least in the **short term**, is principally focused on making the very best use of what we already have, including improving the city centre part of the bus service. Managing and maintaining our transport system, roads, bridges, footways and cycleways to the best standards that we can afford. This will be supported by our efforts to influence peoples' travel choices through better marketing and promotion, travel planning and provision of appropriate improvements to walking, cycling and public transport generally.

Medium to Long Term

Having noted the strong business cases that have evolved for trams in other UK cities, we will be examining the case for trams in Leicester. Trams have the ability to provide high user satisfaction and persuade car users from their cars whilst having no emissions at point of use and carrying large passenger volumes. We believe that the stronger business cases will emerge where bus patronage is currently high on key corridors into the city. Buses will still play a key part in a newly emerging transport system that includes trams along trunk routes with buses as feeders.

In the **medium to longer term** will need to investigate the feasibility of delivering more pro-active and radical ways to reduce the demand for car travel.

We will intervene by facilitating a reduction in car use by delivering quality improvements to bus travel, to walking and cycling, whilst managing car parking supply. We have had a lot of success with bus travel with improvements in the suburbs and along the radial routes leading to increased bus patronage into the city

centre. However we have not yet progressed improvements within the city centre itself which is the main gateway into Leicester. We will focus on quality improvements to the bus termini, bus infrastructure and bus routing within the city centre to both make good the current deficit in quantity and quality and allow for future growth. Bus use is by far the dominant non car transport mode and the mode that has the potential to make the really big impact. Although the potential numbers are much smaller, walking and cycling still have a helpful contribution to make to encouraging less car use and also help people to a healthier life. Walking and cycling schemes will be implemented as well as bus schemes. Commercial travel planning, school travel planning and personalized travel planning will continue to support these schemes and so support carbon reduction. Proposals for a 'Smarter Choices – Low Carbon Company' will be taken forward, with all options considered including a trust route. Such a company would be totally focused on reducing car mode share and thus carbon by increasing bus patronage, walking and cycling and would preferably operate throughout the Leicester urban area.

Summary

The immediate emphasis in the short to medium term will be on delivering a package of measures that are together best able to make a real difference to reducing car mode share and increasing bus use. A key component of this package will be bus improvements within the city centre underpinned by a programme of softer measures.

3.4 Public Rights of Way Improvement Plan (ROWIP)

The Public Rights of Way Improvement Plan is a statutory requirement under Sections 60 and 61 of the Countryside Improvement Act 2000.

The Improvement Plan identifies how the rights of way network meets the needs of users, for travel, exercise, recreation and highlights measures required to address shortfalls, particularly around accessibility of the network.

Leicester's Rights of Way Improvement Plan

The council's first RoWIP was awarded first place in the improving accessibility for all category of Natural England's ROWIP awards, held in March 2009. It recognised the role played by our RoWIP in improving accessibility to the network.

In our second RoWIP we have also identified that a number of well used paths within the city, in particular sections of the cycle track network are unadopted. This is leading to issues with the condition of these routes as they are not subjected to the levels of inspection or maintenance which is enjoyed by those highways maintainable at public expense.

We will seek better ways to report and respond to maintenance issues identified on the network. This may be achieved by increased inspections on various routes, the production of a schedule of features and engaging with known path users who will be encouraged to report matters requiring attention.

The improvements will encourage increased usage of the public rights of way resulting in a reduction in the use of cars.

3.5 Signing Strategy

Direction signs conveying clear and unambiguous information to road users are a useful tool in the management of the highway network. Signs that are quickly and easily understood will direct traffic quickly, easily and smoothly through the traffic network.

National surveys have indicated up to 16% of traffic is lost at any one time. We are also aware that some through-traffic tends to pass through the city centre rather than using the outer ring road. We will improve signing to reduce lost traffic and ensure that traffic uses the most appropriate route. From the research we have undertaken, total vehicle mileage could be reduced by 1.5 % over the principal road network with improved and comprehensive signing. The Freight Quality Partnership (FQP) has focused on the need for improved freight signing. This helps with reducing congestion with less lost traffic and fewer large vehicles obstructing the road whilst asking for directions. It also helps with improving air quality as LGVs emit proportionally larger amounts of nitrogen dioxide than cars so any impact of improved LGV signing will particularly benefit nitrogen dioxide levels.

In LTP3 signing is recognized as an important strand of a number of our strategies:

- General route signing (congestion)
- Freight signing (accessibility)
- Walking and cycling (congestion, safety, but mainly accessibility)

Improvements to general traffic signing will be primarily implemented through our asset management strategy. Where appropriate, the new signs will include adding in bridleway and footway information determined through the Rights of Way Improvement Plan (RoWIP). We will continue to develop the freight-signing programme.

Leicester City Council's signing strategy represents the principles involved in the design and implementation of direction signing schemes in the City of Leicester within the regulations contained in the Traffic Signs Regulations and General Directions.

The council acknowledges the importance of the signing strategy in the context of network management and is seen as a key component in the management of the network hierarchy

3.6 Transport Asset Management Plan (TAMP)

The maintenance of our transport infrastructure is crucial to the council meeting its strategic goals. The council's Transport Asset Management Plan (TAMP) sets out the council's strategy for the way it will manage the maintenance of its transport assets. This is against a background of deteriorating assets, increasing costs, a wide ranging reduction in funding from central government and a cap on increases in Council Tax. At the same time as the population grows and the climate is changing, there is ever increasing pressure on our transport assets.

The TAMP explains how the transport assets in Leicester will be managed by:

- integrating the recording and maintenance of a comprehensive inventory of the assets,
- carrying out regular inspection and assessment of the condition of the assets,
- designing, planning and programming of the maintenance works balancing the council's duty of care to the travelling public, with the budget available in one continuous process.

All the inputs and outputs to this process will be monitored on a regular basis to ensure performance is optimised.

The maintenance strategy acknowledges the different standards of maintenance; safety, serviceability and sustainability.

The Transport Asset Management Plan (TAMP) is sub-divided into the following:

Transport Asset Management at Leicester

Gives an overview of Leicester's assets and explains our approach to asset management planning at Leicester City Council.

Levels of Service

Defines the levels of service that are proposed, sets out how services are delivered and arrangements for monitoring performance.

Lifecycle Management Planning

Explains the lifecycle management planning approach encompassing the entire transport asset and sets the scene for the specific asset groupings life cycle management plans.

Lifecycle Management Plans

Explains how the specific asset grouping is managed and actions to improve the service provided. This includes:

- Carriageways and Footways
- Highway Structures
- Car Parks, Bus Station & Bike Park
- Street Lighting
- Traffic Signals & associated equipment
- Trees & Landscaping
- Winter Service
- Street Furniture

Drainage Asset Management Plan (DAMP)

Highway drainage is an essential part of any highway which provides a route for rainwater falling on the footway or carriageway to drain away in a safe manner and is designed to prevent water from remaining on the surface and causing a danger to drivers and passengers. So it is vital that we maintain our highway drainage assets.

Our Maintenance Strategy covers the three areas of safety, serviceability and sustainability. The safety of our drainage assets are covered by visual inspection as

part of our highway safety inspections. In case of developer designed schemes, we would want to use more Sustainable Urban Drainage Systems (SUDS).

Financial Management

The council makes asset management investments using finances from a variety of sources. Different assets attract finances from different sources.

The Asset Inventory will be developed in accordance with the County Surveys Society Framework for Highway Asset Management, covering the needs of the Asset Valuation. In order to support the asset valuation, the asset inventory includes the **Asset Register** that lists the assets in our ownership and **Valuation Data** recording features that influence the asset values. The valuation will be undertaken by using the valuation principles, basis and rules recommended in the CIPFA's Guidance published in 2010 a '*Code of Practice on Transport Infrastructure Assets: Guidance to Support Asset Management, Financial Management and Reporting*'.

Forward Works Programme

The works programmes that form the forward works programme are:

- Local Transport Plan Integrated Transport Capital Programme
- Local Transport Plan Capital Maintenance Programme
- Highways Maintenance Revenue Programme
- City Council Capital Programme
- Developer funded schemes
- Major Scheme

In addition to the city council's works programmes there are developers' highway related works constructed to facilitate their developments. These works are 'adopted' by the city council, as Highway Authority, and then become highway maintainable at public expense.

TAMP is a strategic document which in many respects directly impacts on this Network Management Plan and is an integral part of the Council's future strategy to fulfil its Network Management Duty. Actions from the plan will directly impact on the transport network. Failure to meet programmes could potentially result in failure to deliver the Network Management Duty.

The TAMP Action Plan sets out our actions for the future in order to meet the aims and objectives of TAMP. This Action Plan also acts as a tool for monitoring progress.

3.7 Roads Hierarchy

Leicester's highway network is classified as follows:

- Primary and Principal Routes (A roads) - length 91.25 km
- Classified Non-Principal (B and C roads) - length 60.5 km
- Unclassified Roads - length 686.9km
- Footways 1a, 1, 2, 3 and 4 - length 1300 km (1a, 1 and 2 length 285km)
- Public Rights of Way - recorded length 65km
- Cycle Routes - length not known

In order to identify and address the needs of all road users and to maximise the benefits of the existing transport system, we developed in LTP2 a Road User Hierarchy (User Classification) and Road Hierarchies. These hierarchies are now established and they have proved most useful. In view of this we will continue to use these same hierarchies in LTP3. This is also important as it ensures that the needs of vulnerable road users and sustainable forms of transport are fully considered within scheme design and policy implementation. The priority given to each user at any point on the network is clearly defined, allowing proper investment and maintenance to be targeted to greatest effect.

User Hierarchy

The Road User Hierarchy (User Classification) is defined in order as:

1. Pedestrians
2. Cyclists
3. Public transport passengers
4. Other motorised vehicle users

To help us decide on the priority for dealing with the competing demands in the management of the network, and so help us decide which activity gets a higher priority, we also have a Traffic Management 'User' Hierarchy defined in order as:

1. Pedestrians
2. Emergency services
3. Utilities and highways - immediate (including emergency) works
4. Cycles
5. Public transport
6. Freight distribution
7. Blue badge holders
8. Other motorised vehicle users
9. Utilities and highways - planned works
10. Scaffolding, hoarding and skips

Road Hierarchy

The Road Hierarchy is defined in order as follows:

1. Strategic Routes with priority for Freight Movement
2. Strategic Routes with priority for Public Transport
3. Strategic Routes with priority for Motorised Traffic generally
4. Local Distributor Roads in commercial development
5. Local Distributor Roads in residential development
6. Local Access Roads
7. Cyclist Routes
8. Pedestrian Routes
9. Rights of Way

We will take this hierarchy into account in considering improvements along any part of the transport network. Good pedestrian access is required to support the use of

public transport and appropriate, safe pedestrian and cycle facilities will need to be considered on all routes.

