

**DRAFT LOCAL IMPLEMENTATION PLAN:
2011 – 2014
IMPROVING TRANSPORT IN HILLINGDON**

**London Borough of Hillingdon
December 2010**

DRAFT LOCAL IMPLEMENTATION PLAN 2011-2014: IMPROVING TRANSPORT IN HILLINGDON

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EXECUTIVE SUMMARY

Introduction

The Council is legally required to prepare a Local Implementation Plan setting out its proposals for delivering the Mayor's Transport Strategy (MTS) in Hillingdon. Hillingdon's Draft Local Implementation Plan 2011 - 2014 (LIP2) is a wide plan that sets out transport objectives and delivery proposals for 2011 - 2014, which reflect the transport needs and aspirations of people in Hillingdon and contribute to the MTS, published in May 2010. The Draft Plan takes full account of TfL's guidance, including its funding programme requirements issued to the Council on 4th November 2010.

Hillingdon's LIP2 objectives

The Council has identified transport challenges and opportunities facing the borough with the benefit of input from numerous bodies including transport providers, various partnership groups, local interest groups, residents associations, petitioners and local residents; and taking into account the local characteristics of the borough, Hillingdon's Sustainable Communities Strategy; the Council Plan; MTS and sub regional transport plans. As a result of this, the following objectives have been developed for Hillingdon's LIP2:

- Increase sustainable travel provision to/from popular destinations
- Improve condition of principal roads and increase satisfaction levels with network condition
- Deliver better quality of life and improve air quality
- Promote healthy travel behaviour
- Reduce crime, fear of crime and anti-social behaviour
- Reduce the number of people killed and seriously injured and reduce the overall number of pedestrian and cycle casualties
- Ensure the transport system enables all residents to access health, education (including 16+ establishments), employment, social and leisure facilities within the borough
- Improve transport for deprived areas
- Reduce Hillingdon's contribution to climate change and improve its resilience
- Deliver the Council's statutory Network Management Duty to facilitate the expeditious movement of all transport modes

Hillingdon's LIP2 delivery actions

The ten objectives listed above have been used to develop Hillingdon's transport programmes and projects, which form the basis of the delivery actions in the Draft Plan. In accordance with TfL's requirements, these delivery actions have been prioritised under the 'neighbourhoods and corridors, smarter travel, maintenance and major schemes' funding programmes during the three year period between 2011/12 to 2013/14 and beyond.

Hillingdon's delivery actions are particularly concerned with promoting and supporting sustainable travel to reduce the growth in car traffic and to contribute to improved health and quality of life for residents with a positive impact on the environment and on the wider challenge of reducing transport's contribution to climate change. These actions therefore support the Mayor's six goals in the MTS which are:

- Supporting economic development and population growth
- Enhancing the quality of life for all Londoners
- Improving safety and security for all Londoners
- Improving transport for all Londoners
- Reducing transport's contribution to climate change and improving resilience

Hillingdon's key delivery actions focus on:

Neighbourhoods and Corridors:

- Supporting the borough's shopping centres by improving the public realm
- Improving transport interchanges, including Uxbridge, Hayes, Eastcote, South Ruislip, Ruislip Gardens and links along the Grand Union Canal
- Enhancing north south transport corridors, including smoothing traffic
- Enhancing east west transport corridors, including improving shopping areas and smoothing traffic
- Introducing measures to improve school safety, that arise from school travel plans and/or other concerns from local residents
- Improving access and the transport environment at popular destinations, including Uxbridge, Ruislip, Eastcote, Ickenham, West Drayton and the Heathrow villages
- Initiatives to enhance access, particularly with regard to those with impairments to mobility, including older people
- Initiatives to promote real-time transport information to assist people in travel planning
- Road safety improvement measures
- Parking management schemes and associated measures including residents parking; stop and shop schemes and rationalising parking in narrow streets
- Bus accessibility measures
- Public footpath improvements, including access to the River Colne, Frays River, Yeading Valley and Ruislip Woods
- Reducing traffic congestion
- Managing freight traffic
- Emissions and noise monitoring

Smarter travel

- School travel awareness programme
- Road safety education
- Modal change measures

Local transport funds

- Community projects

Maintenance

- Highways maintenance

Major scheme bids

- Bids for Yiewsley/West Drayton; Hayes and Ruislip Manor

Performance monitoring

The draft LIP2 includes a performance monitoring plan as required by the Mayor, with five mandatory indicators relating to bus service reliability; principal roads asset condition; road traffic casualties; mode share; and CO² emissions. The Council has also included a number of local (non-mandatory) indicators which support the borough's focus on transport issues and further support the Mayor's priorities. These local indicators include reducing congestion at hot spots; pedestrian training; cycle training; school travel plans; traffic volumes; accessibility and social inclusion; and school road safety.

Sustainability Appraisal

Under the Strategic Environmental Assessment Directive (European Directive 2001/42/EC) boroughs have a duty to prepare a Strategic Environmental Assessment. In preparing Hillingdon's Draft Local Implementation Plan 2011- 2014, a Strategic Environmental Assessment has been carried out to ensure that all relevant environmental matters have been taken into account.

Equality Impact Assessment

Boroughs have a duty to prepare an Equality Impact Assessment of their LIP under the Race Relations (Amendment) Act 2000 and the Equality Act 2006. In preparing Hillingdon's LIP2, an Equality Impact Assessment has been carried out to ensure that the proposals do not discriminate against equality groups and that equality is promoted wherever possible.

1. INTRODUCTION

Background

- 1.1 A Local Implementation Plan (LIP) is a statutory document prepared under section 145 of the Greater London Authority Act 1999, which sets out how the Council proposes to implement the Mayor's Transport Strategy (May 2010) as well as other locally important goals.
- 1.2 Hillingdon's first LIP covered the period 2005/6 to 2011/11. This document is Hillingdon's second LIP (LIP2) and covers the period 2011/12 to 2013/14.
- 1.3 Hillingdon's LIP2 takes account of the Mayor's Transport Strategy (MTS) which has been developed to create a world class transport system for London and sets out priorities for improving transport. The Mayor recognises the key role that boroughs have to play in planning and delivering transport improvements. In particular Hillingdon's LIP2 takes account of the six goals in the MST, namely
 - Supporting economic development and population growth
 - Enhancing the quality of life for all Londoners
 - Improving safety and security for all Londoners
 - Improving transport for all Londoners
 - Reducing transport's contribution to climate change and improving resilience
- 1.4 LIP2 also takes account of the emerging sub-regional transport plans, Hillingdon Partners Sustainable Community Strategy, the Council Plan, Hillingdon's Pre-Submission Core Strategy and other relevant policies.
- 1.5 The LIP is a vital tool which enables all Partners to work deliver projects and initiatives to improve transport within the borough and to ensure that Hillingdon remains an attractive place in which to live and work.

How has Hillingdon's LIP2 been developed

The draft LIP2

- 1.6 This draft LIP2 has been put together following a considerable amount of background work to provide an understanding of the issues facing Hillingdon with regard to transport. Much of this understanding has been a result of the Council's interaction with the local community and transport providers.
- 1.7 The Council interacts with the local community in a variety of ways which encourages an active live and open dialogue on transport related issues of concern to individual residents, businesses, elected Members and other key local stakeholders.

- 1.8 There are a number of specialised Council hosted transport-focused forums which are open to relevant groups - such as the Cycling Liaison Group, the School Travel Plan Steering Group, the Hillingdon Mobility Forum, the independent Hillingdon Motorists' Forum, the Traffic Liaison meetings (the latter involving TfL, utility co-ordinators, internal Council departments as well as the police and other emergency services) which all involve a range of stakeholders. Local residents' groups also raise matters on an ad hoc basis with local Councillors and officers on matters regarding transport. Hillingdon's Local Strategic Partners have been engaged in preparing the Local Development Framework Core Strategy including transport matters late in 2009 and early in 2010, and the wider public were engaged during the public consultation process on the Draft Core Strategy in June/July 2010.
- 1.9 The School Travel Plan (STP) Steering Group oversees the development and running of the STP initiative in Hillingdon. The Steering Group comprises a number of outside organisations and other stakeholders that hold a vested interest including Healthy Hillingdon, the Metropolitan Police and TfL.
- 1.10 As part of the writing of a STP, schools are encouraged to engage with residents and consult them over the proposals they intend to submit to the Council. The Council also engages with residents with regard to proposed engineering measures being considered around schools. In the past, schemes have been amended to take in the concerns of residents whilst others have been added to in order to incorporate additional measures proposed by the local community.
- 1.11 Hillingdon has a strong vibrant Youth Council, and the Council's STP team uses the Youth Council as a means of engaging with young people outside of the school environment. The STP Team are regular attendees at the annual November Youth Conference where issues such as bus travel, oyster cards, bullying and lack of cycle facilities are discussed. Current discussions with the Youth Council have been centered on future projects related to transport and road safety issues.
- 1.12 Area travel plan partnership forums for Heathrow, Uxbridge, Hayes, and West Drayton provide useful liaison opportunities. Brunel University leads the Uxbridge Travel Plan Partnership which involves all significant transport generators in the area including Hillingdon Hospital, The Chimes, RAF Uxbridge, the Council and other Partners
- 1.13 The Grand Union Canal Greenway Route Implementation Study Planning (RISP) process was completed in May 2010. Meetings were held with residents associations for Eastcote, Ickenham, Ruislip, West Drayton, Stockley Park and BAA Heathrow. Officers attended and supported numerous local initiatives such as GlaxoSmithKline's walking and cycling awareness events in Stockley Park and the annual party in Fassnidge Park, Uxbridge. Dedicated sessions were also arranged with interested parties on specific matters such as Drop & Go and parking in the immediate vicinity of schools.

- 1.14 Hillingdon has been actively participating in various west London regional partnerships, notably in the West London Liaison meetings with TfL, WestTrans, West London Alliance and to a reducing extent with SWELTRAC. Sustrans have been working closely with Hillingdon Council to realign the National Cycle Route 6 from the Ruislip Woods area to the Grand Union Canal.
- 1.15 As well as input received through resident bodies, local interest groups and partnership groups, individual residents may lobby either individually or as groups of interested neighbours via the Council website, dedicated e-mail addresses, text messaging, approaches to the Council's dedicated contact centre, by post, telephone, in person at the Civic Centre or by the submission of petitions to the Cabinet Member for Planning and Transportation.
- 1.16 The latter method in particular resulted in about a hundred detailed petitions per annum from groups of local residents who raise a range of issues of particular concern - typical examples being requests for parking management schemes, road safety measures, traffic calming and 20mph zones. Each petition submitted in this way is considered at one of the regular evening meetings set aside by the Council's Cabinet Member for Planning and Transportation, and lead petitioners and their local elected representatives are given an opportunity to state their case alongside technical reports which are presented in tandem for consideration by the Cabinet Member. Many of these petitions have formed the solid basis for subsequent bids for scheme funding to TfL, as the level of local support is often a sound basis for the development of projects where the Council can have some reasonable certainty of subsequent community support.
- 1.17 The Council also funds its own dedicated capital road safety engineering programme, intended to tap in to the wealth of local knowledge in the community about issues of local concern but which may not yet have resulted in the generation of significant road accident data. Working with the traffic police and safer neighbourhood teams, residents are able to share information on issues which they may consider to be 'accidents waiting to happen', and this proactive approach has resulted in a wide variety of Council funded road safety measures that range in scope from minor signs and road marking changes up to road realignments and new pedestrian crossings, complementing the TfL-supported road safety and traffic related projects.

Equality Impact Assessment

- 1.18 Boroughs have a duty to prepare an Equality Impact Assessment of their LIP under the Race Relations (Amendment) Act 2000 and the Equality Act 2006. In preparing Hillingdon's LIP2, an Equality Impact Assessment has been carried out to ensure that the proposals do not discriminate against equality groups and that equality is promoted wherever possible.

Strategic Environmental Assessment

- 1.19 Under the Strategic Environmental Assessment Directive (European Directive 2001/42/EC) Boroughs have a duty to prepare a Strategic Environmental Assessment. In preparing Hillingdon's LIP2, a Strategic Environmental Assessment has been carried out to ensure that all relevant environmental matters have been taken into account, wherever possible.

Next steps

- 1.20 This draft LIP2 will be subject to a targeted consultation process for a period of 6 weeks early in the new year. Following consideration of all the responses received, a revised LIP2 will be formally adopted by the Council.

The format of Hillingdon's LIP2

- 1.21 The rest of LIP2 is structured as follows:
- Chapter 2 sets out the transport objectives, taking into account the local context, issues, challenges and opportunities.
 - Chapter 3 includes a costed and funded Delivery Plan and the associated risk assessment. The Programme of Investment is included in Table 3.4 in accordance with TfL requirements.
 - The final chapter is the Performance Monitoring Plan, which monitors how the LIP objectives will be delivered.

2. TRANSPORT OBJECTIVES

Introduction

2.1 This chapter sets out Hillingdon's transport objectives for the period 2011-2014 and beyond, in line with the Mayor's Transport Strategy. The following transport LIP2 objectives have been derived following a consideration of the local characteristics, issues, challenges and opportunities facing the borough, as outlined later in the chapter. Hillingdon's LIP2 objectives are to:

1. Increase sustainable travel provision to/from popular destinations
2. Improve condition of principal roads and increase satisfaction levels with network condition
3. Deliver better quality of life and improve air quality
4. Promote healthy travel behaviour
5. Reduce crime, fear of crime and anti-social behaviour
6. Reduce the number of people killed and seriously injured and reduce the overall number of pedestrian and cycle casualties
7. Ensure the transport system enables all residents to access health, education (including 16+ establishments), employment, social and leisure facilities within the borough
8. Improve transport for deprived areas
9. Reduce Hillingdon's contribution to climate change and improve its resilience
10. Deliver the Council's statutory Network Management Duty to facilitate the expeditious movement of all transport modes

2.2 LIP2 aims to promote sustainable forms of transport with an overall aim of improving quality of life and reducing private car dependency. It aims to improve links and connections to popular destinations, ensure that public transport supports growth and regeneration, reduce congestion and smooth traffic flow, and improve accessibility to services, encourage active travel and reduce the carbon footprint.

Local context

Hillingdon's characteristics

2.3 Hillingdon has approximately 250,000 residents and covers an area of 44 square miles. The borough has a strong economy and excellent transport links to/from London, the west of England and the world. As one of the greenest boroughs in London, Hillingdon is in general a healthy place to live and crime rates are falling.

2.4 Notwithstanding the above, Hillingdon is a borough of contrasts. The area to the north of the A40 is semi-rural, with Ruislip as its main district centre. The south of the borough is more densely populated, urban in character and contains the metropolitan centre of Uxbridge and the district centres of Hayes and West Drayton. Most of the area south of the A40 finds itself in the top

40% nationally in terms of deprivation. Parts of West Drayton, Yeading, and Townfield fall into the 20% most deprived category.

