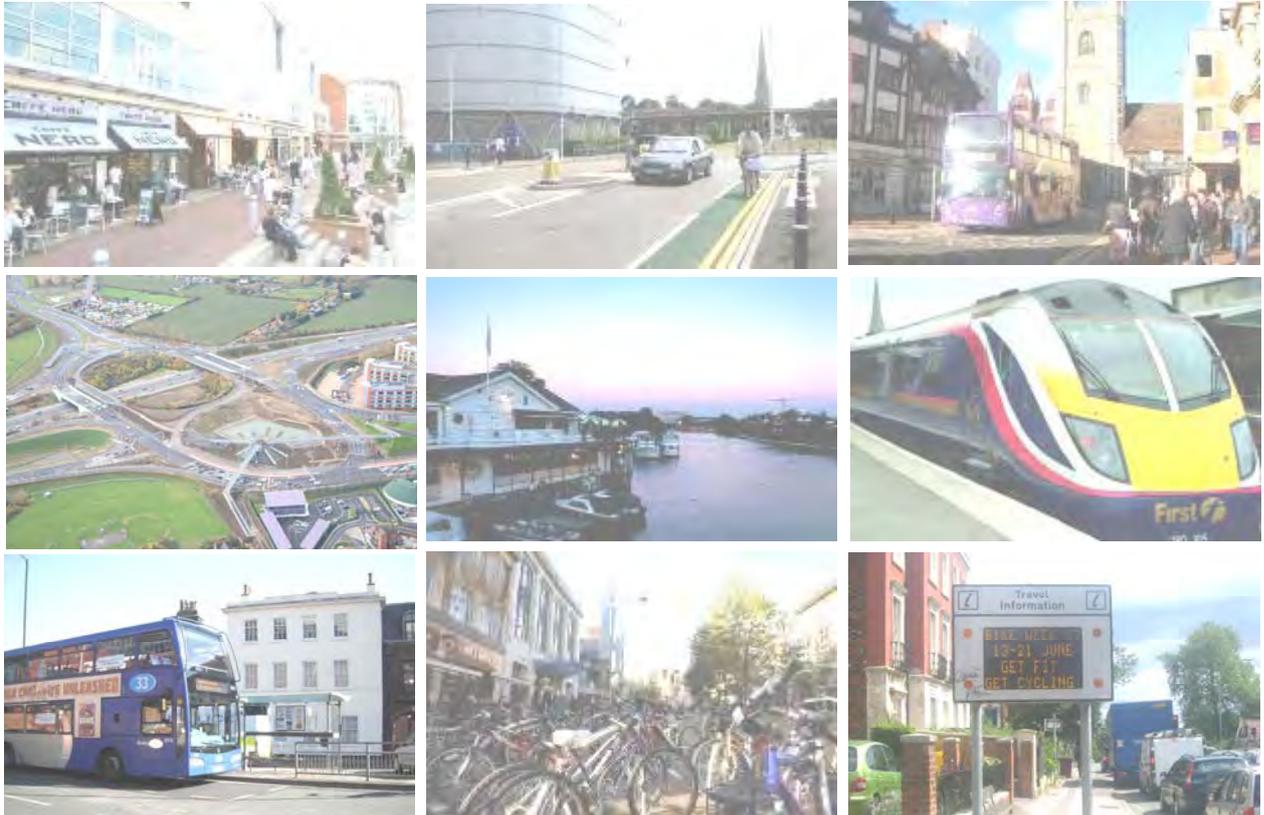


READING BOROUGH COUNCIL

LOCAL TRANSPORT PLAN 3: STRATEGY 2011-2026

APRIL 2011



LOCAL TRANSPORT STRATEGY PLAN 2011-2026

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1 INTRODUCTION

Local Transport Plans

- 1.1 We recognise that good transport is fundamental in building sustainable and thriving local communities. Since 2001, all local transport authorities have been required to produce a Local Transport Plan (LTP), and keep this under review¹. An LTP contains the objectives, policies and schemes intended to improve transport in an area, contributing to wider social, economic and environmental benefits.
- 1.2 Reading's LTPs have always been a valuable local platform for communicating our plans and programmes for improving transport, and have enabled engagement and partnership working with other organisations including our neighbouring authorities. Our LTP is also an important tool to ensure that we deliver improvements efficiently and that these achieve good value for money.
- 1.3 Excellent progress has been made in Reading throughout the first two rounds of Local Transport Plans (2001-2006, and 2006-2011) as evidenced through our delivery reports. LTP3 builds on our approach, taking our longer-term strategy forward to 2026.

LTP Strategy & Implementation Plans

- 1.4 Flexibilities within updated legislation² have provided for LTP3 to be in two parts, with a separate Strategy Plan or policy document and an Implementation Plan covering a delivery programme, and for these to be renewed on different timescales as determined locally.
- 1.5 This document forms Reading's LTP3 Strategy Plan and sets out our long term policy approach to 2026, developed to align with relevant local

¹ Transport Act 2000

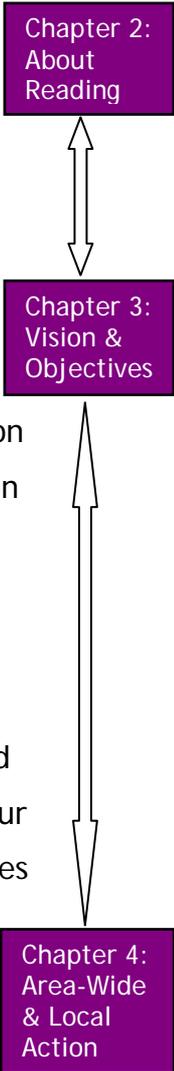
² Transport Act 2008

documents, such as the Local Development Framework and the Local Strategic Partnership vision *Reading City 2030*. Given the longer-term timescales for LTP3, the Strategy Plan will be subject to review every 3 years to ensure that all aspects remain current and that it is best placed to respond to future needs and opportunities as they arise.

- 1.6 Reading’s LTP3 Implementation Plan (published separately) sets out an annual budget and delivery programme with reserve schemes for subsequent years. This document will be renewed annually through the Committee Reporting process, and should be read in conjunction with this document. It will also include an update of the current position delivery of the Strategy Plan in terms of monitoring against objectives.

LTP3 Strategy Plan Content

- 1.7 Our LTP Strategy Plan provides the context for Reading in terms of the economy, environment and quality of life. Our long-term vision for transport in Reading is outlined within the context of the Sustainable Community Strategy and its three strands of *People, Place, and Prosperity*. At the heart of our vision is the aim of better ‘Connecting Reading’ and a transport system that enables people to move around - easily, safely, sustainably and in comfort.
- 1.8 The Strategy Plan details the transport objectives which support our vision and also recognises wider issues signified by Reading’s geographic position as a transport hub. The objectives are aligned to a series of delivery themes which develop over time and provide for measures that promote *Inclusion, Intervention, Infrastructure and Innovation*.
- 1.9 This Strategy Plan reviews the current and future movement patterns and characteristics in and around Reading, using knowledge gained through our transport toolkit. The challenges and opportunities for improving facilities and meeting future travel demands are then described in our Area-Wide



and Local Action Plans, which give a neighbourhood focus to delivery of transport schemes.

- 1.10 The spectrum of strategies, from local to national, which influence and are influenced by the LTP are outlined within a section on wider context.
- 1.11 Our transport objectives have influenced a set of policies relating to all transport modes and themes, with key areas of policy outlined in this Plan, and in some cases also published within separate sub-strategies or daughter documents.
- 1.12 Our LTP3 Implementation Plan incorporates the measures and interventions which arise from the sub-strategies and further details the actions which are prioritised in the short term for delivery across Reading and within the Local Action Plans.
- 1.13 We set out the likely mechanisms which will enable us to fund our proposals alongside our approach for ensuring value for money in transport investment in Chapter 7. Monitoring arrangements and the use of our transport toolkit is set out in Chapter 8. Through public and stakeholder engagement, we will keep our Strategy Plan under review to support it as a living document able to improve transport in and around Reading.

Chapter 5:
Wider
Context

Chapter 6:
Our Policies
for
Connecting
Reading

Chapter 7:
Finance
Strategy

Chapter 8:
Monitoring
& Review

LTP Policy Approach & Daughter Documents

- 1.14 Our LTP3 Strategy considers our policy approach specific to all transport modes and themes, ranging from strategies for bus, rail and cycling to parking design and standards. We have also set out some core enabling policies which describe how we intend to deliver our strategy for inclusion, intervention, infrastructure and innovation. This strategic policy base is part of our vision for Connecting Reading.
- 1.15 Chapter 6 provides more detail as to how actions will be taken to achieve outcomes for the policy areas, although it is noted that in some cases we have also published stand-alone daughter documents which provide more

detail on the objectives and actions proposed for certain thematic topics. Some of the sub-strategies also fulfil statutory requirements for the provision of plans and strategies with their own renewal timescales. These carry on from the policies in LTP2 for 'Quality Travel for Reading,' under which many transport schemes were developed and key targets achieved.

LTP2 Strategy Quality Travel for Reading Detailed Policy / Programme Area	sub-strategy	LTP2 Shared Priorities					Local Transport Strategy Key Achievements
		Accessibility	Tackling Congestion	Safer Roads	Air Quality	Other Quality of Life Issues	
Accessibility Strategy	☞	✓✓✓	✓	✓	✓	✓	Met target for hospital by 2009 More dropped kerbs, tactiles, etc
Bus Strategy	☞	✓✓✓	✓✓✓	✓	✓✓✓	✓	Completed Premier Route Network Developed Community Link Routes Bus patronage up by 30% over LTP2
Rail		✓✓✓	✓✓✓	✓	✓	✓	Reading Station capacity upgrade GreenPark Station progressing
Interchange Strategy and Bus/Rail Partnerships	☞	✓✓	✓✓✓	✓	✓	✓	Reading Station Rail Redevelopment secured Reorganisation of Town Centre underway
Cycling	☞	✓✓✓	✓✓✓	✓✓	✓✓	✓✓	Cycle Strategy adopted 2008 Design and brand Reading Cycle Routes CTC Cycle Champions Programme Bikeability introduced to Reading
Walking	☞	✓✓✓	✓✓✓	✓	✓✓	✓✓	Rights of Way Improvement Plan adopted Increased pedestrianisation of Market Place
Community and Voluntary Transport		✓✓✓	✓✓✓	✓	✓✓	✓✓	National Concessionary Fares
Taxis and Private Hire		✓✓✓	✓✓	✓	✓	✓	Off-road Taxi Queuing Area by Reading Station Additional central Reading Taxi Ranks
Powered Two Wheelers		✓✓	✓✓	✓	✓	✓	Online motorcycle parking guide
Mobility Management	☞	✓✓✓	✓✓✓	✓	✓	✓✓	Complete travel plans for most schools Car clubs secured through s106 and also now operate Reading Council pool cars
Travel Information & Marketing Strategy	☞	✓✓✓	✓✓✓	✓	✓	✓	Reading Travel-Info Website Info by SMS Colour-coding and branding of routes (bus and cycle)
Parking Strategy and Enforcement	☞	✓✓	✓✓✓	✓	✓✓	✓	Digital Bus Lane enforcement Supplementary Planning Guidance for parking standards adopted
Sustainable Distribution		✓✓	✓✓✓	✓	✓✓	✓	West Berkshire led cross-boundary freight study
Intelligent Transport Systems Strategy		✓✓✓	✓✓✓	✓✓	✓✓	✓	WiMAX system for travel information Bus priority through RTP1 and UTMIC
Road Safety Strategy	☞	✓	✓	✓✓✓	✓	✓	Vehicle activated signs Safe Drive, Stay Alive roadshow Participation in national campaigns
Local Safety Schemes and Safer Routes to Schools		✓✓	✓✓	✓✓✓	✓	✓✓	Duke Street junction improvements 40 Safer Routes to Schools schemes
Local Area Enhancements and Homes Zones		✓✓	✓✓	✓✓✓	✓✓	✓✓	The Meadway LAE Wokingham Road LAE Emmer Green improvements Shinfield Rise LAE
Signing		✓✓	✓✓	✓✓✓	✓	✓	Improved pedestrian signing Signing strategy to hospital
Maintenance Plan		✓✓	✓✓	✓✓✓	✓	✓✓	Appointment of Streetworks Coordinator Surface Water Management Plan completed Asset Management Plan underway
Local Air Quality Action Plan		✓	✓	✓	✓✓✓	✓✓	Air Quality Management Area declared Action Plan approved 2009
Climate Change		✓	✓	✓	✓✓	✓✓	Climate Change Strategy adopted
Noise		✓	✓	✓	✓✓	✓✓	Noise modelling within Transport Model
Community Strategy Partnerships	☞	✓✓✓	✓✓✓	✓✓	✓✓	✓✓✓	Local Area Agreements
Major Schemes		✓✓✓	✓✓✓	✓✓	✓✓	✓✓	M4 Junction 11/Mereok Reading Station Redevelopment

Accomplishments of LTP2 (2006-2011)

1.16 The daughter documents referred to in Chapter 6 are being retained, revised or produced to support LTP3, and the other policy and delivery areas for this Strategy Plan have also been updated.

LTP3 Strategy Connecting Reading Detailed Policy / Delivery Area	sub-strategy	LTP3 THEMES				SCS		
		Inclusion	Interventions	Infrastructure	Innovations	People	Place	Prosperity
School Travel		✓	✓			✓		
Travel Information/Behaviour		✓	✓		✓	✓		✓
Neighbourhood Enhancements		✓	✓			✓	✓	
Air Quality Management		✓	✓		✓	✓	✓	
Road Safety		✓	✓			✓		
Public Transport		✓	✓	✓	✓	✓	✓	✓
Network Management			✓			✓	✓	✓
Maintenance/Asset Management		✓	✓			✓	✓	
Drainage/Surface Water Management			✓		✓		✓	✓
Walking/Rights of Way			✓			✓	✓	
Cycling			✓			✓	✓	
Parking Policy and Standards			✓	✓			✓	✓
Local Development Framework		✓	✓	✓	✓	✓	✓	✓
Cross-Boundary Partnerships				✓			✓	✓
Major Scheme Development				✓	✓			✓
Demand Management			✓		✓		✓	✓
Climate Change			✓		✓	✓	✓	✓
Freight/Sustainable Distribution			✓		✓		✓	✓
Research and Development		✓	✓	✓	✓	✓	✓	✓

Strategy/Policy Area Matrix

Local Action Plan Approach

1.17 Since 2006 (LTP2), we have been using an area-based approach to developing and delivering our transport strategy through action plans. For this LTP3, the Local Action Plans included in Chapter 4 list challenges and opportunities only, while further detail on timescale and budgeting is included in our separate Implementation Plan.

1.18 Our action plans enable us to identify and prioritise local transport measures for each area of Reading that will deliver the best value for money and positive outcomes in respect of our LTP3 objectives and targets. Where feasible, measures that are proposed will continue to be multi-targeted. Existing assets are used as effectively as possible and the benefits of upgraded or new infrastructure are maximised through this approach.

1.19 There are seven separate Local Action Plan areas representing the six main transport corridors radiating from central Reading and the central area itself. We have profiled information for each area on the demographics, movement characteristics, planning and regeneration proposals, taking account of improvements implemented during the LTP2 period and advances in our transport toolkit, including our updated transport model, RTM3.



Figure 1.1: Population/Jobs (Reading urban area) 2007

- 1.20 Some of the opportunities contained within the action plans are already in place or are being progressed based on identification in earlier LTPs, and others are new possibilities that we intend to take forward.
- 1.21 Our plans will be progressed in partnership with appropriate neighbouring authorities where these extend beyond the Reading Borough's boundaries and will be or have been shaped by consultation with our partners, stakeholders and local communities.

Statutory Assessments

- 1.22 In accordance with legislation, LTP3 (Strategy and Implementation Plans) has been developed and appraised to ensure that our transport strategy adequately considers the wider environment, and is inclusive of all types of transport users.
- 1.23 Whilst essential to comply with legislation, these assessments have also played an important role in Reading in helping to inform the development of our transport strategy. The LTP3 assessments will continue to be important tools for influencing and informing our strategy throughout the LTP3 period.

Strategic Environmental Assessment (SEA)

- 1.24 As required by European legislation³, a Strategic Environmental Assessment (SEA) of our LTP3 has been undertaken to ensure that environmental considerations have been integral to its preparation and adoption. The SEA is a systematic way to examine (and suggest mitigation of) the likely environmental, social and economic effects of the Plan against selected SEA objectives. It compares a baseline scenario (if the Plan were not implemented) with planned scenarios comprising the action plan opportunities proposed within LTP3.

³ EC Directive 2001/42/EC

1.25 The SEA identifies whether measures could diminish or rectify the consequences of any adverse impacts of the Plan. Measures are identified to monitor significant environmental effects of implementing the LTP. The SEA Environmental Report and a non-technical summary are published separately.

Health Impact Assessment (HIA)

1.26 Consideration of human health is a requirement of the SEA Directive. The Health Impact Assessment (HIA) process has helped to identify and inform health issues within our LTP and to mitigate negative effects on health and well-being. The HIA Report is published as a separate document.

Equality Impact Assessment (EQIA)

1.27 Local Authorities have a duty under race, disability and gender legislation⁴ to carry out an Equality Impact Assessment of LTP3 to help determine how the Plan affects different groups of people. The EQIA has followed our corporate approach and helps to meet the national transport goal to promote equality of opportunity. It is published separately.

⁴ Consolidated within the Equality Bill 2009

2 ABOUT READING

2.1 Reading is a major population and employment centre within the South East, benefiting from close proximity to London and Heathrow, and with excellent links to national road and rail networks as well as to Heathrow Airport. Such connectivity is represented by Reading's status as a regional transport hub, international gateway and a major transport interchange.

"Reading is a key transport interchange; it's one of the very few places in the country where you can connect in any direction to any corner of the UK" Roger Hicks, Hicks Baker (R:UK)

2.2 The M4 motorway runs east to west just south of Reading, with three junctions offering access to the urban area. The Great Western Main Line railway also runs east to west through Reading, with services from Reading Station providing fast links to London and a gateway to the West, Wales, South West, Midlands and North of England. Reading is one of the UK's busiest rail stations and currently caters for around 14 million passengers every year. The demand for rail travel is constantly growing with passenger numbers predicted to double over the next 20 years. The upgrade of Reading Station, expected to be complete by 2016, will relieve existing capacity constraints and allow us to secure ongoing sustainable economic growth in Reading and provide further redevelopment opportunities.

2.3 We have undertaken detailed multi-modal analysis and assessment on the characteristics of movements using the Reading Transport Model. This shows that Reading attracts a large number of trips from communities in Greater London, Bracknell, Maidenhead, Wokingham, Slough, and Basingstoke (Figure 2.1). In the AM peak period (07:00-10:00), 30,000 people arrive and 24,000 people leave the Reading area, which overall is a net importer of trips.

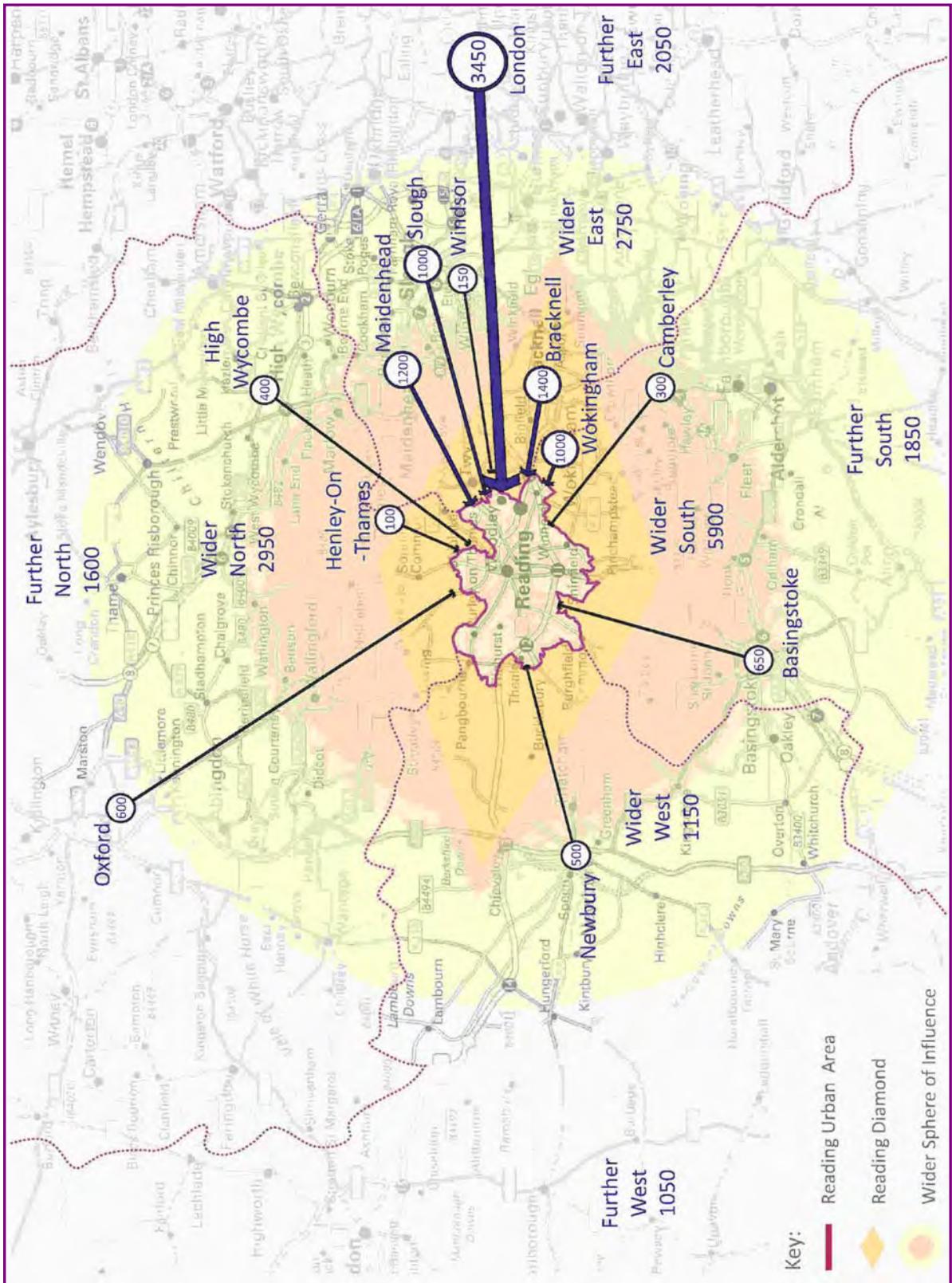


Figure 2.1: Movements into Reading (Average AM Peak Period 0700-1000)

2.4 The vitality and success of Reading has attracted significant investment from business, retail, sport and cultural sectors, and the town serves a catchment that extends far beyond the Borough's administrative

boundaries. The population of Reading Borough is 149,200⁵, although the wider urban area is home to a population of around 233,000.



Figure 2.2: Population/Jobs Statistics for Neighbouring Urban Areas

2.5 The geography, land use patterns and economic activity of Reading and the Thames Valley produce a complex set of travel patterns with significant movement across administrative boundaries. Individually, authorities have developed an understanding of movements and travel demand affecting their areas, through modelling and other techniques. Partnership cross-boundary work has helped to strengthen knowledge and explore the broader Reading Travel to Work Area (TTWA), which represents Reading’s real economy and the sphere of influence of Reading’s services and facilities, from both within Berkshire and beyond.

2.6 Reading is a vibrant and multi-cultural centre, with over 13% of the population from black and ethnic minority communities⁶ and recent entry of many workers and their families from EU Accession countries. This

⁵ 2008 Mid-year Population Estimate, Office for National Statistics

⁶ Reading Sustainable Community Strategy 2008-2011

diversity is celebrated and embraced within Reading and there is a history of good community relations.

2.7 There has been a huge shift in the town's economy, from its origins in 'beer, biscuits and bulbs' to a compact service economy which specialises in business and insurance services, and is home to the largest concentration of information and communication technology corporations in the UK. The Thames Valley area as a whole generates some £30 billion per annum in output, and is second only to London in its contribution to the UK economy.

"Reading remains a prosperous area, with good transport links, quality workforce and a high quality professional community being key attractions" Hamish Macdonald, Santander (R:UK)

2.8 The centre of Reading is a major retail and leisure destination, rated in the top 10 of most 'credit crunch resistant centres' in the recent downturn⁷, with a thriving night-time economy.



Figure 2.3: Forbury Gardens and The Oracle, Reading

2.9 Reading is also home to the University of Reading and Reading College. A large percentage of the local working population are highly skilled, ranking as 8th highest amongst 64 sample UK cities for working age population with high level qualifications⁸. The University of Reading is renowned for

⁷ CACI, June 2009

⁸ Centre for Cities, 'Cities Outlook 2010'

world-class research, particularly in the spheres of Health, Environment and Food Security. It also has one of Europe's leading business schools.

- 2.10 The Centre for Cities 2010 report rated Reading highly amongst the sample cities; it has the 7th highest employment rate⁹, the 3rd highest average weekly earnings, and is 5th for most knowledge intensive city, noting the agglomeration benefits brought about by the clustering of financial services around Reading that has helped to support sustainable growth. The report recognises the good links between London and Reading, which create a mutually supportive economic relationship that enables regional economic development.

"We continue to see Reading as an area of growth, which is a legacy of the innovation and regeneration of the area" Andy Simpson, Barclays Corporate (R:UK)

- 2.11 Despite a mainly positive picture, pockets of deprivation do exist, with high costs of living and housing having impacts on some local communities. The availability and affordability of public transport and the provision of walking and cycling facilities are critical to ensuring equality of opportunity and connectivity across the Reading area.
- 2.12 Economic success and growth in Reading is expected to continue, as reflected by its designation as a 'Growth Point' in 2006 by the Department of Communities & Local Government and also as a 'South East Diamond for Investment and Growth' in 2009. Substantial house building is expected in both Reading and neighbouring authority areas. Major new development is proposed in central Reading, south Reading and at the edges of the Reading urban area within neighbouring Wokingham and West Berkshire authorities. This will put pressure on Reading's infrastructure and services, and future growth and economic success will need to be sustainable, both environmentally and socially.

⁹ NOMIS 2009

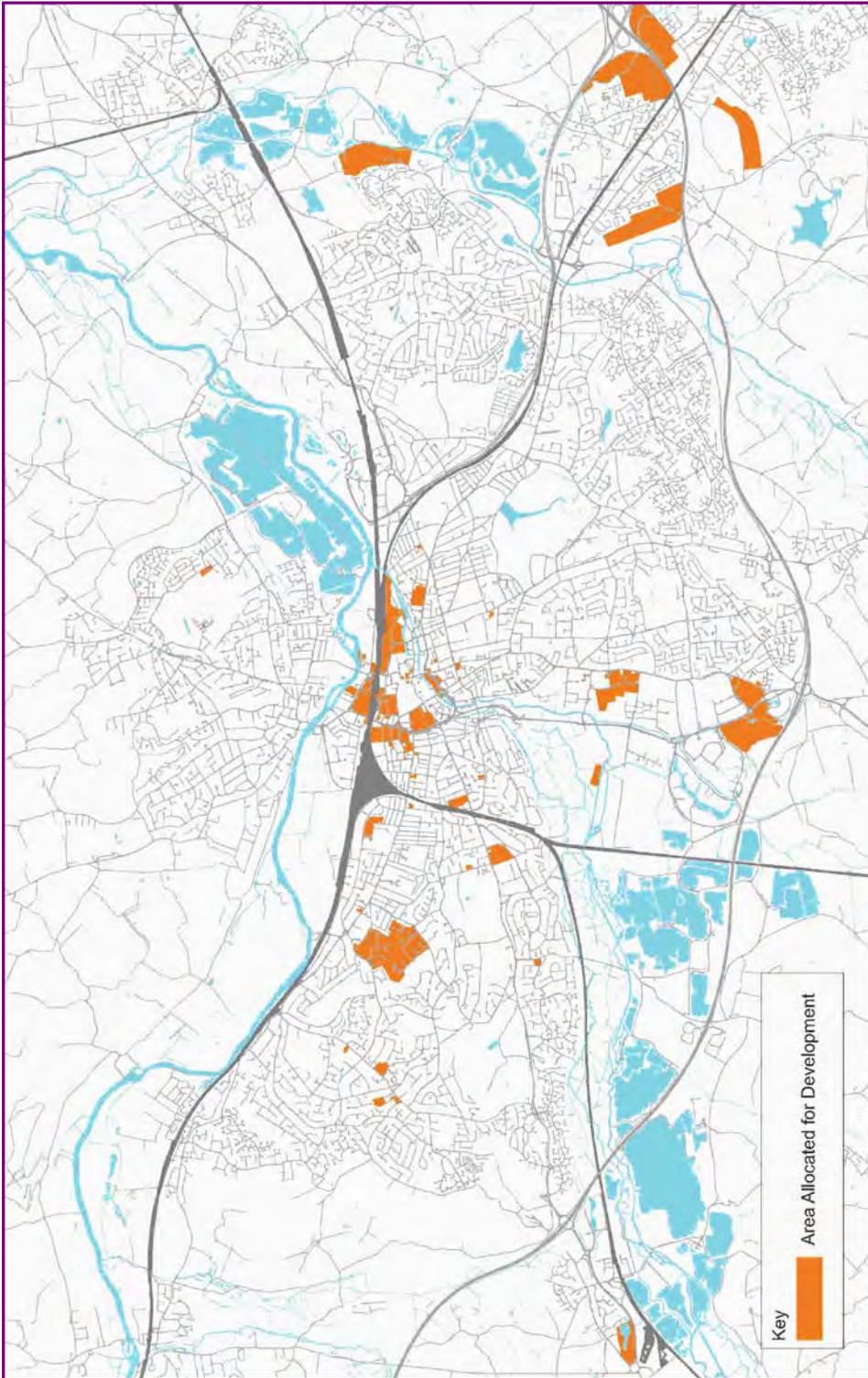


Figure 2.4: Proposed Development Locations

2.13 The ability to continue to attract inward investment while reducing carbon emissions in Reading depends on managing the transport network as demand for travel grows. This will require sustained investment across the transport network to ensure that Reading and the Thames Valley area continues to thrive.

3 VISION AND OBJECTIVES

Introduction

- 3.1 The vision for Reading is set out in the Sustainable Community Strategy along the three themes of *People, Place, and Prosperity*. The Sustainable Community Strategy imagines Reading in 2030 and sets out how Reading can maintain its current success as a world-class economy, a culturally rich family of communities and a desirable place. Part of that strategy is to maintain and enhance Reading as a regional centre with excellent transport connections and transport service delivery. It is from this concept that we take our 15-year transport vision for this Local Transport Plan.
- 3.2 To align this vision with the wider context of national and local policy and the challenges that we face, we have set out overarching objectives. These are a series of statements that clarify what this plan aims to achieve through four of our own delivery themes that link to different policy areas and types of transport measures for implementation.

Our Transport Vision: Connecting Reading

Transport in Reading will better connect people to the places that they want to go: easily, swiftly, safely, sustainably and in comfort. We will meet the challenges of a dynamic, low-carbon future to promote prosperity for Reading.

Whichever way you choose to travel, by foot or bicycle, motorcycle, bus, rail, car or boat whether to work or education, to leisure or the services you need, our transport system will help you get there.

People

- 3.3 No matter your age, ability or background, travel choices will be available and accessible for everyone. Walking and cycling will be safer and public transport more affordable and reliable. Reading will have a healthier,



more active population as more people choose to walk or cycle for shorter journeys as neighbourhood centres and other local destinations have a better environment. People will use innovative and inclusive information to make smarter choices in the way they travel using efficient and reliable transport systems.

Place

- 3.4 Most public places in Reading are part of our transport system, whether a road, pavement, verge or pedestrianised area. These places, like other public places (e.g. parks) will be managed, maintained and upgraded where feasible to ensure safe, resilient, high quality spaces and assets. The transport system will operate efficiently, improving connections within and between neighbourhoods through new or better infrastructure, and more seamless interchange. Reading will be a place with a vibrant, healthy and attractive public realm.



Prosperity

- 3.5 Reading will continue to thrive at the heart of a successful economic area, attracting people, goods and investment due to its excellent transport connections. Technology, innovation and infrastructure investment will ensure that a high quality transport system will continue to offer travel choice that is reliable, efficient and resilient in the face of the future challenges of climate change, energy resource shortages and global economic fluctuation.



Our Objectives

- 3.6 Our strategic objectives are listed below and provide the link between the local vision, the national goals and emerging policy, and our four LTP Delivery Themes:
- Inclusion
 - Intervention
 - Infrastructure
 - Innovation

SCS VISION	LTP3 STRATEGIC OBJECTIVES	LTP 3 DELIVERY THEMES
People	To facilitate more physically active travel for journeys in a healthy environment	Inclusion
	To improve personal safety on the transport network	Inclusion
	To provide affordable, accessible and inclusive travel options for everyone	Inclusion
Place	To ensure that the transport network operates safely and efficiently to meet the needs of all users	Intervention
	To align transport and land use planning to enable sustainable travel choices, improve mobility, reduce the need to travel and preserve the natural environment	Intervention
	To deliver balanced packages of value for money transport solutions and make best use of existing transport investment	Infrastructure
Prosperity	To offer sustainable transport choices for the Travel to Work Area and beyond, integrating within and between different types of transport	Infrastructure
	To improve journey times, journey time reliability and the availability of information	Infrastructure
	To reduce carbon emissions from transport, improve air quality and create a transport network which supports a mobile, affordable low-carbon future	Innovation

- 3.7 The vision, objectives and our ongoing analysis of the transport challenges in Reading shape our Transport Strategy for the 2011 to 2026 period. There are overlaps between the vision and the four delivery themes, but the strategy must evolve over time, building on local improvements to provide wider connections and developing day-to-day interventions into innovations for a sustainable future.

Our Strategy

- 3.8 Our four delivery themes have been developed to help us promote more multi-targeted measures derived from our vision, policy and Local Action Plans.
- 3.9 Inclusion focuses on making local journeys safer, healthier and easier for people. Safety considerations encompass personal security as well as road safety. Transport measures influence health through a wide range of impacts from air quality to active travel opportunities. Inclusion is the most wide-ranging delivery theme. To ensure easy access, we need to deliver a range of travel choices and inform people of these choices. Inclusion measures will tend to be quicker wins, underpinning the benefits of the longer-term programme.
- 3.10 Interventions include the provision of real time travel information, customised travel planning and the technology that assists with the daily management of the network. Improvements to public transport services, including dial-a-ride and taxis also allow more people to travel to more places, encouraging sustainable travel and offering viable alternatives to private transport options.
- 3.11 Ongoing interventions are necessary to maintain the safety and quality of the public realm. Highway maintenance, parking enforcement and asset management are integral to thriving, vibrant and sustainable places.

- 3.12 New infrastructure for all modes is sometimes required to provide a long-term, step-change in transport provision or network capacity to ensure that places continue to be well-connected or that new neighbourhoods are integrated into the wider area. Ongoing prosperity is supported by new infrastructure and other complementary measures of increasing capacity and ensuring reliable journey times.
- 3.13 Innovation will be essential to meet future challenges, particularly in relation to ongoing population growth, climate change and energy security. A world-class economy needs robust and resilient transport infrastructure. In the context of innovation, transport contributes directly to prosperity through the research of new technology and other innovations locally.
- 3.14 The following chapters consider travel patterns, the challenges and opportunities these create for transport delivery and give further consideration to the wider context of legislation, policy and delivery partnerships within which this plan must operate.

4 AREA-WIDE AND LOCAL ACTION PLANS

Introduction

- 4.1 This chapter outlines how we have been developing our transport strategy and action plans, to deliver the objectives of this Local Transport Plan.
- 4.2 The action plans provide a flexible framework for our future transport network. Our transport strategy and action plans take an area wide approach and consider regional, national and international transport links.
- 4.3 The Area-Wide Action Plan gives an overview of the strategic outlook across Reading's sphere of influence. Seven Local Action Plans enable us to review the transport challenges and opportunities on our strategic corridors and at a local scale in order to help identify and prioritise local goals and transport measures through the Implementation Plan process.
- 4.4 For the Area-Wide Action Plan and for each of the Local Action Plans, we identify some of our recent key achievements, explore the issues we expect to face in the future and identify the opportunities for addressing these challenges over the next 15 years. A rolling programme of measures listed by relevant Action Plan forms the core of our Implementation Plans produced annually through the Committee Report process.



Figure 4.1: Action Plan Areas

Area-Wide Action Plan

What We Have Achieved

4.5 Examples of projects delivered or underway with an area wide significance include:

- **Reading Station** - The Great Western Main Line railway in the Reading area and the station platform capacity (number and length) currently act as a bottleneck, and therefore have a major impact on the wider national rail network. This limits the overall capacity of the station to accommodate more train services, serve more passengers and support strategic freight movements. We have secured funding and are working with Network Rail and DfT Rail to deliver the rail capacity upgrade, and work on site is underway.
- **M4 Junction 11 / Mere oak Improvement Scheme** - Recognising the significance and associated issues of the M4 corridor, we have delivered the M4 Junction 11 improvement scheme. This major scheme provides a

balanced increase in capacity to cater for future traffic flows and for all modes through the junction. This scheme has also provided the opportunity to progress a new Park and Ride at Mere oak to serve the wider area.

- **Public Transport Provision** - There has been a step change in public transport provision with the continued branding and implementation of area wide premier bus routes, providing a high quality bus network that has seen significant patronage increases (15% over 5 years with up to 30% on certain services).
- **Technology** - We have delivered an innovative WiMAX communications network, enabling us to collect and disseminate information more effectively and demonstrate a range of transport applications (e.g. real time information, CCTV imaging and personalised mobile mapping) using wireless technologies.
- **Cross Boundary Working** - We have maximised potential for meeting our transport objectives through a coordinated approach with neighbouring administrative areas. As a result of the development of our Transport Innovation Fund work we have further strengthened our connections with neighbouring authorities and provided firm foundations for collaboration and pursuing future opportunities for partnership bids.
- **Funding** - We are in a strong position regarding the depth of understanding of transport issues in Reading, including understanding the impact of future growth and the short-, medium and long-term projects and investment that are necessary. This has been gained through pursuing and securing funding from a number of sources, including the European Union.

Challenges and Opportunities

4.6 The area-wide challenges and opportunities have been identified with reference to our identified objectives and national transport goals. These are covered under the following headings:

- Network Efficiency;
- Network Resilience;

- Carbon;
- Air Quality;
- Noise;
- Future Development Proposals;
- Rail;
- Bus;
- Airport Links;
- Cycling;
- Walking;
- School Travel;
- Safety; and
- Rivers.