In the context of the three types of Strategic Route as detailed above the highest priority is assigned to freight, public transport or general motorised traffic, depending on the type of Strategic Route, as defined above. The Road User Hierarchy will complement the Road Hierarchy. It will ensure that all proposed highway works will be subject to a rigorous audit procedure based on the User Hierarchy. Thus the most appropriate pedestrian / cyclist / public transport facilities are delivered on the network, subject to the primary consideration of the Road Hierarchy priority modes.

On Local Distributor Roads there is a need to accommodate motorised traffic but these roads will not be signed for through traffic and freight traffic will be discouraged in residential areas. Priority within the motorised traffic element will vary depending on the circumstances of the individual route, such as whether or not it is a significant bus route. This in turn affects the type of pedestrian/cyclist/public transport facilities incorporated. Application of the Road User Hierarchy however, will ensure that the maximum possible priority is given to pedestrians and cyclists on these routes. On Local Access Roads (including residential, service and pedestrianised roads) pedestrians receive the highest priority, followed by cyclists. Further prioritisation will depend on the circumstances of the individual road, such as use by public transport or service vehicles.

Footway, cycle route and public rights of way hierarchies have also been defined in order, to assist with investment, surfacing choice, safety inspections and maintenance priorities. We have predetermined footway safety inspection intervention levels to help reduce casualties from trips and to ensure Value For Money (VFM). The hierarchies are as follows:

Footways

- 1.a Prestige Walking Zones
- 1.b Primary Walking Routes
2. Secondary Walking Routes
3. Link Footways
4. Local Access Footways

Cyclist Routes

1. Cycle route forming part of the carriageway
2. Cycle route not forming part of the carriageway
3. Cycle trails and leisure routes

Public Rights of Way

1. Longer Distance Footpath Routes
2. Strategic Footpath Routes
3. Leisure Footpath Routes
4. Bridleways
5. Other Access Routes

The categorisation of all the links of each network is currently progressing and maps are being produced clearly displaying the category of each link.

We identify the needs of all road users through comprehensive consultation strategies. Equality and safety design audits are carried out as part of any scheme design process. We have commenced a programme of equality impact assessments for all elements of service delivery. We carry out regular consultation events with the public, stakeholders and partners to identify need.

Winter Service Hierarchy

In order to address the needs of users during cold weather, we regularly review our winter service plan. The winter service hierarchy has been developed and is shown briefly as follows. It is kept under review and the highways to be treated are shown on the council's web site, in libraries and a print version is available.

Carriageways

1. The primary gritting route receives precautionary gritting and consists of main roads, major commuter routes and known trouble spots and other important bus routes.
2. The secondary gritting routes cover other important links but they receive no precautionary salting treatment unless requested by the Police. The extent to which these roads are dealt with in icy conditions will depend on the severity of the conditions, availability of resources and the length of time the conditions prevail.

The winter service plan has been developed in advance of the winter season to assist in determining priorities in such conditions.

Footways, Pedestrian Areas and Cycleways

Snow clearance work is carried out in order of priority using available resources:

1. City centre shopping areas
2. Outlying or non city centre shopping areas
3. Locations notified by the police on footways or pedestrian areas (with the relevant Incident Number)
4. Areas near schools, hospitals, old person's dwellings, and other areas of high pedestrian risk.

4 Leicester City Council's current Network Management Operations

Leicester City Council understands that a co-ordinated approach to management of the current operations is crucial to the successful management of the network both now and in the future. The following is a synopsis of the council's operations with details of how these will address future growth within the city.

4.1 Whole Authority Approach

The network management duty "requires consideration of anything that affects the co-ordination or regulation of the flow of traffic, not just the activities of the highways department and third parties. As such, authorities should look to ensure that the whole organisation is aware of the duty and the implications for them" (Duty Guidance, p.10).

To meet this obligation, the city council has taken a strategic approach to its network management duty. This includes:

- Restructuring the Regeneration, Highways and Transport Division to ensure that all network management functions fall under the responsibility of the Traffic Manager;
- Gaining approval and endorsement of this Plan from the Cabinet Lead for Regeneration, Highways & Transport and at Director level within the organisation to ensure authority-wide commitment is maintained;
- Ensuring that all departments and sections of the council which may have a possible impact on the flow of traffic for example, refuse collection, have been made aware of the need to consider the implications of their actions against the authority's strategy for meeting the duty. This has been achieved through a series of workshops, presentations, meetings and reports;
- Identifying, developing and establishing a process to keep under review the effectiveness of the arrangements put in place.
- The Protocol for Major Road Works was agreed between the council, utilities and other partners and signed by the leader of the council in 2002. The Protocol outlines Leicester City Council's policy on proactive communication of issues relating to major roadworks. It also sets out standards for coordination of roadworks and establishes a moratorium on roadworks during the Christmas period from December to early January. A copy of the "Protocol for Major Road Works" is attached at Appendix 1.

4.2 Traffic Sensitive Streets

Under NRSWA a street authority may designate certain streets or parts of streets as "Traffic Sensitive" if they meet the criteria set out in the Code of Practice for the Coordination of Streetworks or by agreement with utilities with apparatus in the street concerned. The designation highlights when works are likely to be particularly

disruptive and unless there is no practicable alternative works promoters are required not to occupy the highway at traffic sensitive times to minimise disruption to road users.

The latest list of Traffic Sensitive Streets in Leicester was reviewed, agreed with the utilities and published in February 2008. At present the total length of Traffic Sensitive Streets in Leicester is over 170km.

4.3 Christmas Moratorium

Traffic Sensitive Streets are also subject to a voluntary Christmas Moratorium which was agreed as part of the “Protocol for Major Road Works” in 2002. The moratorium extends from December to early January every year and applies to all promoters’ works which affecting the highway.

4.4 Working with Partners and Stakeholders

Partnership arrangements are already in place to ensure effective stakeholder engagement to assist in the delivery of the duty obligations and to ensure that as an authority we are aware of the needs of the different road users and consequently manage the road space for everyone.

Partnership working is vital to the successful delivery of the network management duty and the city council will continue to explore ways to further improve partnership arrangements where the need arises, for example, working closer with the police to minimise the impact on traffic caused by unplanned incidents and sharing information with partners to improve the quality of communication.

The key partners and stakeholders are set out in Table 1 below:

Table 1: List of key partners and stakeholders

Stakeholder/Partner	Details of arrangements
Businesses and Utilities via “Protocol for Major Roadworks”	Agreement endorsed by the Leader of the Council and Cabinet Lead for Regeneration & Transport with businesses and utilities includes provision of better information, partnership working and the introduction of the Christmas Moratorium on roadworks in December and early January every year
Leicestershire County Council	The Local Transport Plan and Congestion Delivery Plan have been produced jointly by the city and county councils to address the transport issues facing the Central Leicestershire. City and county co-ordination meetings are jointly attended to ensure cross-boundary cooperation. Meet twelve times per year. The county council is also a full partner in both the Area Traffic Control and the Traffic & Travel website.

Highways Agency	<p>The Highways Agency and the city council are committed to a partnership working through the Detailed Local Operating Agreement [DLOA] which describes procedures, protocols and communication methods that will be used by both partners in exchanging and acting upon operational information.</p> <p>The Highways Agency is also a full partner in the Traffic & Travel website and the traffic signals within the Trunk Road network in the city and county are managed and maintained within the TCC partnership.</p>
Leicestershire Police	<p>The police support the council in planning & managing events affecting the highway and are also a key partner in the management of incidents on the network. The police have close links with Area Traffic Control</p>
Leicestershire Fire Service	<p>The Fire Service supports the council in participating in the Events Advisory Group and multi-agency planning meeting for events affecting the highway</p>
East Midlands Ambulance Service [EMAS]	<p>EMAS supports the council in participating in the Events Advisory Group and multi-agency planning meeting for events affecting the highway</p>
Quality Bus Partnership (QBP)	<p>The remit of the partnership is to co-ordinate local authority infrastructure investment with bus operator service development and jointly promoting increased bus use through voluntary agreement. Quarterly progress reports highlight issues relating to buses and measures are put in place to help address those issues.</p>
Freight Quality Partnership (FQP)	<p>Re-launched in May 2009 the FQP seeks to Initiatives arising from the FQP include a freight signing strategy, a freight map, an industrial estate survey and a freight website. These are all intended to reduce 'lost' LGV mileage and hence contribute to tackling congestion as traffic flows will be effectively 'reduced'</p>
Leicester and Leicestershire Motorcycle Forum (LLMF)	<p>Some initiatives which arose directly from our work with the LLMF include: completion of a comprehensive motorcycle survey, an anti-diesel spillage campaign, production of information cards to allow motorcyclists to inform us of potential hazards and the implementation of improved motorcycle parking facilities.</p>

Cycle-City-Workshop	A monthly meeting of advocate groups, bike projects clubs and cycle shops. Key projects are co-ordinated via the Cycle-City-Workshop. The projects promote and encourage people to cycle more resulting in a reduction in the number of cars on the network.
Leicester City Local Access Forum	<p>The Leicester City Local Access Forum is a statutory body set up by the city council under the Countryside and Rights of Way Act 2000.</p> <p>The forum is an independent advisory body that advises the council on the improvement of access to local amenities and land within the city for the purpose of open-air recreation and enjoyment, in ways which address social, economic, environmental interests and personal health and security issues.</p> <p>The forum is a voluntary body with eleven members including two elected city councillors. The members represent various classes of users and other interests including general transportation, mobility issues and industrial heritage.</p>
East Midlands Highways Authorities and Utilities Committee (EMAUC)	The purpose of EMHAUC is to provide a forum for the highway authorities and utilities operating in the East Midlands region to discuss and agree upon matters in relation to street works activities. The group meets on a quarterly basis with separate quarterly meetings also held for both the Highway Authority and utility representatives
East Midlands Traffic Managers Forum	A forum for local authority traffic managers to meet and share experiences and discuss emerging common network management themes. Meets three times per year.
Electronic Local Government Information Network (ELGIN) User Group	Elgin was developed by East Midlands Authorities to provide information across authority borders to the public and to promote cross-border coordination. It is now used by many Highway Authorities across England

4.5 Co-ordination and Direction of Works

4.5.1 How we co-ordinate works

The city council recognise the important role played by the efficient co-ordination of streetworks and other activities, like events and road works carried out by the council, in minimising disruption and inconvenience to road users. To ensure that efficient co-ordination takes place the council actively participates and promotes a number of co-ordination forums as detailed in Table 2 below:

