Transport Department

MILTON KEYNES
COUNCIL

A Transport Vision and Strategy for Milton Keynes

Local Transport Plan 3 - 2011 to 2031

This document has been prepared by
Milton Keynes Council

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Glossary

Term	Description
Accessibility planning	Social inclusion is a central government priority that must be addressed by councils at the local level. Accessibility planning seeks to ensure that everyone can get to employment opportunities and key services (including healthcare, education, and food shops).
Active travel	Travel using a type of non-motorised transport, principally walking or cycling.
Alternative fuels	Substances that may be used to power transport, as an alternative to conventional fuels such as petrol or diesel. Examples of alternative fuels for transport include electricity, bio-diesel and hydrogen fuel cells.
Appraisal	The assessment of a proposed transport scheme that takes into account factors such as the economic, social and environmental impacts of the scheme.
Automatic Vehicle Location	A computerised system for tracking the locations and movements of fleet vehicles. Automatic Vehicle Location systems may be used to track the movements of buses and be fed into a Real Time Passenger Information system.
AVL	See Automatic Vehicle Location.
Bikeability	A cycle training scheme funded by Department for Transport that aims to give cyclists the skills and knowledge they need to cycle on today's roads.
Bus priority	A series of measures that can be used to improve the speed and reliability of bus services. Bus priority measures include bus lanes, changes to rights of way and alterations to traffic signals at junctions, usually by giving buses priority over other road vehicles.
Capacity	The number of passengers that can be carried by a transport network, route, or service.
City / The City	Reference to the city describes the former designated urban area bound by the M1 Motorway to the North East, Wolverton and Stony Stratford in the North West, Bletchley and Fenny Stratford in the South West, and Wavendon Gate and Old Farm Park in the South East. The Eastern and Western Expansion Areas will form part of the city.
City Streets	City Streets are roads where buildings face out onto the street. They are distinct from Grid Roads (see Grid Roads).

Community transport   Specialised transport to people who may have difficulty in using mainstream public transport services or services where populations may not warrant a scheduled public transport service. These services are typically responsive to demand and must be booked in advance by the user.

Core Strategy   The Core Strategy is part of the Local Development Framework, the set of planning policy documents that guides Development Planning. The Core Strategy describes the overall spatial strategy for development in the borough.

Cycle train   A group of children cycling to school under the supervision of one or more adults.

Development Control   The process through which a local authority determines whether (and with what conditions) a proposal for development should be granted planning permission.

Dial-a-ride   A type of community transport that provides a door-to-door minibus service for those who have difficulty in using conventional public transport.

Dynamic Journey Planning   Using 'real world' information produced by sophisticated traffic and air quality monitoring systems, web and mobile journey planners will provide travellers with a dynamically calculated route their destination, allowing traffic managers to divert traffic away from potential congestion hotspots, areas with high air pollution and use the grid road network more efficiently. Predicted car parking availability can also be built in so drivers can be routed to the most appropriate car park.

Dynamic routing   Using 'real world' information to provide drivers with the most efficient route to their destination.

Feasibility study   An initial investigation into a proposed scheme to determine the value of the scheme's benefits.

Grid Roads   Grid Roads are urban clearways with lay-bys for bus-stops, with no direct building frontages and generally no at-grade pedestrian crossings. Some are dualled, and the remainder normally have land reserved for future dualling, or other transport purpose (e.g. mass passenger transit system). They have substantial landscaping for biodiversity, sound screening and emissions absorption, usually incorporating a Redway cycle and walking route.

Hopper service   A shuttle bus service usually operating over a short distance providing a transport link that may not be covered by an existing service.

Integrated transport	A comprehensive transport network that provides door-to-door travel where different modes meet different needs, including journeys where more than one mode is used. This careful integration of two or more modes may include a high frequency bus route that serves a railway station or the provision of secure cycle parking at a transport hub that allows you to continue your journey by bus.
Intelligent Transport Systems	An Intelligent Transport System is a group of traffic technologies linked by internet-based communication methods. An example of an ITS would be road sensors collecting traffic flow data and passing data to traffic lights which would allow for dynamically controlled phasing as traffic levels fluctuate throughout the day. An ITS will normally have a central control centre for strategic traffic management.
Interchange	The act of changing between different services or modes of transport during a journey, and/or the facility at which the change occurs, such as a rail-bus station.
Journey Planning	Planning a multimodal journey using interactive web technology. Results can be accessed on an information portal, mobile phone or via a call centre.
Knowledge-based economy	An economy or part of the economy where knowledge, experience and information are products or assets. For example, education and information technology (IT).
LEP	See Local Enterprise Partnership.
Local Enterprise Partnership (LEP)	LEPs are partnerships between local authorities and local businesses and organisations. They will play an important role in deciding local economic priorities and will undertake activities to promote economic growth and job creation. LEPs have been constructed to reflect functional local economic geographies, such as city regions, rather than political or administrative boundaries. Milton Keynes is an integral part of the South east Midlands LEP.
Local Transport Plan (LTP)	LTPs are statutory documents required by the Transport Act 2000 and retained by the Local Transport Act 2008. LTPs should contain a strategy and implementation plan for the delivery of transport across a local authority area.
MK PlusBus (Community Transport)	A service provided by Milton Keynes community transport for disabled and frail elderly residents of Milton Keynes who are unable to use mainstream public transport. The scheme replaced Fastchair and Group Travel schemes.
Modes of transport	Different ways of travelling such as by car, train, bus, motorbike, cycling, and walking.

Mode share	The level of use of each mode of transport, calculated as the proportion of trips taken by each mode out of total trips made.
Neighbourhood Speed Check	Using volunteers from the community to carry out speed checks on local roads.
Night time economy	The range of businesses and services that is economically active outside of the '9-5' working day. This typically includes pubs, bars and clubs, as well as retail, hospital work, and distribution.
Park & Ride	Car parking facilities, usually in an edge of town location, with public transport links into the town centre or key destinations.
Personalised travel planning	A form of travel awareness and marketing, personalised travel planning is the provision of tailored public transport information to households based on their specific travel patterns and needs.
PlusBus (Rail / Bus)	PlusBus is a national scheme that allows passengers to buy reduced price bus passes when buying a train ticket. The scheme is recognised by over 200 bus operators across Britain. Not to be confused with "PlusBus" community transport provision (see "PlusBus).
Real Time Passenger Information (RTPI)	Real Time Passenger Information systems use AVL technology to pin point bus location on the network and provide an estimated time of arrival at stops, interchanges and termini. This information can be provided on at-stop screens, on mobile phones or on information kiosks.
Redway network	The network of off-road cycleways and pedestrian footpaths in Milton Keynes.
RTPI	See Real Time Passenger Information
Section 106	Section 106 of the Town and Country Planning Act 1990 allows local planning authorities to enter into a legally binding agreement (known as a planning obligation) with landowners when planning permission is granted for development. Section 106, or 'S106', agreements are intended to make development more acceptable in planning terms by providing a means of securing supporting infrastructure, including transport improvements.
Smartcard	Contactless smart card systems, such as Transport for London's Oyster car, allow for cashless travel on the public transport network. Users 'tap in' to use services and the fare is automatically deducted from stored value on the card. Alternatively, a season ticket can be stored on the card.

Smarter Choices	The term used to describe interventions or initiatives, such as travel planning that are designed to encourage sustainable travel behaviour.
Spatial planning	A collective term that describes various levels of planning activity for the distribution of people and activities, including land-use, urban and transport planning.
Sustainability	Development that meets the needs of the present without compromising the ability of future generations to meet their own needs, reconciling environmental, social and economic demands.
Sustainable Community Strategy	The Sustainable Community Strategy is a statutory document prepared by Local Strategic Partnerships. It informs the Local Development Framework.
Sustainable Transport	A term generally used to define lower carbon forms of transport such as ultra low carbon cars and vehicles, public transport, cycling and walking.
Taxi and Private Hire	Taxi and Private Hire collectively denotes vehicles hired for travel with a driver. Taxis, also known as hackney carriages, are hired from taxi ranks or are hailed on-street. Private hire vehicles are pre-booked by telephone or online, or in person from a marshal or private hire office.
Third sector	Collective term for the section of the economy consisting of for not-for-profit voluntary and community organisations.
Travel plan	A document presenting a package of measures aimed at increasing the use of the sustainable modes of transport in an organisation.
Urban Traffic Management Control	A centralised traffic control system combining data from various sources in real time to enable fast and effective management of the road network in response to live conditions.
UTMC	See Urban Traffic Management Control
Variable Messaging Signs	Electronic signage that can be updated in real time as part of an Urban Traffic Management Control system.
VMS	See Variable Messaging Signs
Walk and Roll	A smarter choices journey to school initiative which promotes the use of walking, cycling, scooting and other forms of self-propelled transport.
Walking bus	A group of school children walking to school under the supervision of one or more adults.

Executive Summary

Introduction

Milton Keynes is an innovative, 'can-do' borough. Its unique layout and structure has helped support growth making Milton Keynes the most successful new town in the United Kingdom, and possibly the world. Milton Keynes is economically successful, home to many international companies and organisations including Santander, the Open University, British Petroleum, Mercedes Benz, Red Bull Racing, and it attracts major sporting and music events. Milton Keynes is situated approximately half way between London and Birmingham, and nearly 18 million people live within one and a half hours of the borough[1].

Milton Keynes is expected to grow rapidly over the next twenty years. It is essential that as the borough grows, so does the transport choice available to residents and visitors alike. Making better use of existing infrastructure, improving highway and Redway connectivity and providing an attractive public transport network are key. This will allow Milton Keynes to continue to prosper and provide an excellent quality of life for all of its residents and a positive experience for visitors.

The Transport Vision and Strategy cover the entire borough including the city, the older towns and rural areas. It also covers key corridors and routes to neighbouring areas and beyond, including major urban areas, international airports, ports and the Channel Tunnel. The Transport Vision and Strategy look across the period from 2011 to 2031 and is aspirational, continuing Milton Keynes' history and reputation.

The Transport Vision and Strategy constitute the council's third Local Transport Plan (LTP) for Milton Keynes and was submitted to the Department for Transport by April 2011. The Transport Vision and Strategy set out the borough's policies and programme for delivering local, sub-regional and national policy objectives and will be reviewed on a regular basis and at a minimum every four years. The LTP builds on the borough's Sustainable Community Strategy (SCS) and the spatial planning policies in the Core Strategy as well as policy and guidance at an international, national and local level.

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[1] Milton Keynes Core Strategy, Revised Proposed Submission Version, October 2010

A Transport Vision for Milton Keynes

Transport Vision Statement and Objectives

By 2031, Milton Keynes will have the most sustainable transport system in the country, increasing its attractiveness as a place to live, work, visit, and do business. There will be a real transport choice to satisfy individual preferences and encourage more sustainable travel behaviour. The transport system will provide fast and efficient movement of people and goods, and will be accessible for all. Everyone will have access to key services and amenities, including employment, health, education, retail and leisure.

Transport networks, including the unique grid road and Redway networks, will be expanded and fully integrated into new developments and regeneration areas to support more sustainable communities. Connectivity to local towns, major cities, and international transport gateways and networks will be first class; and Milton Keynes will embrace new technology, being an exemplar for the latest developments in information technology, fuel technology, and new forms of transport.

The council will work in partnership with all sectors and the wider community to deliver the transport vision and strategy.

The following objectives for the borough wide Transport Vision and Strategy have been developed:

1. Provide real and attractive transport choices to encourage more sustainable travel behaviour as Milton Keynes grows.

2. Support the economic growth of the borough through the fast, efficient and reliable movement of people and goods.

3. Reduce transport based CO_2 emissions to help tackle climate change.

4. Provide access for all to key services and amenities in Milton Keynes, including employment, education, health, retail, and leisure.

5. Improve safety, security and health.

6. Contribute to quality of life for all Milton Keynes residents, strengthening linkages between communities.

7. Establish a development framework that embraces technological change, in which Milton Keynes can continue to grow, pioneer and develop.

Milton Keynes Borough

The borough of Milton Keynes is one of the fastest growing areas in the country. Between 1981 and 2001, its population increased by 64.4%, whereas the population of England increased by only 5.0%[2]. Within the next ten years, it is estimated that the population of the borough will rise by approximately 20,400 from 242,800 to 263,200 people by 2021 (an 8% increase) and to 300,800 by 2031 (a 24% increase from 2011). In order to meet the housing needs of this growing population through to 2031 in a sustainable fashion, it is critical that all transport networks support and serve new developments and provide good access to other land uses for all residents. If the highway network is to continue to provide and facilitate fast, efficient and safe movement of people and goods, a larger proportion of journeys must be made by more sustainable forms of transport to reduce congestion.

Milton Keynes is a borough with traditionally high levels of employment, exceeding employment rates of the South East and the national averages. In 2008/09, 80.2% of the working age population were in employment in Milton Keynes, compared with 78.6% in the region and 74% in England[3]. The entrepreneurial nature of the borough exposed Milton Keynes to the first wave of private sector job losses; however this will be a positive attribute for the borough's economic growth, providing resilience to any possible second wave recession. As the economy grows, transport must support and not hinder growth. The provision of high-speed broadband is also important for providing modern connectivity, including home shopping and working, social networking, and the use of collaborative technologies such as video conferencing. Other advances in transport technology will also be important for supporting the growth of the borough.

Whilst a relatively young borough, with a lower national and regional average age, the number of residents over 65 years of age will grow by 102% from 2011 to 2031 from 28,400 to 57,300[4] (compared to overall growth of 24%). The transport network must accommodate the changing needs of all its residents, as well as changes in need resulting from all other socio-demographic trends.

Travel Patterns

Car travel in Milton Keynes is at present very efficient due to the grid road network and the availability of parking, but this is potentially unsustainable. At current rates of population growth, there will be a 57% increase in journeys by car at peak travel times (2001 to 2031)[5]. However, the city will only be able to provide an extra 25% capacity at peak times through junction improvements and other measures.

Large rural areas, low density neighbourhoods in the city, and the typical complexity of urban estate networks make it difficult to provide a fast, frequent and efficient public transport network to all residents and workers. These issues are highlighted by Milton Keynes's low journey to work public transport mode share of 9%. Coupled with relatively cheap car parking and the efficiency of the grid road network, the vast majority of in-commuters rely on the private car to get to work.

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[2] *United Kingdom 1981 and 2001 Censuses* (Office of National Statistics, 1981 and 2001)
[3] The population projections were produced by the Milton Keynes Population Model December 2009 using PopGroup and HouseGroup forecasting software.
[4] Milton Keynes population forecasts: http://www.statistics.gov.uk/statbase/Product.asp?vlnk=997
[5] Milton Keynes Revised Proposed Core Strategy (Milton Keynes Council, 2010)

Milton Keynes is a self-contained city, with 78% of those who live in the borough working in the borough as well. 77% of these residents use a car to get to work on a daily basis despite there being 5,000 jobs which are readily accessible by public transport, cycling or walking. Despite having a unique cycle network, the walking and cycling proportion of journeys to work is also low. Based on the 2001 Census, the percentage of the working population who were in employment and travelled to work each week by foot or cycle in Milton Keynes was 9%, an estimated 10,670 people[6].

The Strategy

The strategy includes a description of key issues relating to each strand of the strategy, detail of how the strategy strand supports the objectives, and detail of the interventions to be delivered over the short, medium and long term. The delivery of interventions associated with each strategy strand will contribute to multiple objectives. The strategy strands are:

- **Public Transport**: rail, bus, interchange, community transport, taxi and private hire, future modes of transport (and public transport safety and security).

- **Cycling and Walking**: infrastructure and promotion (including safety and security).

- **Smarter Choices**: behavioural change techniques.

- **Highways and Traffic Management**: the fast and efficient movement of people and goods, congestion, parking, air quality, and driver safety.

- **Technology**: information provision, web-based technology, future modes of transport, and alternative fuels.

- **Infrastructure Management:** highway, Redway network and other asset management.

- **Development Planning**: integrated transport and land use planning.

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[6] *Milton Keynes Local Transport Plan 2006-7 to 2010-11* (Milton Keynes Council, 2006)

Focus of the Strategy

The strategy is a long term strategy covering 20 years and in that period it is possible to deliver improvements across all forms of transport, for all journey purposes, for all users. Despite this broad reach, and in consideration of all possible approaches, there is a clear focus for achieving the objectives of the vision – making best use of existing assets, the improved provision of sustainable transport to provide a real and attractive transport choice, and promotion of the transport choices available.

Making Best Use of Existing Assets

In current funding constraints, it is important that the best is made of the borough's existing assets. This includes maintenance of these assets, covered by the Milton Keynes Transport Asset Management Plan; localised junction improvement to increase highway capacity; as well as the increased promotion of existing sustainable transport infrastructure. This focus supports all transport users. For example, better quality roads for motorists and buses with increased capacity, and better quality Redway routes for cyclists and pedestrians.

Improved Transport Choice

If the increased demand for travel that is forecast is to be accommodated whilst maintaining a transport network that allows for the fast and efficient movement of people and goods and at the same time reducing CO_2 emissions, more people will need to travel by more sustainable modes of transport.

The step change required will be delivered through the ambitious and innovative interventions laid out in the strategy. They include the development of a high frequency bus network along core routes, building on the good work delivered by the council and its partners, and ultimately a transition to a rapid transit network. Rural services, feeder services, and Park & Ride will support the network; and interchange facilities, information provision and ticketing will be first class. Rail and coach will continue to provide a transport choice over longer distances and services will be enhanced and promoted. Taxi and private hire improvements will be supported. Community Transport will continue to provide a lifeline to key services for those with greatest need. The world class Redway network will be expanded and improved. Cycling and walking will be given top priority within city estates; and cycling and walking links in rural areas to employment centres and key services will be improved.

Technology and future modes of transport will also be embraced to add to the transport choice available. All interventions will be developed and delivered in partnership with operators, local businesses, the voluntary sector, local partnerships, and the wider community.

Improved Promotion of Transport Choices

In addition, promotion of the boroughs sustainable transport infrastructure will help to generate demand on these networks by raising awareness to residents, workers and visitors of the transport choices that already exist, including home working and shopping. Increased demand will act as a sign that increased investment in infrastructure is warranted, and in turn, ongoing promotion will optimise the benefit of additional investment.

Key Interventions

Public Transport:

- MK Star Bus Network
- Park & Ride
- Semi-flexible urban feeder services
- Increase peak frequency rural services
- Improved interchange
- Rapid transit including defining and defending alignments
- Improved Real Time Passenger Information (RTPI) provision
- Integrated ticketing and smartcards
- Alternative fuel buses and supporting infrastructure
- Support for East West Rail and High Speed 2
- Local rail improvements
- Continued provision of community transport

Cycling, Walking and Smarter Choices:

- Expansion of the Redway network into Central Milton Keynes, new developments, regeneration areas and where possible the older towns
- More direct Redway routes and top priority for cyclists and pedestrians within city estates
- Improved walking and cycling access to rural employment areas and key services
- Improved maintenance and lighting of Redways
- Improved walking and cycling access to the public transport network
- Cycle hire
- Co-ordinated package of Smarter Choices interventions

Highways and Traffic Management, Road Safety and Infrastructure Management:

- Expansion of grid roads into and through future Expansion Areas
- Dualling of A421 from M1 Junction 13 to the M40 in Oxfordshire
- Junction improvements
- Improved access to / from the M1 Motorway
- Improved freight partnership working
- Ongoing funding for road safety engineering and education, training and promotion
- Intelligent Transport System package of interventions and improved broadband coverage
- Alternative fuel private vehicles and supporting infrastructure
- Improved maintenance to the highway network

Development Planning:

- Appropriate parking standards for new developments and in regeneration areas
- Improved integration of spatial and transport policies including improved partnership working between Milton Keynes Council, the Homes and Communities Agency, and developers.

Planning and Delivery:

- Improved partnership working between Milton Keynes Council and residents, local businesses and organisations, operators, the health and education sectors, the

emergency services, environmental groups and community representatives, the South East Midlands Local Enterprise Partnership, The Parks Trust, the Homes and Communities Agency, other local authorities, central government and its executive agencies (e.g. Highways Agency and Network Rail).

Key Policies and Interventions not being taken forward

The following interventions have been considered, and based on public consultation with the wider community, are **not** being taken forward:

- Universal **increases in densities for housing developments**.

- Use of **city streets** in future Expansion Areas where planning permission has not already been approved.

- More **stringent demand management interventions** in addition to those described in the Core Strategy in the short term (e.g. road user charging, reductions in CMK parking stock, lower maximum parking standards in residential areas).

- Borough-wide **reductions in grid road speeds**.

Section 1: Overview of the Transport Vision and Strategy for Milton Keynes

Introduction

Milton Keynes Council is pleased to present here the Transport Vision and Strategy for Milton Keynes. The Transport Vision and Strategy cover the entire borough (see Figure 1.2 at the end of Section 1) including the city, older towns and rural areas. It also covers key corridors and routes to neighbouring authorities and beyond, including major urban areas, international airports, ports and the Channel Tunnel Rail Link (High Speed 1). The Transport Vision and Strategy look across the period from 2011 to 2031 and beyond, and is aspirational, continuing Milton Keynes' history and reputation as being an innovative "can-do" borough.

The Local Transport Plan Context

Collectively, these documents constitute the council's third Local Transport Plan (LTP) for Milton Keynes and were submitted to the Department for Transport by April 2011. It sets out the borough's policies and programme for delivering local, sub-national and national policy objectives; including the borough's Sustainable Community Strategy (SCS) and the spatial planning policies of the Core Strategy. It also enables the borough to plan strategically for transport, helping achieve broader goals for safer and healthier communities, a better urban and natural environment, a dynamic, prosperous local economy, and greater opportunities for all.

A key aspect of the LTP is the council's role as a partner, working with residents, businesses, transport operators, central government, and other local partners to achieve a range of improvements to the transport network and transform the way that people travel. Some of the measures and proposals in the LTP can be implemented by the borough, using its statutory planning, highways and network management, and parking powers. Other interventions, particularly larger projects, will be delivered in partnership with the Homes and Communities Agency, the Highways Agency and transport operators, local businesses and organisations, and the wider community. The LTP also draws on the Milton Keynes and South Midlands (MKSM) sub-regional work. This has provided a mechanism for LTPs in neighbouring authorities to be coordinated and work to support each other. Hence dialogue with our neighbouring authorities has been a part of the process to develop the LTP. We have also ensured the LTP has been significantly influenced by Milton Keynes's residents, businesses, organisations and visitors. This has been possible through ongoing consultation, including meetings, exhibitions, questionnaires, emails, telephone calls and letters.