Network Efficiency

- 4.7 Reading contains a number of radial highway links. The M4, which passes to the south of Reading, is a key strategic corridor within the Thames Valley and South East. This carries large volumes of traffic, and therefore can experience severe congestion issues in peak periods. Within Reading, congestion currently occurs on a number of the major radial routes and in Central Reading on the Inner Distribution Road (IDR).
- 4.8 We have a comprehensive understanding of where existing and potential future congestion issues are located, through numerous sources including traffic surveys, transport models and area studies.
- 4.9 Congestion can be relieved by encouraging mode shift as well as improving the network. In order to identify opportunities to achieve mode shift, the challenges relating to the performance of the pedestrian, cycle and public transport networks have been reviewed and are discussed below.
- 4.10 The overall challenge relating to highway congestion is to improve flows and maximise capacity, particularly on the major urban and inter-urban corridors. This will improve the situation for public transport and freight, allow the promotion of other sustainable modes and fundamentally support sustainable economic growth and other national goals such as improved air quality.

Network Resilience

- 4.11 It is important to ensure that we have a transport network and services that can deal with both planned and unplanned events, including extreme weather or road/rail closures. The transport network will also need to be robust in adapting to future changes in energy sources and supply (i.e. the impact of declining availability of fossil fuels and their by-products).
- 4.12 In Reading, it is acknowledged that some of the potential effects of climate change could include more high intensity rainfall events, which could lead to flooding. Greater fluctuations in temperatures, leading to freezing conditions, snow, and heat waves may also become more common. This can cause damage to the transport infrastructure, increasing the need for maintenance. It can also cause the transport network to become hazardous and less reliable.
- 4.13 The challenge relating to network resilience is to ensure that the transport system, including both infrastructure and services, can continue to operate effectively, and where required, respond quickly to incidents and to prepare for the use of alternative fuels, materials and technologies.

Carbon

- 4.14 A key challenge for Reading is to deliver quantified reductions in greenhouse gas emissions, consistent with national and EU targets. This will be particularly challenging when considering the scale of development proposed, the extensive transport network, and the congestion issues currently experienced within the area. Existing assets and new infrastructure also contain embodied carbon, which can increase overall emissions.
- 4.15 Around 12% (or 0.7 tonnes per capita in 2008) of Reading's carbon footprint is attributed to transport - significantly less than the national average of 21% and down from 0.9 tonnes per capita in 2005. It is notable that this figure compares favourably with other urban areas and has been

decreasing, reflecting the positive impacts of sustainable transport measures and behaviour in the Borough. However, carbon emissions are not contained within Local Authority boundaries and wider transport trends, such as long distance commuting, influence local carbon reduction.

4.16 The areas which most significantly affect transport-related carbon emissions are:

- High traffic flows;
- High car driver mode share;
- High levels of HGV traffic; and
- Congestion or slow moving traffic.

4.17 Analysis of the Reading Transport Model shows that the areas causing the greatest transport-related carbon emissions in Reading (based on where journeys begin and end) are the central area, major employment areas, and some residential areas. The residential areas with the highest carbon emissions are generally in more remote locations. The following figures show the carbon emissions taken from the Reading Transport Model.

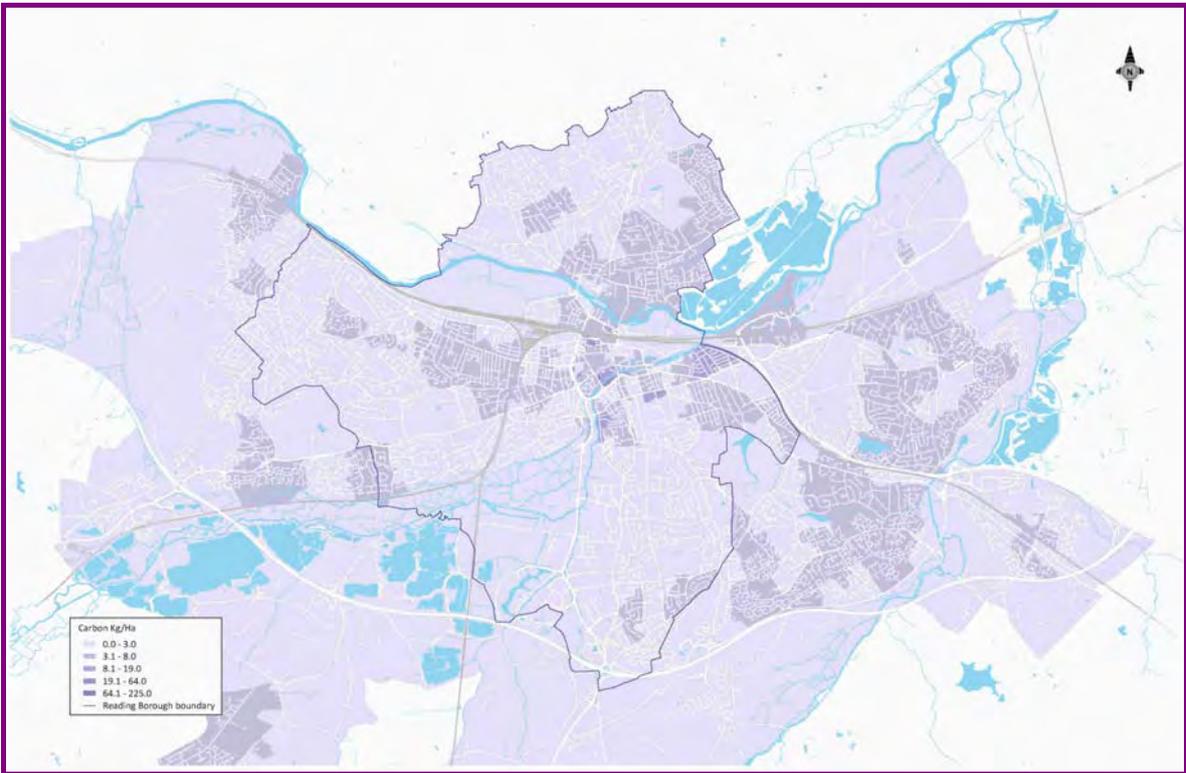


Figure 4.2: Carbon Emissions using beginning of journey as source (AM peak)

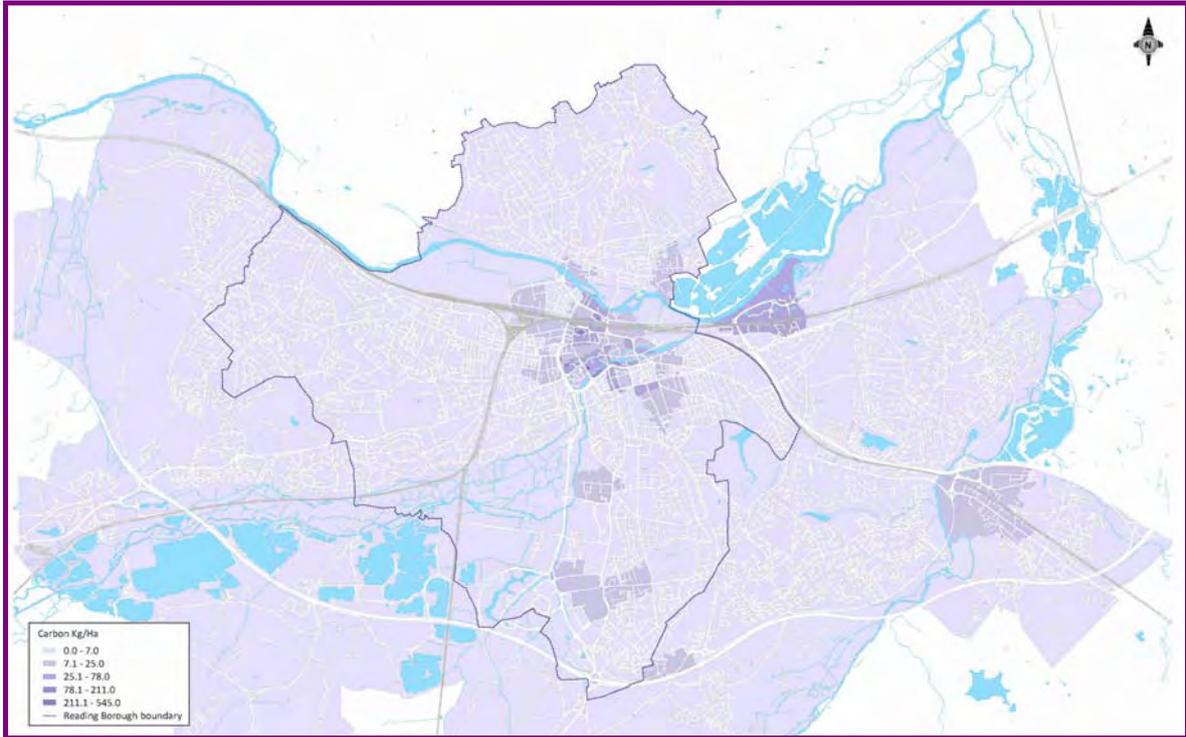


Figure 4.3: Carbon Emissions using end of journey as source (AM peak)

4.18 The challenge relating to carbon is to minimise transport’s contribution to carbon emissions, through reducing the need to travel, encouraging the use of more sustainable modes and alternative energy sources, reducing congestion on the highway network and reducing the volume of HGVs. A balance needs to be maintained between measures designed to reduce carbon and measures aimed at improving air quality, as well as between the embodied carbon and transport emissions of a proposal.

Air Quality

4.19 In 2009 Reading Borough Council declared a single Air Quality Management Area (AQMA), due to the exceedence of both the NO₂ annual and NO₂ hourly mean Air Quality Objectives (AQOs). The AQMA in Reading covers all the identified areas of exceedence as well as the whole central area of Reading, major rail routes through residential areas and all major arterial trunk routes into the town.

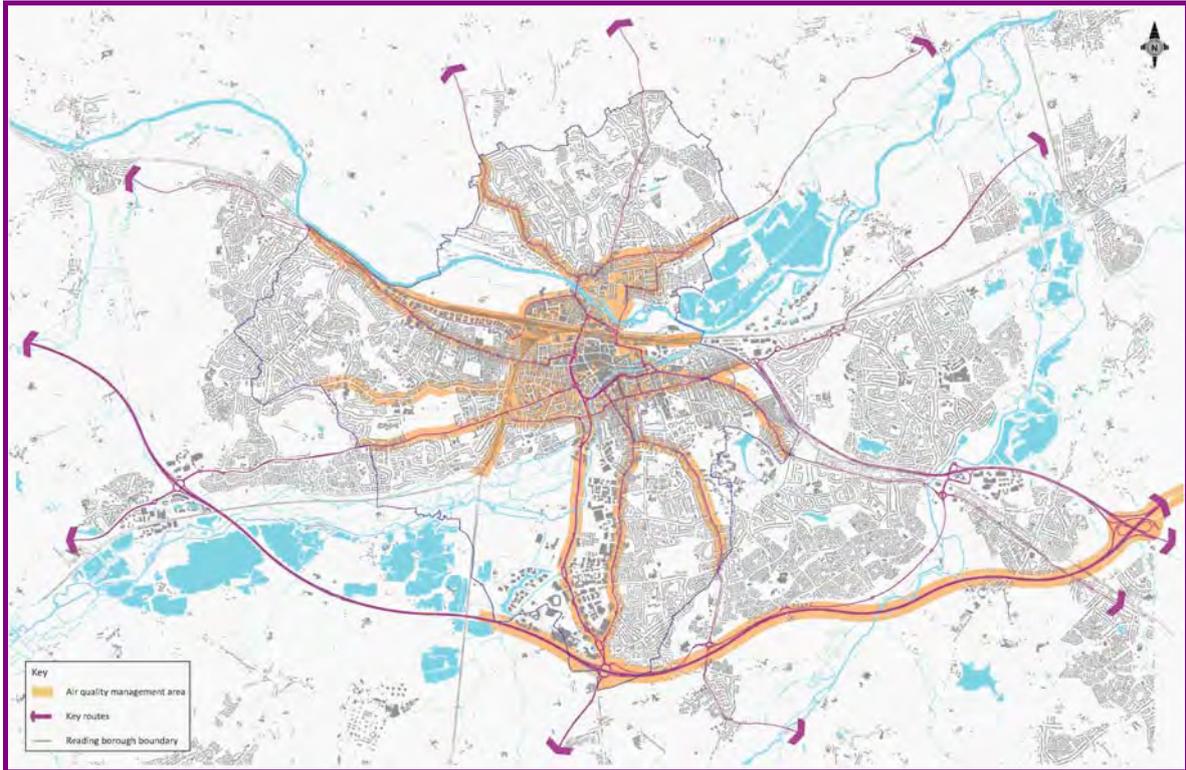


Figure 4.4: Reading AQMA

4.20 The European-defined tipping point for concentrations of nitrogen dioxide (NO₂) according to air quality objectives has already been reached and exceeded in the central area of Reading and the main routes into this area. Assessments show that this will still be the case in 2015 if no action is taken. Objectives and policies on air quality have been developed, recognising that road transport emissions and particularly heavy goods vehicles (HGVs) defined for this purpose as goods vehicles with an unladen weight greater than 3.5 tonnes, have been identified as the primary source of the exceedence.

	Background	Cars	HGV	LGV	Buses	Rail
Average value (40 receptors)	31%	17%	33%	6%	6%	7%
Minimum value	15%	8%	13%	3%	1%	1%
Maximum value	53%	29%	60%	10%	17%	27%

4.21 A reduction in NO_x emissions of up to 70% from 2007 levels is needed for the European Union annual NO₂ objective to be achieved across Reading.

- 4.22 Academic research has demonstrated that excessive air pollution (specifically nitrogen oxides and particulates) can have a number of health effects. Links have been established between higher air pollution and cardio-respiratory problems and exacerbation of pre-existing asthma, and asthma admissions to hospitals in Reading are above average.
- 4.23 The challenge relating to Air Quality is to reduce Nitrogen Oxide emissions from transport and reduce exceedences of the EU limit values across most of the AQMA.

Noise

- 4.24 To fulfil England's responsibilities under the European *Environmental Noise Directive 2002/49/EC* and the *Environmental Noise (England) Regulations 2006*, Defra has mapped Important Areas (IAs), which have high ambient noise levels requiring management, and published Noise Action Plans for 23 agglomerations where there are large urban populations, major roads and major railways. One of these Noise Action Plans has been prepared for the Reading area, which includes IAs in West Berkshire, Wokingham and Bracknell. The IAs within Reading are mainly located around the IDR and some sections of the radial routes into central Reading, where heavy traffic creates the noise and sensitive receptors close to the road (e.g. residential areas). Other transport factors increasing noise in neighbourhoods include freight deliveries and construction traffic.
- 4.25 The challenge relating to noise is to address traffic volumes and control freight movements in order to minimise and manage noise levels.

Future Development Proposals

- 4.26 A number of future developments are proposed both within Reading and adjacent authority's areas, including major residential and commercial developments. These will all have an important and strategic role in enhancing economic growth and regenerating certain areas.

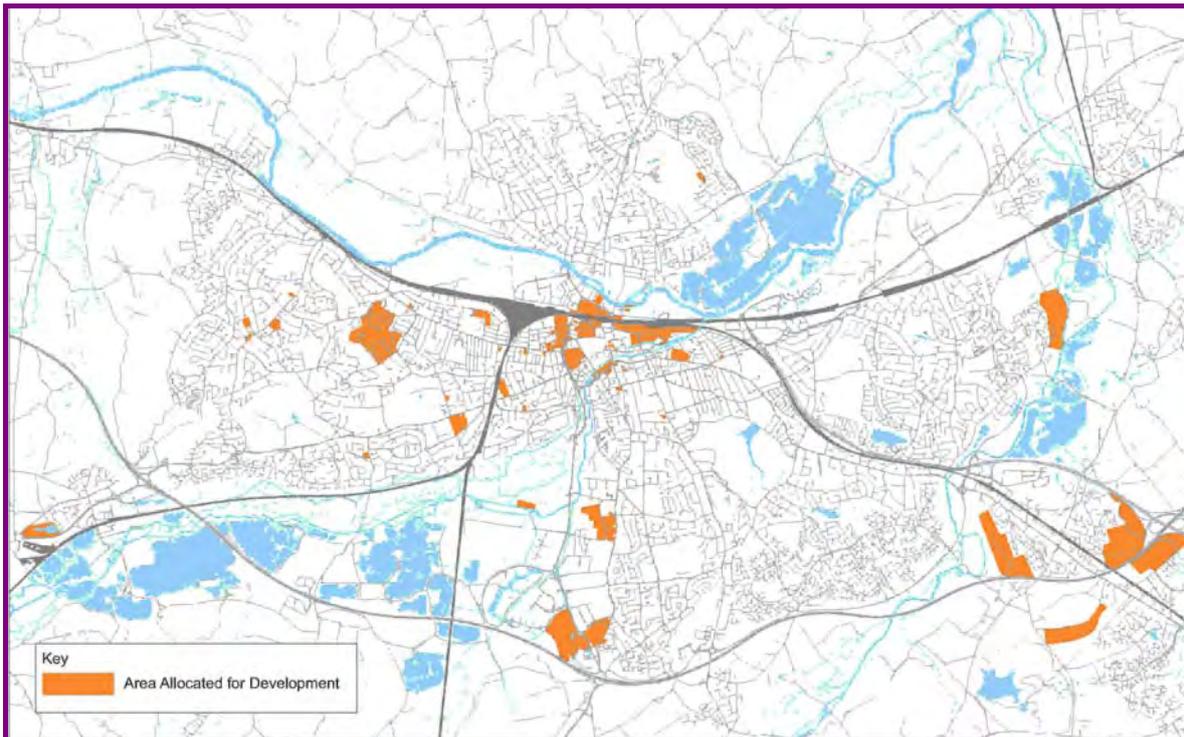


Figure 4.5: Proposed Development Locations

4.27 Based on results of the Reading Transport Model, it is anticipated that there will be an increase in demand for travel of approximately 15% by 2026. This is likely to have a significant impact on the transport network, particularly in the peak periods, which may in turn also cause additional impacts associated with air quality, noise and carbon.

4.28 The challenge relating to future development proposals will be to minimise their impact on the transport network by managing this additional demand towards use of sustainable modes and hence reduce the potential related contributions to congestion, air quality, noise and carbon.

Rail

4.29 Reading Station is the second busiest interchange outside of London, with over 60,000 people using the station daily and approximately 6,000 passengers either arriving or departing in the weekday peak hour. Reading is also the only station where as many people arrive as leave in the peak hours, demonstrating its importance to local employers and residents.

The station and its immediate area therefore act as a key hub of the local, regional and national transport network.

- 4.30 The station currently suffers from congestion which affects both passengers and freight services. This has a major impact upon the wider national rail network and limits the overall capacity of the station to accommodate more train services, serve more passengers and support strategic freight movements. Significant investment in rail infrastructure is being made to resolve these issues.
- 4.31 The challenge relating to rail is to manage the rail capacity upgrade and deliver and maintain enhanced interchange facilities associated with Reading Station.

Bus

- 4.32 Reading has a comprehensive bus network, in which services have been extensively upgraded with main routes re-branded as Premier Routes. New, low-floor vehicles have been introduced and bus stop infrastructure has been improved. These measures offer a high quality, inclusive service, with frequent, colour-coded buses that are tracked by satellite technology.

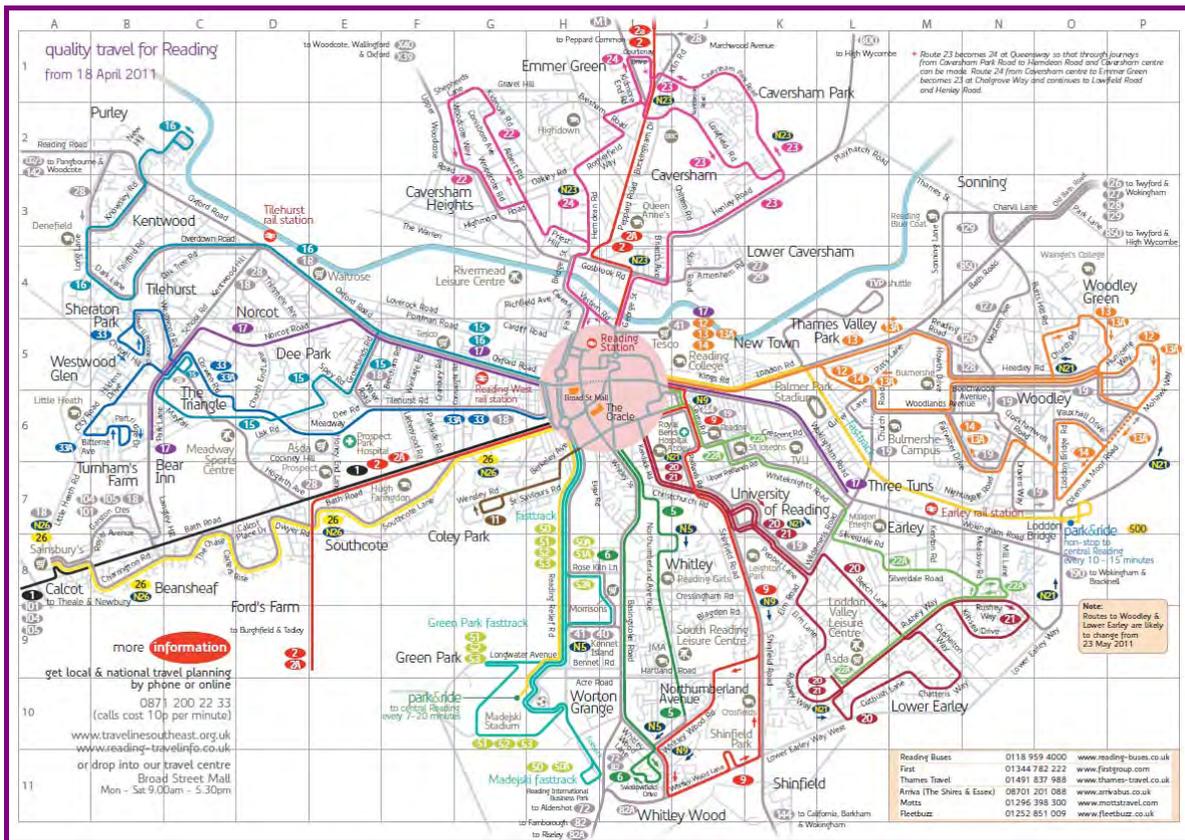


Figure 4.6: Reading Bus Network 2010 (Reading Buses)

- 4.33 Reading has the highest use of PlusBus tickets indicating the importance for train passengers to be able to interchange directly to buses to continue their journeys. Some of the main train to bus flows are to access the University of Reading and three major business parks: Green Park, Reading International Business Park and Thames Valley Park. There is also extensive use by children from outside Reading of buses from the station to schools within Reading.
- 4.34 Some sections of the bus network do suffer from congestion and delay, which impacts on the journey times and reliability for a number of services. There are also reduced service frequencies in the evenings and on weekends.
- 4.35 The challenge is to further improve the reliability, efficiency and coverage of bus services in order to build and maintain current successes and to further increase passenger levels.

Airport Links

- 4.36 Due to the increasing demands for air travel, it is essential to ensure good connectivity and accessibility with major airports, particularly Heathrow, which is the largest airport in the UK, the only hub airport and serves the most international destinations. Reading is a significant source of both employees and passengers for the airport, as well as serving as an interchange for airport passengers from elsewhere. The RailAir coach service runs between Reading Station and Heathrow, with a frequency of every 20 minutes on Mondays to Fridays. The service also benefits from bus priority on the approaches to central Reading. Proposals are being progressed for improved rail access via the AirTrack scheme and other options for western rail access are being investigated.
- 4.37 The challenge in the longer term will be to mitigate pressures on the highway network caused by the increased demand for air travel and to improve surface access to Heathrow by public transport from and through Reading.

Cycling

- 4.38 Cycling is a low-cost, efficient, environmentally-friendly mode of transport which contributes to reducing congestion levels, delivering physical and mental health benefits and improving accessibility.
- 4.39 There are a number of strategic cycle routes, which provide high quality long-distance cycle connections across Reading, and include the National Cycle Network routes 4, 5, and 23. The *Cycling Strategy (2008)* aims to develop branded radial routes which connect residential areas to central Reading as well as to local centres, employment areas, and key local facilities such as education, leisure, and health services. The mapping and signing of these routes is well-progressed.

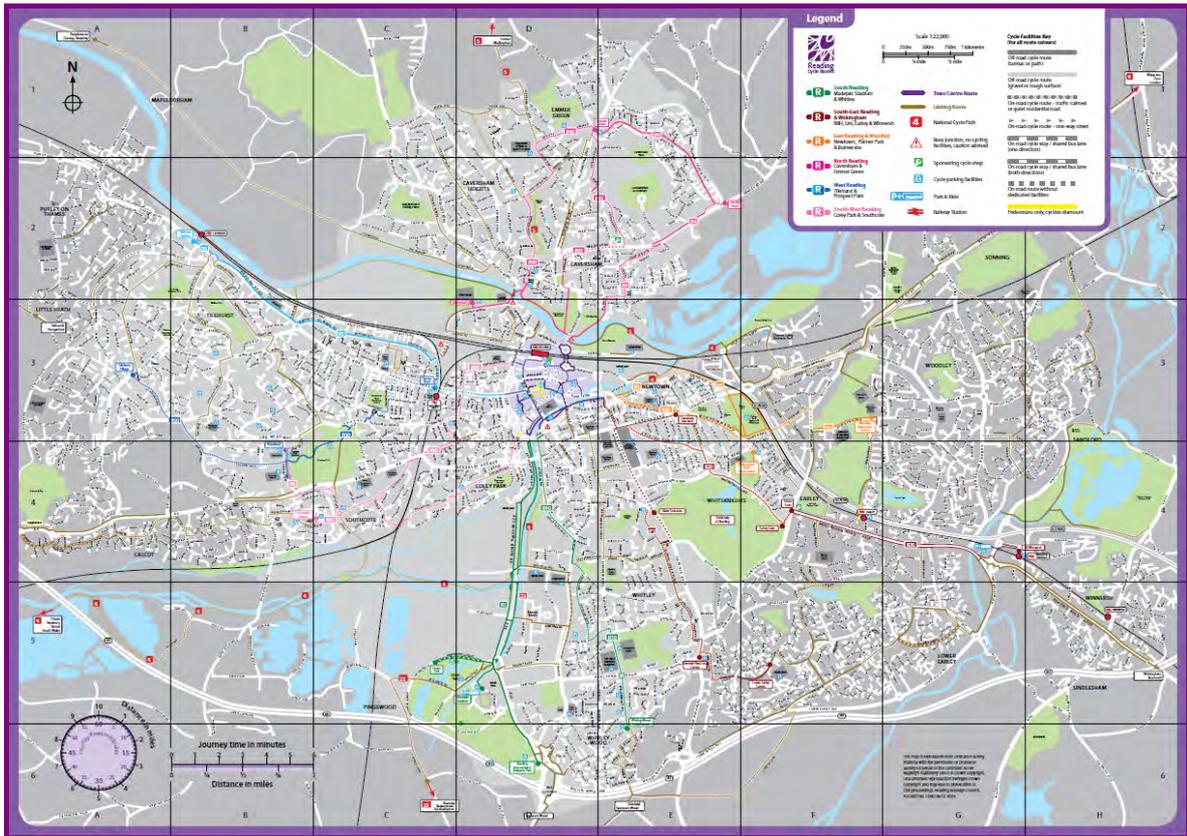


Figure 4.7: Reading Cycle Network Map 2010

4.40 Since 2006, cycling trips to/from central Reading have increased by 20% during the LTP2 period, measured over a 12-hour period. However, localised issues such as heavy traffic, complex junctions, route surfacing, lighting and cycle parking can deter more people from choosing to cycle,.

4.41 The challenge related to cycling is to encourage more people to cycle by developing and promoting safe, attractive and direct cycle routes and through provision of information and training opportunities that reduce the perceived dangers of cycling.

Walking

4.42 Walking is the dominant mode for movements into and out of central Reading. Outside of the central area, however, the level of pedestrian movements is significantly lower.

- 4.43 A major constraint for pedestrians is the severance caused by infrastructure, such as major roads, railway lines, and rivers which restrict connectivity.
- 4.44 Other common problems identified across the pedestrian network include uneven surface treatment, limited signage outside the Central Area, illegal verge and footway parking and roadside clutter, as well as conflicts between pedestrians and other road users.
- 4.45 People who are physically active have a reduced risk of developing heart disease, stroke, type 2 diabetes and cancer. Physical activity through walking and cycling can also help to reduce obesity and diseases, reducing healthcare costs.
- 4.46 The challenge relating to walking is to maximise the potential for undertaking safe journeys on foot, for both journeys to the central area and to employment areas and local key facilities.

School Travel

- 4.47 The proportion of overweight/obese children in Reading is increasing and physical inactivity contributes to this problem. There has been an increase in the number of walking trips since 2006, contributing to an overall decrease in the number of car trips. However, there has been a decrease in the number of cycling trips to primary schools between 2006 and 2009. Travel to school increases traffic volumes on the network during term time, as measured by the network of automatic traffic counters.

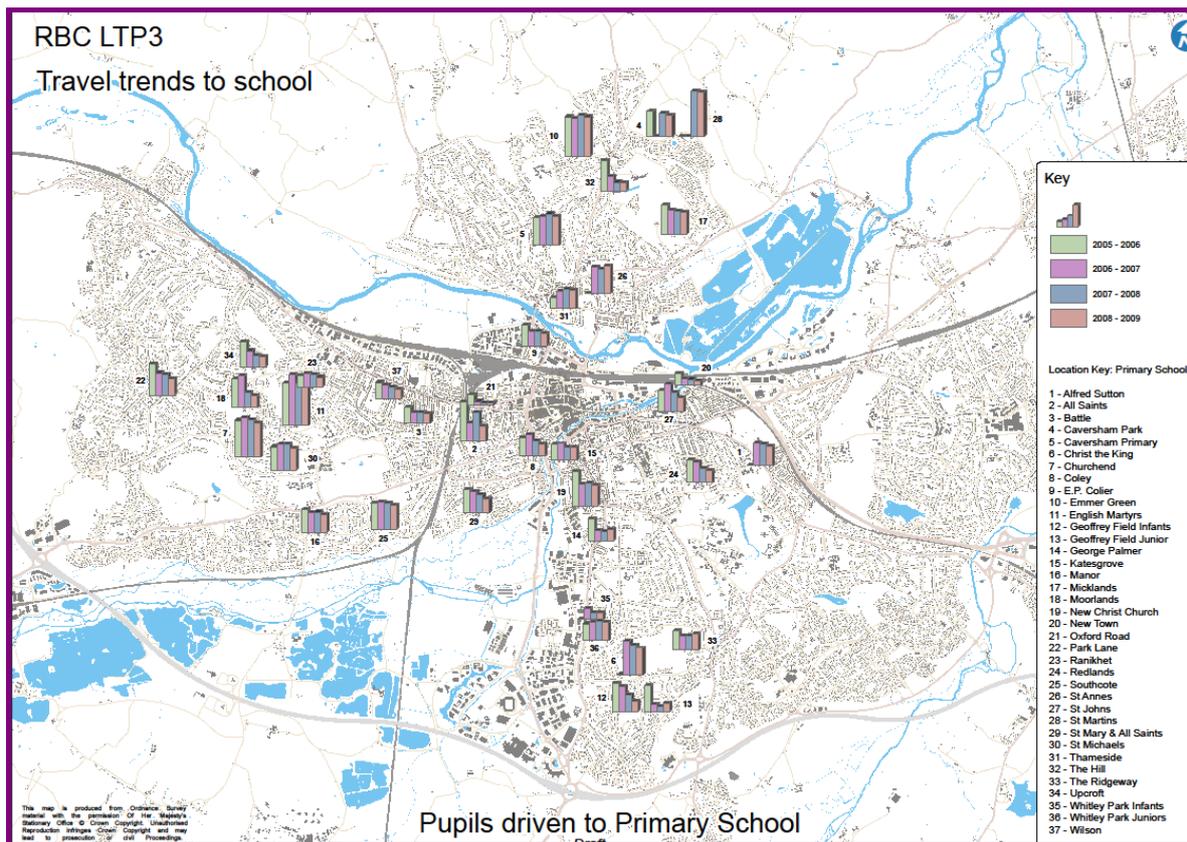


Figure 4.8: Primary School Travel by Car Trend (2005-06 to 2008-09)

4.48 The challenge is to further decrease the modal share of cars and continue to encourage walking and cycling for school travel.

Safety

4.49 Ensuring we have a safe transport system for all users is a key aim within the LTP. We have collected and reviewed accident data across the borough since 2000 in order to understand the progress made in reducing the number of Killed or Seriously Injured (KSI) incidents within the borough.

Road Safety Indicators	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Total number of people killed or seriously injured within the Authority	91	78	91	57	72	32	56	44	46	56
Number of killed or seriously injured Incidents involving Children (aged less than 16) within the Authority	12	6	8	7	5	6	2	5	6	3

- 4.50 The LTP2 set out targets to reduce KSIs for all incidents and for incidents involving children (aged under 16). We are on course to meet these targets, but further road safety education and physical improvements are required to continue to reduce the number of KSIs throughout the life of LTP3. Some measures are locally specific and where clusters and patterns of incidents have been identified they are discussed in the Local Action Plans.
- 4.51 Improving safety for vulnerable road users, such as pedestrians, cyclists and children, can have additional benefits to the transport system. This can make journeys by sustainable modes more attractive, therefore potentially reducing car usage, and creating health benefits.
- 4.52 The challenge is to continue to reduce the level of KSIs across the Reading area, particularly for vulnerable road users.

Rivers

- 4.53 Reading is situated at the junction of the Kennet and Thames Rivers, which provide a focal point for leisure and recreational activities within the town. The Foudry Brook and Holy Brook also flow into the Kennet south of central Reading. The River Loddon forms a natural boundary to the urban area southeast of Reading.
- 4.54 The River Kennet/Kennet and Avon Canal flows from the southwest of Reading, through the central area and The Oracle, to meet the River Thames to the northeast. The Kennet and Avon Canal is a long distance leisure route for boats, cyclists and walkers, although the islands and locks southwest of Reading create obstacles to the smooth flow of these journeys.
- 4.55 The River Thames lies to the north of the central area and is separated from the town centre by the railway line. It also forms a natural boundary between the central and northern action plan areas. The two crossing

points within Reading are at Caversham and Reading Bridges to the west and east respectively.

4.56 The lack of bridge capacity or river taxi services across the River Thames causes severance and connectivity issues for those wishing to travel between the north and the central area.

4.57 The challenge is prepare for any flood risk to infrastructure, to reduce barriers to journeys along the Kennet and Avon and to improve connectivity across the River Thames.

Current and Emerging Challenges	Impact on LTP3 Objectives									Evidence
	Physically Active Travel	Improved Personal Safety	Affordable, Accessible, inclusive travel	Safe and efficient network operation	Align transport and land use planning	Balanced value for money solutions	Sustainable Transport Choices	Journey time, reliability and information	Reduce carbon emissions & improve air quality	
Congestion on key routes	-1	-1	-1	-2	-1	1	-1	-2	-2	Journey Time Surveys, Traffic Surveys, Reading Transport Model, Defra Strategic Noise Map
Extreme Weather, Road or Rail Closures	-1	-1	-1	-2	0	0	-1	-2	0	Climate Change Strategy
Carbon Emissions	0	0	-1	-1	-2	-1	0	-1	-2	Climate Change Strategy
Air Quality	-2	0	-1	0	-1	-1	-2	-1	-2	Air Quality Monitoring, Reading Transport Model
Noise	0	-1	-1	0	-1	0	0	-1	-1	Defra Strategic Noise Map
Future Development's Transport Demand	1	-1	0	-1	2	1	1	1	-1	Reading LDF, Reading Transport Model
Rail Capacity and	-1	-1	-1	-2	-1	-1	-2	-1	-2	Reading Station

Current and Emerging Challenges	Impact on LTP3 Objectives									Evidence
	Physically Active Travel	Improved Personal Safety	Affordable, Accessible, inclusive travel	Safe and efficient network operation	Align transport and land use planning	Balanced value for money solutions	Sustainable Transport Choices	Journey time, reliability and information	Reduce carbon emissions & improve air quality	
Interchange										Area Framework
Bus Capacity, Delays and Reliability	-1	-1	-2	-1	-1	-1	-2	-2	-1	Real Time Information, Bus Operator Information
Surface Access to Heathrow	0	0	-1	-1	-2	0	-2	-1	-1	BAA Heathrow
Cycling Route Provision and Safety	-2	-2	-1	-1	0	-1	-2	-1	-1	Cycle Surveys, Safety Audits
Pedestrian Safety	-2	-2	-2	0	0	-1	-2	0	-1	Pedestrian Surveys, Safety Audits, Accident Data
School Car Travel	-2	-2	-1	-1	-1	-1	-2	-1	-1	School Travel Plans, School Travel Survey
Serious and Fatal Road Accidents	-2	-2	-1	-2	0	0	-2	0	0	Accident Records
Barriers to and along Rivers	-2	-1	-1	-1	-2	0	-1	-1	-1	Central Area Action Plan, Reading Station Area Framework

Transport Challenges' Impacts on Objectives for Area-Wide Action Plan

Our Plans for the Future

4.58 We have reviewed the challenges to inform our vision and objectives for transport in Reading for the next 15 years and to identify opportunities that can deliver this vision. These are presented in terms of the strategic opportunities for the wider area. Each Local Action Plan also includes geographically targeted opportunities.

4.59 To realise their full potential, the geographical schemes identified in the Local Action Plans will be multi-targeted and aligned with the delivery of the strategic schemes.

4.60 The opportunities identified are flexible to be responsive to innovation, technological advances, funding availability and to reflect delivery of the 15-year strategy. Our approach fits within our strategic policy context.