Table 2: Co-ordination forums

Co-ordination forum	Details of arrangements
East Midlands Authorities and Utilities Committee (EMHAUC)	The principal issues addressed by the forum include policy determination within national HAUC guidelines, monitoring the effectiveness of local co-ordination arrangements and providing policy guidance on a local basis. Where necessary it also facilitates local dispute resolution procedures. The group meets on a quarterly basis.
Leicester City NRSWA Coordination Meetings	Meetings take place with utility companies, developers and staff managing council works to co-ordinate of across the city and deal with cross-border issues with the county. Meetings are on a quarterly basis
Leicestershire County NRSWA Coordination Meetings	Separate meetings for the North and South Divisions of the county. City presence promotes partnership and coordination on cross-border issues. Each division meets on a quarterly basis
Events Advisory Group	Forum for planning and co-ordinating special events, involving event organisers, the Police, Fire Service, EMAS, public transport operators and network management officers. The group meets on a monthly basis – organisers need to hold multi-agency meetings for events. For large annual events such as Diwali, Caribbean Carnival and Vaisaikhi de-briefing meetings also take place after the event as part of a lessons learnt approach.
Monthly Traffic Management Meetings	The meeting is attended by developers. Police, Fire Service, EMAS, public transport operators and network management officers including cycling and walking reps. to examine in detail the traffic management, coordination and TTRO arrangements resulting from the NRSWA Coordination and Events Advisory meetings. Local businesses are also included when appropriate

Special Traffic Management Meetings	Ad-hoc meetings - as above to manage large projects i.e. City Centre Re-development or for multiple schemes that require complex coordination
Highcross Traffic Management Meetings	Regular meetings starting October 2008 to plan and react to traffic management implications caused by the increase in traffic before Christmas. Planning includes car parking, bus services and Park and Ride arrangements. Meets every two weeks with a de-brief each January.

4.5.2 Co-ordination forums

The co-ordination of medium-term and annual programmes for all work promoters within Leicester and Leicestershire is undertaken through a central EMHAUC database which is available at www.emhauc.org.uk. It enables those planning schemes to establish what other works are planned at the location. Where conflicts exist, including cross boundary conflicts between the city and county, the quarterly co-ordination processes resolve them. This also includes the co-ordination between local authority works and those planned by the Highways Agency.

Short to medium term co-ordination takes place through the serving of notices and forward planning information by work promoters which is processed and managed through the council's street works register, which uses GIS to enable proposals and current activities to be viewed against a map background, which helps conflicts and problems to be identified, allowing appropriate action to be taken.

Information about current works on the register is also available to the public and other interested bodies such as statutory undertakers through the Electronic Local Government Information Network (Elgin) which can be viewed at www.leicester.elgin.gov.uk and via the Traffic & Travel website at www.leicester.gov.uk

The council welcomes the new mandatory requirement that street works notices include National Grid References (NGRs) which has improved the accuracy of information. To increase the benefit of this change, we will introduce a requirement that NGRs are also given on other relevant documents, such as applications for skips and scaffolding on the highway.

Additional co-ordination takes place at the Monthly Traffic Management meetings or on a scheme by scheme basis with individual utilities, developers and the council's own work promoters, particularly where the works could result in significant levels of congestion, to identify traffic impacts in the context of other works and planned events, so that opportunities for joint working can be considered. The council considers all aspects of the proposed works and other influences that may affect traffic in order to mitigate its impact, including:

- The road network capacity;
- The impact, if any, of the works on an adjoining traffic authority;

- The scope for collaborative working arrangements, including trench and duct sharing, between undertakers and the council's work promoters;
- The optimum timing of the works from all aspects, depending on the different type of road;
- The effect on traffic (including public transport operators, pedestrians, cyclists and the mobility impaired); in particular the need for temporary traffic restrictions or prohibitions;
- Requiring that all temporary traffic control, especially temporary traffic signals, be only used where and when necessary, and where used are either vehicle-actuated or, at appropriate times, operated manually;
- Identifying alternative routes on which planned works are prohibited until the other road is clear (known as "road pairing");
- Requiring the use of appropriate traffic management techniques and arrangements, particularly at difficult road junctions and pinch points;
- The working arrangements required in protected and traffic sensitive streets, and streets with special engineering difficulties;
- The effect of skip and scaffold licenses;
- Any known special events and other licenses or consents issued in respect of affected streets under the New Roads and Street Works Act 1991 or Highways Act 1980;
- Developments for which planning permission has been granted on streets affected by the works.

4.5.3 Parity

Leicester City Council has implemented the requirements of the Code of Practice for the Co-ordination of Street Works and Works for Road Purposes and Related Matters (Third Edition) which came into force on 1st April 2008, and have put in place new processes to ensure that the Council's own works promoters comply with the requirements of the new code of practice. This requires all works by the council to be Noticed through the EToN system on the same basis as that of the utilities. This also includes proposals to monitor the performance of our own work promoters through the use of Performance Management Measures (PMMs) (See also 6.2 Key Parity Measures). The aim is to compare the performance of all work promoters carrying out works on the highway, including the city council, which will allow the authority to recognise those work promoters, both internal and external, that are not improving, and to work with them to identify the causes and agree improvement actions. This demonstrates the Council's efforts to ensure parity as required under the Duty.

4.5.4 Permit Scheme to control working in the highway – Part 3 TMA 2004

During the last two years Leicester City Council, Nottingham City Council and Derby City Council have been exploring the options for the development of a 'common' permit scheme. The three cities will be including the proposal to introduce permit schemes within their Local Transport Plans as well as Network Management Plans. We have developed an action plan following the publication of recent guidance and the introduction of schemes in London, Kent and Northamptonshire. We are now working on the details of a proposed scheme for implementation in 2012.

A Permit Scheme enables a local authority to have more control over works in the highway by requiring utilities to apply for permits to before they start work in the highway. At present a utility is required to provide a “Notice” of their intention to work under New Roads and Streetworks Act which then requires a reaction from an authority to require conditions. A permit enables an authority to lay down conditions – such as and when works may take place - to minimise disruption to the public. Permits will also enable the duration of works to be challenged and controlled more effectively especially in works on our strategic network. Work promoters may be fined if they fail to comply with permit conditions.

The authority will be able to charge for permits but will need to demonstrate in its application to the DfT that the scheme will deliver net benefits to road users and wider society. The DfT will also require a comprehensive statement of costs and benefits with the application which will be required to show that the permit fees raised do not exceed the costs of implementing the scheme – collaborative working will help to achieve this.

4.6 Dealing with planned events

4.6.1 Events Advisory Group

Leicester hosts numerous festivals and events, some organised by Leicester City Council and others by private organisations, during the course of the year and inevitably these have the potential to cause disruption to the highway network. The issues arising as a result of these events/leisure activities, whether major or minor, cannot be ignored and need to be managed in order to minimise disruption on the highway.

The Events Advisory Group consisting of city and county officials was set up to do just that. The group meets on a monthly basis to ensure a consistent, focused and, most importantly, co-ordinated approach is taken to the management of pedestrians and traffic on the highway to help minimise congestion on the network.

In addition, multi-agency meetings are set up for major events such as the Caribbean Carnival and Diwali. These meetings are conducted throughout the year to ensure road closures, TTROs, direction signs, etc. are dealt with and planned in advance of the event.

4.6.2 Abnormal loads

The routes proposed by the hauliers as detailed in their abnormal load notifications are examined by the Abnormal Loads Officer to ensure that the bridges on the proposed routes are suitable in terms of the width, height and weight of the load. Normally, the route proposed by the haulier is acceptable, however, where proposed routes are deemed not acceptable due to the possibility of damage to bridges, an alternative route is agreed with the haulier. If the abnormal load exceeds 80,000kgs, or 3.0m in width, 18.65m in length and an alternative route is required, the Abnormal Loads Officer will contact the police, who have the sole authority to issue a re-route to the haulier. By using this approach the possibility of congestion or disruption to road users caused by the abnormal loads is reduced. We also work with the police, where appropriate, to establish routes for different types and sizes of abnormal loads. All notifications are checked against current

street works to establish whether any temporary restrictions caused by road works (or events) may impede the movement of the abnormal load, so reducing further the possibility of disruption being caused to road users.

4.7 Contingency / emergency planning

Unplanned events and occurrences on or near the public highway can have major implications on the management of the highway network. By definition these events cannot be anticipated and therefore an effective response specific to each individual situation is needed to ensure the impact of any major disruptions is minimised. Detailed below are some of the more generic systems and processes already in place to deal with such situations.

4.7.1 The causes of incidents

There are many factors that can cause incidents that can have an adverse effect on the flow of traffic on the public highway, some of which are listed below:

- Road traffic collisions
- Traffic signal failure
- Vehicle breakdowns
- Adverse weather conditions
- Fallen objects / debris causing an obstruction e.g., trees, oil spillages
- Major security alerts e.g., risk of terrorist attack, bomb alert
- Emergency utility works, e.g., burst water mains, gas leak
- Building fires adjacent to key routes in particular

4.7.2 Major incidents and emergencies

These are primarily dealt with by the police and other emergency services. Leicester City Council obviously has an element of involvement in the activities required to deal effectively with any given situation. Leicester City Council's Major Emergency Plan contains an alerting list for such an event. Dependant on the nature of the incident/emergency the matter can be escalated up through the hierarchy of responsibility as necessary.

A member of the Traffic Systems Section is always at hand to manage and co-ordinate traffic in these circumstances. The intelligent transport systems (identified below at 4.8) are utilised in order to minimise disruption on the highway during such major incidents / emergencies. Radio broadcasts are used to communicate these issues to the public as and when the need arises.

4.7.3 Out of hours arrangements

Leicester City Council's security is available 24 hours a day for the reporting of any incidents, which are then escalated accordingly.

4.7.4 The role of the Traffic Control Centre

The Traffic Control Centre is staffed during the hours of 7am to 6.30pm, Monday to Saturday. Arrangements are also in place for staff to work during Sundays and Bank Holidays in order to monitor particular events such as football / rugby matches. Using 33 screens, focussed on key locations and routes, operators are

able to quickly identify incidents on the highway network and the appropriate operations can be quickly put into place to minimise the impact on traffic flow and congestion. Established communication channels (internal and external) enable a quick and efficient response to any such incidents.

4.7.5 Adverse weather conditions

Adverse weather conditions (high winds, flooding, snow and ice) can have a major detrimental impact on the flow of traffic on the highway network with the potential to cause road traffic collisions and difficulties manoeuvring vehicles due to icy/wet road conditions as well as debris on the roads. Weather conditions are monitored and appropriate activities and operations are instigated (gritting etc.) to ensure minimal impact on the road network. As mentioned previously, radio broadcasts will inform the public of such incidents should the need arise.

4.7.6 Cross boundary incidents

Cross boundary incidents are again dealt with through the use of CCTV equipment enabling quick identification of incidents and communication via established communication networks with bordering authorities.