Figure 2.1: Metropolitan Town Centre, District Centres and Shopping Parades

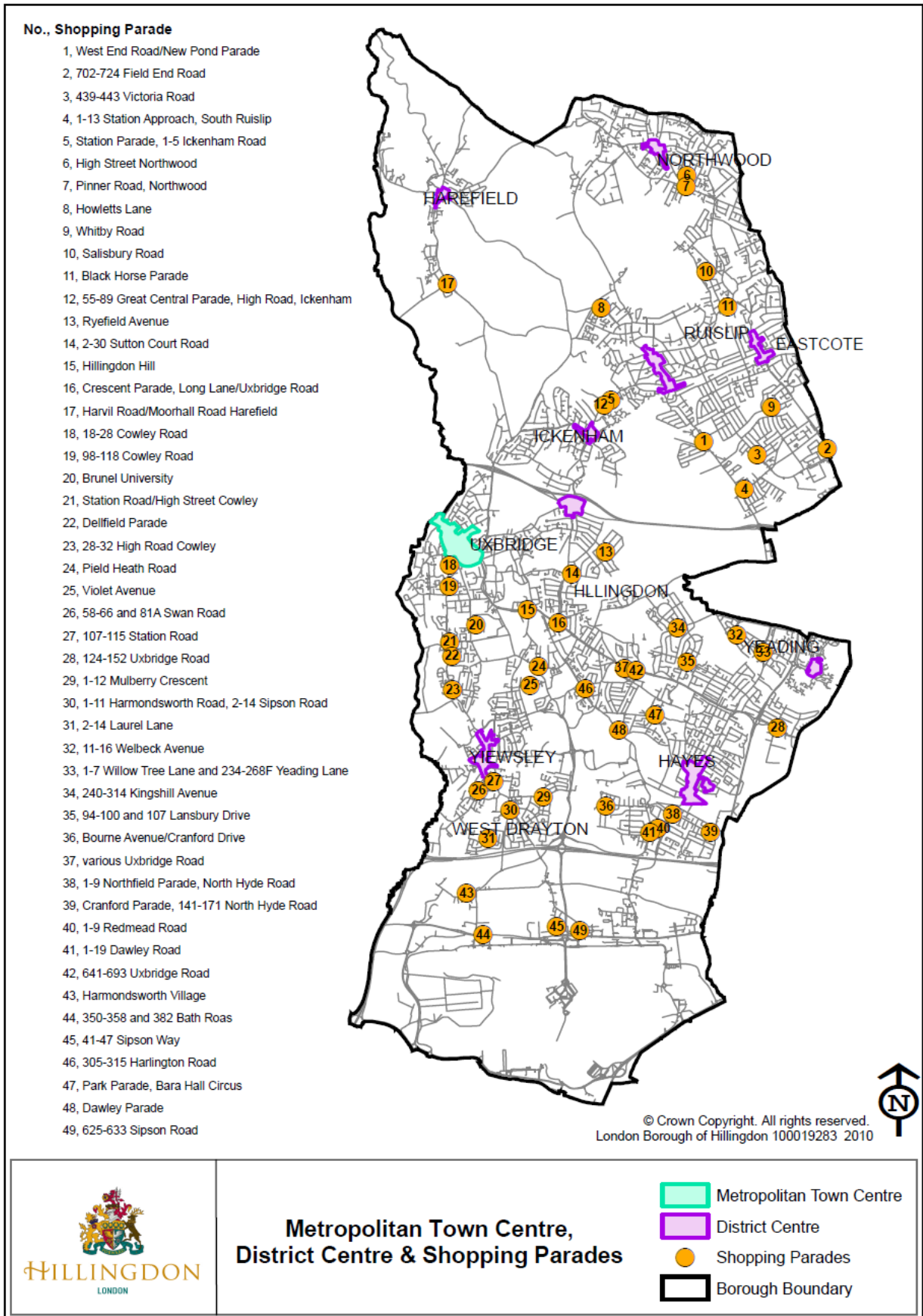


Figure 2.2: Hillingdon's Road Hierarchy

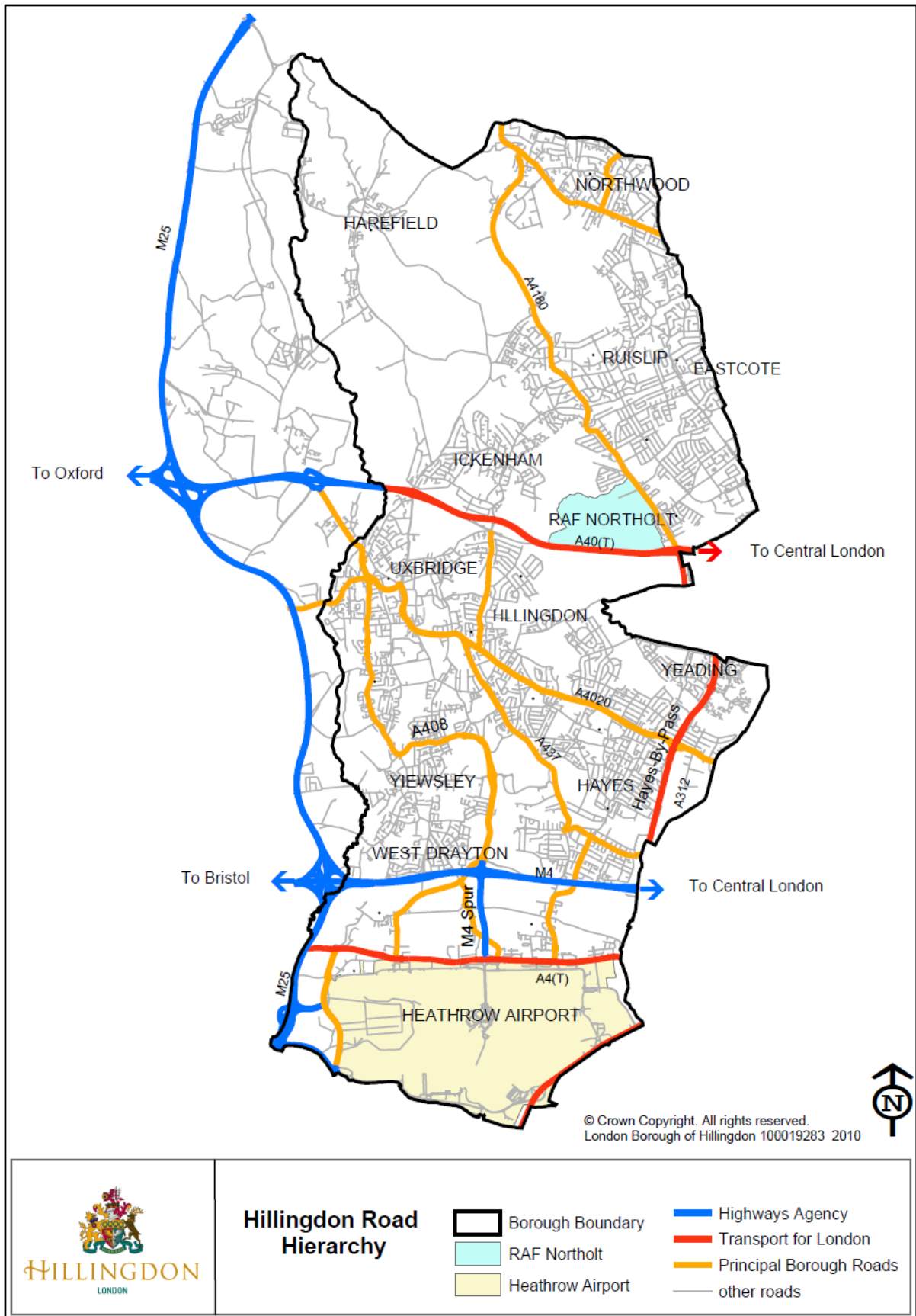


Figure 2.3: Rail and Underground Network

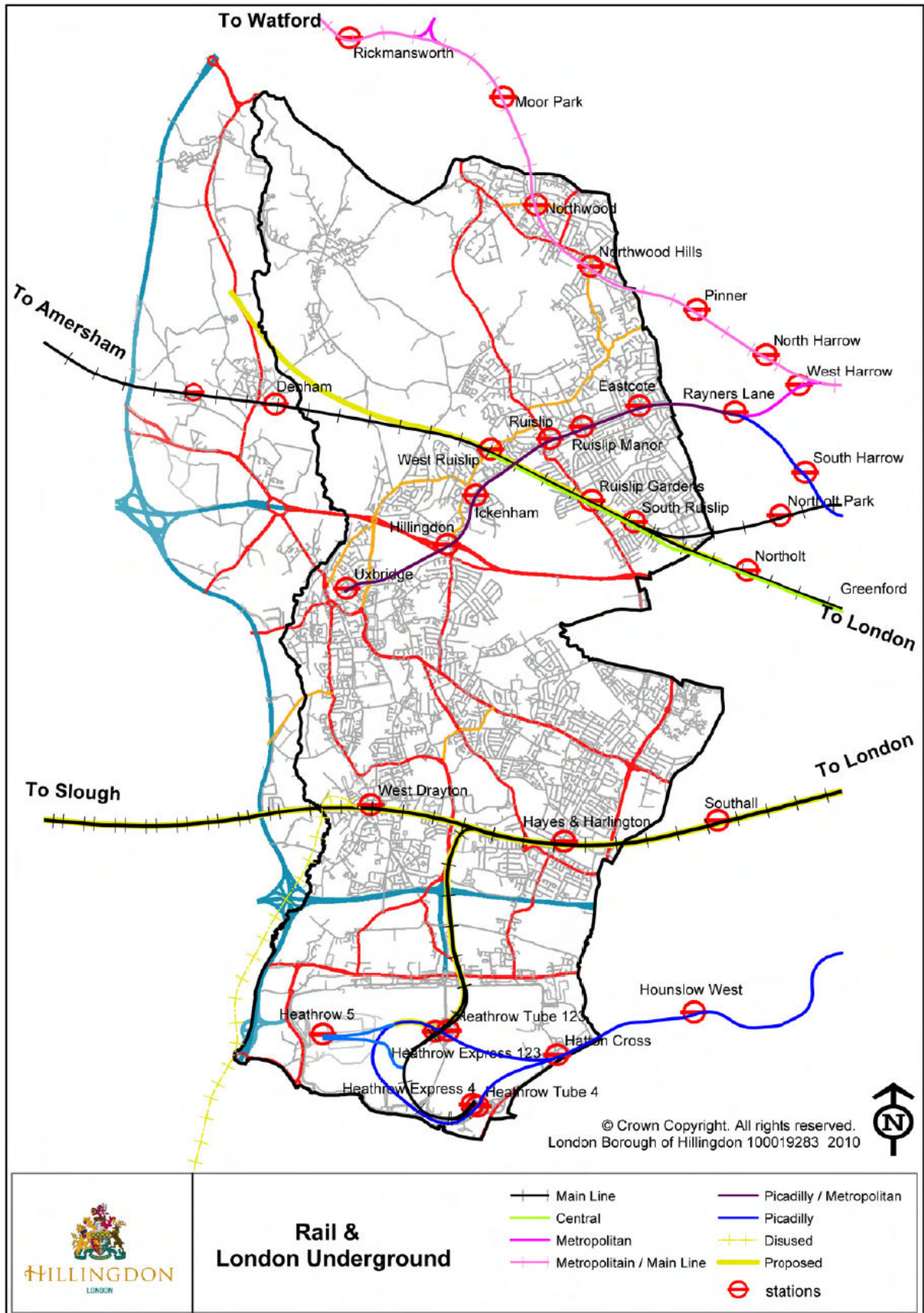


Figure 2.4: Local Bus Network

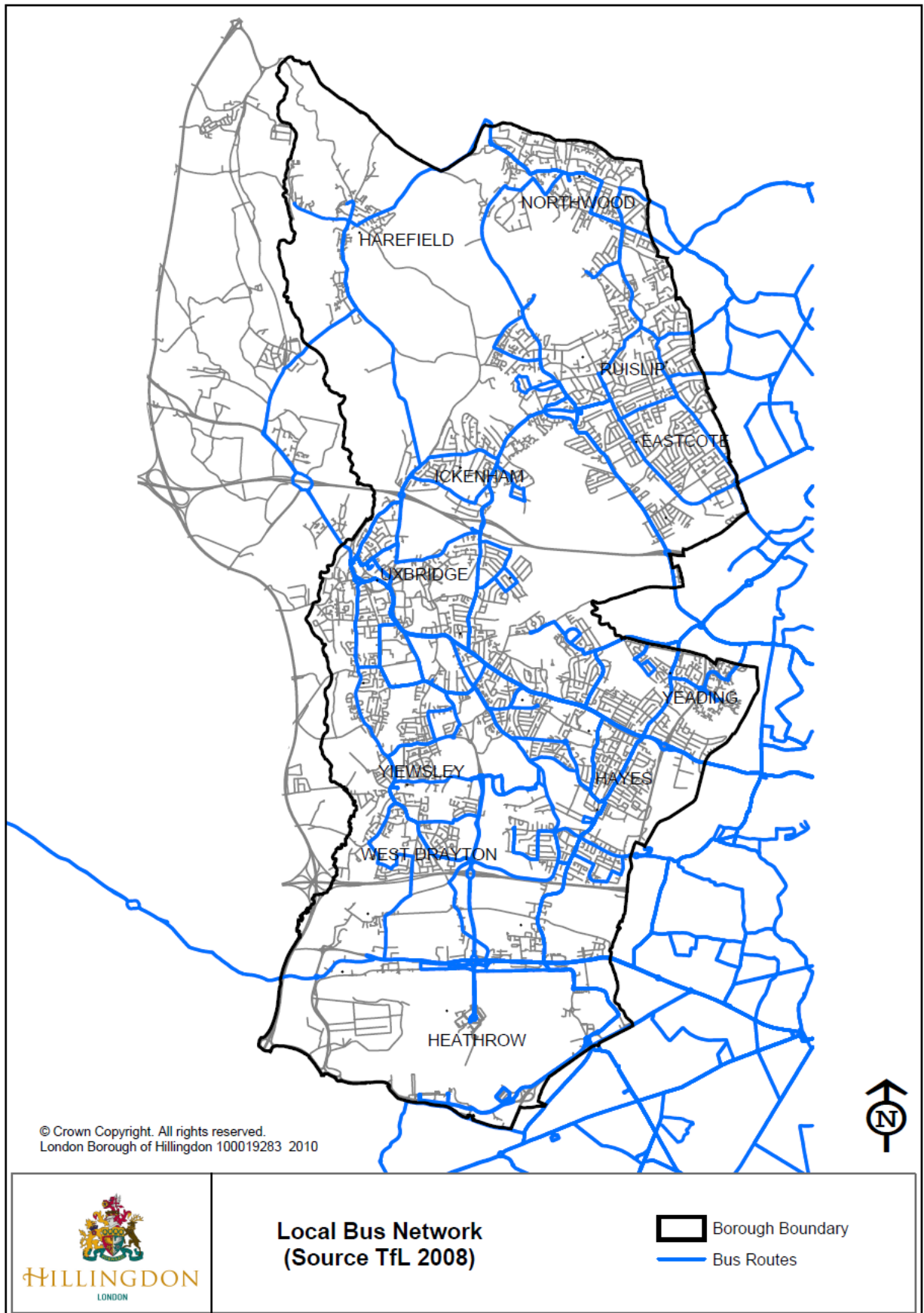
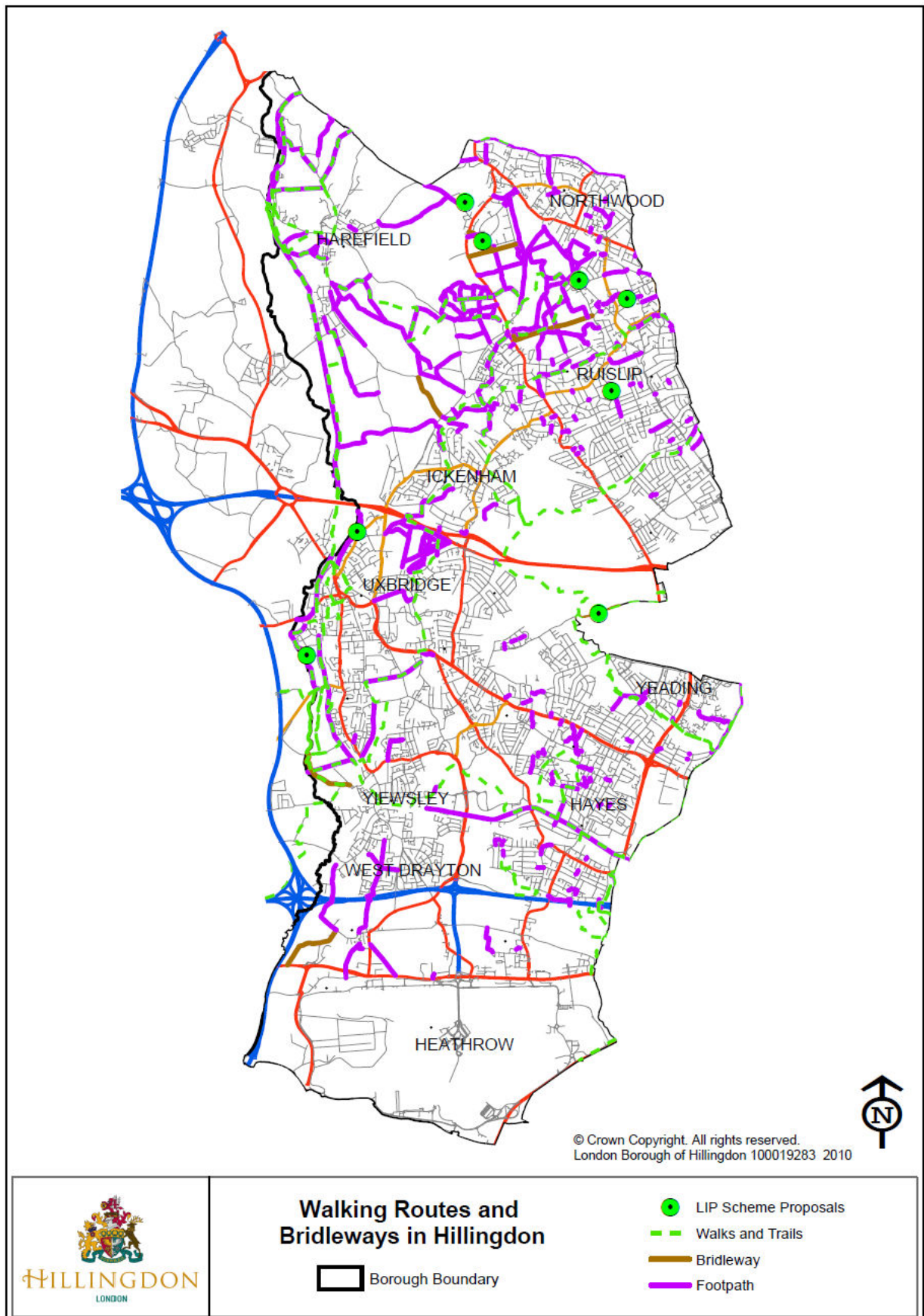


Figure 2.5: Walking Routes & Bridleways



2.5 Some key facts about Hillingdon are provided below:

Hillingdon's population

- Hillingdon is home to approximately 250,000 residents and the population is expected to increase by approximately 14% over the period of the Core Strategy.
- Under 16 year olds currently represent approximately 20% of Hillingdon's population. This figure is expected to remain relatively unchanged up to 2026.
- As a result of a recent increase in birth rates, the population of 0-2 year olds is now significantly higher than in recent years.
- Those aged 65 and over currently represent 15% of the borough-wide population. This population group will increase to 17.65% of the population between 2011-2026.
- At a borough-wide level, the proportion of residents from non-white British ethnic groups is below the average for outer London, however the proportion of ethnic groups living in Hayes is well above this average.
- Hillingdon is the 11th most deprived borough in outer London. Most of the areas south of the A40 fall into the top 40% of most deprived areas in England.
- The average household income is £34,000 per annum. This is nearly £4,000 higher than the national average and just under £3,000 less than the Greater London average.
- The borough has a crime rate better than the average for London, but with considerable variations between wards. There has been a gradual fall in the annual crime count from 28,144 in 2006/7, 26,390 in 2007/8 to 25,419 (as of November 2009).

Hillingdon's economy

- Heathrow is a major contributor to the UK economy at all levels; it directly employs over 76,500 people with around 170,000 indirect jobs generated by the airport.
- Around 9,000 of Hillingdon's residents work at Heathrow Airport (which is 1 in 15).
- Nearly 88% of the workforce at Heathrow Airport live outside the borough and around 68% travel to work by car.
- Each year Heathrow accommodates 480,000 flights and approximately 67 million passengers. By 2015 passenger numbers at Heathrow Airport are predicted to rise to 80 million passengers per annum; this is under current operating conditions. Although this may have the potential to create more jobs it will also bring added pressures to the road network and public transport capacity which will need to be recognised and addressed.
- Uxbridge is the main urban centre and there are a further 15 town and neighbourhood centres and 46 local parades.
- Hillingdon is home to around 8,400 registered businesses providing 188,600 jobs.

- Hillingdon's manufacturing sector is declining but office-based industries are growing.
- Only 37% of local jobs are taken by Hillingdon residents.
- Hillingdon's resident working age population has below average qualifications of NVQ1-4 or above.
- 25.3% of unemployed are 16-24 year olds compared to 14.3% nationally.
- 26.9% of working age residents are below NVQ Level 2 standard – above both the London and national average. Residents are also less well qualified at Level 4 and above compared with London as a whole – 26.5% compared with 36.9% for London.
- There is significant commuting out of the borough to central London and the Thames Valley, and significant in-commuting. Commuting patterns equate to 60,632 Hillingdon residents commuting out and twice as many (129,780 people) commuting in.
- Although 56% of Hillingdon's economically active residents of working age (77,168) live and work within the borough, 44% (60,632) commute out. 7% leave the borough to work in Ealing, 13% work outside of London and 8% commute towards Central London boroughs.
- 63% of jobs within Hillingdon are filled by people who commute in. 9% of LB Ealing residents of working age commute into Hillingdon (5,800 working at Heathrow) as do 12% of Hounslow working age residents (10,750 at Heathrow) and 8% from LB Richmond (2,100 at Heathrow).

Hillingdon's homes

- Hillingdon currently has 99,800 households.
- By 2028 there will be 113,303 households living in the borough.
- Approximately 33% of households in the borough are unable to afford market housing.
- The London Plan (2008) sets an annual monitoring target to provide 365 new homes per annum.
- The GLA has indicated that the Replacement London Plan (2009) will set an annual monitoring target for Hillingdon to provide 425 new homes per annum.
- In accordance with the London Plan (2008), the Council seeks to provide 35% of all new housing provision as affordable housing.

Hillingdon's environment and heritage

- Hillingdon is one of the greenest London borough with over 5,000 acres of open countryside including 4,970 hectares of Green Belt. Hillingdon contains:
 - 200 parks and open spaces that cover approximately 1,800 acres, containing a mixture of habitats with over 11,500 species.
 - Over 8,000 individual trees and woodlands protected by Tree Preservation Orders and over 15,000 highway and Hillingdon Homes trees.

- 1 National Nature Reserve, Ruislip Woods, surrounds Ruislip Lido, a 60-acre lake.
- 6 Sites of Special Scientific Interest (SSSIs), 14 sites of Metropolitan Importance for Nature Conservation, 61 sites of borough importance (17 Grade I, 44 Grade II), including parts of Hillingdon House Farm and 9 sites of local importance.
- Approximately 7% of the borough is covered by Conservation Areas
- Hillingdon is a suburban borough containing areas of 1930s development and typical “Metro land” estates with the most common house type being semi-detached (40.3%) followed by terraced (27.9%).
- Hillingdon's designations include:
 - 30 conservation areas and 14 Areas of Special Local Character (ASLC)
 - 409 statutory listed buildings and 292 locally listed buildings
 - 5 Scheduled Ancient Monuments and 9 Archaeological Priority Areas
 - 1 entry in the English Heritage Register of Historic Parks and Gardens (Church Gardens, Harefield, Grade II)
 - 1 Article 4 Direction (Daisy Cottages, West Drayton Green).
- A number of rivers run through the borough, the Colne, Frays, Yeading Brook, Pinn and Wraysbury as well as approximately 20 kms of Grand Union Canal.
- Approximately 7000 properties (6%) are located in areas of flood risk
- Large parts of Hillingdon sit above a Principal Aquifer
- Hillingdon is a major producer of minerals compared to other London s.
- The southern two-thirds of the borough is designated an Air Quality Management Area. This is due to high levels of nitrogen dioxide above recognised national and European Union levels associated with the major road network in the borough and the operation of Heathrow Airport
- In addition to contributing to poor levels of local air quality, the operation of Heathrow Airport has further significant impacts on local residents in the south of the borough and adjoining areas including traffic congestion, crowded public transport and high noise levels
- Hillingdon has the fourth highest carbon emissions of the thirty-three London borough with:
 - 432,000 tonnes from transport within the borough (aviation fuel and motorway travel are excluded).
 - 8 tonnes of CO² per person.
 - 560,000 tonnes of CO² from domestic fuel.
 - 1,000,000 tonnes of CO² from industrial processes.
- Heathrow Airport has a significant impact on local residents living in the south of the borough and in adjoining areas. Some of the adverse impacts include congestion, noise and poor air quality.
- Significantly high concentrations of nitrogen dioxide (NO²) are found around the major roads in the borough and around Heathrow Airport.