Area-Wide Opportunities for Addressing Challenges	LTP3 Strategy Theme
To effectively measure, evaluate and review the success of our strategy and its delivery, to continually improve and be flexible and responsive to change.	Innovation Infrastructure Interventions Inclusion
To continually review energy strategy in the delivery of transport infrastructure and services, delivering low and sustainable energy solutions.	Innovation Infrastructure
To develop a network resilience plan that builds on the existing management and maintenance of our transport assets to respond to climate change and the increasing scarcity of resources.	Innovation Intervention
To continue to investigate the optimum way of improving local air quality, including the option of introducing a targeted low emission zone.	Innovation Inclusion
To continue to investigate options for demand management measures, subject to relevant tipping points, to complement integrated transport provision.	Innovation
To secure and promote appropriate routes for through traffic, including freight, considering network management, demand management and local traffic management options.	Innovation Intervention
To work with local freight operators to develop improved route planning, air quality and sustainable distribution.	Innovation Inclusion
To work collaboratively with key partners to support and incentivise the use of electric vehicles, including a network of electric vehicle charging points, to improve air quality, reduce noise and carbon emissions and manage scarce resources.	Innovation
To continue to define, progress and deliver the next generation of transport infrastructure and systems to provide a step change in integrated transport provision.	Innovation Infrastructure
To establish a Reading Area Transport Partnership to maximise integrated transport benefits through continuing to work closely with neighbouring authorities and other key stakeholders.	Infrastructure
To work closely with all government stakeholders to ensure effective integration between transport, community and spatial planning policies, to reduce the need to travel and reduce transport based carbon emissions.	Innovation Infrastructure
To continue to work with Network Rail and the Department for Transport to deliver the Reading rail capacity and performance upgrade project to achieve improved rail capacity of local, regional and national significance.	Infrastructure

Area-Wide Opportunities for Addressing Challenges	LTP3 Strategy Theme
To secure and promote additional targeted bus routes, including those for education and supporting new development.	Infrastructure Inclusion
To ensure an integrated approach between transport infrastructure provision and the implementation of Reading's emerging Surface Water Management Plan to improve resilience and efficiency of the transport network.	Intervention
To have a mechanism to review, prioritise and coordinate the multi-targeted measures emerging from our Local Action Plans through neighbourhood engagement and with a focus on public transport, walking and cycling.	Innovation Intervention Inclusion
To develop the branded cycle routes to improve their safety, environmental quality and coherence.	Intervention
To continue development and implementation of area wide sub-strategies (e.g. public transport, cycling) as listed in Chapter 6.	Intervention
To promote public transport use through implementation of a ticketing system that meets national interoperability standards.	Intervention Inclusion
To be open and flexible to emerging democratic means of community participation and communication, promoting local ownership of transport projects.	Intervention Inclusion
To promote the implementation of a personal travel planning strategy including traditional techniques, social marketing and a community based component to influence travel behaviour and create a culture of active travel.	Inclusion
To build on existing work with schools, to promote safety and healthy lifestyles through appropriate training and promotion of sustainable travel to school.	Inclusion
To enhance UTMC systems and communications technology to improve travel information choices and network management.	Innovation Inclusion
To secure incentives and bus fare concessions that support the introduction of demand management measures.	Innovation Inclusion
To expand the Readibus fleet to enhance provision for the mobility impaired.	Inclusion

Central Local Action Plan

Introduction

4.61 The central area is defined by the River Thames to the north and by the River Kennet to the south. The area has a population of approximately 6,000 people, and provides approximately 40,000 jobs, as well as significant retail and leisure uses. The principal transport network includes the Inner Distribution Road (IDR), A329, A327, A33, A4, A4155, B3345, the Great Western Main Line, Reading Station, and the main bus interchange loop.

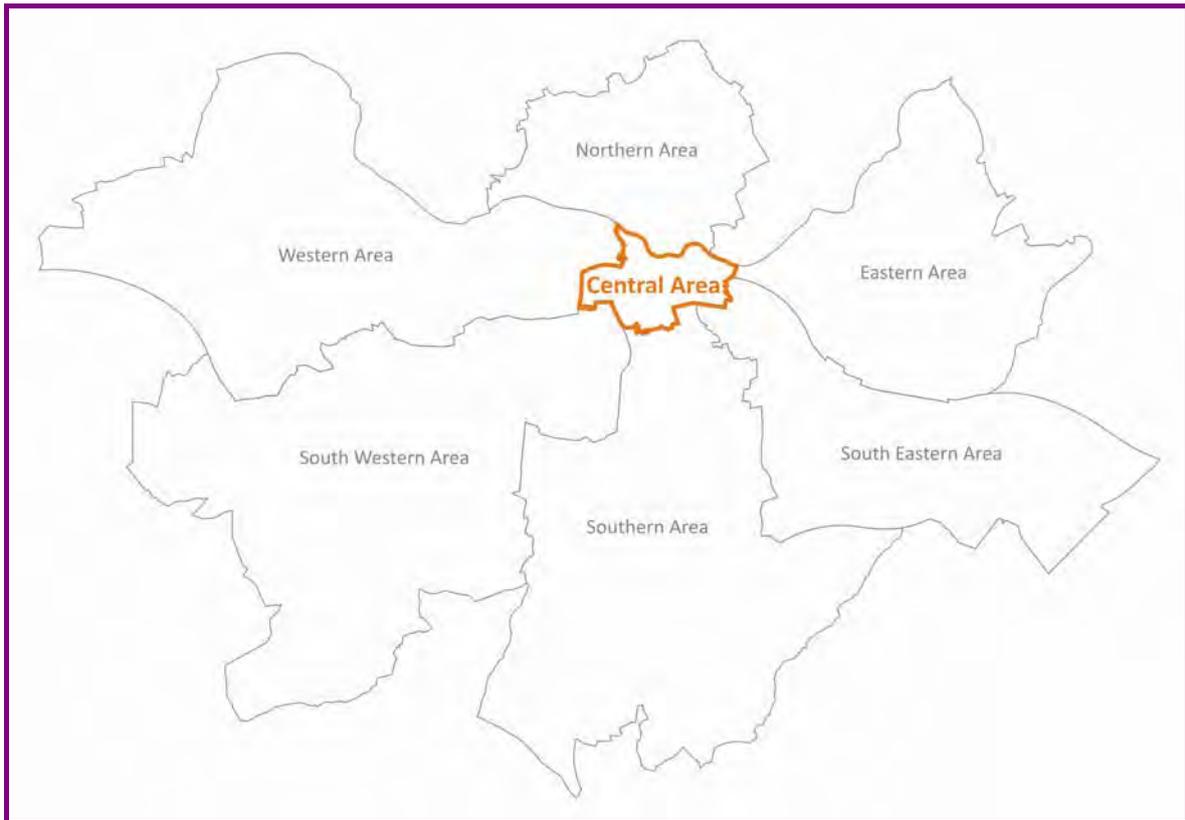


Figure 4.9: Central Area

4.62 Movement to, from, and within the central area is via two major transport infrastructure components: Reading Station (and the Great Western Main Line) and the Inner Distribution Road (IDR). Analysis from the Reading Transport Model shows that approximately 30,000 journeys are made into the central area in the 3-hour morning peak (07:00-10:00) of which around 20,000 are from within the Reading urban area.

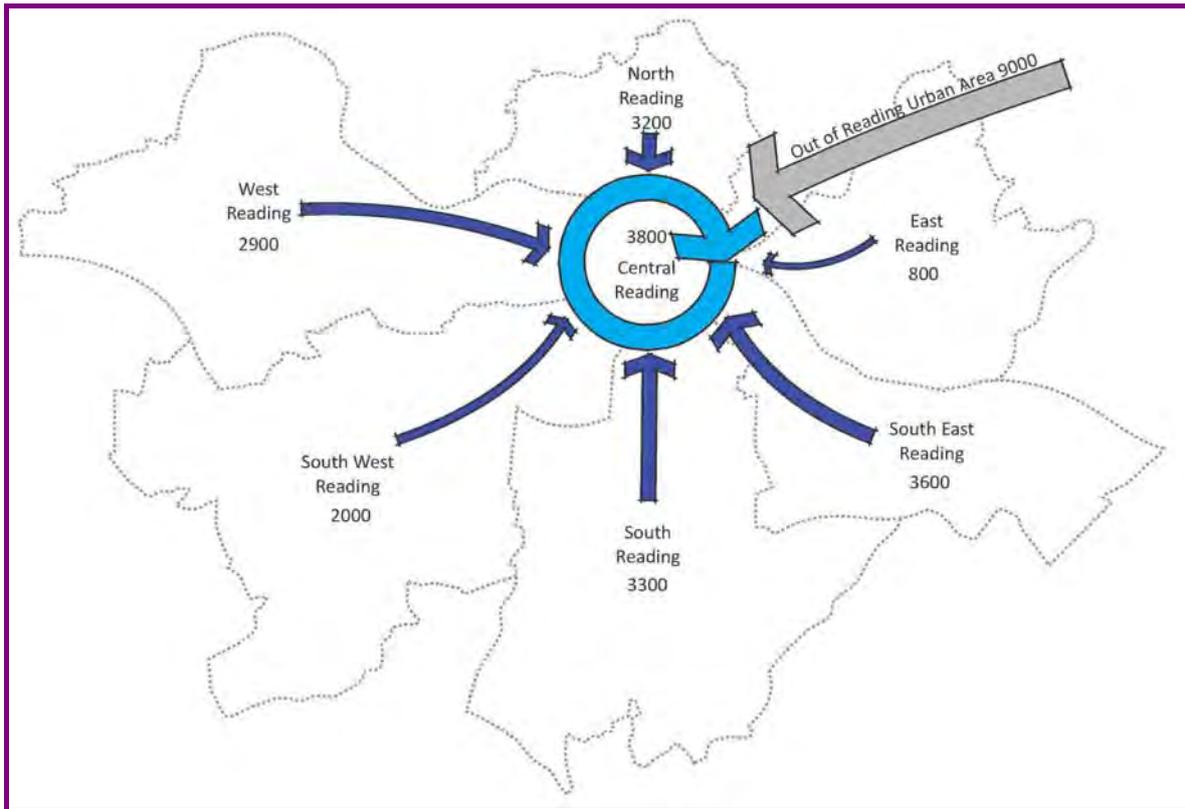


Figure 4.10: People Movements TO Central Reading (0700-1000)

4.63 Transport movements by private car, public transport (including rail), walking and cycling have also been analysed.

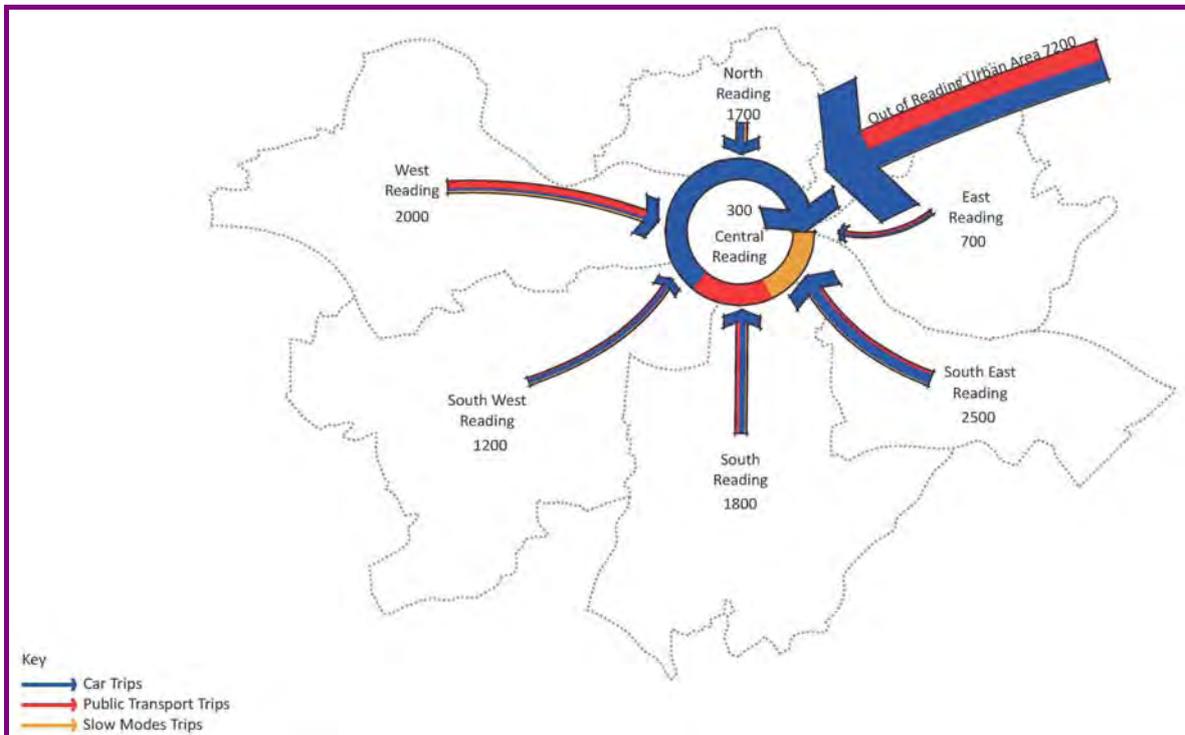


Figure 4.11: Commuter Mode Share TO Central Reading (0700-1000)

What We Have Achieved

- 4.64 This section highlights the achievements we have made delivering the proposals as set out in the second Local Transport Plan (2006 to 2011). This includes projects to improve accessibility for pedestrians, cyclists and public transport users and provide links to new developments.
- 4.65 A major scheme within the central area is the Station Area Regeneration, which includes an upgrade of the station (one component of the rail capacity and upgrade project) and associated public transport interchanges, and related mixed-use development. This project has local, regional and national importance. Construction work has commenced and detailed designs are being developed. Preliminary highway works in central Reading are underway which should be completed in 2011. Cow Lane bridges will be rebuilt to accommodate two-way traffic flows (removing height restrictions) and provide a pedestrian and cycle link.

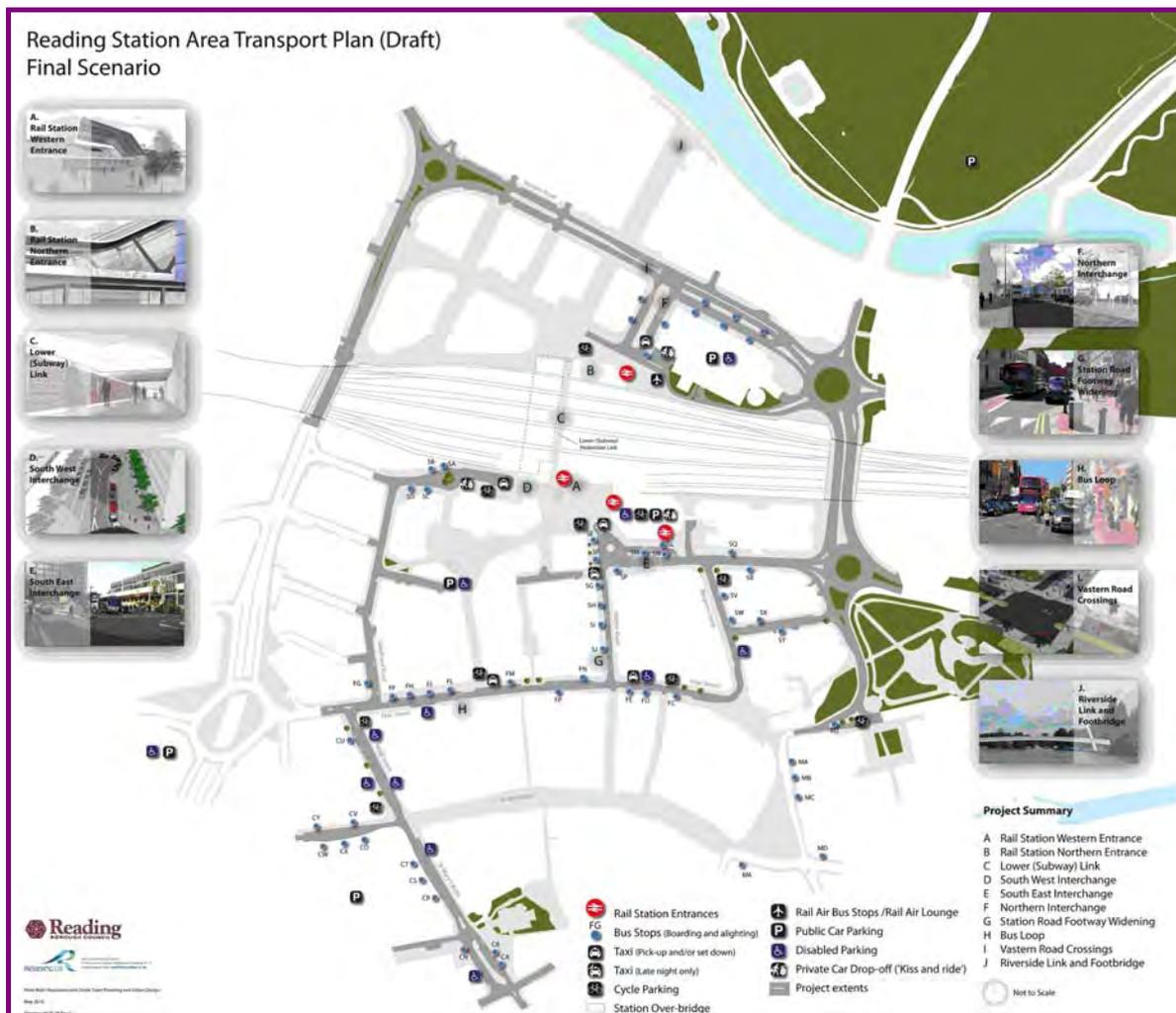


Figure 4.12: Artist's Impression of interchange plans for Reading Station

4.66 Other key achievements include:

- Pedestrian priority schemes and public realm improvements including Market Place and King Street;
- New cycle parking facilities;
- New taxi stands and taxi marshals to manage late night queues;
- Travel information systems for shopping malls and other indoor public places; and
- New car parking facilities at Chatham Place.

4.67 These schemes have contributed to a reduction in the number of people accessing the central Reading by car: between 2006 and 2010 inbound trips by car have decreased by 8%.

Challenges and Opportunities

4.68 For the central area, the challenges that relate to transport and mobility include:

- Network Efficiency;
- HGV Through Traffic;
- Severance;
- Future Development Proposals;
- Rail;
- Safety; and
- Car Parking.

Network Efficiency

4.69 Most of the main feeder routes in and out of central Reading access onto the IDR. This acts as a through route for high volumes of traffic and is effectively a ring road around central Reading.

4.70 Journey Time Surveys undertaken in 2007 have identified that the majority of the IDR suffers from congestion, with most sections averaging speeds of less than 10mph during the peak hours as shown in the figure below. The high traffic volumes create air quality issues, elevated carbon emissions, and high noise levels. Buses on the IDR also suffer from congestion and delay, which impacts on the journey times and reliability to the main interchange facilities around Reading Station.

4.71 The challenge is to improve flows on the IDR, especially during peak times, and ensure that buses have sufficient priority to improve journey times and reliability and thus the attractiveness of bus travel within the central area.

HGV Through Traffic

4.72 The IDR's role as a ring road around central Reading means that this route attracts a relatively high amount of through traffic (i.e. trips that do not start or end in central Reading), and approximately 80% of goods vehicles

travelling on roads in the central area do not have a destination within the IDR.

- 4.73 Heavy Goods Vehicles (HGVs) contribute approximately one third of Nitrogen Oxide emissions from transport within Reading. High levels of HGVs in the area cause air quality issues, increased carbon emissions, and excessive noise levels. A greater level of HGVs on the IDR also increases the costs of maintaining the highway infrastructure.
- 4.74 The challenge is to reduce the use of the IDR as a through route for HGVs and encouraging the use of more suitable strategic routes.

Severance

- 4.75 The railway line and River Thames create severance within the central area due to the limited number of river crossings and railway bridges. Caversham Bridge to the west and Reading Bridge to the east of the central area cross the River Thames. Pedestrians can also travel through Reading Station and Caversham Road and Forbury Road offer routes across the Great Western Mainline, but the high traffic flows and the wide expanse of the IDR itself severs the central area from surrounding areas. The lack of crossings causes connectivity issues, particularly for residents in the northern area, and for pedestrians and cyclists crossing the IDR from certain directions.
- 4.76 The challenge is to improve connectivity over the River Thames, the railway and the IDR, by either providing more crossing points or improving the journey experience on existing crossing points.

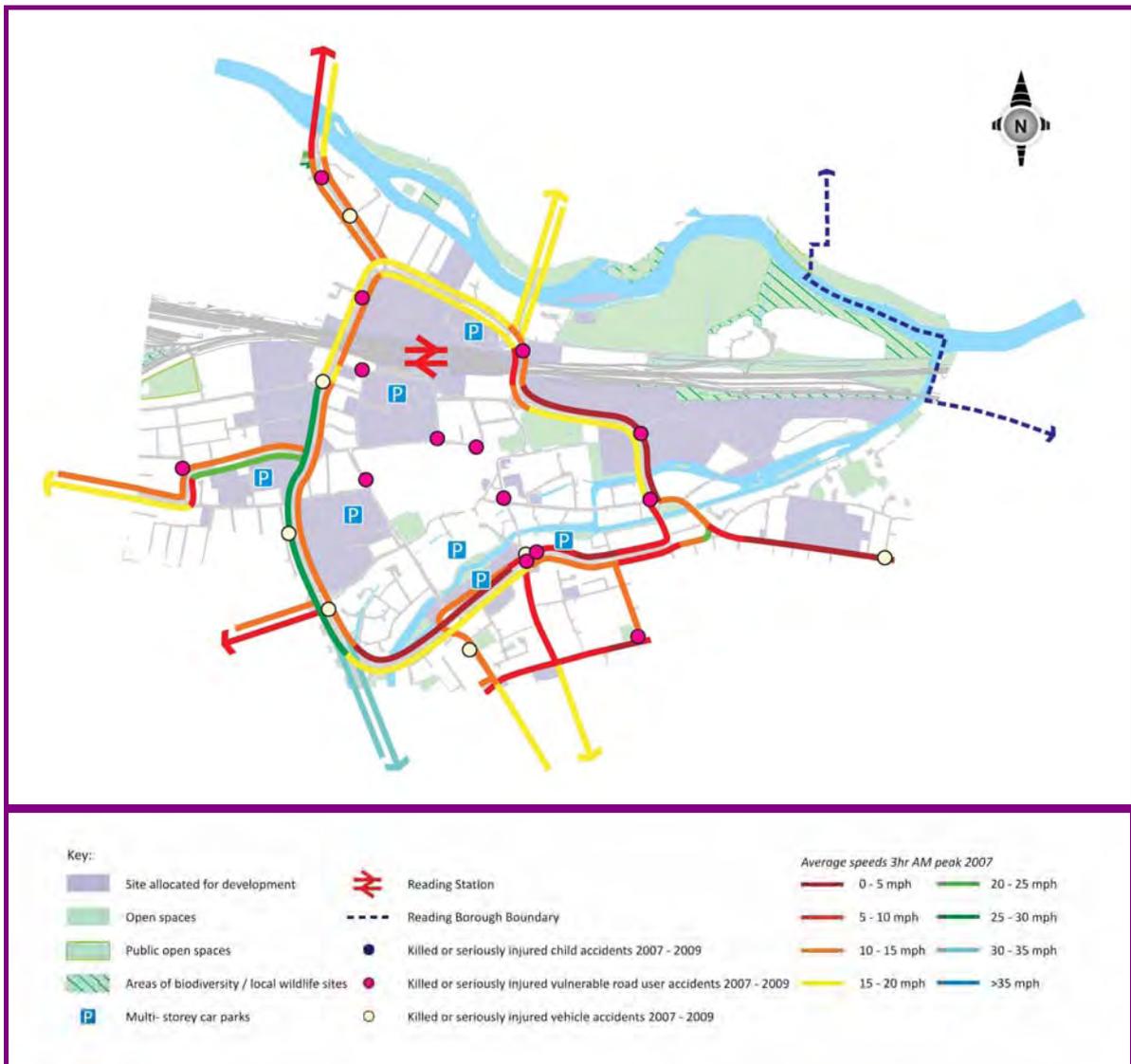


Figure 4.13: Central Area Challenges

Future Development Proposals

4.77 A number of development sites have been identified within the central area, which will have a strategic role in enhancing economic growth and regenerating the area. The Reading Central Area Action Plan indicates that much of the development in central Reading is likely to come forward in three major opportunity areas:

- Station / River Major Opportunity Area;
- West Side Major Opportunity Area; and
- East Side Major Opportunity Area.

- 4.78 These areas, along with a number of smaller sites, will equate to approximately 5000 homes, 90,000m² of office space, 80,000m² of retail and 13,000 m² of leisure.
- 4.79 These developments are likely to put significant additional strain on the transport network, in terms of both the highway and the public transport networks. Analysis of the Reading Transport Model shows that there will be an increase of approximately 10% in travel demand by 2026 in the central area. This in turn will have impacts associated with air quality, carbon and noise.
- 4.80 The challenge is to ensure that the transport network can efficiently accommodate the additional demand created by the new proposed developments in the central area and minimise impacts on the environment.

Rail

- 4.81 Reading Railway Station and the Great Western Main Line act as a significant bottleneck on the national rail network. The current capacity at the station and the associated transport infrastructure and interchanges will not cope with the anticipated growth in travel. Significant investment in rail infrastructure is being made to resolve these issues, and new interchanges will improve bus operation and accessibility by retaining short distances from the rail platforms for passengers while reducing distances buses will travel around the central area.
- 4.82 Facilities for cycle and foot travel to and from the station are less than optimal. There is demand for improved pedestrian and cycle routes around the station and for increased cycle parking.
- 4.83 The challenges are to increase the capacity of the railway station and track and improve the integration of transport facilities for sustainable modes around, to and from the station.

Safety

- 4.84 Accident data collected between 2007 and 2009 shows that injury accidents mainly occur on the IDR and key routes feeding into the centre. A high proportion of these are vulnerable user accidents.
- 4.85 Some areas in particular show a clustering of accidents, which are all at vehicle/vulnerable user conflict zones, within close proximity of areas that generate high levels of pedestrian activity, such as the Oracle. Accidents occur where a high number of pedestrians encounter complex junctions or high vehicle flows.
- 4.86 The challenge is to reduce the level of accidents through safer pedestrian and cycle facilities in areas where there are high vehicle flows and conflicting movements.



Figure 4.14: Duke Street/IDR Junction Road Safety Scheme

Central Reading Public Car Parks at Capacity in peak periods

4.87 Reductions in car parking provision in Central Reading in recent years put pressure on the remaining car parks, many of which are already at capacity. On busy shopping days, the Oracle, Queens Road and Broad Street Mall car parks experience queuing and delay on entry. In some of the most severe cases vehicles queuing into the car parks can block back onto the public highway causing wider network problems.

4.88 The challenge is to manage demand for the existing central car parks and on-street parking space, and to maximise use of alternative means of accessing central Reading, or to expand car park capacity centrally or at Park & Ride locations in order to support the area’s ongoing economic prosperity.

Current and Emerging Challenges	Impact on LTP3 Objectives									Evidence
	Physically Active Travel	Improved Personal Safety	Affordable, Accessible, inclusive travel	Safe and efficient network operation	Align transport and land use planning	Balanced value for money solutions	Sustainable Transport Choices	Journey time, reliability and information	Reduce carbon emissions & improve air quality	
Congestion on IDR and key radial approaches	-1	-1	-1	-2	0	1	0	-2	-2	Journey Time Surveys, Reading Transport Model, Traffic Surveys Defra Strategic Noise Map
High Level of HGV through trips	-1	-2	0	-1	0	1	0	-1	-2	Reading Transport Model
Rail, River and Road Severance	-2	-1	-2	-2	-1	0	-1	-2	-1	Central Area Action Plan, Reading Station Area Framework
Future Development’s Transport Demand	1	-1	0	-1	2	1	1	1	-1	Reading LDF, Reading Transport Model

Bottleneck at Reading Railway Station	0	0	-1	-1	-1	-1	-1	-2	-1	Reading Station Area Framework
High Accident Rates relating to Vulnerable Road Users	-2	-2	-1	-2	0	0	-2	0	0	Accident Records
Public Car Park Capacity Limits	0	0	-1	-1	-1	1	1	-1	-1	COMET data

Transport Challenges' Impacts on Objectives for the Central Area

Our Plans for the Future

Opportunities for Addressing Challenges	LTP3 Strategy Theme
To work in partnership with central Reading companies and business to consider and implement innovative delivery strategies to support the local economy, improve air quality and manage congestion.	Innovation Inclusion
To support the delivery of the Reading Station Area Planning Framework and the adopted Reading Central Area Action Plan through the provision of appropriate transport infrastructure.	Infrastructure
To promote the successful delivery of the multimodal transport interchanges forming part of the Reading Station Area Redevelopment to support the economy, embed transport capacity and provide integrated transport facilities.	Infrastructure Intervention Inclusion
To provide a new pedestrian and cycle bridge connecting Caversham and central Reading to improve connectivity across the River Thames.	Infrastructure Intervention
To support and develop pedestrianised areas and improve cycle links across the central area.	Intervention
To review and develop the central Reading parking strategy to complement other strategic initiatives such as improving air quality and delivery of a park and ride network.	Intervention
To work with the private sector to innovate and secure delivery of integrated transport choices associated with new development in the major opportunity areas.	Inclusion Intervention Infrastructure
To consider targeted infrastructure improvements on the IDR to manage congestion, improve safety and air quality and encourage sustainable modes. Such improvements would support broader area-wide strategies where appropriate.	Inclusion Intervention
To work with local secondary schools to further increase safety and healthy lifestyles through appropriate training and promotion of sustainable travel to school.	Inclusion

Northern Local Action Plan

Introduction

4.89 The northern area is defined by the River Thames to the south, and is predominantly residential, with a population of approximately 32,000 people. The principal transport network includes A4074 and the A4155, which connects Reading with South Oxfordshire. The northern area is connected to the rest of Reading by two bridges over the Thames: Caversham Bridge and Reading Bridge.



Figure 4.15: Northern Area

4.90 Analysis of the Reading Transport Model shows that approximately 15,000 journeys are made from the northern area in the 3-hour morning peak (07:00-10:00) of which around 12,000 are from the Reading urban area.

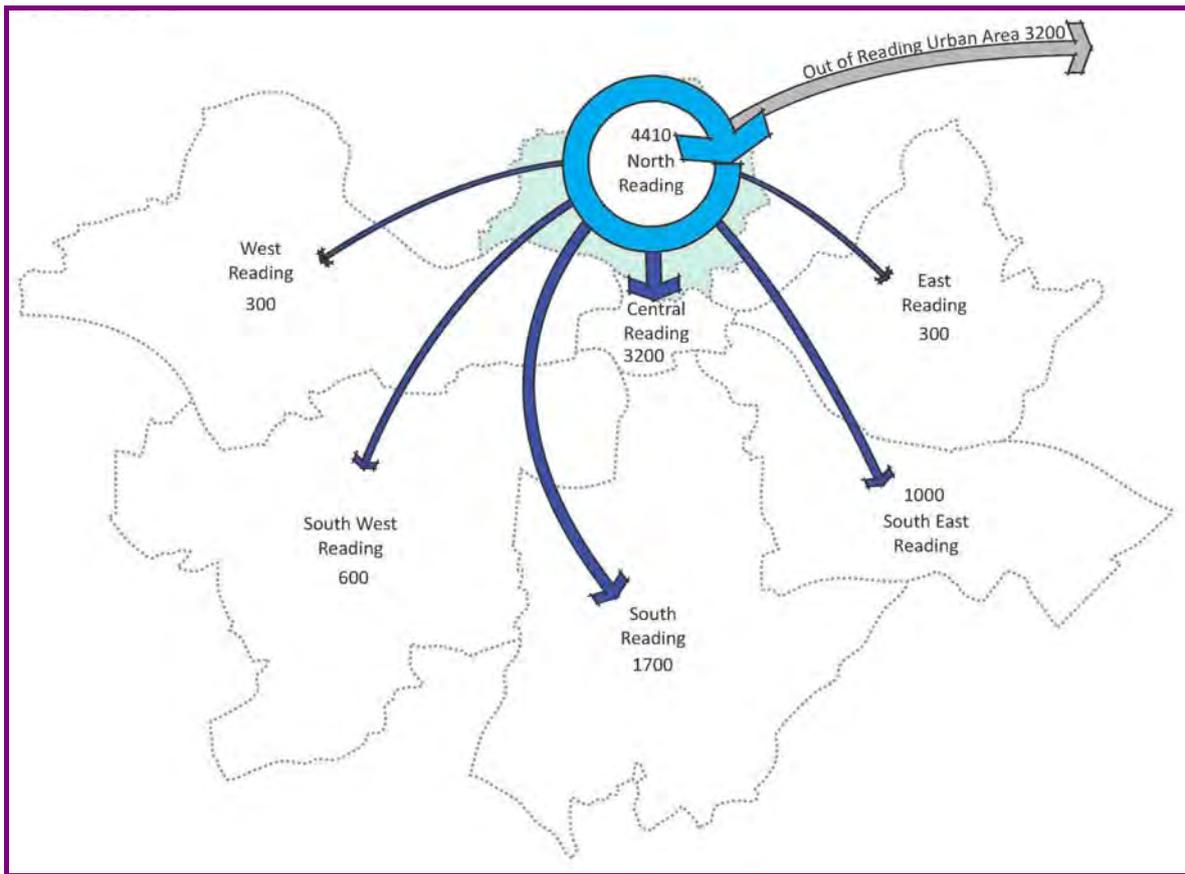


Figure 4.16: People Movements FROM Northern Area (0700-1000)

4.91 Transport movements by private car, public transport (including rail), walking and cycling have also been analysed.

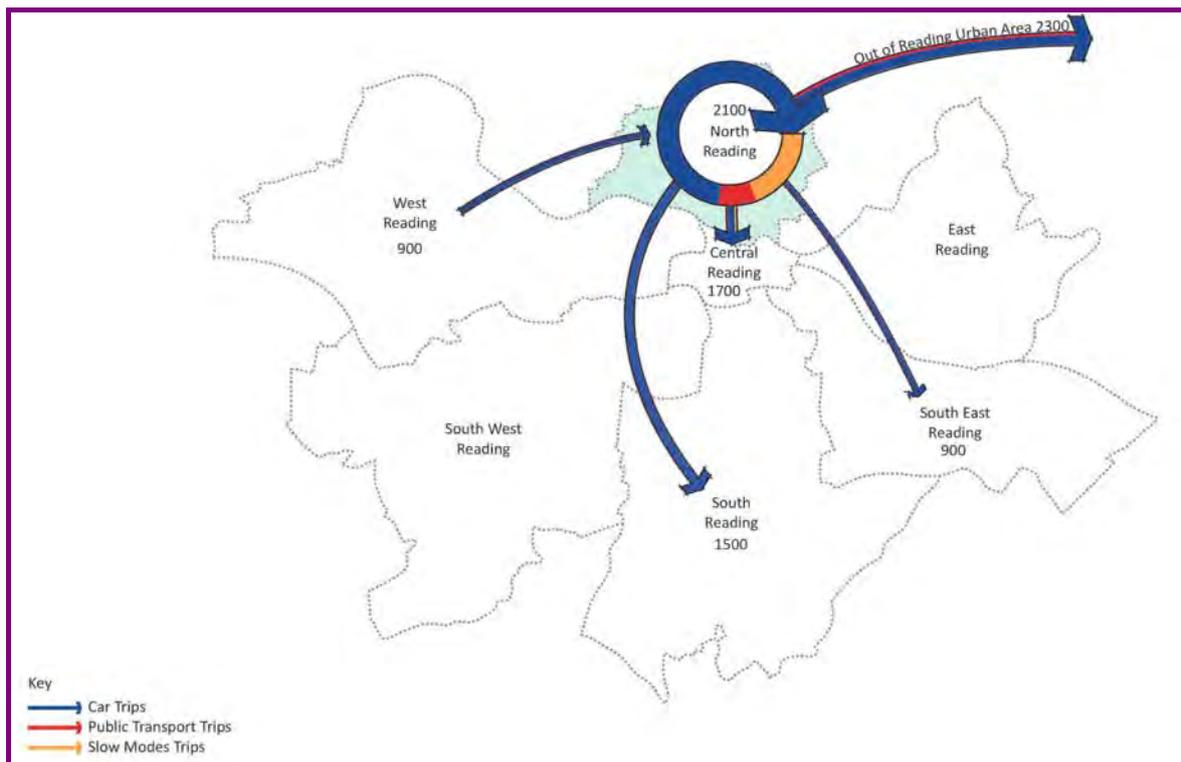


Figure 4.17: Travel To Work Mode Share Northern Area (0700-1000)

What We Have Achieved

- 4.92 Examples of projects delivered in the northern area include improving access to local centres, reducing congestion and improving public transport, walking and cycling.
- 4.93 We have developed a North Area Access Study over the LTP2 period, which sets out a strategy to improve travel in northern Reading. This includes short, medium and long-term packages to run from 2006 to 2010 and beyond. We have made substantial progress with these packages, including a new pedestrian crossing and local centre improvements in Emmer Green and improvements to the pedestrian facilities and bus stops at Caversham Park Village Community Centre.



Figure 4.18: New Pedestrian Crossing and Bus Stop Infrastructure

4.94 Other achievements in the northern area include:

- Completion of Premier Bus Routes 23 and 24;
- Closure of Gravel Hill to through traffic;
- Cycle lanes on Peppard Road; and
- Shuttle 27-29, the Amersham Road area more frequent, reduced-fare, short-hop community bus route.

Challenges and Opportunities

4.95 The action plans consider evidence of specific challenges that relate to the national transport goals. For the northern area, the challenges that relate to transport and mobility include:

- Network Efficiency;
- HGV Routeing;
- Future Development Proposals;
- Severance;
- Safety; and
- Lack of connectivity to local centres.

Network Efficiency

4.96 There is a lack of sufficient capacity at crossings over the River Thames, which results in congestion on local bridges and on key routes in

Caversham. Journey time surveys from 2007 show that low average speeds are experienced in areas including:

- A4074 Church Road / St Peters Hill Eastbound;
- B481 Peppard Road Southbound;
- Church Street (Caversham Centre) Westbound; and
- Caversham Bridge.

4.97 High traffic volumes create air quality issues, elevated carbon emissions and noise levels. Buses are delayed in congestion in a number of areas, reducing bus journey times and reliability.

4.98 The challenge is to manage traffic through the bottlenecks of Caversham and Reading Bridges in order to reduce congestion elsewhere in Caversham and to provide buses with sufficient priority to improve journey times and reliability. This in turn will help to reduce carbon emissions and noise levels and improve air quality.

HGV Routeing

4.99 A high volume of HGV traffic uses the main routes through Caversham to access other parts of Reading, the wider area or when travelling longer distances. These goods vehicles are using roads fronted by residential properties, which are sensitive to the air quality and noise levels in close proximity to the traffic.