4.8 Intelligent Transport Systems

The Transport Systems Section is responsible for ensuring intelligent transport systems are in place, maintained, developed, and utilised to their full extent in order to management traffic flow on the highway network.

4.8.1 Split Cycle Offset Optimisation Technique (SCOOT)

The SCOOT system is a traffic management and control system which enables network managers to obtain the best capacity out of the road network when physical works such as road widening or major junction improvements would otherwise prove too costly or environmentally unacceptable. SCOOT succeeds in those areas where there is a reasonable density of signals by allowing traffic flow to be controlled. The benefits are not as great in those areas that contain only isolated signal installations.

The SCOOT network in Central Leicestershire is now relatively mature and there is minimum scope for further significant gain in network capacity. Nevertheless there is a constant requirement to monitor, review and revalidate existing SCOOT locations to ensure the operational benefits are being sustained i.e. continuing to allow the free flow of traffic as necessary.

SCOOT "fully responsive" urban traffic control system requires no pre-calculation of fixed time plans because the model contains logic which analyses the information from vehicle detectors and decides how best to co-ordinate the signal timings. SCOOT adjusts the signal timings in frequent, small increments to match the latest traffic situation. Data from vehicle detectors are analysed by the urban traffic control computer which contains programs that calculate and implement those timings that are predicted to minimise congestion and delay on the network.

4.8.2 Urban Traffic Control (UTC)

The Urban Traffic Control system manages the following:

- Traffic signals
- Car park monitoring
- CCTV
- Fault management system
- Traffic Data Analysis Software (TDAS)

Traffic Signals

Leicester City Council manages the day-to-day operations and maintenance of all the traffic signals in Leicestershire and Rutland.

The role of the group is to help determine traffic management at roadworks, particularly in the city but also to support the traffic management used in adjacent authorities, specifically by monitoring the operation of traffic signals and other systems, to minimise congestion. This enables a consistent approach to management of traffic across the boundaries of Leicester City, Leicestershire and Rutland.

It not only allows the sharing of information, but also provides a consistent, countywide approach to traffic management and the road network / infrastructure, ensuring a free flow of traffic throughout the county

To manage and minimise congestion, the UTC system is pre-programmed to deal with different anticipated traffic levels as follows:

- Weekdays – to manage increased traffic volumes during peak periods
- Football and/or rugby days
- Weekends – Saturday more traffic in city dependant on events etc.
- Weekends – Sunday – less traffic in city, possibly more in the county. These are dependant on events in the city, county and Rutland

Car park monitoring

This system has developed over the years and now includes the ability to provide information regarding the numbers of car parking spaces available at any one of the city car parks. Previously the only information available was “car park full” or “spaces available”. This resulted in traffic congestion at the entrance of car parks that could and did have a knock on effect on surrounding roads. The ability to inform customers of the number of spaces available has reduced congestion by redirecting them to other car parks with capacity to take more vehicles.

CCTV

The CCTV system allows the monitoring of traffic throughout the city and to identify traffic hotspots during the course of the day that can then be dealt with and managed appropriately.

Fault Management

The Prefect Fault Management system is a cost effective method of tracking maintenance of traffic signal equipment, running costs and the reliability of on-street equipment. The system can accept fault reports generated automatically by the Urban Traffic Control (UTC) or Remote Management System (RMS) computers.

The database holds details of all street equipment on a site-by-site basis, with each site having a unique number with its location and street name for identity.

Maintenance contractors are given a Personal Digital Assistant (PDA) where they receive faults and enter clearances in real time. This allows faults to be dealt with quickly and thus improve repair times and fault PMMs. The impact on traffic management is significant as issues can be dealt with in an effective and efficient manner and the traffic returned to free flowing as soon as possible.

Routine maintenance activities and periodic inspections can be planned and alert contractors to ensure they are carried out. Notification of completion of maintenance and inspections can then be input directly into the system.

Traffic Data Analysis Software (TDAS)

The traffic data is collected and stored into TDAS which extracts data from SCOOT and the UTC database. The database collects data from other intelligent systems and presents the user with required reports.

TDAS provides a detailed analysis of traffic data automatically collated from the Urban Traffic Control computer and the car park guidance system. The system collects traffic count, journey time, SCOOT and car park data for validation and analysis and provides comprehensive reports for traffic data, trends and statistics.

4.8.3 Real Time Information for buses – StarTrak

StarTrak is a real time bus information system that uses satellite tracking to determine bus locations, which is then translated into displays at over 200 bus stops in the city and the county. The system was piloted in Leicester and Leicestershire in 2000. It links in with the Urban Traffic Management and Control System (UTMC) based in Leicester thus enabling priority at traffic signals to be given for buses that are running late.

StarTrak is now, however, reaching the end of its useful life with parts and hardware/software upgrades now difficult to obtain or unobtainable. There is a need for a replacement real time bus information system but the funding will be very challenging in the near future.

Automatic Vehicle Location (AVL)

The use of Automatic Vehicle Location (AVL) allows buses to be given priority at signalised junctions. Bus priority systems enable bus companies to keep to their timetables, improving punctuality, with potential to increase passenger numbers due to the improved reliability of buses. This in turn has the potential to reduce the number of private vehicles on the network, thereby helping to keep the network flowing freely.

4.9 Traffic Information Services

The provision of timely and accurate information to the public is critical to the management of the road network and forms an integral part of network

management. This allows the road user to make informed decisions about the time, mode and route of their journeys.

This information is conveyed not only to the public but to other organisations / utilities etc. in a number of different ways, as detailed below.

4.9.1 Radio Broadcasts

The impact of the information conveyed to the public can have a positive impact on managing congestion by advising travellers to avoid traffic hotspots. The reason for these could be due to sheer volume of traffic, road traffic collisions, roadworks, utilities works or other events.

Scheduled BBC radio traffic information bulletins are broadcast Monday to Saturday as follows:

Weekdays: 7.00am to 9.00am, every 20 mins
9.00am to 4.00pm, every 30 mins
4.00pm to 6.30pm, every 20 mins

Saturdays: 9.00am to 12.30pm, every 30 mins

In the event of a major unplanned event causing traffic problems, additional broadcasts can be included.

A Traffic Information Service Database provides details of start and end dates/times of approximately 3,500 roadworks, parades, accidents, etc. per year. In order to ensure the information held on the database is managed in such a way so as to ensure it is up-to-date and correct at the time of broadcast, a team of dedicated Traffic Information Assistants will:

- Liaise with relevant organisations at the beginning of each day to confirm the information held on the database is still appropriate and current.
- Send to all relevant organisations a forward plan for the following week in order that they are made aware of any disruptions and can therefore manage their operations/services accordingly. This information is also updated on a daily basis.
- Forward planning information is also communicated during these broadcasts. Essentially, the broadcast provides information regarding upcoming schemes that are likely to have an impact on people's mode of transport and journey times. The information compliments details provided to other organisations such as bus companies in order that re-direction of services can be communicated well in advance of changes taking place.
- Send the forward plan every Friday to the city council press office for release to the local newspaper, the Leicester Mercury.
- Provide additional travel information during adverse weather conditions such as severe rains, snow, ice etc.

The information held on the database links directly into the Leicester City Council website thereby ensuring the information supplied to the public etc. on the webpage

is accurate and up-to-date. The database also feeds directly into the Help2Travel website which provides travel information across the region.

These details are shared with organisations such as the bus companies, the national press and Trafficlink. Bus companies can then anticipate potential hold-ups in traffic and attempt to reduce the effect of this on their services potentially leading to a positive impact on the wider network. Provision of information to Trafficlink also has a similar impact. Trafficlink provides live traffic and travel news 24 hours a day, 7 days a week, 365 days a year around the country and locally outside of the Traffic Information Services' working hours.

4.9.2 Electronic Local Government Information Network (Elgin)

The Elgin map based web site shows the roadworks carried out in the city and the surrounding county, in a seamless way, enabling roadworks information to be seen across boundaries. Elgin is automatically updated on a real time basis via each authority's NRSWA Streetworks Register. It is available through the Leicester City Council web site and is customised to show Leicester and surrounding County area. Elgin addresses the eGov target and the NRSWA Code of Practice requirement for the public to be able to inspect the Streetworks Register, free of charge, at all reasonable times. It also meets the Network Management Duty requirement about providing information on roadworks to facilitate in dealing with cross boundary issues.

4.9.3 Leicester Mercury

As detailed in 5.9.1, the council's press office is provided with details of all roadworks in Leicester every Friday for release to the local newspaper, the Leicester Mercury, enabling those without internet facilities to access the information.

4.9.4 City Council Website

Provides details of future works to ensure travellers are able to make informed decisions about the route they take in order to avoid congestion as a result of the roadworks. Although diversion signs are provided, real-time information is provided on the City Council's website via a link to the Traffic Information Services Database. Various useful traffic and travel links (e.g., AA Roadwatch, highways.gov.uk, transportdirect.info) are also provided on the city council's website. The council's website does not integrate with Elgin at present, however, this has been highlighted as an area for improvement in the future.

4.9.5 Leicestertravelinfo

We have developed a website (Leicestertravelinfo) to provide a live traffic and travel information service. It features planned and current incidents and roadworks, car park occupancy, rail and air departures and jam cam images. In addition, there is live departure information for all bus stops within Leicester, Leicestershire and Rutland. This fully functional site was launched in October 2007.

4.10 Parking Restrictions

Parking restrictions can have a direct impact on minimising congestion and delay on the road network. The reduction and management of obstructions and dangerous

parking etc. all contribute to clearer roads and the resultant free flow of traffic. It can be argued therefore that parking restriction is an essential tool in the management of the road network and the fulfilment of the provisions of the Traffic Management Act and the Network Management Duty.

4.10.1 Parking Policy

Parking policy is an integral part of a local authority's transport strategy and policies aimed at tackling congestion and ensuring that the transport network operates as smoothly as possible by minimising both dangerous and obstructive parking. Effective management of all on-street and off-street parking either directly or indirectly is essential to achieving this goal.

City Centre Car Parking Strategy: Supplementary Planning Document

A City Centre Car Parking Strategy (SPD) is being produced by the city council. It is expected to be adopted March 2011. This SPD is being produced to provide an evidence base about the current level of city centre car parking provision. An adopted City Centre Car Parking Strategy will allow us to proactively manage the supply, matching future supply with likely demand.