The LTP is a statutory plan, required under the Transport Act 2000, updated by the Local Transport Act 2008.The changes under the 2008 Act introduced greater flexibility for local transport authorities, including removing the requirement for a new LTP every five years, as well as removing mandatory accompanying strategies, such as the Bus Strategy and Accessibility Strategy. It did, however, retain requirements to produce and review LTPs, as well as have regard to central government policies, including the statutory LTP guidance. Milton Keynes Council is committed to regularly reviewing the strategy and at a minimum every four years. The guidance sets out the legislative context and recommended process and content for LTPs. In summary, an LTP must contain policies and proposals to

implement those policies. It is suggested that this may translate to having a longer term strategy and a supporting short-term implementation plan. In addition, there are requirements to consult and involve the public as well as specifically listed groups; and any other people they consider appropriate (see Appendix C).

Local Transport Plan Process

An overview of how the draft Transport Vision and Strategy were developed and the next steps in the process are presented in Figure 1.1 below.

Figure 1.1   Local Transport Plan Process
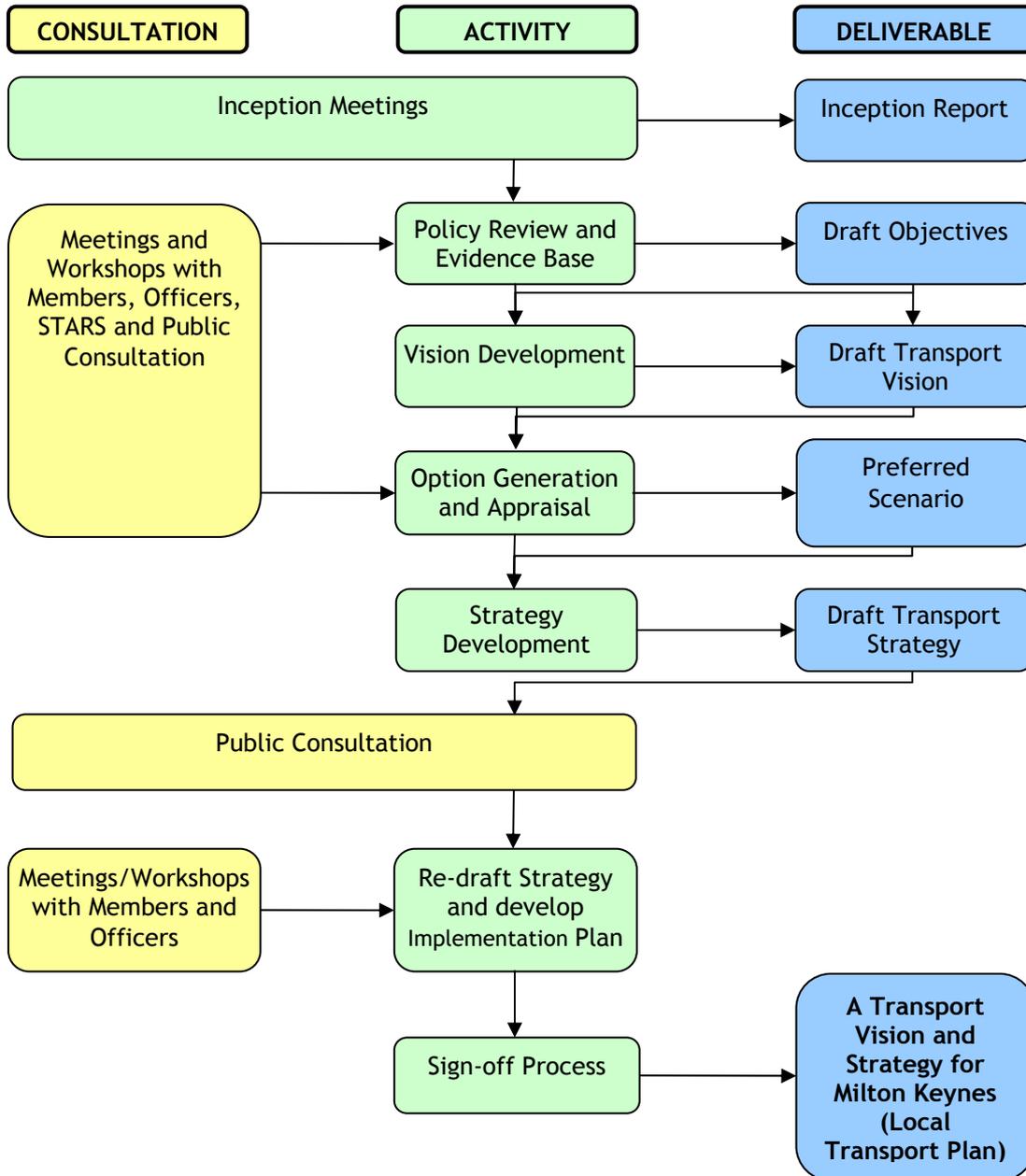
Integrated Impact Assessments

In developing the LTP, a number of statutory assessments have to be undertaken. These assessments help to ensure that decisions regarding transport planning are made in a way that prioritises social, environmental and economic concerns. The assessments identify the likely significant effects of the LTP, and make recommendations to change or improve the LTP (where appropriate). The following impact assessments in relation to the LTP are being undertaken:

- Strategic Environmental Assessment (SEA)

- Habitats Regulations Assessment (HRA)

- Equalities Impact Assessment (EqIA)

- Health Impact Assessment (HIA)

The Scoping Report of Strategic Assessments provided baseline information on key relevant issues and challenges. It detailed the assessment framework in relation to the impact of the LTP on communities and the environment. Transport options can have adverse impacts on the environment and human health / well being, including social and economic. Opportunities need to be identified to reduce these potential impacts to improve the natural, social and economic environment and maximise potential positive health outcomes. Carrying out the assessments at the same time as developing the LTP helps to influence transport options at an early stage to reduce their negative impacts. Statutory environmental agencies, such as the Environment Agency, Natural England and English Heritage have been consulted on the scope of the SEA.

Structure of the Document

The structure of the Transport Vision and Strategy document is as follows:

- **Glossary** – a glossary of transport and technical terms used within the Transport Vision and Strategy

- **Executive Summary** – a summary of the main document

- Section 1: **Overview of the Transport Vision and Strategy for Milton Keynes**

- Section 2: **The Transport Vision** – the vision statement and transport objectives for Milton Keynes.

- Section 3: **Progress on the last Strategy** – an update on performance and delivery of the last Transport Strategy (Milton Keynes Local Transport Plan 2006-07 to 2010-11)

- Section 4: **The Transport Strategy for Milton Keynes** – the key issues that will be addressed and the interventions that will address them, as well as deliver the vision and its objectives, and how they will work together.

- Section 5: **Implementation Plan** – the planned delivery of interventions by timescale, cost, lead partner, other key partners, and funding sources.

- Section 6: **Performance Management Plan** - indicators, targets and monitoring system for managing performance.

- Appendix A: **Policy Review and Evidence Base**

- Appendix B: **Option Generation and Appraisal** - detail of the appraisal process, key findings, and lists of interventions.

- Appendix C: **Consultation on the Transport Vision and Strategy** – Overview of the public consultation process.

- Appendix D: **Lists of Interventions** – all interventions included within the strategy.

- Appendix E: **Milton Keynes Local Transport Plan 2006-07 – 2010-11 Performance** – details of performance against indicators and targets from the last Local Transport Plan.

- Appendix F: **Preparing for New Sustainable Transport Systems** – An independent paper By Professor Stephen Potter analysing the nature of the transport problem and challenge in Milton Keynes.

- Annex A: **Consultation Report and Comments Log**– findings of the two public consultation periods and amendments made to the Transport Vision and Strategy as a result.

Note on Data

In the development of the Transport Vision and Strategy, the most up-to-date data available was considered. In many instances, 2001 UK Census data, now ten years old, was the most up-to-date data available. It, therefore, presents issues as to validity and robustness of analysis. A qualitative appraisal of interventions used for developing the strategy was reinforced by analysed data, but did not involve a quantified, modelled approach to quantify the impacts of different packages of interventions. Using the new Milton Keynes' Multi Modal Model (MKMMM) to better understand how people and goods are moved around and through the borough and to quantify the impact of the packages of interventions will be a necessary exercise; as will using 2011 UK Census data once it is available. Once these data and analytical resources are available and have been used, the Transport Vision and Strategy could be updated.

Figure 1.2   Milton Keynes Transport Vision and Strategy – Study area

Section 2: The Transport Vision

Vision Statement

By 2031, Milton Keynes will have the most sustainable transport system in the country, increasing its attractiveness as a place to live, work, visit, and do business. There will be a real transport choice to satisfy individual preferences and encourage more sustainable travel behaviour. The transport system will provide fast and efficient movement of people and goods, and will be accessible for all. Everyone will have access to key services and amenities, including employment, health, education, retail and leisure.

Transport networks, including the unique grid road and Redway networks, will be expanded and fully integrated into new developments and regeneration areas to support more sustainable communities. Connectivity to local towns, major cities, and international transport gateways and networks will be first class; and Milton Keynes will embrace new technology, being an exemplar for the latest developments in information technology, fuel technology, and new forms of transport.

The council will work in partnership with all sectors and the wider community to deliver the transport vision and strategy.

Vision and Strategy Objectives

The following objectives for the borough wide Transport Vision and Strategy have been developed:

1. Provide real and attractive transport choices to encourage more sustainable travel behaviour as Milton Keynes grows.

2. Support the economic growth of the borough through the fast, efficient and reliable movement of people and goods.

3. Reduce transport based CO_2 emissions to help tackle climate change.

4. Provide access for all to key services and amenities in Milton Keynes, including employment, education, health, retail, and leisure.

5. Improve safety, security and health.

6. Contribute to quality of life for all Milton Keynes residents, strengthening linkages between communities.

7. Establish a development framework that embraces technological change, in which Milton Keynes can continue to grow, pioneer and develop.

Policy and guidance at an international[7], national[8] and local level has influenced the development of the Transport Vision, its objectives, and the Transport Strategy. This includes the Core Strategy[9] which guides this Transport Vision. In addition, an evidence base of data, analysis and findings from community engagement has helped identify the key issues that must be addressed by the Transport Vision and Strategy[10]. Finally, this Vision does not just address current issues, but also future aspirations for the borough.

Overview

Milton Keynes is an innovative, 'can-do' borough. Its unique layout and structure has helped support growth making Milton Keynes the most successful new town in the United Kingdom, and possibly the world. Milton Keynes has a world class grid road network and a world class walking and cycling network; the Redways. This Transport Vision builds on the strengths of these networks, whilst learning from the experience of the past and successes from around the world, to ensure the continued growth of the city and borough.

Transport is not a means to an end in itself. An efficient and attractive transport system offering real transport choices will help ensure that the wider objectives of the borough, detailed within the Sustainable Community Strategy and Core Strategy and other key policy documents are achieved. This Transport Vision sets out the objectives for transport in Milton Keynes; describes the role of transport and how transport will transform the lives and experiences of residents, workers and visitors; and how transport will help deliver sustainable growth for the borough.

The Transport Vision will be accompanied by a long term Transport Strategy which will outline the interventions that will deliver the vision. Not all interventions will support all objectives, and at times may be in conflict, but a balanced and innovative package of interventions to address all objectives has been developed. Together, these documents, along with an Implementation Plan constitute Milton Keynes Council's third Local Transport Plan, which was submitted to the Department for Transport by April 2011. The geographical remit of the Transport Vision and Strategy covers Milton Keynes borough, including the older towns, the new city and rural areas, and connectivity within, to, from and through the borough.

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[7] For information on European Directive 2001/42/EC and the European Union's *Climate and Energy Package* policy: http://ec.europa.eu/clima/policies/eu/package_en.htm

[8] *Guidance on Local Transport Plans* (Department for Transport, 2010): http://www.dft.gov.uk/adobepdf/165237/ltp-guidance.pdf

[9] *Core Strategy: Revised Proposed Submission Version* (Milton Keynes Council, October 2010)

[10] See http://www.miltonkeynes.gov.uk/transport/DisplayArticle.asp?ID=72970 for the *Local Transport Plan Policy Review and Evidence Base* (Milton Keynes Council, 2010)

The Transport Vision for Milton Keynes

In this section, the Transport Vision and Strategy Objectives are expanded describing the role of transport in achieving the objectives. Reference, where possible, is made to the high level interventions and concepts that will help achieve the Transport Vision. The Transport Strategy provides the full detail of all interventions and how they will work together to achieve the objectives.

1. Transport Choice for Milton Keynes

As Milton Keynes grows, a real and attractive alternative to the private car will need to be provided if the existing transport networks can accommodate and support growth sustainably. By 2031, Milton Keynes will have the most sustainable transport network in the United Kingdom.

At current rates of growth, there will be a 57% increase in journeys by car at peak travel times by 2031, but the capacity of the grid road network's junctions can only be increased by 25% at peak times through junction improvements and other measures[11]. In order that the road network continues to function effectively, the demand for travel will have to be better managed through switching journeys from car to walking, cycling, and public transport (including taxi and private hire); and reducing the need to travel. This will also support reductions in CO_2 emissions helping to tackle climate change[12], and improve access to employment opportunities and key services for those who do not have access to a car thereby supporting regeneration in deprived areas.

The world class grid road and walking and cycling networks will be improved and expanded into new developments in the city, with the walking and cycling network also extended into and through Central Milton Keynes, older towns where possible, and regeneration areas within the city. Within city estates, cyclists and pedestrians will be given top priority. Bus routes will serve new developments as soon as new houses and other land uses are constructed. Corridors for new forms of public transport will be defined and protected, and integrated into the spatial plans for the city so that as high capacity transit becomes commonplace across the city, construction is not hampered by land use constraints. In new housing developments, sufficient levels of car parking will be allocated, but designed to reduce the impact of traffic in residential areas; and in older residential areas, solutions will be found to parking issues where possible.

Car sharing, car and other vehicle pools, as well as cycle hire schemes and pooling will be supported; vehicles will use alternative fuels; and more sustainable modes of transport, including powered two wheelers and electric vehicles will be promoted to new and existing residents. Milton Keynes Council and its partners will continue to educate and incentivise businesses, schools and other organisations to increase their usage of more sustainable transport modes; and there will be a growing role for the private and third sector to fund and provide sustainable transport choices.

The city will be served by a high capacity, fast and frequent public transport network along main arterial corridors and other key corridors serving Central Milton Keynes, the hospital and other key destinations. The network will also serve Park & Ride sites strategically located on the edge of the city and at key highway junctions; and feeder routes, including

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[11] *Core Strategy: Revised Proposed Submission Version* (Milton Keynes Council, October 2010)
[12] See Milton Keynes Local Strategic Partnership and Council's *Low Carbon Living* website:
http://www.milton-keynes.gov.uk/Milton Keyneslowcarbonliving/

semi-flexible 'dial-a-ride' style services, will serve stops and stations within the city including the hospital and district centres. The need to interchange will be minimised, and where interchange is necessary, the quality of facilities and information will be enhanced. Interchange improvements will include improved bus interchange in Central Milton Keynes; superior Real Time Passenger Information provision; improved timetabling and ticketing, including a single smartcard system for all public transport modes; and improved routes to stops and stations. Extended operating hours and weekend and public holiday services will support shift workers and the night time economy.

In Central Milton Keynes, existing and new modes of public transport will be embraced so that the need for travel by private car will be reduced and public transport will better serve multi-destination journeys. Wayfinding will also be improved making best use of printed and electronic, interactive signage.

Bletchley and the southern periphery of the borough will continue to be served by the Marston Vale Line between Bletchley and Bedford, with opportunities for improvements identified and delivered where possible. Wolverton Station will be upgraded and the feasibility of new stations to the north of Wolverton will be investigated. Rural settlements away from the city will have a minimum half-hourly bus service in the morning and evening peaks connecting to Central Milton Keynes and the high frequency urban network. Best use of semi-flexible 'dial-a-ride' style services will make public transport in rural areas more efficient in the off-peak, increase access, and better meet demand.

The public transport network will be as accessible as possible for people with physical and sensory impairments, including stops, stations and vehicles, and increased flexibility in routing on rural and city estate services. Improvements will reduce residents' dependency on community transport, but for residents who are unable to use the improved public transport network, community transport coverage to key services will be available across the borough.

High Speed 2 Rail will take pressure off the West Coast Main Line, increasing capacity for passenger services and rail freight, including direct services to major conurbations in the north of England, North Wales, and Scotland. East West Rail will provide direct services to the knowledge-based economies of Cambridge and Oxford, with further strategic connections available. Direct rail links to airports and ports will be provided, as well as to the international rail network and Channel Tunnel. High quality inter-urban bus and coach services will complement the rail and urban bus networks providing connectivity to urban areas without direct rail access to Milton Keynes.

Milton Keynes' excellent strategic highway connections will be strengthened by improved and new junctions on the strategic highway network and limited carriageway widening and new road links, as per the Core Strategy[13].

Across all geographical scales and for all journey purposes the radical transformation will provide Milton Keynes with the most sustainable transport network in the country. New technologies for alternative fuels, modes of transport, and information provision will keep Milton Keynes at the cutting edge of transport provision, and allow Milton Keynes to evolve and change. Milton Keynes' transport network will be envied around the world, and provide the most forward looking best practice for transport planning.

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[13] *Core Strategy: Revised Proposed Submission Version* (Milton Keynes Council, October 2010)

2. Economic Growth

Transport gets people to work, is integral to the supply chain of businesses, and gets people and goods to the marketplace. In Milton Keynes, transport will support businesses and economic growth through providing fast and efficient movement of people and goods. Companies will rate Milton Keynes as the premier city in the United Kingdom and Western Europe for doing business, and value the world class transport network and connectivity on offer.

Businesses will benefit from improved access to labour markets, increasing the size of the workforce within easy reach of employment sites; and information and web technologies will further facilitate more flexible working patterns such as home working and working from local hubs. The Core Strategy identifies that Central Milton Keynes will continue to be the main focus of employment growth and retail, boosting its role as a sub-regional centre. Appropriate pricing of parking will keep Milton Keynes competitive, whilst helping to control congestion in Central Milton Keynes. Businesses, commuters and residents will value the improved public transport network, and shift workers and the night time economy will be supported by longer operating hours and improved weekend and public holiday services. The night time economy will also be supported by strengthened partnership working with hackney carriage and private hire drivers and firms. Rural residents and businesses will be better connected through more morning and evening peak bus services to Central Milton Keynes and other key destinations in the city.

Businesses are attracted to Milton Keynes due to its excellent strategic highway connectivity. The strategic highway network will be improved by new junctions on the strategic highway network and new road links and widening of the strategic highway network. The local highway network will benefit from improvements to public transport reducing the number of private vehicles on the roads, but also from Intelligent Transport Systems improving the routing and flow of traffic; and from junction improvements and limited road widening to increase the capacity of the network. Milton Keynes will also be the most connected city in the country by public transport, not only to other urban areas but also to international airports, ports and the international rail network. Long distance coach and rail improvements will provide an attractive choice for longer distance commuting and business trips.

Partnership working with local businesses and other organisations will lead to the improved routing of freight traffic; new freight parking and local distribution facilities on the edge of the city in close proximity to the strategic transport network; and promotion of more sustainable freight movement by rail and canal, including improved distribution of local freight traffic through better integrated local and strategic distribution.

3. Reducing CO$_2$ Emissions

Milton Keynes will have the most sustainable transport network in the country reducing transport based CO$_2$ emissions significantly, tackling climate change and improve air quality.

The Core Strategy integrates land use and transport planning to continue Milton Keynes' success at balancing sustainable housing and employment growth, and maintaining and improving local service provision. Residents will have improved access to employment

opportunities and key services, reducing the distance travelled and levels of CO_2 emitted[14].

Milton Keynes is already embracing new alternative fuel technologies for vehicles, for instance through Central Governments' 'Plugged-in Places' initiative[15]. In 2031, Milton Keynes will be at the forefront of transport technology, making best use of the latest alternative fuels and vehicle technology. Traffic flows will also be managed using intelligent transport systems and to maximise the fuel efficiency of vehicles. In addition, information and web technologies will assist more flexible working patterns to allow people to work from home or local hubs, reducing the need for travel. Milton Keynes' world class public transport network will provide a real and attractive alternative to the private car needed to reduce CO_2 emissions further. Improvements to the Redway network and top priority for cyclists and pedestrians within city estates, along with promotion of more sustainable modes will maximise the environmental benefit.

4. Access for All Residents

All residents in Milton Keynes will have sustainable access to employment opportunities and key services, increasing social inclusion and supporting the regeneration of more deprived communities within the borough.

Milton Keynes has a relatively young population with a higher proportion of residents under 16 years compared to the South East and national averages, and draws attention to a section of the population with high transport need, including a dependence on being driven. Population forecasts for the borough anticipate population growth of over 27,500 people between 2010 and 2018, from a population of over 230,000 (2009 estimate)[16]. Whilst the population is forecast to grow by approximately 24% between 2011 and 2031 (with the under 16 year old population forecast to grow 22%), the number of residents over 65 years old is forecast to grow by 102% from 28,400 to 57,300[17]. The public transport and community transport networks must be able to accommodate the corresponding needs of the diverse population to avoid the social exclusion of different groups in Milton Keynes.

Milton Keynes' transport network will accommodate increases in demand and improve access for all residents to employment opportunities and key services. Improvements to the Redway network will further improve access. All public transport vehicles and infrastructure, such as stops and stations, will be designed and enhanced with all users in mind; and passenger information in different formats will be improved. People with physical and sensory impairments will have improved access to the network including semi-flexible 'dial-a-ride' style services, reducing dependency on community transport and private cars. The private sector and voluntary sector will also fund and provide services, including community transport services across the borough for people who cannot access the public transport network.

Continuing Milton Keynes' worldwide reputation for planned development, accessibility will be further improved by maintaining and improving local service provision, balancing

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[14] See Milton Keynes Local Strategic Partnership and Council's *Low Carbon Living* website: http://www.milton-keynes.gov.uk/Milton Keyneslowcarbonliving/
[15] For information on Central Governments' 'Plugged in Places' initiative: http://www.dft.gov.uk/adobepdf/163944/ulcc.pdf
[16] *Core Strategy: Revised Proposed Submission Version* (Milton Keynes Council, October 2010)
[17] For Milton Keynes population forecasts see: http://www.statistics.gov.uk/statbase/Product.asp?vlnk=997

housing and employment growth at a local level, and integrating transport sustainably into new developments.

5. Improve Safety, Security and Health

Public safety and security will be a priority for the council, and the transport network will facilitate more healthy and active lifestyles.

The safety and security of all transport users in Milton Keynes is a priority for Milton Keynes Council and the emergency services. Road safety will be improved through highway maintenance; site specific engineering interventions; and through education, training and campaigns targeted at vulnerable users. Public transport passengers will use well lit and safe vehicles and interchange facilities, and security concerns on the Redway network will be addressed.