Community Facilities

- Hillingdon maintains 92 educational establishments made up of 65 primary schools.
- 18 secondary schools, 6 special schools, 1 nursery and 2 pupil referral units.
- The borough contains one further educational establishment (Uxbridge College) and two Universities; Brunel and Bucks New University.
- Hillingdon Primary Care Trust owns and manages 25 health centres, clinics and administrative buildings and manages 51 GP practices.
- Hillingdon Hospital (Acute Care) Trust manages Hillingdon Hospital and Mount Vernon Hospital in the north of the borough.
- There are currently 87 places of worship in Hillingdon.
- Hillingdon contains 5 Metropolitan Police Stations, with additional facilities located at Heathrow. The borough also has 4 London Fire Brigade Stations.

Culture and Leisure

- Hillingdon has museum collections at Uxbridge Library and Brunel University as well as 17 public libraries and one mobile library
- The borough plays host to the popular BIGfest music and arts festival
- The borough has a rich collection of sports and leisure facilities, including a 50m indoor swimming pool in Hillingdon and a new Sport and Leisure Centre in Botwell Green.
- The borough contains 4 public golf courses in Ruislip, Northwood (Haste Hill), Stockley Park and Uxbridge along with 3 public swimming pools and 3 Fitness Zones located in Ruislip and Hayes.

Transport

- The borough is home to Heathrow Airport, a key gateway for the UK and one of the busiest airports in the world. Heathrow Airport is also the second busiest public transport interchange in the UK, with rail, bus and coach links around the country.
- Hillingdon has some of the busiest parts of London's strategic road network including the M4, A40, A312 and the nearby M40 and M25. Whilst providing decent through-access to central London these roads are currently at capacity and bring high levels of congestion and environmental impacts to nearby residential areas and increased journey times for businesses.
- North to south road and public transport accessibility within the borough is severely constrained.
- 55.6% of residents travel to work by car.
- National rail connections are available into central London from Heathrow (via the Heathrow Express and Heathrow Connect service) and West Drayton and Hayes (to Paddington) and West Ruislip and South Ruislip into Marylebone.

- The borough contains 13 Underground stations for the Piccadilly, Metropolitan and Central Lines with interchanges at Heathrow, Uxbridge and West Ruislip.
- Further enhancements to the rail network are planned, including Crossrail and Airtrack.
- Northolt Aerodrome provides handling facilities for private flights in addition to Ministry of Defence activities.
- Uxbridge station provides the most significant interchange between the Underground and bus services with 140 bus and 12 train services per peak hour (over 5.4 million trips per year).
- Hayes and Harlington station is the borough's second most important rail interchange with 94 bus and 15 train services per peak hour (over 1.2 million trips per year).
- Heathrow Terminals 1, 2 and 3 have over 8,000,000 trips per year and Eastcote station has over 2,000,000 trips per year.
- Walking trips have declined whilst cycle trips have marginally increased in recent years.
- The borough has a strong school travel plan programme in place.

Local challenges and opportunities

2.6 Given the above characteristics of the borough, the main challenges and opportunities to be addressed in LIP2 are:

- The current public transport provision in Hillingdon has an east-west orientation whilst north-south journeys are usually slow and often indirect. Road traffic pressures across the A40 create a major barrier severing the north from the south. Better north-south links will help connect local people with jobs in the borough, for example connecting Stockley Park to Hayes and West Drayton will make it a more accessible and sustainable office location. It is vital that LIP2 addresses the challenge of poor north-south transport links in Hillingdon.
- The table below illustrates that public transport in Hillingdon effectively allows no choice for residents in the north to travel to work in the south, apart from by car, which is a significant contributory factor to pollution levels which are amongst the highest in the country.

TABLE 2.1: JOURNEY TIME COMPARISONS BY MODE

Journey	Bicycle	Car	Public Transport	Public Transport Changes	Public Transport Modes
	Time in minutes, derived from TfL Journey Planner				
South Ruislip to Stockley Park	35	27 - 31	69 – 94	3 - 4	Bus, Underground
South Ruislip to Kings Cross	97	43 - 46	42 – 43	1	Underground
Northwood Hills to Kings Cross	103	61 - 67	35 – 40	1	Underground
Northwood Hills to Heathrow	81	40 - 47	60 – 115	2 - 4	Bus, Underground, Rail
	81	41 – 46	105 – 120	4	Bus 282, 331/U9, 427/607, 140
Eastcote Arms, S. Ruislip to Stockley Park	41	33 – 36	104 – 114	3	Bus 114, U1 and U5

- There is insufficient bus capacity in parts of the borough, with passengers having to stand up on buses or not able to board at all, especially at peak times. Equally important is the need to achieve reliable and reasonably frequent services as the norm. Greater integration of transport modes through improved interchanges at key locations in the borough would also benefit the network.
- Uxbridge is a Metropolitan town centre, which Hillingdon’s Core Strategy identifies for further employment and retail growth, along with new housing at RAF Uxbridge, which will create significant new users of public transport in Uxbridge. However Uxbridge is deficient in good public transport links despite being the terminus of the Metropolitan and Piccadilly Underground Lines and numerous bus routes. Uxbridge lacks direct and fast connections with its neighbouring Metropolitan town centres and does not compare favourably with other equivalent urban centres in terms of journey time to central London by public transport. There is a need to improve the capacity of the bus station and scope to improve both the frequency and travel times of Underground services between Uxbridge and London.

- Table 2.2 below shows how journey time to Uxbridge compares with some typical Metropolitan Town Centres.

TABLE 2.2: PUBLIC TRANSPORT JOURNEY TIMES BETWEEN METROPOLITAN CENTRES AND CENTRAL LONDON

Town Centre	Transport Mode	Journey time [Minutes]	Location
Ealing	Rail (Underground)	10 (16)	Zone 3
Harrow	Rail (Underground)	15 (18)	Zone 5
Ilford	Rail	16	Zone 4
Bromley	Rail	18	Zone 5
Croydon	Rail	18	Zone 5
Reading	Rail	26	Berkshire
Romford	Rail	27	Zone 6
Slough	Rail	29	Berkshire
Hounslow	Rail (Underground)	42 (30)	Zone 5 (4)
Kingston	Rail	31	Zone 6
Sutton	Rail	31	Zone 5
High Wycombe	Rail	40	Bucks
Watford	Rail (Underground)	32 (40)	Hertfordshire
Staines	Rail	42	Surrey
Uxbridge	Underground	42	Zone 6

- Hayes and West Drayton stations will be upgraded as part of the Crossrail works, which will provide the catalyst for the regeneration of Hayes and West Drayton and an opportunity for both improved public transport interchanges and town centre improvements.
- There are also opportunities to enhance public transport interchanges at West Ruislip and also at Heathrow, which has five rail stations and the UK's second busiest coach station and will benefit from Crossrail and Airtrack.
- Congestion causing traffic delays, particularly in the 30 identified congestion hotspots.
- Pressures on the road and public transport network from the high volume of vehicles associated with Heathrow Airport.
- There is a need to improve access to and from local destinations (including health, education, employment and training, local shopping, community, culture, sport and leisure facilities), to ensure that they are accessible by good quality, safe and convenient sustainable transport. It

is vital for people to be able to access these types of destinations through well planned routes and integrated public transport, especially for those without a car and for those in more remote parts of the borough.

- To enable access to 9,000 new jobs and an average of 425 new homes per annum during the Core Strategy plan period. The Core Strategy supports the growth areas of Uxbridge and the Heathrow Opportunity Area, including the Hayes/West Drayton Corridor, which are important destinations for employment and services. A number of these are located in proximity to existing congestion hotspots on Hillingdon's road network. Access will have to be provided within the context of a congested road network and crowded public transport system. The options for addressing congestion on the road network do not include new road construction and the extent of new growth will depend on the implementation of other measures, such as highway improvements and more efficient public transport services.
- High dependency on private vehicles and low proportion of trips made by cycling, walking and public transport. To improve facilities for cycling, walking and public transport to reduce the dependency on cars and to ensure that all future developments have good cycling and pedestrian provision.
- The river and canal network in Hillingdon provide opportunities for sustainable transport, including walking and cycling, and water based leisure and recreation.
- The Council is working with schools to introduce sustainable means of transport to and from school by encouraging them to prepare and implement Travel Plans in order to reduce congestion and improve safety through engineering works, education and encouragement of walking and cycling.
- Heathrow is the largest single generator of traffic in the UK and has a significant impact on travel patterns in the borough. A very high number of trips are taken by car which impacts on air quality and the capacity of road networks, particularly in the Air Quality Management Area.
- Hillingdon's carbon emissions from transportation are much higher than the London average. The number of people travelling into and out of Hillingdon is a major contributing factor. It has also led to impacts on air quality, particularly around Heathrow where hotels and office accommodation have been developed.
- The installation of electric vehicle charging points can help those who are car-dependant to reduce their emissions and in turn their contribution to climate change. Other initiatives such as prioritising car

parking for low emissions vehicles and car clubs are simple measures that can also contribute to the reduction of harmful emissions.

- Currently, aircraft at Heathrow are only permitted to take off from one runway and land on the other except in certain circumstances. This action helps to regulate noise impacts on the surrounding area. The Council strongly opposes any further capacity increase at Heathrow, including mixed mode and any further runway expansion.
- Heathrow will support the delivery of the London 2012 Olympic and Paralympic Games and its legacy as an international gateway to London.

2.7 The objectives of LIP2 as set out in paragraph 2.1 above have been derived, taking into account this consideration of the local characteristics, issues, challenges and opportunities facing the borough and also having regard to the Mayor’s Transport Strategy and the emerging sub-regional transport plans. Its Hillingdon Partners Sustainable Community Strategy, Council Plan, Pre-Submission Core Strategy and other relevant policies are fully compatible with LIP2 Objectives, the Mayor’s Transport Strategy Goals, Hillingdon Sustainable Community Strategy Goals, the West London Partnership 10-Point Plan and the Strategic Environmental Assessment are listed in table 2.3.

TABLE 2.3: LIST OF OBJECTIVES/GOALS OF RELEVANT STRATEGIES/PLANS

Hillingdon’s Local Implementation Plan (LIP2) Objectives	
LIP2 1	Increase sustainable travel provision to/from popular destinations
LIP2 2	Improve condition of principal roads and increase satisfaction levels with network condition
LIP2 3	Ensure that transport infrastructure improvements delivers better quality of life with corresponding reductions in air pollution emissions.
LIP2 4	Identify and implement new opportunities to promote healthy travel behaviour
LIP2 5	Identify and implement new opportunities for corresponding reductions in crime, fear of crime and anti-social behaviour
LIP2 6	Reduce the number of people killed and seriously injured and reduce the overall number of pedestrian and cycle casualties
LIP2 7	Ensure a sustainable transport system enables all residents to access health, education (including 16+ establishments), employment, social and leisure facilities within the borough
LIP2 8	Identify and implement opportunities to improve transport options for deprived areas.
LIP2 9	Reduce Hillingdon’s contribution to climate change and improve

	its resilience
LIP2 10	Deliver the Council's statutory Network Management Duty to facilitate the expeditious movement of all transport modes with sensitive consideration for the environment

Mayor's Transport Strategy (MTS2) Goals

MTS2 1	Quality of life
MTS2 2	Safety and security
MTS2 3	Opportunities for all
MTS2 4	Climate change
MTS2 5	Economic development and population growth

MTS outcomes

MTS01	Supporting population and employment growth
MTS02	Enhance transport connectivity
MTS03	Efficient and effective transport system
MTS04	Improved journey experience
MTS05	Enhanced built and natural environment
MTS06	Improving noise impacts of transport
MTS07	Improved health impacts
MTS08	Improved air quality
MTS09	Reduced crime, fear of crime and anti social behaviour
MTS010	Improved road safety
MTS011	Improved public transport safety
MTS012	Improved accessibility
MTS013	Increased economic and social opportunities
MTS014	Reduce CO ² emissions
MTS015	Adapting for climate change
MTS016	Convergence of social and economic outcomes between five Olympic boroughs and rest of London.

Hillingdon's Sustainable Community Strategy Goals

HCS1	Making Hillingdon Safer
HCS2	Thriving Economy
HCS3	Improving Aspiration through Learning & Education
HCS4	Safety & Security
HCS5	Opportunities for All
HCS6	Climate Change and Resilience
HCS7	Improve Health & Well Being
HCS8	Strong & Active Communities

West London Partnership 10-Point Plan

WLP1	Reducing Road Traffic Congestion
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WLP2	Integrating Land use Planning Transport Planning
WLP3	Facilitating Orbital Movement
WLP4	Improving Interchange
WLP5	Transport Infrastructure
WLP6	Improving Bus Services
WLP7	Heathrow
WLP8	Complementary Local Services
WLP9	Freight
WLP10	Customer Focus

Strategic Environmental assessment (SEA) Objectives	
SEA1	Improve water, air, soil, noise quality
SEA2	Reduce congestion from transport related sources
SEA3	Conserve and enhance biodiversity avoiding fragmentation of wildlife corridors
SEA4	Promote and sustain healthy communities and life styles
SEA5	Reduce severance by improving accessibility to open space, key services and enhance landscape and conservation character
SEA6	Improve safety, in particular, at transport interchanges and on public transport
SEA7	Maintain a high quality transport infrastructure whilst reducing the impacts on natural resources
SEA8	Improve integration of public transport services

2.8 Tables 2.4 and 2.5 show the relationship and conformity between the LIP2 Objectives and the Mayor's Transport Strategy Goals, Hillingdon Sustainable Community Strategy Goals, the West London Partnership 10-Point Plan and the Strategic Environmental Assessment.

TABLE 2.4 – STRATEGIC LIP2 OBJECTIVES

Hillingdon's LIP2 Transport Objectives	Mayor's Transport Strategy Goals					Hillingdon's Sustainable Community Strategy Goals								West London Partnership 10-Point Plan									
	MTS2 1	MTS2 2	MTS2 3	MTS2 4	MTS2 5	HCS1	HCS2	HCS3	HCS4	HCS5	HCS6	HCS7	HCS8	WLP 1	WLP 2	WLP 3	WLP 4	WLP 5	WLP 6	WLP 7	WLP 8	WLP 9	WLP 10
1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
3	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
4	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
5	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+
6	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
7	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+
8	+	+	+		+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+
9	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	-	+
10	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Note: Hillingdon's LIP2 Transport objectives are listed and cross referenced with each of the Mayor's Transport Goals, Hillingdon's Sustainable Community Strategy Goals and West London Partnership 10-Point Plan items.

Key: + potentially consistent; - potentially inconsistent

TABLE 2.5 – CONFORMITY OF LIP2 OBJECTIVES WITH STRATEGIC ENVIRONMENTAL ASSESSMENT

Hillingdon's LIP2 Transport Objectives	Strategic Environmental Assessment Objectives							
	SEA 1	SEA 2	SEA 3	SEA 4	SEA 5	SEA 6	SEA 7	SEA 8
1	+	+	+	+	+		+	+
2	+	+		+			+	
3				+				+
4			+			+		+
5		+	+			+		
6	-							+
7				+	+			+
8				+	+			+
9	+	+	+				+	
10	-	+						+

Note: Hillingdon's LIP2 Transport objectives are listed above and cross referenced with each of the SEA Objectives

Key: + potentially consistent; - potentially inconsistent

3. DELIVERY PLAN

Introduction

3.1 This chapter sets out Hillingdon's Delivery Plan for achieving LIP2 objectives. It is structured as follows:

- paragraphs 3.2 to 3.16 identify potential funding sources for 2011/12 to 2013/14.
- paragraphs 3.17 to 3.18 summarise the borough's delivery actions for this time period and beyond, describing how the proposed interventions will deliver Hillingdon's LIP2 objectives.
- paragraphs 3.131 to 3.149 set out Hillingdon's investment programme including the detailed Annual Spending Submission (See Table 3.4) for this time period (extending to 2015/16 with respect to Hillingdon's proposed Major Schemes), based on the delivery actions identified in Section 3.2.
- paragraphs 3.150 to 3.152 outline the approach to programme risk management.

Potential Funding Sources

3.2 Hillingdon's key source of funding for transport related scheme is its LIP2 allocation from TfL. With regard to 'corridors, neighbourhoods and supporting measures', this amounted to £3.080m in 2011/12, £3.086 in 2012/13 and £3.086 in 2013/14, as set out in TfL's notification letter dated May 2010. However TfL's letter dated 4th November 2010 states that as a result of the cuts in the Government's Spending Review, Hillingdon's spending allocation for 'corridors, neighbourhoods and supporting measures' is to be reduced to £2.952m in 2011/12, £2.832m in 2012/13 and £2.428m in 2013/14. This amounts to a reduction of £128,000 in 2011/12, £254,000 in 2012/13 and £658,000 in 2013/14.

3.3 The reductions in TfL allocations will have significant implications for the LIP2 programme and proposals as to how these cuts may be accommodated are outlined below. Clearly these proposals will be continuously reviewed and allocations will be adjusted to meet any changes in circumstances.

3.4 In light of the above reductions in TfL funding it is likely that the 2011/12 LIP2 proposals may be amended to reflect the following changes:

- the Hayes interchange scheme (£60,000) be deferred to later years to link in with Crossrail works
- the allocation (£62,000) for the A437 proposals at Long Lane/Freezeland Way/Sweetcroft Lane and at Long Lane/Hercies Road be reduced to £30,000 in light of recent works carried out in 2010/11. It is proposed that any further funding requirements that may be necessary be deferred to later years in order to consider the type and scale of further works required following an assessment of the impacts of the proposed works in 2011/12.

- the allocation (£130,000) for an improved pedestrian access between the bus stops on the opposite sides of the Uxbridge Road (A4020) near Park Road be reduced to £94,000. This is because an opportunity is at the same time being explored in conjunction with TfL to deliver this scheme as early as the last quarter of 2010/11, which if successful, would allow for the scheme allocation in the 2011/12 programme to be reduced. It is proposed that any further funding requirements that may be necessary be deferred to later years in order to consider the type and scale of further works required following an assessment of the impacts of the proposed works in 2010/11 and 2011/12

3.5 In light of the reductions in TfL funding, it is likely that the 2012/13 LIP2 proposals may be amended to reflect the following changes:

- the allocation (£10,000) for the A437 proposals at Long Lane/Freezeland way/Sweetcroft Lane and at Long Lane/Hercies Road be deferred and subject to further review during the coming year in order to consider the type and scale of further works required following an assessment of the impacts of the proposed works in 2011/12.
- the allocation (£20,000) for an improved pedestrian access between the bus stops on the opposite sides of the Uxbridge Road (A4020) near Park Road be deferred in order to consider the type and scale of further works required following an assessment of the impacts of the proposed works, which are being brought forward to 2010/11.
- The allocation (£50,000) for cycle route improvements in the Station Road/Harmondsworth Road area be reduced to £5,000 to enable a study to be carried out to identify works required with implementation to be deferred for future years.
- The allocation (£200,000) to implement highways schemes at Lavender Rise, Porters Way and Harmondsworth Road be reduced to £71,000 with further works to be allocated in future years if necessary.
- The allocation (£95,000) for measures to rationalise parking in narrow streets be reduced to £70,000 with further allocations to be made in future years as necessary.
- The allocation (£125,000) for measures to improve access to and from bus services be reduced to £100,000 with further allocations to be made in future years as necessary.

3.6 In light of the reductions in TfL funding, it is likely that the 2013/14 LIP2 proposals may be amended to reflect the following changes:

- the allocation (£59,000) for the Grand Union Canal Dawley Road/Rigby Lane be deferred in order to consider the type and scale of further works required following an assessment of the impacts of the proposed works in 2011/12.
- the allocation (£100,000) for the A4180 Ducks Hill – Bury Street – High Street Ruislip - B466 Eastcote Road – High Road Ickenham/West Ruislip Station – B457 Swakeleys Road A437- Long Lane (whole length south of the A40) be reduced to £60,000

- to allow for more detailed scoping studies which can determine a longer-term phased approach to develop suitable measures.
- the allocation (£250,000) for the public realm measures along the A4020 be reduced £90,000 to allow for more detailed scoping studies which can determine a longer-term phased approach to develop suitable measures.
- The allocation (£134,000) for measures to improve the Grand Union Canal at the Oxford Road interchange be reduced to £85,000, with further works to be allocated in future years if necessary.
- The allocation (£95,000) for measures to rationalise parking in narrow streets be reduced to £70,000 with further allocations to be made in future years as necessary.
- The allocation (£125,000) for measures to improve access to and from bus services be reduced to £100,000 with further allocations to be made in future years as necessary.
- the allocation (£100,000) for measures at Lavender Rise - Porters Way and Harmondsworth Road in Yiewsley – West Drayton be deferred in order to consider the type and scale of further works required following an assessment of the impacts of the proposed works in 2011/12 and 2012/13 and the likely impacts of Crossrail.
- the allocation (£280,000) for journey planning measures be reduced to £80,000. It is proposed that any further funding requirements that may be necessary be deferred to later years in order to consider the type and scale of further works required following an assessment of the impacts of the proposed works in 2010/11 and 2011/12.