It will provide a clear strategy for public car parking provision, taking account of both existing and future demand within the city centre. It will be reviewed within 5 years, immediately after the first review of the Core Strategy. It aims to:-

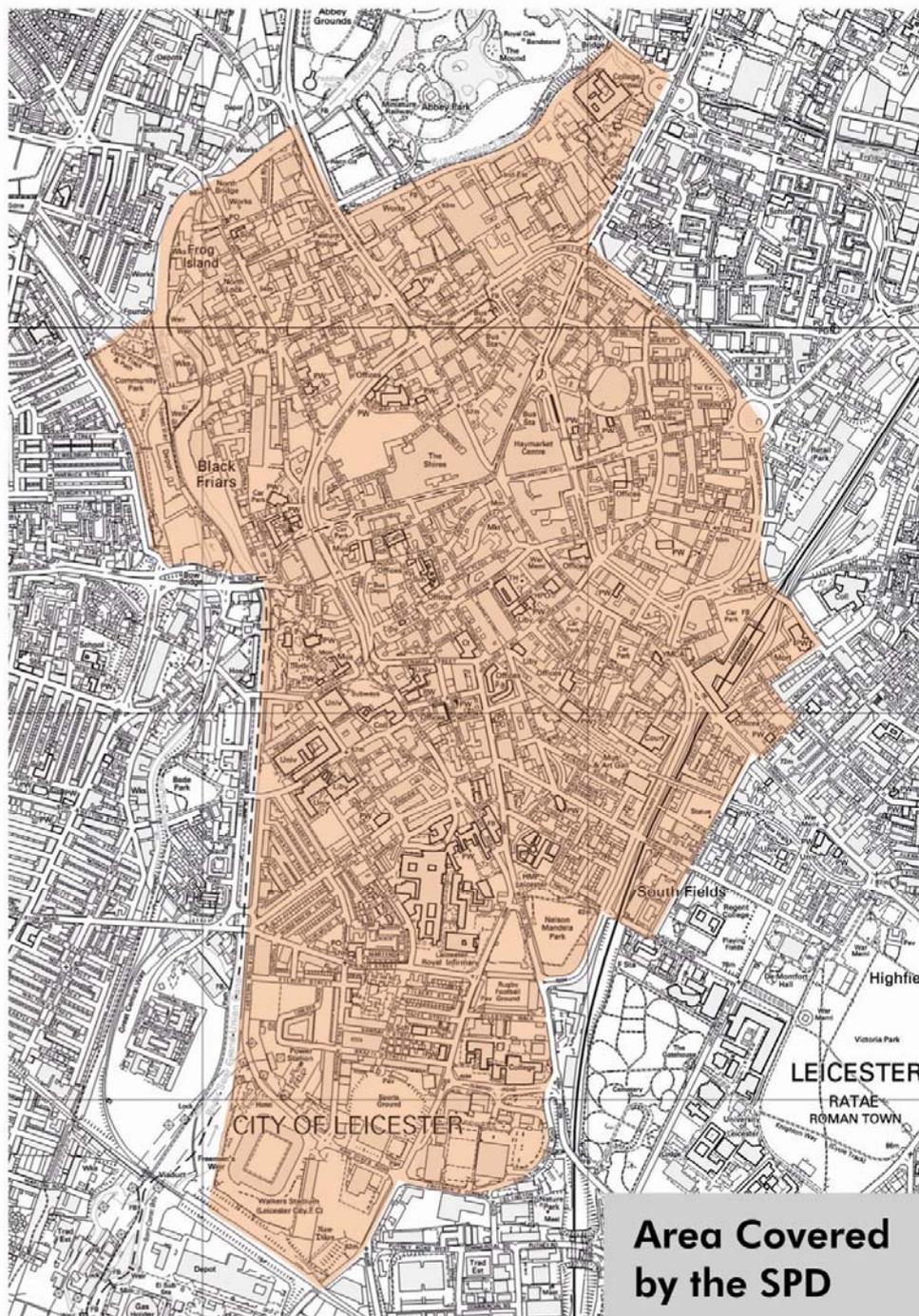
- Describe what the current patterns of parking are in the City Centre;
- Provide a basis for taking decisions on future car parking, based on current and future demand;
- Encourage economic regeneration by balancing the needs of visitors, shoppers, residents and businesses with the development of sustainable transport, CO2 and nitrogen dioxide reduction objectives and air quality improvements;
- Ensure quality parking provision that is well designed, located and managed;
- Provide a basis for decision making on the progressive removal of temporary and unsightly or outdated parking provision, to improve the city-scape;
- Be integrated with the wider city centre strategies for planning, transport, CO2 reduction and city centre management.
- It will form part of the future broader City Wide Parking Strategy that will be prepared in line with National Planning Guidance and Core Strategy Policy CS15. This will review both residential and non residential parking standards.

The SPD will be used to:-

- To achieve an appropriate level of car parking that will support the economic viability of the city centre for work, shopping and leisure, without undermining sustainable modes of transport.
- To take decisions on proposals for freestanding parking provision (i.e. not associated with new development). Applications for parking that are associated with new development will continue to be considered on their individual merit in line with current planning policy.
- This SPD has focused primarily on the parking supply for commuters taking into account park and ride services. On-street parking has been excluded.

- It will be used in pre-application discussions and as a material consideration when determining planning applications.
- It provides a new evidence base about the current level of parking supply and demand.
- It provides a criteria based approach for considering enforcement action against unauthorised car parking.

The boundary of the SPD area has been based on the Central Transport Zone (CTZ) from the Local Transport Plan and slightly expanded to include the major car parking destinations that are close by, within and adjacent to the city centre. See **Map 1** below.



Leicester's LTP recognises that the city centre and surrounding area is one of the main attractions for employment, leisure and shopping. The LTP is a sustainable transport strategy which recognises that an appropriate supply of public parking spaces is essential to support a city. The LTP both supports and influences Leicester's Core Strategy and the SPD.

Before considering any additional parking that is not related to new development, in the first instance, justification should be given in light of the Local Transport Plan. This sees Leicester as Britain's First Environment city that will be a great place to live but also somewhere that does not place a burden on the planet in future years.

The LTP aims to deliver attractive alternatives to car travel and to cater for some high levels of housing growth whilst managing congestion and improving journey times and accessibility for all, but particularly for deprived groups to support a new prosperity. It seeks to encourage more people to walk, cycle and use public transport (particularly the bus to or from the city centre), to reduce carbon emissions and provide a transport system that facilitates a safer and healthier way of life.

Planning Context

The City Centre Car Parking Strategy Supplementary Planning Document (SPD) forms part of Leicester's Local Development Framework (LDF) and will be supplementary to Leicester's Core Strategy.

Based on the evidence in this SPD, there is now a need to review the adopted Car Parking standards as contained within the 'saved policies' of the city of Leicester Local Plan. The SPD expands on Core Strategy Policy CS 15 Managing Demand For Car Use.

4.10.2 Enforcement

Until January 2007 the duty to enforce parking violations was solely that of the police. This responsibility was handed over to the authority in January 2007. The police still have reserved powers to enforce parking contraventions such as vehicles causing an obstruction on the highway.

Following a consultation review of local authority parking enforcement by the Department for Transport changes in parking enforcement were brought about from the 31st March 2008 by implementing provisions contained within Part 6 of the Traffic Management Act 2004. Under this act Decriminalised Parking Enforcement became known as Civil Parking Enforcement (CPE) and covered civil enforcement of parking contraventions. Moving traffic offences are also expected to be enforced in the future by the Council once the necessary powers are provided. These include failing to comply with a traffic order that is conveyed by a traffic sign including one way streets, no entry, prohibited turns, yellow box junctions and pedestrian zones etc. In recognition of the wider role of parking attendants they are now known as Civil Enforcement Officers or (CEOs).

Effective enforcement should ensure expeditious movement of traffic as required under the TMA Network Management Duty as well as improving road safety, the local environment, quality and accessibility of public transport.

4.10.3 Penalty Notices

The primary purpose of penalty charges is to encourage compliance with the parking regulations. From 1st March 2008 local authorities have the authority to implement a two-tier charging regime. Leicester City Council has opted for a charge of £70 for a serious contravention (e.g., parking in a disabled bay without displaying a valid blue badge) and £50 for a less serious contravention (e.g., overstaying in a limited waiting bay). Both are subject to a 50% reduction should the amount be paid early. This is to maximise the effect of parking enforcement and to act as a deterrent to encourage motorists to abide by the parking restrictions and to park correctly.

4.10.4 Residents' parking

Leicester City Council operates residents' parking schemes in five areas close to the city centre with further schemes being planned. The five areas were previously heavily used by commuter drivers to park during the working day and during the evenings and weekends when sporting fixtures were taking place. The main emphasis of the schemes is to provide adequate levels of local parking for residents and businesses whilst improving living conditions. This is achieved by stopping the streets becoming commuter car parks with the associated pollution and road safety dangers. Residents parking schemes deter commuting by car by removing free all day parking facilities from the central part of the city. Potentially these schemes also support CO2 reduction by reducing commuting and encouraging people to consider alternative options, such as Park and Ride.

4.10.5 Pay & Display parking

In addition to residents' parking schemes large areas of the central part of the city are covered by pay & display restrictions. In the city centre the maximum stay is either two or three hours with a variable charge designed to encourage only short stay parking thereby preventing commuter parking on street. In other areas close to the city centre all day parking is permitted but for a charge of just over £3 per day. The introduction of charges deters the unnecessary use of private cars for commuting as bus fares are generally cheaper than the car parking charge, potentially reducing CO2. A further benefit of the pay & display schemes is that the revenue raised is available to finance further improvements to the alternative more sustainable forms of transport such as buses, walking and cycling.

5 Influencing choice of travel and tackling congestion

Road Transport in Leicester accounts for an estimated 22% of total greenhouse gas emissions in the city, 80% of peak travel involves drivers with no passengers. Leicester residents travel by car for 18% for all journeys under one mile, and 61% of all journeys between 1 to 2 miles. It takes on average 47 minutes to go from one side of the city to the other in rush hour.

Due to the compact nature of Leicester the provision of additional roadspace is an unrealistic measure in tackling congestion. Therefore alternative solutions are required to ensure the current road network is utilised to its full capacity whilst at the same time tackling congestion.

The following measures provide choice to the travelling public whilst at the same time reducing the number of vehicles on the network and helping minimise congestion.

Journey Planning

Our research has led us to conclude that smarter choices have a significant contribution to managing congestion in Leicester but we do need to ensure we have quality alternatives to car travel that we can successfully promote. Our success will be limited without significant public transport improvements in the city centre.

5.1 Quality Bus Partnership (QBP)

The Central Leicestershire QBP was established in 1999. The members of the main steering group are Leicester city and Leicestershire county councils, First Bus, Arriva and Trent Barton. The QBP performs a valuable catalytic function which enables the working groups to actually take individual projects and activities forward. The main steering group meets quarterly and discusses strategic issues which are relevant to local authorities and public transport operators nationally and locally. It is supported by several working groups, including the Bus Operations Group, the StarTrak (real-time) Group and the Bus Information Strategy Group. In addition to these multi-party meetings, the councils meet the two main operators (First and Arriva) quarterly in bi-lateral meetings at which commercially sensitive issues can be discussed.