In order to improve the health of Milton Keynes residents and reduce health inequalities, improved access to healthcare and leisure facilities, and improvements to active travel networks and promotion will be made. Improvements to the Redway network, and their promotion, will encourage a higher proportion of the population to use 'active modes' such as walking and cycling. Improvements will include more direct routes and expansion of the network into the new developments, Central Milton Keynes, where possible the older towns, and regeneration areas. Cyclists and pedestrians will also be given top priority in within city estates. In addition, improvements to the public transport network will provide improved access to healthcare facilities, as well as sporting and leisure facilities.

6. Contribute to Quality of Life for All Residents

Transport will enhance the quality of life for all residents by reducing the impact of transport on the natural environment; improving access to the borough's varied leisure and cultural facilities; and reducing the severance impact of transport on local communities.

Improved vehicle and fuel technology and integrated spatial and transport planning will reduce the impact of transport on the local environment. Noise pollution, air pollution[18], water pollution and light pollution will all be reduced, improving the quality of life with a more pleasant and tranquil environment.

Improvements to frequency, operating hours, and the quality of the bus fleet will increase access to leisure and cultural facilities, allowing enjoyment of Milton Keynes' open spaces. In addition, leisure facilities at weekends and evenings will be easily accessible.

Transport will reduce the severance of communities rather than be its cause. Integration of transport planning and spatial planning with this principle in mind will assist in connecting local communities together, overcoming the severance that can be caused by the grid road network and strategic transport network.

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[18] *Local Air Quality Management Progress Report 2009* (Milton Keynes Council, 2009): http://www.miltonkeynes.gov.uk/environmental-health/documents/Progress_Report_2009.pdf

7. Integrated Planning and Framework

Milton Keynes will continue to evolve and change, and transport and technology will continue to support the sustainable development of the borough. In addition, the network will be strengthened to build resilience to unforeseen changes.

The principles for a framework that supports the growth of sustainable communities and builds resilience are as follows:

- Incorporate transport planning from the outset to all spatial planning. The Core Strategy has expertly achieved this, and the Transport Vision and Strategy in turn support the Core Strategy. To accommodate future demand for travel, new fuel and vehicle technologies should be embraced, and the routes for new modes of public transport to Milton Keynes should be defined and protected.

- The development control / management process will work in partnership with developers and the wider community to identify and fund transport improvements.

- Transport strategies should not be set in stone. As society and lifestyles change, new technologies become available, new policy emerges, and new evidence materialises to inform transport planning, so strategies should be amended.

- Transport planning must be integrated so that the divisions between public and private transport do not obscure the primary aim of providing fast and efficient movement of people and goods in as sustainable a manner as possible for all residents, workers, businesses and visitors.

- Transport planning must be linked to its wider objectives as outlined in this Transport Vision, acknowledging that transport is not a means to an end in itself.

- Spare capacity must be incorporated into land use and transport networks to accommodate growth and unforeseen changes, and emergency planning conducted to respond quickly to the most severe of unforeseen changes.

- The future of transport planning will be determined and delivered by the wider community, facilitated by Milton Keynes Council; the Homes and Communities Agency; The Parks Trust; the South East Midlands Local Enterprise Partnership; operators; emergency services; developers; local businesses and organisations; education, social services and health sectors; community representatives; the public; and other authorities.

Section 3: Progress on the last Local Transport Plan

Overview

The council and its partners have made significant progress towards meeting the targets, and in delivery, of the Local Transport Plan for Milton Keynes 2006-07 to 2010-11 (also known as the second LTP or LTP2). Listed below are a summary of performance against targets, and a description of the main interventions delivered, made possible so far through working in partnership with many organisations, notably the Milton Keynes Partnership (MKP). Appendix E contains the full set of indicators, targets and actual performance for LTP2.

Progress on Targets

Our roads are in comparatively good condition compared to other local authorities with indicators for principal roads, non-principal roads and unclassified roads all on target. This places them in the top quartile for road condition in England. However footway condition was below target. Cycling trips, based on parked bicycles in Central Milton Keynes was also below target – 344 parked bicycles against a target of 510 in 2009/10.

Bus use has risen from 6.9 million journeys in 2003/04 to 8.2 million in 2009/10 (a 19% increase), however, target patronage was 10.25 million. Bus use peaked in 2007/08 when there were 9.2 million journeys; however, the recession has had a significant impact on bus patronage. We are continuing investment in bus infrastructure to improve the operating environment for buses as well as improving facilities for the passenger. However, satisfaction with local bus services remains a concern. The Milton Keynes Bus Users Group was set up in September 2010 to help address the problems that lead to dissatisfaction. Reliability is a contributing factor to poor public satisfaction. Overall punctuality on local bus services was 76% in 2009/10 against a target of 88%, and in 2008/09, punctuality on quality bus services was 70% against a target of 88%. Community transport patronage was also below target - 75,463 passengers against a target of 80,350 in 2009/10). Additional funding for vehicles did not materialise restraining the ability to provide additional community transport services.

The CARSHAREMK scheme, set up to promote car sharing, continues to be successful. Membership has grown by over 50% in this period to over 3,000 members. Members can use free, priority parking spaces in CMK. It reduces car journeys to work, making car commuting cheaper and less stressful.

The number of people killed or seriously injured (on all roads) has reduced by 57% (between the 1994-98 average and 2009). We have also cut the number of children killed or seriously injured by 64%. The results show we are well on our way to meeting national casualty reduction targets. These reductions were achieved due to our extensive programme of road safety engineering measures, supported by an education, training and publicity programme.

Progress on Delivery

The Milton Keynes Tariff (in partnership with the Homes and Communities Agency) won the Guardian Public Services Awards 2006 joined-up government award for Innovation and Progress for its unique approach to securing the infrastructure for new housing development.

Portway - North Grafton Highway Improvements (junction of the A5 and H5/A509 and approaches, the junction of the V6 and H5/A509 and approaches and Elder Gate junction with the H5) – Construction of this £4 million scheme was completed late 2007 with soft landscaping work being carried during 2008. The improvements safely and efficiently handle the projected increase in traffic as the city continues to grow.

A5 Abbey Hill - a study of the A5 trunk corridor, undertaken by MKP, identified improvements were required at this junction to safely accommodate growth in the new city. Widening work on the two slip roads off the A5, along with other points within and on the approaches to the roundabout were completed at the end of May 2008 at a cost of £3.5 million.

M1 Junction 14 Area Improvements – This £22 million scheme was completed in late 2008 and was designed to alleviate traffic congestion around Junction 14. It also included a completely rebuilt Park & Ride site at Brook Furlong creating approximately 360 parking spaces.

The new Coachway – This new £2.6 million Coachway building was opened in December 2010. It provides a covered seated area for approximately 100 passengers taking coaches, local buses and taxis. Other facilities include a café, a convenience shop and ticket office for the National Express Group, public and disabled toilets with baby changing facilities and a taxi service.

Plugged in Places – Milton Keynes was one of the first three towns and cities to be part of central government's £30 million 'Plugged-in Places' initiative. As such, the council plans to place 1,000 electric vehicles on the road by 2014, remains on track. The scheme forms part of the council's Low Carbon Living Strategy and Action Plan, placing Milton Keynes at the forefront of low carbon living nationally and internationally.

The PlatinumMK 300 bus service – This was shortlisted from 200 highly competitive entries for the prestigious 2010 UK Bus Awards and was awarded the 'Highly Commended' certificate by the panel of judges. The service, run in partnership between the council, Milton Keynes Partnership and Arriva, was launched in April 2009 and has so far seen over 300,000 passenger journeys with weekly patronage rising to over 5,000 passengers at present. The route connects Milton Keynes Central Rail Station and Central Milton Keynes with Brooklands, Broughton Gate, Kingston and Magna Park and will eventually link the Eastern and Western Expansion Areas of Milton Keynes.

The buses have a number of state of the art features including low floor, easy access, free wi-fi connection, air conditioning, a digital CCTV system inside and out as well as extra legroom and more space for buggies. Their hi-tech, cleaner, greener engines go further than the latest emission regulations so they are better for the environment as well.

Section 4: The Transport Strategy for Milton Keynes

Overview

This section contains the strategy for delivering the Transport Vision. The Transport Strategy consists of seven strategy strands; containing interrelated interventions that directly address the key issues identified, and will help achieve the transport objectives for Milton Keynes.

The interventions listed have been through an option generation and appraisal process (as outlined in the 'Guidance for Local Transport Plans'). Appraisal has not only considered the extent to which interventions can contribute towards the transport objectives, but also considers deliverability, including cost, value for money, affordability and risk (see Appendix B).

Strategy Strands and Objectives

The delivery of each strategy strand will contribute to multiple objectives. The strategy strands are:

- **Public Transport:** rail, bus, interchange, community transport, taxi and private hire, future modes of transport (and public transport safety and security).
- **Cycling and Walking:** infrastructure and promotion (including safety and security).
- **Smarter Choices:** behavioural change techniques.
- **Highways and Traffic Management:** the fast and efficient movement of people and goods, congestion, freight, parking, air quality, and road safety.
- **Technology:** information provision, web-based technology, future modes of transport, and alternative fuels.
- **Infrastructure Management:** highway, Redway and other asset management.
- **Development Planning:** integrated planning and frameworks.

Each strategy strand contains a summary of key issues being addressed, and then detail of how each strategy strand meets the objectives of the Vision. Interventions are then listed with an indication of whether they will be implemented in the short, medium or long term; accompanied by any supporting commentary on the package of interventions collectively.

Table 4.1 shows the relationship between strategy strands and the objective themes. One tick designates a positive connection between the delivery of the strategy strand and achieving the objective, and two designates a strong positive connection.

TABLE 4.1   RELATIONSHIP BETWEEN STRATEGY STRANDS AND OBJECTIVES

Strategy Strand	Objective Theme						
	Transport Choice	**Economy**	**Climate Change**	**Access for All**	**Safety, Security and Health**	**Quality of Life**	**Framework for Growth**
Public Transport	✓✓	✓✓	✓✓	✓✓	✓	✓✓	✓✓
Cycling and Walking	✓✓	✓	✓✓	✓	✓✓	✓✓	✓✓
Smarter Choices	✓	✓	✓✓	✓	✓	✓	✓✓
Highways and Traffic Management	✓	✓✓	✓	✓	✓✓	✓	✓✓
Technology	✓	✓	✓✓	✓	✓	✓	✓✓
Infrastructure Management	✓	✓	✓	✓	✓	✓	
Development Planning	✓	✓	✓✓	✓✓	✓	✓	✓✓

✓   = positive connection between a strategy strand and an objective
✓✓   = strong positive connection between a strategy strand and an objective

Focus of the Strategy

The strategy is a long term strategy covering 20 years and in that period it is possible to deliver improvements across all forms of transport, for all journey purposes, for all users. Despite this broad reach, and in consideration of all possible approaches, there is a clear focus for achieving the objectives of the vision – making best use of existing assets, the improved provision of sustainable transport to provide a real and attractive transport choice, and promotion of the transport choices available.

Making Best Use of Existing Assets

In current funding constraints, it is important that the best is made of the borough's existing assets. This includes maintenance of assets, covered by the Milton Keynes Transport Asset Management Plan; localised junction improvement to increase highway capacity; as well as the increased promotion of existing sustainable transport infrastructure. This focus supports all transport users. For example, better quality roads for motorists and buses with increased capacity, and better quality Redway routes for cyclists and pedestrians.

Improved Transport Choice

If the increased demand for travel that is forecast is to be accommodated whilst maintaining a transport network that allows for the fast and efficient movement of people and goods and at the same time reducing CO_2 emissions, more people will need to travel by more sustainable modes of transport.

The step change required will be delivered through the ambitious and innovative interventions laid out in the strategy. They include the development of a high frequency bus network along core routes, building on the good work delivered by the council and its partners, and ultimately a transition to a rapid transit network. Rural services, feeder services, and Park & Ride will support the network; and interchange facilities, information provision and ticketing will be first class. Rail and coach will continue to provide a transport choice over longer distances and services will be enhanced and promoted. Taxi and private hire improvements will be supported. Community Transport will continue to provide a lifeline to key services for those with greatest need. The world class Redway network will be expanded and improved. Cycling and walking will be given top priority within city estates; and cycling and walking links in rural areas to employment centres and key services will be improved.

Technology and future modes of transport will also be embraced to add to the transport choice available. All interventions will be developed and delivered in partnership with operators, local businesses, the voluntary sector, local partnerships, and the wider community.

Improved Promotion of Transport Choices

In addition, promotion of the boroughs sustainable transport infrastructure will help to generate demand on these networks by raising awareness to residents, workers and visitors of the transport choices that already exist, including home working and shopping. Increased demand will act as a sign that increased investment in infrastructure is warranted, and in turn, ongoing promotion will optimise the benefit of additional investment.

Public Transport Strategy

This strategy considers the role of all public transport modes including rail, bus, taxis, private hire cars and community transport, as well as future modes of transit, in achieving the transport objectives for the Transport Vision and Strategy. Mapable bus interventions are shown in Figure 4.1 and rail interventions in Figure 4.2.

Key Issues

With significant new development proposed for the borough and increasing car ownership, there will be a 57% increase in journeys by car at peak travel times at current rates of growth, but the capacity of the grid road network's junctions can only be increased by 25% at peak times through junction improvements and other measures (PTi1) [19]. In addition, the council has a commitment to reduce CO_2 emissions by 40% by 2020. Improving sustainable transport to provide a real and attractive transport choice is, therefore, a key focus of the Transport Vision and Strategy.

Despite ongoing improvements to sustainable transport networks and growing bus patronage levels on core routes, there is a poor perception of buses (PTi2). Against a council target of 58% satisfaction with local bus services, only 40% satisfaction was achieved in 2009/10[20]. For journeys to work, public transport mode share is 8.7%, below regional and national averages[21] (PTi3); and for journeys to school, car usage was 28.8% against a national average of 25.4%[22] (PTi4). The reasons for these low sustainable mode shares are reviewed below.

It is difficult to provide commercial bus services from low density residential areas in villages and in city estates to dispersed employment sites and retail areas (PTi5). Buses that operate along grid roads only, have lower levels of accessibility, but benefit from faster journey times. Services that run through estates have higher levels of accessibility, but are prone to lower levels of reliability (PTi6) and relatively long journey times (PTi7). In addition, buses are also perceived to be expensive as return fares can often exceed local car parking charges (PTi8), and lack of direct services (PTi9), poor quality bus and rail interchange and integration of timetables (PTi10), and lack of integrated ticketing (PTi11) increase people's perceived costs. Recently, timetable and route changes have received much negative media coverage and high levels of public opposition (PTi12).

Milton Keynes borough is relatively well self-contained with regards to journeys to work. 78% of working age residents also work in the borough, and 38% of journeys to work **to** Milton Keynes and 43% of journeys **from** Milton Keynes are less than five kilometres in length[23]. However the opportunity to provide a real transport choice and mode shift across short to medium distances and along key corridors with high journey to work flows has not been realised (PTi13) with only journeys to work in London having a sizeable rail mode split. This is exacerbated by short bus operating hours and weekend and public holiday services (PTi14) for people who work shift patterns or long hours and does not support the buoyant night time economy of Milton Keynes.

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[19] *Core Strategy: Revised Proposed Submission Version* (Milton Keynes Council, October 2010)
[20] Milton Keynes Council monitoring of former BVPI104a
[21] *United Kingdom 2001 Census* (Office of National Statistics, 2001)
[22] *School Census* (Milton Keynes Council, January 2010)
[23] *United Kingdom Census 2001* (Office of National Statistics, 2001)

In addition, where rail services are available for journeys to work, there is often crowding on the network and onboard trains in the morning and evening peak, particularly on West Coast Main Line rail services (PTi15). There are also gaps in local peak rail services, such as no peak services between Wolverton and Bletchley (PTi16). Locally, there are also perceived safety concerns at stations and on trains, particularly late in the evening (PTi17).

At a national scale, there is limited direct rail connectivity between Milton Keynes and many major urban areas in the country, as well as international gateways such as airports, ports and the Channel Tunnel (PTi18). Connectivity is poor to the east and west of the borough to the knowledge economies of Cambridge and Oxford (PTi19), and as a result, many business trips must be conducted by car or require time consuming interchange. Long distance coach services fill some of the gaps, but require further promotion to support their commercial viability.

There are pockets of high levels of multiple deprivation in Milton Keynes, typically matched by lower levels of car ownership. With regards to accessibility, almost 20% of Milton Keynes residents do not have access to a private car, with approximately 50% of working age population residents not having access to a car at some point during the day (PTi20). Access to key services is perceived to be poor by residents anecdotally (PTi21). Membership of the current community transport service is capped and currently full (PTi22). With a 102% increase in the elderly population between 2011 to 2031 from 28,400 to 57,300[24] (PTi23), 'mainstreaming' services (i.e. making the public transport network as accessible as possible and reducing dependence on Community Transport) will become essential if Community Transport is to be funded and provided across the entire borough. Preventing this aim from being achieved are public transport network accessible constraints for people with mobility or sensory impairments (PTi24). Fast grid roads are a safety concern for bus operators with buses turning or merging onto grid roads, as well as providing an uncomfortable journey experience if buses need to accelerate or break suddenly (PTi25).

Issues surrounding the provision of taxis and private hire are the high fares charged by hackney carriages (PTi25) in relation to private hire, the lack of roaming for trade compounded by the speed and design of the grid road network (PTi26), and lack of taxi ranks at areas of high footfall (PTi27).

Links to Objectives

Through delivery of the plan, there will be a transformation in public transport provision. Public transport will provide a real and attractive transport choice and encourage more sustainable transport behaviour, and will be accessible for all residents, workers and visitors to employment opportunities and key services. The increased connectivity to major urban areas, airports, ports and the international rail network will support the economic growth of the borough; and improved local services will increase the size of labour catchment that businesses can access by sustainable modes of transport. Increasing public transport patronage and mode share, along with technological advancements will help to reduce CO_2 emissions and tackle climate change, and help improve air quality. Safety and security concerns of operators and passenger will be addressed.

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[24] For Milton Keynes population forecasts see: http://www.statistics.gov.uk/statbase/Product.asp?vlnk=997

Bus, Interchange and Future Modes of Transit

City Centre and Central Milton Keynes

The city will be served by a high capacity, fast and frequent bus network, 'MK Star', along main arterial corridors and other key corridors serving Central Milton Keynes, the hospital and other key destinations. The network will also serve Park & Ride sites strategically located on the edge of the city and at key highway junctions; and feeder routes, including semi-flexible 'dial-a-ride' style services, will serve stops and stations within the city including the hospital and district centres. As demand grows from improved service provision, promotion and population and employment growth, the feasibility of rapid transit will increase. Long term interventions provide for this future.

The need to interchange will be minimised, and where interchange is necessary, the quality of facilities and information will be enhanced. Interchange improvements will include improved bus interchange in Central Milton Keynes; superior Real Time Passenger Information provision; improved timetabling and ticketing, including a single smartcard system for all public transport modes; and improved routes to stops and stations. Extended operating hours and weekend and public holiday services will support shift workers and the night time economy.

In Central Milton Keynes, existing and new modes of public transport will be embraced so that the need for travel by private car can be reduced further and public transport will better serve multi-destination journeys.

Delivery Date - Short Term

Bo1   'MK Star' bus network

The centrepiece of the Milton Keynes bus network will be the 'MK Star'. The network will build on the recent success of increasing patronage along core routes through increased investment and promotion (e.g. the 300 service).

Routing: MK Star will be a high frequency network of bus routes operating along arterial corridors and other corridors of high demand, providing excellent network coverage across the city. These through services will link the older towns, rail stations, Western and Eastern Expansion Areas, Central Milton Keynes, the hospital, and other key destinations and local centres (see Figure 4.1). The network can and will be readily expanded.

Frequency: Six buses per hour minimum frequencies will operate during peak periods, with a minimum of three buses per hour between peaks. Operating hours will be extended to support the buoyant night time economy of Milton Keynes, as well as people working early morning, evening and night time hours, as well as at weekends and on public holidays. A minimum of two buses per hour will operate at these times, with one bus per hour during night times.

Operation: It is envisaged that the 'MK Star' will be a largely commercial operation and initial subsidy and prioritised council investment will be used to help determine the more detailed design of the network and kick-start its operation, and promotion of the flagship network. The council will seek to pilot longer operating hour services initially on particular routes rather than across the whole network. The network will

be served by improved rural services (see Bo9), feeder services from rural and urban areas alike (see Bo2 and Bo8), and Park & Ride sites on the edge of the network (see Bo5).

Bo2   Semi-flexible, 'dial-a-ride' style bus services covering city estates

The majority of local authorities are facing cuts to subsidised bus services, with some local authorities contemplating the removal of subsidised services altogether. In Milton Keynes, the council is committed to subsidising non-commercial services, but acknowledges that some services may be more efficiently run using smaller vehicles such as mini-buses and taxi buses with semi-flexible routing to maximise demand. Within and between the city estates, fixed route services and semi-flexible, 'dial-a-ride' style services will feed the network for those able and wanting to transfer onto the high frequency network at improved interchange points, as well as providing increased accessibility for residents to Central Milton Keynes, the hospital and other key services, if by less direct routes.

Smaller vehicles will operate the services, and the council will seek to deliver services in partnership with private and voluntary sector partners', and making best use of existing drivers and accessible vehicles. The technology will be in place to provide the efficient booking system, Real Time Passenger Information, and other coordinating Intelligent Transport Systems.

Bo3   Bus 'hopper' service for Central Milton Keynes

The hopper service will serve key destinations including Milton Keynes Central Rail Station, the Hub, thecentre:mk, Xscape, and the Theatre District. One possible route will be from MK Central Rail Station, Silbury Boulevard, Marlborough Gate, Midsummer Boulevard, Lower Ninth Street, Avebury Boulevard and back to MK Central Rail Station. A nominal charge will be used, with a desire to provide a free service if funded by local business benefiting from the service.

Bo4   Improved interchange facilities

Existing interchange facilities are poor at Milton Keynes Central Rail Station, Bletchley rail and bus stations, Wolverton rail station, in Central Milton Keynes, and at Milton Keynes General Hospital. Funding has been secured to provide a new building at Wolverton rail station (seeking opportunities to improve access to platforms), and plans for the redevelopment of Station Square in front of Milton Keynes Central will also be delivered pending planning permission and securing funding from relevant partners. Bletchley rail and bus stations also need upgrading. The main exit of the rail station faces away from the town centre; facilities, information and signage are poor; and buses do not serve the main forecourt of the rail station. The bus station provides a poor urban environment for encouraging bus travel; physical access from bus bays onto and off buses is poor; and information provision and other facilities are also poor. Milton Keynes Council has integrated the findings and recommendations of the Transport Vision and Strategy within the Bletchley Transport Strategy. Central Milton Keynes and Milton Keynes General Hospital both lack operational bus interchanges (excluding Milton Keynes Central Rail Station).