4.100 The challenge is to encourage freight operators to use more suitable routes to their destinations.

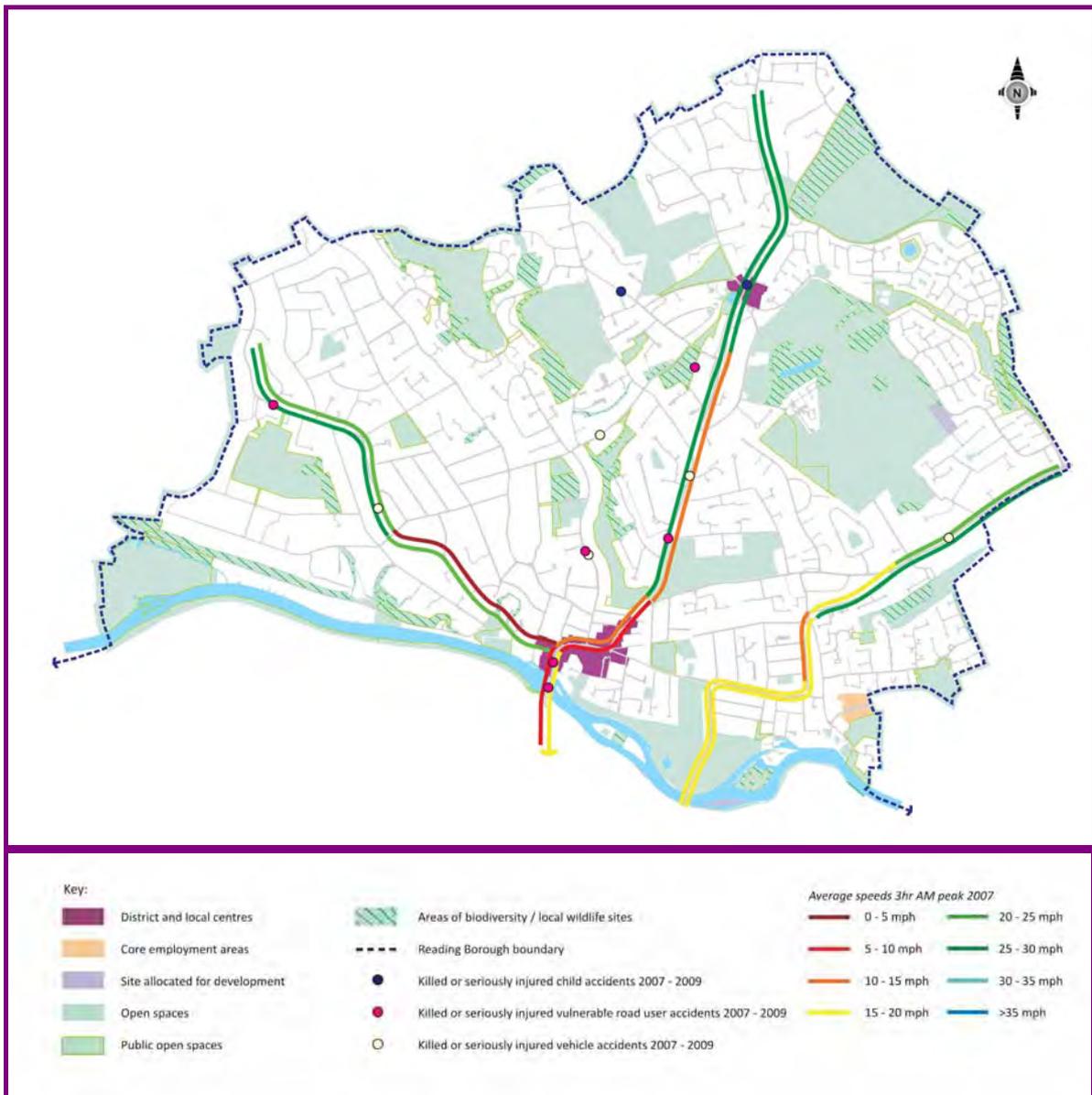


Figure 4.19: Northern Area Challenges

Future Development Proposals

4.101 The level of future development proposed within the northern area is relatively limited, however it is still recognised that the impacts on the transport system from adjacent areas may add further pressure to the transport network within the northern area.

4.102 The challenge is to ensure minimal impact on the transport network from the future proposed developments in adjacent areas.

Lack of Connectivity to Local Centres

- 4.103 There are two local centres within the northern area: Emmer Green and Caversham. A relatively small proportion of the northern area is within an 800 metres or 10 minutes walking distance of a local centre, which is likely to increase the reliance on the private car.
- 4.104 The challenge is to improve the connectivity to local centres by ensuring that sustainable travel options are available and encouraged.

Severance

- 4.105 The River Thames, and the location of the two river crossings, results in a lack of connectivity between the northern area and central Reading, including the Railway Station. The river crossings also carry high volumes of traffic - Caversham Bridge has a total of 4 lanes of traffic, whilst Reading Bridge has a total of 3 lanes of traffic. These high volumes of traffic dominate the environment, potentially making these routes less attractive for pedestrians and cyclists, particularly in the peak periods.
- 4.106 The challenge is to improve connectivity over the River Thames and the railway, by providing more crossing points such as the planned pedestrian and cycling bridge and improving the journey experience on existing crossing points.

Safety

- 4.107 Accident data collected between 2007 and 2009 shows that there have been several accidents in the northern area, including two Killed or Seriously Injured (KSIs) accidents on Caversham Bridge.
- 4.108 The challenge is to reduce the level of accidents through reducing conflicts between road users, particularly over the Thames crossings.

Current and Emerging Challenges	Impact on LTP3 Objectives									Evidence
	Physically Active Travel	Improved Personal Safety	Affordable, Accessible, inclusive travel	Safe and efficient network operation	Align transport and land use planning	Balanced value for money solutions	Sustainable Transport Choices	Journey time, reliability and information	Reduce carbon emissions & improve air quality	
Congestion on the two River Thames crossings and adjoining key routes	-2	-1	-1	-2	0	1	-1	-2	-2	Journey Time Surveys, Reading Transport Model, Traffic Surveys Defra Strategic Noise Map
HGV Demand	-1	-2	0	-1	0	0	0	-1	-2	Reading Transport Model
Adjacent Development's Transport Demand	1	-1	0	-1	2	1	1	1	-1	Reading LDF, Reading Transport Model
Distance to Local Centres	-2	0	-2	0	-1	0	-2	0	-1	Accession, Providing for Journeys on Foot (IHT, 2000)
Severance caused by River Thames	-2	-1	-2	-2	-1	-1	-1	-2	-1	North Area Access, Study, Central Area Action Plan
Accidents on Caversham Bridge	-1	-2	-1	-2	0	0	-1	-1	0	Accident Records

Transport Challenges' Impacts on Objectives for the Northern Area

Our Plans for the Future

Opportunities for Addressing Challenges	LTP3 Strategy Theme
To consider the river as a transport asset rather than a barrier and to look for ways in which it can be effectively used as such.	Infrastructure Innovation
To continue to work with South Oxfordshire District Council and Oxfordshire County Council to find cross-boundary solutions to transport challenges.	Infrastructure Intervention
To work with South Oxfordshire District Council and Oxfordshire County Council to consider the provision of park and ride facilities to the north of the river.	Infrastructure
To consider the phased introduction of a mass rapid transit system linking the park and ride facilities to central Reading, thereby managing congestion and development pressures and supporting the use of sustainable modes.	Infrastructure

Opportunities for Addressing Challenges	LTP3 Strategy Theme
To carry out a targeted review of the key bus corridors, including traffic management across the existing bridges, in order to develop options for bus priority and improving public transport reliability.	Intervention Infrastructure
To continue to undertake targeted neighbourhood or area studies and implement integrated transport options at a local level. Relevant neighbourhoods include Amersham Road and Emmer Green.	Intervention Inclusion
To develop an enhanced network of walking and cycling routes connecting to the proposed pedestrian and cycle bridge across the river Thames.	Intervention
To work with local secondary schools to further increase safety and healthy lifestyles through appropriate training and promotion of sustainable travel to school.	Inclusion

Eastern Local Action Plan

Introduction

4.109 The eastern area lies within the Wokingham Borough administrative area, and is defined to the south by the A329 (M) and to the north by the River Thames. The area has a population of approximately 34,000 people and provides approximately 17,000 jobs. The principal transport network includes the A4 London Road and A329 (M), and on either side and underneath the A329(M) is the Loddon Bridge Park and Ride.



Figure 4.20: Eastern Area

4.110 Analysis of the Reading Transport Model shows that approximately 17,000 journeys are made from the eastern area in the 3-hour morning peak (07:00-10:00), of which 13,000 stay within the Reading urban area.

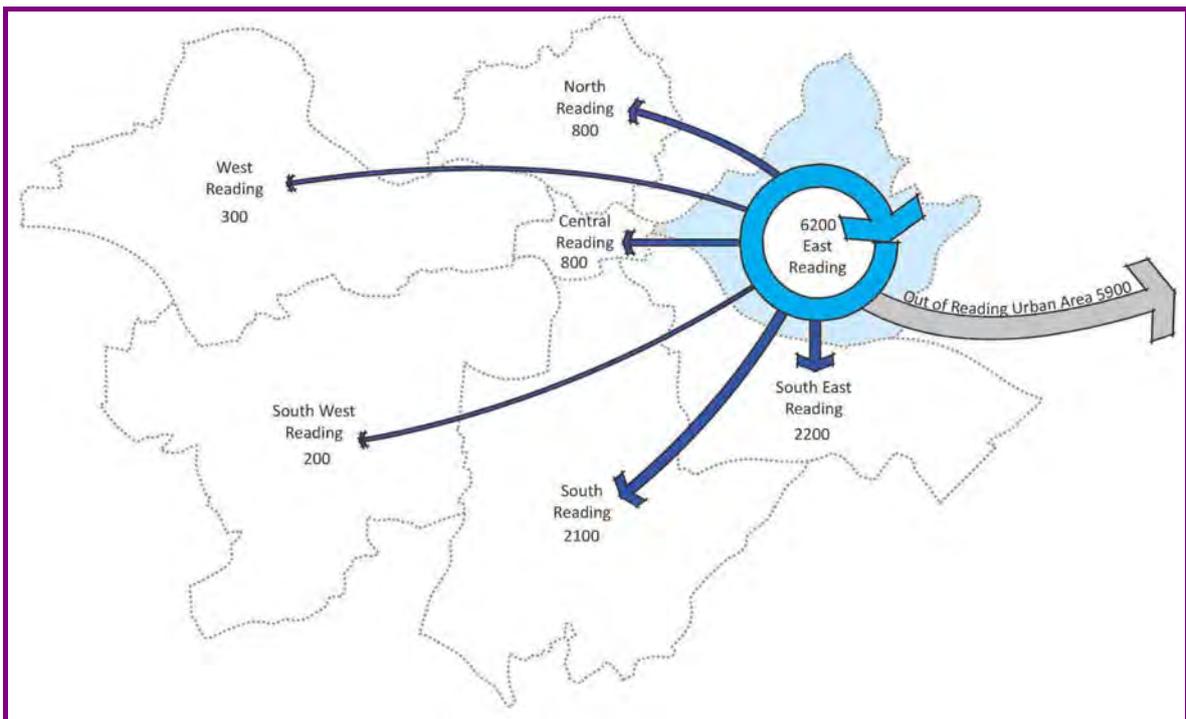


Figure 4.21: People Movements from East Reading

4.111 Transport movements by private car, public transport (including rail), walking and cycling have also been analysed.

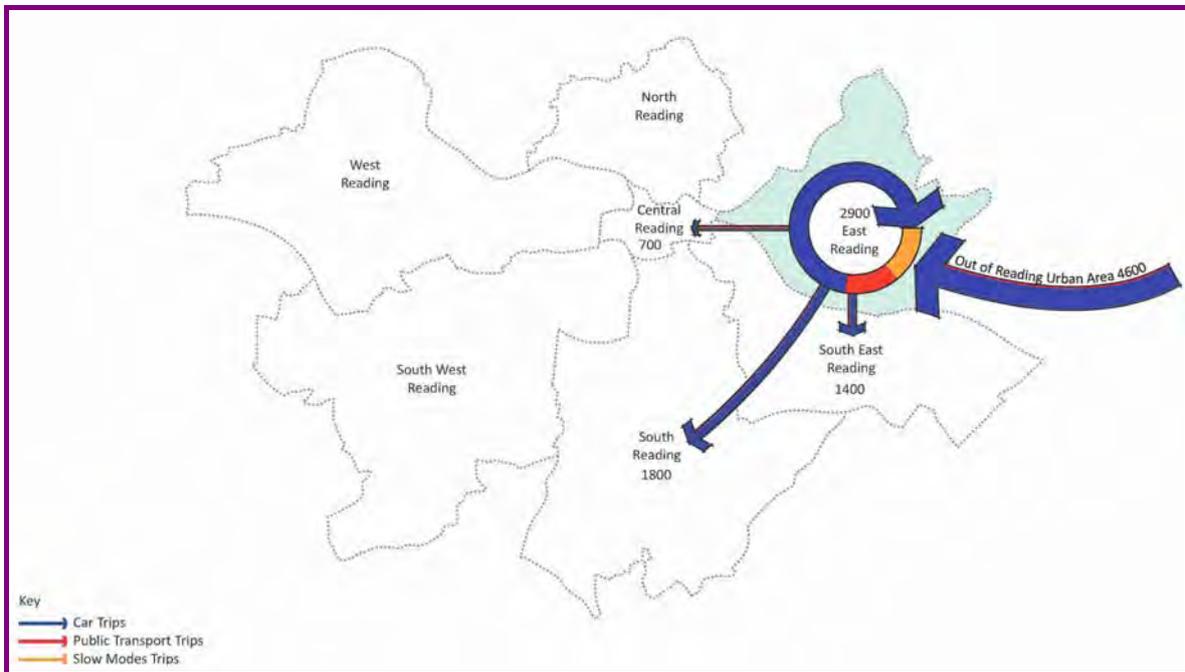


Figure 4.22: Travel To Work Mode Share East Reading (0700-1000)

What We Have Achieved

4.112 Achievements in this area include the introduction of Premier Routes 12, 13 and 14, to serve the local centres and residential areas of Woodley and the inclusion of the National Cycle Network Route 4 along Kennetside in our local Reading Cycle Routes Network. The Kennetside path, among other destinations, links Sonning to central Reading via the Thames Valley Business Park.



Figure 4.23: Woodley Premier Route Bus and Kennetside branded Reading Cycle Route

4.113 Reading has also worked with the Thames Valley Business Park and resident businesses to promote integrated and sustainable transport options, including dedicated bus services, travel planning and cycling events. Partnership working with Wokingham has enabled a joint approach to transport challenges in this area.

Challenges and Opportunities

4.114 For the eastern area, the challenges that relate to transport and mobility include:

- Network Efficiency;
- Future Development Proposals;
- Public Transport Accessibility; and
- Park and Ride Provision.

Network Efficiency

4.115 The eastern area consists of two major corridors - the A329(M) and the A4, and can accommodate high volumes of traffic. Both routes suffer

congestion during peak periods at Sutton Seeds Roundabout, which is attributed to the conflicting movements at the roundabout and the bottleneck at Cemetery Junction.

4.116 The high traffic flows cause air quality issues, high carbon emissions, and excessive noise levels in areas adjacent to the A4. In addition, the width of these routes and the high volumes of traffic create a barrier that reduces connectivity and accessibility.

4.117 Congestion around Sutton Seeds Roundabout also delays public transport vehicles, reducing the reliability of bus journey times on the A4 (mainly for westbound movements on the approaches to Sutton Seeds Roundabout and Cemetery Junction).

4.118 The challenge is to manage peak hour congestion around the Sutton Seeds Roundabout and implement bus priority measures to increase the reliability of public transport services.

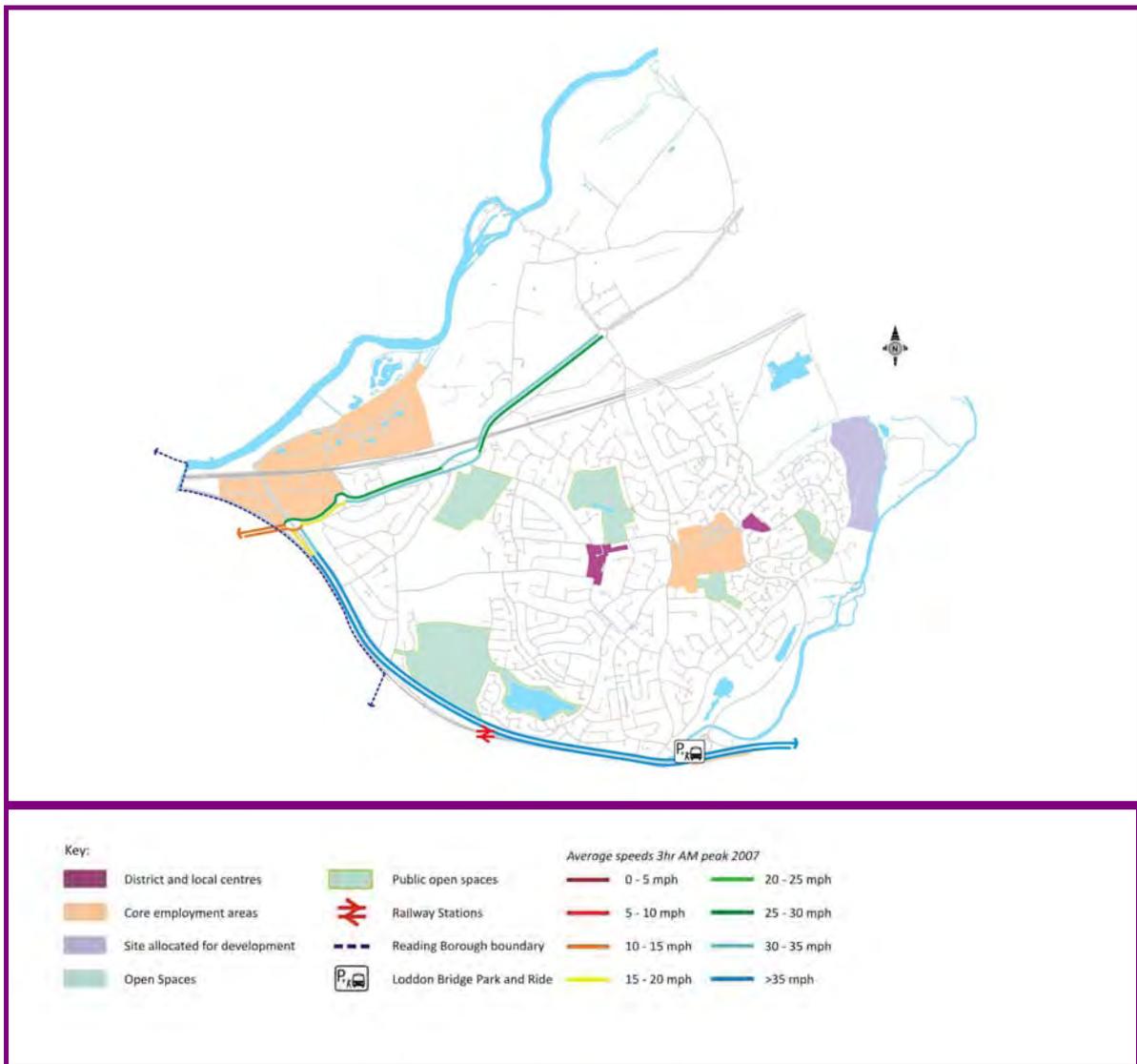


Figure 4.24: Eastern Area Challenges

Future Development Proposals

4.119 A number of sites have been identified as part of Wokingham’s Local Development Framework, including Sandford Farm (500 residential units).

4.120 As the current transport network already experiences congestion, these developments are likely to add further pressure to the transport network, and cause additional impacts associated with carbon, air quality and noise.

4.121 The challenge is to ensure that the transport network can efficiently accommodate the additional demand from proposed developments and minimise impacts on the environment.

Public Transport Accessibility

4.122 There are a number of bus services operating between the eastern area and central Reading. Although these services increase access for residents as they route through residential areas, this leads to longer journey times, potentially reducing the attractiveness of bus travel. In addition, congestion at Sutton Seeds Roundabout reduces the reliability of services and leads to further increases in journey times.

4.123 The challenge is to encourage public transport usage, reduce journey times and increase the reliability of bus services throughout the area.

Park and Ride Provision

4.124 The Loddon Bridge Park and Ride site offers approximately 450 parking spaces and provides frequent services to central Reading. Its purpose is to capture car trips at the edge of the urban area and reduce traffic volumes and parking congestion within central Reading. However, the site regularly floods, making it temporarily unusable, and it operates on third party land under an agreement which expires in 2012, at which time the facility is due to close.

4.125 The challenge is to sustain the benefits to the transport network achieved by the operation of Loddon Bridge Park and Ride over the last two decades and look for opportunities to replace and improve the facilities it offers.

Current and Emerging Challenges	Impact on LTP3 Objectives									Evidence
	Physically Active Travel	Improved Personal Safety	Affordable, Accessible, inclusive travel	Safe and efficient network operation	Align transport and land use planning	Balanced value for money solutions	Sustainable Transport Choices	Journey time, reliability and information	Reduce carbon emissions & improve air quality	
Congestion on key routes	-1	-1	-2	-2	-1	0	-2	-2	-2	Journey Time Surveys, Reading Transport Model,

Current and Emerging Challenges	Impact on LTP3 Objectives									Evidence
	Physically Active Travel	Improved Personal Safety	Affordable, Accessible, inclusive travel	Safe and efficient network operation	Align transport and land use planning	Balanced value for money solutions	Sustainable Transport Choices	Journey time, reliability and information	Reduce carbon emissions & improve air quality	
										Traffic Surveys Defra Strategic Noise Map
Future Development's Transport Demand	1	-1	0	-1	2	1	1	1	-1	Wokingham LDF, Reading Transport Model
Public Transport Delays and Reliability	-1	0	-2	-1	-1	-1	-2	-2	-1	Real Time Information, Bus Operator Information
Flooding and Potential Closure of Loddon Bridge Park & Ride Site	0	0	-1	-1	-1	1	-1	-1	-1	Planning Agreement

Transport Challenges' Impacts on Objectives for the Eastern Area

Our Plans for the Future

Opportunities for Addressing Challenges	LTP3 Strategy Theme
To continue to work with Wokingham Borough Council, South Oxfordshire District Council, Oxfordshire County Council and Bracknell Forest District Council to find cross-boundary solutions to transport challenges.	Infrastructure Intervention
To work with Wokingham Borough Council, South Oxfordshire District Council and Oxfordshire County Council to progress a third crossing of the River Thames.	Infrastructure
To work with Wokingham Borough Council to progress the implementation of a long term Park and Ride strategy, considering alternative sites to Loddon Bridge, including the possible use of Broken Brow at the northern end of the A329(M).	Infrastructure
To carry out targeted neighbourhood or area studies, working with Wokingham Borough Council to build on previous work to deliver multi-targeted benefits, including the improvement of public transport journey times and reliability and the management of development pressures. One focus would be on strategic radial routes into Reading and the potential provision of a mass rapid transit supporting a park and ride strategy.	Infrastructure Intervention Inclusion
To work with neighbouring authorities to deliver an enhanced interurban public transport network.	Infrastructure Intervention

Opportunities for Addressing Challenges	LTP3 Strategy Theme
To work with the private sector and Wokingham Borough Council to innovate and secure delivery of integrated transport choices associated with new development proposed within Wokingham Borough.	Innovation Infrastructure Intervention Inclusion
To work with Wokingham Borough Council to deliver an East Reading Transport Link and associated Park & Ride facilities	Infrastructure Intervention

South Eastern Local Action Plan

Introduction

4.126 The south eastern area covers parts of both Reading and Wokingham Borough administrative areas. The area has a population of approximately 53,000 people and provides approximately 21,000 jobs. Bounded to the north by the A329 (M), the principal transport network includes the A329 Wokingham Road and Earley, Winnersh and Winnersh Triangle Rail Stations.



Figure 4.25: South Eastern Area

4.127 Analysis of the Reading Transport Model shows that approximately 17,000 journeys are made from the south eastern area in the 3-hour morning peak (07:00-10:00), of which 13,000 stay within the Reading urban area.

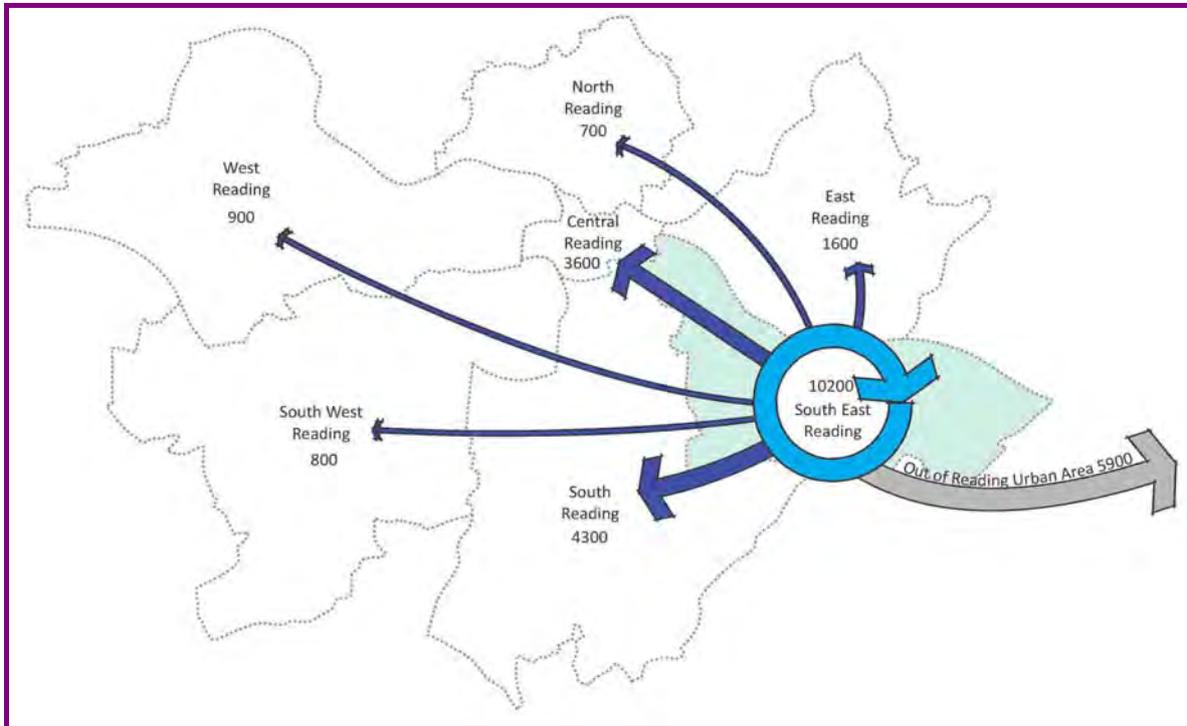


Figure 4.26: People Movements FROM South Eastern Area

4.128 Transport movements by private car, public transport (including rail), walking and cycling have also been analysed.

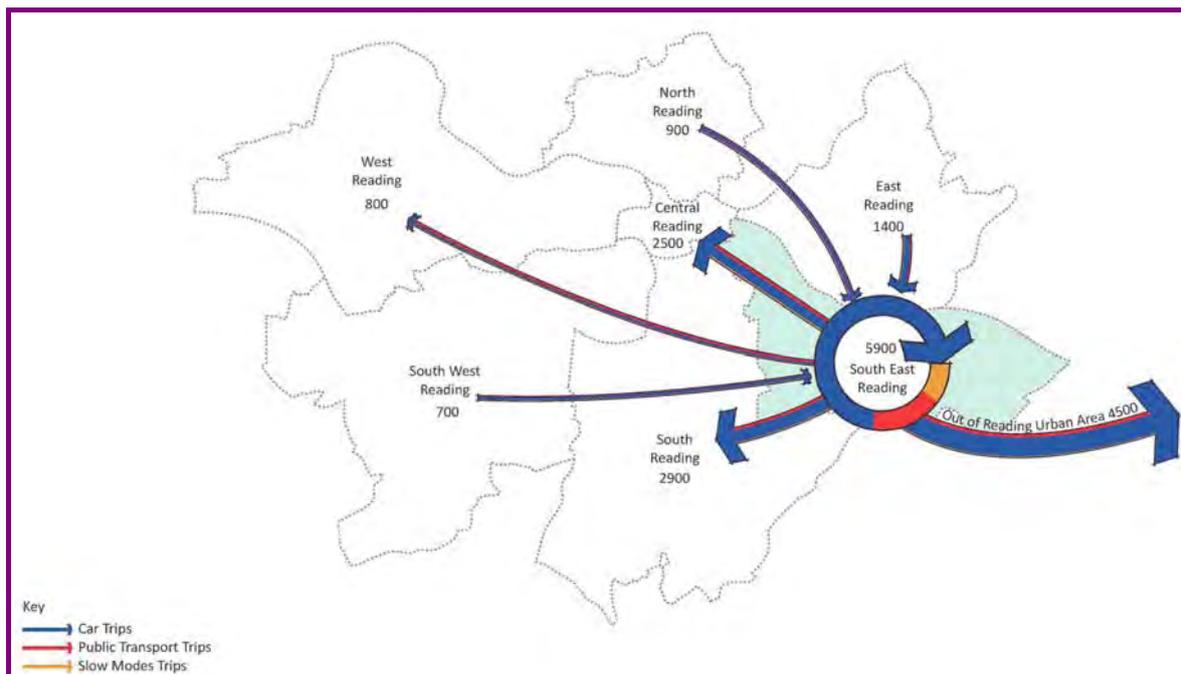


Figure 4.27: Travel To Work Mode Share South East Area (0700-1000)

What We Have Achieved

4.129 Local centres contain essential shops and services within neighbourhoods and are key destinations for short journeys. However, severance created by wide roads and high traffic volumes and a history of injury accidents potentially deters pedestrians and cyclists from visiting their local centres. In the south eastern area, a Local Centre Enhancement scheme was implemented on Wokingham Road, resulting in a more attractive local centre and improved safety.



Figure 4.28: Wokingham Road Local Centre Enhancement

4.130 Some of our other key achievements in the south eastern area include:

- An enhanced 24 hour/ 7 day service for the Flagship Premier Route 17;
- Premier Routes 20, 21 and 22 launched to serve residential areas of Lower Earley;
- Newtown one way scheme;
- Cardigan Way one way scheme; and
- Creation of a Car Club at Cemetery Junction.

Challenges and Opportunities

4.131 For the south eastern area, the challenges that relate to transport and mobility include:

- Network Efficiency;
- Future Development Proposals;

- Severance;
- Local Rail Station Accessibility; and
- Safety.

Network Efficiency

4.132 A number of routes within the south eastern area currently suffer from congestion, particularly in the peak periods, which causes delays and unreliable journeys for private vehicles, freight, and public transport. Journey time surveys undertaken in 2007 have identified a number of specific areas that suffer from congestion during the peak periods, including:

- Pepper Lane;
- Beech Lane;
- B3350 Wilderness Road;
- Lower Earley Way North; and
- Wokingham Road.

4.133 A number of the minor roads leading onto these routes also experience delays, especially in the peak periods. Much of this congestion occurs due to conflicting movements and the high levels of trips generated by large residential areas, such as Earley and Lower Earley, and major education and employment areas, such as Reading University and Winnersh Triangle.

4.134 The M4 and A329(M) are also congested along certain sections, and at a number of junctions (from the motorways).

4.135 Average bus speeds calculated from journey times between stops show low average speeds along Wilderness Road and Beech Lane, leading to a reduction in the reliability of bus services.

4.136 The challenge is to manage traffic in order to improve the reliability and efficiency of the transport network.

Future Development Proposals

4.137 Although part of the south eastern area lies within the Reading Borough administrative area, the major developments proposed are located within Wokingham Borough, as set out in the Wokingham LDF. The associated growth in traffic resulting from the proposed development in the local and wider area is likely to add further pressure to the existing transport network, increasing carbon emissions, air pollution, and noise levels.

4.138 The challenge is to ensure that the travel demands from these new developments can be accommodated on the transport network, and their impacts on the environment minimised.

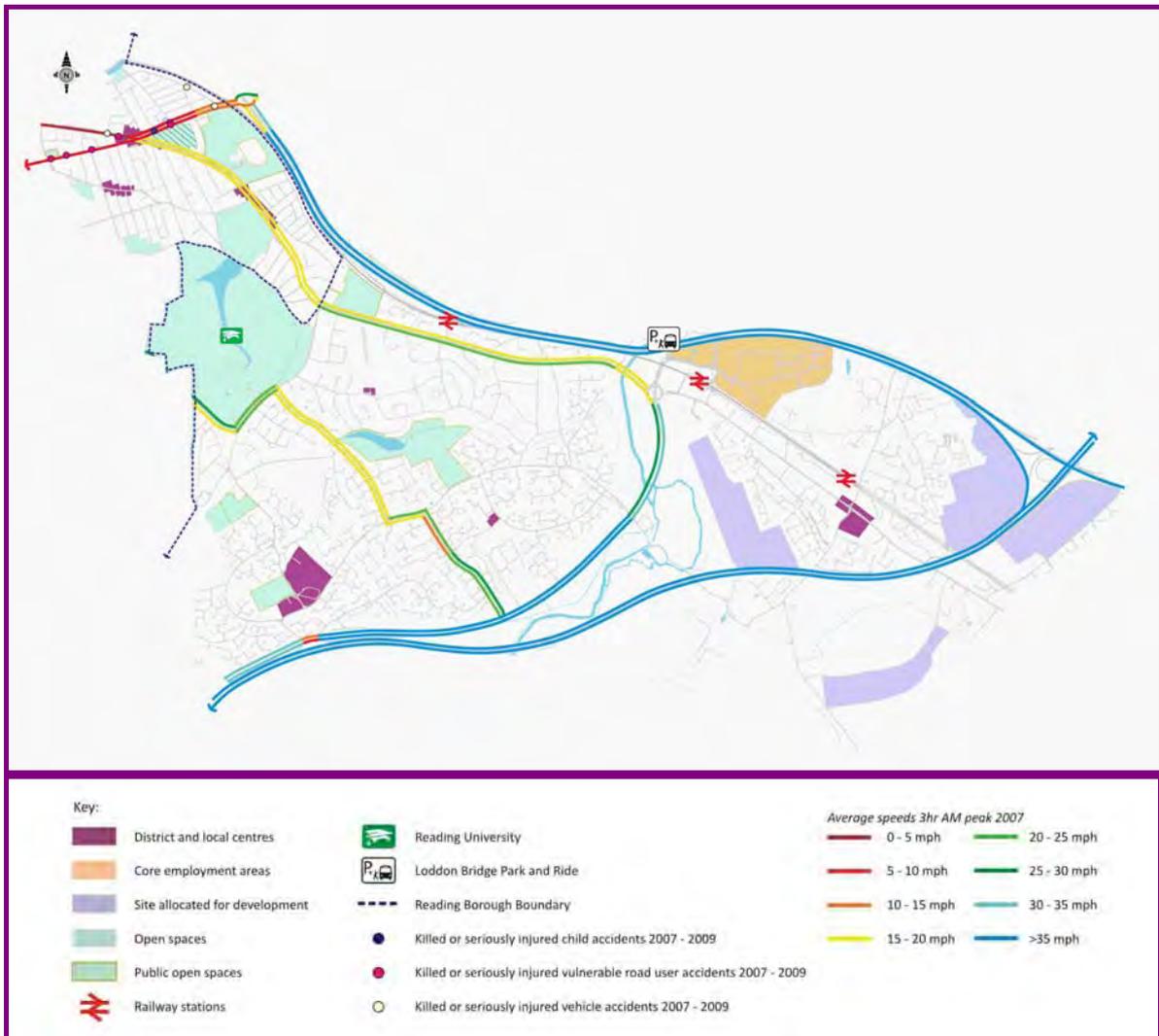


Figure 4.29: South Eastern Area Challenges

Severance

4.139 The two motorways (M4 and A329(M)) and B3270 Lower Earley Way, are all high speed roads with high traffic volumes which create a barrier between communities. There are only three points to cross the M4 within the south eastern area.

4.140 The railway line also runs in-between the A329 and A329(M) and severs communities, as there are a limited number of crossing points.

4.141 The challenge is to improve connectivity for residents to local centres, particularly by sustainable modes of transport.

Accessibility to Local Railway Stations

4.142 There are a number of local railway stations located within the south eastern area, which offer a sustainable travel choice and increase public transport use in the area. Station audits have been undertaken at Earley, Winnersh, and Winnersh Triangle stations, and have identified areas for improvement, including:

- Pedestrian facilities;
- Car parking facilities;
- Cycle parking facilities;
- Bus stop facilities;
- Platforms widths and lengths (cannot accommodate 12 car trains);
- Facilities on platforms;
- Disabled access (ramp/lift facilities); and
- Directional signage.

4.143 The challenge is to work with Network Rail and Wokingham Borough to improve accessibility to local stations and encourage increased usage.

Safety

4.144 Accident data has been collected within Reading's administrative boundary between 2007 and 2009, which shows that a number of KSI (Killed or Seriously Injured) incidents have occurred in and around the Cemetery Junction and London Road area, particularly involving vulnerable road users.

4.145 Cemetery Junction has a complex layout, with high traffic levels and conflicting movements. London Road comprises of up to 4 lanes of traffic. These characteristics make the area less safe and attractive for pedestrians and cyclists.