3.7 The Council's funding is also critical for implementation of transportation schemes. In 2010/11 borough Capital funds of £1,358m, and borough Revenue funds of £2.500m are expected to be spent on improvement works which are not funding by Transport for London. This will include carriageway resurfacing, footways upgrades, safety inspections, drainage, fencing, walls and street furniture. The integrated transport section in table 3.1 below includes Council Capital Funding for its road safety programme of £150,000 per annum which equates to £450,000 over the 3 years plus the street lighting programme of £180,000 per annum which equates to £540,000 over 3 years. This is shown in the Wider Transport column along with £50,000 expected from Chrysalis and £100,000 from the Town Centre Initiatives. The draft Council Capital Programme for 2011/12 to 2013/14 indicates that there will be funding for a number of maintenance programmes, that is the Highways maintenance programme, at a level of £950,000 per annum which equates to £2,850,000 over the 3 years and £258,000 for the Localities programme or £774,000 over 3 years, making up a total maintenance programme of £3,624,000. This is also shown in the table below under the Wider Transport column.

- 3.8 The Council has been successful in securing third party sources of funding to deliver transport related schemes. In the main this has come from contributions relating to planning obligations (i.e. s106 payments). As at 9th November 2010, the Council held a total of approximately £3,605,000 s106 contributions towards transport or highway related schemes. The majority of the funds are held towards specific highways works or improvements which address the impacts of a particular development in accordance with the corresponding legal agreement (see table wider transport contributions) whilst £981,000 will contribute towards LIP2 scheme.
- 3.9 This relates to:
- i. £53,000 of s106 allocation towards the provision of local safety improvements in Kingston Lane and cycle provision toward Heathrow to Hillingdon Hill cycle way. Subject to approval this funding could contribute to 2011/12 scheme proposal East West Sustainable Transport Corridor A4020 Greenway (East West scheme 2).
 - ii. £135,000 of s106 allocation towards the provision of cycleway and local safety scheme at the junction of Station Road and North Hyde. Subject to approval this funding could contribute to into the borough on going Grand Union Canal cycle and pedestrian upgrade scheme.
 - iii. £793,000 of s106 allocation which will benefit at Hayes, West Drayton Crossrail and Heathrow from the National Station Improvement Programme through the First Group.
- 3.10 The Council also secured funding of £4.5k in February 2010 from the NHS for transport related matters namely from the Child Death Prevention Panel. This funding has been allocated to Road Safety Education, Training and Publicity and will be spent on child road safety education.
- 3.11 In 2009/2010 the Council identified a sum of £100,000 from its own capital reserves and combined this with £50,000 of s106 contributions towards the refurbishment and upgrade of the pedestrian area in the heart of Uxbridge, Hillingdon's principal Metropolitan town centre. Working closely with TfL, it was possible to supplement this core funding with further funds from TfL's town centre regeneration budget (an initial allocation of £100,000 was followed by a further £48,000 because of Hillingdon's ability to deliver the project) to deliver a £298,000 scheme which made the front page of the local press and has successfully transformed this very busy shopping area, with new higher quality paving, rationalised and better organised street furniture and new street trees and landscaping which are appropriate to the area.
- 3.12 In addition, the Council operates various dedicated funding programmes such as the 'Road Safety Programme' and 'Chrysalis' schemes. Each year, a capital sum of £250,000 is set aside for the road safety programme which is a resident-led initiative aimed at tackling sites where local knowledge can help the Council tackle what residents may consider to be 'accidents waiting

to happen'. A wide range of measures encompass every very kind of traffic issue such as new traffic signs and road markings, the rationalisation of existing features where they are unclear, new or enhanced pedestrian crossings, junction priority changes and traffic calming. The Council uses this budget to supplement the main programmes funded by TfL and s106 contributions.

- 3.13 In 2009/2010, the Council created a special one-off initiative which allocated a sum of £25,000 to each of the borough's 22 wards, potential uses for which the local elected members were invited to submit bids. In one of these cases, the ward members elected to use their allocation to support the early completion of a zebra crossing near a school in their ward, which has now been successfully delivered (at Pinkwell Lane, Hayes).
- 3.14 The Chrysalis Programme is a special initiative, resident and community led like the road safety programme, where local people are able to bring their own ideas forward and seek Council support and funding. Whilst there is quite a wide range of uses to which this funding can be put, typical recent examples which have a specific bearing on the Council's highway network include proposals to support further measures in Pinkwell Lane, Hayes as a follow on to the 2009/2010 ward initiative. In 2010/2011, the Chrysalis programme will provide some £40,000 towards a 20mph zone project where the remainder of the budget will come from the TfL Neighbourhoods and Corridors budgets.
- 3.15 The Chrysalis Programme includes Alley Gating projects, which aim to tackle crime and disorder in the borough. The schemes are operated by the Council in partnership with the Police. The Alley Gating scheme provides for lockable gates at 'problem' alleyways, which can improve the quality of life for adjacent households and businesses by reducing the risk of burglary; protecting the area within from rubbish dumping, vandalism and other anti-social behaviour; and creating a safer and more attractive environment for the use of those who live there, particularly the very young and the elderly. The Council will contribute up to 90% of the cost of alley gates to successful applicants and residents are required to fund the remainder and be responsible for any future repair and upkeep once the gates are in place.
- 3.16 The Council's own Town Centre Improvement budget is another important source of capital funding; in 2009/2010, £113,000 of s106 funds were combined with £300,000 of the Council's own capital budget to complete Phase I of the Yiewsley and West Drayton Town Centre programme works, in advance of the anticipated Major Scheme for 2011/2012. Feedback from local residents has been used to help shape and finalise the major scheme proposals. Meanwhile, in 2010/2011, the Council is seeking to match funds from various sources - s106, Council capital and TfL budgets - to deliver the first part of a major programme in Hayes that will support the work of developers and the Crossrail project and help open up the underused Grand Union Canal, linking it to the town centre.

TABLE 3.1: POTENTIAL FUNDING SOURCE ALLOCATIONS

Potential funding Source	2011/12 £'000	2012/13 £'000	2013/14 £'000	Total £'000	Wider Transport Contributions £'000
Integrated Transport					
LIP Allocation (Needs-based formula)	2,952	2,832	2,428	8,212	0
Council Capital/ Revenue Funding	0	0	0	0	1140
Third party Sources					
Developer contributions	53	135		188	1,686
Total	3,005	2,967	2,428	8,400	2,826
Maintenance					
LIP Allocation	733	800	800	2,333	0
Council funding	0	0	0	0	3,624
Total	733	800	800	2,333	3,624
Major Scheme					
Yiewsley / West Drayton High Street	2,400	0	0	2,400	0
Hayes Bus/ Train Interchange, Hayes Town Centre	0	2,000	0	2,000	0
Third party Sources					
Developer Contributions Towards Hayes Bus Interchange			793	793	793
Ruislip Manor	0	0	2,500	2,500	0

* Funds available subject to compliance with the specific terms of individual legal agreements and the Council's formal s106 allocation process.

Delivery Actions

- 3.17 This section demonstrates the type of interventions Hillingdon will use to deliver its LIP2 objectives and shows how they will contribute. The proposals are consistent with the proposals outlined in the MTS, Hillingdon's Sustainable Community Strategy and the West London Partnership 10-Point Plan.
- 3.18 Table 3.4 sets out Hillingdon's LIP2 delivery actions and shows the links between them and the MTS goals and wider impacts. These delivery actions are based on the likely revised proposals resulting from the reduced TfL funding allocation as set out in paragraphs 3.2 to 3.6.

- 3.19 The delivery actions have been subject to an Equality Impact Assessment to ensure that measures do not discriminate against equality groups and that equality is promoted wherever possible. Each of Hillingdon's LIP2 objectives is considered below with a description of the supporting schemes:

Objective 1: Increase sustainable travel provision to/from popular destinations

- 3.20 With regard to LIP2 objective 1, Hillingdon's delivery actions involve enhancing the public transport system; improving facilities for walking and cycling; improving the public realm of transport interchanges and that of retail centres and generally increasing the provision, quality and awareness of sustainable travel options. The range of measures to increase sustainable travel provision to and from popular destinations include improving the environment; improving access for those with mobility impairments; reducing congestion; introducing bus priority measures; and providing journey planning information.

North – south transport links

- 3.21 One of the key aims of LIP2 is to improve sustainable transport provision between the north and south of the borough, to better the opportunities for local residents to access local jobs. LIP2 includes measures to address issues regarding traffic congestion on north – south routes in order to improve the flow of traffic for cars and improve bus journey times for buses. LIP2 also includes measures to improve bus accessibility for older and disabled passengers. Discussions with TfL and BAA are progressing with a view to realigning some regional bus services through the heart of the borough. The LIP programme also allows for funding bus priority measures to ensure that bus services will be faster and more reliable. The improved services will provide people with a genuine choice to make a more direct and convenient sustainable journey.

- 3.22 The LIP2 programme includes proposals to smooth traffic along the A40 and the Council will work in close partnership with TfL to ensure that proposals will benefit north south traffic namely at Swakeleys Roundabout (B467), Master Brewer (A437), Polish War Memorial (A4180) and Target Roundabout (A312). In designing the above proposals, the Council will work with TfL on the ongoing review of signal timings to improve the efficient operation of the network. The Council will also work closely with local stakeholders to get a full understanding on what long term measures can be put in place to improve reduce journey times and increase reliability for trips between the north and the south of the borough.

Improve east – west sustainable transport corridors (A4020)

- 3.23 The A4020 is one of the key transport corridors in the borough, linking several popular destinations. Along the route, there are a number of issues such as the need for road safety and pedestrian access improvements, cycle parking, smoothing of traffic and improving the

quality of the public realm at local shopping parades. Hillingdon's LIP2 therefore includes proposals to ensure that measures can be implemented to address these concerns.

- 3.24 LIP2 includes measures to improve pedestrian road safety particularly at junctions. It also includes measures to make public realm improvements at local shopping parades to support local businesses, improve road safety and smooth traffic.

Public transport improvements

- 3.25 The Council will work with TfL and interested parties to enhance the public transport system to encourage modal change towards sustainable travel. Travel by car is currently nearly 60% with only 14% of the population using public transport to work (Table C4). The Council aims to improve the bus service provision generally and on north south routes in particular to increase 8.8% of work trips by bus to 10% in 2014. The Council hosted two special public transport events in July and September 2010 offering local representatives, stakeholders and transport providers an opportunity to assess the current situation and identify topics for future liaison and development. The top three issues that were identified are to improve transport links to Uxbridge, provide North-South Sustainable Transport and to integrate public transport with neighbouring local authorities. These issues will be taken forward by all the relevant partners including the Public Transport Liaison Group.
- 3.26 The Council is submitting LIP2 bids for major schemes in Yiewsley/West Drayton (£2.4m in 2011/12, see Appendix A); Hayes (£2m in 2012/13 and £2.5m in 2013/14) and Ruislip Manor (£1m in 2012/13 and £2.2m in 2013/14) These schemes would include a package of measures to significantly upgrade and regenerate the town centres, and focusing on the transport interchanges.
- 3.27 Hayes - West Drayton is identified as part of the growth corridor within the Heathrow Opportunity Area (HOA) as defined in the Mayor's Replacement London Plan. Both Hayes and West Drayton Stations are to be upgraded as a result of the Crossrail proposals and the Council is committed to supporting TfL and Network Rail in the delivery of Crossrail. In the meantime, Hayes Station is to benefit from approximately £700,000 of investment in 2011/12 from the National Station Improvement Programme through the First Group. The major scheme application at Hayes will create an improved public transport interchange and a new 'town square' located immediately to the north of the station, thereby providing an attractive link with the town centre, with improved access, and visual and environmental links to the Grand Union Canal.
- 3.28 Crossrail will act as the catalyst for growth and regeneration in Yiewsley and West Drayton and as such reconstruction of West Drayton into a multi-modal interchange with good sustainable transport links to the rest of the borough is a key priority. This will be achieved by continuing to work with partners, such as Network Rail and London Buses to ensure that

services are reliable, accessible and meet the needs of those who live and work in the area and match future growth levels.

- 3.29 The Council has worked with TfL and other partners to prepare initial schemes at Yiewsley/West Drayton, which have already been implemented prior to the major scheme proposals which are expected to be substantially implemented in 2011/12, subject to TfL Major Scheme funding. In the meantime, the Council is working with TfL on a range of complementary traffic flow studies; it is investigating the potential to divert HGV traffic from the town centre and rationalising of street furniture including direction signs.
- 3.30 Transport improvements are key to ensuring the future success of Uxbridge as a Metropolitan Centre. The existing public transport interchange is to be enhanced building upon the upgrade programme for the Metropolitan Line and works being implemented in Baker's Road. Opportunities for faster transport connections with central London are to be supported.

Managing demand for travel

- 3.31 The Council continues to promote TfL-supported workplace travel plans and to support the delivery of schemes developed within the context of area-wide travel plan partnerships. BAA Heathrow leads the well established Heathrow Area Transport Forum, which actively monitors its travel plan and has demonstrated a significant modal shift towards sustainable transport. Its staff travel survey demonstrated that the proportion of staff using single occupancy cars has reduced from 71% to 61% since 2004, with increases across all sustainable travel modes. BAA has therefore exceeded the 2012 target of 65%. Brunel University leads a new partnership for the Uxbridge area, which supports a reduction in car dependency and works to improve the quality of life in the area.
- 3.32 Hillingdon's LIP2 supports measures to promote travel planning such as public transport information display units in significant reception areas for display real time information, to enable people to make informed journey plans. The bid allows for partnerships to develop and implement thoroughly considered schemes, especially during the final year of the LIP2 period.
- 3.33 The Council supports measures for sustainable travel both for people and freight. It is actively engaged in the West London Freight Quality Partnerships and its west London partners in exploring how to support sustainable freight activity whilst reducing its impacts on traffic congestion and town centres. The focus of the work is to be on improvements to the arrangements for loading and unloading and the preparation of delivery and servicing plans with businesses.

Objective 2: Improve condition of principal roads and increase satisfaction levels with network condition

- 3.34 With regard to LIP2 objective 2, Hillingdon's delivery actions involve bridge strengthening and maintenance works to ensure that the borough's principal roads are in a safe condition for all road users.

Bridge assessment and strengthening programme

- 3.35 A programme of assessment and strengthening is on place to ensure that highway structures carrying public highways are safe and comply with the EU requirements. Within the borough there are nine bridges which have load capacities which are less the required 40t capacity.
- 3.36 The bids for bridge assessment and strengthening TfL funding are made through the London Bridge Engineering Group (LoBEG) who have a prioritisation system to determine funding requirements for the boroughs.
- 3.37 The bridge strengthening programme will enable removal of existing weight restrictions on bridges thus improving accessibility and providing a more coherent transport network.
- 3.38 TfL, jointly with London Technical Advisors Group (LoTAG) and LoBEG, are developing an Asset Management Strategy for the Transport for London Road Network (TLRN) and the Borough Principal Road Network (BPRN). A fundamental objective of the Asset Management Strategy is to establish, and then continuously measure and monitor, the condition of the highway assets, for an efficient spend of funding.

Maintenance of principal roads

- 3.39 Hillingdon's principal road condition is in the top quartile compared with other London boroughs. The Council is committed to ensuring that public satisfaction is increased by reducing 4% of road length currently in need of repair to 3% by 2013. The Council is, therefore, determined to sustain its maintenance budget and supplement LIP2 allocations as appropriate.
- 3.40 Hillingdon Council prioritises its investment using a simple numerical assessment system based on impact on traffic, safety, and asset condition data, in accordance with the priorities set out in our Transport Asset Management Plan (TAMP). Additional weight is given to schemes in locations where walking, cycling and public realm improvements are being implemented to maximise economies of scale and disruption. The table below prioritizes maintenance schemes.

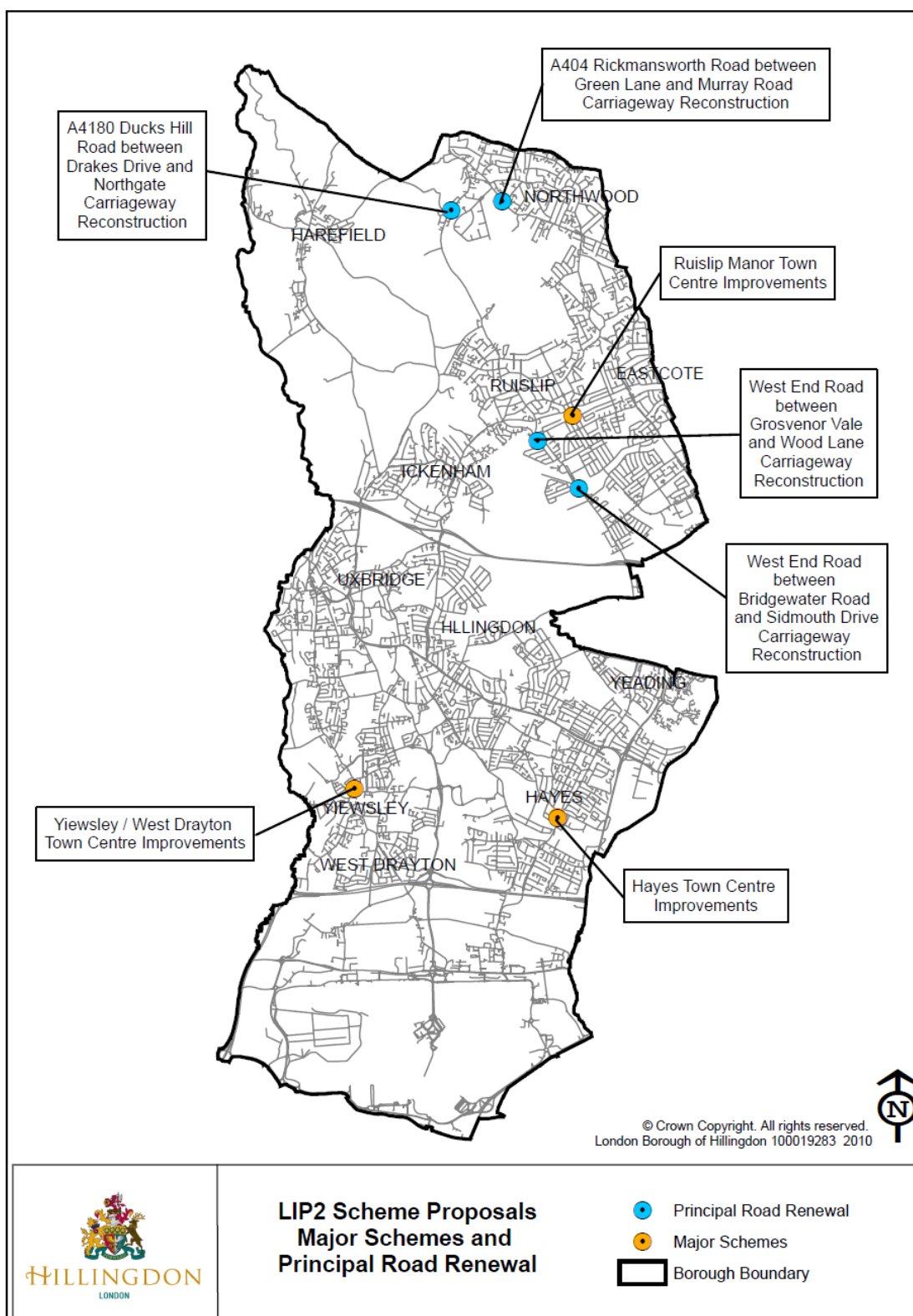
**TABLE 3.3:
ASSET BASE - DESIRED AND CURRENT LEVELS OF SERVICE**

Service Level	Current Service	Desired Service
Carriageways	Fair	Good No maintenance required on higher proportion of road lengths PI 223 Asset Condition SCANNER survey data
Footway Condition	Fair Service	Good BVPI 187, based on Detailed Visual Inspection (DVI) on 50% of Category 1, 1A and 2 footways so that the complete network is covered every two years
Cycleway Condition	Minimal Safety Service	Good BVPI 187 requires no deterioration up to 2011/12 from 2003/04 Hillingdon improved from 13.1% to 9% by 2007/08
Street Lighting	Good	Good BVPI 215a average number of days to rectify a fault

Maintaining Road Network

- 3.41 Hillingdon's TAMP identifies the Council's desired levels of service across all road assets, which represent priorities in terms of our wider role in managing and maintaining the network. The Council recognises that the borough roads are public spaces shared by all those who live, work, shop and pass through the borough, and have a key role to play in delivering our Sustainable Community Strategy Priorities and our LIP objectives. The Council has a programme of assessment and strengthening for all bridge structures funded through LoBEG formed to act in an advisory capacity to LoTAG on any matters of bridge engineering London wide with the objective of promoting best practice. A map showing major schemes and principal road renewal is shown in Figure 3.1.