Infrastructure will include improved urban realm and accessibility improvements, increased levels of cycle parking and possible cycle hire facilities; revised levels of ranking space and collection and drop off spaces for taxis and private hire vehicles; additional and improved bus stands where appropriate; infrastructure for hybrid and electric vehicle charging; and additional services for passengers and local residents, workers and visitors such as shops, refreshments, and lavatories. Information will also be improved at interchanges and bus stops with both print material as well as digital information such as RTPI provision.

In development plans, land for future interchange facilities and depot facilities should be defined and defended.

Delivery Date - Medium Term

Bo5   Park & Ride

The network will be served by Park & Ride sites on the edge of the city and in close proximity to the strategic highway network to allow commuters and other journey purposes to transfer to bus. The delivery of Park & Ride would be subject to extensive feasibility and design work, including widespread consultation with the local community before seeking planning permission for delivery. Possible locations include M1 Junction 13, A5 junction with A4146, A421 junction with B4034, stadium:mk or the Nation Bowl Milton Keynes, and A5 near Stony Stratford.

Bo6   Bus priority

In general, the free flowing grid road network negates the need for bus priority lanes in the city. As levels of congestion increase, bus priority to maintain journey times and improve reliability may be necessary at congested junctions and along congested links at peak times if the 'MK Star' network is to provide a real and attractive transport choice. This will be done with minimal disruption to motorists. This could include Automatic Vehicle Detection, bus gates, and bus lanes that provide additional capacity, rather than removing capacity away from motorists. It will remain an option for these lanes to also provide additional capacity for High Occupancy Vehicles (HOVs) to promote car sharing further.

Delivery Date – Long Term

Bo7   Rapid Transit

A rapid transit system is a high frequency and high capacity form of public transport, typically segregated from the highway network. As the demand for travel increases across the public transport network, particularly on the 'MK Star' network, it may become feasible to replace buses with a more advanced form of innovative transit. Without further feasibility analysis, it is not possible to determine what form the transit should take (e.g. segregated or guided bus, tram, or personal rapid transit or 'pods').

A rapid transit system for Milton Keynes would need to be designed to conserve the landscape and amenity function of Milton Keynes' grid road system[25]. In the first instance, it is most likely that bus rapid transit would be the most feasible upgrade to the bus network and the lowest cost.

Into the long term, a more innovative form of rapid transit that is better able to work with the grid structure of the city (rather than linear corridors) might be feasible. This would indicate personalised rapid transit solutions.

The lead in time for rapid transit is typically in excess of ten years, and if Milton Keynes is to embrace these future modes of transit, initial scoping work will need to begin in the short term. In addition, the alignments for any form of rapid transit, and space for supporting infrastructure such as interchanges and depots, must be defined and defended in all spatial plans.

Rural Milton Keynes

Connectivity to rural settlements will be improved with more efficient off-peak services, with greater network coverage, better able to meet demand; and improved peak frequencies on fixed route services. Services will integrate with the 'MK Star' network and continue to Central Milton Keynes and Milton Keynes General Hospital.

Delivery Date – Short Term

Bo8   Semi-flexible, 'dial-a-ride' style off-peak rural bus services

To provide rural off-peak services that better serve local communities, have increased accessibility, and require less public funding, semi-flexible, 'dial-a-ride' style services will operate alongside higher patronage fixed route services. Smaller vehicles will operate the services, and the council will seek to deliver services in partnership with private and voluntary sector partners', making best use of existing drivers and accessible vehicles. Services will connect with local hubs and the 'MK Star' network.

Delivery Date – Medium Term

Bo9   Increased frequency for morning and evening peak rural bus services

From rural settlements to the city, including Central Milton Keynes and other key destinations, morning and evening peak frequency will be increased to a minimum half hourly frequency to provide a real alternative to car travel. Services will integrate with the 'MK Star' network and continue to Central Milton Keynes, Milton Keynes Central Rail station and Milton Keynes General Hospital.

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[25] Grid road corridors are owned on a 999 year lease by The Parks Trust with the objective to conserve this function, and require assessment on landscape resulting from all grid road corridor projects, with proper provisions for mitigation.

Inter-Urban and Long Distance Journeys

High quality inter-urban bus and coach services will complement the rail and urban bus networks providing connectivity to urban areas without direct rail access to Milton Keynes.

Delivery Date – Short Term

Bo10 Promotion of long-distance bus and coach services

> The council will continue to work with long distance bus and coach operators, and the South East Midlands Local Enterprise Partnership to plan, deliver and promote improved services. The council will make best use of the new Coachway facility and look for ways to improve accessibility to the site; as well as improved integration with rail services at Milton Keynes Central and other rail stations where appropriate.

Ticketing, Information and Promotion

Underlying all improvements to infrastructure and incorporating improvements to information provision is increased promotion of services through 'Smarter Choices'. 'Smarter Choices' includes interventions or initiatives such as travel planning that are designed to encourage sustainable travel behaviour. If the delivery of a real and attractive transport choice is to be maximised, people must know about the network improvements and be incentivised to use them (see Smarter Choices Strategy).

Delivery Date – Short Term

Bo11 Increased promotion of bus services

> Bus services will continue to be promoted by the council, both directly and through travel planning and other Smarter Choices interventions (see Smarter Choice Strategy).

Bo12 Improved information provision, including improved Real Time Passenger Information (RTPI) provision at bus stops and interchanges

> RTPI provision will address current issues and will reduce the impact of reliability and punctuality issues as passengers can monitor the arrival of all buses. Where possible, contracting will be used to provide improved technology. Information will be easy to understand, and there will also be facilities for information to be spoken for people with sight impairments. Timetable information and mapping will also be improved at bus stops. Information regarding the bus network (e.g. bus timetables and maps, bus pass eligibility criteria and application, fare information) will be improved and available online and at interchanges and civic buildings.

Travel Watch - 2025

Dr. Pagnell normally commutes to the hospital by car, but has had to take her car in to be serviced. She decides that instead of taking a courtesy car from the garage she'll try out the new MK Star rapid transit network that she has been reading about in the local newspaper. Her neighbours have also been telling her about how fast and reliable it is, but she wants to see it for herself. She goes online to plan her journey and selects real time departure updates from her nearest stop to be sent to her phone. She likes the idea of this as she can spend as much time as possible finishing her breakfast! In order to get to work by 8:00am, she notes that she needs to catch the 7.30am service from her local stop and change in Central Milton Keynes.

She checks her Milton Keynes Travel Portal smartphone application in the morning and sees that services are running on time. At 8:25am her phone vibrates with a message reminding her that her chosen service is five minutes away, so she starts walking to the stop.

Arriving at the interchange in Central Milton Keynes, her smart phone tells her she's got six minutes until her connecting service arrives, so she quickly gets herself a coffee and a newspaper from a nearby kiosk. Happy with her morning's travels, she gets off at the new hospital interchange and walks the final few metres to the hospital. Once her day is over, she logs in to the Milton Keynes Travel Portal and checks her return journey... once again her smartphone let's her know that it's time to go...

Bo13 Journey planning website and 'smart phone' applications for dynamic journey planning

Passengers will be able to plan journeys online; at kiosks at interchanges, bus stops and around the city; and from 'smart phones'. A single web portal and 'smart phone' application will allow journeys to be planned and mapped across all modes, not just by bus (see Technology Strategy).

Delivery Date – Medium Term

Bo14 Integrated ticketing between operators and across modes, including smartcard ticketing

Integrated ticketing will be promoted between operators and across all modes. Smartcard technology will be rolled out. First across all bus routes, and then integrated for travel by taxi, private hire, rail, and any future modes of public transport.

Bus Network Accessibility

Delivery Date – Short Term

Bo15 Accessibility improvements to buses and bus infrastructure, particularly in rural areas and for people with physical and sensory impairments

Accessibility improvements will be made to buses and bus stops, including 'talking bus stops', to make the bus network Equality Act 2010 compliant. Accessibility

improvements will also be delivered at Milton Keynes Central Rail Station, Bletchley bus and rail stations, and Wolverton rail station.

Bo16   Driver Training

Operators will be encouraged to deliver improved driver training to make bus travel more accessible, reduce CO_2 emissions through 'eco driving' techniques, and improve the journey experience. Bus passes will be different colours for drivers to identify different types of need. Opportunities for providing feedback to operators will be made easier (e.g. with clear contact details and driver reference number).

Travel Watch – 2020

Mrs Bletchley is off to see her sister Anita in Olney. Mrs Bletchley has a visual impairment and hasn't driven for many years, but knows that the MK Star Bus network and connecting services will get her there in good time. Since Bletchley Bus Station was upgraded, she feels safer knowing that she can get up-to-date real time passenger information to her through the 'talking stop' facilities. She also values the improved walking links through Bletchley and clear signage, despite the fact she only has a 100 metre walk from home to the bus station. With a bus every ten minutes she knows it is not long to wait. She checks at the stop and the announcement tells her its two minutes before arrival. Her bus passes stadium:mk and the General Hospital on its way to Central Milton Keynes, and continues on to Newport Pagnell via Campbell Park.

In Newport Pagnell, she waits for a semi-flexible service to her sister's. She knows the bus doesn't always go exactly the same way, but this service definitely calls at Market Hill and she has phoned ahead to ask the driver to stop outside her sister's front door. Her coloured bus pass informs the driver that she has a visual impairment and he waits for her to sit down before pulling away from the stop. His satellite navigation system lets him know exactly where Mrs Bletchley needs to get to, so she doesn't have to get out her seat or shout to the driver to give him directions.

Once there, Anita asks her sister if she came by community transport, but Mrs Bletchley explains she doesn't need to use it anymore since the bus station was upgraded and all the new bus services started operating.

Sustainable Growth and Technology

With all housing and employment development, it is important that buses are fully integrated into proposals and delivery, and routes for new modes of public transport to Milton Keynes are defined and protected. Electric and other fuel vehicles are currently available and an important part of reducing CO_2 emission from travel (See Development Planning Strategy).

Delivery Date – Short Term

Bo17   Integrated transport and land use planning

Improvements so that routes for new modes of public transport to Milton Keynes are defined and protected

Delivery Date – Medium Term

Bo18   Electric and other alternative fuel buses (e.g. hydrogen fuel cell)

Milton Keynes Council will part-fund electric and hydrogen fuel cell vehicles to help reduce CO_2 emissions from public transport. Infrastructure for these vehicles will need to be provided, and development plans will need to incorporate these requirements as well.

Partnership Working and Delivery

Partnership working is required to deliver many of the interventions listed. Milton Keynes does not directly control bus, coach or rail services; and funding is limited to support services further. As a result, there will be a growing role for the private sector to resource and provide sustainable transport choices, reflecting the benefit received from the provision of those services. There is also a growing role for the voluntary sector and wider community to provide local services. The council is committed to strengthening its partnerships and build on the excellent work already delivered in the borough; and further promote increased usage of more sustainable transport modes.

Greater local influence over the bus network could speed up the delivery of interventions, and ultimately help achieve an aspiration for route stability (i.e. reduce the number of changes to timetables and routing). The council will continue to engage with partners on formal partnership and contracting options, based on any powers available, in order to deliver the best network possible for the wider community.

Delivery Date – Short Term

Bo19   Increased partnership working

Improve partnership working with transport users and community groups; transport operators; other public sector service providers; the South East Midlands Local Enterprise Partnership; local businesses including providers of retail, leisure and tourist facilities; the voluntary sector; and other transport authorities to improve the quality of service and accessibility to for all users to key services.

Bo20   Bus Strategy Refresh

The interventions above build upon the strength of the Bus Strategy (Milton Keynes Council, 2008) that accompanied the Milton Keynes Local Transport Plan 2006-07 – 2010-11. In light of this Transport Vision and Strategy, the Bus Strategy should be updated and replace the Long Term Public Transport Vision (Milton Keynes Council, 2004).

Figure 4.1   Public Transport Strategy – Bus Interventions

Rail Interventions

Delivery of most rail interventions is dependent on Treasury, Department for Transport, Network Rail, and Train Operating Company agreement and funding, as well as the buy-in of many other partners. Even if Milton Keynes Council can provide the funding, delivery of rail projects is complex. The council will continue to work in partnership with all key partners to improve rail connectivity and services to, from and within the borough.

Delivery Date – Short Term

Ro1   Improved marketing of rail-bus through ticketing

The council will continue to support and improve the promotion of integrated rail-bus through ticketing known as PlusBus. PlusBus is a national scheme that allows passengers to buy reduced price bus passes when buying a train ticket. The scheme is recognised by over 200 bus operators across Britain.

Ro2   Promotion and development of the Marston Vale Community Rail Partnership

The council is committed to providing ongoing support to develop the Marston Vale Community Rail Partnership to improve financial performance, value for money and the social value of local and rural railways so as to ensure their long-term future. Success is dependent upon active support from a wide range of local partners, including the council and user and community groups.

Delivery Date – Short to Medium Term

Ro3   Improved station facilities and interchange at Milton Keynes Central, Wolverton and Bletchley rail stations (see Bo6 Improved interchange facilities above).

Delivery Date – Medium Term

Ro4   Increased surveillance and supervision at stations and on trains

In order to provide a real and attractive transport choice, passengers must feel secure onboard trains and at stations. The council will support operators in providing additional surveillance and supervision, particularly after the evening peak.

Ro5   Increased capacity by lengthening trains

The council supports the lengthening of trains to relieve crowding onboard West Coast Main Line services between Milton Keynes and London in the morning peak. The council also support increased access by bicycle, with increased numbers of spaces for bicycles onboard trains.

Ro6   Direct peak services between Wolverton and Bletchley

To fill the gap in peak service delivery within Milton Keynes, the council supports a direct service between Wolverton and Bletchley during peak periods, providing and attractive transport choice between the two older towns.

Ro7   More evenly distributed London Midland services towards Northampton and London

The council supports providing an improved rail service from Wolverton. In addition to interchange improvements detailed above (see Bo6 Improved interchange facilities), northbound services to Northampton offer a quick service of between 13 and 15 minutes, however, departure times are typically close together at 53 minutes past and 59 minutes past. A non-direct service is available at 17 minutes past but takes between 23 and 27 minutes via Milton Keynes Central. Typical departure times from Wolverton on southbound services are 17 and 37 minutes past the hour. The 17 minutes past service is a slower service, only arriving at London Euston five minutes before the 37 minutes past service.

Ro8   Longer operating hours

The council supports longer operating hours to support the local economy. This includes the night time economy of Milton Keynes and businesses operating shift patterns. In addition, an early morning service to Birmingham International Airport to integrate with early morning short haul flights to Europe would benefit the economy of the borough.

Ro9   Transfer of rail freight paths on the West Coast Main Line to night time

Transfer of rail freight services from daytime to night time will relieve pressure on the West Coast Main Line for daytime passenger services to major urban centres currently not served by direct links (see Ro10 High Speed 2 below).

Delivery Date – Long Term

Ro10   East West Rail and connections to major urban areas and national networks beyond, including construction of additional platforms at Bletchley and extension of a fifth track between Bletchley and Milton Keynes Central

The strategic infrastructure project will support economic growth and investment in new jobs and homes; provide for faster journeys between towns and cities to the north and west of London, avoiding the need to travel via the capital; provide an alternative to travel by road, reducing congestion and carbon emissions; and create increased capacity elsewhere on the rail network in the longer term.

East West Rail would link the knowledge economies of Cambridge and Oxford with Milton Keynes. Whilst the western section from Reading to Bedford via Oxford and Milton Keynes (with a spur to Aylesbury) has a stronger business case and is more likely to receive Central Government funding, Milton Keynes Council supports the construction of both sections, and direct services connecting Milton Keynes to beyond both cities. In order for Milton Keynes to receive East West Rail, high-level track and platforms will need to be constructed west of and at Bletchley; and for direct services to Milton Keynes Central, a fifth track will need to be constructed between Bletchley and Milton Keynes Central.

Ro11   High Speed 2

In the long term, Milton Keynes Council supports High Speed 2 Rail. High Speed 2 would relieve pressure on the West Coast Main Line allowing more direct services

to London, London Gatwick Airport, Liverpool, Manchester, Central Lancashire, North Wales, and Scotland; and higher frequency services to Birmingham New Street and Birmingham International Airport.

Ro12   Direct rail services to London Luton Airport, London Heathrow Airport, ports, and the Channel Tunnel

A long term aspiration of the council is to have direct rail links to additional airports, as well as ports and the High Speed 1 (i.e. the Channel Tunnel Rail Link).

Ro13 Station reopening feasibility study

Milton Keynes Council supports further study into the feasibility of reopening stations north of Milton Keynes Central, between Wolverton and Northampton. Much of the core infrastructure still remains, and further study would involve extensive community engagement on any options considered.

Figure 4.2   Public Transport Strategy – Rail Interventions

Community Transport

In addition to bus, rail and interchange improvements listed above, the council is committed to providing community transport to those with greatest need.

Delivery Date – Short Term

CTo1 Continued provision of community transport

Milton Keynes Council is committed to the continued provision of community transport (such as the existing MK PlusBus service) for all disabled and frail elderly residents who are unable to use mainstream public transport, including residents with learning difficulties or a mental disability[26].

Taxi and Private Hire

Taxis and private hire vehicles have an important role to play in providing a real and attractive transport choice in Milton Keynes. Functions include door-to-door alternatives to other forms of transport; late night public transport; completing the trip-end of a journey (e.g. from Central Milton Keynes Rail Station to a final destination); parallel service to community transport; and as a form of Home to School transport.

Interventions

Delivery Date – Short Term

TPo1 Improved partnership working with taxi and private hire operators and drivers, key service providers and venue managers, and the police

The council is committed to improved partnership working to help deliver increased levels of roaming by and ranking for taxi drivers; text messages with wait times and on arrival from private hire operators; priority phone lines from venues, particularly supermarkets and late night venues such as the theatre and bars and restaurants; and supervision of taxi ranks by marshals in the late evening.

TPo2 Review the number and location of ranking spaces at key destinations, and signage to ranks, and implement recommendations.

The council will also seek to deliver improvements where possible, such as infrastructure for ranking. Better provision will also be made for private hire cars to collect and drop off passengers at key destinations. The redesign of Station Square will provide one such opportunity to review the number of spaces for ranking, collection and drop off.

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[26] For details of the council's community transport service:
http://www.milton-keynes.gov.uk/transport/DisplayArticle.asp?ID=35570
For details of the council's Blue Badge scheme: Details regarding the council's Blue Badge scheme can be found here: http://www.miltonkeynes.gov.uk/mkparking/DisplayArticle.asp?ID=16787
For details of the council's bus card/pass scheme for eligible older and disabled people:
http://www.miltonkeynes.gov.uk/transport/DisplayArticle.asp?ID=14679

Delivery Date – Medium Term to Long Term

TPo3   Ultra low carbon taxis and private hire cars

The council aspires for all taxi and private hire car vehicles using hybrid or ultra-low carbon technology by 2021.

Home to School Transport, Special Educational Needs, and Social Services

HSo1   Greater efficiency savings in provision of specialist passenger services

The council will seek efficiency savings in the provision of these services, through integration with community transport, semi-flexible rural and urban bus service provision, and the health sector. This will involve improved partnership working with other council service areas, operators, the health sector and the voluntary sector; as well as sharing and integration of vehicles, drivers, routing and maintenance.

Provision of Home to School, Special Educational Needs and Social Services transport is provided by Milton Keynes Council. Policy relevant to this service area comes from both central and local government policy.

Web links to council schemes and local policies are provided below:

Home to School:
http://www.milton-keynes.gov.uk/transport/DisplayArticle.asp?ID=13886

Special Educational Needs:
http://www.milton-keynes.gov.uk/schools/displayarticle.asp?id=14677

Adult Social Care:
http://www.miltonkeynes.gov.uk/socialcare-health/documents/ASC_Directory_-_2010.pdf

Cycling and Walking Strategy

This strategy considers the cycling and walking interventions required to help achieve the objectives of the Transport Vision and Strategy.

Key Issues

With limited scope for increasing the capacity of the highway network in line with forecast growth in car trips based on current rates (CWi1) and a council commitment to a 40% reduction in CO_2 emissions by 2020 (CWi2), a shift to more sustainable modes of transport is required. However, despite 78% of Milton Keynes working age residents also working in the borough, and 38% of journeys to work **to** Milton Keynes and 43% of journeys **from** Milton Keynes are less than five kilometres in length, the proportion of walking and cycling trips for journeys to work in Milton Keynes (10%) is currently below the regional and national averages for journey to work (13%) (CWi3) [27].

Milton Keynes' 280 kilometres of world class Redway network is an underutilised resource. Routes are often perceived to be indirect (CWi4) and unsafe (CWi5). Low levels of lighting (CWi6), winding paths (CWi7), maintenance issues (CWi8), vegetation obscuring people's forward vision (CWi9), poor wayfinding (on and off the Redway network) (CWi10) and underpasses (CWi11), along with negative media attention add to peoples perceived safety concerns on the network.

The Redway network does not extend fully into Central Milton Keynes, older towns and rural areas (CWi12) and a lack of good trip end facilities, including at bus stops and interchanges, such as cycle parking and shower facilities at workplaces (CWi13) make it difficult for cycling to be a real and attractive transport choice from all parts of the city. Poor cycling and walking infrastructure in rural areas, particularly to rural employment centres and key services (CWi14) also denies rural parts of the borough a full choice of transport options.

Links to Objectives

In addition to the Public Transport Strategy, the Cycling and Walking Strategy will also transform the way residents, workers and visitors travel around Milton Keynes, providing a real and attractive transport choice. The Cycling and Walking Strategy is integral to the Transport Vision and Strategy's aim of achieving a substantial shift towards low carbon modes of transport. The strategy seeks to build on the excellent work done to date to promote and encourage walking and cycling in the city. The strategy aims to make Milton Keynes the envy of other local authorities in terms of low carbon travel. Not only do increased levels of walking and cycling have the potential to improve the efficiency of the highway network and help get people to work and school, but also reduce CO_2 emissions, improve air quality, and have significant health and quality of life benefits for the population.

The Government's recent White Paper *Creating Growth, Cutting Carbon*, placed particular emphasis on the health benefits to be gained from walking and cycling. These benefits are gained directly from increased physical activity among those using 'active travel', and

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[27] *United Kingdom Census 2001* (Office of National Statistics, 2001)

indirectly through improved air quality as a result of lower levels of car trips on the highway network.

At the time of publication, central government has generated a £580 million Local Sustainable Transport Fund with the goals of stimulating economic growth and reducing carbon emissions, as well as delivering cleaner environments, improved safety and increased levels of physical activity. Local authorities can bid for a share of the funding to cover both capital and revenue funded schemes. The council will help deliver many of the following cycling interventions and supporting measures to help deliver both the objectives of the Transport Vision and Strategy and the goals of the fund.