4.146 The challenge is to reduce the level of accidents in these locations.

Current and Emerging Challenges	Impact on LTP3 Objectives									Evidence
	Physically Active Travel	Improved Personal Safety	Affordable, Accessible, inclusive travel	Safe and efficient network operation	Align transport and land use planning	Balanced value for money solutions	Sustainable Transport Choices	Journey time, reliability and information	Reduce carbon emissions & improve air quality	
Congestion on key routes	-1	-1	-2	-2	0	0	-1	-2	-2	Journey Time Surveys, Reading Transport Model, Traffic Surveys Defra Strategic Noise Map
Future Development's Transport Demand	1	-1	0	-1	2	1	1	1	-1	Reading LDF, Wokingham LDF, Reading Transport Model
Rail and Road Severance	-2	-2	-1	-1	0	0	-1	0	-2	Accession, Providing for Journeys on Foot (IHT, 2000)

Current and Emerging Challenges	Impact on LTP3 Objectives									Evidence
	Physically Active Travel	Improved Personal Safety	Affordable, Accessible, inclusive travel	Safe and efficient network operation	Align transport and land use planning	Balanced value for money solutions	Sustainable Transport Choices	Journey time, reliability and information	Reduce carbon emissions & improve air quality	
Local Railway Station Access	-1	-1	-1	0	-1	0	-1	-1	-1	Station Audits
Accidents on the A4 London Rd	-2	-2	-1	-2	0	-1	-2	0	-1	Accident Records

Transport Challenges' Impacts on Objectives for the Southeastern Area

Our Plans for the Future

Opportunities for Addressing Challenges	LTP3 Strategy Theme
To continue to work with Wokingham Borough Council, to find cross boundary solutions to transport challenges.	Infrastructure Intervention
To undertake a phased process of neighbourhood or corridor enhancement studies and schemes to deliver multi-targeted benefits including improved safety and public realm, and to achieve integrated transport options. Relevant local centres include: <ul style="list-style-type: none"> • Cemetery Junction • Erleigh Road • Wokingham Road 	Intervention Inclusion
To work with partner organisations such as Network Rail and Wokingham Borough Council to identify and maximise opportunities related to accessibility to / from and at railway stations.	Intervention
To work closely with Reading University to implement a coordinated strategy that provides integrated transport to the University and manages impacts of ongoing University development and expansion.	Intervention Inclusion
To work with Wokingham Borough Council to manage traffic volumes and growth through an integrated transport strategy and targeted infrastructure improvements.	Infrastructure Intervention
To promote an enhanced network of walking and cycling routes improving connectivity across administrative boundaries.	Intervention
To work with the private sector and Wokingham Borough Council to innovate and deliver integrated transport choices associated with new development	Innovation Infrastructure Intervention Inclusion

Southern Local Action Plan

Introduction

4.147 The southern area is defined by the River Kennet to the north and the Reading and Basingstoke railway line to the west. The area has a population of approximately 42,000 people and provides approximately 32,000 jobs. The principal transport network includes the M4 Junction 11, A33 Corridor, B3031 Basingstoke Road, and A327 Shinfield Road-Christchurch Road.



Figure 4.30: Southern Area

4.148 Analysis of the Reading Transport Model shows that approximately 22,000 journeys are made from the southern area in the 3-hour morning peak (07:00-10:00), and 30,000 journeys are made to the southern area. The dominant movements are inward from the south western and south eastern areas, and also from areas outside the Reading urban area. For journeys from the southern area, the major movements are to the central and south eastern areas, and to areas outside the Reading urban area.

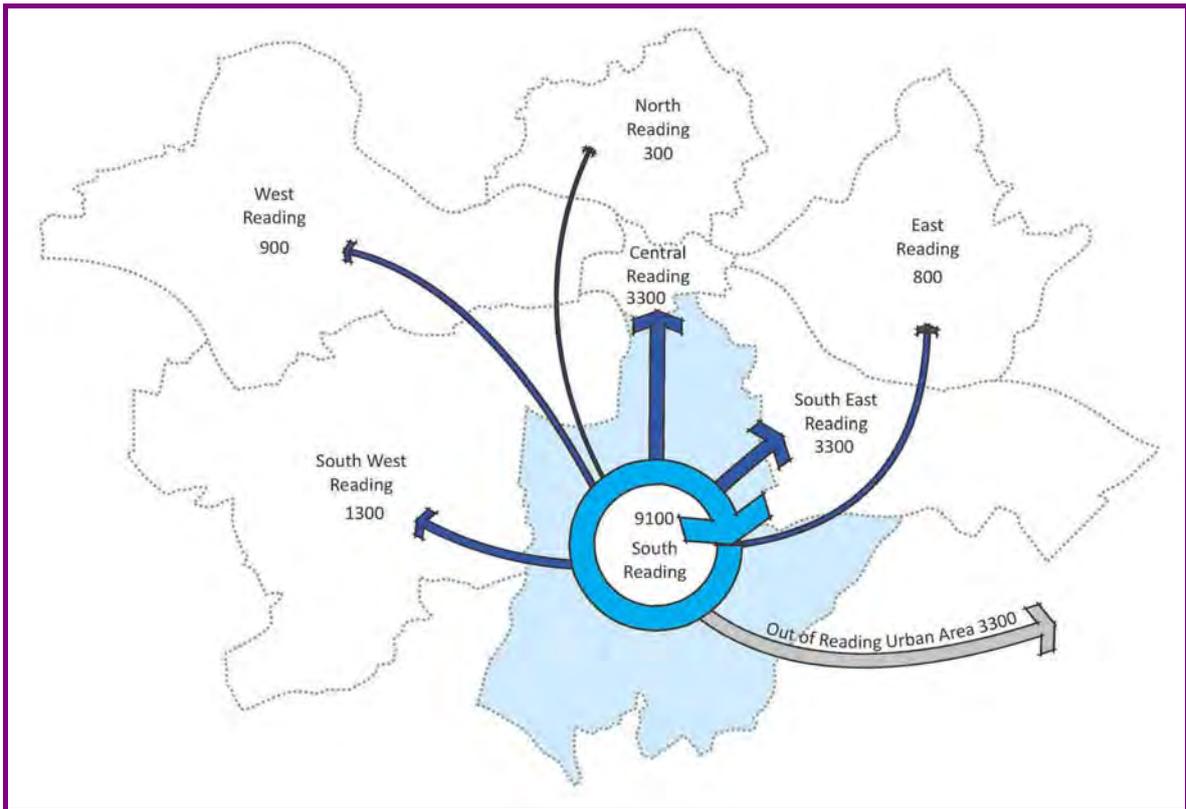


Figure 4.31: People Movements FROM Southern Area (0700-1000)

4.149 Transport movements by private car, public transport (including rail), walking and cycling have also been analysed.

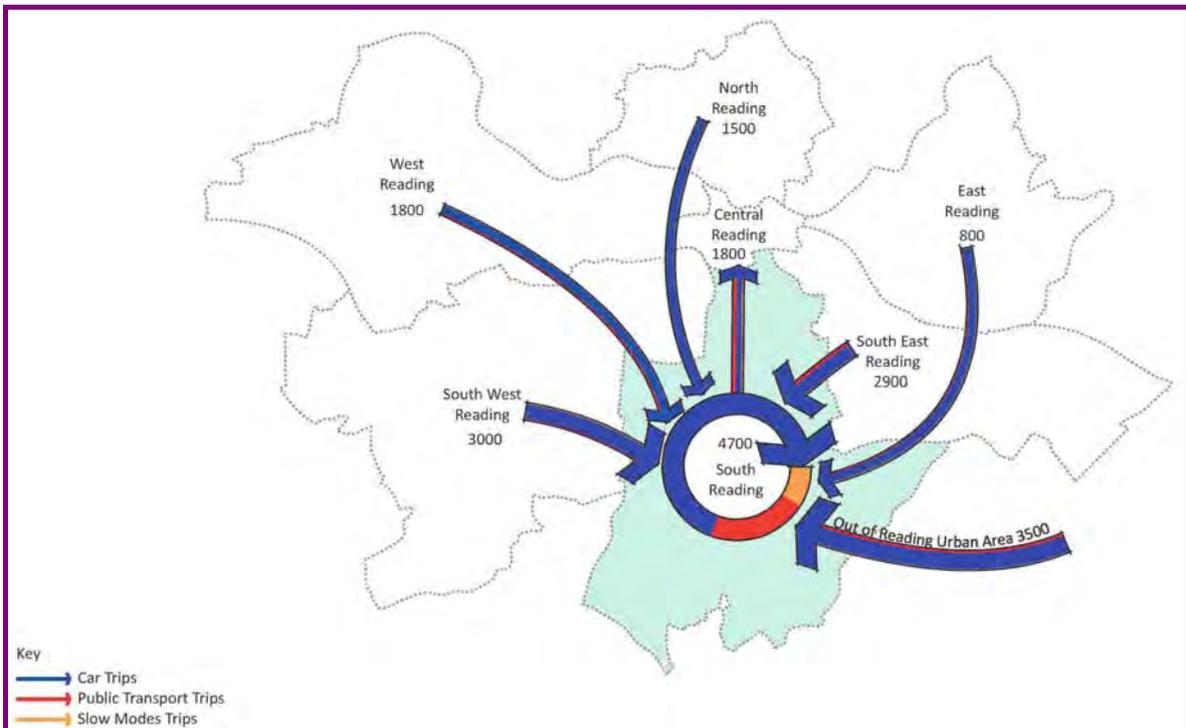


Figure 4.32: Travel To Work Mode Share South Reading (0700-1000)

What We Have Achieved

4.150 The M4 junction 11 and Mere oak improvement scheme was outlined as a priority in LTP2, and was completed in Autumn 2010. It includes bus priority measures, new dedicated pedestrian and cycle routes, and an increase in capacity to cater for future traffic flows through the junction. The scheme has also provided the opportunity to progress a new Park and Ride at Mere oak to serve the wider area.



Figure 4.33: M4 Junction 11

4.151 The Shinfield Road/Christchurch Road Corridor Study has led to the completion of the Shinfield Rise Local Centre Enhancement scheme in 2010. This scheme has increased pedestrian crossing facilities and reduced traffic speeds in the local centre to create a safer environment and place for the community.

4.152 Other key achievements include:

- A33 Relief Road/ Rose Kiln Lane junction improvements;
- Green Park Station and multi-modal interchange progressing;

- New bus route, Kennet Island Shuttle; and
- Creation of a Car Club at Kennet Island.

4.153 These achievements will significantly contribute to supporting economic growth, through enabling travel demand caused by future development proposals to be accommodated on the network.

Challenges and Opportunities

4.154 The action plans consider evidence of specific challenges that relate to the national transport goals. For the southern area, the challenges that relate to transport and mobility include:

- Network Efficiency;
- Future Development Proposals;
- Safety; and
- Lack of east-west connectivity.

Network Efficiency

4.155 The three key corridors within the southern area (A33, A327 and Basingstoke Road) carry high volumes of traffic. 2007 Journey Time Surveys show that these corridors are heavily congested in some areas, with a number of locations experiencing low average speeds, particularly in the peak periods, including:

- The A33 corridor (between Imperial Way and Junction 11 and between Rose Kiln Lane (North) and Rose Kiln Lane (South) junctions);
- Basingstoke Road (between Rose Kiln Lane and Elgar Road);
- The A327 Shinfield Road (between Pepper Lane and Elmhurst Road);
and
- Christchurch Green Local Centre.

4.156 High traffic volumes cause air quality issues, elevated carbon emissions, and high noise levels (particularly on the A33 and A327 corridors on approaches to the IDR). In some cases, residential areas are adjacent to

these roads. Buses are delayed in the congestion along sections of routes without bus priority, which reduces the reliability and predictability of bus journey times in the southern area.

4.157 The challenge is to manage traffic in the southern area, especially on the A33, Basingstoke Road and A327 and increase journey time reliability, particularly for public transport. This should reduce the impact of high traffic flows on the environment and make public transport, walking and cycling more attractive.

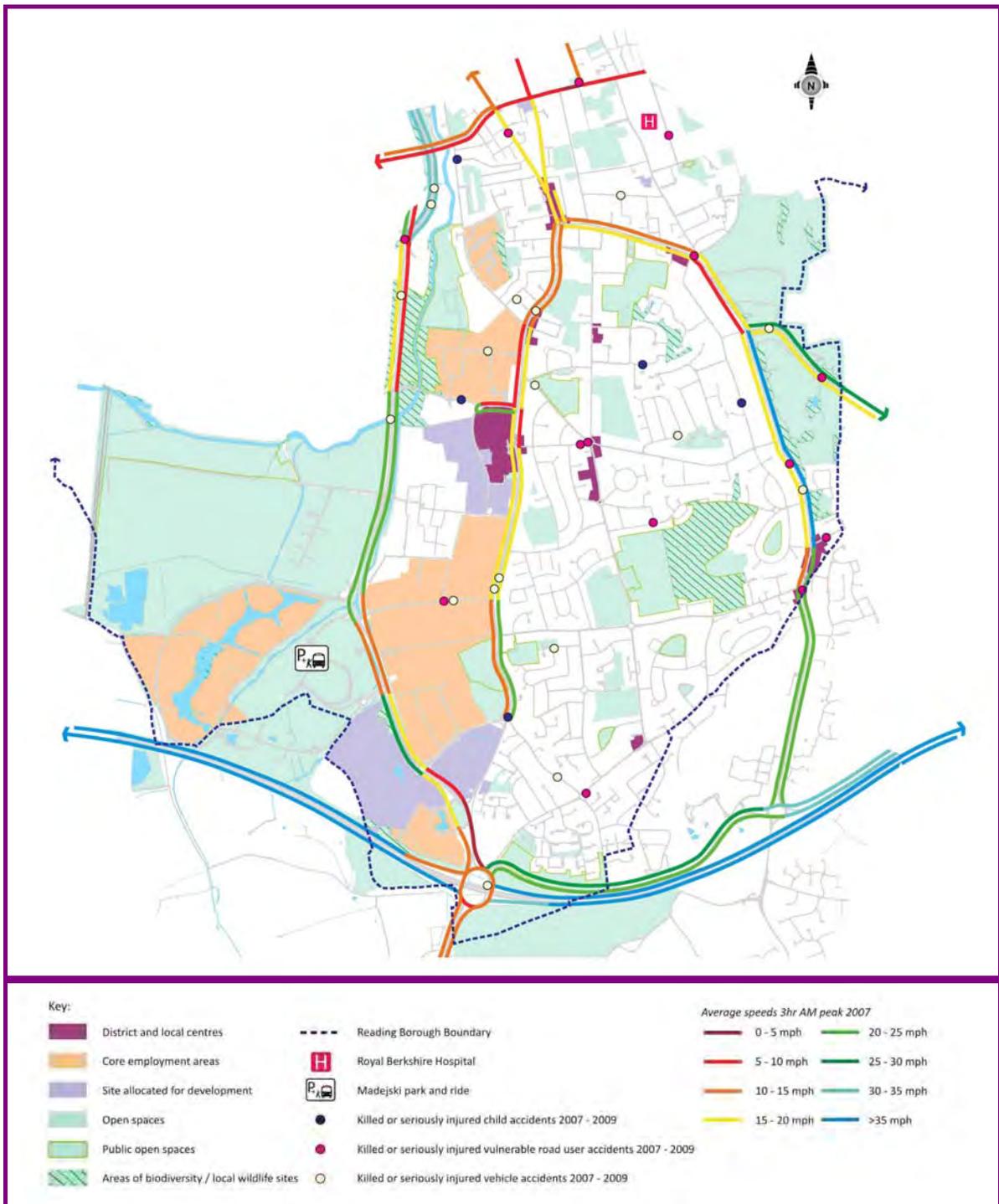


Figure 4.34: Southern Area Challenges

Future Development Proposals

4.158 A number of development sites are proposed within the south Reading area, as defined within the Reading and Wokingham Local Development Frameworks, which will have an important strategic role in economic growth and regeneration. These developments include:

- Worton Grange;
- Berkshire Brewery Site;
- Land South of the M4 (Wokingham LDF); and
- Land North of Manor Farm Road.

4.159 This equates to approximately 4000 new houses, as well as retail, employment and leisure uses which will put significant additional strain on the transport network, particularly in the peak periods. This in turn may also cause additional air quality issues, carbon emissions, and noise levels.

4.160 The challenge is to ensure that the increases in demand for travel can be accommodated on the transport network.

Safety

4.161 Accident data collected between 2007 and 2009 shows that accidents are generally concentrated on the three key corridors. The types of accidents on each route differ, reflecting the differences in how each corridor is used. The A33 and Basingstoke Road corridors have hosted mainly vehicle only accidents. However a higher proportion of accidents involving children or vulnerable road users have occurred on the A327 corridor.

4.162 Particular issues include wide carriageways with high levels of traffic and vehicle speeds. There are also complex junctions, limited crossing facilities on pedestrian desire lines, narrow footways and cluttered streets. These can be addressed by multi-targeted corridor studies and schemes.

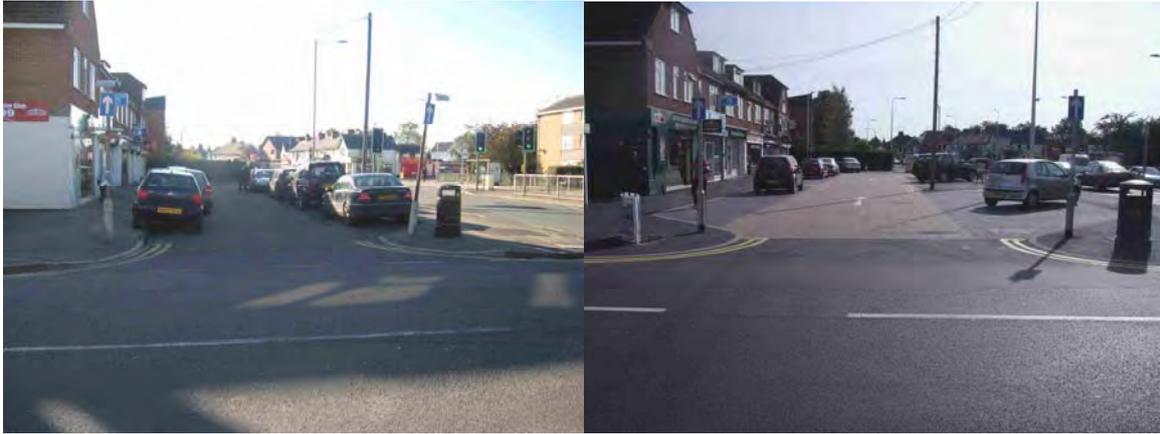


Figure 4.35: *Shinfield Rise Local Centre Enhancement improves road safety (before and after)*

4.163 In the southern area there is a large amount of car travel despite congested roads, which exacerbates the risk to vulnerable users and reduces the attractiveness of healthy travel choices.

4.164 The challenge is to improve safety along the A33, Basingstoke Road and A327 corridors and reduce the number of accidents occurring along these key routes.

Lack of East-West Connectivity

4.165 Although there are a number of bus services operating between the southern area and central Reading, there are no east-west services linking residential areas between Shinfield Road and Basingstoke Road to employment opportunities on the A33 corridor. The high traffic volumes on the three key corridors also create a barrier for pedestrians and cyclists traversing the area.

4.166 In the southern area there are pockets of high deprivation (above the national average). Some of these areas are not within convenient walking distances of a local centre. People living with high levels of income deprivation are more likely to be dependant on walking, cycling, and public transport to access local services and employment.

4.167 The key challenge is to improve the provision of east-west links by bus, foot and cycle in these neighbourhoods.

Current and Emerging Challenges	Impact on LTP3 Objectives									Evidence
	Physically Active Travel	Improved Personal Safety	Affordable, Accessible, inclusive travel	Safe and efficient network operation	Align transport and land use planning	Balanced value for money solutions	Sustainable Transport Choices	Journey time, reliability and information	Reduce carbon emissions & improve air quality	
Congestion on key routes	-1	-1	-2	-2	-1	-1	-1	-2	-2	Journey Time Surveys, Reading Transport Model, Traffic Surveys Defra Strategic Noise Map
Future Development's Transport Demand	1	-1	0	-1	2	1	1	1	-1	Reading LDF, Wokingham LDF, Reading Transport Model
Accident Rates (deprived areas)	-1	-2	-2	-2	0	-1	-1	0	-1	Accident Records, A327 Study, 2001 Census, Performance Indicators
Lack of East-West Connectivity	-2	-2	-2	-1	0	0	-2	-1	-1	Accession, Providing for Journeys on Foot (IHT, 2000), Thriving Neighbourhoods

Transport Challenges' Impacts on Objectives for the Southern Area

Our Plans for the Future

Opportunities for Addressing Challenges	LTP3 Strategy Theme
To continue to work with Wokingham Borough Council and Hampshire County Council to find cross-boundary solutions to transport challenges.	Infrastructure Intervention
To work with Wokingham Borough Council to deliver the Mere oak Park and Ride site, incorporating a regional public transport interchange.	Infrastructure
To support the delivery of the park and ride site with the phased introduction of a mass rapid transit providing a fast and reliable connection to central Reading and key destinations.	Infrastructure

Opportunities for Addressing Challenges	LTP3 Strategy Theme
To work with the private sector to ensure the delivery of Green Park Station and the integration of the multimodal transport interchange with other relevant transport schemes.	Infrastructure
To design and implement targeted schemes to improve network safety and encourage the use of integrated transport on the A33, A327 and Basingstoke Road.	Intervention
<p>To undertake a phased process of neighbourhood or corridor enhancement studies and schemes to deliver mutli-targeted benefits including improved safety, local connectivity, public realm, and integrated transport. Relevant local centres include:</p> <ul style="list-style-type: none"> • Christchurch Green • Basingstoke Road (north) • Northumberland Avenue (north) • Whitley • Whitley Wood • Whitley Street • Shinfield Road 	Intervention Inclusion
To work with the private sector to innovate and secure delivery of integrated transport choices associated with new development at Worton Grange, the Berkshire Brewery Site, land south of the M4 (Wokingham LDF) and land north of Manor Farm Road.	Infrastructure Intervention Inclusion
To work with local secondary schools, to further increase safety and healthy lifestyles through appropriate training and promotion of sustainable travel to school.	Inclusion
To work closely with Reading University and the Royal Berkshire Hospital to improve transport links, encourage sustainable travel and manage impacts through continued implementation of integrated transport strategies.	Innovation Inclusion

South Western Local Action Plan

Introduction

4.168 The south western area includes parts of both Reading and West Berkshire administrative areas. The area has a population of approximately 38,000 people and provides approximately 17,000 jobs. The principal transport network includes the A4 Bath Road, which runs directly from central Reading to Junction 12 on the M4. The area also has a rail station to the west at Theale.



Figure 4.36: South Western Area

4.169 Analysis of the Reading Transport Model shows that approximately 19,000 journeys are made from the south western area in the 3-hour morning peak (07:00-10:00), of which 16,000 stay within the Reading urban area.

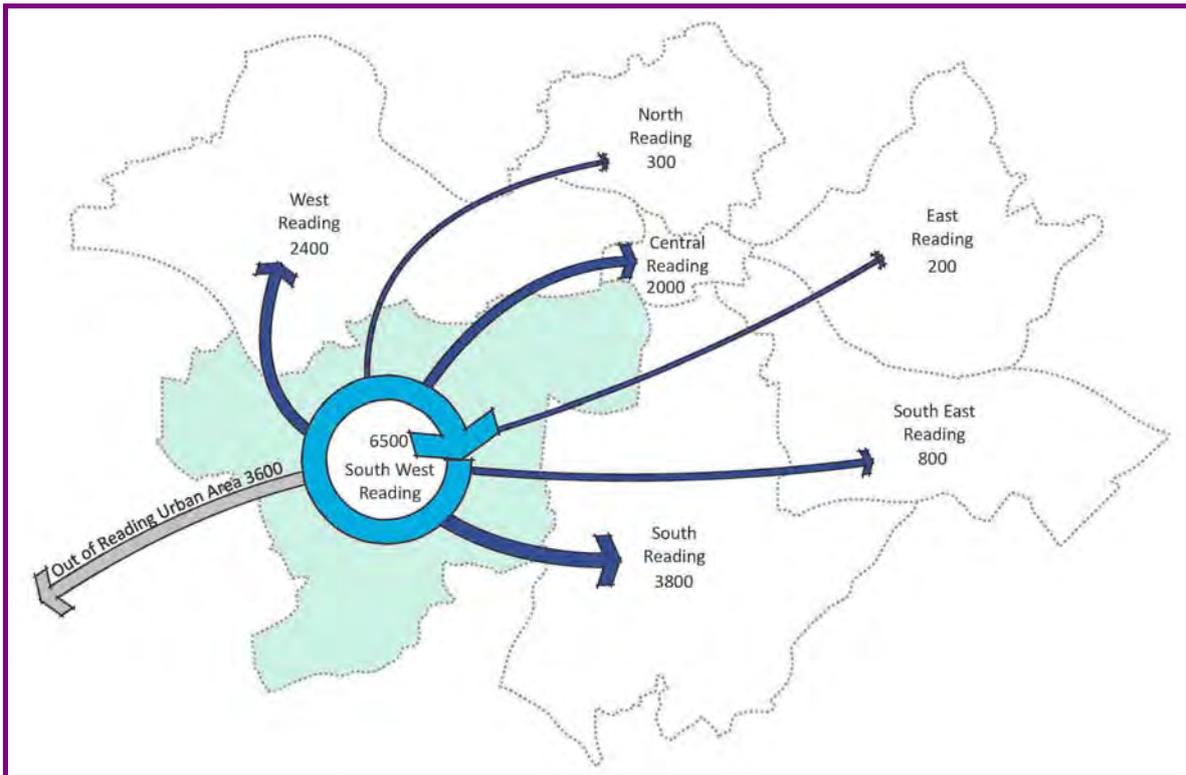


Figure 4.37: People Movements FROM South Western Area

4.170 Transport movements by private car, public transport (including rail), walking and cycling has also been analysed.

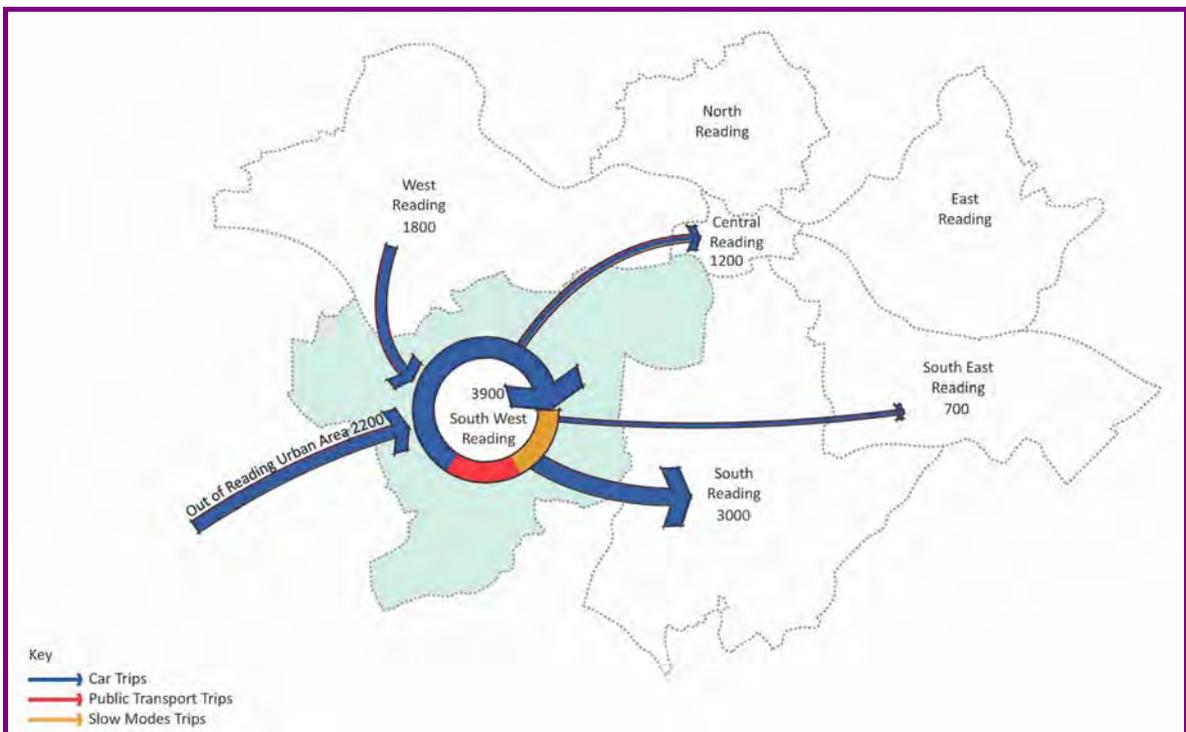


Figure 4.38: Travel To Work Mode Share South West Area (0700-1000)

What We Have Achieved

4.171 The south western area has benefited from substantial improvements to the quality of bus travel with the launch of Premier Routes 24 to Coley, 26 to Southcote and the cross-boundary Vitality routes, which provide regular services to communities in West Berkshire. Route 26 became the first route to run hybrid buses in Reading in 2010. Furthermore, pioneering school bus services are operated on a commercial basis to provide for cross-boundary pupil movements. These services utilise innovative technology to allow parents to track the buses and get real time alerts when their children are arriving home.

4.172 Other achievements in the south western area include:

- Signing and branding of Reading cycle routes, linking neighbourhoods, schools and community facilities to central Reading;
- The Links to Schools improvements created a safer, more attractive route between Coley and Southcote;
- Lighting on cycle/footways across Prospect Park; and
- Local safety schemes.



Figure 4.39: The newly paved and widened path between Coley and Southcote

Challenges and Opportunities

4.173 The action plans consider evidence of specific challenges that relate to the national transport goals. For the south western area, the challenges that relate to transport and mobility include:

- Network Efficiency;
- Future Development Proposals;
- Lack of connectivity to local centres;
- Access to Theale Railway Station; and
- Severance.

Network Efficiency

4.174 The A4 is a key route in the south western area, connecting Junction 12 of the M4 to central Reading. Other routes that provide additional access to

central Reading and residential areas include Tilehurst Road, Berkeley Avenue and Coley Avenue, which all carry large volumes of traffic.

4.175 A number of sections and junctions along these routes suffer from congestion, particularly in the peak periods. Journey Time Surveys undertaken in 2007 (see figure below) have identified areas that are affected, including:

- Berkeley Avenue;
- Coley Avenue;
- A4 Bath Road/Coley Avenue/Tilehurst Road Signalised Junction;
- A4 Bath Road/Langley Hill/Charrington Road Signalised Junction; and
- M4 Junction 12 (eastbound and westbound approaches).

4.176 These delays are generally caused by conflicting movements at junctions. The congestion and high volumes of traffic experienced on these routes causes air quality issues, elevated carbon emissions and noise levels. This is particularly sensitive where housing is situated on road frontages, such as on Berkeley Avenue. Congestion also results in delays and a reduction in reliability for bus services, where there are no bus priority measures. Services which run through the Berkeley Avenue/Bath Road Junction and/or on Langley Hill are particularly affected.

4.177 The challenge is to improve traffic flows along the key routes leading to and from central Reading, especially at junctions along the Bath Road, in order to reduce congestion and improve the reliability and journey times for bus services.

Future Development Proposals

4.178 Reading Borough have identified a number of developments that are proposed for the south western area, which equate to approximately 200 houses, 1000m² of B1 employment, as well as education & leisure facilities and a care home. In addition, there are a number of potential development sites situated within the West Berkshire boundary.

4.179 These future developments are likely to exacerbate existing congestion on the transport network, particularly during peak periods. This in turn will impact on carbon emissions, noise levels and air quality.

4.180 The challenge is to ensure that the transport network can efficiently accommodate the additional demand associated with the proposed developments, and minimise their impacts on the local environment.

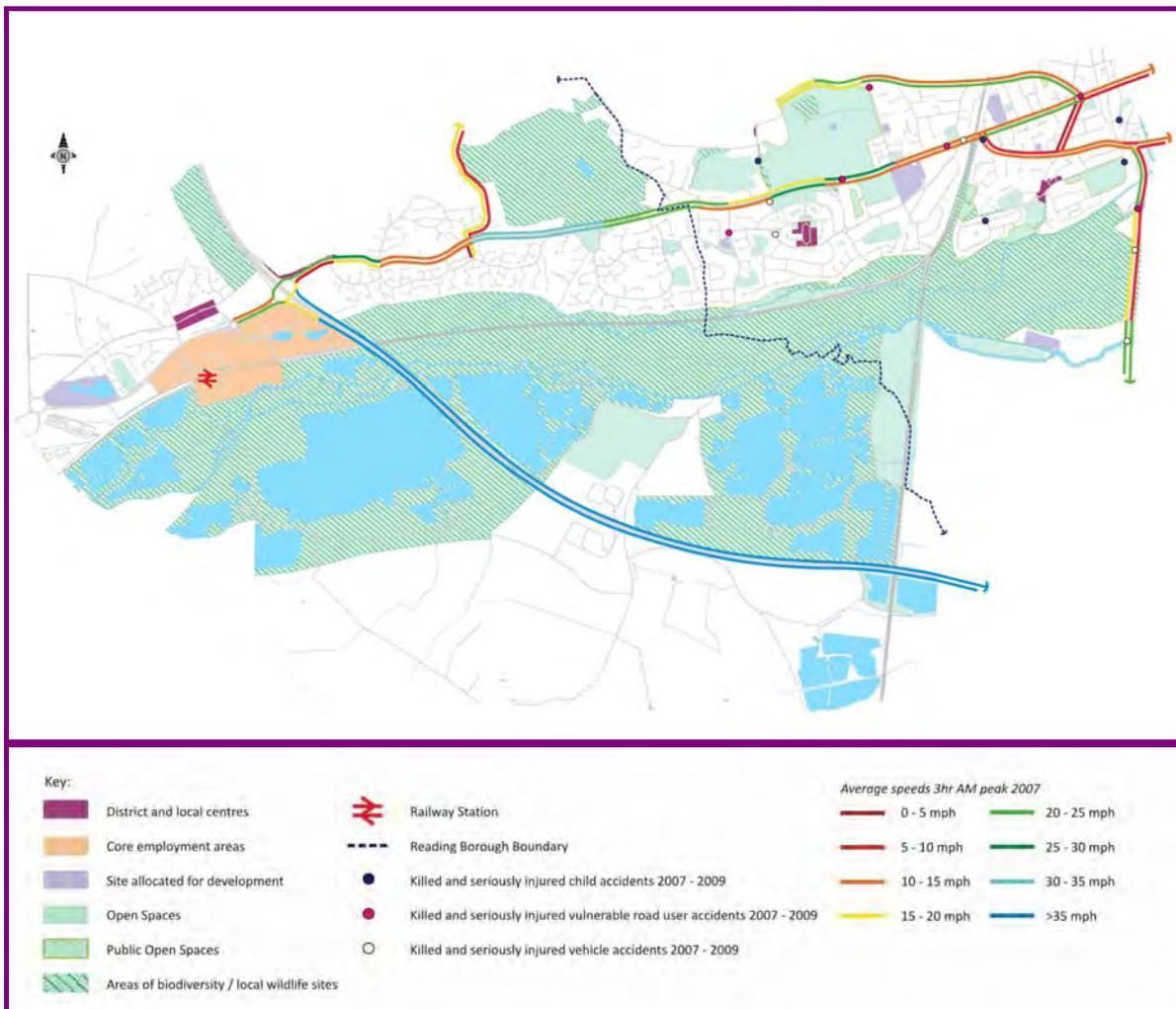


Figure 4.40: South Western Challenges

Lack of Connectivity to Local Centres

4.181 There are four local centres within the south western area, but some residential areas are not within 800 metres or 10 minutes walking distance, including parts of Calcot (south of the A4), and some areas situated off Tilehurst Road (east of Prospect Park). The A4 and railway line also create barriers between residential areas and local facilities.

4.182 The challenge is to improve connectivity to local centres by ensuring that sustainable travel options are available and encouraged.

Access to Theale Railway Station

4.183 Theale Railway Station provides services to Reading and Newbury, as well as nearby local stations, and offers an alternative sustainable travel choice for the area. A station audit undertaken in 2008 identified a number of issues, including:

- Limited pedestrian links around the station;
- Station car park at or close to capacity; and
- Minimal station and platform facilities.

4.184 These issues limit the station's potential to provide an alternative to the private car for travelling to and from the south western area.

4.185 The challenge is to encourage people to use the railway station for local journeys rather than using the private car, by supporting improved facilities for integrated transport.

Severance

4.186 The location of the River Kennet and the railway line create barriers between Coley, Southcote and Ford's Farm and areas of open space and biodiversity. Access to other areas of open space, such as Prospect Park, are also restricted by wide roads with high volumes of traffic, such as the A4 and Tilehurst Road

4.187 The challenge is to promote and develop pedestrian and cycle links across the river, railway and roads to enhance connectivity to open space and natural environments.

Current and Emerging Challenges	Impact on LTP3 Objectives									Evidence
	Physically Active Travel	Improved Personal Safety	Affordable, Accessible, inclusive travel	Safe and efficient network operation	Align transport and land use planning	Balanced value for money solutions	Sustainable Transport Choices	Journey time, reliability and information	Reduce carbon emissions & improve air quality	
Congestion on key routes	-1	-2	-2	-2	-1	-1	-1	-1	-2	Journey Time Surveys, Reading Transport Model, Traffic Surveys Defra Strategic Noise Map
Future Development's Transport Demand	1	-1	0	-1	2	1	1	1	-1	Reading LDF, West Berkshire LDF, Reading Transport Model
Lack of Connectivity to Local Centres	-1	-1	-2	-1	-1	0	-1	0	-1	Accession, Providing for Journeys on Foot (IHT, 2000)
Local Railway Station Access	-2	-1	-1	0	-1	-1	-2	-1	-1	Station Audits
Rail and Road Severance from Open Space	-2	-2	-2	0	-1	0	-1	0	-1	Accession, Providing for Journeys on Foot (IHT, 2000)

Transport Challenges' Impacts on Objectives for the Southwestern Area

Our Plan for the Future

Opportunities for Addressing Challenges	LTP3 Strategy Theme
To continue to work with West Berkshire Council to find cross-boundary solutions to transport challenges.	Infrastructure Intervention
To work with West Berkshire Council to progress the implementation of a long term Park and Ride strategy to manage congestion on key corridors and encourage the use of public transport.	Infrastructure
Consider the phased introduction of a mass rapid transit or rail based proposal linking a park and ride facility to central Reading.	Infrastructure
To work with partner organisations such as Network Rail and West Berkshire council to identify and maximise opportunities related to accessibility to / from and at railway stations (including the possibility of rail based park and ride).	Infrastructure Intervention

Opportunities for Addressing Challenges	LTP3 Strategy Theme
<p>To implement a phased process of neighbourhood or corridor enhancement studies and schemes to deliver multi-targeted benefits including improved safety, local connectivity, public realm, and integrated transport. Relevant local centres include:</p> <ul style="list-style-type: none"> • Wensley Road • Coronation Square 	Intervention Inclusion
<p>To consider targeted improvements on the key transport corridors to improve bus priority, road safety and walking and cycling routes.</p>	Intervention Inclusion
<p>To work with local secondary schools, to further increase safety and healthy lifestyles through appropriate training and promotion of sustainable travel to school.</p>	Inclusion
<p>To work with the private sector to innovate and secure delivery of integrated transport choices associated with relevant new developments within Reading and West Berkshire.</p>	Innovation Infrastructure Intervention Inclusion

Western Local Action Plan

Introduction

4.188 The western area is defined by the Great Western Main Line. The area has a population of approximately 59,000 people and provides approximately 20,000 jobs. The principal transport network includes the A329 Oxford Road and Reading West and Tilehurst rail stations, which accommodate rail journeys locally and regionally.



Figure 4.41: Western Area

4.189 Analysis of the Reading Transport Model shows that approximately 29,000 journeys are made from the western area in the 3-hour morning peak (07:00-10:00), of which 25,000 stay within the Reading urban area.