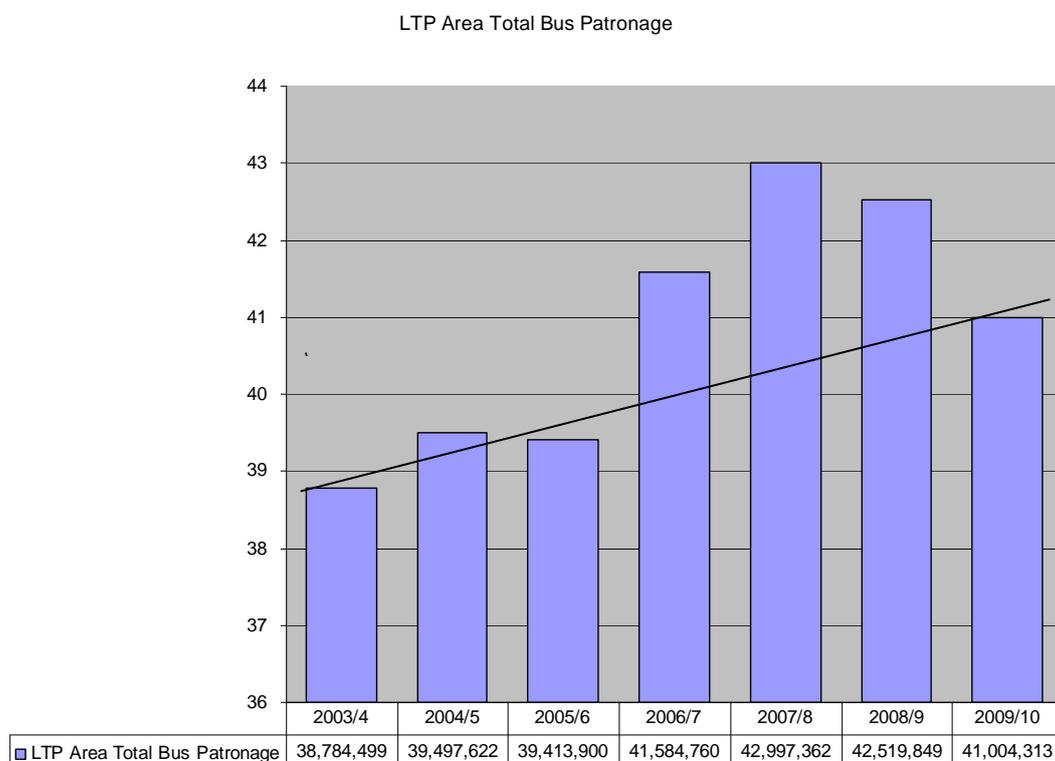
The QBP has been instrumental in supporting and helping to deliver the following:

- A core commercial network which the bus companies will endeavour to keep fundamentally stable for at least five years.
- A network of complementary subsidised services.
- Joint delivery of passenger information to high standards, recognising the need both for a commercial identity for the participating bus companies and for comprehensiveness.
- Involved in the original set up and roll out of the real-time information and bus priority system across the whole network.
- Improved bus facilities in Leicester city centre, with capital investment co-ordinated by Leicester city council.

- Improved bus shelters and bus stop infrastructure at over 800 stops suitable for low-floor buses throughout the area.
- Agreement on a longer-term vision for the development of the network as passenger numbers grow.
- Comprehensive monitoring of patronage.
- Involved in the Smart Ticketing Project, funded by a Department for Transport (DfT) grant, to deliver comprehensive network ticketing.

As a result, passenger numbers in Leicester are growing, and, in the most recent satisfaction survey carried out for the Audit Commission satisfaction with bus services in Leicester was in the top quartile nationally and satisfaction with bus service information was also increasing.

Figure 1: Predicted bus patronage increases through quality bus corridors



The outputs from the QBP have led to a noticeable increase in satisfaction with public transport. The Congestion Strategy includes measures to improve bus journey times. The Authorities' Transport Directors hold strategic level meetings with Bus Company Area/Regional Directors to ensure long-term goals are shared. It should be noted that a review of the operation and constitution of the QBP is due to be undertaken in 2011.

5.2 Quality Bus Corridors

We have over the last 12 years successfully worked hard to provide quality bus corridors from the suburbs located on the edge of the city and in the county area into the city centre. As a result we have increased bus patronage by 6% between 2003/04 and 2009/10.

5.3 Public Transport Improvements

We have identified a need for public transport improvements in the city centre and our immediate emphasis is to develop a package of public transport measures that will reduce city centre congestion, improve quality of bus infrastructure and public realm and improve access to the city centre whilst demonstrating value for money. The scheme will include improvements in services, information systems, bus re-routing and passenger facilities. We will provide effective public transport infrastructure for the years ahead and in an affordable manner as an appealing and feasible alternative for car users and so attract car users from their cars.

5.4 Leicester city centre – New Bus Termini & Routing

We believe the best and most efficient way to deliver the benefits and outcomes that are required is through a comprehensive package of improvements delivered as one coordinated programme. Leicester city council thus has ambitious plans to improve public transport for Leicester and the surrounding area. A comprehensive package of measures would be introduced as part of transforming Leicester into Britain's sustainable city, providing economic growth and environmental wellbeing. The New Bus Termini & Routing (NBTR) scheme is a key priority within One Leicester Planning for people not cars, which has a focus of facilitating growth in trips to jobs in the city centre by public transport. The scheme was previously categorised as `high scoring` in the East Midland funding allocation (RFA2), with Leicester being a major economic centre for jobs and wealth creation within the region. We will be working closely with the emerging LEP to ensure that the scheme is adopted as a first priority particularly in any bids and for funding. This scheme is crucial to underpin sustainable economic growth throughout the city in a low carbon environment and help facilitate new jobs whilst protecting existing jobs.

Investigations have shown that the scheme is needed due to:

- No surplus traffic capacity available on radial and orbital routes into and around the city during peak periods
- Significant congestion on city centre streets
- No suitable kerb space left on city centre streets for additional bus services
- Poor bus facilities have a negative effect on key streets and spaces

The optimised overall scheme would most likely comprise various parts or phases including:

- **New bus station and interchange hubs**
- **On-street bus stand improvements**
- **Routing improvements**
- **Statutory Quality Bus Partnership**
- **Bus Lane and Bus Gate camera enforcement**

The NBTR scheme puts right a deficit in city centre bus infrastructure and offers a low carbon sustainable transport solution that also provides for growth in travel – due to new homes, economic growth and new jobs.

The bus scheme has the potential to deliver the following economic benefits:

- Accommodate transport needs for a 20% growth by 2026 of new housing in Leicester and Leicestershire.
- Removes transport capacity constraints in the city centre that compromise our ability to deliver an effective system to meet public transport needs and grow the local economy.

In Leicester and Leicestershire there has, until recently due to the recession, been a sustained increase in bus patronage. We have introduced additional quality bus corridors, new park & ride facilities at Enderby, with a further park & ride site underway at Birstall. We are also proposing high quality bus facilities, as part of a smarter choices strategy, to persuade car users to use public transport and to cater for the big increases in bus trips that are forecast.

5.5 Park and Ride

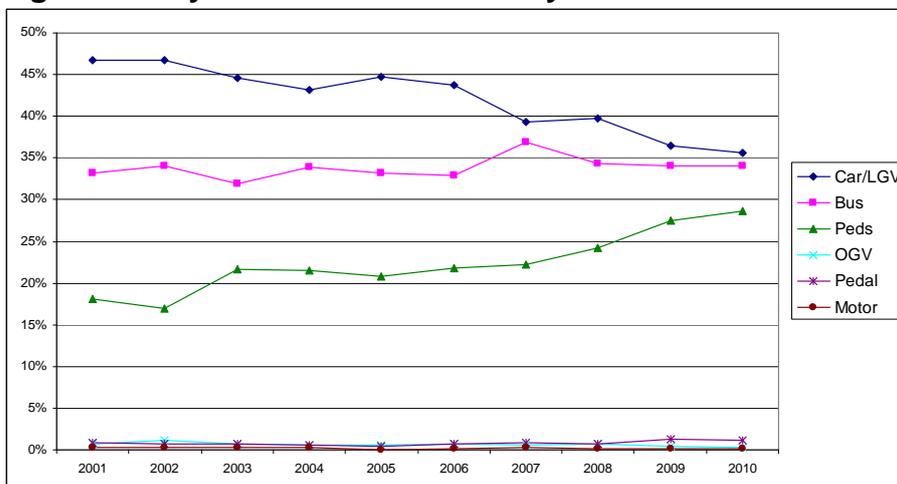
We have two permanent park and ride sites at Meynell’s Gorse and at Enderby located close to the M1 junction 21/Fosse Park area, with a further site under construction at Birstall. There is also Saturday-only site at County Hall. The original permanent site at Meynell’s Gorse has been very successful with the buses carrying up to around 1,750 passengers a day and diverting 200 cars each peak hour. The primary purpose of the park and ride schemes is to encourage car drivers from their cars onto high quality buses for work, for shopping and for leisure.

5.6 Cycling and Walking

Walking is a healthy and important method of getting around, as well as being an element of most other journeys e.g. walking to/from bus stops or car parks. Cycling provides the flexibility of providing transport from any origin to any destination, at any time, and is a practical solution for journeys of up to about five miles. It is a way of improving accessibility to sites that are not well served by public transport and has obvious health benefits.

Figure 2 below shows how the modal share of people walking into the city centre across the inner ring road cordon has increased from 21.8% in 2006 to 28.7% in 2010 (this is an increase of 5,596 people from 29,811 to 35,407), while car trips have fallen from 43.7% to 35.7%.

Figure 2: City Centre Modal Share by Classification 2001 - 2010



At an average walking speed the clock tower in the city centre can be reached within half an hour from places as diverse as the National Space Centre in the North, the Walkers Football Stadium in the South and Spinney Hill Park to the East.

Pedestrian and Cyclists Crossing Facilities

Main roads can act as barriers reducing peoples travel horizons. We receive many requests from the public to install new crossing facilities to enable safe access, to health centres for example, and these are relatively low cost, say £30,000. Providing safe, easy to use crossing points is therefore important in increasing the accessibility of facilities, either to a bus stop for an onward journey or to a final destination itself. Provision of pedestrian and cyclists crossing facilities are relatively inexpensive to provide, particularly as part of a larger highway improvement scheme and hence we will continue this option as part of our Accessibility Strategy.