Interventions

Delivery Date – Short Term

Information, Promotion, Education and Training

CWo1   Increase promotion, education and training for cycling and walking

Cycling and walking will be promoted comprehensively in schools, workplaces and for leisure purposes. Promotion will support and encourage the use of new and improved infrastructure. The council will continue to encourage and support schools to implement 'walking bus' interventions, expand the "Walk and Roll" scheme, and help deliver 'Bikeability' training. As part of the council's school travel planning work, the council will continue to encourage schools to incorporate Sustainable Travel and Road Safety into their school curriculum and adapt to relevant national government policy and the direction of the curriculum. Through ongoing travel planning, and promotional and education campaigns with workplaces, cycling and walking will be further encouraged and all employees in Milton Keynes will be able to access subsidised one-to-one cycle training.

CWo2   Improved signage

The cycling and walking network will benefit from exemplary signage and wayfinding, building on the recent introduction of yellow and green signage on the Redway network (and supported by CWo3 Online journey planner). Users will be supported at key decision points by signage showing walk and cycle times to key destinations. The Redway priority routes will be sign posted from within residential areas and signage along the route will identify local destinations.

CWo3   Online journey planner

An online journey planner will be developed allowing bespoke identification of cycle and walking routes across the borough, integrated with other modes of transport. The journey planner will be supported by a geographically referenced photo library enabling users to anticipate and plan for their journey experience. Users will be able to upload their own images to the library and provide updates on local conditions and issues, keeping the resource up to date and building a virtual community of users.

Infrastructure and Maintenance

CWo4   More direct Redway routes

The council has already begun developing and extending priority routes – more direct routes, many of which are parallel to the grid road network. At junctions with grid roads, segregated crossings will be used. These more direct routes will help allay people's perceived safety concerns of the Redway network, as well as promoting cycling and walking as a real and attractive transport choice. Priority routes will be rebranded as 'Express Routes', to help convey their suitability for making quick journeys along safe and direct routes. Within estates, cycling and walking will be given top priority, and junctions will be at-grade where suitable.

CWo5   Expansion of the Redway network into Central Milton Keynes, new developments, regeneration areas and where possible the older towns

The Redway network will be expanded to help realise its full potential as a choice network for short and medium length trips in Milton Keynes and for leisure and active travel purposes. The council has already committed to expanding the Redway network into new developments, and the preferred model is for widened, well lit, direct routes. The council is also seeking central government and local funding to expand the Redway network into and through Central Milton Keynes, new developments, regeneration areas and where possible the older towns. Cyclists and pedestrians will have top priority within city estates.

CWo6 / CWo7   Improved maintenance of the Redway network (and footway and backways network).
Improve lighting on the Redway network.

Maintenance of the Redway network will be a priority: damaged surfacing will be repaired or replaced and paths kept clear of broken glass and debris. Lighting will be enhanced where appropriate; vegetation will be cut back and removed where necessary to open up the paths and so enhance feelings of safety and security for users.

CWo8 / CWo9   Improve pedestrian and cycling access to the public transport network
Increased levels of cycle parking at bus stops, interchanges and facilities for carrying cycles.

Walking and cycling will be fully integrated with the public transport network. Cycle links from city estates and villages to interchanges and bus stops will be improved, including provision of new links, removal of obstructive vegetation and improved sight lines, and improved maintenance of existing and new links. Increased levels of secure cycle parking will also be provided at interchanges and increasingly at bus stops in the borough to facilitate access to public transport by bicycle. The council will continue to work with public transport operators on integration issues, including for example the carriage of cycles on buses and trains.

CWo10 More cycle parking, including GearChange at key destinations including workplaces

Cycle parking will be provided at key destinations and in local centres will be upgraded providing high capacity safe and secure cycle storage facilities. Bus stops and stations will be better linked by improved walking and cycling links, and cycle parking will be provided at bus stops.

Delivery Date - Medium Term

Infrastructure

CWo11 Improve walking and cycling links to, and facilities at, rural employment centres and key services

To promote transport choice, links to rural employment centres and key services, as well as storage facilities, will be improved.

CWo12 MK Waterway Park and development and promotion of cycling and walking corridors

The council recognises that waterways, including the Grand Union Canal, the River Great Ouse, the Rive Ouzel, and the Bedford and Milton Keynes Waterway are important assets. Navigable waterways provide opportunities for leisure trips, with potential for freight movement. In addition, waterways often provide cycleways and pathways along their banks and towpaths. The council supports the development of the reserved routes for the proposed Milton Keynes Waterway Park – part of the Bedford and Milton Keynes Waterway Trust's proposed improvements. These improvements have been incorporated into the Core Strategy and Eastern Expansion Area Development Framework.

CWo13 Widening the width of the Redway network

Key Redway routes will be widened, where feasible, to allow other personal electric vehicles, which are unable to use the highway network, to benefit from the world class network, providing an increased transport choice and improve accessibility across the city.

A review of legislation regarding speed limits and restrictions on the forms of transport able to use the Redways will be conducted before significant widening occurs. New routes will be a priority, followed by "Express Routes", before existing routes are considered.

CWo14 Cycle hire

In the long term, council and local funded cycle hire will cover the city and then the borough. Cycle hire will enable residents, workers and visitors to travel by bicycle for multiple journey purposes.

Travel Watch - 2015

Hannah Milton, 16 years old, has recently moved to the Western Expansion Area of Milton Keynes with her family and is about to start her new secondary school. Encouraged by the smarter choices promotional information that welcomed her family to their new home and a visit from a travel planning officer, she is considering her options of how she can get to school. She likes cycling and has just received a new electric bike for her birthday which she charges in the garage of her home.

The new Milton Keynes Transport Portal offers Hannah a variety of options, including a journey planner. She simply selects the name of her new school, enters in her home postcode and a safe and direct route is provided on an electronic map which she sends to her smartphone. She is also given a personalised Active Travel page which allows her to automatically record her trips to school and elsewhere and collect points which she can use at leisure facilities. She notices that there are a number of her class mates who also cycle on the same route, and sends them all a message via Facebook so she can cycle to school with them.

She decides to test her route to school at the weekend and is pleased to see that it is lit, easily navigable and gets her to school in less than twenty minutes. On Monday morning, when she arrives at school, there is a bike storage locker and a place to store her helmet and other cycling kit.

Smarter Choices Strategy

The Smarter Choices Strategy involves introduction of non-infrastructure based interventions aimed at influencing an individual's behaviour in favour of more sustainable transport modes. This is typically away from sole occupancy car use and towards car sharing, walking, cycling and public transport use. It can also mean reducing the need to make certain journeys, for example, by encouraging home-working.

Key Issues

There is a reliance on the use of the car in Milton Keynes, with high and growing car ownership levels with limited capacity for growth in car trips on the highway network. (SCi1). A high proportion (73%) of journeys to work are by car (SCi2). Similarly, the Milton Keynes School Census (2010) shows greater use of the car for journeys to school (29%) compared to the national average (25%) (SCi3). There is however, excellent scope for increasing active travel in Milton Keynes. For example, 38% of journeys to work **to** Milton Keynes and 43% of journeys **from** Milton Keynes are less than five kilometres in length[28].

It is estimated that without positive action, but with increasing car ownership and significant new development proposed for the borough, the number of morning peak journeys by car will rise by a further 57% by 2031 based on current trends. This high level of forecast growth is a particular challenge given that there is only scope to increase the capacity of the current road network by 25% through junction improvements and other measures (SCi4)[29]. Linked to the reliance on the car, road-based CO_2 emissions in Milton

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[28] *United Kingdom Census 2001* (Office of National Statistics, 2001)
[29] *Core Strategy: Revised Proposed Submission Version October 2010* (Milton Keynes Council, 2010)

Keynes are also a concern and the council has committed to reducing all CO_2 emission (SCi5), with air quality issues also a concern in the borough (SCi6).

Links to Objectives

Evidence shows that an effective Smarter Choices Strategy can play a key role in delivery of a sustainable transport system, thereby reducing CO_2 emissions and supporting economic growth through the efficient and reliable movement of people and goods. Significant behavioural change in favour of sustainable modes was observed in the UK Sustainable Travel Towns project[30] following introduction of comprehensive packages of 'smarter choices' interventions.

Results showed an increase in public transport trips (13-22%), walking trips (17-29%) and cycling (25-79%), and a decrease in car trips (11-13%).[31] The Sustainable Travel Towns interventions demonstrated good value for money; the estimated out-turn costs of the programme were £11 (at 2009 prices) per person per year, including both capital and revenue expenditure. It was estimated that the cost per car kilometre removed was 4 pence (at November 2009 prices). On conservative assumptions, the implied benefit-cost ratio of the achieved outcome in the three towns, allowing only for congestion effects, was approximately 4.5; inclusion of health and carbon benefits would further increase this benefit-cost ratio.

A Smarter Choices Strategy that promotes attractive sustainable transport choices throughout the borough will also help improve access to opportunities and key services for everyone, thereby, reducing social exclusion and inequality. Of the 20% of residents in Milton Keynes who do not have access to a car[32], there is a concentration of non-car owners living in more deprived areas of the borough. The strategy will also bring additional wider benefits such as improvements to residents' health and their quality of life.

Interventions

Delivery Date – Short Term

SCo1   Workplace travel plan for Milton Keynes Council

Milton Keynes Council will lead by example and develop a travel plan covering the authority's own premises.

SCo2   More effective management and enforcement of development-related travel plans

All significant new developments across all land uses will be required to develop travel plans to ensure that the design of the development facilitates sustainable travel and also to ensure that residents have the information they require to travel by non-car modes, fully supported by promotional activities. Interventions will include working with developers and estate agents for the provision of welcome packs containing public transport, cycling and walking information; free or

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[30] The Sustainable Travel Towns project was a 5-year programme (April 2004-2009) which saw Darlington, Peterborough and Worcester collectively receiving £10 million revenue funding to implement and test the impact of large-scale Smarter Choice programmes.
[31] '*The Effects of Smarter Choice Programmes in the Sustainable Travel Towns: Summary Report*',
Transport for Quality of Life/ TRL/ University of Aberdeen/ AEA/ University of West of England, Feb2010
[32] *United Kingdom Census 2001* (Office of National Statistics, 2001)

subsidised travel; provision of car / bike / scooter and other vehicle pools; and a visit from a travel planning officer within one week of moving in.

Travel plans are required for all significant new development in Milton Keynes, including expansion of existing sites. The council will ensure that local policy is strengthened to support development-related travel planning, and officers will work with developers to ensure that travel plan considerations are incorporated from the earliest stage of the planning process. Travel plans will be monitored and enforced through legal and financial mechanisms (such as bonds) to ensure that new developments meet their sustainable travel targets. Effective car park management will be a key travel plan measure required for all new developments.

SCo3   Increased promotion of car sharing

Within new residential and workplace developments, the council will continue to promote its existing car share scheme, CARSHAREMK, through awareness raising activities.

SCo4   Increased support for car and other vehicle pooling with developers and commercial operators

With support from the council, operators and local business, car pooling will be rolled out across the city to provide an additional transport choice for residents, workers and visitors. As technology progresses for managing pooling, as well as new vehicle types, other modes of transport will be pooled where feasible in the medium to long term.

SCo5   Enhancements to the broadband network

Initiatives to reduce the need to travel (e.g. tele-working, tele-conferencing, home-working and home shopping) will be encouraged, enhanced through improvements to comprehensive broadband coverage.

SCo6   Continued promotion of Safer Journeys to School programme including school travel planning, walking buses, and expansion of "Walk and Roll" scheme

The council will continue to work with schools to help them *effectively* implement and monitor their travel plans. A school travel plan sets out a package of practical measures aimed at improving safety on the journey to school and encouraging use of more healthy and sustainable modes of travel. We will also continue to encourage schools to incorporate Sustainable Travel and Road Safety into their school curriculum and we will adapt to relevant national government policy and the direction of the curriculum.

SCo7   Increased delivery of travel awareness campaigns and promotions

Focussed awareness raising campaigns will be undertaken to increase the public's understanding of the problems caused by traffic growth, promote the benefits of sustainable travel and encourage people to think about their own travel behaviour. A wide range of media will be used e.g. online cycle journey planners. Targeted materials will also be used to raise awareness of infrastructure improvements once completed, to maximise the benefit realised. Partnership working with local bus

and rail operators will also ensure effective marketing of public transport improvements and information, and the council will also continue to support national travel awareness projects in order to raise the profile of sustainable travel.

SCo8   Improved partnership working

The council will proactively engage with all appropriate stakeholders, including local business, public transport operators, and the Highways Agency to deliver many elements of the Smarter Choices Strategy and to secure wide-ranging commitment and buy-in to achieving the objectives of the Transport Vision and Strategy.

Delivery Date – Medium Term

SCo9   Development of effective travel plans for all stations in Milton Keynes and other key trip generators

Milton Keynes Central Rail Station already has a travel plan in place[33], and the council will continue to work with key stakeholders to encourage travel to the station by alternatives to driving alone. This will include, for example, continued promotion of the taxi share scheme linking the station to key residential areas. Station travel plans will also be developed for all other stations in Milton Keynes, with close working between stations encouraged to share good practice. Other key trip generators such as Milton Keynes General Hospital, the National Bowl MK and stadium:mk will be encouraged to develop, deliver and regularly update suitable travel plans as well; integrating with existing policy and the proposed Network Management Plan (see HTo1).

SCo10 Introduction of personalised travel planning

A programme of personalised travel planning[34] focussing on new residential developments will be developed and implemented throughout the borough.

Highways and Traffic Management

This strategy considers the interventions required for the fast and efficient movement of people and goods; management of congestion, parking and freight; and improved air quality and road safety.

Key Issues

Due to the unique grid road network that defines the urban area of the borough, Milton Keynes does not suffer from significant congestion. However, there are heavy concentrations of traffic leading to and from major gateways, such as the M1 junctions, and to and from Central Milton Keynes, especially involving journeys to and from work during the peak periods – notably M1 Junction 13, Junction 14 / Northfield area, along the A509 / A422 corridor, and the Old Stratford and Fenny Stratford junctions on the A5

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[33] See Association of Train Operating Companies Station Travel Plan: National Pilot Programme: http://www.stationtravelplans.com/project-overview
[34] Personalised travel planning (PTP) is a targeted marketing technique, providing travel advice and information to people, based on an understanding of their travel patterns.

(HTi1). Milton Keynes has high private car mode share for journeys to work (73%) (HTi2) and school (29%) (HTi3): in part due to the lack of alternative choices and perceived safety concerns.

Forecasts suggest that due to high levels of housing and employment growth and rising levels in car ownership, there will not be enough spare capacity on the highway network to cope with increases in traffic levels despite junction improvements and other measures[35] (HTi4). Those areas that do not currently have serious congestion problems will face potential problems in the future as road traffic continues to grow. By 2018 it is estimated that average speeds are reduced by 6%, resulting in a 67% increase in total travel time, reductions in reliability and an estimated increase in fuel consumption of 65%[36]. This will also have a negative impact on public transport journey times and reliability (HTi5).

Whilst Milton Keynes is performing well in terms of casualty reduction and is exceeding targets, casualty rates per vehicle kilometre are not falling as quickly as towns and cities of a similar size[37] (HTi6). It is noted that Milton Keynes' unique high speed, city grid road network does make comparison difficult with other authorities. Right hand turns across high speed dual carriageway grid road traffic can be difficult and is anecdotally perceived a safety hazard (HTi7).

Anecdotally, poor road signage leads to confusion for visitors, and poor signage and Satellite Navigation routing 'wastes' vehicle kilometres for all road users (HTi8); and online information provision for journey planning is poor (HTi9). In Olney, high traffic flows, including freight traffic, have created air quality issues in the centre of the market town (HTi9).

Links to Objectives

The connectivity provided by the M1 to nearby conurbations, the rest of the strategic highway network, and international gateways is essential to the success of the Milton Keynes economy. The borough and the sub-region have high levels of freight movements and Milton Keynes along with Northamptonshire host a large number of road and rail distribution centres.

Milton Keynes needs to manage its unique road network to make the most efficient use of existing resources. Improved highway and traffic management will help maintain free flowing traffic for the fast and efficient movement of people and goods, necessary for the growth of the local economy. Interventions include junction improvements, limited highway construction, and improved coordination of existing traffic signals. Improvements to routing and other Intelligent Transport System (ITS) interventions will reduce wasted vehicle kilometres improving the efficiency of the network and reduce CO_2 emissions, as well as improve road safety.

A package of interventions aimed specifically at road safety builds on the reductions in collisions achieved by the Road Safety Team and its partners. Improved road safety will also improve the quality of life of all residents and support the economy by reducing highway obstruction and reducing the economic cost of serious injuries and fatalities.

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[35] *Milton Keynes Traffic Model* (Milton Keynes Council, 2010)
[36] See reference 35
[37] See reference 35

Interventions

Delivery Time – Short Term

General

HTo1   Develop a Network Management Plan

The first step towards developing a network that will cope with predicted increases in traffic levels is preparing a Highway Network Management Plan. The plan will define all the objectives, policies, standards and procedures associated with the management of the borough's highway network. It will fully support the Local Transport Plan through the identification of an investment programme to support more sustainable transport choice for all users of the highway network. The plan will assist in helping the council define and manage network priorities, working alongside the police and emergency services. The plan will set thresholds for congestion in the long-term for traffic signals to regulate traffic flow and for parking demand management interventions.

HTo2   Peak spreading of traffic through spreading school and business working hours

The council will work with local schools and business to spread their starting hours to distribute peak traffic across a longer time period. This would be done in consultation with the organisations; their staff; and parents, students, and the relevant service areas of the council in the case of schools.

Freight

HTo3   Lorry Management Strategy Refresh

In 2009, the council launched its Lorry Management Strategy. Freight related interventions build upon this strategy, and as a result, the council will refresh the Lorry Management Strategy to be a Freight Strategy for the Borough.

HTo4   Improved partnership working

Through the development of a partnership between the council, freight operators, local business, and the public, ways to improve freight operations will be identified and implemented.

HTo5   Improved signage and routing, including routing HGV traffic away from estates and rural communities where appropriate

Improved routing using Satellite Navigation systems in the short term, and in vehicle dynamic journey planning systems in the long term, will enable much more efficient use of the local road network and a significant reduction in 'wasted' vehicle kilometres looking for particular locations for deliveries, pick-ups and parking. Dynamic journey planning systems will enable freight vehicles to be routed away from congestion hotspots onto less congested roads, where appropriate. Improved routing will result in local environmental benefits and reduced CO_2.

Of particular note is Olney, which has poor air quality, partially caused by goods vehicles. A bypass is supported by the council, and will be subject to further feasibility testing and community engagement on all options considered. Before then, the council will work closely with the Highway Agency to find ways to route heavy vehicles away from Olney and other rural communities onto alternative routes which are designed to carry HGVs.

HTo6   Promotion of more sustainable freight movement

The council will continue to promote the use of the local road / rail freight interchanges near Milton Keynes; and explore opportunities for use of the canal for freight movement.

Road Safety

HTo7 / HTo8 Adoption of the Road Safety Audit Policy and Procedures
           Road Safety Strategy Refresh

Better consideration of road safety in preliminary transport design and engineering can be achieved by involving the Road Safety Team from the early stages of the scheme and through following the proposed Road Safety Audit Policy and Procedures.

In addition, the council's current Road Safety Strategy covers the period 2004 to 2010. Based on changes in national and local policy, including the Transport Vision and Strategy and recent emerging Milton Keynes Rural Speed Study, funding, and performance against targets, the Road Safety Strategy will be refreshed.

HTo9   Engineering measures to reduce the number of collisions, fatalities and injuries where appropriate and justified

Engineering measures are typically implemented where a cluster of collisions occur, and after analysis of the number, cause and severity of collisions meet set criteria, along with appreciation of the local geography and traffic conditions. This work is largely operational following set procedures. For example, officers may use engineering tools such as signage, road markings, re-engineering junctions, speed limits and detection, traffic regulation orders, and banning turning movements where appropriate and justified.

HTo10   Ongoing funding for safety education, training and promotion

In addition, proactive interventions are taken for road safety education, training and promotion. Ongoing funding is required to keep providing the service to a changing population and to keep road safety promotional messages 'fresh'.

Powered Two Wheelers

Powered two wheelers (i.e. motorcycles, scooters, mopeds and cycle motors) can play an important role in the development of a fully sustainable integrated transport system. They can offer an affordable and flexible form of personal transport for journeys. Although

powered two wheelers are not totally 'green' they offer significant environmental advantages over the private car.

The council recognises that powered two wheelers are a separate class of road user with their own particular perspectives and needs. They offer similar flexibility to the car but are generally cheaper to buy, tax, and insure, and have lower operating costs. Within urban areas they can move freely and are able to park in small spaces. They are an affordable way to increase mobility and widen access to employment and local services.

HTo11 Refresh of Powered Two Wheeler Strategy

> The council developed its Powered Two Wheelers Strategy in 2003 and it is still largely fit for purpose and the council continues to support its aims of improving conditions for and increasing promotion. This includes the provision of safety, training, improved design and implementation of schemes, improved maintenance, parking provision, security and community engagement.

> The strategy will be refreshed with further community engagement and in light of the latest policy and evidence available. Interventions emerging from the review will need to be incorporated into further revisions of the Transport Vision and Strategy.

Delivery Time – Medium Term

Intelligent Transport Systems

Technology will play a major role in traffic and highway management through the implementation of an integrated Intelligent Transport System (ITS). Intelligent Transport Systems are groups of traffic management technologies that allow for dynamic management of the transport network, including the provision of information to the public.

For Milton Keynes, the integrated ITS includes the improvement of the existing signalling system, using the fibre optic network to 'connect' signals together and allow them to communicate. This will provide better adaptive signal control as signals react to real-world conditions instead of being 'static' in their timings. Once this has been established, an integrated Intelligent Transport System can be implemented which will allow for borough-wide strategic control and coordination with the Highways Agency. A traffic management control centre will form the hub of this package of interventions.

The ITS toolkit will also play a considerable role in the delivery of a safer network – Variable Message Signs (VMS) will highlight accident hotspots, alert drivers to incidents that have occurred and CCTV will provide traffic managers with a strategic view of the network and allow for better communication with the emergency services. For fuller details of ITS interventions see the Technology Strategy.

Interventions include:

HTo12 Urban Traffic Management Control (UTMC[38]) Common Database

HTo13 New Traffic Control Centre including reciprocal data links with the Highway Agency for strategic interventions and traffic management

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[38] http://www.utmc.uk.com/

HTo14 Improve coordination of traffic signals

HTo15 ITS for roadside traffic alerts

HTo16 ITS for parking management e.g. Variable Message Signs (VMS)

HTo17 CCTV for traffic monitoring

HTo18 Coordinate ITS with Highways Agency for management of traffic using the M1

Infrastructure

HTo19 Junction capacity improvements

Improvement at junctions to increase their capacity (e.g. number of lanes and wider arcs to allow for greater flows) will be delivered in partnership with the Homes and Communities Agency (HCA) and the Highways Agency. Junction improvements also include junctions on the A5 to allow for Park & Ride (see Bo4 Park & Ride above).