Figure 3.1 Location of Major Schemes and Principal Road Renewal Schemes



Objective 3: Ensure that transport infrastructure improvements delivers better quality of life with corresponding reductions in air pollution emissions

- 3.42 Hillingdon's delivery actions involve a wide range of measures to deliver a better quality of life by means of improving the public realm, particularly with respect to shopping centres; improvements to enhance the Heathrow (A4-M4) Villages; by planting street trees; introducing parking management schemes in response to public concerns and initiatives to improve air quality.

Improving the public realm.

- 3.43 The Council supports the work of the Mayor in seeking to protect and enhance the urban realm and believes that it is essential that the built environment allows opportunities to bring people and communities together; encourages physical activity and recreation, and restores a sense of pride. Hillingdon's LIP2 aims to focus on town centres, district centres and local shopping parades with measures to create an improved shopping environment; an improved turnover for local businesses; resolve parking and road safety issues; and improve facilities for walking, cycling and public transport.
- 3.44 With regard to town centres, Hillingdon's LIP2 includes proposals to introduce pedestrian sign posting schemes, modelled on the 'Legible London' scheme that has been successful in central London. These schemes will initially be introduced in Uxbridge and West Drayton town centres.
- 3.45 With regard to district centres, the LIP2 proposals include new town centre initiatives to improve the public realm at Ruislip Manor and Northwood Hills. At both centres, local retailers and residents have expressed concern that parking provision lacks responsiveness to demand. In addition to improved parking arrangements, there is a need to consider the potential for improvements to carriageways and improved pedestrian crossing facilities, with other environmental enhancements to the streetscene, including decluttering of street furniture. Such schemes will be progressed in consultation with all key local stakeholders.

Hillingdon has a number of local shopping parades, which perform a useful function in serving the needs of the local population. A number of issues have been raised by local residents, businesses and at stakeholder meetings, such as the Hillingdon Mobility Forum. Hillingdon's LIP2 aims to create a more attractive shopping environment and improved turnover for local businesses by a variety of public realm improvements, including consideration of stop and shop parking arrangements where appropriate.

Heathrow (A4-M4) Villages

- 3.47 The Heathrow (A4-M4) Villages Harmondsworth, Sipson, Harlington, Cranfield and Longford have experienced blight and underinvestment over a considerable number of years as a result of the uncertainty caused by the Third Runway proposals. Given the Government's decision not to proceed with the Third Runway, there is now an opportunity to enhance the villages and surrounding areas by means of a series of measures that may include environmental improvements to upgrade the streetscene, review parking arrangements, reduce rat running and consider review HGV routing.

Planting street trees

- 3.48 The Council considers the scope for the appropriate planting of street trees as part of all infrastructure improvements, particularly as part of public realm enhancements such as the Eastcote Station area upgrade. Hillingdon's tree specialists liaise with local neighbourhood representatives to identify appropriate locations for street trees in residential areas; and encourage tree planting through the development control process. Hillingdon's Green Space Team operates a tree-for-tree replacement policy to ensure that the number of trees is at least stable within the Borough.
- 3.49 Across the borough different tree species prosper in different conditions with a range of trees across the borough with different 'fashions' in the types of trees planted over the years. Some parts of the borough have large growing trees planted along the streets, such as London Planes while other parts have smaller growing trees such as Cherries, Thorns and Rowans. The Council will continue to plant trees which are suitable for specific environments for example robust trees alongside major roads and also finding techniques to prevent trees lifting footways and causing damage.

Parking management schemes

- 3.50 In several parts of the borough residents have expressed concerns about parking, particularly the problems caused by commuter parking especially around the boroughs 13 train and tube stations, central bus depot in Uxbridge and in the town centres at Uxbridge, Ruislip, Northwood and Hayes, and the Uxbridge Road corridor, as well as in the residential streets around Brunel University and Hillingdon Hospital.
- 3.51 Parking on narrow roads also causes traffic congestion and raises concerns about road safety. Constant issues relating to parking can adversely affect the quality of life in residential areas. Hillingdon's LIP2 therefore includes proposals to progress Parking Management Schemes in response to local issues and public concerns.
- 3.52 The introduction of these schemes allows traffic to be kept moving on busy roads and those roads serviced by local bus routes and removes

non-residential parking from residential streets situated near areas that attract commuters, shoppers or other large numbers of 'visitors'.

- 3.53 Hillingdon has a number of attractions that draw visitors to the borough. These include Uxbridge Town Centre (a main shopping centre), Brunel University, 16 green flag awarded open spaces, a National Nature Reserve and many stations that provide excellent access to Central London.
- 3.54 Whilst some of these areas have already benefited from controlled parking schemes, there is an increasing demand from residents to deal with non-residential parking in the borough. The Council has committed funding for some of these schemes from a surplus from its Parking Revenue Account. The Council is committed to reducing congestion in line with the Mayor's aspirations and believes that managing parking in residential and shopping areas to discourage unnecessary journeys.
- 3.55 The growth in car ownership over the last 20 years has put immense pressure on many residential roads within the borough. Residents, particularly those who live in narrow residential roads have become accustomed to parking partly on the footway to allow emergency and larger vehicles access. The Council is committed to improving road safety for all and is mindful of the need to balance the demand for parking in narrow roads but at the same time promoting unimpeded vehicle and pedestrian access.

Improving air quality

- 3.56 Hillingdon's LIP2 includes a range of measures to address poor air quality which include promotion of workplace travel plans; electric vehicle schemes including new charging points and events to promote cycling. The LIP2 programme will ensure that the monitoring mechanism will be developed, based on equipment such as air quality monitoring stations, traffic counts and modal shift indicators to ensure any improvements can be quantified. Officers will continue to liaise with TfL to develop and agree the methodology which may be rolled out to other boroughs to systematically reduce the environmental impact of transport initiatives.
- 3.57 Improving air quality is a key priority to Hillingdon. The Council assessed air pollution levels throughout the borough in 2003 and declared the southern two thirds of the borough an Air Quality Management Area (AQMA). It approved the Air Quality Action Plan in 2004 with packages to address air quality management and the following seven specific issues:
1. Switching to cleaner transport modes
 2. Tackling through-traffic
 3. Promoting cleaner vehicle technology
 4. Developing Heathrow-specific measures
 5. Developing measures concerning local industries and businesses
 6. Improving eco-efficiency of current and future developments
 7. Taking corporate, regional and national actions

- 3.58 Modelling studies predict that the annual mean nitrogen dioxide limit of $40\mu\text{g}/\text{m}^3$ will be met by 2010 and exceeded in the Heathrow area, the southern part of the borough and around major roads that cut through the borough, especially the M4, the A40 and the A312. The National Air Quality Strategy and the Mayor's Air Quality Strategy recognize that Hillingdon areas suffer from poor air quality with Heathrow Airport and major roads being main contributors.
- 3.59 The borough complies with its duty to develop and implement an Air Quality Action Plan aimed at reducing pollutant emissions. Although nitrogen dioxide is the main air quality pollutant of concern, the borough continues to both monitor, and seek reductions in, emissions of particulate matter due the serious health effects associated with this form of pollution.
- 3.60 The main poor air quality areas identified have identified as follows:
- Heathrow Airport Area Priority Location (M4 corridor and south to borough boundary)
- 3.61 The Heathrow Area is an air quality hotspot with air quality levels exceeding EU limit values. The airport is not yet at its authorised capacity limit and the number of air transport movements (ATMs) can potentially grow by 10,000 before the 480,000 ATM cap is breached. In pollution terms this equates to a continual increase in ground level aircraft operations from a baseline in 2002 of 1,662 tonnes of NO_x , to 2,126 tonnes in 2010 and to 2,225 tonnes in 2015*.
- 3.62 By 2015 it is predicted that, in line with the increases in flights and passenger number growth, there will be an extra three million cars accessing the airport from the levels experienced in 2010, with an additional pressure on the public transport network to provide space for an extra three and half million Heathrow passengers by 2015 (Source: Adding Capacity at Heathrow Consultation, supporting technical documents)

A40 Corridor

- 3.63 The main contributor to the poor air quality in the residential areas close to the A40 corridor is the congested traffic including significant numbers of freight vehicles and the deficient operation of the junctions at Swakeleys Road, Hillingdon Long Lane and the Polish War Memorial at South Ruislip. Measures outlined LIP2 and partnership work with TfL will help to deliver smoother traffic flows at these junctions whilst ensuring impacts are not spread onto the borough road network and the nearby residential areas.

Hayes Bypass A312

- 3.64 The A312 Hayes Bypass is a main route in the borough connecting the A40 and the M4. The A312 carries a significant number of freight vehicles

and the congested junction with North Hyde Road, with an additional junction with a freight park, causes slow moving traffic through the residential areas lining North Hyde Road and the surrounding borough network.

- 3.65 The Southall Gasworks development site is proposed to accommodate nearly 4,000 dwellings, with the main access route from the site to the south, which will add to traffic congestion. Measures will be needed to deliver smooth traffic flows through junctions which are already critical whilst ensuring impacts are not spread onto the borough road network and the nearby residential areas.
- 3.66 Hillingdon Council has identified thirty congestion hotspots (Figure 3). In close cooperation with TfL nine priority locations have been selected to monitor throughput and delay by mode along with emissions (Table L1). Measures taken to reduce congestion, improve traffic flow, reduce traffic levels and improve modal shift from private car to more sustainable modes of transport, especially along the congested road corridors, will all help reduce emissions of local air quality pollutants.
- 3.67 Hillingdon Council is working in partnership with agencies, operators and businesses, especially TfL, Highways Agency and BAA to continue reducing emissions from road transport.
- 3.68 The Air Quality Action Plan and Annual Progress Reports can be viewed at www.hillingdon-air.info. The documents show that the Council has developed substantial initiatives to tackle air quality. The case study below illustrates examples from recent work.

EXAMPLES OF RECENT WORK TO ADDRESS AIR QUALITY

Hillingdon Clean Vehicle Programme
In order to show leadership in regards to air quality issues, Hillingdon joined the BAA Clean Vehicle Programme. This is a scheme aimed at improving emissions from a fleet via a series of 10 clear steps. Awards are given on an annual basis; Hillingdon entered the scheme at Bronze Award level [explain status details] and are currently at Silver Award level [explain]. In addition, Hillingdon have now also joined the Freight Operator's Recognition Scheme at the Bronze Award level
Council Fleet Emissions Inventory
In order to understand the contribution of the Council-controlled fleet, a detailed emissions inventory was compiled including information for local air quality pollutants and for CO ² . This has established a baseline from which future targets and improvements can be made. This was put forward by the GLA as an example of best practice in local air quality management.
Driver Training
The Freight Transport Association was commissioned to provide training for all Council drivers. The training included aspects such as safety, fuel efficiency and environmentally-aware driving skills. In addition a total of five people have been trained in-house to carry out future assessments on both new drivers

and to re-test priority drivers on a regular basis.
Industrial Business Areas
Two Industrial Business Areas (IBA), South Ruislip and Uxbridge were subject to in-depth studies involving site surveys of freight movements, audit of routes used and review of traffic management issues. In addition bespoke sustainable transport information was produced for both IBAs including details of bus routes, train routes, walking routes and cycling paths.
Integrated Transport Model & Emissions Data Base Approach
The Council is working with TfL and consultants to establish its transport carbon footprint using the West London Transport Model to feed the TEEM Emissions Data Base. Software is being developed to enable accurate monitoring the emission effects of schemes proposed in LIP2.
Walkit Project
As part of a West London group, Hillingdon Council officers have set up a regional section of the Walkit project. Walkit gives the opportunity to select routes for walking across West London and using "low pollution" routes. Details can be found on http://walkit.com/showcase/air-pollution-aware-walking-routes-in-west-london .

Objective 4: Identify and implement new opportunities to promote healthy travel behaviour

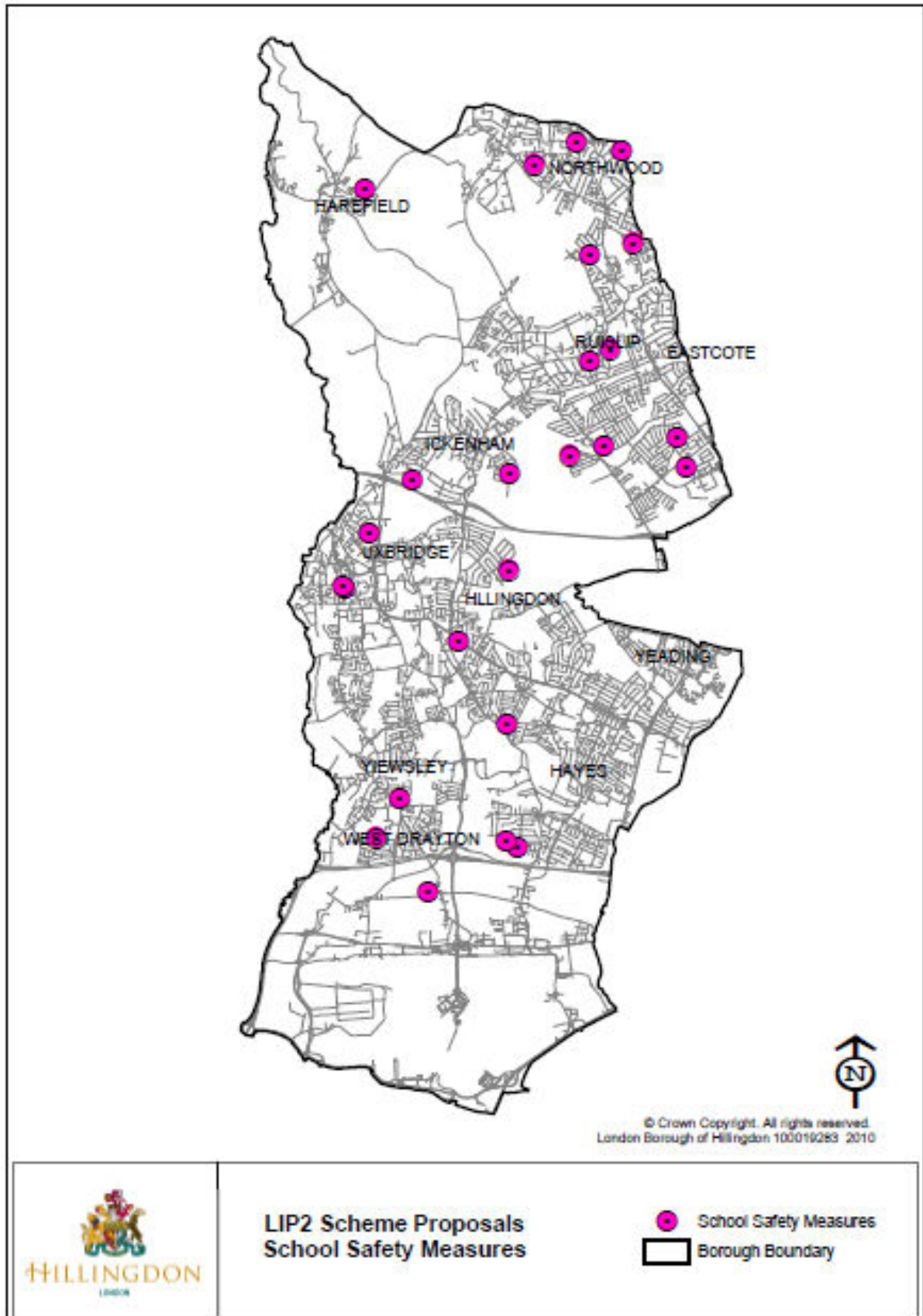
- 3.69 Hillingdon's delivery actions involve a wide range of measures to promote walking, cycling and use of public transport, in order to promote healthy lifestyles. Promoting walking and cycling and the use of public transport is identified as a key priority within Hillingdon's Local Development Framework Draft Pre-Submission Core Strategy and statutory Sustainable Modes of Travel Strategy (SMOTS). Encouraging more cycling and walking also contributes to other LIP2 objectives relating to sustainable travel to/from key growth and employment centres (Objective 1); access to health, education, employment, social and leisure facilities (Objective 7); tackling deprivation (Objective 8); and tackling climate change (Objective 9). Given the importance of promoting healthy travel behaviour to young people, a significant part of the LIP2 proposals are focused on working with schools and other partners such as Healthy Hillingdon to prepare and implement school travel plans in order to reduce dependency on the use of the car for school trips.

School Travel Plans

- 3.70 39% of all school trips are currently by car with a further 42% on foot, 16% by bus and 3% on pedal cycle. The Council has already achieved 16% reduction in car use in traveling children to school, the highest level of success in London since the introduction of the school travel plan concept in 2006.
- 3.71 Hillingdon's sustainable Modes of Travel strategy (SMOTS), prepared under Section 508A of the Education and Inspections Act 2006, promotes sustainable travel for the journey to and from school and sets the future strategy to develop sustainable travel to and from school.

- 3.72 Hillingdon's LIP2 programme has a series of measures specifically to enable continued work in partnership with the school community, health authority, civil enforcement officers (parking) and the local police to provide improved access for walking, cycling, bus and rail, as well as promoting the use of sustainable transport modes in the journey to school. These measures are intended to encourage students to make all, or a substantial part of their journey, by bicycle, on foot or by public transport, thereby reducing the dependency on the motor vehicle.
- 3.73 The school travel plan delivery programme (Figure 3.2) constitutes the largest LIP2 component. The proposed expenditure is more than justified as the Council wants to support schools in encouraging children to travel independently. Sustainable travel at an early age will both inspire the children's guardians and teach children how to travel more wisely in the future with positive spin-off effects for future generations. The aim is to reduce car dependency from 16%, achieved since the introduction of school travel plans in 2006, to 25-30% in 2014.
- 3.74 Such work is imperative to the Council and shapes the way teachers, parents and pupils are closely involved in increasing physical activity, promoting healthy lifestyles and reducing the carbon footprint. All partners stimulate change in the way journeys are made to and from schools

Figure 3.2 Location of School Safety Measures



The Grand Union Canal and public footpaths

- 3.75 LIP2 includes a number of proposals to undertake improvements along the Grand Union Canal in order to promote walking and cycling along the towpath, and to integrate the towpath within its surrounding environment. LIP2 includes a number of proposals to improve footpath links for recreational users along the Colne Valley, the Frays River, the Yeading Valley, Ruislip Woods National Nature Reserve and other countryside areas.
- 3.76 The Grand Union Canal is a major green corridor in the borough. The Grand Union Canal Green Route Implementation Plan Study of July 2010 recommended a number of measures to improve public access along the canal and enhance its natural environment. The Biking Borough report for Hillingdon dated July 2010 supports links along the canal. Hillingdon's LIP2 includes proposals to promote sustainable access along the canal, and the Council is seeking to implement schemes to the value of £500,000 including £200,000 of Council revenue in 2011/12 part of which is s106 funding.
- 3.77 As referred to under LIP2 objective 3 above, Hillingdon's LIP2 includes proposals to introduce (initially in Uxbridge and West Drayton town centres) the 'Legible London' scheme that has been successful in central London. Based on extensive research, the scheme tackles a key barrier to walking, namely lack of clear and consistent signage.