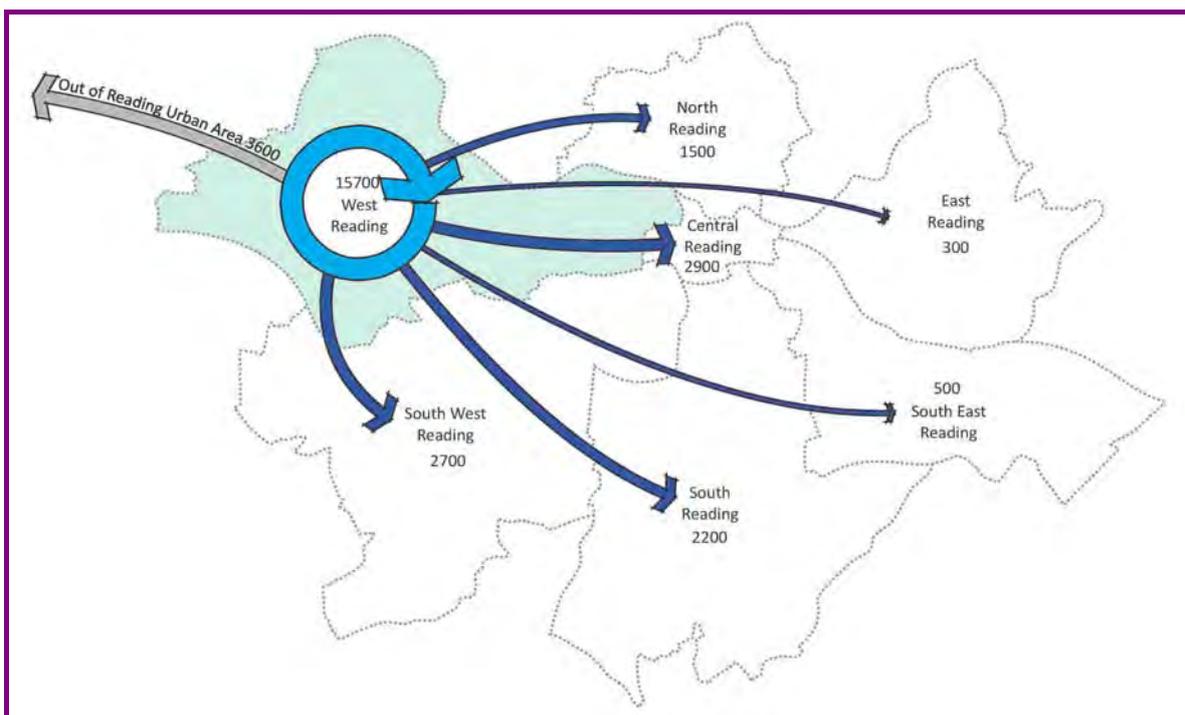


Figure 4.42: People Movements FROM Western Area

4.190 Transport movements by private car, public transport (including rail), walking and cycling have also been analysed.

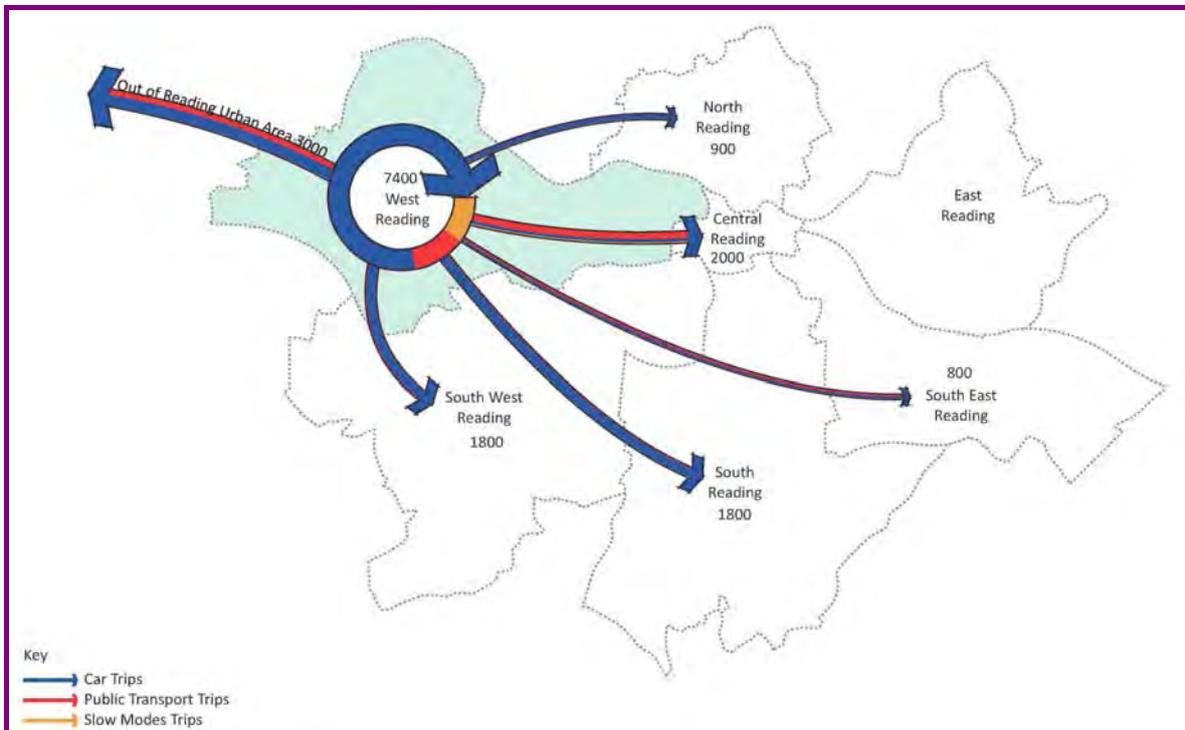


Figure 4.43: Travel To Work Mode Share Western Area (0700-1000)

What We Have Achieved

4.191 This section highlights the achievements we have made in the western area, including enhanced premier bus routes and proposals to improve Cow Lane bridges as part of the improvements to Reading Station.

4.192 LTP2 identified the existing traffic restrictions at Cow Lane as a major cause of delay. Improvements to the two rail bridges over the Cow Lane carriageway will create a two-way flow without height restrictions and will be brought forward with the Reading Station upgrade.

4.193 Dee Park is also the subject of major regeneration with plans that will remodel and improve the transport infrastructure throughout the housing estate.



Figure 4.44: Dee Park Regeneration (as existing and artists impression)

4.194 Other key achievements include:

- Premier routes 15, 16 and 33 launched, increasing the quality of Reading's main bus routes;
- The introduction of an enhanced route 17 service operating 24 hours a day / 7 days a week;
- Local safety schemes; and
- New bus stops and dropped kerbs, decluttering, re-lining and other improvements implemented through the Oxford Road Area Study, which has enabled a coordinated approach to local transport and accessibility.

4.195 These schemes and studies have enhanced local connectivity, encouraged more sustainable travel and provided the foundations for further targeted improvements.

Challenges and Opportunities

4.196 The action plans consider evidence of specific challenges that relate to the national transport goals. For the western area, the challenges that relate to transport and mobility include:

- Network Efficiency;
- Future Development Proposals;
- Safety; and

- Access to local railway stations.

Network Efficiency

4.197 The western area has two main key routes, Oxford Road and Cow Lane/Portman Road. Journey time surveys undertaken in 2007 have identified a number of congested areas, with speeds of less than 10mph in peak periods. These areas include:

- Oxford Road;
- Oxford Road/ Norcot Road Roundabout;
- Cow Lane; and
- Portman Road.

4.198 High traffic volumes cause air quality issues and increased carbon emissions and noise levels, which have a significant impact along the Oxford Road due to the high proportion of residential frontages.

4.199 Congestion also has severe impacts on public transport services, causing delays and affecting reliability due to the absence of bus priority measures.

4.200 The challenge is to manage traffic flows along the Oxford Road, Portman Road and Cow lane.

Safety

4.201 Oxford Road has high volumes of pedestrian activity. Surveys and studies have indicated a number of issues for pedestrians, including high numbers crossing along lengths of the road, street furniture, business advertising, cyclists on the footways and guard railings all cluttering the public realm and causing pinch points in pedestrian flow.

4.202 Accident data collected between 2007 and 2009 shows that accidents in the western area largely occur along the Oxford Road corridor. A high proportion of these are vulnerable user accidents: there were 8 vulnerable

KSI and 4 non-vulnerable KSI accidents. The majority of the accidents have occurred in the local centre area where there are more conflicting movements.

4.203 The challenge is to improve the pedestrian routes along the Oxford Road and to improve road safety, particularly for vulnerable road users.

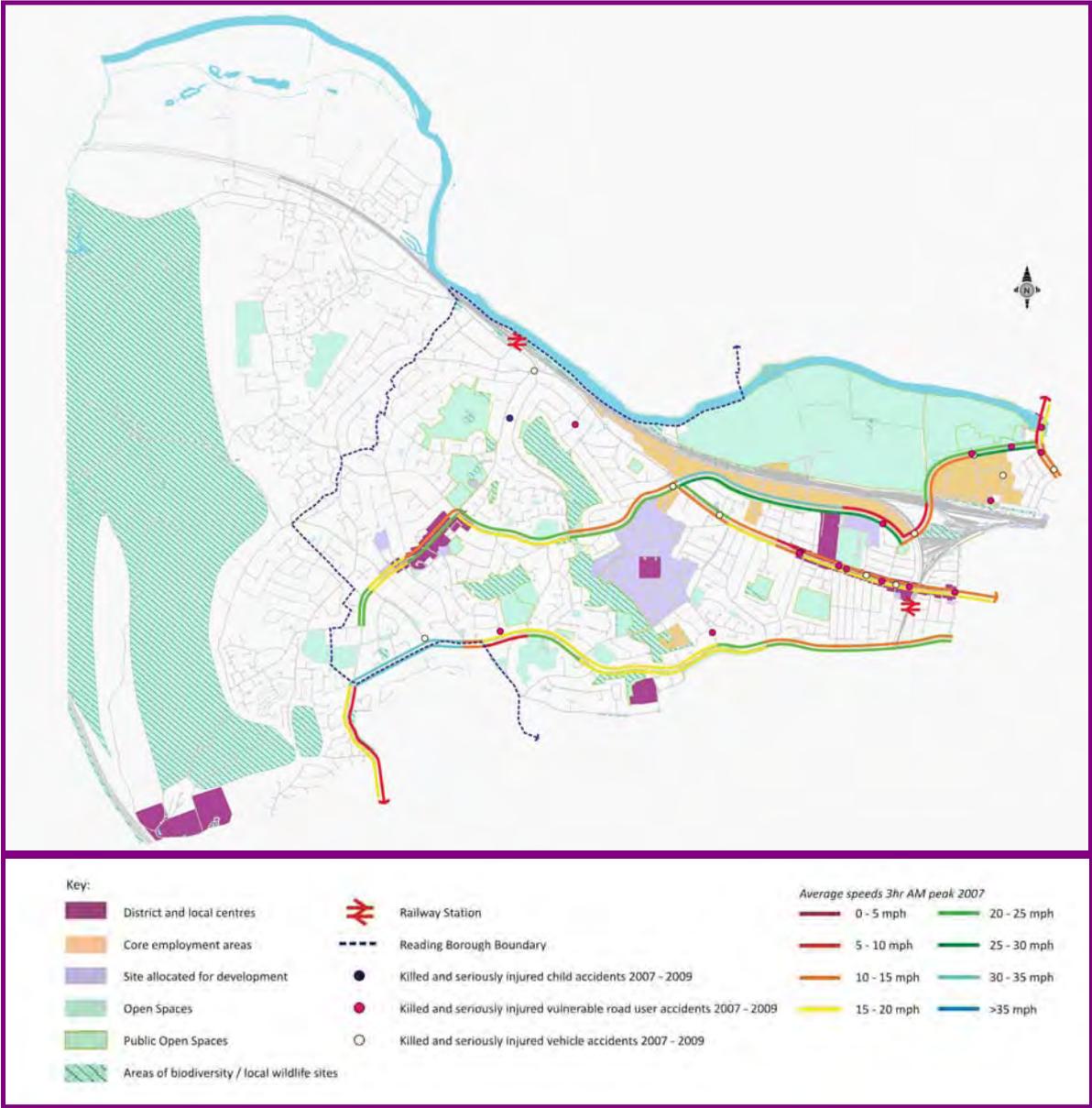


Figure 4.45: Western Area Challenges

Future Development Proposals

4.204 A number of developments sites have been identified in the western area. These will have an important strategic role in enhancing economic growth

and regenerating the area. Key development sites include Battle Hospital and Dee Park.

4.205 There are also a number of smaller development sites around the western area. In Reading Borough, the total proposed developments equate to 1,150 residential units and 10,000m² of A1 retail. These proposals are likely to add further pressure to the transport network, which will worsen the air quality, noise and carbon problems.

4.206 The challenges are to minimise the impact of developments on the transport network, ensuring that demand can be accommodated with minimal impacts on the local environment.

Access to Local Railway Stations

4.207 The western area has two local railway stations: Reading West and Tilehurst, which provide an excellent opportunity for sustainable travel for commuters and local residents. A station audit from 2008 identified a number of issues with these stations, including:

- Limited cycle parking;
- No step free access between platforms; and
- Poor car park access and quality (Tilehurst).

4.208 The limited access to facilities may reduce the attractiveness for local residents to use the station for leisure and commuter trips, further increasing reliance on the private car.

4.209 The challenges are to improve integrated transport access to railway stations, including parking facilities at Tilehurst station.

Current and Emerging Challenges	Impact on LTP3 Objectives									Evidence
	Physically Active Travel	Improved Personal Safety	Affordable, Accessible, inclusive travel	Safe and efficient network operation	Align transport and land use planning	Balanced value for money solutions	Sustainable Transport Choices	Journey time, reliability and information	Reduce carbon emissions & improve air quality	
Congestion on Oxford Road and Cow Lane	-2	-2	-2	-2	-1	-1	-1	-2	-2	Journey Time Surveys, Reading Transport Model, Traffic Surveys Defra Strategic Noise Map
Accidents on Oxford Road	-2	-2	-1	-2	0	-1	-2	0	-1	Accident Records, Oxford Road Pedestrian Surveys, Oxford Road Study
Future Development's Transport Demand	1	-1	0	-1	2	1	1	1	-1	Reading LDF, West Berkshire LDF, Reading Transport Model
Local Railway Station Access	-1	-1	-1	0	-1	-1	-2	-1	-1	Station Audits

Transport Challenges' Impacts on Objectives for the Western Area

Our Plans for the Future

Opportunities for Addressing Challenges	LTP3 Strategy Theme
To review and develop further a sustainable distribution strategy for the area ensuring the use of appropriate routes and effective deliveries to local centres.	Innovation
To develop a bus based priority network for the western area, linking to key destinations including a possible park and ride facility in the south western area and considering any additional benefits of the new rail over bridges to be built at Cow Lane.	Infrastructure Intervention

Opportunities for Addressing Challenges	LTP3 Strategy Theme
<p>To undertake a phased process of neighbourhood or corridor enhancement studies and schemes to deliver multi-targeted benefits including improved safety, local connectivity, public realm, and integrated transport. Relevant local centres include:</p> <ul style="list-style-type: none"> • Tilehurst Triangle • Dee Park • Oxford Road (west) • The Meadway. 	Intervention Inclusion
<p>To progress the Oxford Road Area Study, addressing safety and pedestrian issues, providing continuity of cycle links, addressing the accessibility issues noted at Tilehurst station and ensuring an effective traffic management strategy is in place for the completion of the new rail over bridges at Cow Lane.</p>	Intervention Inclusion
<p>To work with the private sector to innovate and secure delivery of smarter and sustainable transport choices associated with new developments at the former Battle Hospital site and Dee Park.</p>	Innovation Infrastructure Intervention Inclusion

5 WIDER CONTEXT

Introduction

- 5.1 This chapter describes some of the documents, strategies and policies from national to local that support our LTP work alongside the ongoing partnerships and consultation processes that help us to communicate our Strategy and keep it under review and up-to-date.
- 5.2 A review of the wider context, spatially, between disciplines and across departments, has helped us develop our LTP Strategy, better integrate our LTP policies and provide for delivery targeting national and corporate goals.

National Context

- 5.3 This section details the main national policies, legislation and guidance that provide the context for our LTP, sub-strategies and related documents. It looks at the requirement to have an LTP and the relevant documents, produced by the Department for Transport (DfT), that support its delivery, guide its content or contribute to the development of the policy areas detailed in Chapter 6.
- 5.4 Other Government Departments also influence local transport strategy and execute legislation requiring the production of plans and sub-strategies that inform a policy area within the LTP.

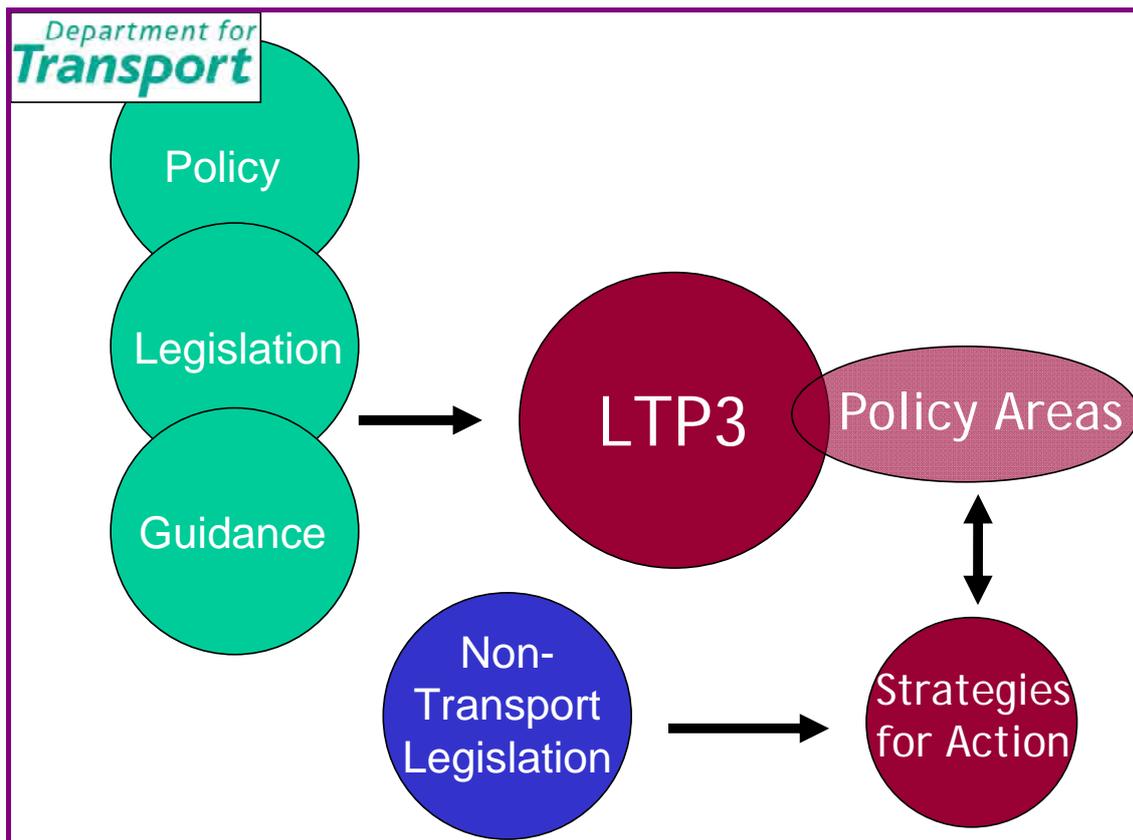


Figure 5.1: National Context for LTP3

Requirement for Local Transport Plans

- 5.5 The *Transport Act 2000* enacted proposals from the integrated transport White Paper *A New Deal for Transport - Better for Everyone (July 1998)*. The main aim was to increase personal travel choice by improving infrastructure and services that enable more people to use public transport, walk and cycle, increasing local accessibility and integration. This legislation set out the requirement for local transport plans. *Accessibility, Tackling Congestion, Road Safety, Air Quality and Quality of Life* were the five 'shared priorities' identified for local transport on which LTP2 was based. The Act also enabled local authorities to introduce road user charging or workplace parking levy schemes and to retain any income generated.
- 5.6 The *Local Transport Act 2008* addressed issues around congestion, local road user pricing schemes and the quality of local bus services. It was written to give Local Authorities more power to deliver transport

improvements, and particularly better public transport services, for today and for the future.

Supporting the LTP Process

- 5.7 A cycle of other reports, White Papers and guidance has been published to support the LTP process. The Stern¹⁰ and Eddington¹¹ reports on climate change, economy and transport in 2006 helped to shape new national transport goals that were defined through a process known as *Delivering a Sustainable Transport System* (DaSTS). The DaSTS goals (Economy, Carbon Emissions, Safety, Security and Health, Quality of Life and Equality of Opportunity) replaced the shared priorities set out for LTP2 as a national framework for local transport.
- 5.8 Since the change of government, new policy has been emerging, but the White Paper published in January 2011, *Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen*, reconfirms economic growth and carbon reduction as the key priorities for transport, along with a new focus on local delivery, choice and responsibility.
- 5.9 The White Paper reconfirms previous guidance on best practice, elaborating on the types of measures and packages that it envisages will deliver value for money. These include encouraging active travel through cycle training and school travel planning projects, making public transport more attractive through smart and integrated ticketing and partnerships with operators, and managing traffic to reduce carbon emissions and tackle congestion.
- 5.10 More detail on some of the concepts developed in the White Paper is available from previous guidance such as *Delivering Sustainable Low Carbon Travel: An Essential Guide for Local Authorities (2009)*, which

¹⁰ The Economics of Climate Change: The Stern Review, 2007

¹¹ The Eddington Transport Study, 2006

was published to demonstrate how sustainable travel initiatives can play a key role in reducing carbon emissions from transport as well as contributing to a wide range of local priorities. This document also supported the LTP guidance published in July 2009, which is relevant to the writing of LTP3 documents.

Other Requirements

- 5.11 There is a statutory duty to produce strategy plans related to various policy areas within the LTP, such as road safety, rights of way, school travel and air quality (where an air quality management area is declared).
- 5.12 The *Environment Act 1995* requires local authorities to review and assess air quality on a regular basis and also requires a national air quality strategy. In response to this legislation, DEFRA has produced Air Quality Strategies, the latest in 2007. This national strategy influences our local air quality strategy, both of which include transport as a major source of air pollution. Therefore, the LTP includes air quality as a policy area.
- 5.13 The *Education & Inspections Act 2006* places a duty on local authorities to promote sustainable travel to school by developing a Sustainable Modes of Travel Strategy to help reduce congestion and encourage a healthier and active lifestyle. The Act also places a duty on Local Education Authorities (LEA) to provide free transport for some of the most disadvantaged pupils where the school is more than two (and less than six) miles away.
- 5.14 Other legislation relating to specific delivery themes or policy areas are referenced in the relevant sections in Chapter 6.
- 5.15 In some cases, strategy plans which are produced by other organisations in response to legislation and policy include actions for local transport authorities. An example of such a plan is the Noise Action Plan, prepared by Defra, which covers Reading, and extends into West Berkshire,

Wokingham and Bracknell Forest. This plan has been written, along with other similar documents in response to the *Environmental Noise Directive 2002/49/EC* and the *Environmental Noise (England) Regulations 2006*.

Local Context

- 5.16 Recognising the interaction between patterns of development and transport, the LTP Strategy Plan takes its timescale from land use planning and is closely integrated with the Local Development Framework (LDF). The adopted *LDF Core Strategy (2008)* sets out a physical spatial strategy for new development in Reading over the next 15-20 years, as part of realising the Reading 2020 vision. Other documents in the LDF, including the *Reading Central Area Action Plan (2009)*, the Site Allocations Document and the Development Management Document will seek to deliver the Core Strategy in the context of priorities and actions set out in the Sustainable Community Strategy.
- 5.17 The LTP Implementation Plan timescale is aligned with the *Sustainable Community Strategy*, which will form the overarching framework locally for developing strategies, policies and plans, through the themes *People, Place* and *Prosperity*. The strategy is delivered through effective working between Reading's key public, private and voluntary sector partners, which make up the Local Strategic Partnership.
- 5.18 The *2008-2011 Sustainable Community Strategy* was organised according to nine themes which reflect key local areas of concern; one of which is 'transport and accessible spaces'.

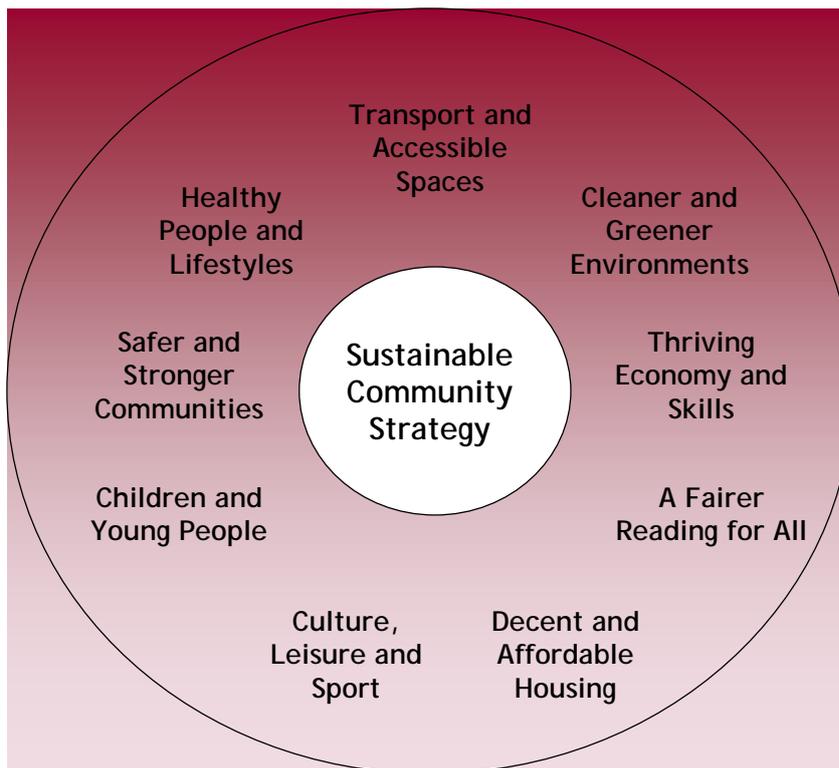


Figure 5.2: Sustainable Community Strategy Themes

- 5.19 These themes all relate to transport, but some more directly than others, as shown in the diagram above. Transport is a major source of emissions, linking transport strategy to the Cleaner and Greener Environments theme, under which the *Air Quality Action Plan (2009)* and *Climate Change Strategy (2008)* were produced.
- 5.20 In 2009, Reading Borough Council merged all of its original, smaller Air Quality Management Areas, declaring just one area covering central Reading, the mainline railway and the main radial roads out to the edge of Reading. This area was chosen so that the Air Quality Action Plan would reflect our transport strategy and to facilitate area-based delivery as described in Chapter 4.
- 5.21 The Climate Change Strategy estimates that 12% of Reading’s carbon footprint is attributable to transport. This is well below the South East regional average, and also compares favourably with other urban areas in the region, reflecting the positive impact of successful sustainable transport measures undertaken during previous LTP periods. However, the

strategies for climate change and transport must work together to further reduce transport-related emissions to meet local, national and international targets and prepare for climate change impacts on road surfaces and railway lines and for increased flood risks.

- 5.22 Reading is a Diamond for Investment & Growth because, along with eight other South East cities, it has the greatest potential for sustainable economic and community growth. Through partnership working, both within individual economic areas and between the Diamonds, we believe that Reading can make a faster and stronger contribution to driving economic growth and sustainable prosperity. A Local Economic Assessment has been prepared on behalf of the Diamond Forum by a world-class academic team from the University of Reading to provide a single evidence base that will inform local strategies. A key theme is sustainable economic growth: environmental sustainability, housing and infrastructure - including transport.
- 5.23 In relation to safety and health relevant local strategies include the *Children & Young People's Plan* and the *Community Safety Strategy*. Reading's Children and Young People's Plan identifies a number of priorities, including 'being healthy' and 'staying safe'. These priorities, and the actions and indicators that link to them are consistent between the plan and LTP documents such as the *Sustainable Modes of Travel Strategy* or the *Road Safety Strategy*.
- 5.24 Links to other Sustainable Community Strategy themes will be addressed through the Strategic Environmental Assessment, Health Impact Assessment and Equality Impact Assessment documents and, where relevant, are also picked up in Chapter 6.

6 OUR POLICIES FOR CONNECTING READING

- 6.1 This Chapter sets out the policy approach we have adopted for our identified transport delivery areas, from walking and cycling to road safety and parking. At the outset we detail our core enabling policies, which explain how we intend to deliver our strategy under the delivery themes introduced in earlier Chapters of inclusion, intervention, infrastructure and innovation. These themes are also aligned to the three strands of the Sustainable Community Strategy; *People, Place* and *Prosperity*.

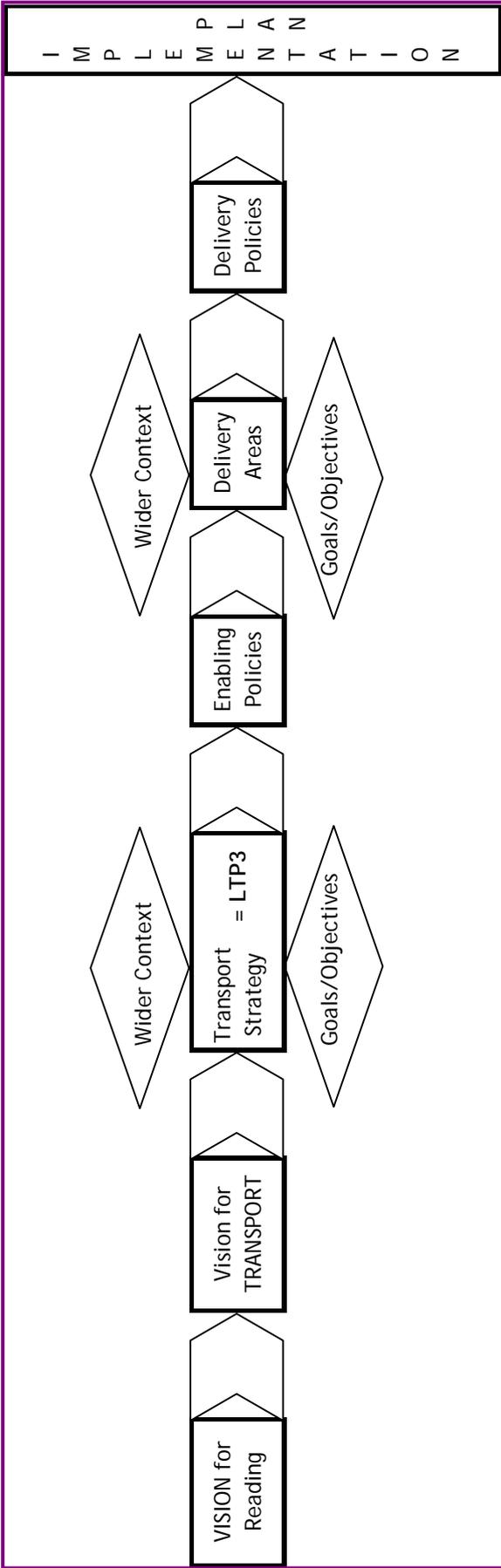


Figure 6.1: Policy Framework

Enabling Policies

6.2 Our enabling policies to improve inclusion for people in Reading, are as follows:

- To implement multi-targeted schemes, particularly those that will make pedestrian and cycling connections safer and more attractive to local destinations, to achieve best value for money;
- To support investment in safer and more affordable transport in areas of greater deprivation;
- To take a preventative approach of scheme safety auditing, inspection and user education to reduce road casualties.
- To support the Air Quality Management Plan in improving air quality; and
- To support alternative or community-based public transport where commercial public transport is inaccessible or unaffordable.

6.3 Our policies for transport interventions are as follows:

- To maintain and manage the transport network in order to keep transport moving safely, monitor trends and respond to circumstances;
- To give priority to walking, cycling and public transport and improving access by those modes;
- To ensure the provision of a safe, reliable, efficient and easy to use public transport network to meet the travel needs of all those who are unable to use, or choose not to use, a private car and to commit to Quality Partnerships with local public transport operators where this will enhance the standard of service provided;
- To provide travel information on all transport options through a wide range of channels to enable everyone to make better decisions for their journeys; and
- To engage with local residents, businesses and other stakeholders to target interventions to meet local needs.

- 6.4 Our policies for investing in new infrastructure to improve connections throughout and beyond Reading are:
- To identify and pursue opportunities to upgrade radial, orbital, regional and national connections that will secure local benefits;
 - To secure the provision of higher capacity, higher quality and low carbon public transport services;
 - To promote a network of publicly available Electric Vehicle (EV) charging points throughout the area to support the introduction of low carbon vehicles and to continue to develop the potential to use local renewable electricity generation resources in running this network; and
 - To maintain close working relationships with central government, neighbouring authorities, transport operating companies, Network Rail, the Highways Agency and other partners.

6.5 Long term prosperity can only be achieved by inspiring innovation in addressing challenges. Our policies are:

- To support the development and use of innovative technology to keep transport moving, monitor trends and respond to changing circumstances;
- To encourage and enable low carbon or low energy travel choices for private and public transport; and
- To use innovative techniques of communication and engagement to review and reshape the strategy over time.

Sub-strategies, Objectives & Policies

6.6 Recognising that circumstances will change over time, we will continually measure, evaluate and review the success of the strategy and its delivery, locking in any improvements and responding effectively to emerging challenges and opportunities.

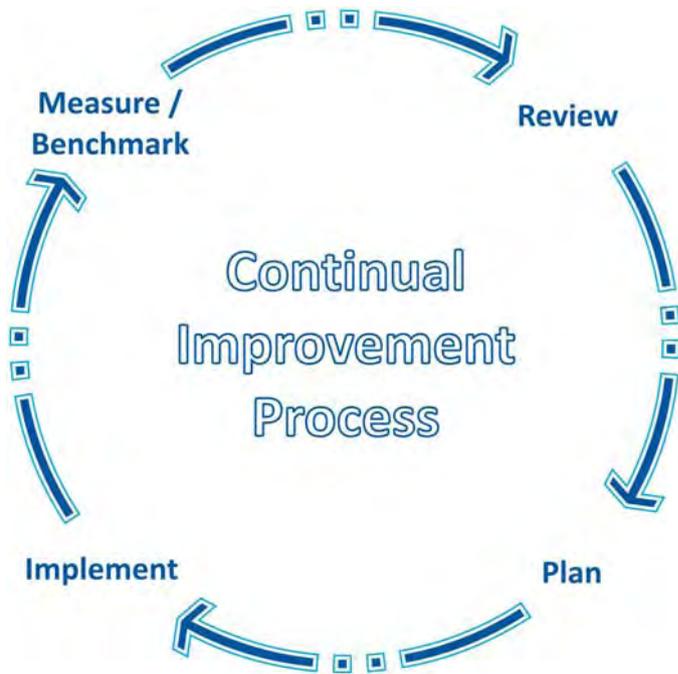


Figure 6.2: Scheme Development Process

6.7 We have a transparent process to identify, assess and audit proposals in order to maximise the value of our resources and deliver the best possible outcomes given the likely levels of funding and the current state of infrastructure and transport services. This process broadly has seven steps as follow:

- Regular audits of existing assets and services and their use to identify potential for greater efficiency;
- Involve relevant stakeholders, partners and communities in the development and implementation of transport interventions;
- Undertake a multi-criteria Scheme Assessment Process for all transport proposals (including major highway maintenance, traffic management and road safety schemes) to identify impacts and benefits for all modes/users;
- Give priority to transport interventions which deliver value for money, by comparing benefits to costs, through a formal economic evaluation where appropriate;
- Assess high cost proposals against the availability of low cost alternatives;

- Communicate transport proposals through statutory processes and multiple informal channels, in order to reach stakeholders and local transport users; and
- Monitor interventions through appropriate before and after surveys, regular data collection and annual monitoring for performance indicators.

6.8 Detailed delivery policies, categorised by travel mode or broad themes, explore the existing assets and services we audit through this process.

6.9 Separate strategy documents have been prepared in order to provide further detail or to meet separate statutory requirements. These also contain relevant detailed policies and should be considered in parallel with the LTP3 suite. An overview of these documents is included in this chapter, as well as more detail for other policy areas. Many policy areas address multiple overarching goals and objectives.

LTP3 Strategy Connecting Reading Detailed Policy / Delivery Area	sub-strategy	LTP3 THEMES				SCS		
		Inclusion	Interventions	Infrastructure	Innovations	People	Place	Prosperity
School Travel		✓	✓			✓		
Travel Information/Behaviour		✓	✓		✓	✓		✓
Neighbourhood Enhancements		✓	✓			✓	✓	
Air Quality Management		✓	✓		✓	✓	✓	
Road Safety		✓	✓			✓		
Public Transport		✓	✓	✓	✓	✓	✓	✓
Network Management			✓			✓	✓	✓
Maintenance/Asset Management		✓	✓			✓	✓	
Drainage/Surface Water Management			✓		✓		✓	✓
Walking/Rights of Way			✓			✓	✓	
Cycling			✓			✓	✓	
Parking Policy and Standards			✓	✓			✓	✓
Local Development Framework		✓	✓	✓	✓	✓	✓	✓
Cross-Boundary Partnerships				✓			✓	✓
Major Scheme Development				✓	✓			✓
Demand Management			✓		✓		✓	✓
Climate Change			✓		✓	✓	✓	✓
Freight/Sustainable Distribution			✓		✓		✓	✓
Research and Development		✓	✓	✓	✓	✓	✓	✓

Strategy/Policy Area Matrix

Improving Inclusion

6.10 Improving inclusion means giving people safe, healthy and affordable transport options. Therefore, the strategy theme includes the following detailed policy areas:

- School Travel;
- Travel Information / Behaviour;
- Neighbourhood Enhancements;
- Air Quality Management;
- Road Safety; and
- Public Transport (supported services).

School Travel

6.11 School travel objectives, policies, challenges, opportunities, actions and targets are detailed in the *Sustainable Modes of Travel Strategy 2010* (SMoTS), which is a statutory document under the *Education and Inspections Act 2006*. This document includes policies to assist all schools with developing, implementing and monitoring school travel plans and increasing the use of sustainable transport options for travel to school. It also identifies the responsibility for providing road safety education and national standard cycle training and defines the process for developing measures to create safe routes to schools.