HTo20 Dualling of the A421 from M1 Junction 13 to the Kingston Roundabout (A5130) and on to M40 in Oxfordshire

The Highways Agency recently completed dualling of the A421 from the M1 Junction 13 to Bedford. To accommodate increased traffic flows to and from the M1 and through to Bedford, the council will deliver dualling of the A421 in conjunction with the HCA. The council also supports Buckinghamshire County Council's plan to dual the A421 towards the M40 in Oxfordshire.

HTo21 / HTo22   Olney Bypass / Bletchley Southern Bypass

The council supports, in principle, the Olney and Bletchley Southern bypasses subject to design, feasibility (including affordability), public consultation and funding. These two new roads projects will ease traffic and air pollution in Olney and Bletchley, as well as easing traffic accessing Central Milton Keynes on arterial routes.

Freight

HTo23 Provision for freight parking / layover

Through partnership working, the facilities available for freight parking / layover will be upgraded and managed with designated HGV parking at existing distribution sites.

HTo24 More co-ordinated delivery / distribution of freight

Through partnership working, deliveries to shops and other businesses in Milton Keynes will be better co-ordinated in order to reduce the number of delivery / distribution vehicles on the road network, particularly at peak times. Where possible, ways will be found to consolidate deliveries (e.g. to shopping centres) in order to reduce the number of goods vehicles. Also, HGVs will not be used when the goods can be transported using smaller vehicles.

Travel Watch - 2030

Basil Keynes has a late morning meeting in Manchester. He's aware that since High Speed 2 opened, there are more direct train services to Manchester, so decides to take the train. He's already purchased a ticket via the internet and had it added to his Milton Keynes Smart Card and will also use the money stored on the card to use public transport links when he gets to Manchester.

He reckons that driving to the station is the quickest option and checks the traffic conditions on the grid roads and car parking availability via the Milton Keynes Travel Portal before he leaves. He is pleased to see that he can pay for the parking with his Milton Keynes Smart Card.

Basil leaves his home and uses the grid road network to travel to Milton Keynes Central Rail Station – the national speed limits and free flowing traffic mean that his journey is an easy one. He arrives at the station, waves his Milton Keynes Smart Card in front of the car park gate and finds a parking space. His Milton Keynes Travel Portal smartphone application lets him know that his train is departing from Platform 4, and Basil is on his way.

Delivery Time – Long Term

Intelligent Transport Systems

HTo25 In-vehicle Dynamic Journey Planning

> In the long term, Satellite Navigation systems will be able to dynamically re-route journeys based on congestion or accidents. Currently there is no national policy or framework for the coordination and distribution of data to make this possible.

Infrastructure

HTo26 Maintain easy access to the M1 Motorway

> Increased housing and employment growth and increased demand for travel to and from the strategic network will put pressure on the M1 and the existing junctions serving Milton Keynes. It may be necessary to consider a new junction or increased highway capacity to manage the additional demand for access and egress from the motorway.

Technology Strategy

This strategy considers innovative technology interventions for ensuring the strategic management and efficient flow of vehicles on the road network, the provision of accurate and timely travel information, and increasing access to the public transport network.

Key Issues and Links to Objectives

With significant new development proposed for the borough and increasing car ownership, there will be a 57% increase in journeys by car at peak travel times at current rates of

growth, but the capacity of the grid road network's junctions can only be increased by 25% at peak times through junction improvements and other measures (Ti1) [39].

In addition, the council has a commitment to reduce CO_2 emissions by 40% by 2020 (Ti2). To complement interventions that increase the capacity of the highway network with engineering measures, and interventions that provide a real and attractive transport choice and reduce CO_2 emissions, the council will deliver a series of technological and innovative interventions. These will help ensure that cars and freight continue to use the unique grid network in an efficient manner, but lower the impact traffic has on the environment, quality of life of residents, safety and accessibility.

Looking to the future, the use of Intelligent Transport Systems (ITS) technologies will ensure that existing road infrastructure can be used efficiently as possible through intelligent and adaptable signalling, air quality management tools, advanced information systems, and dynamic journey planning. The internet and the advent of social media will also be used to enable sophisticated vehicle sharing and pooling initiatives, share information on journeys and congestion and provide live feedback on public transport services.

Interventions

Delivery Time – Short Term

To1   Development of a multi-modal transport information website portal and smart phone application, with potential linkages to an UTMC[40] database

This website will provide journey planning (for all modes), at a glance real time passenger information for bus and rail departures and arrivals, and traffic updates. The portal will offer a personalised service to those who live and work in Milton Keynes as well as providing key information to visitors. The portal will also offer a mobile application for on the go journey planning and real time information access, linked to the 'MK Star' network. The website will also draw upon information distributed via social networking applications such as Facebook and Twitter.

Delivery Time – Medium Term

To2   The promotion of electric and other alternative fuel vehicles (such as hydrogen fuel cell)

The use of alternative fuels for private vehicles (including taxis and private hire vehicles) and buses will be encouraged and promoted. This includes fully electric vehicles and those that use hybrid technology (where an electric vehicle supports a combustion engine in the urban environment).

To3   Expanded electric vehicle infrastructure (e.g. parking spaces with charging points)

To ensure that electric and other ultra-low carbon vehicles can use the network effectively, provision will be made for strategically placed recharging points at car parks, stations and other hubs – this will build on the momentum already achieved

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[39] p.6 *Core Strategy: Revised Proposed Submission Version* (Milton Keynes Council, October 2010)
[40] Urban Traffic Control and Management. Further information: http://www.utmc.uk.com/

through Milton Keynes' involvement in the pioneering 'Plugged in Places' and the council's Low Carbon Living Programme. The council will also deliver improved Redway infrastructure for vehicles such as electric bikes and buggies.

In the long term, the council will also embrace other infrastructure for alternative fuel vehicles such as rechargeable and replaceable batteries available from retailers (e.g. service stations) or provision of hydrogen fuel.

To4   Ultra low carbon taxis and private hire cars

The council aspires for all taxi and private hire car vehicles using hybrid or ultra-low carbon technology by 2021.

To5   Coordinated and adaptable traffic signals making best use of existing fibre optic network

Signals will be upgraded to adapt to current network conditions, instead of being passive in their approach to traffic management at key junctions.

To6   Purchase and delivery of an Urban Traffic Management and Control (UTMC) common database

As with many other local authorities and cities across the country, a 'common database' will be installed to collect real time traffic and public transport data from across the network and store it for future analysis and dissemination. The data stored in the database will be presented to traffic managers in the Control Room via a website interface. Selected data can also be provided via the public for information and journey planning purposes (such as live car park capacity information). The database will also be integrated with Highways Agency systems for information sharing and strategic network management.

To7   Coordinate ITS and Traffic Control Room operations with Highways Agency for management of traffic using M1

Automated information sharing with the Highways Agency through system-to-system links will allow for strategic management of the borough's road network and the nearby M1, A421 (northeast of the M1) and A5.

To8   ITS for journey time and congestion monitoring

Monitoring technologies such as CCTV and Automatic Vehicle Location (AVL) will be deployed to understand live traffic flows on the network and allow traffic managers to build up a real time 'picture' of network conditions. The data collected will be used to provide the public with estimated journey times on key parts of the network (such as links to the M1) and provide alternative routes in the event of an incident. As the grid road network is well suited to 're-routing' this type of technology will be particularly useful for ensuring the network runs smoothly at peak hours.

To9   ITS for roadside traffic alerts, event and parking management (e.g. Variable Message Signing)

Linked with the Control Room and Common Database, roadside information displays will warn drivers about current network conditions (such as journey times), weather, and upcoming events (such as at the National Bowl MK). Dedicated parking signs will direct drivers to the car park with free spaces – in order to save queuing and driving around Central Milton Keynes to look for a space.

To10   Improved bus Real Time Passenger Information (RTPI) system

Improvements will be made by improving the accuracy of bus information provided to the public via the RTPI system, utilising innovative channels for RTPI distribution (using 'smart phone' applications for example), making RTPI accessible to all, and equipping all bus routes with RTPI technology. RTPI systems will become especially helpful to those travelling on journeys with interchange as they will ensure 'connect protection' – the system will know that a service is delayed and will relay a message to the driver of the connecting service to wait. This will be key to the operation of the 'MK Star' network. The RTPI system should also extend to demand responsive services so trips can be booked and passengers can obtain information on when their designated vehicle is going to pick them up. The RTPI system should also be linked directly to the ITS common database in order to understand traffic flows and congestion hotspots, from positional data derived from each vehicle journey.

To11   Improved broadband coverage across the borough for the increased provision of home working, video conferencing, telecommunications and e-shopping

The council supports the provision of broadband (and any future) internet technologies allowing for fast internet access. Full coverage will provide more opportunities for home working and will enable Milton Keynes to begin developing an ITS.

To12   Smartcard ticketing

A smart ticketing system will be phased in for all bus routes in the medium term, and will work across all modes of sustainable transport by 2031. This will allow quick and easy access to the public transport network and provide bus operators and the council with useful patronage data. It will adopt national ITSO smart card standards so that it is compatible with other smart ticketing schemes, such as those introduced by rail operators.

Delivery Time – Long Term

To13   SmartGrid integration

An electricity network that can intelligently integrate the actions of all users connected to it in order to efficiently deliver a sustainable, efficient and secure supply of energy. This project will be crucial for managing increasing electricity demands, the introduction of electric vehicles and an increased contribution of renewable energy sources to the grid.

Infrastructure Management Strategy

Overview

Regular maintenance at appropriate times can maintain road conditions and prolong the life of the road, and thereby avoid the need for far more costly treatments or reconstruction at a later date. In the case of Milton Keynes, this extends to the Redway network. Infrastructure management can also ensure public safety – be it the clearing of drainage to prevent flooding, or the clearing of foliage to improve the safety of a Redways path.

Key Issues and Links to Objectives

Milton Keynes Council has important transport assets that need maintaining and improving for the safe, fast and efficient movement of people and goods. With increased demand for travel, transport assets will be under increased pressure requiring additional maintenance and improvement (IMi1). This will include maintaining the highway network and Redway network (IMi2) (as well as other Rights of Way), improving lighting (IMi3), drainage (IMi4), verge cutting, maintain bridges, road markings and signage, and other important roles. These largely operational processes are covered by the council's Transport Asset Management Plan. However, several more strategic interventions are listed in this strategy. Increased extremes in weather events attributed to climate change and forecasts of extreme weather events becoming more frequent such as harsher winters, hotter and dryer summers, and more flash flooding, as a result will put additional strain on the council's transport assets (IMi5). Preventative measures to mitigate the impact of extreme weather events can also be delivered.

Interventions

Delivery Date – Short Term

IMo1   Improve Asset Management System

In order to manage and maintain the highway, Redway and other Rights of Way networks more efficiently, a Transport Asset Management Plan (TAMP) has been developed. This supports the collection and provision of detailed information on all assets held by the council through the Asset Management System, such as traffic signals, signage, street furniture, bridges, drainage etc. The council's Asset Management System will be further developed to provide 100% coverage of all transport assets in the borough. This will ensure that the system is accurate and complete. The TAMP guides expenditure to ensure that the council spends funding in the most efficient way (e.g. turning off street lights where and when suitable and using the most efficient lighting), helps maintenance backlogs to be dealt with quickly, and unnecessary signage and street clutter are removed or positioned suitably. The council is currently developing a Street Clutter Strategy.

IMo2   Improve resilience of the network to winter weather conditions

Recent winters have been particularly harsh and it is important that Milton Keynes' roads, Redways and footways are well maintained over the winter months. This will allow for drivers, pedestrians and cyclists to use the network to get to work and key services in all weathers. Milton Keynes Council has already developed a winter

maintenance programme and opened a new salt dome in December 2010 storing sufficient amounts of more efficient and effective coated salt. The council will ensure that any damage caused over the winter, such as pot holes, is dealt with in a timely fashion.

IMo3   Improve resilience of the network to flash flooding

Milton Keynes can sometimes experience significant flash flooding due to blockages in nearby brooks and the nature of the urban landscape: much of Milton Keynes is covered in impermeable surfaces. The council will work with partners to ensure that the road, Redway and footway networks are resilient to flash flooding by building on flood watch practices and ensuring that all drainage can cope with heavy rain fall and the resulting run off.

IMo4   Better maintenance of the Redway network

Many members of the public perceive the Redway network to be unsafe to use for active travel purposes, and this is largely associated with poor lighting (see IMo5 below), obstructive vegetation, and poor surface quality. Through more focused and better funded maintenance of the Redways, perceived safety concerns regarding the network will decrease and confidence will be restored to those who wish to use it but might otherwise be hesitant to do so.

IMo5   Refresh Rights of Way Improvement Plan

The Milton Keynes Local Transport Plan 2006-06 – 2010-11 contained the statutory Rights of Way Improvement Plan with the following objectives:
- Implement new and improved routes to better link communities and services.
- Promote use of rights of way network as a benefit to health.
- Promote countryside and rights of way to encourage tourism and business in rural areas.
- Encourage through promotion and physical improvements the use of rights of way by mobility and sensory impaired people.
- Ensure that new development sites can seamlessly link to the existing rights of way network.
- Ensure that rights of way and access to them are well maintained.
- Encourage young people to enjoy and take part in conservation of rights of way.

These objectives are still supported by the council, and a refresh and further development of the plan is required, in consultation with the wider community. Interventions emerging from the review will need to be incorporated into further revisions of the Transport Vision and Strategy.

Delivery Date – Medium Term

IMo6 Improved lighting on the Redway network

The single greatest intervention recommended for reducing perceived safety concerns on the Redway network is improved lighting. The council will target investment in lighting improvements based on routes along key desire lines, with highest usage, and in greatest need of maintaining.

Development Planning Strategy

The strategic policies relating to Development Planning are covered in the Core Strategy and related Local Development Framework documents, including the Transport and Sustainable Transport Supplementary Planning Document, Parking Standards Supplementary Planning Guidance, and several Expansion Area Development Frameworks, as well as other soon to be published planning documents. This strategy highlights an intervention for necessary additional guidance, plus four key development planning policy interventions for the Transport Vision and Strategy.

Key Issues

With significant new development proposed for the borough and increasing car ownership, there will be a 57% increase in journeys by car at peak travel times at current rates of growth, but the capacity of the grid road network's junctions can only be increased by 25% at peak times through junction improvements and other measures (Ti1) [41]. In addition, the council has a commitment to reduce CO_2 emissions by 40% by 2020 (Ti2). The interaction of spatial and transport planning is key to minimising the impact on the network whilst achieving other objectives.

Links to Objectives

Milton Keynes has a very successful tariff controlled by Milton Keynes Partnership (of which Milton Keynes Council and the Homes and Communities Agency are partners) for collecting developer contributions towards infrastructure provision. The tariff is paid in addition to Section 106 contributions, but can only be used in relation to Milton Keynes Partnership managed development and travel relating to these developments. The tariff has allowed for a level of transport funding, that many other authorities have desired to emulate; and it is council policy to continue the tariff system. To support the levels of growth forecast for the borough with a safe, fast and efficient transport network sustainably, the integration of spatial and transport planning is key for providing a real and attractive transport choice, reducing carbon emissions, improving access for all, and improving quality of life. The Core Strategy[42] and related documents provide an excellent basis for the integration of spatial and transport planning, and together with further guidance will ensure that Development Planning policies help achieve the Transport Vision and Strategy for Milton Keynes, as well as other council objectives. Integrated planning will reduce the need to travel; improve access to key services and employment opportunities; reduce CO_2 emission from transport; improve safety; help provide a real and attractive transport choice to travel more sustainably; and improve quality of life.

Interventions

Delivery Date – Short Term

DPo1 Develop a Highways Design Guide

The Highway Design Guide will set out the general principles and minimum standards for the layout and dimensions of highways and paved areas in all new developments and for major maintenance works. The guide will not be seen as a prescriptive solution to all highway layouts. The aim will be to provide a broad

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[41] *Core Strategy: Revised Proposed Submission Version* (Milton Keynes Council, October 2010)
[42] See reference 41

framework within which development of a high standard of road safety and environmental quality can take place to the benefit of all members of the community.

DPo2 Expansion of the grid road and Redway networks into major new developments

This will provide the highway capacity to support new development, and provide capacity for high frequency (and other local) bus services, as well as providing the walking and cycling connectivity to the rest of the city. Redways will also be expanded into and through Central Milton Keynes, into older towns where possible and regeneration areas. Redways will be of suitable width for future uses, well lit, and direct; with any routes running parallel to the grid road network being visible from the road. Cyclists and pedestrians will also have top priority within city estates. The Highway Design Guide will cover all road classifications and Redways.

DPo3 Define and defend alignments for high capacity transit in new development, including infrastructure for alternative fuel and future mode technology

Whilst the rapid transit future for Milton Keynes is undetermined, it is important that as the city develops, it does not preclude opportunities for rapid transit (and other future modes of transport) from being implemented. The main aspect of this intervention is the identification of available and potential alignments, and then developing an agreed policy to preserve them for potential future use. In addition, infrastructure for depots, alternative fuel technology, such as electric vehicles, and other future modes of transport should also be incorporated into development plans where possible.

DPo4 Appropriate parking standards and distribution across the borough

As the levels of employment, retail and other commercial land uses increases in Central Milton Keynes, it is important that the level of parking increases commensurately. This will require more multi-storey car parking (and possibly underground parking) to help maintain Central Milton Keynes role as a sub-regional centre.

New parking standards will apply to the total numbers of parking spaces and to their distribution and layout across the borough. In particular it will be essential to ensure that the appropriate numbers of parking spaces for all user groups are provided and that these spaces are properly distributed to serve new developments and minimise impact on the transport network. The Transport and Sustainable Transport Supplementary Planning Document, current draft Residential Design Guide and the proposed Highway Design Guide will contain the relevant parking standards. The Central Milton Keynes Parking Strategy will be refreshed in light of emerging guidance and plans.

DPo5 Improved partnership working

Collaborative working with developers will also ensure that planning applications, transport assessments and travel plans are approved, enforced and implemented, and travel generators within new major developments are located in the most accessible locations. In addition, improved partnership working will maximise developer contributions and ensure the most effective allocation for improving transport and helping achieve the objectives of the Transport Vision and Strategy.

Section 5: Implementation Plan

Overview

The implementation plan is presented in Table 5.1. The interventions included in the Implementation Plan are split into short (1-4 years), medium (5-10 years) and long term (11-20 years) phased timescales.

The interventions are presented in number order, and this does not reflect the priority status of each intervention. Lead partners are also indicated, alongside key stakeholders that may be required to contribute to the delivery of the scheme. Finally, potential funding sources are highlighted. Where costs are unknown due to responsibility for delivering these interventions lying with central government and/or train operators, these interventions are labelled 'UK'. This would be subject to central government's High Level Output Specification for rail and franchise bid or other central government plans for rail improvements.

Estimated costings are given for the first four years and are indicative only. Price bands are given for interventions in the medium and long-term. A key for these colour codes is provided below. Scheme costs and phasing have been presented in line with recent government funding allocations and budgetary cuts and it is recognised that careful priorities will be made as to what interventions are delivered. Where budget shortfalls are identified, the council will seek additional funds. The council and its relevant local partners will bid for funding from the central government Local Sustainable Transport Fund, particularly for funding in Year 1 and subsequent years in the short-term. This will be for a package of cycling and walking interventions and related measures. In the medium and long-term, the council and partners will bid for central government major scheme funding. Other funding will be sought from a variety of partners, including operators, local businesses, organisations and developers.

Further work is required to identify more accurate costings, further prioritisation, and to build an understanding of the risk associated with the delivery of the programme of interventions and how to best manage those risks.

It is also acknowledged that in order to deliver the Transport Vision and Strategy, legislative change at a local and central government level will enhance the likelihood of success. It may also be beneficial for the council to review its working practices, staffing levels and skills, and structure. The challenges that lie ahead and the aspirations sought will require the council and its partners to plan and work together and respond accordingly.

Table 5.1 overleaf contains the following coding for costs and possible funding sources.