Biking Borough Approach

- 3.78 The Council has, over the years, invested in improving cycle links and facilities within the borough, and its network of cycle routes is being progressively improved. The network includes 5 London Cycle Network Plus (LCN+) routes, which aim to provide easy access to high profile, high demand locations on high quality routes with comfortable conditions for cyclists. Given that cyclists often need to use the main traffic routes, investment is ongoing to provide cycle lanes along main traffic routes, which are safe to use, and have adequate widths in the lanes, smooth surfaces and continuity along whole routes. Along with developing safer more comfortable routes, Hillingdon has also invested in supplying secure parking for cycles at multiple locations around the borough including Uxbridge and Hayes Town Centres, Ruislip High Street, Green Lane Northwood and at the borough transport hubs, Uxbridge and Hayes, as well as outside many of the 13 tube and train stations.
- 3.79 The Council hosts a quarterly Cycling Group Liaison Meeting and Council staff independently run the Bicycle User Group. Both groups have proven to be very successful in considering cycling infrastructure improvement proposals and working in partnership when delivering promotional events.
- 3.80 Hillingdon is keen to develop the cycle network in the borough and it commissioned a Biking Borough study as part of the Mayor's Cycling

Revolution to assist in promoting cycling in an integrated way. The study places considerable emphasis on identifying the issues affecting cycling (Figure 3.3) and the creation of hubs to achieve a 400% increase in cycling across London to achieve a 5% mode share by 2026.

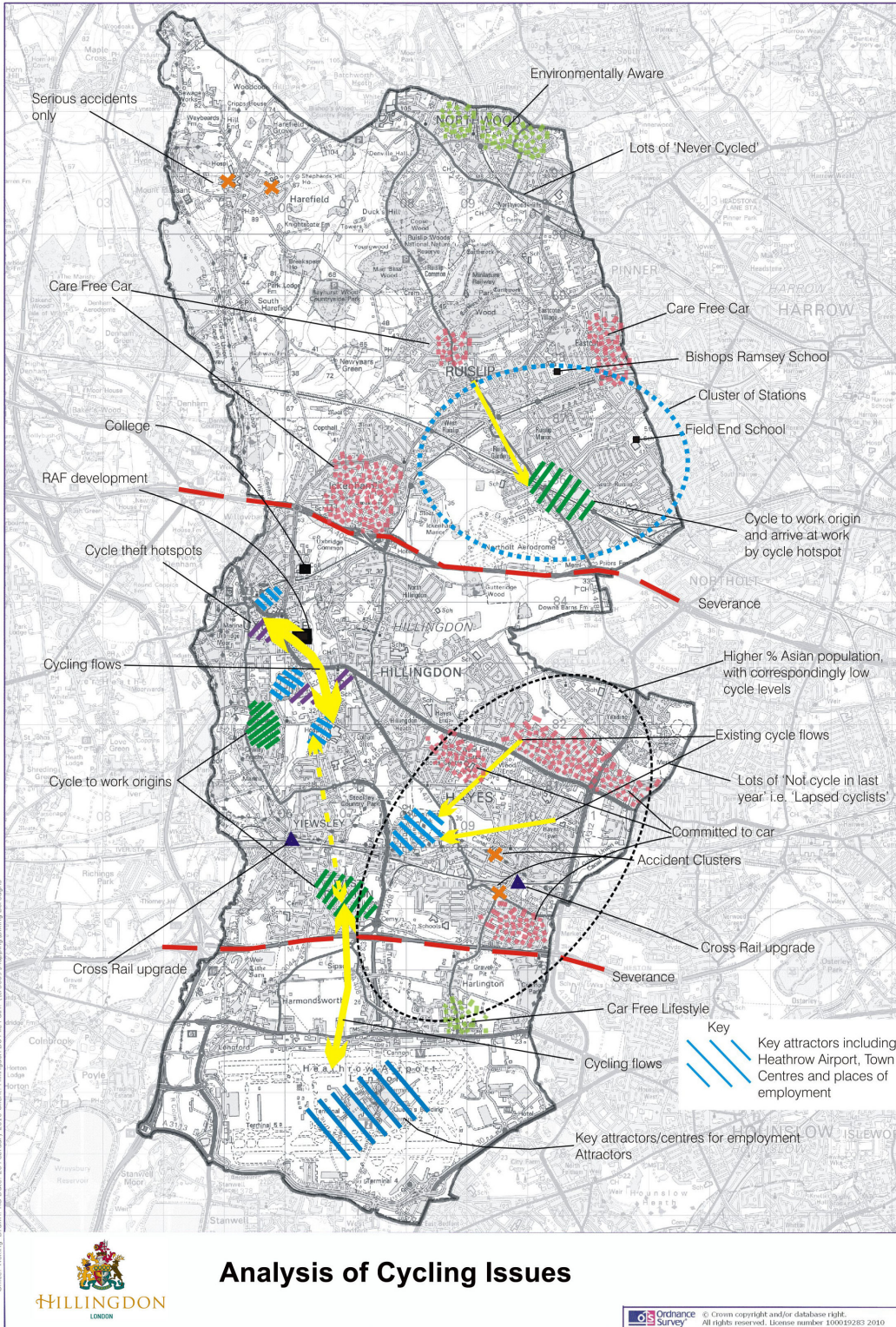
- 3.81 The Council will progress initiatives and projects in the spirit of recommendations in the Biking Borough report, subject to local consultations as follows:
- Provide cycling information through the Council website on leisure routes, simple promotional leaflets, biking borough initiatives, available routes, cycle parking and cycle training opportunities.
 - Enable, encourage and support development of cycling hubs at Uxbridge, West Drayton and Heathrow so that these become target areas for investment strengthening their potential for modal change for travel to work.
 - Continue cycle route implementation, especially along LCN+ and Greenways.
 - Identify, prioritise and address severance on key cycle desire lines.
 - Improve cycle facilities at rail stations and other key attractions.
 - Develop targeted cycling promotions especially focused on cycling hubs, young family events, schools and higher education establishments.
 - Explore potential to maximise the borough's annual allocation to achieve the Mayor's modal split targets.
 - Introduce and use suitable monitoring mechanisms.

- 3.82 An example of the Council's partnership working to promote cycling at roadshow events is described below.

Party in the Park

- 3.83 Party in the Park, run yearly by Sunshine Magazine and supported by the Council, is an opportunity for the Council to contribute to this event to show the enjoyment that can be had through cycling. Held during the summer it is an excellent opportunity to encourage residents to get active, enjoy the fresh air and exercise to help keep them healthy, alert and safe.
- 3.84 Sustrans, London Cycle Campaign, local cycling group representatives, Dr Bike and other cycling professionals provided pro-active advice about the appropriate type of bicycle, route planning, safety tips and maintenance. Qualified Cycle Trainers helped children to brush up on skills and to ride bikes safely and confidently.
- 3.85 321 people including 98 adults and 223 children tried riding a bike for the first time in a fun way whilst getting advice and guidance from experienced staff during the Party in the Park.

Figure 3.3: Analysis of Cycling Issues



Objective 5: Identify and implement new opportunities for corresponding reductions in crime, fear of crime and anti-social behaviour

- 3.87 Hillingdon's delivery actions involve a range of measures such as investing in street lighting, CCTV and public realm improvements to create safer environments where people feel secure walking and to deter anti-social behaviour.
- 3.88 Fear of crime and anti- social behaviour is a key issue highlighted by Hillingdon's residents in the Council's Place Survey 2008/9. Making Hillingdon safer is one of the Council's corporate priorities. The Council aims to make the borough a safer place whilst ensuring it maintains the vibrancy that makes it a popular place to love, work and visit. The LIP2 programme will contribute to these priorities by addressing community safety in all its proposals.
- 3.89 In preparing transport schemes, the Council will ensure that safety and security considerations are incorporated into the design and planning stages in order to 'design out crime'. Safety and security will be a priority for all types of transport proposals, whether they are public realm improvements in shopping centres, local footpath initiatives, improved cycles links, new cycle parking facilities or improved bus stop facilities.
- 3.90 Each year Hillingdon's Safer Hillingdon Partnership carries out an assessment to identify a way forward to tackle crime and disorder issues in the Borough. The Safer Hillingdon Partnership Plan falls under four headings - reduce serious violence, reduce burglary, motor vehicle crime and drugs misuse, increase public confidence in how the Council and police deal with crime and disorder concerns and prevent offending and reduce re-offending.
- 3.91 In 2009, achievements include a target reduction in reducing assaults, wounding offences, robbery, and knife crime. There is also strong partnership work providing a link between secondary schools and the police. Uxbridge College has a Police Community Safety Officer and Brunel University a Police Officer, seeing a reduction in youth violence.

Objective 6: Reduce the number of people killed and seriously injured and reduce the overall number of pedestrian and cycle casualties

- 3.92 Hillingdon has a strong commitment to reducing the number of casualties resulting from traffic related accidents. Several road safety initiatives have been adopted by the Council and form an essential part of the LIP2 programme. The road safety initiatives form a diverse and comprehensive strategy for reducing accidents and casualties and reflect the specific casualty reduction targets set by the Government and the Mayor. The Council's initiatives with regard to LIP2 objective 6 include a wide range of measures relating to school safety, road safety education and road safety

improvements, such as new pedestrian crossings; improved junction layouts; signalised junctions; improved sight lines and control of vehicular speed by means of 20mph zones and installation of speed cameras as appropriate.

Road safety education

- 3.93 The Council invests significantly in education, training and publicity in order to equip people with the confidence and skills they need to walk and cycle safely within urban areas. The LIP2 programme demonstrates a continuing and developing programme of road safety education, travel awareness, training and publicity with resources focused on schools with an active travel plan.
- 3.94 The Council will continue to provide practical pedestrian training to Year 3 children, with the intention to implant basic but important road safety skills at the earliest possible age. From September 2009 to March 2010 1,985 children received training with requests received from other London boroughs to observe the training indicating that Hillingdon's methods will be adopted elsewhere.
- 3.95 It is intended to deliver a programme of road safety education and training to every secondary school, sixth form and college on an annual basis. This will be targeted to priority year groups 7, 8, 11 and 12 supplemented with theatre in education and 'follow up' sessions with Road Safety Officer presentations. All schools will be encouraged to include road safety education and training within the curriculum, and set up pre-driver and rider education.
- 3.96 Education and training for parents and guardians with very young children will, in due course, help to achieve the targeted reduction in child casualties. In partnership with TfL, publicity and encouragement will be given to enrolling as many parents as possible to The Children's Traffic Club.
- 3.97 In conjunction, road safety sessions will be held at suitable venues such as clinics for expectant mums, nurseries and playgroups to include presentations on correct in-car safety seats. The intention is to reach every child in infant and junior schools with structured road safety education and training.
- 3.98 A resource database has been established on the Hillingdon Grid for Learning for all teachers and educationalists. Road Safety Officers will attend teacher inset days if required. In recognition of the independence given to children on the transfer from Primary to Secondary School, special attention is given to the 'Moving-on' transition training for all year 6 students.
- 3.99 The LIP2 programme includes annual visits to day centres and residential homes to remind older people of the dangers and risks that they may be susceptible to on the road, given increasing traffic levels. Opportunities

will be taken to collaborate with partners in the health and education sector to organise events and participate in activities to encourage walking, providing road safety education and ensuring road safety officers can be present at gatherings where older drivers meet. The Council will actively encourage the use of thirty benches currently being installed on popular routes to popular destinations to provide resting points and encourage a healthier lifestyle. Potential is being explored with the walks programme manager for developing new walks, building upon a range of ongoing inspiring events and initiatives to encourage, for example elderly people to link walks with other activities such as photo competitions.

- 3.100 The Council currently provides high quality cycle training to between 1,750 and 2,000 children each year to levels 1 and 2 of the national Bikeability scheme. Level 3 has been available to secondary school children from January 2009 and training for adults from April 2009. The target set by the Council to train 150 adults in 2010/11 was reached in October 2010. The intention is to continue to expand the number of participants year by year. The Council was one of the first London boroughs to obtain Bikeability accreditation for its cycling scheme. A TfL consultant's report recognised the high quality of training in Hillingdon that could be used as a blueprint for other borough's training schemes.
- 3.101 Working in partnership with other agencies in the field of education and training the Council will continue to promote safer motorcycling. This is reflected in the LIP2 programme with further partnership working with TfL to develop the provision of Bikesafe and the Scootersafe Scheme funded for those that live, work or study in the borough, with an emphasis on younger riders. Educational programmes for new drivers will be developed for sixth forms and colleges to deliver campaigns to highlight drink/drug driving, seat belt wearing and illegal use of mobile phones, as well as to inform young drivers of the importance of having adequate insurance and the dangers of conceding to peer pressure when driving.
- 3.102 The example below describes some of the Council's work to deliver road safety education.

Case Study: Crash Reconstruction

The Road Safety Team and partners from the road safety forum hosted a crash reconstruction in May 2008 in Uxbridge town centre. The reconstruction, depicting a collision between a motorcycle and a car and gave a large public audience a chance to see and understand the consequences of speeding and driving without due care.



Implementing road safety engineering schemes

- 3.103 The LIP2 programme for accident remedial schemes totals £400,000 per annum for the 3 years 2011/12 to 2013/14. This programme is to deliver a wide range of improvements across the borough. It constitutes a systematic process of accident analysis, site prioritisation, engineering remedial measure design and economic benefit assessment to ensure that the worst accident locations in the borough are targeted.
- 3.104 This approach is essential because whilst education, training and publicity provides a means for the Council to reach out to the community, such work needs to be complemented by engineering measures aimed directly at improving road safety.

Windmill Hill zebra crossing near Warrender Infants School



Objective 7: Ensure a sustainable transport system enables all residents to access health, education (including 16+ establishments), employment, social and leisure facilities within the borough

- 3.105 Hillingdon's delivery actions include measures such as promoting inclusive access to transport through initiatives such as Tactile paving, dropped kerbs, footway widening, seating provision, surface upgrades and bus stop accessibility improvements. It is also recognised that by increasing sustainable travel provision to/from popular destinations will enable greater access to services and facilities within the borough.

- 3.106 The Council supports the Mayor's commitment to ensuring that the transport is accessible to all, including those with mobility impairments and that there is access for all to health, education, employment, social and leisure facilities within the borough.
- 3.107 Through the LIP2 programme, the Council will continue to encourage inclusive access at the local level ensuring that shopping centres, places of work and leisure, streets, parks and open spaces are designed to meet the needs of the all the community. Tactile paving, dropped kerbs, footway widening, seating provision and surface upgrades are typical examples of measures which can be introduced swiftly. The Council has engaged local stakeholders through the Mobility Forum in the programme for local area accessibility to ensure that key priorities are delivered.
- 3.108 The Council will continue to invest in bus stop accessibility measures in order to provide a safe means of accessing bus services for all.
- 3.109 The various measures outlined under LIP2 Objective 1, i.e. to increase sustainable travel provision to/from popular destinations, also support LIP2 objective 7. By enhancing the public transport system; improving facilities for walking and cycling; improving the public realm of transport interchanges and that of retail centres and generally increasing the provision, quality and awareness of sustainable travel options, there would be improved access to health, education, employment and other facilities.

Objective 8: Identify and implement opportunities to improve transport options for deprived areas

- 3.110 Hillingdon's delivery actions include measures to improve transport provision and the quality of the public realm in deprived areas, where affordability and fear of crime and can limit travel options. The Council is submitting LIP2 bids for major schemes in Yiewsley/West Drayton and Hayes, which would include a package of measures to significantly upgrade and regenerate the town centres, focusing on the transport interchanges.
- 3.111 The quality, functionality and condition of the public realm can have a direct bearing in the image of Hillingdon and how people are able to interact and enjoy where they live and work. Through the LIP2 programme, the Council will provide safer, more attractive pedestrian and cycle environments in areas of need including provision of secure bicycle parking facilities; streetscene enhancements and improving the permeability of the road network for cycling and walking; and tackling concerns about personal safety on the streets.
- 3.112 Through active engagement, education and formal action Hillingdon's Street Scene Enforcement Team are able to enforce environmental and highways legislation. This relates to activities such as fly tipping, fly posting, litter, and highway offences to ensure the environment is safe and keep a high standard if public realm in Hillingdon.

- 3.113 Partnership working is considered to be a key element continued effective and successful enforcement. This is achieved through joined up working with the Metropolitan Police, the London Fire Brigade, the Environment Agency and neighbouring local authorities.

Objective 9: Reduce Hillingdon's contribution to climate change and improve its resilience

- 3.114 Hillingdon's delivery actions include measures to promote sustainable means of travel, thereby reducing its carbon footprint; measures for workplace travel plans; electric vehicle schemes including new charging points; events to promote cycling; and emissions monitoring.
- 3.115 The Council's approach to tackling climate change is consistent with the Mayor's approach to meeting his 2025 CO² reduction target.
- 3.116 The Council, through LIP2 programme will encourage carbon-efficient travel behaviour by encouraging more walking, cycling and use of public transport as set out under Objective 4.
- 3.117 The Council also aims to reduce traffic congestion by means of network management and smoothing traffic flows; better journey planning and controlling parking and loading provision, regulation and enforcement.
- 3.118 The Council is working in partnership with the Ford Focus Battery Electric Vehicle (FFBEV) consortium to plan and implement the trial of electric vehicles across the borough during 2010 and 2011. This is one of eight trials being conducted throughout the UK as part of the Ultra Low Carbon Vehicle Demonstrator (ULCVD) competition, which was created by the Government to encourage the use and development of low carbon vehicles and a charging infrastructure.
- 3.119 20 charge points are being installed across the borough as part of the Ford Focus Battery Electric Vehicle Pilot for completion in April 2011, building on the LIP2 programme to encourage carbon-efficient travel behaviour.
- 3.120 Jointly with BAA Heathrow the Council will work towards sustainable transport solutions for the borough, for example, exploring potential for converting the Heathrow taxi fleet into electric operation, utilising the bus and coach station for the benefit of the borough as a whole and Uxbridge in particular, and building upon opportunities to develop an exemplary freight quality partnership.

Objective 10: Deliver the Council's statutory Network Management Duty to facilitate the expeditious movement of all transport modes with sensitive consideration for the environment

- 3.121 Hillingdon's delivery actions include measures to address factors that prevent the expeditious movement of traffic in the borough; specifically traffic congestion caused by the volume of traffic as well as other

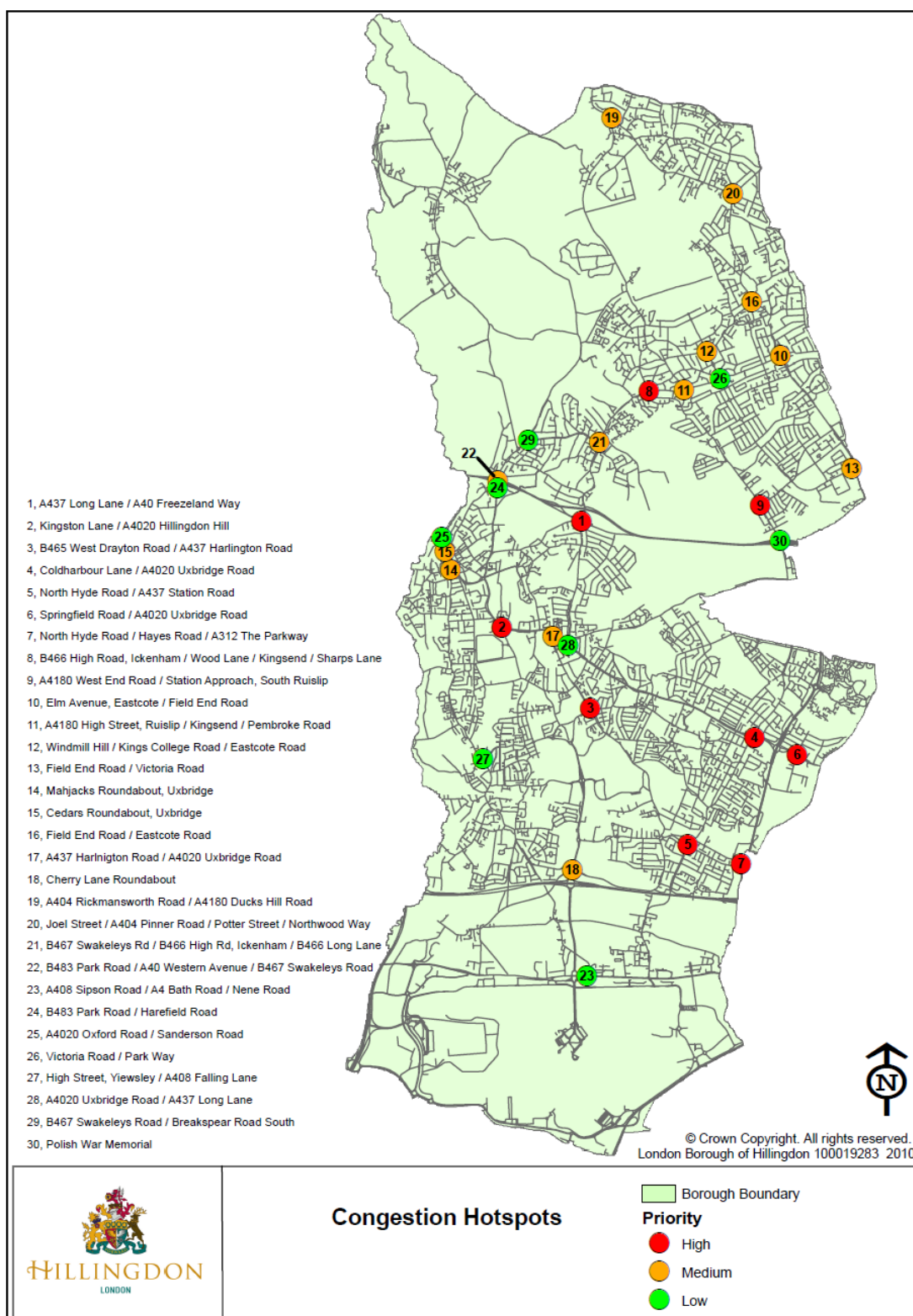
disruptions such as unplanned incidents and special events or due to works on the highway.