<p><i>Encourage schools to update school travel plans promoting sustainable travel to school</i></p> <p><i>Increase the number of pupils walking, cycling and using public transport to travel to school</i></p> <p><i>Reduce the number of car journeys made to school, particularly among those living within 2 miles of the school</i></p> <p><i>Promote and encourage participation in Bikeability</i></p> <p><i>Support increased accessibility to local services/facilities, including education</i></p> <p><i>Raise awareness of road safety issues</i></p>	<p><i>Sustainable Modes of Travel Strategy</i></p>
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6.12 School travel policies and actions are monitored and proposals assessed for their likely impact in increasing the number of children walking, cycling or taking public transport and in reducing the number of car journeys to schools. Policies and proposals aim to ensure that options are available for all children to access education and also promote travel to improve children's physical activity levels through increased walking and cycling.



Figure 6.3: Children undertaking Bikeability Cycle Training

Travel Information

6.13 Travel Information permeates a number of policy areas, as it encompasses workplace travel planning, personalised travel planning, and static and dynamic travel information provision through signs, leaflets and technology. The overall aim of our Travel Information policy is to give people the information and assistance they need to enable them to understand what travel options are available, choose how and where to travel and guide their travel behaviour so they are making smarter travel choices. This aim is applicable to everyone travelling in or through Reading, no matter the journey purpose or demographic. Travel Information policy also assists in the management and monitoring of the transport networks, offering low cost interventions to reduce congestion and the impact of transport on the environment.

6.14 Objectives, policies and actions under the theme of travel information are included in a number of documents. The provision of a bus information strategy is a statutory requirement under the *Transport Act 2000*, and details of corresponding policies to improve the provision, quality and accessibility of information available to public transport users are contained in that document and also within our separate *Public Transport*

Strategy (2011). Policies on promoting cycling through branding, high quality route maps, directional signing and journey time information are included within our *Cycling Strategy (2008)*. Under the *Parking Standards and Design SPD (2009)*, developers are expected to include travel plans as part of their submission for major developments.

6.15 Along with the travel information policies included within these mode-specific strategies, we use Intelligent Transport Systems (ITS) to disseminate information across modes. ITS use a series of complementary technologies (such as sensors, computers, electronics and communication devices) integrated through management databases and strategies to improve the quality, safety and efficiency of transport networks. They deliver high quality traveller information often in real time, leading to increased use of sustainable transport modes and fulfilling elements of the network management duty as required by the *Traffic Management Act 2004*.

6.16 Our objectives for delivering travel information are as follows:

- Utilise the network performance data collected and managed by UTMC to support travel information services;
- Deliver reliable, high quality information for transport users to promote smarter travel choices; and
- Encourage the development and implementation of innovative technologies to enhance the quality and impact of travel information, maintaining Reading's reputation as a leader in this field.

6.17 We will do this through the following policies:

- Secure and promote real time information through a range of channels on public transport arrivals and departures, on traffic conditions and incidents and complement static information available to transport users and freight operators;
- Promote the use of web, mobile and emerging technologies for disseminating travel information and advice to transport users;

- Support the delivery of customisable and personalised travel planning services that will encourage individual sustainable travel choices;
- Facilitate open data access, encouraging and supporting the wider use of data captured by UTMC to provide additional information to the public through software development partnerships and make public data available for innovative applications that benefit transport users and network performance; and
- Work with Government, operators, neighbouring authorities and other partners to secure and promote interoperable technology where appropriate.

Neighbourhood Enhancements

6.18 Transport infrastructure, including roads, footways and parking areas, forms a substantial proportion of the public realm. The quality of this infrastructure influences the quality of the local environment. A programme of Local Area and Local Centre Enhancements or Home Zone projects has improved the local environment within neighbourhoods, while also delivering key transport objectives, such as enabling vulnerable groups of people to reach the services they need safely and conveniently.



Figure 6.4: Meadway Local Centre Enhancement Scheme

6.19 Our objectives for neighbourhood enhancements are:

- To improve accessibility to local activities, services and goods for all groups;
- To increase the transport options available to achieve that access;
- To improve personal safety and security within the public realm;
- To better manage the impacts of transport on neighbourhoods;
- To enhance local quality of life; and
- To build more attractive and sustainable local environments.

6.20 The following policies provide a methodology to follow to achieve these objectives:

- Priorities for enhancement projects will be identified through the Local Area Action Plans and subsequent more detailed studies;
- Ward councillors, local stakeholders, relevant service providers and the local community will be engaged in identifying options and delivering proposals;
- Opportunities to improve travel choice will be considered according to objectives defined for the area;
- Priority will be given to the safety of vulnerable groups and to improving travel choice for disadvantaged groups;
- We will provide and promote opportunities for local people to comment on and influence proposals; and
- The impact of enhancements will be monitored through before and after surveys and ongoing data collection and analysis.

Air Quality Management

6.21 The Environment Act 1995 introduced a statutory duty for Local Authorities to review and assess the air quality in their districts, and where problems exist, to formulate an action plan to improve the situation. Air quality is assessed against UK Air Quality Objectives (AQO),

which are target levels of each pollutant based on their effect on human health. Reading Borough Council's air quality monitoring and modelling identified a number of areas close to busy roads where the national objective levels for nitrogen dioxide were unlikely to be met, and because of these exceedences we have declared a large area of the Borough as an Air Quality Management Area (AQMA).

Clean air is essential for our health, quality of life and the environment. Air pollution is not only harmful to human health but may also have harmful effects on plants and animals as well corroding materials and buildings.
Air Quality Action Plan

6.22 To support the AQMA we have also produced an *Air Quality Action Plan (AQAP) (2009)* identifying measures which can be introduced in order to try and reduce the levels of nitrogen dioxide across the borough, with a particular focus within the AQMA. The AQAP is aligned with the LTP, recognising that transport is the main contributor to air quality exceedences in Reading. Details of objectives, policies and actions to achieve these objectives are contained within the AQAP.

Road Safety

6.23 The *Road Traffic Act 1988* places a statutory duty on local highway authorities to produce a Road Safety Strategy. This duty was fulfilled by a single document for 2001-2010 that is replaced by the *Road Safety Strategy 2011*.



Figure 6.5: Lower speeds and banned turns are traffic management tools to improve road safety

- 6.24 Road safety issues are addressed through a combination of measures based on engineering, enforcement and education. Our past approach has focused on local accident clusters with the aim to reduce the number of deaths and serious injuries on our roads in line with Government targets. This has been combined with enforcement work in partnership with the Thames Valley Police and road safety education work based on community partnerships and an understanding of local issues, particularly where there is evidence that people living in poorer communities are more likely to become casualties in road traffic accidents
- 6.25 This approach has resulted in a 56% reduction in fatalities and serious injuries as well as a gradual reduction in slight injuries. Partnership working, enforcement and education will still be an important element of road safety, but new guidance and analysis of current trends indicate a revised approach to reducing accidents. Therefore, the Road Safety Strategy 2011 focuses more on actions to improve safety for vulnerable road users (e.g. pedestrians, motorcyclists) and address accident causation factors (e.g. speed, road user behaviour) rather than accident cluster sites, which are becoming rarer.
- 6.26 Details of policies, objectives and actions are contained within the Road Safety Strategy.

Public Transport

- 6.27 The *Public Transport Strategy (2011)*, formerly known as the *Bus Strategy (2008)*, includes objectives and policies on all forms of public transport, including rail, taxis, park and ride, cycle hire, community and voluntary transport and other social transport. Alternative forms of public transport like these are key to the inclusion strategy theme, enabling people who cannot travel by other modes or services to connect to healthcare, local facilities, education and jobs. Partnership working within the Council, with other organisations in the public and private sector and the voluntary sector allows people to reach and utilise the

services they need by securing public transport services that are available, accessible and affordable.

6.28 Where public transport cannot be run on a commercial basis, additional routes and community links may be subsidised by the Council to support socially necessary journeys. Education and Social Care Services also deliver transport to their customers and cross-cutting policies on these are included in the Public Transport Strategy in order to make the best use of available resources for specialist transport provision. We also aim to make public transport more affordable to those who find the cost of fares a barrier to travel, and concessionary fares policies are included in the Public Transport Strategy. Bus information policies consider the needs of all different demographic groups.



Figure 6.6: Readibus provides alternative transport for those unable to use other public transport

Implementing Interventions

6.29 Ongoing attention and interventions are required to ensure the transport network operates efficiently and effectively to enable people to travel between places. The delivery theme includes the following detailed policy areas:

- Public Transport (Quality Bus Partnerships);
- Network Management;
- Maintenance / Asset Management;
- Drainage / Surface Water Management;
- Walking / Rights of Way;
- Cycling; and
- Parking Policy and Standards.

Public Transport

6.30 The underlying focus of the Public Transport Strategy is the provision of commercially viable public transport services that offer high quality, reliable, efficient and attractive transport choices and that are competitive with the private car. The public transport strategy sets out objectives and policies for different types of public transport routes, defining the frequency of service, vehicle standards, stop/interchange facilities and reliability levels acceptable for each route type.



Figure 6.7: Flagship Route 17 offers service 24/7 to southeast and west Reading

- 6.31 These policies form the basis of quality partnerships with operators and regular liaison helps all parties involved maintain high standards. Objectives and policies for consultation support this liaison, while those for public transport information and marketing reinforce the quality of the public transport options and enable an ongoing commitment to improving the branding, ticketing and integration of public transport in Reading and beyond.
- 6.32 Longer distance journeys are often by rail and the Public Transport Strategy supports the improvement of rail services, stations and other facilities, as well as taking responsibility for access to rail locally. Interchange between public transport modes or services also recognises that the use of public transport is reliant on the arrival at stops or stations by private transport (foot, bicycle, powered two-wheeler or car), hired transport (e.g. car club, cycle) or by taxi or other demand responsive transport. Policies specific to taxis and private hire vehicles are also set out in the Public Transport Strategy.

6.33 Implementing interventions for public transport is an extensive policy area within the LTP3 strategy, and as public transport contributes to all delivery themes and overlaps with other policy areas, it is clearly a vital element of achieving our transport vision.

Network Management

6.34 The Council has a network management duty under the *Traffic Management Act 2004*, and our appointed Network Manager has responsibility for the movement of traffic in liaison with neighbouring local authorities and other agencies. The need to maximise the use of our existing highway network is critical to managing congestion within a tightly constrained urban area. Part 2, Section 16(1) of the 2004 Act defines the following objectives in the context of local highway authorities managing their road networks:

- To secure the expeditious movement of traffic on the authority's road network; and
- To facilitate the expeditious movement of traffic on road networks for which another authority is the traffic authority.

6.35 Local authorities also have a duty under the **Road Traffic Reduction Act 1997** to prepare reports from time to time setting out the levels of road traffic in their area and to publish forecasts and targets for reducing growth.

6.36 To fulfil the network management duty, a local authority may take any action that will contribute to securing more efficient use of the road network, or the avoidance, elimination or reduction of road congestion and other disruptions to the movement of traffic. Reading's approach is to be proactive in taking such actions, using innovative Urban Traffic Management and Control systems. Elements of the UTMC are automated to balance traffic flows. Using the information gathered on network performance, messages are generated and disseminated through various means to encourage smarter travel choices.



Figure 6.8: UTMC Room

6.37 The strategic objectives for network management are as follows:

- To improve the operation, safety, efficiency, and effectiveness of the local transport network;
- To improve the resilience of our transport networks; and
- To improve data collection and management to support other policy areas and strategies and the LTP3 targets and monitoring requirements.

6.38 Network Management policies are:

- To maintain and develop an open standard Urban Traffic Management and Control System that incorporates leading-edge, best practice functionality to capture, analyse and disseminate network performance data;
- To utilise Urban Traffic Management and Control systems and measures to optimise the operation of the transport network;

- To use public transport priority measures and enforcement to reduce delay and improve service reliability across the network where appropriate;
- To co-ordinate a rapid response to network incidents, roadworks and planned events with effective multi-platform strategies, minimising disruption and delay;
- To review accident data to identify emerging trends and options to reduce accidents;
- To evaluate the network impact of scheme options and design proposals involving potential changes to static signing, road markings;
- To maintain records of TROs and consolidate signing, ensuring that all proposed changes to the network have appropriate authorisation;
- To develop and implement a local network signage strategy and identify and promote the use of appropriate freight routes;
- To develop and maintain comprehensive central Reading and neighbourhood pedestrian signage strategy;
- To liaise with Emergency Planning, Highways Agency, Thames Valley Police and Royal Berkshire Fire & Rescue over incident management;
- To liaise with promoters of special events (including Madejski Stadium, Reading Festival, community and local festivals) to minimise the impact of additional and concentrated periods of high volume use of the transport networks;
- To develop, maintain and implement seasonal and other planned multi-platform strategies to ensure that the network is able to operate at optimum efficiency; and
- To continue to review and assess new opportunities (legislative, technical and operational) and innovative technologies that may improve the network management function to ensure efficient use of assets.

Maintenance / Asset Management

- 6.39 As the local highway authority, Reading Borough Council is responsible for maintaining all land within the public highway. This includes all adopted roads as well as the footpaths, verges, bridges and some footways and cycle paths. The assets within the public highway (e.g. carriageway, footways, street-lights, drainage, signs, etc) all require management and maintenance in order to sustain their value and the efficient use of the network.
- 6.40 There is a requirement to value highways assets to enable the completion of whole of government accounts (due for 2009/10) and to take advantage of flexible financing frameworks for the procurement, management, maintenance and development of local authority capital assets. Reading Borough Council has prepared a Highways Asset Management Plan (HAMP) and the Asset Management database system will provide the detailed core data required to support it.
- 6.41 Our objectives for maintenance and asset management are:
- To adhere to national standards of inspection and repair;
 - To continuously seek to improve the carriageway conditions on principal and non-principal road network as far as reasonably practicable;
 - To enhance the public realm through maintaining high and recognisable standards of assets;
 - To identify and explore opportunities to assist network management function;
 - To identify and explore opportunities to assist environmental and climate change objectives; and
 - To coordinate action with other service providers and stakeholders, such as utility companies, neighbouring Highway Authorities, developers and other Council departments.



Figure 6.9: Laying a new surface outside the Civic Centre

6.42 To intervene effectively in a timely manner requires constant inspection of assets and a rolling programme of review, repair, upgrade/resurfacing and replacement/ reconstruction. Therefore, our policies are as follows:

- All public highway routes for vehicular and pedestrian traffic will be inspected for safety using nationally accepted standards to identify locations for patching and repairs and priorities for resurfacing;
- The frequency of inspection of highways will be determined by the priority of the route according to a carriageway, footway and cycle route hierarchy in line with nationally accepted guidance;
- The road classification will be used as the basis for determining the frequency of winter or other emergency maintenance, including gritting, with priority given to the most heavily used roads, bus routes and routes to the hospital;
- Extreme weather event strategies will be agreed with public transport providers to ensure that they will be able to maintain access to

essential facilities during periods of disruption and such strategies will co-ordinate maintenance, operations and user information functions;

- Safety hazards on the public highway which are considered an emergency will be addressed within 2 hours on a call-out basis and other issues will be dealt with in accordance with the agreed response standards;
- The maintenance of the public highway will be carried out in accordance with nationally accepted standards;
- All drainage will be maintained according to national standards and, as far as reasonably practicable, upgraded; and
- Low carbon and energy efficient options will be identified and considered whenever upgrading or replacing assets.

Drainage / Surface Water Management

6.43 Under the *Flood and Water Management Act 2010* Reading Borough Council is now responsible for identifying and communicating flood risk, through the preparation of preliminary flood risk assessments, flood risk and hazard maps and the introduction of flood risk management plans.

6.44 In response to this our objectives are:

- To develop a Surface Water Management Plan in line with national guidance;
- To upgrade drainage assets under the responsibility of the Council where appropriate;
- To identify and take opportunities to assist in meeting environmental and climate change objectives;
- To coordinate action and work together with other providers with responsibility for surface water e.g. Environment Agency and the Water Authority (Thames Water); and

6.45 The SWMP when adopted will provide the policies regarding surface water management.

Walking & Rights of Way

6.46 Walking is not only a travel choice in its own right but also forms part of most journeys taken by other means of travel, as people must, for example, get to and from a car park, bus stop or train station. Walking permeates most other transport policy areas and is at the top of the hierarchy of road users to consider. It is also relevant to other priority corporate themes, such as health, security and community development. Health benefits from regular active travel such as walking have significant ensuing benefits to the economy.



Figure 6.10: Thames Promenade

6.47 Our objectives for walking are:

- To make conditions safer, more convenient and more attractive for pedestrians;
- To increase the number of people walking to local shops, schools, interchange locations and other destinations; and

- To break down real and perceived barriers to pedestrian movement.

6.48 We aim to achieve this through our policies for walking which are:

- To improve the condition of footways, pedestrian crossing locations and public space to make these facilities safer and more attractive through specific and multi-targeted schemes as appropriate;
- To give priority to addressing the needs of pedestrians in Neighbourhood Enhancement studies;
- To implement road safety measures that reduce conflicts with other road users;
- To support the planning process to protect and wherever possible increase the space available for pedestrians, in particular in retail areas;
- To enhance the security of the public realm through lighting, design or other measures;
- To encourage walking to school; and
- To promote walking as a healthy, low-cost and environmentally friendly mode of travel.

6.49 The above objectives and policies are relevant to Reading as an urban area where most pedestrian facilities are part of the public highway. However, the *Countryside and Rights of Way Act 2000* introduced a duty for all local highway authorities to prepare a *Rights of Way Improvement Plan 2007* (ROWIP) to assist in delivering better networks of designated rights of way (usually footpaths, bridleways or byways that are not part of the adopted highway) for visitors and residents of all ages and levels of mobility. Rights of Way are recognised as a component in the development of an integrated transport network that provides quality alternative links and supports delivery of health, sport and leisure agendas. Reading's ROWIP was adopted in 2007 and sets out our objectives, policies and actions on this topic.

Cycling

- 6.50 Cycling objectives, policies, challenges, opportunities, actions and targets are detailed in our *Cycling Strategy (2008)*. This Strategy provides a framework for expanding cycling facilities and promoting cycling as a travel option with the aim of increasing cycling in Reading. It is due to be updated in 2013 and the Action Plan will be aligned with the Implementation Plans that accompany this document.
- 6.51 The Strategy identifies the basis for a Reading cycle network linking the town centre with other destinations, such as employment sites, local centres, transport interchanges and schools. The implementation of the network is the main focus of the action plan for facility enhancement and promotion, with guidelines set out on branding, mapping and signing, as well as on infrastructure provision, improvements and design standards.
- 6.52 Policies and proposals for cycle training and monitoring are also set out in the document.



Figure 6.11: Branded Cycle Signs along the Reading Cycle Routes

Parking Policy & Standards

6.53 Reading's objectives and policies for parking, as well as details of related processes are set out in the *Parking Policy (2011)*. This document outlines our approach to parking management, incorporating on and off-street parking, residents' parking zones and Park & Ride development. Parking Standards for new development have been published separately as a Supplementary Planning Document supporting the Local Development Framework (*Parking Standards and Design SPD 2009*).

Car parking has always been a major element of land use planning and development... As there are different land uses and densities in Reading, a zonal approach has been adopted. This considers accessibility to sustainable forms of transportation and in the case of residential parking, the distance to local facilities and services.

6.54 The *Parking Policy (2011)* is intended to provide transparency to Reading's residents, visitors and businesses setting out the policies for managing parking in Reading. Policies for parking are an important tool in influencing people's travel choices for different types of journeys. We aim to manage parking provision effectively and sustainably to benefit road safety, the environment, traffic management and the economic viability of Reading.

Investing in Infrastructure

6.55 Investing in infrastructure takes the strategy beyond enhancement and modifications to existing transport networks to expansion in geographical extent, capacity and operation, in order to secure and sustain prosperity for Reading in the face of challenges such as a growing population or ageing infrastructure. The delivery theme includes the following detailed policy areas:

- (Next Generation) Public Transport
- Local Development Framework
- Cross-Boundary Partnerships
- Major Scheme Development

(Next Generation) Public Transport

6.56 Objectives and policies within the Public Transport Strategy fall into this theme because in the longer term, interventions to maintain and improve existing bus and rail routes, services and interchanges will not be sufficient to meet the demand of a growing population or to support the wider area's economic success. Therefore, investment is required in the next generation of public transport that will offer increased capacity, faster and more reliable journey times, more convenient interchange and more sustainable operation.

6.57 The Public Transport Strategy sets out objectives, policies and opportunities for this Next Generation investment under the headings of Mass Rapid Transit (MRT) and Park and Ride. An MRT system must be designed to meet a set of standards above and beyond a quality local bus. The long-term vision incorporates a network that expands the public transport offer rather than replacing existing networks, and it will be branded as such. The MRT network extends beyond Reading to offer public transport and interchange options to the wider travel to work area. The Park and Ride objectives and policies support the MRT and interchange options, aiming to reduce private transport mileage and improve journey times and air quality on some of Reading's busiest roads. The Strategy also recognises the opportunities for public transport by boat, utilising the river and waterway network.

Local Development Framework

6.58 The requirement for expanded infrastructure is also related to new development and increased intensity of land use. The *Local Development Framework* (LDF) and the suite of documents it encompasses set out not just planning policy, but also the framework for investment in all types of infrastructure, including transport infrastructure.



Figure 6.12: Core Strategy Cover and Chatham Place Development

6.59 The LDF documents are clear in the role of spatial planning and the interdependency with the transport strategy, ensuring that developments contribute to a balanced transport network, provide investment for major infrastructure and provide for sustainable transport options. The LDF also safeguards land for major transport infrastructure and offers policies on how development should mitigate transport impacts and provide for its own transport needs.

Cross-Boundary Partnerships

6.60 The geography, development patterns and economic activity of Reading and the wider area produce a complex set of travel patterns, with considerable levels of movement across administrative boundaries. As a regional transport hub Reading has attracted, and will continue to attract, significant investment from business, retail and leisure sectors and serves a catchment that extends outside the borough into the wider urban area and the Travel-to-Work Area beyond. Our objectives for cross-boundary working are therefore:

- To develop and implement a strategic vision for transport;
- To collaborate with neighbouring authorities where appropriate to progress development and delivery of strategic transport infrastructure in the wider Reading economic area of influence;
- To pursue opportunities with business partners and other organisations and stakeholders to fund new transport infrastructure and services throughout the area to reduce carbon impacts, support growth, improve air quality and offer real alternatives to driving into or through Reading;
- To provide comprehensive area-wide travel information; and
- To improve cross-boundary access to employment, services and facilities, including schools and healthcare.

6.61 Our policies to achieve these objectives are:

- To progress financial and governance structures across boundaries that will assist in delivering effective, value for money, cross-boundary transport arrangements;
- To work in partnership to develop, prioritise and programme the delivery of cross-boundary proposals;
- To support the development of business cases for cross-boundary transport infrastructure (or transport infrastructure with identified cross-boundary impacts) that are in line with local and national overarching goals and objectives, and to support the introduction of reciprocal access arrangements to network data sources between partner organisations to assist in this process; and
- To identify measures that can be complementary and package them where appropriate to achieve greater benefits and to secure funding, recognising that packages of measures must balance the provision of infrastructure and services with efforts to change travel behaviour and manage demand.

Major Scheme Development

6.62 Major schemes are strategic elements or packages of infrastructure measures which require funding beyond that available within basic annual budgets. Substantial investments need to be supported by a business case justifying that the scheme will provide value for money. The necessary level of funding could be achieved through successful applications to future national funding opportunities, where these become available and subject to Reading meeting prescribed criteria of those opportunities, or through other funding mechanisms. Major schemes will be necessary to provide a step change in the capacity and quality of transport infrastructure to support a successful economy while maintaining social well-being and reducing environmental impacts.

6.63 Our objectives for major schemes are:

- To promote schemes that deliver significant benefits for Reading residents and demonstrate a high level of value for money;
- To pursue major schemes that deliver a step change in transport provision to respond to current and future transport challenges; and
- To ensure people continue to have access to convenient, low carbon travel alternatives.

6.64 Our policies for major scheme development are:

- To consider the development of major scheme proposals in line with emerging national guidance where such schemes are identified as an essential element of the long-term strategy;
- To use all available tools and techniques to evaluate and appraise major scheme proposals, ensuring they have a robust business case, and to consider carbon reduction, social and distributional, health, air quality, environmental and wider economic impacts in such assessments as appropriate; and

- To give active consideration to the use of innovative private and public sector funding mechanisms to support any required local contribution to major scheme costs.

Inspiring Innovation

6.65 Reading aims to inspire innovation in transport by finding creative solutions in order not only to overcome, but also to benefit from transport challenges in the long term. Therefore, the strategy theme includes the following detailed policy areas:

- Public Transport (Technology);
- Demand Management;
- Climate Change;
- Sustainable Distribution; and
- Research and Development.

Public Transport (Technology)

6.66 The *Public Transport Strategy* recognises that users of local bus, rail and other services benefit from simple ticketing systems and from access to the extensive levels of in-journey information now available to car users. In-vehicle equipment and technology plays an important part in the perceived quality of public transport travel options, helping to define standards of comfort and confidence for travellers. Through focussing delivery of developments in information, ticketing and vehicle design standards the strategy aims to encourage continual improvement in public transport operation, in partnership with local bus and rail companies where appropriate.

It is vital that public transport moves beyond the traditional and the mainstream, establishing new ways to provide alternatives to private car travel, and attempting to genuinely integrate different transport modes.

Public Transport Strategy



Figure 6.13: Real Time Passenger Information on the latest display technology

Demand Management

6.67 Demand management measures aim to control the supply of transport infrastructure, facilities or services in an area to reduce the overall demand for travel or for certain types of travel. Demand management measures include:

- Allocation and protection of road space for particular user groups (e.g. bus lanes, cycle facilities, pedestrianisation);
- Implementation of parking policy;
- Implementation of planning policy and associated design standards to discourage car use and ownership in new developments; and
- Assigning charges to the use of transport networks that take account of wider costs of delay, poor air quality, carbon emissions, accidents and health problems, as well as the basic costs of construction, operation and maintenance.

6.68 Our aim is that demand management tools should be used to assist people to recognise and consider underlying costs when making their travel choices as well as addressing these costs directly. Our objectives for demand management are:

- To deliver local demand management measures that recognise the spatial and geographical constraints on transport networks in Reading; and
- To deliver wider demand management measures to reflect the cost to communities of carbon emissions, congestion and pollution.

6.69 Demand management policies are as follows:

- To investigate and assess available and emerging technologies that will support the efficient and effective implementation of demand management measures on the transport network;
- To pursue the introduction of a central Reading Low Emission Zone, targeting the most polluting Heavy Goods and Passenger Carrying Vehicles as a means of addressing identified air quality issues in the declared Air Quality Management Area;
- To evaluate and apply as appropriate localised demand management measures that deliver community benefits.

Climate Change

6.70 Climate change threatens our economic and social prosperity and innovative solutions for mitigation and adaptation will be required to deliver successful and stable transport networks in the future. The *Reading Climate Change Strategy 2008-2013* aims to reduce the borough's carbon footprint by 80% of 1990 levels by 2050.

<p><i>The council will lead by example to achieve a low carbon Reading which is resilient to the effects of future climate change.</i></p>	<p><i>Reading Climate Change Strategy</i></p>
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6.71 Transport infrastructure is at risk from the impacts of climate change, including more extreme weather in terms of heat, cold and flooding. The

strategy sets out the actions needed to meet the overall goal through more detailed objectives, policies and actions related to both emissions reduction and climate change adaptation in a number of different sectors including transport.

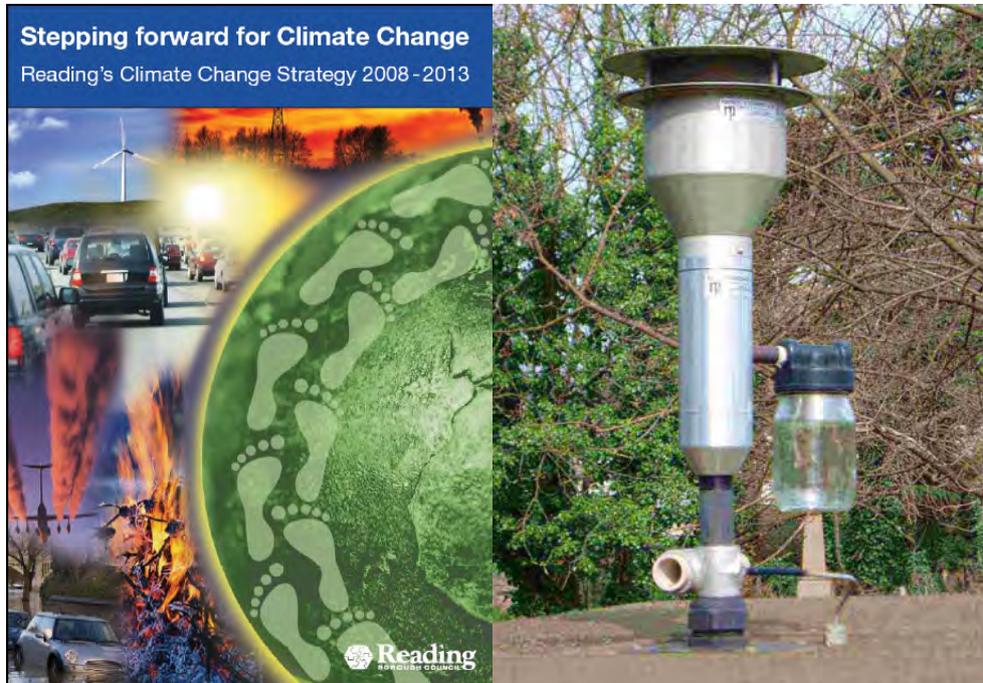


Figure 6.14: Climate Change Strategy Cover and Air Quality Monitoring Device

Freight & Sustainable Distribution

6.72 For a successful economy, freight movements (transporting raw materials to producers, or finished goods from producers to consumers) should be as efficient as possible. It is also important to consider the environmental impact of freight operations and potential conflicts with other transport users and land uses in the vicinity. Freight vehicles face different network constraints due to factors such as height and weight or because of the time-sensitive nature of their business. It is recognised that they require different route choice and travel information to other road users.

6.73 Our objective is to support sustainable distribution methods that bring economic benefits to Reading while reducing environmental impacts and social nuisance.

6.74 Our policies for freight and sustainable distribution are:

- To work with freight operators to help them operate a service that reduces impacts on neighbourhoods in terms of noise and air pollution and also minimises carbon emissions, and to support a Freight Partnership to consider, evaluate and promote technical and operational options to address identified local issues;
- To develop the content and delivery of local travel and route choice information for freight operators;
- To manage the loading and unloading of goods to improve the efficiency and operation of the surrounding network;
- To promote measures that minimise the impact of freight transport on road maintenance and road safety; and
- To continue to evaluate and where appropriate promote consolidation and interchange options between freight modes.

Research & Development

- 6.75 Transport Research and Development (R&D) for technologies or approaches which help to meet LTP objectives ranges from improving information and journey times, to reducing dependence on fossil fuels and whole-life carbon emissions from transport facilities and activities.
- 6.76 Reading has always been open to participation at an early stage in innovative projects which help to meet our transport challenges, significantly in network management through the UTMC demonstrator project and in subsequent ITS projects. We recognise the value of involvement in research and development and will continue to seek opportunities locally, nationally and internationally to work collaboratively on such projects.
- 6.77 Given the urban nature of Reading and the local and global air quality issues from transport that are already acknowledged, R&D leading to potential environmental benefits are considered particularly pertinent for LTP3, helping to build a sustainable future. We aim to work in partnership

with industry to identify the best technology for the future of urban transport, from electric cars to personalised real-time information. We will look for opportunities for innovation that will create or add value to the work we do in all other policy areas.



Figure 6.15: Electric vehicle charging point

7 FUNDING STRATEGY

Funding Local Transport

7.1 Local authorities are able to use a wide range of financial sources to fund their transport improvement programmes. We will explore all opportunities to secure resources for the investment plans we propose and seek a balanced financial package which utilises UK and EU funding and maximises private sector contributions alongside public sector finance. Where appropriate we will use capital and revenue from the council's own resources to accelerate delivery of key elements of the programme and support the investment being made. Where opportunities exist to bid for challenge funding that will enable earlier delivery of components of our programmes, these will be pursued.

Integrated Transport & Maintenance Block Grants

7.2 Local authority expenditure on smaller capital projects is supported by central government through the Integrated Transport Block and the Maintenance Block grants. In 2009, it was proposed to administer this as part of the Regional Funding Allocation and each local authority was given indicative annual allocations of Supported Capital Expenditure (Revenue) (SCE(R)) and Supported Capital Expenditure (Capital) (SCE(C)) grants for the period to 2018/19¹². Councils are able to identify local priorities for expenditure using SCE(R) or SCE(C)).

7.3 Following the Comprehensive Spending Review in October 2010 adjustments were made to the formulae used to determine the allocation of funds to local authorities as part of the government's debt reduction strategy. Final allocations for Integrated Transport and Highway Maintenance have been confirmed for 2011/12 and 2012/13 - these are

¹² SCE(R) is essentially approval to borrow capital for transport schemes and maintenance, with equivalent increases in formula grant (Revenue Support Grant) to fund the financing costs

entirely made up of SCE(C) grant. Provisional allocations for 2013/14 and 2014/15 have also been published. Whilst there has been some uplift in the Maintenance Block compared to earlier indicative allocations the Integrated Transport Block for Reading has been reduced by 57% compared to the original 2010/11 allocation which was confirmed in December 2009. Furthermore, these funds are no longer ring-fenced.

Other Local Authority Capital Funds

- 7.4 Any SCE(R), capital grants - Supported Capital Expenditure (Capital) (SCE(C)) - and other capital receipts not otherwise identified for a specific purpose (that is, part of the Single Capital Pot) can be used by a Council to fund transport measures. Priorities can be set locally but transport investment must compete with other Council service areas for these funds. From time to time capital challenge funds are established for specific purposes (recent examples have included the Green Bus Fund to support the introduction of environmentally friendly public service vehicles) for which local authorities may submit bids. These funds have generally been provided as ring-fenced SCE(C).

Developer Contributions

- 7.5 Funding may be secured from the private sector, through legally binding agreements made under the Town & Country Planning Act 1990, to mitigate the transport impact of a development. Funds can be collected by a local authority towards a specific scheme needed to offset transport demands generated by a new development or towards a larger scheme or strategy required to allow a range of developments to be accommodated. Reading has also secured voluntary private finance in addition to planning requirements for projects such as updating its transport model and supporting new bus operations.

Major Scheme Bids & Challenge Funding

7.6 Major schemes are usually local transport projects costing more than £5m. They are normally subject to detailed economic appraisal to ensure they represent good value for money and have in the past been funded through a mixture of ring-fenced capital grant (Transport Supplementary Grant - SCE(C)) and borrowing approvals (SCE(R)). Interim government guidelines have removed the ring-fencing which previously required that money allocated for a major scheme should only be spent on that project. This applies to all on-going major schemes. Schemes are progressed through a series of gateway reviews with appraisal stages defined as "Programme Entry", "Conditional Approval" and "Full Approval".

7.7 The Department for Transport has published a schedule of local infrastructure projects, drawn from existing proposals at various stages nationally, that it is prepared to consider in the foreseeable future. Following the October 2010 Comprehensive Spending Review these have been categorised in the following groups:

- A supported group of ten schemes that previously had full approval, which will now continue;
- Three schemes that had previously had conditional approval will be reinstated subject to bilateral negotiations (this group includes the Reading Station Highways Package);
- Those schemes that had previously had programme entry are divided into two groups:
 - A development group, able to bid for a £600m fund for 2012/13, and;
 - A pre-qualification group that can in future progress to the development pool.

Current guidance indicates that the department will not consider any new local authority schemes.

7.8 Challenge funding is grant funding made available by Government to local authorities through competitive bidding. Such funds require a greater focus on particular Government objectives, but enable more flexibility in packaging measures than a traditional major scheme bid. These funds may also incorporate both revenue and capital sources. Current challenge funds proposed by the Coalition Government include:

- Local Sustainable Transport Fund, which will offer £560 million (£310m revenue, £250m capital) to the successful bids over four years. This fund is targeted at supporting measures (either small packages under £5m or larger packages up to £50m) that promote walking and cycling, encourage modal shift, manage effectively demand on the network secure better traffic management improve road safety and improve access and mobility.
- Regional Growth Fund, which will offer £1.4bn over three years to support projects with significant potential for creating long term private sector-led economic growth and employment. The fund is particularly targeted at helping those communities that are currently dependent on public sector-led growth and employment. It is envisaged that bidding partnerships will come together that include a combination of large private sector players, SMEs and social enterprises working with public partners. In particular, it is expected that the new Local Enterprise Partnerships will play a role in coordinating across areas and communities, and in bidding for this Fund.

Public Private Partnerships

7.9 Public Private Partnerships (PPPs) are arrangements where the public and private sectors form a joint venture to deliver facilities or services for the public. On-street and off-street parking is already managed in Reading through this sort of partnership.

Private Finance Initiative

7.10 The Private Finance Initiative (PFI) is a system for purchasing capital-intensive services or facilities for the public sector through the private sector. A private sector organisation can design, build, operate and maintain (or transfer) the infrastructure and effectively sell a service to the public sector.

European Funding

7.11 Capital and revenue grants are available from the European Union for specific projects. These funds are only available for projects that meet trans-European objectives and usually involve collaboration with organisations in other member states. In most cases, there is competition for funding. We have successfully secured continuing Interreg and TEN funding in recent years, and current awarded grants run some years into the LTP3 programme.

Revenue Expenditure

7.12 Many types of transport investment will require capital expenditure to establish the facilities and some form of revenue or current expenditure to operate and maintain the asset. Local authorities receive government support for current expenditure on the main local services through formula grant. This is a combination of Revenue Support Grant (RSG) and allocations of non-domestic (business) rate payments that are distributed using a formula based on local needs and demographics. In addition to the general formula grant, local authorities have in the past also received non-ring-fenced Area Based Grant (allocated according to policy criteria for specific initiatives) and specific service-related grants. The formula funding is intended to top up the income that councils get from local taxation (Council Tax). A council can use any of the non-ring-fenced funding to support the delivery of local, regional and national priorities in their area.

Hypothecated Income

- 7.13 Powers for local authorities to introduce demand management measures involving charging (workplace parking levy schemes, local road user pricing schemes) were included in the Transport Act 2000. Any net revenues from such schemes must be invested in local transport. Originally, those revenue streams were to be hypothecated for a period of 10 years. However, the Local Transport Act 2008 extended the requirement for the revenue streams to be used for local transport throughout the life of any scheme.