We will prioritise the continuation of improving cycling and walking access over the ring roads and the completion of the green ringway orbital cycle route. We will also look for improved links between the universities, University Hospitals Leicester (UHL) and existing and proposed transport interchanges.

Advanced Stop Lines

Continue to work to provide on carriageway facilities for example ‘advanced stop lines’ at junctions. Full width lanes should be the first preference; however virtually cycle lanes could be considered where there is insufficient width.¹

Cycle Parking

Cycle hubs which include parking and cycle hire should be provided in these locations along with other frequently used sites e.g. Highcross, universities and UHL Trust.

Opportunities to provide cycle parking should be taken throughout all areas of the city, particularly where local facilities are provided e.g. doctor’s surgeries.

Cycle parking has been provided at major events in Leicester for a number of years. Not only does it provide a service, and means that cycling can be publicised as a way of travelling to the event, but it also forms a monitoring tool.

Cycle Hire Schemes

The London Barclay Bike Hire Scheme could become the first public transport system to make a profit. TfL aim to expand the scheme. However, setting up the bike hire scheme is set to cost £140m over six years. TfL expect it will cover its operating costs within two to three years and will then be able to contribute to its implementation costs.² Paris Velib bike hire is also expanding and making a profit.

Leicester’s Smartcard for use on public transport could have the capacity to be used as cashless payment for Cycle Hire Schemes. Consultation with various groups both cyclists and non-cyclists have put the provision of bike hire as

¹ Advanced stop line research study, Atkins, May 2005

² Guardian.co.uk

desirable. Therefore, the Cycle Hire Scheme is a long term option for Leicester's LTP3.

The cost of providing a bike hire scheme will be unaffordable for the first years of LTP3. However, during this time we will be investigating the strength of the business case.

Community bike maintenance and recycling enterprises

Community bike enterprises such as Bikes4all aim to get people of all ages cycling.

The project recycles bikes donated by the public and corporate sponsors and offers training, activities and services which have a positive impact on the whole community. Leicestershire Constabulary has been working with the city council to provide stolen bikes which are unclaimed.

The idea began in September 2003 to prevent bikes going to landfill when they could be refurbished and donated or sold to families in deprived areas.

The bikes are used during bikeability training to provide bikes for children who don't already own a bike in order that they can still benefit from the training.

This is a community project working with volunteers and provides an invaluable service for little cost.

Providing better cycle service information

An area where Leicester has under performed throughout LTP2 has been in the provision of mapping and signing of cycle routes. Feedback from many cycling stakeholders and in particular from the pilot Personalised Travel Planning Team has been that the lack of mapping and signs are preventing the uptake of cycling.

A new printed map should be available in January 2011 via bike shops, city council outlets and Ride Leicester events. Bespoke point to point Leicester Public Transport and Cycling (and other modes) maps and routes are currently available at the Transport Direct website.

5.7 Leicestershare.com

Developed by Leicester City Council in conjunction with Leicestershire County Council, Leicestershare.com is a free car - sharing scheme that puts different people in and around Leicestershire in contact with each other to car share. The scheme was launched in May 2007 for an initial period of 5 years at which time consideration will be given to renewing / extending the scheme.

Leicestershare.com has been set up by Leicester City Council and Leicestershire County Council to:

- To provide you with alternative modes of transport in and around Leicester.
- To help tackle congestion and improve air quality.
- Gives people the chance to meet new people and to encourage building new social networks.

The initiative helps members not only to save money but makes journey times quicker and more reliable by reducing the number of motor vehicles on the road which in turn helps to reduce congestion.

Leicestershare.com is supported by our local partners - Leicester City Football Club, De Montfort University and University Hospitals of Leicester and many others.

5.8 Travel Plans

Many businesses and organisations in the city are adopting Travel Plans to tackle road congestion, improve air quality and reduce their carbon footprints. A Travel Plan is a package of measures tailored to each organisation aimed at promoting smarter, sustainable travel (using public transport, walking, cycling, car sharing, working from home/flexi-working) to reduce the reliance of single occupancy car users. Currently the city council has 109 Travel Plans which include Highcross, University Hospitals Leicester NHS Trust, Curve, De Montfort University, Leicester Tigers and many more.

The city council also undertakes School Travel Plans with primary and secondary schools in the city. Currently just over 90% of schools have a Travel Plan with a view to 100% participation by the end of 2010.

6 Monitoring and Evaluation

Monitoring the effectiveness of the arrangements put in place by the city council to manage the network is an important aspect required to fulfil the obligations of the Duty. With the ultimate aim of improving network performance we have identified a number of indicators that demonstrate this and are relevant to our network. The indicators used are from the LTP process.

6.1 Congestion Monitoring and Associated Targets

Targets to reduce congestion and improve journey times are contained within the LTP3. The 10 indicators relating specifically to congestion and 4 other relevant indicators are as follows (Full details are contained within Chapter 4 and Chapter 8 of the LTP3):

Table 3 List of Leicester Local Transport Plan Indicators and Targets			
Reference	Description	Target 2014/15	Page
Economic Growth Supported – Leicester is more prosperous			
<i>To Reduce Congestion and Improve Journey Times</i>			
L LTP 1	Congestion on locally managed A roads	3.6 min per mile	
L LTP 2	Public transport patronage	43 million	
L LTP 3	Number of people on out of work benefits	Monitoring Only	
L LTP 4	Rate of people moving from out of work benefits into employment	Monitoring Only	
L LTP 5	Net additional homes provided	1,519	
L LTP 6	Satisfaction with public transport information	70%	
L LTP 7	Satisfaction with local bus services	77%	
L LTP 8	Mode of travel to school (reduction of car share to) a) Primary b) Secondary	a) 25.0% b) 20.8%	
L LTP 9a L LTP 9b	Bus punctuality (non-frequent services) Bus punctuality (frequent services)	a) 71.5% b) 1.04 minutes	
L LTP 10	One Leicester car journey to work share	49%	
L LTP 11	INDICATOR REFERENCE NOT USED		

Carbon Emissions Reduced – Leicester’ carbon footprint is reduced			
<i>To Reduce Carbon Emissions</i>			
L LTP 16	Number of Travel Plans adopted by businesses in the CTZ	70	
L LTP 17	Percentage of all state schools covered by Travel Plans	100%	
L LTP 18	Number of Area Wide Travel Plans introduced	4	
L LTP 19	Percentage of freight/goods destinations properly direction signed	100%	

6.2 Key Parity Measures KPMs (Performance Management Measures PMMs)

The Duty Guidance states “Parity is an important principle in exercising the duty. Authorities must lead by example, applying the same standards and approaches to their own activities as to those of others” (2004, p.12). In order to monitor this requirement the city council is proposing to introduce a series of performance

indicators known as “Key Parity Measures” to compare the performance of all work promoters, including those of the city council, which will allow the authority to recognise those promoters that are not improving, and to work with them to identify the cause and agree mitigating actions. By introducing these measures it will help to demonstrate parity and also promote a culture of continuous improvement for all work promoters working in the highway.

The Key Parity Measures, which will to be adapted and developed in line with any future national or regional guidance, will be introduced from April 2010 onwards and will be published, through NRSWA Coordination meetings and any other forum agreed nationally or regionally, through EMHAUC. Work promoters including those carrying out works on behalf of the Council that are not improving will be identified, and we will work together to identify the cause and agree mitigating actions.

The KPMs listed in Table 7 below are identified as having the most impact on network management: The most significant KPM measure will be number of FPNs sent to utilities and comparing that with the council’s roadwork performance.

Table 4 Key Parity Measures

Priority	Parity Measure	Objective
1	FPNs – number that could be issued	Identify failure to provide accurate information on Notices
2	Duration of works	Checking total occupancy of network – significant reason for delays
3	Number of cancelled works	Identify poor planning and programming of works
4	Extension of durations	Identify poor planning of works - extensions required to complete works –
5	Early Starts	Identify poor planning and programming of works waiving Notice period
6	Forward Planning of Works	Identify poor planning and programming of works

Review Process

Monitoring of these targets is done through 6 monthly Quality Management Review meetings.

7 Key Challenges faced by Leicester City Council

Regeneration of the city centre, the extension of the Shires Shopping Centre (now Highcross Shopping Centre) and the construction of a 2,000 space car park present their own traffic management challenges. Some of these challenges are current and require immediate redress whilst others will require long-term planning to identify possible remedies and solutions to tackle the issues.

7.1 Current Challenges

A number of key hotspots have been identified, in particular, the use of a dedicated route for buses and taxis (Causeway Lane) by cars and also traffic build-up due to vehicles queuing to gain access to the new John Lewis (Highcross) car park.

Short-term measures to deal with traffic build up in Causeway Lane include the use of traffic marshals (particularly in the run-up to Christmas) and the use of number plate recognition cameras. Longer-term measures are being sought and will form part of the challenges facing the council in the future (see Future Challenges below).

As indicated at Table 2 page 18 regular Highcross traffic management meetings are held to tackle traffic issues arising as a consequence of traffic coming in and out of the two dedicated Highcross car parks. One of the short term measures include re-direction of traffic to alternative car parks in the city.

A long-term, more permanent solution for dealing with both these issues and others have yet to be identified. Discussions with key stakeholders will endeavour to seek solutions to these traffic hotspots. It is expected these will then be incorporated in LTP3, dependent on financial constraints.

7.2 Future Challenges

In addition to the anticipated future growth in demand on the highway network due to regeneration in Leicester, a number of traffic congestion “hotspots” have been identified as shown below. Regular review and monitoring of congestion hotspots enables the authority to identify new congestion hotspots and to monitor progress of actions taken to address those issues.

Further analysis carried out during 2010 highlighted reoccurring traffic congestion hotspots and enabled prioritisation decisions to be made based on 3 years worth of data (2008-2010). This helps to ensure that short-term influences (such as road works etc) do not adversely influence the data.