- 3.122 The Traffic Management Act 2004 gives local traffic authorities new powers and a duty to keep roads clear and traffic moving. Tackling congestion on the road network is therefore a key priority for the Council. More generally, Hillingdon manages the road network by using its traffic management, Traffic Order-making and enforcement powers as Highway Authority, Traffic Authority, Street Authority and Planning Authority (amongst other things). A Network Management Plan published in May 2009 sets out the Council's approach to the duty. The plan can be viewed at Hillingdon's website:
www.hillingdon.gov.uk/media/LBH_NMP_060509_ADOPTED_VERSION_updated_May_09.pdf

Traffic congestion

- 3.123 Since 2005/06 the Council has invested in a programme of measures aimed at tackling traffic congestion at sites which suffer from high levels of traffic congestion through the identification of schemes that will contribute to alleviating or managing congestion hotspots. See Figure 3.4 for a breakdown of the top 30 identified congestion hotspots. A number of schemes have been completed and further studies were commissioned in 2009/10 to identify future schemes. The Council will continue to design and implement further schemes with funding secured through the LIP2 programme and its own additional funds. The schemes involve physical engineering measures in order to smooth traffic flows and reduce the conflict caused by vehicles competing for road space on a saturated network. TfL are responsible for the management of all traffic signals in London, and as such Hillingdon continues to work closely with TfL to incorporate, where feasible, signal timing reviews into Traffic Congestion Mitigation Schemes. During 2009-2010, the Council has worked closely in conjunction with TfL's traffic signals team to deliver a scheme at one of Hillingdon's key traffic congestion hotspots, in Long Lane, Hillingdon. The TfL signals team undertook extensive modernisation of the main traffic signals at the junction of Long Lane and Freezeland Way in 2009, and through working with Hillingdon officers were able to modify these signals in a way that would allow them to be linked to the Council's own proposals to convert a nearby pair of heavily-used zebra crossings to signal control. This is predicted to contribute major improvements to the efficiency of this extremely busy section of the local road network, and is a prime example of close working between the Council and TfL teams in order to deliver measures that will alleviate traffic congestion.

Figure 9: Congestion Hot Spots



Street Works

- 3.124 The Council monitors, manages, co-ordinates and regulates all works carried out by statutory undertakers on the public highway. The Council is responsible for ensuring that all works undertaken by statutory undertakers are carried out in line with the New Roads and Street Works Act 1991 and Traffic Management Act 2004 and that notifications for all works are submitted prior to works commencing in order to efficiently co-ordinate all works on the network. Regular inspections are undertaken to ensure that works are completed on time with no undue disruption caused to the road user and that the works are carried out safely. To achieve this, street works are coordinated; only allowing disruptive activities to take place on the network outside of traffic sensitive periods when traffic levels are lower.
- 3.125 Major works involving road closures, the use of temporary traffic signals or complex temporary traffic management systems and diversions are also planned in advanced and advertised with advanced warning signs at the location. The Council uses its available powers to penalise statutory undertakers for overrunning works and issues fines for non-compliance as a way to improve performance.
- 3.126 The Council is submitting an application to the Secretary of State for Transport to adopt the London Permit Scheme for the management of street works and road works which will further improve the management of disruptive works on the road network.

Highway Works

- 3.127 The Council carries out a major programme of highways maintenance schemes, traffic mitigation schemes, road safety schemes, bus priority works and bus stop accessibility works, cycle schemes and lighting renewal schemes through LIP2 programme, as well as a programme of reactive maintenance identified from scheduled highway inspections and reports from residents. This extensive programme has the potential to cause congestion and disruption to the road user, including pedestrians, if not managed and co-ordinated properly. The Council aims to co-ordinate all works through advanced planning and continuous programme reviews. All works on or affecting the Strategic Road Network are subject to notification to, and approval by TfL. The Council's works promoters also inform TfL of any works on borough roads that may have an adverse affect on the flow of traffic on to, or off of, the Transport for London Road Network in order to ensure that all stakeholders have been informed of works and arrangements can be made to manage the network successfully throughout the duration of works.

Dealing with planned events and management of incidents

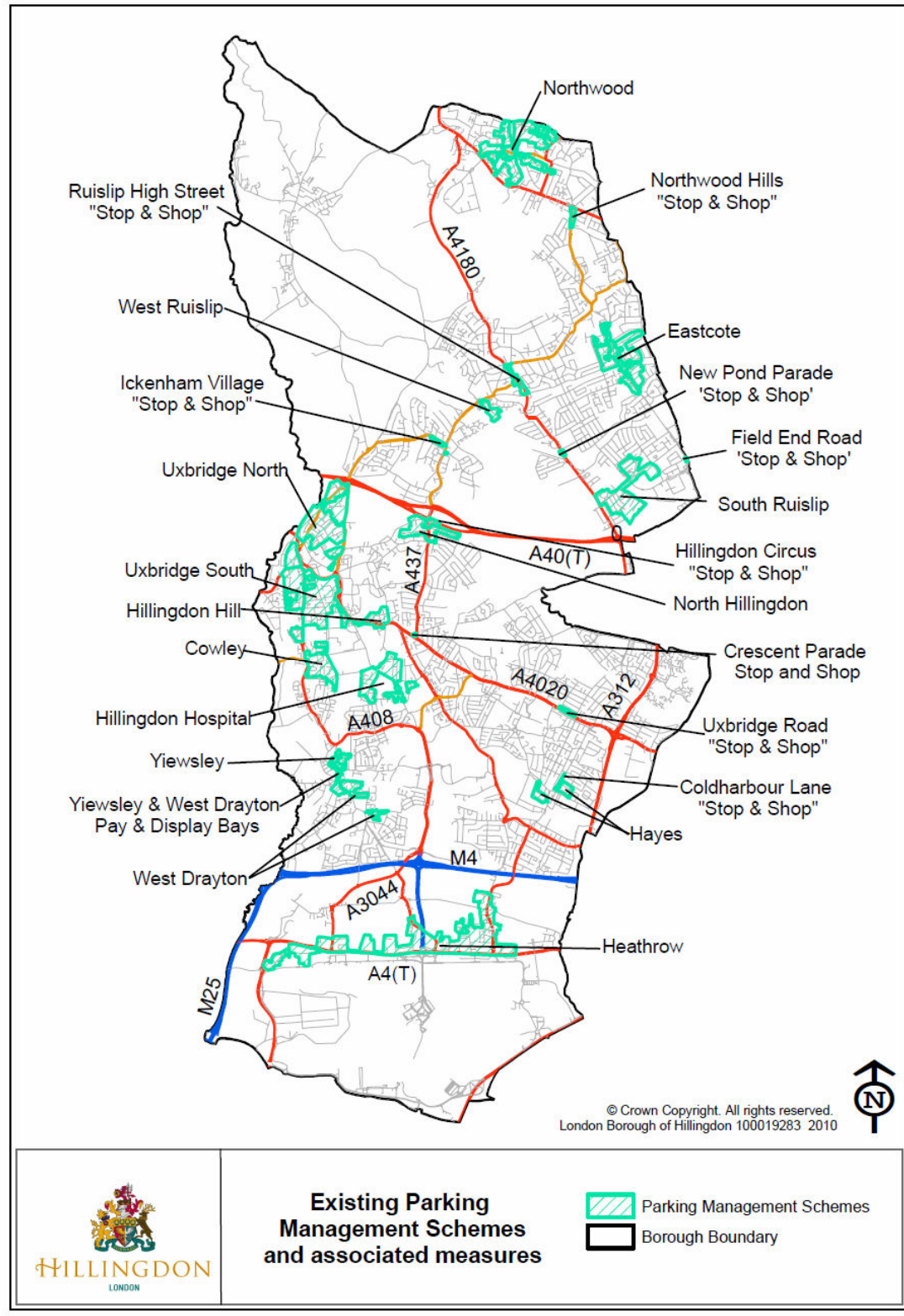
- 3.128 A significant proportion of traffic congestion is caused by the effect on traffic of planned events such as sporting events, demonstrations, carnivals, parades and street markets. Hillingdon has endeavoured to

establish effective event planning and management processes, which also take into account known road works.

Managing Parking

- 3.129 Hillingdon's Parking and Enforcement Plan seeks to contribute to achieving the Mayor's Transport Strategy objectives through the management of both on and off street parking. The aim of the Parking and Enforcement Plan is to manage kerb-space and off-street car parks effectively in order to reduce traffic congestion; improve bus services; prevent the parking of large vehicles in unsuitable streets and encourage a shift from the use of private cars to more sustainable modes of transport.
- 3.130 Hillingdon is one of many Councils that have taken the opportunity to implement a process for managing parking enforcement. The Council has developed a co-ordinated enforcement operation based around the issue and processing of penalty charge notices. The aim of parking enforcement in Hillingdon is to maximise compliance with regulations in order to achieve the Council's policy objectives. The full Parking and Enforcement Plan can be found in the Hillingdon Local Implementation Plan and the LIP2 schemes to be delivered are shown in Figure 3.5.

Figure 3.5 Location of Existing Parking Management Schemes and associated measures



Supporting Crossrail Construction

- 3.130 The Council will continue to work proactively with the Crossrail managing agents to ensure that the project is managed efficiently and that any pressures on the local road network arising from the construction phases, delivery routes, statutory undertaker diversions, highway stopping up orders, temporary road closures etc, are mitigated with the road user and statutory duty in mind. Clearly as Crossrail runs east west right through the borough, and will have a major impact on the key town centres of West Drayton and Hayes, the Council is keen to support the parallel development of infrastructure and to embrace relevant development opportunities to enhance these town centres in ways that not only benefit commuters but also provide a major boost to the quality of life and employment opportunities for residents who will benefit from the arrival of Crossrail.

Supporting Olympics 2012

- 3.131 Hillingdon will ensure that all stakeholders are aware of the implications that the London 2012 will have on the borough's road network and ensure that all information from TfL is disseminated to the appropriate officers to ensure that the Olympic Road Network (ORN) through Hillingdon is kept clear of avoidable disruption during the Games. The Council is supportive of the designation of the ORN and will continue to work with delivery agents to ensure that the road network is suitably managed to deliver the Olympic Delivery Authority's proposed Games Family journey times whilst ensuring that residents and non-Games family travel is not unduly impeded or disrupted to achieve the Mayor's objective to keep London moving.

Programme of Investment

- 3.132 Hillingdon's LIP2 Programme of investment is listed in Table 3.3 and shown in Figure 11. The investment programme represents the borough's business plan for implementing the LIP2 objectives. As previously identified, the programme is consistent with both the Mayor's Transport Strategy for London and the West London sub regional plans and it is focused on delivering the Council's LIP2 objectives in a cost effective manner.
- 3.133 Table 3.3 illustrates how each category of investment contributes to the LIP objectives and the MTS goals. It should be noted that the programme set out here is provisional only. Detailed spend will be confirmed in the Annual Spending submission to TfL. The Council will have the flexibility to change or update the annual programmes in response to delays and cost over-runs, stakeholder feedback, new evidence of the impact of previous schemes, changes in priority etc. Investment in actual work will also be confirmed as part of TfL's annual budget setting process, although the programme management approach is based on a full three years, recognising that schemes cannot be designed and delivered in one year.

Table 3.3 Hillingdon's Proposed Programme of Investment

Programme areas		Funding source	Funding (£,000s)				MTS goals					Expected main MTS outcomes	LIP objectives
			2011/12	2012/13	2013/14	Total	Econ. devt and pop growth	Quality of life	Safety and security	Opportunities for all	Climate change		
Corridors and Neighbourhoods	Improving Public Realm												
	Legible London - introduction of pedestrian way finding signs initially in Uxbridge rolling out to other town centres including West Drayton	LIP	60	60	60	180	✓	✓	✓	✓	✓	2, 5, 7, 9, 12, 14	1, 3, 4, 5, 8, 9
	District Centres - introduction of minor public realm and parking schemes initially in Ruislip Manor and Northwood Hills	LIP	50	50	50	150	✓	✓	✓	✓	✓	1, 2, 3, 4, 5, 13	1, 3
	Local Shopping Parades - public realm improvements: upgraded pavements and lighting, better bus stop arrangements, de-cluttering and consideration of stop & shop parking arrangements. Dellfield Parade (South Uxbridge) is a model to roll out to other parades e.g. Merriman's Corner, Harlington Road and New Peachey Lane near Packet Boat Lane.	LIP	50	50	50	150	✓	✓	✓	✓	✓	1, 2, 3, 4, 5, 13	1, 3
	Interchanges												
	Uxbridge –Station access improvements and provide real time information to promote Uxbridge as a gateway to the Borough building upon the improvement scheme currently being implemented in Bakers Yard.	LIP	10	10	10	30	✓	✓		✓	✓	2, 3, 4,16	1,4

Programme areas	Funding source	Funding (£,000s)				MTS goals					Expected main MTS outcomes	LIP objectives
		2011/12	2012/13	2013/14	Total	Econ. devt and pop growth	Quality of life	Safety and security	Opportunities for all	Climate change		
Hayes – partnership work with Hayes Town Centre and Crossrail to develop an urban design study for the immediate station area. Focus on creating better pedestrian access to the station including measures to create an attractive arrival experience, attract investment in the area and enable collection of automated traffic count (ATC) data at Hayes Bypass/North Hyde Road.	LIP	0	60	60	120	✓	✓	✓	✓	✓	1, 2, 3, 4, 5, 13, 15	1, 3, 4, 7, 9
s106 allocation works at Station Road and North Hyde Road cycling measures and junction safety scheme to tie into Hayes Town Centre works.	Developer Contributions				132							
Eastcote - post Station Access scheme review to ensure deliverable have been met including any subsequent measures required.	LIP	5	0	0	5	✓	✓	✓	✓	✓	1,2,3,4,5, 7,10,12	1, 3, 6
South Ruislip – enhance arrival experience at key interchange between London Underground and Chiltern Railway. Measures include improved street furniture, enhanced pedestrian routes to station, convert under-used footway space possibly into cycle parking facility and use an ATC data along West End Road to provide robust evidence to support measures proposed.	LIP	0	50	0	50	✓	✓	✓	✓	✓	1,2,3,4,5, 7,10,12	1,4, 5, 7,8, 9
Ruislip Gardens - upgrade the public realm including the area under the bridge to provide better pavements, lighting and improve visual amenity.	LIP	0	0	20	20	✓	✓	✓	✓	✓	1,2,3,4,5,7, 10	1,4, 5, 7,8, 9

Programme areas	Funding source	Funding (£,000s)				MTS goals					Expected main MTS outcomes	LIP objectives
		2011/12	2012/13	2013/14	Total	Econ. devt and pop growth	Quality of life	Safety and security	Opportunities for all	Climate change		
A4020 Park Road (Uxbridge Road) - improve crossing facility between bus stops on opposite sides of A4020 near Park Road, Hayes. In particular for vulnerable user groups to gain safe and convenient access to bus services on the A4020 Uxbridge Road.	LIP	94	0	0	94	✓			✓	✓	1,2,3,4,5,7,10,12,14	1,2, 3, 5, 7, 8,10
A4020 The Greenway (Hillingdon) - improve pedestrian road safety at junction of Hillingdon Hill and The Greenway to address the existing footpaths and central island provision not meeting the volume of school children at pm school peak.	LIP	95	0	0	95	✓			✓	✓	1,2,3,4,5,7,10,12,14	1,2, 3, 5, 7, 8,10
s106 allocation for Kingston Lane (West Drayton) and Hillingdon Hill: cycle facility improvements to tie into A4020 The Greenway project.	Developer Contribution				53							
A4020 future schemes - Prioritise future schemes to enhance the East West corridor to support local shopping parades, improve road safety and smooth traffic. Consideration given to Hayes End, Hillingdon Village, 641-693 Uxbridge Road, Wood End, 124-152 Uxbridge Road, Hayes and Crescent Parade, Hillingdon.	LIP	0	250	90	340	✓			✓	✓	1,2,3,4,5,7,10,12,14	1,2, 3, 5, 7, 8,10
School Safety Measures	LIP											
Deanesfield Primary (Queens Walk, South Ruislip) - Introduce measures to address traffic calming such as a pedestrian crossing in Queens Walk	LIP	0	0	35	35		✓	✓	✓		2, 7,10	2, 3, 5

Programme areas	Funding source	Funding (£,000s)				MTS goals					Expected main MTS outcomes	LIP objectives
		2011/12	2012/13	2013/14	Total	Econ. devt and pop growth	Quality of life	Safety and security	Opportunities for all	Climate change		
Frithwood Primary (Carew Road, Northwood) - introduce measures to address traffic calming and road safety such as a raised crossing and improved lighting	LIP	125	0	0	125		✓	✓	✓		2, 7,10	2, 3, 5
Glebe Primary (Sussex Road, Ickenham) - introduce measures to address traffic calming such as a raised crossing on Sussex Road	LIP	55	0	0	55		✓	✓	✓		2, 7,10	2, 3, 5
Harefield Academy: Northwood Way, Harefield - Extend traffic calming measures from village centre to Academy	LIP	0	0	100	100		✓	✓	✓		2, 7,10	2, 3, 5
Harlington Community & Pinkwell Primary (Pinkwell Lane) – next phase of streetscape overhaul with new raised crossings, bus stop relocation, parking bays and traffic regulations including traffic calming.	LIP	150	150	0	300		✓	✓	✓		2, 7,10	2, 3, 5
Harlyn Primary (Tolcarne Drive, Pinner) - introduce measures to address traffic calming such as a raised crossing on Tolcarne Drive as identified in School Travel Plan.	LIP	55	0	0	55		✓	✓	✓		2, 7,10	2, 3, 5
Heathrow Primary (Harmondsworth Lane / Sipson) - introduce measures to address traffic calming such as a pedestrian crossing and 20mph zone on Harmondsworth Lane	LIP	0	0	100	100		✓	✓	✓		2, 7,10	2, 3, 5
Hermitage Primary (Belmont Road, Uxbridge) - introduce measures to address traffic calming such as a pedestrian crossing on Belmont Road	LIP	0	125	0	125		✓	✓	✓		2, 7,10	2, 3, 5