Accounting Practice

- 7.14 Under standard accounting rules revenue resources may be used to cover revenue or capital expenditure requirements. Except in very specific and limited circumstances, capital resources can only be used to meet capital expenditure.

Funding Strategy

- 7.15 We intend to deliver our action plans so as to secure the best possible outcomes given the likely availability of public and other funding. Implementation plans are not concerned solely with capital investment, but demonstrate effective use of substantial revenue budgets to improve results. Evidence is provided within the delivery programme of potential to secure partnership funding from non-LTP sources.
- 7.16 The Implementation Plan programmes are framed in a way that is consistent and realistic, taking into account final and indicative allocations to 2014/15 and other potential sources of funding, and together demonstrate a robust and effective approach to budgeting and control of costs. It is anticipated that revenue resources will also need to be reduced year on year until 2014/15 and the outline programmes have been estimated based on these assumptions. The spend profiles are based on a phased implementation of our Connecting Reading programme over

the policy areas detailed in Chapter 6 and the delivery of the longer-term projects that underpin the transport vision. The rate at which these measures and interventions can be implemented will vary depending on the availability of resources and this will be reflected in the associated Implementation Plan updates.

7.17 It is proposed that programmes are developed so far as possible based on delivery options with the underlying principle of tiered delivery programmes based on funding levels that assume:

- Local funding only;
- Local funding plus indicative capital block funding;
- Indicative plus targeted challenge funding; and
- Indicative plus major schemes.

7.18 There is considerable uncertainty regarding budgets and it is acknowledged that overall funding may change as a result of future Spending Reviews and a robust prioritisation process will be used to ensure that the most effective schemes, with maximum benefit, are implemented for any identified level of resource.

Value for Money

7.19 It is essential that the transport measures funded by the limited resources available to the Council deliver significant improvements for residents against our adopted transport goals. Investments need to demonstrate that they represent good value for money, with the more effective interventions being prioritised through a transparent and objective process.

7.20 This process is described in more detail in Chapter 6, but the key steps to determine value for money are established through two mechanisms:

- An updated multi-criteria scheme assessment process to identify the impacts and benefits of proposed engineering and other measures,

where the outcomes can be defined by reference to a specific geographical area - the benefits will be compared to costs to indicate rate of return on the investment and overall value for money; and

- For non-locational interventions and programmes a business case format will be used to define rate of return, benefit/cost ratio and overall value for money as part of a formal economic evaluation. The timescale for assessment will vary depending on the nature of the scheme being analysed.

8 MONITORING AND REVIEW

- 8.1 This Strategy has been developed through gathering and then analysing data and information, local knowledge and views. From these come the Area-Wide and Local Action Plans, with details of challenges and opportunities, priorities and policy approaches. When elements of the Action Plans are delivered, data, information and views are again gathered to monitor, benchmark and measure the results and influence the methodology by which future actions are prioritised and approved. This integrated cycle ensures that our LTP is constantly under review and up to date.
- 8.2 In order to support the robust technical work of developing, testing and validating options, we have ongoing support from specialist transport consultants. We also benefit from opportunities to work with many technical and academic research groups on innovative projects. Consultants and research groups are able to offer specialist expertise to projects, and this is an approach to we will continue to use wherever it can be shown to add value to our LTP3 Strategy.

Transport Planning Toolkit

- 8.3 This Chapter describes in more detail the data sources used, surveying methodologies, existing stakeholder and public engagement networks, analysis and assessment tools and the performance indicators collected. All these make up Reading's transport planning toolkit, which have helped us prepare the LTP3 documents including the Strategic Environmental Assessment.

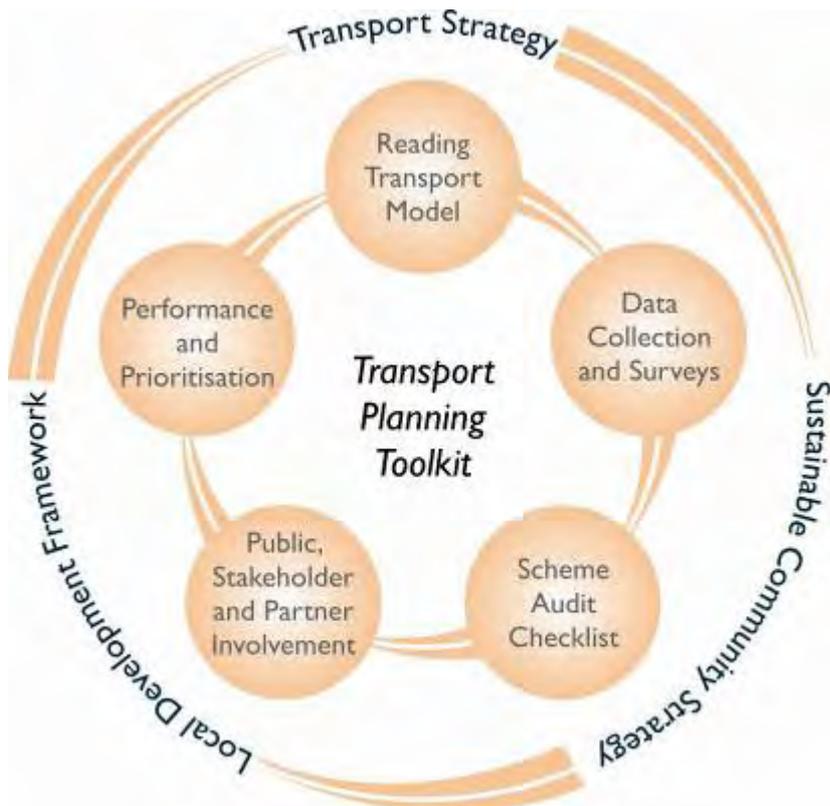


Figure 8.1: Transport Planning Toolkit

8.4 Through a combination of one-off snap-shot data collection and ongoing monitoring and assessment of trends, the toolkit enables us to understand changing travel patterns and the impact of new development. We then use it to appraise options such as those set out in Chapter 4 to address these changes and challenges, including evaluation of financial viability and value for money. Finally, the toolkit is used to monitor and measure the success of projects, plotting the progress of LTP3 against its objectives and corporate targets, as well as other outcomes set out in the daughter strategies attached to the LTP.

8.5 The toolkit includes the following key elements:

- Data Collection and Surveys;
- Reading Transport Model;
- Public, Stakeholder and Partner Involvement;
- Scheme Audit Checklist; and

- Annual (or more frequent) collection/receipt of monitoring data for performance indicators.

Data Collection & Surveys

8.6 Performance monitoring is fundamental to managing effectively and improving our LTP programme and a large amount of monitoring, surveying and data capture is undertaken in order to do this. Through this data collection, surveying and analysis, the viability and sustainability of current travel patterns and efficiency and resilience of the transport network can be measured.

8.7 Data is collected and surveyed across a range of aspects and by a number of different methods. These include:

- Urban Traffic Management and Control (UTMC) systems and databases recording car park use and traffic signal operation and optimisation and controlling other network management functions;
- Automatic Traffic Counters recording traffic volumes, speed and classification;
- Annual Cordon Counts of travel by all modes into central Reading;
- Automatic Number Plate Recognition (ANPR) Cameras and Closed-Circuit Television (CCTV) Surveillance;
- Air Quality monitoring and other environmental data;
- Real Time Passenger Information systems recording bus punctuality and reliability;
- Electronic Ticket Machine Data recording passenger boarding numbers from public transport;
- Surveying people in Reading;
- Regular site visits, surveys, inspections and assessments to check the condition, operation and use of assets;

- Project specific surveys, consultation and investigation (including datasets that supplement or validate transport model findings);
- Personal Injury Accident (PIA) data from Road Traffic Accidents, from Thames Valley Police; and
- Collaboration with neighbouring authorities, other Council departments, academic institutions and public to exchange or collate data.

Urban Traffic Management and Control

8.8 The Urban Traffic Management and Control (UTMC) system collects and disperses real time information data on a number of different aspects of network performance and operation including car park use, traffic signal operation and optimisation, variable message signs and bus lane enforcement cameras. The system also communicates with the real-time passenger information on Reading's bus services. It was introduced in the early 1990s and over time has benefited from demonstrator status, innovative technology trials and ongoing investment.

8.9 Real time information allows for immediate traffic management interventions to improve traffic flows, prevent and manage incidents and manage traffic routing to events or around road works. It can encourage travel behaviour change and test improved strategies for the future. Accurate travel information on different travel options is made available to the public on the [reading-travelinfo](#) website, informing and enabling people to understand factors such as journey times by different modes, central Reading car park occupancy and congestion levels, encouraging them to make more informed choices before their journey is undertaken.

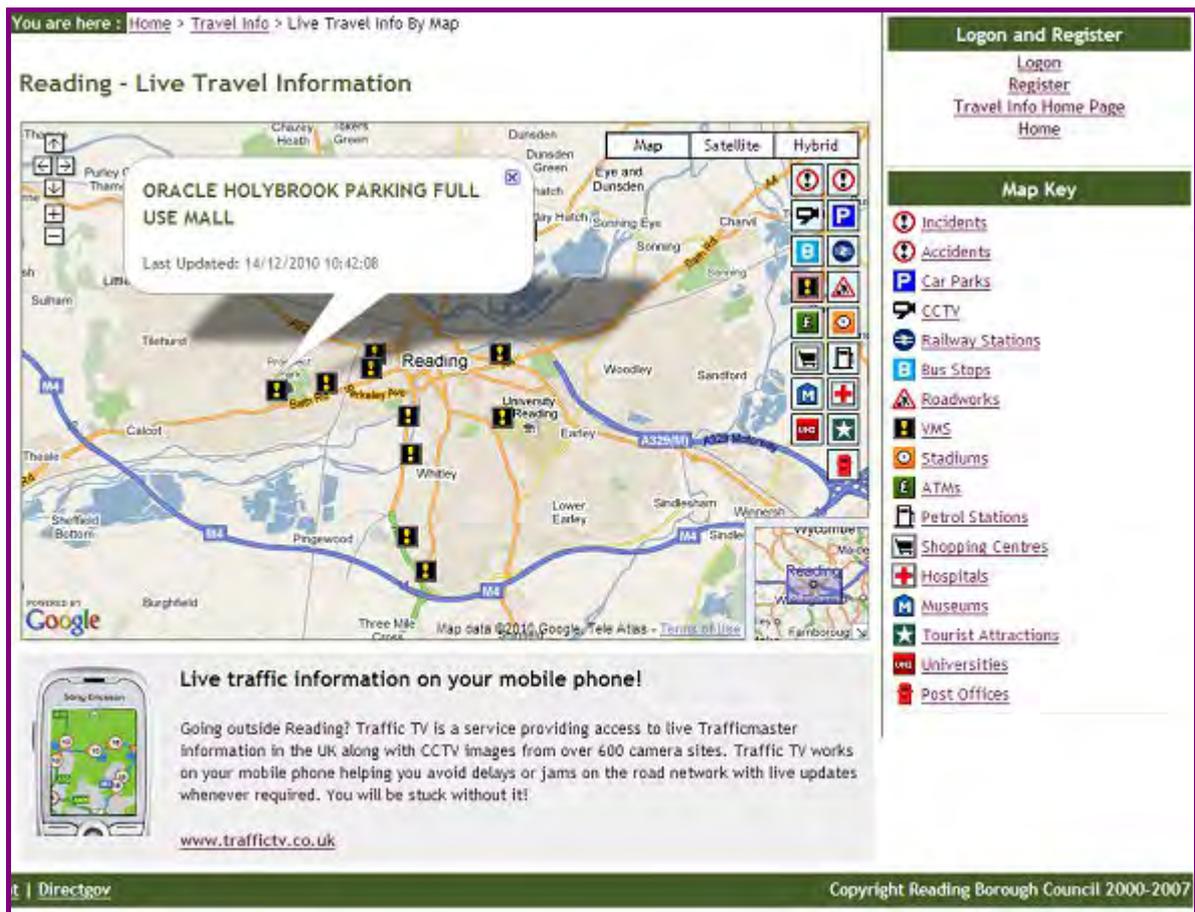


Figure 8.2: Real Time Information on Reading-TravelInfo Website

8.10 UTMC can also report on air quality, queue length and, through the use of ANPR cameras, average vehicle journey times.

8.11 It is anticipated that the future development of the system will allow it to predict disruption to the transport network before it happens and, if necessary, ensure particular actions are taken to manage such events. Using the array of data collected by the system and its historic record of previous circumstances, we will be able to better predict issues as they are developing and recommend the implementation of various different measures to address these.

Automatic Traffic Counters

8.12 Traffic flows within Reading are measured using a network of permanent monitoring installations, which collect traffic data continuously. These Automatic Traffic Counter (ATC) sites have been positioned to form two

cordons, one at the borough boundary and one around central Reading. These sites have recently been upgraded to recording traffic speeds and vehicle classifications along with volume data. This data will be used to aid management of the highway network and the development and implementation of traffic management schemes, through informing strategic and detailed transport models.

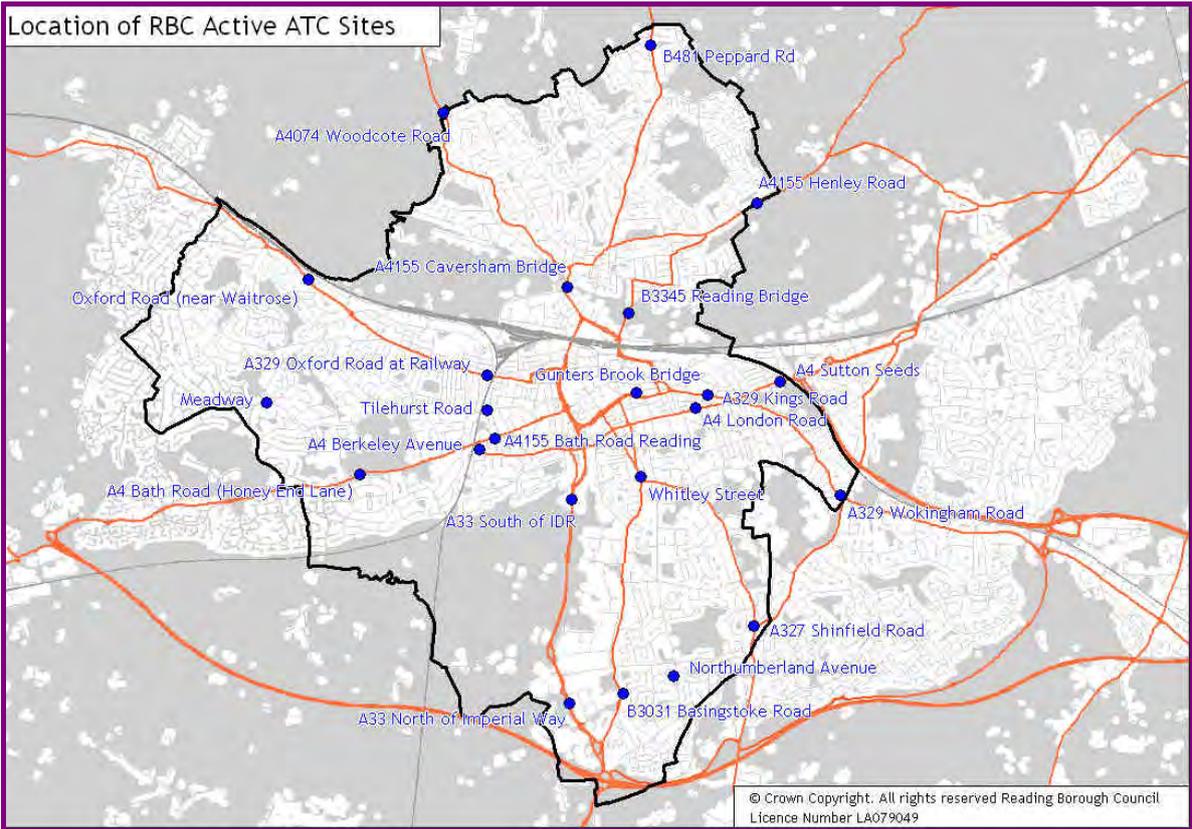


Figure 8.3: ATC Sites around Reading

8.13 Using the ATC site data, we are able to monitor the peak period traffic flows at key strategic locations. This data allows us to examine the total traffic flow both into and out of central Reading and understand how this is changing over time.

Annual Cordon Count

8.14 To achieve our vision of Connecting Reading and our LTP objectives, trips by public transport, cycling and walking should be as attractive as car travel and a better balance of modes needs to be achieved for a more

integrated, efficient and sustainable transport system. Surveys are carried out annually to assess progress towards mode share targets for trips to central Reading. The surveys count all vehicles, pedestrians, cyclists and bus passengers over a 12-hour period. These results provide a detailed assessment of all the movements in and out of central Reading by mode and highlight the changing modal split.

Collecting Data by Camera

- 8.15 Camera technology enables more efficient and more comprehensive data collection than the permanent ATCs or manual surveys, and briefs for survey companies now often specify camera technology. The UTMC system described above also heavily utilises camera technology.
- 8.16 The capture of registration plates through ANPR, for example, has been used to estimate the age of vehicles and therefore local pollution source factors. Such cameras are also key for effective enforcement of bus lanes, and Reading has digital type approval to use high-specification cameras in its bus lane enforcement programme.
- 8.17 Reading also has a wide network of CCTV cameras across the borough. This surveillance ensures we are able to view any incidents as they occur and helps us to manage situations more effectively. Live traffic CCTV coverage is made available to the public through the UTMC system and is also used by the police for traffic management and crime prevention purposes. Throughout LTP3 we will be developing our use of CCTV to assist in managing the system and informing travellers.

Air Quality Monitoring

- 8.18 As part as our commitment to improving air quality we are monitoring levels of particular pollutants at a number of sites across the borough. We will be increasing the number of these sites throughout the LTP3 period and this data will also be linked to our UTMC and other systems. Through

this we will gain a better understanding of the air quality issues in Reading and how we are able to prevent and manage air quality problems.

- 8.19 Other environmental data is also collected by various organisations and can be mapped through GIS. Such data is used in the Strategic Environmental Assessment and also allows individual assessments of major transport infrastructure and developments.

Data Collection for Bus Services

- 8.20 The continual management of real-time passenger information to survey and monitor bus service performance enables us to have a detailed view of how the network is performing at any given time, as well as being able to measure average performance over time and track any trends. The analysis of real-time data is an extremely effective tool for operators to manage and schedule services. It also enables us to identify particular issues on the network and, when combined with other UTMC systems data, optimise our response. The provision of RTPI data to the public also provides reassurance to passengers waiting at-stop and informs passengers of service reliability and general performance.
- 8.21 Bus service patronage is monitored through analysis of electronic ticket machine (ETM) data and on-bus surveys. Through this data analysis we are able to measure the success of various schemes such as Quality Bus Corridors, enhanced timetable frequency and infrastructure improvements. Monitoring of ETM data also enables us to identify capacity issues in the network and effectively manage our Concessionary Travel Scheme.



Figure 8.4: Electronic Ticket Machine

8.22 We also have two park and ride sites providing access to central Reading and continue to monitor performance, patronage, car park occupancy and satisfaction with these services. Through close working with the operators and partner organisations we are able to ensure these services continue to meet the demands of the users, providing an attractive means of travel into central Reading.

8.23 There has been a marked improvement since 2004 in the quality, emissions standards and accessibility of public transport vehicles with all of our Premier Routes and the majority of other routes operated by modern, low-floor accessible buses. We will continue to monitor the vehicle fleet and work with operators where we can to deliver improvements.

Data Collection for Cycling

8.24 We have recently designated a number of new, local cycle routes through a branding exercise recommending safe, attractive and direct routes throughout Reading. A key aim of this exercise is to increase the number of people cycling and the frequency of cycling. We have two permanent

cycle counters and these are monitored and reported in parallel with our ATC site data.

- 8.25 We also monitor the take-up of cycle training at local schools through the Bikeability programme.

Surveying People in Reading

- 8.26 Besides collecting data through the various forms of technology described above, we also ask people directly how they travel and their views of how the transport system operates. We do this in the context of developing and assessing our transport strategy, as detailed below, but we also have regular monitoring surveys. These include the annual Resident or Place Survey, school travel census and workplace travel plan updates.
- 8.27 An example of the use of these surveys is the Resident Survey's inclusion of questions about bus passenger satisfaction. We have seen bus passenger satisfaction increase over the years. Working closely with the local operators through the implementation of quality bus corridors, high quality commuter services and the provision of services, facilities and publicity, we aim to continue the improvement in passenger satisfaction throughout our LTP3.

Asset Condition Surveys

- 8.28 A wide variety of techniques exist for data collection in relation to asset management. These range from visual inspections, through to detailed structural surveys and inspections, closed circuit television surveys of drainage systems and vehicle based surveys of road pavement condition. The ongoing survey and collection of a wide variety of condition data informs and develops our asset management strategy.
- 8.29 Surveying the condition of assets, along with research into best practice for future resilience, also contributes to developing strategies to manage surface water and severe weather events.

Project Specific Surveys, Consultation and Investigation

8.30 To plan, design and implement specific projects may require targeted surveys that cover a range of issues such as transport movements and asset condition. Where appropriate, survey findings are added to the relevant database to enhance strategic knowledge of the transport network.

Data Exchange

8.31 We work with our neighbouring authorities and other departments and organisations on particular projects or aspects of transport strategy. Therefore, where relevant, data is shared and exchanged.

8.32 Members of the public (residents and network users) regularly provide information on issues and defects, opportunities and problems on an ad hoc basis that inform our understanding of network performance. We are committed to making the best use of this information and will investigate and promote effective methods of allowing users to provide structured feedback on the day-to-day operation and development of our transport networks.

Personal Injury Accident (PIA) data from Road Traffic Accidents

8.33 The Thames Valley Police keep records of all injury accidents reported to them, with details of severity, place, time, casualty demographics, weather conditions, road conditions, cause of accident, etc. Records of all such accidents within Reading Borough are provided on a regular basis to the Council, and are analysed for trends or patterns that may indicate where improvements to the local environment will increase safety. Serious and fatal accidents are reported nationally.

Reading Transport Model

8.34 At the stage of appraising and prioritising transport schemes and determining value for money, Reading has a powerful tool in the Reading

Transport Model (RTM). It allows us to identify the optimum solutions in meeting the challenges of growing transport demand and to forecast the impact of transport schemes on the local economy, environment and across different social groups. Through it, transport schemes can be assessed for their operational merit and economic appraisals can forecast the long-term monetised benefits of a proposal and compare it to its initial and ongoing costs. The RTM also allows us to test the impact of planning and development proposals on transport and can determine which schemes merit further investigation. Some of its outputs include:

- Travel demand and movements by mode;
- Journey times by different modes (route-based);
- Accessibility by different modes (travel time to a particular destination);
- Vehicle speeds;
- Vehicle kilometres;
- Journey time reliability for cars and public transport;
- Public transport patronage;
- Noise levels from transport sources; and
- Air pollution levels from transport sources.



Figure 8.5: Reading Transport Model: Congestion and Delay (2007 Base)

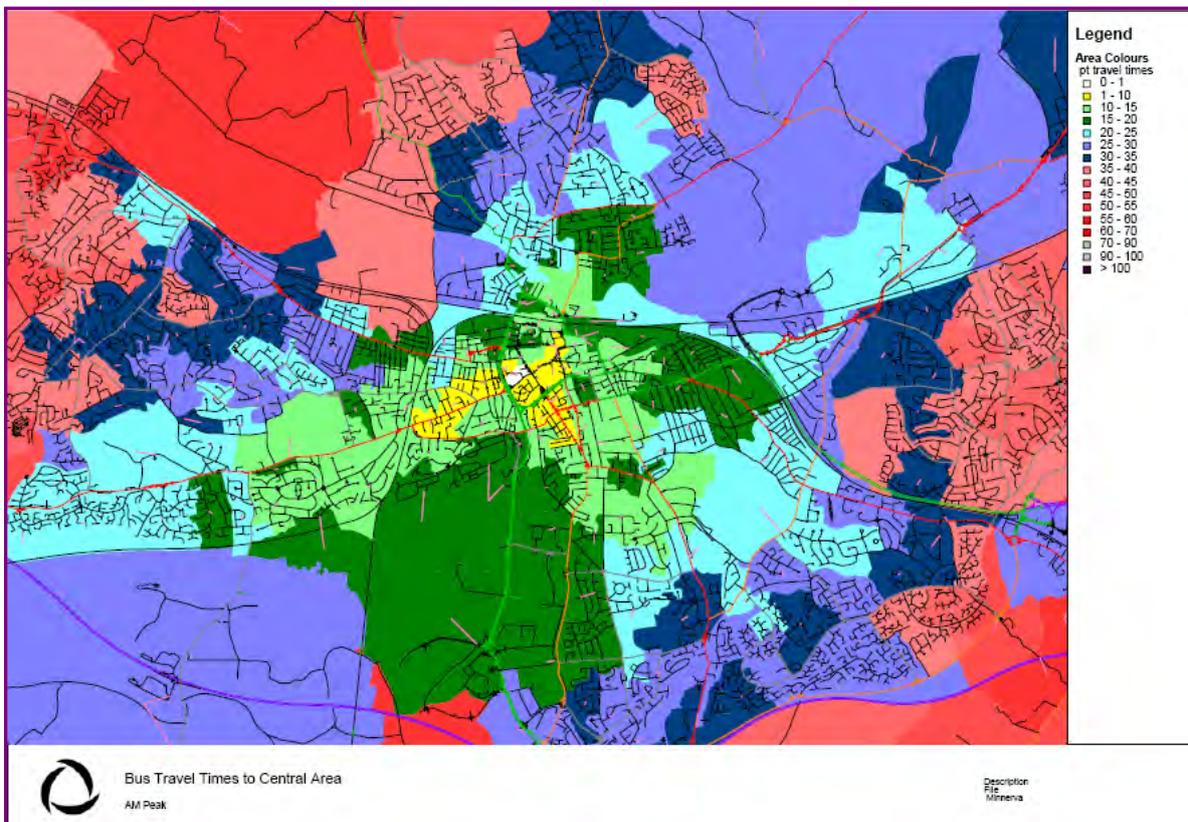


Figure 8.6: Reading Transport Model: Travel Times to Town Centre by Bus (2007 Base)

- 8.35 The RTM, which formed part of the toolkit for the LTP2, was based on 2001 data requiring three software packages to assess highway, public transport and pedestrian movements. It has been upgraded for LTP3 through the investigation work undertaken to bid for the Transport Innovation Fund.
- 8.36 The upgrade work included extensive roadside, on bus and on train interview and postcard surveys undertaken in 2007 to update the base travel patterns, in combination with nationally derived modelling data on network and transport demand. The model was then built in the OmniTRANS software, which incorporates highways and public transport networks within one framework and models the mode and route choices people make. Pedestrian and cycle demand can also be established through the model. Time of day and destination choice options can also be tested.
- 8.37 OmniTRANS enables the attachment of extensive databases, including the databases for the entire British road and rail network, socio-economic census data, and numerous datasets from local surveys and information. It is also GIS compatible enabling the results to be displayed on a variety of map bases. The application of the RTM is diverse and expanding, and the modelling approach and technology is under continual development to improve its performance and integration with other elements of the transport planning toolkit.
- 8.38 By using the components of the RTM several different datasets can be brought together in one environment for assessment. One example is looking at future conflicts between HGV and cycle movements on given parts of the network to establish associated future potential accident issues.
- 8.39 The RTM will remain at the centre of Reading's transport toolkit and its development over time will further improve its ability to inform and assess

transport strategy in Reading, supported by other aspects of the data collection and monitoring.

Public, Stakeholder & Partner Involvement

- 8.40 Although our surveys show increased public satisfaction with local transport and that we are making good progress in achieving our transport objectives and strategy, there is always more that can be done and the challenges of changing circumstances to be met. Transport issues are material considerations for many activities, services, agencies and organisations. One of our major assets is the interest and involvement of our local communities, businesses and other stakeholders and our commitment to consultation and consideration of their different viewpoints in all aspects of scheme design and implementation.
- 8.41 We participate in numerous formal and informal, internal and external partnerships to support a joined up, overarching approach to delivery of our key services and future plans. We engage with local residents and members of the business community when forming transport policies and strategies, and proposals are framed to take account of the diverse needs and aspirations of local stakeholders. We also receive and review correspondence from partners and the public on transport matters on an ongoing basis.
- 8.42 Partner involvement and public engagement therefore ensure we are able to access both expert and local knowledge and this helps to validate our approach. We can outline specific interventions or local initiatives at an early stage of option development or scheme design to seek public contribution to help shape them. We provide feedback during implementation and on scheme completion. This establishes a qualitative measurement of scheme success to supplement the other quantitative measurements collected. It also encourages partner and local community involvement in particular schemes and the decision process, to build

greater confidence in, and ownership of improvements in the local community.

- 8.43 A range of consultation techniques and methods are used, appropriate to the audience and subject matter. These include partnerships and various channels of communication. Innovative ways of keeping up with social change, social media and building better engagement are part of our long-term strategy.

Partnerships

- 8.44 Reading has successfully bid for European funding and delivered innovative projects over the years and through this work is involved in European groups to share best practice. Individual funds often have their own partnerships as well, such as the *Connecting Knowledge by Rail* partnership, which aims to improve connectivity within and between regions of knowledge, by development of railway connections into high quality efficient and user-friendly interoperable systems.
- 8.45 Reading's involvement in national schemes have also resulted in the development of partnership groups, such as the *Reading Station Partnership Board*, with representatives from the Government Offices for the South East and the South West, Network Rail, and the Department for Transport. This Board is chaired by Reading Borough Council.
- 8.46 Reading is at the heart of a wide sphere of economic influence within the Thames Valley. It is part of a variety of partnership groups in this area, reflecting the need to work across Local Authority boundaries for different levels of service delivery, lobbying for investment and prioritising transport projects to support Reading's role as the hub of a Travel to Work Area.
- 8.47 A *Reading Travel to Work Area Steering Group* was formed to enable formal channels of communication between the transport authorities that

could potentially benefit from funding for package business cases incorporating proposals for this functional economic area. Reading Borough Council has led the group in identifying potential programmes and preparing and submitting bids. At both Officer and Member level, the group creates awareness, understanding, and continues to work towards approval of cross-boundary schemes. It is anticipated that this grouping will evolve into a broader based Reading Area Transport Partnership.

8.48 The *Berkshire Strategic Transport Forum* is similarly a group that was established to give the six unitary authorities that had been part of the single Berkshire County transport authority a forum in which to consider the complex cross-boundary travel patterns created by the geography, land use patterns and economic activity of Berkshire.

8.49 The Forum has five principle objectives:

- To identify and recommend strategic transport priorities and solutions for the Berkshire area;
- To assist with the ongoing development and delivery of those recommended strategic transport solutions within the Berkshire area;
- To oversee and guide the use of funding provided by the members towards the ongoing development and delivery of strategic transport solutions within the Berkshire area;
- To act as a key consultation/stakeholder group on transport issues affecting the Berkshire area and the wider region; and
- To provide a single voice to lobby and work in partnership with regional and national government and bodies, and to promote the recommended strategic transport priorities and solutions.

8.50 External service-delivery partners such as the Thames Valley Police work at a local level with Reading through the *Local Strategic Partnership*, which brings together key local organisations (including Reading Borough Council, Health Authorities, the Royal Berks Fire and Rescue Service and

our Universities - as well as local community groups, voluntary organisations and businesses) to deliver a more 'thriving, vibrant and sustainable' Reading. The partnership is responsible for setting out the key service delivery priorities for Reading, as identified in Reading's Sustainable Community Strategy.

- 8.51 Partners from the public and private sector throughout Berkshire have also come together to form the *Thames Valley Berkshire Local Enterprise Partnership* (LEP), which has been approved by Government, is chaired by the private sector and will be able to develop a detailed economic development strategy and attract investment to the area. The LEP has identified transport infrastructure and congestion as a key challenge to sustained economic growth and aims to work across administrative boundaries to identify and prioritise strategic interventions that will sustain economic growth across the region.
- 8.52 Supporting the LEP is a Local Economic Assessment, completed by University of Reading economists and commissioned by Reading's Economic Development Company *Reading UK CIC*. Reading UK CIC was created in July 2007 to provide an economic development delivery group across the economic area known as the Reading Diamond for Investment & Growth. It is business-led and part of the government's economic development company network. While it leads on many projects, it mainly aims to influence the development of sustainable infrastructure by bringing a private sector perspective to the table and reacting to changes in national policy that may constrain access to Reading.
- 8.53 Reading Borough Council also engages directly with the business community through presentations to organisations representing local businesses such as the Thames Valley Chamber of Commerce and the Federation of Small Businesses. We support a forum chaired by the business community, the *South Reading Consortium*, which has been successfully lobbying for, advising on and promoting new infrastructure,

development and information systems in south and central Reading since its formation in 2000. Members include Prudential, Foster Wheeler Energy Ltd, Verizon (formerly MCI), Veritas Software Ltd, Thames Valley Economic Partnership, Thames Water, First Group, University of Reading, Thames Valley Chamber of Commerce, Oracle Corporation, Royal Berkshire Hospital and The Oracle Shopping and Leisure.

- 8.54 Reading and its neighbouring authorities also work closely with the organisations that deliver public transport, including bus and rail operators, community transport providers, etc. A formal *Bus Rail Partnership* holds quarterly meetings to discuss travel and infrastructure issues affecting Reading and the neighbouring areas and report on the Traveline journey planning service.

Forums

- 8.55 Various information and consultation forums have been set up for members of the public and particular transport user groups. These include:
- The Transport Users Forum (TUF), which provides regular opportunities to engage with a broad spectrum of local interest groups on transport policies and schemes, acting as a constant and valuable channel of communication;
 - The National Federation of Bus Users and Passenger Focus, which organises events providing a useful two-way platform for communication;
 - Heathrow Area Transport Access Forum, which reviews options for improving surface access to Heathrow, particularly by sustainable modes;
 - The Local Access Forum, which comprises membership from Reading, Wokingham and West Berkshire unitary authorities and local landowners and user groups and has been instrumental in the

preparation and deliver of our Rights of Way Improvement Plan (RoWIP);

- The Cycling Forum, where Councillors and members of cycling organisations discuss the implementation of the Cycling Strategy (2008) and other relevant issues that arise;
- The Access Forum which facilitates discussion on improving accessibility in Reading, ensuring that the needs of disabled transport users are considered through our transport strategy and delivery;
- The Reading Older People's Partnership which considers the needs of older residents and has organised local events to highlight and review transport issues; and
- The Reading Learning Disability Partnership, which has helped us with projects such as improving the clarity of public transport information.

Media and Events

8.56 Through such forums and other partnership work and engagement, we actively support and organise a calendar of transport related events, from national promotions such as Bikeweek and Walk to School Week, to local initiatives including an annual sustainability festival Forbury Fever and attendance at the University Freshers Fayre. Together with our road safety partners we support ad hoc road safety campaigns targeting speed offenses, mobile phone and seat belt awareness, and seasonally for drink-driving. We also hold more local meetings and consultation events through the Local Action Plan process when major proposals for an area are being brought forward.

8.57 As local proposals come forward, we issue series of project specific press releases and leaflets, maintain information and 'contact us' facilities on our website and hold local neighbourhood exhibitions. For more general progress reports, we issue an Update Newsletter which is circulated four times a year by email to a subscription list of people who have signed up through other consultation, stakeholder groups and local publicity.

- 8.58 The Reading Travel Information website reading-travelinfo also provides access to extensive real time information for public transport passengers and motorists, as well as downloads of cycle maps, Traffic Orders, journey-planning facilities, strategy updates and other relevant material.
- 8.59 Over this LTP period it is expected that engagement through social media and interactive websites will become more prominent. We will endeavour to assess and where appropriate use these tools as they emerge to collate local knowledge, views and suggested improvements. New techniques of face-to-face engagement are also being developed and will be investigated and employed as appropriate. Through such engagement, transport measures may be implemented more efficiently and effectively and with a continuing close alignment to local needs.

Prioritisation, Scheme Audit Checklist & Performance Indicators

- 8.60 Schemes are initially prioritised through a qualitative assessment of their synergy with local objectives and a calculation of the scale of benefits they will offer (geographically and by mode) against their estimated level of cost and delivery risk. They can then be tested through the Reading Transport Model or through the assessment tool comprising the Scheme Audit Checklist.
- 8.61 The Scheme Audit Checklist is a process used to assess proposed schemes or scheme options against local objectives in terms of their likely outcomes. The multi-criteria assessment identifies contributions the scheme will make in achieving the objectives as well as other benefits to the local community and compares the outcomes to a do-nothing scenario. Although the benefits are not all quantified, the auditing process does consider value for money and other measureable outcomes, as well as the qualitative impacts of a given proposal.
- 8.62 The fitness for purpose of the Scheme Audit Checklist is constantly reviewed throughout the LTP3 period to ensure it continues to provide an

effective mechanism to evaluate schemes against our objectives, including those within the Strategic Environmental Assessment and other relevant documents, and that it remains effective in identifying appropriate transport measures for meeting the future needs of Reading.

- 8.63 Where schemes are added to the programme via the prioritisation process and then implemented following the outcome of local engagement and testing through the RTM and the Scheme Audit process, the cycle returns to monitoring and data gathering. This continuous monitoring has followed national guidance for performance indicators over the previous LTP periods. National performance indicators have included transport-specific indicators, such as numbers of fatal and serious road incidents or numbers of local bus and light rail journeys. There have also been transport-related indicators from other sectors, such as health and air quality, that are relevant to this Strategy.
- 8.64 The data for these indicators is gathered through an agreed and consistent methodology and enables comparisons across authority boundaries as well as over time. Some data is collected locally and some by national agencies. The data provides a valuable means of validating the outcomes forecast by using the other tools in the toolkit and ensures that the Scheme Audit Checklist is asking the right questions.
- 8.65 Although there is no longer a requirement to collect and report on these indicators to a national auditing body, it is important to retain those which offer important data to monitor the trends and outcomes of transport measures. These include:
- Road Traffic Incidents resulting in death or serious injury;
 - Congestion as measured by journey time per mile in the morning peak period weighted by traffic flows;
 - Local bus passengers within Reading;

- Bus punctuality for frequent (every 10 minutes or less) and less frequent bus services; and
- Non-transport related indicators like NO₂ levels.

Conclusion

- 8.66 We plan to continue to develop our UTMC system to become the focus of all our monitoring and performance data and, with extended integration and improved technologies, we will use this tool to both understand the data we collect and use it to aid our decision making and network management. The RTM will also continue to integrate the data collected from various sources to enable more accurate forecasts and maximise benefits and value for money from previous transport investment.
- 8.67 Our toolkit is adaptable to accommodate change and development over the next 15 years as national transport policies vary and local objectives are achieved and as new opportunities and priorities emerge.