Table 5 – Morning Peak Traffic Delays 2008

Order	Route	Direction	Direction 2	Junction	Average delay per junction (mm:ss)	Decimal delay	Worst delay = 1
13	16	WB	CLOCK	A6 Harborough Rd / B582 New St	01:54	1.90	1
6	20	SB	ANTI	Narborough Rd / Braunstone Lane East	01:31	1.52	2
8	02	NB	IN	Middleton St / Aylestone Rd	01:29	1.48	3
7	02	NB	IN	Soar Valley Way / Lutterworth Rd	01:18	1.30	4
8	20	SB	ANTI	Aylestone Rd	01:16	1.27	5
3	13A	SB	IN	Humberstone Lane	01:15	1.24	6
22	12	SB	CLOCK	Welford Road / Chapel Lane	01:14	1.24	7
4	11	EB	OUT	Granville Rd / London Road	01:02	1.04	8
6	03	NB	IN	Glenhills Way	01:01	1.02	9
5	01	SB	OUT	Upperton Rd	01:01	1.01	10

Table 6 – Morning Peak Traffic Delays 2009

Order	Route	Direction	Direction 2	Junction	Average delay per junction (mm:ss)	Decimal delay	Worst delay = 1
19	11	WB	IN	Waterloo Way / Regent Rd	01:37	1.62	1
6	20	SB	ANTI	Narborough Rd / Braunstone Lane East	01:20	1.34	2
7	02	NB	IN	Soar Valley Way / Lutterworth Rd	01:16	1.27	3
23	12	SB	CLOCK	Saffron Lane / Knighton Lane East	01:16	1.26	4
13	16	WB	CLOCK	A6 Harborough Rd / B582 New St	01:12	1.20	5
16	19	AC	ANTI	Waterloo Way / Regent Rd	01:12	1.19	6
10	05A	SB	CLOCK	Welford Rd / Victoria Park Rd	01:11	1.18	7
22	12	SB	CLOCK	Welford Rd / Chapel Lane	01:10	1.17	8
6	12	NB	ANTI	London Rd / Stoughton Rd	01:07	1.12	9
10	04	SB	OUT	Palmerston Way / Welford Rd	01:05	1.09	10

Table 7 – Morning Peak Traffic Delays 2010

Order	Route	Direction	Direction 2	Junction	Average delay per junction (mm:ss)	Decimal delay	Worst delay = 1
7	02	NB	IN	Soar Valley Way/ Lutt. Road	01:20	1.33	1
22	12	SB	CLOCK	Welford Rd/Chapel Ln	01:20	1.33	2
18	13	CW	CLOCK	Abbey Lane	01:17	1.29	3
6	20	SB	ANTI	Narborough Rd / Braunstone Lane East	01:17	1.28	4
6	20	NB	CLOCK	Aylestone Rd/Middleton St	01:12	1.20	5
14	13	CW	CLOCK	Groby Rd	01:11	1.18	6
9	09	SB	IN	Abbey Gate/Woodgate	01:10	1.17	7
10	03	SB	OUT	Blaby Road/Saffron Rd	01:10	1.16	8
5	20	NB	CLOCK	Glenhills Way	01:09	1.15	9
10	05A	SB	CLOCK	Welford Rd/Victoria Park Road	01:04	1.07	10

Table 8 – Evening Peak Traffic Delays 2008

Order	Route	Direction	Direction 2	Junction	Average delay per junction (mm:ss)	Decimal delay	Worst delay = 1
6	20	SB	ANTI	Narborough Rd / Braunstone Lane East	01:45	1.75	1
18	12	SB	CLOCK	London Rd / Stoughton Rd	01:41	1.69	2
10	09	SB	IN	Sanvey Gate	01:36	1.60	3
12	20	NB	CLOCK	A47 Hinckley Rd / Braunstone Lane	01:34	1.57	4
18	13	CW	CLOCK	Abbey Lane	01:29	1.48	5
13	16	WB	CLOCK	Harborough Rd / A6	01:27	1.45	6
11	09	SB	IN	Highcross St / Vaughan Way	01:26	1.43	7
4	11	EB	OUT	Granville Rd / London Rd	01:15	1.26	8
16	19	AC	ANTI	Regent Rd	01:11	1.19	9
7	03	SB	OUT	Glenhills Way	01:10	1.17	10

Table 9 – Evening Peak Traffic Delays 2009

Order	Route	Direction	Direction 2	Junction	Average delay per junction (mm:ss)	Decimal delay	Worst delay = 1
13	16	WB	CLOCK	A6 Harborough Road / B582 New St	01:35	1.58	1
18	12	SB	CLOCK	London Rd / Stoughton Rd	01:33	1.55	2
16	16	WB	CLOCK	Brabazon Rd / B582 Wigston Rd	01:26	1.44	3
6	20	SB	ANTI	Narborough Rd / Braunstone Lane East	01:25	1.42	4
12	20	NB	CLOCK	A47 Hinckley Rd / Braunstone Lane	01:23	1.38	5
22	12	NB	ANTI	Melton Rd / Marfitt St	01:23	1.38	6
11	09	SB	IN	Highcross St / Vaughan Way	01:21	1.35	7
6	20	NB	CLOCK	Aylestone Rd / Wigston Lane	01:21	1.34	8
7	02A	EB	ANTI	B582 Moat St / A5199 Welford Rd	01:18	1.30	9
10	05A	SB	CLOCK	Welford Rd / Victoria Park Rd	01:17	1.29	10

Table 10 – Evening Peak Traffic Delays 2010

Order	Route	Direction	Direction 2	Junction	Average delay per junction (mm:ss)	Decimal delay	Worst delay = 1
22	12	NB	ANTI	Melton Road / Marfitt St	01:32	1.53	1
18	13	CW	CLOCK	Abbey Lane	01:31	1.51	2
6	20	NB	CLOCK	Aylestone Rd / Wigston Lane	01:31	1.51	3
8	05A	SB	CLOCK	Mayfield Rd/London Rd	01:24	1.40	4
5	09	NB	OUT	Sanvey Gate	01:23	1.39	5
11	09	SB	IN	Highcross Street/Vaughn Way	01:21	1.35	6
7	02	NB	IN	Soar Valley Way/ Lutt. Road	01:16	1.27	7
12	20	NB	CLOCK	A47 Hinckley Rd / Braunstone Lane	01:14	1.23	8
2	01	SB	OUT	St Augustine /Narborough Rd	01:13	1.22	9
5	01	SB	OUT	Upperton Road	01:13	1.21	10

Note that the highest average delay per junction figure (i.e. the worst delay figure) has declined every year in both time periods from 2008 onwards. The above tables show that:

- Soar Valley Way/Lutterworth Road junction has appeared in all three years in the AM peak and risen from 4th worst in 2008 to 3rd worst in 2009 to worst in 2010. It also appears in the 2010 evening peak.
- Welford Road/ Chapel Lane junction, which was the 2nd most delayed junction in the AM peak in 2010, was aggravated by roadworks that year.
- The Narborough Road / Braunstone Lane East junction appears in five of the six tables.
- The Abbey Lane junction with Abbey Park Road and Blackbird Road appears in the top ten for the first time in 2010, in both time periods.

Discussions with key stakeholders, including Leicestershire County Council, will endeavour to seek solutions to these traffic hotspots. It is anticipated that these will then be incorporated in LTP3, dependent on financial constraints.

The council will continue to implement solutions through the urban congestion management schemes and initiatives, including working with developers through the planning system, to reduce congestion at these hotspots.

In addition to the above, the council will continue to seek to keep traffic congestion to a minimum at key times in the year, in particular, leading up to the Christmas shopping period which realises a substantial increase in traffic (see Current Challenges above).

8 The Future

Leicester City Council is committed to ensuring a sustainable reduction in traffic congestion and the improvement in journey times in Leicester now and in the future by:

- Ensuring continued and proactive traffic management as detailed in this Plan.
- Regularly reviewing systems and processes with a view to making improvements that will provide consistent and up-to-date traffic management in Leicester.
- Making sure the objectives of LTP3 are carried out by delivering the work to time and to high standards.
- Ensuring LTP3 and beyond helps deliver an effective and efficient road network system that takes account of the requirements of the TMA, the NMD and any future amendments / new legislation that may come into force.
- Striving for continued improvements in all aspects of traffic management.
- Continually working with partners and stakeholders to ensure Leicester's highway network is free flowing and enabling to the public and not seen as a barrier / necessary evil to either work or recreational activities.
- Working with developers etc. to ensure future developments take into consideration legislative requirements for traffic management.
- Reducing the rate of increase in congestion against an ever increasing demand for travel on the network arising from and facilitating city centre regeneration and housing growth.
- Ensuring that carbon reduction measures are an integrated part of LTP 3.

Glossary of Terms

CCTV	Close Circuit Television
CEOs	Civil Enforcement Officers
CPE	Civil Parking Enforcement
DfT	Department for Transport
ELGIN	Electronic Local Government Information Network
EMAS	East Midlands Ambulance Service
EMHAUC	East Midlands Highway Authorities and Utilities Committee
HAUC	Highway Authorities and Utilities Committee
FQP	Freight Quality Partnership
KPIs	Key Performance Indicators
LLMF	Leicester and Leicestershire Motorcycle Forum
LTP1	Local Transport Plan 2001-2006
LTP2	Local Transport Plan 2006-2011
LTP3	Local Transport Plan 2011-20??
NMD	Network Management Duty
NMP	Network Management Plan
PMM	Performance Management Measures
NRSWA	New Roads and Street Works Act 1991
PDA	Personal Digital Assistant
QBP	Quality Bus Partnership
RMS	Remote Management System
ROWIP	Rights of Way Improvement Plan
SCOOT	Split Cycle Offset Optimisation Technique
TDAS	Traffic Data Analysis Software
TMA	Traffic Management Act 2004
TSRGD	Traffic Signs Regulations and General Directions.
UTC	Urban Traffic Control
UTMC	Urban Traffic Management and Control

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Leicester City's Right of Way Improvement Plan 2007-2017

Traffic Management, The (Guidance on Intervention Criteria) (England) Order 2007

www.elgin.gov.uk

www.emhauc.org.uk

www.leicester.gov.uk/

www.leicestershare.com

www.scoot-utc.com

www.trafficlink.com

Appendix 1

Protocol for Major Road Works

Leicester City Council will:

- Involve the press with regular briefings and information on major roadworks
- Include major roadworks on the City Council Intranet and Internet Sites
- Provide radio information on major roadworks including advertising major roadworks in advance
- Issue a weekly bulletin to the Leicester Mercury with a copy to the Business Pages detailing the major roadworks (proposed and current)
- Explain to affected parties the benefits and the reasoning on how major roadworks contribute to the City's Transport Policy
- Provide signage at major roadworks that is useful and informative
- Ensure the involvement of Bus Operators at the earliest opportunity in the planning of major roadworks
- Be proactive in informing local residents and businesses affected by the major roadworks in advance and in ensuring that all correspondence is clear, consistent and informative
- Ensure that the moratorium of City Council roadworks and Statutory Undertakers works on major roads and in the City Centre during December and early January is continued in future years (except emergency works)
- Ensure that the quarterly Co-ordination meeting between the City Council, the Statutory Undertakers and other interested parties takes place and provides effective co-ordination between all parties
- Ensure that every opportunity is taken to explain the need and reasoning for major roadworks, eg. by inclusion in the monthly City Council Link Magazine
- Ensure the design of major roadworks meets the need of pedestrians, cyclists and disabled people
- Provide guidelines for all staff managing major roadworks in the City