Costs

Capital: £1 - £50,000 Revenue: £1 - £50,000
Capital: £50,000 - £250,000 Revenue: £50,000 - £150,000
Capital: £250,000 - £1m Revenue: £150,000 - £500,000
Capital: £1m-£5m Revenue: £500,000 - £1m
Capital: £5m+ Revenue: £1m+

Possible Funding Sources

A	Advertising / Sponsorship
B	Businesses and Organisations
BS	Bus Subsidy
CT	Council Tax
Dev	Developers
DfT Rail	DfT Rail
HA	Highways Agency
HM	Highway Maintenance
ITB	Integrated Transport Block
LSTF	Local Sustainable Transport Fund
Man	Manufacturers
NR	Network Rail
OCGD	Other Central Government Departments
Op	Operators
Oth LA	Other Local Authorities

Oth DfT	Other DfT funding
PB	Prudential Borrowing
PCT	Primary Care Trust
Pol	Police / Emergency Services
PR	Parking Revenue
R	Rates
RGF	Regional Growth Fund
S	Schools
TIF	Tax Incremental Financing
VS	Voluntary Sector

TABLE 5.1   TRANSPORT VISION AND STRATEGY - IMPLEMENTATION PLAN

Strategy Strand		Code	Intervention description	Capital (total) Phasing\Timescale\Cost						Revenue (per annum) Phasing\Timescale\Cost						Lead Partner	Key Partners	Potential funding source
				Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years	Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years			
Public Transport	Bus, Interchange and Future Modes of Transit - City and CMK	Bo1	'MK Star' Bus Network		£1,000,000	£1,000,000	£1,000,000			£50,000	£400,000	£400,000	£400,000			MKC / Operators	Town & Parish Councils / Developers / MKP / User Groups / Public	BS, Op, PR, Dev
Public Transport	Bus, Interchange and Future Modes of Transit - City and CMK	Bo2	Semi-flexible, 'dial-a-ride' style bus services covering city estates		£300,000	£100,000	£100,000			£50,000	£400,000	£400,000	£400,000			MKC / Operators	Town & Parish Councils / User Groups / Public	BS, Op, PR, Dev
Public Transport	Bus, Interchange and Future Modes of Transit - City and CMK	Bo3	Bus 'hopper' service for Central Milton Keynes			£500,000					£20,000	£400,000	£400,000			MKC / Operators	Town & Parish Councils / Businesses / MKP / User Groups / Public	BS, Op, PR, Dev, A
Public Transport	Bus, Interchange and Future Modes of Transit - City and CMK	Bo4	Park & Ride					▉						▉	▉	MKC	Town & Parish Councils / Operators / Developers / Parks Trust / Highways Agency / MKP / User Groups / Public	DfT MS, Dev, PR
Public Transport	Bus, Interchange and Future Modes of Transit - City and CMK	Bo6	Bus priority					▉	▉							MKC	Operators / Parks Trust / Town & Parish Councils / MKP / User Groups / Public	Dev, HM, PR, ITB

Strategy Strand		Code	Intervention description	Capital (total) Phasing\Timescale\Cost						Revenue (per annum) Phasing\Timescale\Cost						Lead Partner	Key Partners	Potential funding source
				Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years	Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years			
Public Transport	Bus, Interchange and Future Modes of Transit - City and CMK	Bo4	Improved interchange facilities	£3,240,000	£3,000,000	£3,000,000	£3,000,000			£1,000,000	£1,000,000	£1,000,000	£1,000,000			MKC	Town & Parish Councils / Operators / Network Rail / NHS / Businesses / Developers / MKP / User Groups / Public	GAF, MS DfT, Dev, NR, Rail Op, PCT, CT, PR
Public Transport	Bus, Interchange and Future Modes of Transit - City and CMK	Bo7	Rapid Transit									£100,000	£100,000			MKC	Town & Parish Councils / Operators / Developers / Businesses / Parks Trust / MKP / User Groups / Public	DfT MS, Dev, CT, PB, TIF, PR, Op, ITB
Public Transport	Bus, Interchange and Future Modes of Transit - Rural	Bo8	Semi-flexible, 'dial-a-ride' style off-peak rural services		£300,000	£100,000	£100,000									MKC / Operators	Town & Parish Councils / User Groups / Public	BS, Op, PR, Dev, ITB
Public Transport	Bus, Interchange and Future Modes of Transit - Rural	Bo9	Increased frequency for morning and evening rural peak bus services													MKC / Operators	Town & Parish Councils / User Groups / Public	BS, Op, Dev
Public Transport	Bus, Interchange and Future Modes of Transit - Inter-Urban	Bo10	Promotion of long distance bus and coach services							£10,000	£10,000	£10,000	£10,000			MKC	Operators / Local Enterprise Partnership	ITB, PR
Public Transport	Ticketing, Information and Promotion	Bo11	Increased promotion of bus services							£100,000	£100,000	£100,000	£100,000			MKC	Operators	ITB, Dev, Op

Strategy Strand		Code	Intervention description	Capital (total) Phasing\Timescale\Cost						Revenue (per annum) Phasing\Timescale\Cost						Lead Partner	Key Partners	Potential funding source
				Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years	Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years			
Public Transport	Ticketing, Information and Promotion	Bo12	Improved Real Time Passenger Information (RTPI) provision at bus stops and interchanges	£165,000	£750,000	£250,000	£250,000				£150,000	£150,000	£150,000			MKC	Operators / Suppliers / Developers / MKP / User Groups / Public	ITB, Dev, Op, PR
Public Transport	Ticketing, Information and Promotion	Bo13	Journey planning website and 'smart phone' applications for dynamic journey planning	£80,000							£20,000	£20,000	£20,000			MKC	Town & Parish Councils / Operators / Highways Agency / User Groups / Public	LSTF, ITB, Dev
Public Transport	Ticketing, Information and Promotion	Bo14	Integrated ticketing between operators and across modes, including smartcard ticketing													MKC / Operators	User Groups / Public	ITB, Dev, Op
Public Transport	Bus network accessibility	Bo15	Accessibility improvements to buses and bus infrastructure particularly from rural areas and for people with physical and sensory improvements	£910,000	£1,000,000	£1,000,000	£1,000,000									MKC / Operators	User Groups / Public	ITB, Dev, PR, Op
Public Transport	Bus network accessibility	Bo16	Driver training								£100,000	£100,000	£100,000			Operators	MKC / User Groups / Public	Op
Public Transport	Sustainable Growth and Technology	Bo17	Integrated transport and land use planning													MKC	Town & Parish Councils / Developers / Public	Dev, Op
Public Transport	Sustainable Growth and Technology	Bo18	Electric and other alternative fuel vehicles (e.g. hydrogen fuel cell)													MKC / Operators / Suppliers	Universities / Businesses / Developers / Service Station and Fuel Providers	Dev, Man, DfT MS, PR

Strategy Strand		Code	Intervention description	Capital (total) Phasing\Timescale\Cost						Revenue (per annum) Phasing\Timescale\Cost						Lead Partner	Key Partners	Potential funding source
				Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years	Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years			
Public Transport	Partnership working and delivery	Bo19	Increased partnership working													MKC	Operators / Town & Parish Councils / Developers / Businesses / Local Enterprise Partnership / Organisations / User Groups / Public	ITB, Dev, Op, B, Man, PCT
Public Transport	Partnership working and delivery	Bo20	Bus Strategy Refresh							£40,000						MKC	Operators / Town & Parish Councils / Developers / Businesses / Organisations / User Groups / Public	ITB, Dev, Op, B
Public Transport	Bus	N/A	Bus Subsidy (incl. Local Bus Section 106 Revenue Expenditure and 0.5% Council Tax funded Contract Expenditure)							£3,400,000	£3,400,000	£3,400,000	£3,400,000			MKC	Operators / Developers / MKP / User Groups / Public	BS, Dev, PR
Public Transport	Bus	N/A	Concessionary Fares							£3,800,000	£3,800,000	£3,800,000	£3,800,000			MKC	Operators / Developers / MKP / User Groups / Public	Oth DfT, Dev, PR
Public Transport	Rail	Ro1	Improve marketing of rail-bus through ticketing							£10,000	£10,000	£10,000	£10,000			Operators	MKC	ITB, Op, DfT Rail
Public Transport	Rail	Ro2	Promotion and development of the Marston Vale Community Rail Partnership							£25,000	£25,000	£25,000	£25,000			MKC	Town & Parish Councils / Operators / Marston Vale Community Rail Partnership / User Groups / Public	ITB, MVRCP, Op, DfT Rail

Strategy Strand		Code	Intervention description	Capital (total) Phasing\Timescale\Cost						Revenue (per annum) Phasing\Timescale\Cost						Lead Partner	Key Partners	Potential funding source
				Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years	Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years			
Public Transport	Rail	Ro3	Improved station facilities and interchange (see Bo6 above)															
Public Transport	Rail	Ro4	Increased surveillance and supervision at stations and on trains					🟥						🟧	🟧	Operators	MKC / Network Rail / User Groups / Public	Op, NR
Public Transport	Rail	Ro5	Increased capacity by lengthening trains					U/K						U/K	U/K	DfT	MKC / Operators / Town & Parish Councils / Network Rail / Other Local Authorities / Centro / TfL / User Groups / Public	Op, DfT Rail
Public Transport	Rail	Ro6	Direct peak services between Wolverton and Bletchley					U/K						U/K	U/K	DfT	MKC / Operators / Town & Parish Councils / Network Rail / User Groups / Public	Op, DfT Rail
Public Transport	Rail	Ro7	More evenly distributed London Midland services towards Northampton and London					U/K						U/K	U/K	DfT	MKC / Operators / Town & Parish Councils / Network Rail / Other Local Authorities / Centro / TfL / User Groups / Public	Op, DfT Rail
Public Transport	Rail	Ro8	Longer operating hours					U/K						U/K	U/K	DfT	MKC / Operators / Town & Parish Councils / Network Rail / Birmingham International Airport	Op, DfT Rail

Strategy Strand		Code	Intervention description	Capital (total) Phasing\Timescale\Cost						Revenue (per annum) Phasing\Timescale\Cost						Lead Partner	Key Partners	Potential funding source
				Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years	Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years			
Public Transport	Rail	Ro9	Transfer of rail freight paths on the West Coast Main Line to night time					U/K						U/K	U/K	DfT	MKC / Operators / Network Rail / Other Local Authorities / Centro / TfL / Other PTEs / User Groups / Public	Op, DfT Rail
Public Transport	Rail	Ro10	East West Rail						RED						RED	DfT	MKC / Network Rail / Other Local Authorities / Operators / User Groups / Public	DfT MS, DfT Rail, NR, Dev, TIF, RGF, Op, Oth LAs
Public Transport	Rail	Ro11	High Speed 2						RED						RED	DfT	MKC / Operators / Network Rail / Other Local Authorities / Centro / TfL / Other PTEs / User Groups / Public	DfT Rail, NR, OGCD
Public Transport	Rail	Ro12	Direct rail services to London Luton Airport, London Heathrow Airport, ports, and the Channel Tunnel						U/K							DfT	MKC / Operators / Town & Parish Councils /Other Local Authorities / Airports / High Speed 1 / User Groups / Public	Op, DfT Rail, NR, TIF, RGF
Public Transport	Community Transport	CTto1	Continued provision of community transport							£750,000	£750,000	£750,000	£750,000	RED	RED	MKC	Operators (incl. Voluntary Sector) / User Groups / Public	BS, Dev, Op, VS, PCT, B

Strategy Strand		Code	Intervention description	Capital (total) Phasing\Timescale\Cost						Revenue (per annum) Phasing\Timescale\Cost						Lead Partner	Key Partners	Potential funding source
				Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years	Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years			
Public Transport	Taxi and Private Hire	TPo1	Improved partnership working with taxi and private hire operators and drivers, key service providers and venue managers, and the police													MKC	Taxi and Private Hire Operators / User Groups / Public	ITB, Op, B
Public Transport	Taxi and Private Hire	TPo2	Review the number of ranking spaces at key destinations, and signage to ranks, and implement recommendations		£100,000	£100,000	£100,000									MKC	Taxi and Private Hire Operators /Town & Parish Councils / User Groups / Public	ITB, Op, B
Public Transport	Taxi and Private Hire	TPo3	Ultra low carbon taxis and private hire cars								£25,000	£250,000	£25,000			MKC / Taxi and Private Hire operators		ITB
Cycling and Walking	Information, Promotion, Education and Training	CWo1	Increase promotion, education and training for cycling and walking							£100,000	£100,000	£100,000	£100,000			MKC	Businesses / Schools	LSTF, ITB, Dev, PR, B
Cycling and Walking	Information, Promotion, Education and Training	CWo2	Improved signage	£150,000	£150,000	£150,000	£150,000									MKC	Town & Parish Councils / User Groups / Businesses / Organisations	LSTF, ITB, Dev, PR, A
Cycling and Walking	Information, Promotion, Education and Training	CWo3	Online journey planner															
Cycling and Walking	Infrastructure	CWo4	More direct Redway routes	£500,000	£500,000	£500,000	£500,000									MKC	Town & Parish Councils / Parks Trust / User Groups / Public	LSTF, ITB, DfT MS, Dev, PR, A

Strategy Strand		Code	Intervention description	Capital (total) Phasing\Timescale\Cost						Revenue (per annum) Phasing\Timescale\Cost						Lead Partner	Key Partners	Potential funding source
				Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years	Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years			
Cycling and Walking	Infrastructure	CWo5	Expansion of Redway network into Central Milton Keynes, new developments, regeneration areas and where possible older towns	£1,000,000	£1,000,000	£1,000,000	£1,000,000									MKC	Town & Parish Councils / Parks Trust / User Groups / Public	LSTF, ITB, DfT MS, Dev, PR, A
Cycling and Walking	Maintenance	CWo6	Improved maintenance of the Redway network (and footway and backways network)	£620,000	£700,000	£700,000	£700,000			£318,000	£318,000	£318,000	£318,000			MKC	Town & Parish Councils / Parks Trust / User Groups / Public / Developers	HM, Dev, PR
Cycling and Walking	Maintenance	CWo7	Improve lighting on the Redway network	£500,000	£500,000	£500,000	£500,000									MKC	Town & Parish Councils / Parks Trust / User Groups / Public / Developers	ITB, HM, Dev, PR
Cycling and Walking	Integration with other modes	CWo8	Improve cycling and pedestrian access to the public transport network	£225,000	£225,000	£225,000	£225,000									MKC	Town & Parish Councils / Parks Trust / User Groups / Public / Developers / Operators	LSTF, ITB, Dev, Op, PR
Cycling and Walking	Integration with other modes	CWo9	Increased levels of cycle parking at bus stops, interchanges and facilities for facilities for carrying cycles (see Bo6)			£250,000	£250,000									MKC	Town & Parish Councils / Parks Trust / User Groups / Public / Developers / Operators	LSTF, ITB, Dev, Op, PR, B, A
Cycling and Walking	Trip end facilities	CWo10	More cycle parking, including GearChange at key destinations including workplaces	£150,000	£150,000	£150,000	£150,000			£10,000	£10,000	£10,000	£10,000			MKC	Town & Parish Councils/ Operators / Developers / Businesses	LSTF, ITB, Dev, PR, B, A
Cycling and Walking	Trip end facilities	CWo11	Improve walking and cycling links to, and facilities at, rural employment centres and key services			£250,000	£250,000									MKC	Town & Parish Councils/ Operators / Developers/ Businesses	ITB, Dev, PR, B, A

Strategy Strand		Code	Intervention description	Capital (total) Phasing\Timescale\Cost						Revenue (per annum) Phasing\Timescale\Cost						Lead Partner	Key Partners	Potential funding source
				Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years	Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years			
Cycling and Walking	Infrastructure	CWo12	MK Waterway Park and development and promotion of cycling and walking corridors					🟥	🟥					🟩	🟩	Bedford and Milton Keynes Waterways Trust	MKC / British Waterways / Environment Agency / User Groups / Public	LSTF, ITB, DfT MS, Dev, PR, A , B&MKWT
Cycling and Walking	Infrastructure	CWo13	Widening the width of the Redway network					🟥	🟥							MKC	Town & Parish Councils / Parks Trust / User Groups / Public	ITB, DfT MS, Dev, PR, A
Cycling and Walking	Infrastructure	CWo14	Cycle hire					🟥	🟧					🟥	🟥	MKC	Town & Parish Councils / User Groups / Public / Businesses / Developers / Organisations	ITB, DfT MS, Dev, PR, B, A
Smarter Choices	General	SCo1	Workplace travel plan for Milton Keynes Council							£20,000	£20,000	£20,000	£20,000			MKC		ITB
Smarter Choices	General	SCo2	More effective management and enforcement of development-related travel plans							£40,000	£40,000	£40,000	£40,000			MKC	Operators / Developers / Businesses	ITB, Dev
Smarter Choices	General	SCo3	Increased promotion of car sharing							£10,000	£10,000	£10,000	£10,000			MKC	Liftshare	ITB, Dev, PR
Smarter Choices	General	SCo4	Increased support for car and other vehicle pooling with developers and commercial operators													MKC / Operators	Town & Parish Councils / Developers / Businesses	ITB, Dev, B, PR

Strategy Strand		Code	Intervention description	Capital (total) Phasing\Timescale\Cost						Revenue (per annum) Phasing\Timescale\Cost						Lead Partner	Key Partners	Potential funding source
				Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years	Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years			
Smarter Choices	General	SCo5	Enhancements to the broadband network	U/K	U/K	U/K	U/K	U/K	U/K	U/K	U/K	U/K	U/K	U/K	U/K	Broadband Providers	MKC / Town & Parish Councils / Broadband Providers / Developers	Dev, B, OCGD, DT / Man, RGF, CT, R
Smarter Choices	General	SCo6	Continued promotion of Safer Journeys to School programme including school travel planning, walking buses, and expansion of "Walk and Roll" scheme	£400,000	£507,000	£507,000	£525,000			£100,000	£100,000	£100,000	£100,000			MKC	Schools / Public / Town & Parish Councils	ITB, Dev, PR
Smarter Choices	General	SCo7	Increased delivery of travel awareness campaigns and promotions		£100,000	£100,000	£100,000				£50,000	£50,000	£50,000			MKC	Public / Town & Parish Councils / Developers / Operators / User Groups / Businesses / Organisations	LSTF, ITB, Dev, Op, B, MVCRP, B&MKWT, PCT, Pol, PR, VS, S
Smarter Choices	General	SCo8	Improved partnership working													MKC	Public / Town & Parish Councils / Developers / Operators / User Groups / Businesses / Organisations	ITB, Dev, Op, B, MVCRP, B&MKWT, PCT, Pol, PR, VS, S
Smarter Choices	General	SCo9	Development of effective travel plans for all stations in Milton Keynes and other key trip generators								£50,000	£50,000	£50,000			MKC	Network Rail / Operators / User Groups	Op, DfT Rail, NR
Smarter Choices	General	SCo10	Introduction of Personalised Travel Planning									£100,000	£100,000			MKC	Public / Town & Parish Councils / Estate Agents / Developers / Operators	ITB, Dev, Op, PR

Strategy Strand		Code	Intervention description	Capital (total) Phasing\Timescale\Cost						Revenue (per annum) Phasing\Timescale\Cost						Lead Partner	Key Partners	Potential funding source
				Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years	Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years			
Highways and Traffic Management	General	HTo1	Develop a Network Management Plan							£50,000						MKC	Town & Parish Councils / Operators / Emergency Services / Highways Agency / Developers / Businesses / Organisations	ITB
Highways and Traffic Management	General	HTo2	Peak spreading of traffic through school and business working hours							£10,000	£10,000	£10,000	£10,000			MKC	Businesses	ITB, Dev
Highways and Traffic Management	Freight	HTo3	Lorry Management Strategy Refresh							£10,000						MKC	Town & Parish Councils / Businesses / Operators / Developers / Public	ITB, Dev
Highways and Traffic Management	Freight	HTo4	Improved partnership working													MKC	Town & Parish Councils / Operators / Public / Businesses / Developers	ITB, Dev, Op, B
Highways and Traffic Management	Freight	HTo5	Improved signage and routing, including re-routing of HGV traffic away from estates and rural communities where appropriate		£50,000	£50,000	£50,000				£10,000	£10,000	£10,000			MKC	Town & Parish Councils / Operators / Businesses / Highways Agency / Technology Suppliers	ITB, HA, Technology Suppliers
Highways and Traffic Management	Freight	HTo6	Promotion of more sustainable freight movement								£10,000	£10,000	£10,000			MKC	Town & Parish Councils / Operators / Businesses / DfT / Highways Agency / Network Rail / Milton Keynes and Bedford Waterways Trust	ITB, HA, DfT Rail, NR, B&MKWT

Strategy Strand		Code	Intervention description	Capital (total) Phasing\Timescale\Cost						Revenue (per annum) Phasing\Timescale\Cost						Lead Partner	Key Partners	Potential funding source
				Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years	Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years			
Highways and Traffic Management	Road Safety	HTo7 / HTo8	Adoption of the Road Safety Audit Policy and Procedures / Road Safety Strategy Refresh							£40,000						MKC	Town & Parish Councils/ Emergency Services	ITB, HM, PR
Highways and Traffic Management	Road Safety	HTo9	Engineering measures to reduce the number of collisions, fatalities and injuries where appropriate and justified	£225,000	£250,000	£250,000	£250,000			£500,000	£500,000	£500,000	£500,000			MKC	Town & Parish Councils / Emergency Services / Public	ITB, HM, Dev, OCGD, PCT, Pol / Emergency Services, PR
Highways and Traffic Management	Road Safety	HTo10	Ongoing funding for safety education, training and promotion							£500,000	£500,000	£500,000	£500,000			MKC	Town & Parish Councils / Emergency Services / Public	ITB, HM, Dev, OCGD, PCT, Pol / Emergency Services, PR
Highways and Traffic Management	Powered Two Wheelers	HTo11	Refresh of Powered Two Wheeler Strategy							£25,000						MKC		
Highways and Traffic Management	Intelligent Transport Systems (ITS)	HTo12	Urban Traffic Management Control (UTMC) Common Database													MKC	Town & Parish Councils / Operators / neighbouring LAs / Highways Agency	ITB, Dev, PR
Highways and Traffic Management	Intelligent Transport Systems (ITS)	HTo13	New Traffic Control Centre including reciprocal data links with the Highways Agency for strategic interventions and traffic management													MKC	Town & Parish Councils / Operators / neighbouring LAs / Highways Agency	DfT - MS, ITB, HA, Pol
Highways and Traffic Management	Intelligent Transport Systems (ITS)	HTo14	Improve coordination of traffic signals													MKC	Town & Parish Councils / Highways Agency	ITB, Dev, PR

Strategy Strand		Code	Intervention description	Capital (total) Phasing\Timescale\Cost						Revenue (per annum) Phasing\Timescale\Cost						Lead Partner	Key Partners	Potential funding source
				Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years	Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years			
Highways and Traffic Management	Intelligent Transport Systems (ITS)	HTo15 / HTo16	ITS for roadside traffic alerts / ITS for parking management e.g. Variable Message Signs (VMS)					[yellow]						[yellow]	[yellow]	MKC	Town & Parish Councils / Operators / neighbouring LAs / Highways Agency	ITB, Dev, PR
Highways and Traffic Management	Intelligent Transport Systems (ITS)	HTo17	CCTV for traffic monitoring					[yellow]						[yellow]	[yellow]	MKC	Town & Parish Councils / Operators / neighbouring LAs / Highways Agency	ITB, Dev, PR, Pol
Highways and Traffic Management	Intelligent Transport Systems (ITS)	HTo18	Coordinate ITS with Highways Agency for management of traffic using M1					[green]						[green]	[green]	MKC	Town & Parish Councils / Operators / neighbouring LAs / Highways Agency	ITB, Dev, PR, HA
Highways and Traffic Management	Infrastructure	HTo19	Junction capacity improvements	£955,000 [yellow]	£1,000,000 [orange]	£1,000,000 [orange]	£1,000,000 [orange]	[red]	[red]							MKC / Highways Agency	Town & Parish Councils / MKP	DfT MS, HM, HA, Dev, TIF, CT, R
Highways and Traffic Management	Infrastructure	HTo20	Dualling of the A421 from M1 Junction 13 to the Kingston Roundabout (A5130)	£150,000 [green]				[red]	[red]							MKC	Town & Parish Councils / Highways Agency / Operators / Public / MKP	DfT MS, HM, Dev, TIF, CT, R
Highways and Traffic Management	Infrastructure	HTo21	Olney Bypass					[red]	[red]							MKC	Town & Parish Councils / Public / Highways Agency / Developers	DfT MS, HM, Dev, TIF, CT, R

Strategy Strand		Code	Intervention description	Capital (total) Phasing\Timescale\Cost						Revenue (per annum) Phasing\Timescale\Cost						Lead Partner	Key Partners	Potential funding source
				Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years	Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years			
Highways and Traffic Management	Infrastructure	HTo22	Bletchley Southern Bypass					🟥								MKC	Town & Parish Councils / Public / Highways Agency / Developers / MKP	DfT MS, HM, Dev, TIF, CT, R
Highways and Traffic Management	Freight	HTo23	Provision for freight parking / layover					🟩						🟩	🟩	MKC	Town & Parish Councils / Operators / Businesses / Public	ITB, HA, Dev, Man, Op
Highways and Traffic Management	Freight	HTo24	More co-ordinated delivery / distribution of freight (see HTo4)															
Highways and Traffic Management	Intelligent Transport Systems (ITS)	HTo25	In-vehicle Dynamic Journey Planning					🟩						🟨	🟨	MKC	Technology suppliers / DfT / Highways Agency	Man, Op, B
Highways and Traffic Management	Infrastructure	HTo26	Maintain easy access to the M1 Motorway						🟥							MKC / Highways Agency	MKP / Town & Parish Councils	DfT MS, HM, HA, Dev, TIF, CT, R
Technology	Multi-Modal Travel Information	To1	Development of a multi-modal transport information website portal and smart phone application, with potential linkages to an UTMC database (see Bo13)															
Technology	Vehicle innovation and smart infrastructure	To2	The promotion of electric and other alternative fuel vehicles (such as hydrogen fuel cell) (see Bo18)															

Strategy Strand		Code	Intervention description	Capital (total) Phasing\Timescale\Cost						Revenue (per annum) Phasing\Timescale\Cost						Lead Partner	Key Partners	Potential funding source
				Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years	Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years			
Technology	Vehicle innovation and smart infrastructure	To3	Expanded electric vehicle infrastructure (e.g. parking spaces with charging points)	£450,000	£450,000	£450,000	£450,000			£180,000	£180,000	£180,000	£180,000			MKC	Manufacturers / Universities / Businesses / Developers / Service Stations and Fuel Providers	DfT MS, ITB, Dev, Man, PR, Oth-DfT
Technology	Vehicle innovation and smart infrastructure	To4	Ultra low carbon taxis and private hire cars (see TPo3)															
Technology	Vehicle innovation and smart infrastructure	To13	SmartGrid integration					U/K	U/K					U/K	U/K	MKC	Town & Parish Councils / Energy Providers / Operators / Developers / Public	ITB, Dev, Man, PR
Technology	Vehicle innovation and smart infrastructure	To5 / To11	ITS deployment (see Highways and Traffic Management Strategy above)															
Technology	Vehicle innovation and smart infrastructure	To12	Smartcard ticketing (see Bo14)															
Infrastructure Management	General	IMo1	Improve Asset Management System							£25,000	£10,000	£10,000	£10,000			MKC	Town & Parish Councils / Parks Trust / Operators / User Groups / Public / Developers	ITB
Infrastructure Management	General	IMo2	Improve resilience of the network to winter weather conditions							£635,000	£635,000	£635,000	£635,000			MKC	Town & Parish Councils / Operators	HM, Dev, PR, CT

Strategy Strand		Code	Intervention description	Capital (total) Phasing\Timescale\Cost						Revenue (per annum) Phasing\Timescale\Cost						Lead Partner	Key Partners	Potential funding source
				Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years	Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years			
Infrastructure Management	General	IMo3	Improve resilience of the network to flash flooding	£395,000	£250,000	£250,000	£250,000			£467,000	£467,000	£467,000	£467,000			MKC	Town & Parish Councils	HM, Dev, PR, CT
Infrastructure Management	General	IMo4	Improved maintenance of the Redway network (see CWo6)															
Infrastructure Management	General	IMo5	Refresh Rights of Way Improvement Plan							£40,000						MKC	Town & Parish Councils / Parks Trust / User Groups / Public / Natural England / Countryside Agency / Forestry Commission / Operators	ITB
Infrastructure Management	General	IMo6	Improve lighting on the Redway network (see CWo7)															
Infrastructure Management	General	N/A	Other Maintenance / Resurfacing / Street Management	£6,050,000	£2,275,000	£2,350,000	£3,250,000			£8,125,000	£8,125,000	£8,125,000	£8,125,000			MKC	Town & Parish Councils / Developers / MKP / Operators / Public	
Development Planning	General	DPo1	Develop a Highways Design Guide							£30,000						MKC	Town & Parish Councils / Developers / MKP / Operators / Public	ITB, Dev
Development Planning	General	DPo2	Expansion of the grid road and Redway networks into major new developments													MKC	Town & Parish Councils / Developers / MKP / Operators / Public	ITB, Dev

Strategy Strand		Code	Intervention description	Capital (total) Phasing\Timescale\Cost						Revenue (per annum) Phasing\Timescale\Cost						Lead Partner	Key Partners	Potential funding source
				Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years	Year 1	Year 2	Year 3	Year 4	5-10 Years	11-20 Years			
Development Planning	General	DPo3	Define and defend alignments for high capacity transit in new development, including infrastructure for alternative fuel and future mode technology													MKC	Town & Parish Councils / Developers / MKP / Operators / Public	ITB, Dev
Development Planning	General	DPo4	Appropriate parking standards and distribution across the borough													MKC	Town & Parish Councils / Developers / MKP / Operators / Public	ITB, Dev
Development Planning	General	DPo5	Increased partnership working													MKC	Town & Parish Councils / Developers / MKP / Public / User Groups / Operators	ITB, Dev, Op, B
Total Cost				£16,165,000	£14,557,000	£14,732,000	£15,150,000			£20,470,000	£21,355,000	£22,160,000	£21,935,000					
Allocated Budget	Capital Programme			£13,997,277	£5,832,000	£5,888,700	£6,299,100			£0	£0	£0	£0					
	Plugged-in Places			£450,000	£450,000	£450,000	£450,000			£0	£0	£0	£0					
	Revenue Funding - Maintenance			£0	£0	£0	£0			£9,555,959	£9,555,960	£9,555,961	£9,555,962					
	Revenue Funding - Bus Subsidy			£0	£0	£0	£0			£3,417,679	£3,417,679	£3,417,679	£3,417,679					
	Revenue Funding - Concessionary Fares			£0	£0	£0	£0			£3,810,457	£3,810,458	£3,810,459	£3,810,460					
	Revenue Funding - Other			£0	£0	£0	£0			£2,412,000	£2,412,000	£2,412,000	£2,412,000					
Funding Deficit / Surplus				£1,717,723	£8,275,000	£8,393,300	£8,400,900			£1,273,905	£2,158,903	£2,963,901	£2,738,899					

Section 6: Performance Management Plan

Not only must the Transports Vision and Strategy be deliverable, but the impacts of delivering the programme of interventions must be measurable. Managing performance will be central to ensuring the Transport Vision and Strategy is delivered and successful.

Central government has reduced the burden of data collection by reducing the number of indicators measured and by providing information regarding certain indicators such as accessibility and highway delay. It is also meant that local authorities and their partners set meaningful local indicators and targets if required. The council proposes to roll forward indicators monitored for the last Local Transport Plan period from 2006/7 to 2010/11.

In addition, to make better use of accessibility data and indicators provided that data continues to be supplied by central government. The final set of indicators requires use of some forms of household and business surveys. The council has recently established Citizens MK, a panel of over 8,000 residents who will work with the council and relevant partners to inform policy development and the delivery thereof. Where surveys and questionnaires are proposed, the council will look to add additional transport related questions to minimise additional costs and prevent 'over consultation'.

The Performance Management Plan lists indicators, targets, a baseline where available, the frequency and means of reporting the data, and shows links between the indicators and the objectives of the Transport Vision and Strategy. It is recognised that the indicators fall into two main groupings – output indicators (i.e. what the council and its partners are ultimately planning to deliver) and input indicators (i.e. second tier indicators that feed through to the outcome indicators).

Due to concerns over the costs of data collection, uncertainty over the availability of certain data sets, and the introduction of new indicators for which no data currently exists, the council is yet to identify how the indicators relate to each other and in some instances set targets. This work will be done in due course and the Performance Management Plan will be amended.

TABLE 6.1 PERFORMANCE MANAGEMENT PLAN – LINKS BETWEEN INDICATORS AND TRANSPORT VISION AND STRATEGY OBJECTIVES

Indicator		Definition	LTP Objectives						
Number	Name		Transport Choice	Fast, Efficient and Reliable Movement	Reduced CO2 Emissions	Access for All	Safety, Security and Health	Quality of Life	Development Framework
NI 47 (BVPI 99x)	Road casualties	Number killed or seriously injured on all roads (Note: Road Safety data is not included on the current draft of the single data list, as the data is collected by the police. LAs do some voluntary processing by local agreement)					x		
NI 48 (BVPI 99y)	Road casualties	Number of children killed or seriously injured on all roads (3 year rolling average) (Note: Road Safety data is not included on the current draft of the single data list, as the data is collected by the police. LAs do some voluntary processing by local agreement)					x		
121-03	Concessionary Fares Survey	Number of concessionary bus journeys				x			
122-01	Local bus and light rail punctuality	Percentage of non-frequent buses on time	x	x		x			
122-02	Local bus and light rail punctuality	Average excess waiting time for frequent services	x	x		x			
123-03a	PSV Bus and Coach Operators Survey	Bus kilometres	x						

123-03b (BVPI 102)	PSV Bus and Coach Operators Survey	Bus passenger boardings	x							
123-07a	PSV Bus and Coach Operators Survey	Bus and Coach kilometres	x							
123-07b	PSV Bus and Coach Operators Survey	Bus and Coach passenger boardings	x							
124-01	Small bus permits	Details of permits issued				x				
125-01	Taxi Survey	Number of Licensed Taxis				x				
125-02	Taxi Survey	Licensed taxis with Wheelchair Accessible Requirement				x				
126-01	Bikeability	Bike training delivered	x				x			
127-06	Blue Badge Parking Survey	Number of On-street Parking Bays				x				
129-01	Highway inventory data	Numbers and characteristics of bridges and lighting					x			
129-02	Highway inventory data	Local authority winter service salt stock holdings		x						
NI 168 (130-01)	Road condition data	Principal roads where maintenance should be considered		x			x			
NI 169 (130-02)	Road condition data	Non-principal classified roads where maintenance should be considered		x			x			
130-03	Road condition data	Skidding resistance surveys		x			x			
BVPI 99z	Road casualties	Number of slight casualties on all roads					x			
BVPI 104a	Satisfaction with local bus services	Percentage of all respondents very/fairly satisfied with local bus services excludes don't knows	x			x				

Code	Indicator	Description								
BVPI 187	Footway condition	Condition of footways (Detailed Visual Inspection (DVI) data) (Footways Network Survey could replace DVI)		x			x			
BVPI 224b	Road condition	Condition of unclassified roads (Course Visual Inspection (CVI) data)		x			x			
LTP3	Cycling trips	Number of cycles parked in CMK at 10.00 am on a weekday	x							
NI 198 (LTP4)	Mode share of journeys to school	Percentage share of journeys to school by car (including vans & taxis but not car share)	x		x					
LTP6	Changes in peak period weekday traffic flows	Number of inbound peak period vehicles crossing the CMK cordon (0700-1000)		x	x					
NI 167 (LTP7)	Congestion	Average journey time during morning peak period (07.00-10.00) on 'A' roads per mile (DfT Variant 3 - Sept. to Aug.)		x						
LTP8	Air quality	Mean annual concentration of nitrogen dioxide (NO2) at continuous monitoring sites as measured in national air quality strategy					x	x		
LTP8	Air quality	Mean annual particulate matter (PM10) at continuous monitoring sites as measured in national air quality strategy					x	x		
	Rail patronage	Boarding and alighting surveys from Milton Keynes stations	x		x					
MKC1	Community Transport patronage	Data submitted by operators	x			x				
	Walking trips	Peak period cordon counts on key routes	x		x					
	Taxi and Private Hire passengers	Data submitted by operators	x		x	x				

Development Related Travel Plans	Percentage enforced and monitored based on observations by travel planning / development control officers	x		x	x				x
Accessibility of new developments	Percentage of new housing within 400m walking distance of a bus stop	x			x	x	x		x
Accessibility (NB unclear what information will be provided by DfT)	Percentage of target population (working age population) that can access a major employment site by public transport / walk of a major employment area using deterrence factors reflecting people's willingness to travel for longer.	x	x		x		x		
Accessibility (NB unclear what information will be provided by DfT)	Percentage of target population (people between the ages of 4 and 11 years) that can access a primary school by public transport using deterrence factors reflecting people's willingness to travel for longer.	x			x		x		
Accessibility (NB unclear what information will be provided by DfT)	Percentage of target population (people between the ages of 11 and 16 years) that can access a secondary school by public transport using deterrence factors reflecting people's willingness to travel for longer.	x			x		x		
Accessibility (NB unclear what information will be provided by DfT)	Percentage of target population (people between the ages of 16 and 19 years) that can access a further education establishment by public transport / walk using deterrence factors reflecting people's willingness to travel for longer.	x			x		x		
Accessibility (NB unclear what information will be provided by DfT)	Percentage of target population (all people) that can access a GP surgery by public transport / walk using deterrence factors reflecting people's willingness to travel for longer.	x			x	x	x		
Accessibility (NB unclear what information will be provided by DfT)	Percentage of target population (all people) that can access a hospital by public transport / walk using deterrence factors reflecting people's willingness to travel for longer.	x			x	x	x		

Indicator	Measure							
Accessibility (NB unclear what information will be provided by DfT)	Percentage of target population (all people) that can access a food store by public transport / walk using deterrence factors reflecting people's willingness to travel for longer.	x			x	x	x	
Mode share for all journey purposes	Percentage mode share for different journey purposes	x		x				
Satisfaction with different network for all journey purposes	Percentage satisfaction with the bus, rail, Redway and highway networks	x		x	x			
Perceived ease of access to key services by public transport	Percentage agreement with statements of ease of access to key services by public transport	x		x	x			
Perceived ease of access to the public transport network	Percentage agreement with statement of ease of access to the public transport network	x		x	x			
Transport provision in Milton Keynes improves quality of life	Percentage agreement with statement of quality of life enhancement						x	
Network provides for fast and efficient movement of people and goods	Percentage agreement with statement of transport network providing for the fast and efficient movement of people and goods		x					
Carbon Emissions	Percentage reduction in tonnes per capita per annum			x				

TABLE 6.2 – PEFORMANCE MANAGEMENT PLAN – INDICATORS AND TARGETS

| Indicator | | Definition | Baseline | | 2011/12 | | 2012/13 | | 2013/14 | | 2014/15 | | 2015/16 | | 2021 | | 2031 | |
Number	Name		Year	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.
NI 47 (BVPI 99x)	Road casualties	Number killed or seriously injured on all roads (Note: Road Safety data is not included on the current draft of the single data list, as the data is collected by the police. LAs do some voluntary processing by local agreement)	2005/6 - 2009/10 average	103	99		95		91		87		83		70		50	
NI 48 (BVPI 99y)	Road casualties	Number of children killed or seriously injured on all roads (3 year rolling average) (Note: Road Safety data is not included on the current draft of the single data list, as the data is collected by the police. LAs do some voluntary processing by local agreement)	2005/6 - 2009/10 average	13	11		10		9		8		7		5		3	
121-03	Concessionary Fares Survey	Number of concessionary bus journeys	2010/11	to be determined															
122-01	Local bus and light rail punctuality	Percentage of non-frequent buses on time	2010/11	78%	80%		82%		84%		86%		88%		95%		95%	
122-02	Local bus and light rail punctuality	Average excess waiting time for frequent services	2011/12	to be determined															
123-03a	PSV Bus and Coach Operators Survey	Bus kilometres	2010/11	to be determined															

Indicator		Definition	Baseline		2011/12		2012/13		2013/14		2014/15		2015/16		2021		2031	
Number	Name		Year	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.
123-03b (BVPI 102)	PSV Bus and Coach Operators Survey	Bus passenger boardings	2010/11	to be determined	9m		10m		12m		14m		16m		22m		32m	
123-07a	PSV Bus and Coach Operators Survey	Bus and Coach kilometres	2011/12	to be determined														
123-07b	PSV Bus and Coach Operators Survey	Bus and Coach passenger boardings	2011/12	to be determined														
124-01	Small bus permits	Details of permits issued	2010/11	to be determined														
125-01	Taxi Survey	Number of Licensed Taxis	2010/11	to be determined														
125-02	Taxi Survey	Licensed taxis with Wheelchair Accessible Requirement	2010/11	to be determined														
126-01	Bikeability	Bike training delivered	2010/11	to be determined														
127-06	Blue Badge Parking Survey	Number of On-street Parking Bays	2010/11	to be determined														
129-01	Highway inventory data	Numbers and characteristics of bridges and lighting	2010/11	to be determined														
129-02	Highway inventory data	Local authority winter service salt stock holdings	2010/11	to be determined														
NI 168 (130-01)	Road condition data	Principal roads where maintenance should be considered	2010/11	2%	2%		2%		2%		2%		2%		2%		2%	
NI 169 (130-02)	Road condition data	Non-principal classified roads where maintenance should be	2010/11	7%	6%		6%		6%		5%		5%		5%		5%	

Indicator		Definition	Baseline		2011/12		2012/13		2013/14		2014/15		2015/16		2021		2031	
Number	Name		Year	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.
		considered																
130-03	Road condition data	Skidding resistance surveys	2010/11	to be determined														
BVPI 99z	Road casualties	Number of slight casualties on all roads	2009/10	970	960		950		940		930		920		870		770	
BVPI 104a	Satisfaction with local bus services	Percentage of all respondents very/fairly satisfied with local bus services excludes don't knows	2009/10	40%	45%		50%		60%		70%		80%		85%		90%	
BVPI 187	Footway condition	Condition of footways (Detailed Visual Inspection (DVI) data) (Footways Network Survey could replace DVI)	2009/10	15%	14%		13%		12%		10%		8%		6%		5%	
BVPI 224b	Road condition	Condition of unclassified roads (Course Visual Inspection (CVI) data)	2010/11	6%	5%		5%		5%		5%		5%		5%		5%	
LTP3	Cycling trips	Number of cycles parked in CMK at 10.00 am on a weekday	2009/10	344	400		500		600		700		800		1300		2300	
NI 198 (LTP4)	Mode share of journeys to school	Percentage share of journeys to school by car (including vans & taxis but not car share)	2009/10	29%	28.5%		28.0%		27.5%		27.0%		26.5%		24.0%		20.0%	
LTP6	Changes in peak period weekday traffic flows	Number of inbound peak period vehicles crossing the CMK cordon (0700-1000)	2009/10	19300	19500		19700		19900		20100		20300		21840		23400	
NI 167 (LTP7)	Congestion	Average journey time during morning peak period (07.00-10.00) on 'A' roads per mile (DfT	2008/09	1 min 45 secs	1 min 45 secs		1 min 46 secs		1 min 47 secs		1 min 48 secs		1 min 49 secs		1 min 50 secs		2 mins	

Indicator		Definition	Baseline		2011/12		2012/13		2013/14		2014/15		2015/16		2021		2031	
Number	Name		Year	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.
		Variant 3 - Sept. to Aug.)																
LTP8	Air quality	Mean annual concentration of nitrogen dioxide (NO2) at continuous monitoring sites as measured in national air quality strategy	2009/10	< 40 µg/m³	< 40 µg/m³		< 40 µg/m³		< 40 µg/m³		< 40 µg/m³		< 40 µg/m³		< 40 µg/m³		< 40 µg/m³	
LTP8	Air quality	Mean annual particulate matter (PM10) at continuous monitoring sites as measured in national air quality strategy	2009/10	< 40 mg/m³	< 40 mg/m³		< 40 mg/m³		< 40 mg/m³		< 40 mg/m³		< 40 mg/m³		< 40 mg/m³		< 40 mg/m³	
	Rail patronage	Boarding and alighting surveys from Milton Keynes stations	2010/11	to be determined														
MKC1	Community Transport patronage	Data submitted by operators	2010/11	to be determined														
	Walking trips	24 hour cordon counts on key routes	2010/11	to be determined														
	Taxi and Private Hire passengers	Data submitted by operators	2010/11	to be determined														
	Development Related Travel Plans	Percentage enforced and monitored based on observations by travel planning / development control officers	2010/11	to be determined														

Indicator		Definition	Baseline		2011/12		2012/13		2013/14		2014/15		2015/16		2021		2031	
Number	Name		Year	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.
	Accessibility of new developments	Percentage of new housing within 400m walking distance of a bus stop	2010/11	to be determined	100%		100%		100%		100%		100%		100%		100%	
	Accessibility (NB unclear what information will be provided by DfT)	Percentage of target population (working age population) that can access a major employment site by public transport / walk of a major employment area using deterrence factors reflecting people's willingness to travel for longer.	2009	84%	85.0%		85.5%		86.0%		86.5%		87.0%		90.0%		95.0%	
	Accessibility (NB unclear what information will be provided by DfT)	Percentage of target population (people between the ages of 4 and 11 years) that can access a primary school by public transport using deterrence factors reflecting people's willingness to travel for longer.	2009	54%	55.0%		56.0%		57.0%		58.0%		59.0%		61.0%		66.0%	
	Accessibility (NB unclear what information will be provided by DfT)	Percentage of target population (people between the ages of 11 and 16 years) that can access a secondary school by public transport using deterrence factors reflecting people's willingness to travel for longer.	2009	51%	52.0%		53.0%		55.0%		57.0%		59.0%		62.0%		65.0%	

Indicator		Definition	Baseline		2011/12		2012/13		2013/14		2014/15		2015/16		2021		2031	
Number	Name		Year	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.
	Accessibility (NB unclear what information will be provided by DfT)	Percentage of target population (people between the ages of 16 and 19 years) that can access a further education establishment by public transport / walk using deterrence factors reflecting people's willingness to travel for longer.	2009	66%	67.0%		68.0%		69.0%		71.0%		73.0%		74.0%		77.0%	
	Accessibility (NB unclear what information will be provided by DfT)	Percentage of target population (all people) that can access a GP surgery by public transport / walk using deterrence factors reflecting people's willingness to travel for longer.	2009	61%	63.0%		65.0%		67.5%		70.0%		73.0%		77.0%		81.0%	
	Accessibility (NB unclear what information will be provided by DfT)	Percentage of target population (all people) that can access a hospital by public transport / walk using deterrence factors reflecting people's willingness to travel for longer.	2009	31%	35.0%		40.0%		45.0%		50.0%		55.0%		61.5%		75.0%	
	Accessibility (NB unclear what information will be provided by DfT)	Percentage of target population (all people) that can access a food store by public transport / walk using deterrence factors reflecting people's willingness to travel for longer.	2009	60%	62.0%		64.0%		66.0%		68.0%		70.0%		74.0%		81.0%	
	Mode share for all journey	Percentage mode share for different journey	2011/12	to be determined															

Indicator		Definition	Baseline		2011/12		2012/13		2013/14		2014/15		2015/16		2021		2031	
Number	Name		Year	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.	Traj.	Act.
	purposes	purposes																
	Satisfaction with different network for all journey purposes	Percentage satisfaction with the bus, rail, Redway and highway networks	2011/12	to be determined														
	Perceived ease of access to key services by public transport	Percentage agreement with statements of ease of access to key services by public transport	2011/12	to be determined														
	Perceived ease of access to the public transport network	Percentage agreement with statement of ease of access to the public transport network	2011/12	to be determined														
	Transport provision in Milton Keynes improves quality of life	Percentage agreement with statement of quality of life enhancement	2011/12	to be determined														
	Network provides for fast and efficient movement of people and goods	Percentage agreement with statement of transport network providing for the fast and efficient movement of people and goods	2011/12	to be determined														
	Carbon Emissions	Percentage reduction in tonnes per capita per annum	2011/12	to be determined														