Programme areas	Funding source	Funding (£,000s)				MTS goals					Expected main MTS outcomes	LIP objectives
		2011/12	2012/13	2013/14	Total	Econ. devt and pop growth	Quality of life	Safety and security	Opportunities for all	Climate change		
Hillingdon Primary (Nickels Avenue, Hillingdon) - introduce measures to address traffic calming such as a pedestrian crossing on Harlington Road	LIP	50	0	0	50		✓	✓	✓		2, 7,10	2, 3, 5
Longmead Primary (Laurel Lane, West Drayton) - introduce measures to address traffic calming such as a pedestrian crossing on Laurel Lane	LIP	0	35	0	35		✓	✓	✓		2, 7,10	2, 3, 5
Northwood College (Maxwell Road, Northwood) - introduce measures to address road safety concerns such as Drop & Go in public car park and new gate and path construction	LIP	80	0	0	80		✓	✓	✓		2, 7,10	2, 3, 5
Ryefield Primary (Ryefield Avenue, Hillingdon) - extend 20mph zone to school area and include a pedestrian crossing on Ryefield Avenue	LIP	0	100	35	135		✓	✓	✓		2, 7,10	2, 3, 5
Ruislip Gardens Primary (Stafford Road: Ruislip Gardens) - introduce measures to address traffic calming such as a pedestrian crossing on Stafford Road	LIP	0	0	35	35		✓	✓	✓		2, 7,10	2, 3, 5
Ruislip High School (Sidmouth Drive, Ruislip) - introduce measures to address traffic calming such as a pedestrian crossing in Sidmouth Drive	LIP	0	0	35	35		✓	✓	✓		2, 7,10	2, 3, 5
St John's School (Potters Street Hill, Pinner) - introduce measures to address traffic calming such as a pedestrian crossing on Hillside Road	LIP	0	0	35	35		✓	✓	✓		2, 7,10	2, 3, 5
St Swithun Wells RC Primary (Hunters Hill, Ruislip) - introduce measures to address traffic calming such as a pedestrian crossing on East Mead	LIP	0	0	35	35		✓	✓	✓		2, 7,10	2, 3, 5

Programme areas	Funding source	Funding (£,000s)				MTS goals					Expected main MTS outcomes	LIP objectives
		2011/12	2012/13	2013/14	Total	Econ. devt and pop growth	Quality of life	Safety and security	Opportunities for all	Climate change		
Vyners School (Warren Road, Uxbridge) - introduce traffic calming measures such as kerb build outs and footway widening. Residents have also suggested remedial works.	LIP	100	0	0	100		✓	✓	✓		2, 7,10	2, 3, 5
Warrender Primary (Old Hatch Manor, Ruislip) - introduce measures to address traffic calming such as a pedestrian crossing on The Ridgeway. This will support works carried out in 2010/11 (pedestrian crossing at Windmill Hill)	LIP	35	0	0	35		✓	✓	✓		2, 7,10	2, 3, 5
West Drayton Primary (Kingston Lane, West Drayton) - introduce measures to address traffic calming such as a pedestrian crossing on Station Road	LIP	10	0	0	10		✓	✓	✓		2, 7,10	2, 3, 5
Whitehall Primary School and Whitehall Junior School (Cowley Road) - introduce measures to address pedestrian safety issues such as a possible drop and go scheme within the school grounds off Whitehall Road	LIP	15	0	0	15		✓	✓	✓		2, 7,10	2, 3, 5
Woodend Park Community (Judge Heath Lane) - introduce measures to address pedestrian safety issues such as kerb realignment, traffic signs and measures to create a prominent school access	LIP	0	0	10	10		✓	✓	✓		2, 7,10	2, 3, 5
Footpath improvements relating to Bishop Ramsey School (Hume Way) - improve the public footpath (R158) from Warrender Way to Myrtle Avenue	LIP	13	0	0	13		✓	✓	✓		2, 7,10	2, 3, 5

Programme areas	Funding source	Funding (£,000s)				MTS goals					Expected main MTS outcomes	LIP objectives
		2011/12	2012/13	2013/14	Total	Econ. devt and pop growth	Quality of life	Safety and security	Opportunities for all	Climate change		
Footpath improvements relating to Haydon School, (Wiltshire Lane) - improve the public footpath (R54 and R55) from Chamberlain Way to Chamberlain Lane	LIP	14.5	0	0	14.5		✓	✓	✓		2, 7,10	2, 3, 5
Popular Destinations	LIP											
Uxbridge Town Centre – measures will address issues associated with mobility impairments. For Windsor Street and Vine Street introducing a transport operated or time-programmed bollard to restrict access to traffic in pedestrian areas and for Uxbridge Town Centre installing accessible relief pen (dog toilet) for guide and assistance dogs	LIP	40	0	0	40	✓	✓	✓	✓		12	1, 2, 3, 4, 7, 9
Heathrow (A4-M4) Villages: Harmondsworth, Sipson, Harlington, Cranfield and Longford - proposal include a series of environmental enhancements in the Heathrow Village and surrounding area potentially including measures for pavement upgrade, benches and improvement to roads currently subject to HGVs routes and rat running	LIP	100	100	50	250	✓	✓		✓		1,2,3,4,5,7, 10	1, 2, 3, 4, 7, 9
Ruislip - proposal to address issues associated with mobility impairments lead from discussions with mobility forum	LIP	90	0	0	90	✓	✓		✓		12	1, 2, 3, 4, 7, 9
Eastcote - proposal to address issues associated with mobility impairments lead from discussions with mobility forum	LIP	0	10	0	10	✓	✓		✓		12	1, 2, 3, 4, 7, 9

Programme areas	Funding source	Funding (£,000s)				MTS goals					Expected main MTS outcomes	LIP objectives
		2011/12	2012/13	2013/14	Total	Econ. devt and pop growth	Quality of life	Safety and security	Opportunities for all	Climate change		
Ickenham - proposal to address issues associated with mobility impairments lead from discussions with mobility forum	LIP	0	12	0	12	✓	✓		✓		12	1, 2, 3, 4, 7, 9
West Drayton - proposal to address issues associated with mobility impairments lead from discussions with mobility forum	LIP	0	5	0	5	✓	✓		✓		12	1, 2, 3, 4, 7, 9
Borough-wide 1) Barrier overhaul preventing anti-social motorcycle use whilst avoiding access restrictions for disabled and older people in alleyways (£25k/annum) 2) Demand responsive installation of appropriate tactile paving on dropped kerbs (£25k/annum) 3) Introduce contrast banding around street furniture, particularly litter bins, to ensure they can be seen by partially sighted people (£25k/annum) 4) A-Z guide on door to door transport schemes for older and disabled people: Issue regular updates (£25k initially, 5 yearly thereafter)	LIP	50	25	25	100	✓	✓		✓			1, 2, 3, 4, 7, 9

Programme areas	Funding source	Funding (£,000s)				MTS goals					Expected main MTS outcomes	LIP objectives
		2011/12	2012/13	2013/14	Total	Econ. devt and pop growth	Quality of life	Safety and security	Opportunities for all	Climate change		
Yiewsley - West Drayton Lavender Rise, Porters Way & Harmondsworth Road – proposal to develop and implement schemes to improve the quality of life in the area whilst coping with existing/projected traffic flows. Measures include a series of Porters Way/Station Road area junction modifications and bus priority measures to reduce congestion along the High Street between Porters Way and Cowley Road	LIP	95	71	0	166	✓	✓		✓		1,2,3,4,5,7,10	1, 2, 3, 4, 7, 9
Further area-wide travel plan partnerships - proposal to introduce public transport travel and journey planning info facilities (building upon existing and new info technology including the TfL journey Planner & Countdown 2). Info will be provided in significant reception areas of public amenities to enable and promote sustainable public transport options	LIP	60	60	80	200	✓	✓		✓		1,2,3,4,5,7,10	1, 2, 3, 4, 7, 9
On-going Borough-wide Initiatives												
Road safety improvement measures												
Charville Lane, Langdale Drive & Grosvenor Avenue, Hayes End - introduce measures to address road safety concerns	LIP	5	125	25	155		✓	✓			2, 7,10	2, 3, 5

Programme areas	Funding source	Funding (£,000s)				MTS goals					Expected main MTS outcomes	LIP objectives
		2011/12	2012/13	2013/14	Total	Econ. devt and pop growth	Quality of life	Safety and security	Opportunities for all	Climate change		
Cowley Road/Cowley Mill Road - introduce measures to address road safety concerns	LIP	5	0	0	5		✓	✓			2, 7,10	2, 3, 5
Green Lane Station Approach, Northwood - post implementation audit of traffic signal controlled junction with pedestrian phasing	LIP	10	0	0	10		✓	✓			2, 7,10	2, 3, 5
Long Lane/ Sweetcroft Lane/ Ryefield Avenue - Review of options for the introduction of a pedestrian phase in Ryefield Avenue	LIP	0	5	0	5		✓	✓			2, 7,10	2, 3, 5
Harlington Road/Judge Heath Lane - introduce measures to address road safety concerns; conflicting movements at the junction; visibility and speed issues	LIP	80	0	0	80		✓	✓			2, 7,10	2, 3, 5
Kingshill Avenue/Lansbury Drive - introduce measures to address road safety concerns; particularly conflicts at the junction with visibility and speed issues	LIP	0	50	0	50		✓	✓			2, 7,10	2, 3, 5
St Andrews roundabout - introduce measures to address road safety concerns; particularly poor lane discipline and conflicts on this major roundabout	LIP	35	0	0	35		✓	✓			2, 7,10	2, 3, 5
Bury Street/Ladygate Lane - introduce measures to address road safety concerns; and desire for pedestrian crossing facility	LIP	0	0	70	70		✓	✓			2, 7,10	2, 3, 5

Programme areas	Funding source	Funding (£,000s)				MTS goals					Expected main MTS outcomes	LIP objectives
		2011/12	2012/13	2013/14	Total	Econ. devt and pop growth	Quality of life	Safety and security	Opportunities for all	Climate change		
Residents parking schemes - parking schemes will be rolled out across the Borough in response to local issues and public concerns	LIP	50	50	50	150		✓	✓	✓	✓	2, 3,4,10	2, 3, 5
Stop and Shop Parking Schemes - rolled out across the town centres and shopping parades in the Borough in response to local issues and concerns from businesses and residents	LIP	30	45	30	105		✓	✓	✓	✓	2, 3,4,10	2, 3, 5
Rationalisation of resident parking in narrow residential streets - measures will address road safety concerns associated with footway parking and narrow streets as practical solutions to a key and growing issue of concern to residents	LIP	65	70	70	205		✓	✓	✓	✓	2, 3,4,10	2, 3, 5
Bus accessibility improvement measures												
Dawley Road near Botwell Lane - replacement of former temporary bus stop with new stop, together with safer pedestrian access	LIP	80	0	0	80		✓		✓	✓	2,4,10,12	1,3, 7
Other measures under development - improve access to and from bus services identified through audit and studies largely completed in 2010	LIP	30	100	100	230		✓		✓	✓	2,4,10,12	1,3, 7
Public footpath improvements												
London Outer Orbital Loop (Iver Lane to Cowley Mill Road) - improve public footpath at River Colne	LIP	17.5	0	0	17.5		✓		✓	✓	2,4,5,7,12	1, 3,4,5 8

Programme areas	Funding source	Funding (£,000s)				MTS goals					Expected main MTS outcomes	LIP objectives
		2011/12	2012/13	2013/14	Total	Econ. devt and pop growth	Quality of life	Safety and security	Opportunities for all	Climate change		
Walk on Wednesday - WoW runs in the majority of the Boroughs primary schools reducing the number of cars	LIP	55	55	55	165		✓	✓	✓	✓	4,9,10	1,2,3,4,6,8,9
Prizes for Promotions - prizes encourage greater participation in competitions	LIP	10	10	10	30		✓	✓	✓	✓	4,9,10	1,2,3,4,6,8,9
Resources for competitions and events - building upon successful "Mapping in Action", "Feet First" "Wheellie Great Treasure Trails"	LIP	30	30	30	90		✓	✓	✓	✓	4,9,10	1,2,3,4,6,8,9
Transition upgrade packs - upgrade assists pupils transition from primary to secondary school	LIP	55	55	55	165		✓	✓	✓	✓	4,9,10	1,2,3,4,6,8,9
Autumn School Conference to promote School Travel Plans - conference is effective in strengthening constructive partnership	LIP	15	15	15	45		✓	✓	✓	✓	4,9,10	1,2,3,4,6,8,9
Small grants to purchase materials for implementing travel plans - funds to purchase badges, pedometers, compasses etc for teaching	LIP	40	40	40	120		✓	✓	✓	✓	4,9,10	1,2,3,4,6,8,9
Grants for completing reviews and rewrites of school travel plans - completed School Travel Plans assist in securing grants	LIP	40	40	40	120		✓	✓	✓	✓	4,9,10	1,2,3,4,6,8,9
Feasibility work by Borough engineers for schemes - outline design budget to enable bidding and liaison	LIP	20	20	20	60		✓	✓	✓	✓	4,9,10	1,2,3,4,6,8,9
Signing and marking, waiting restrictions around schools and safety fencing - small engineering measures outside schools demonstrating commitment to working in partnership	LIP	20	20	20	60		✓	✓	✓	✓	4,9,10	1,2,3,4,6,8,9

Programme areas	Funding source	Funding (£,000s)				MTS goals					Expected main MTS outcomes	LIP objectives
		2011/12	2012/13	2013/14	Total	Econ. devt and pop growth	Quality of life	Safety and security	Opportunities for all	Climate change		
Road Safety Education*												
The Road Safety Partnership Forum - development of the group for support and resource materials such as promotional pens, printing costs for leaflets or hire costs for event venues	LIP	2	2	2	6		✓	✓	✓		4,9,10	1,2,3,4,6,8,9
Campaigns – advertising, promoting and the cost of supporting some of the campaigns, with resource materials	LIP	7	7	7	21		✓	✓	✓		4,9,10	1,2,3,4,6,8,9
Theatre in Education - one tour of theatre in education for primary or secondary sector schools	LIP	5	5	5	15		✓	✓	✓		4,9,10	1,2,3,4,6,8,9
Student Road Safety Officers - initiatives by the students to promote the scheme including printing and advertising costs for poster competitions	LIP	1	1	1	3		✓	✓	✓		4,9,10	1,2,3,4,6,8,9
Junior Road Safety Officers Material - materials for 80 Junior Road Safety Officers in schools and accident analysis support	LIP	9	9	9	27		✓	✓	✓		4,9,10	1,2,3,4,6,8,9
Moving On programme - resource booklet for all year 6 & 7 students in the Boroughs primary and secondary schools	LIP	3	3	3	9		✓	✓	✓		4,9,10	1,2,3,4,6,8,9
Young Drivers programme - resources to run programme of schools education and driver workshops to reduce the level of casualties to 17 – 25 year olds	LIP	3	3	3	9		✓	✓	✓		4,9,10	1,2,3,4,6,8,9
Walking Programme - training of all Year 3 children, and on request years 2 and 4 children in practical pedestrian training	LIP	7	7	7	21		✓	✓	✓		4,9,10	1,2,3,4,6,8,9

Programme areas		Funding source	Funding (£,000s)				MTS goals					Expected main MTS outcomes	LIP objectives
			2011/12	2012/13	2013/14	Total	Econ. devt and pop growth	Quality of life	Safety and security	Opportunities for all	Climate change		
	Cycling Programme Bikeability - to support programme of 1750 children trained to this national recognised standard	LIP	70	70	70	210		✓	✓	✓		4,9,10	1,2,3,4,6,8,9
	Adult Cycle Training - to support the training of Borough residents	LIP	20	20	20	60		✓	✓	✓		4,9,10	1,2,3,4,6,8,9
	Borough Wide Modal Change Promotion*												1,2,3,4,8,9
	Borough-wide Travel Plan Monitoring - external workplace Travel Plan Monitoring	LIP	20	20	20	60	✓	✓		✓	✓	3,4,8,14	1,2,3,4,8,9
	Electric Vehicles - converting existing charging points to comply with London-wide standards and increase number of charging points in the Borough	LIP	27	27	27	81	✓	✓		✓	✓	14,15	1,2,3,4,7,8,9
	Active Travel promotional events - promote Party in the Park and organise Try Cycling, Led-rides, Dr Bike at work place events	LIP	30	30	30	90	✓	✓		✓	✓	2,7,14,15	1,2,3,4,7,8,9
INTEGRATED TRANSPORT TOTAL			2951	2831	2427	8394							
LIP Allocation Total			2952	2832	2428	8212							
£100k for Local Transport Projects													
Local Transport	Dawlish Drive (Ruislip) - traffic calming measures including raised crossing and informal one-way operation for Lady Bankes Infant & Junior School	LIP	50	0	0	50	✓	✓	✓	✓		4,9,10	2,6,10
	Kingshill Avenue (Hayes) - measures to improve pedestrian safety & encourage pupils, parents & staff to walk to school, as outlined in the School Travel Plan	LIP	50	0	0	50	✓	✓	✓	✓		4,9,10	2,6,10

Programme areas		Funding source	Funding (£,000s)				MTS goals					Expected main MTS outcomes	LIP objectives
			2011/12	2012/13	2013/14	Total	Econ. devt and pop growth	Quality of life	Safety and security	Opportunities for all	Climate change		
	Local Transport future schemes - specific schemes will be identified and agreed in 2011/12.	LIP	0	100	100	200	✓	✓	✓	✓		4,9,10	2,6,10
Integrated transport total													
Maintenance	Duck's Hill Road (A4180 from Drakes Drive to Northgate) - improvements to Principal Road Network to ensure that roads are in a safe condition for all roads users	LIP	153	0	0	153	✓					2,3,5	2,6,7,10
	Rickmansworth Road (A404 from Green Lane to Murray Road) – comment as above	LIP	250	0	0	250	✓					2,3,5	2,6,7,10
	West End Road (A4180 from Grosvenor Vale to Wood Lane) – comment as above	LIP	130	0	0	130	✓					2,3,5	2,6,7,10
	West End Road (A4180 from Bridgewater Road to Sidmouth Drive) – comment as above	LIP	200	0	0	200	✓					2,3,5	2,6,7,10
	Future Principle Road Renewal schemes (Specific projects are to be confirmed in 2011/12)	LIP	0	800	800	1600	✓					2,3,5	2,6,7,10
MAINTENANCE TOTAL			733	800	800	2,333							
LIP Allocation Total			733	N/a	N/a								
Major Schemes	1. Yiewsley/ West Drayton High Street – this scheme will assist in regenerating the area, reduce the vacancy rate, improve shopping environment and safety	LIP	£2.4m	0	0	£2.4m	✓	✓	✓	✓		1,5,6,13	1,2,3,4,5,6,8
	2. Hayes Bus/Train Interchange (Hayes Town Centre Semi-Pedestrianised Scheme, Station Road eastside footway) - package of measures to upgrade the town centre environment	LIP	0	£2.0m	£2.5m	£4.5m	✓	✓	✓	✓	✓	1,5,6,13	1,2,3,4,5,6,8

Programme areas	Funding source	Funding (£,000s)				MTS goals					Expected main MTS outcomes	LIP objectives
		2011/12	2012/13	2013/14	Total	Econ. devt and pop growth	Quality of life	Safety and security	Opportunities for all	Climate change		
		s106 allocation contribution towards town centre square to built support for Crossrail. Check above sentence - built or build???	Developer Contribution									
3. Ruislip Manor - package of measures to increase the vitality and viability of the local shopping centre	LIP	0	£1.0m	£2.2m	£3.2m	✓	✓	✓	✓		1,5,6,13	1,2,3,4,5,6,8
MAJOR SCHEME TOTAL		2,4	3	4,7	10,1							

List of LIP funding sources
LIP allocation £2,952,000
TfL Business Plan
Council revenue
GAF
CIF
TIF / UTCF
Developer £981,000
Local business
Sustrans grant
Education

Timetable for Delivery

3.137 The specific interventions to be delivered by April 2014 through this Delivery Plan are shown in Figure 3.6 apart from schemes associated with school travel plans, including road safety education and training, the location of which are shown in Figure 3.2. Parking management schemes are shown separately in Figure 3.5. The interventions marked with an asterisk (*) are those considered to be ongoing for the foreseeable future. The LIP2 Delivery Plan will be refreshed every three years, the next time by April 2014.

Developing the Programme of Investment

3.135 In developing the Programme of Investment, the Council has:

- identified delivery actions which address the delivery requirements identified for each of the MTS goals;
- reviewed the strength of evidence and prioritised investment in programme areas where there is clear evidence to suggest that intended outcomes will be delivered and will make a significant contribution to the LIP2 objectives;
- assessed whether there could be any negative impacts associated with potential interventions, which need to be mitigated or else balanced against the benefits;
- structured the LIP2 programme around packages of complementary measures or holistic interventions, in order to maximise the benefits of the investment and focus on measures outlined in the Draft Core Strategy;
- ensured walking, cycling improvements, road safety, accessibility and crime reduction measures are incorporated into all packages, where appropriate, recognising the important role these can play in meeting many of the LIP2 objectives;
- reviewed what additional schemes would be implemented if additional resources were available and what the benefits would be; and what trade-offs would need to be made if lower levels of investment were available.

3.136 This process has been continual through the programme development, and involved key transport delivery officers, Councillors and representatives from Area Forum groups. This process was supported by an exercise which involved identifying priority areas of spend for the future

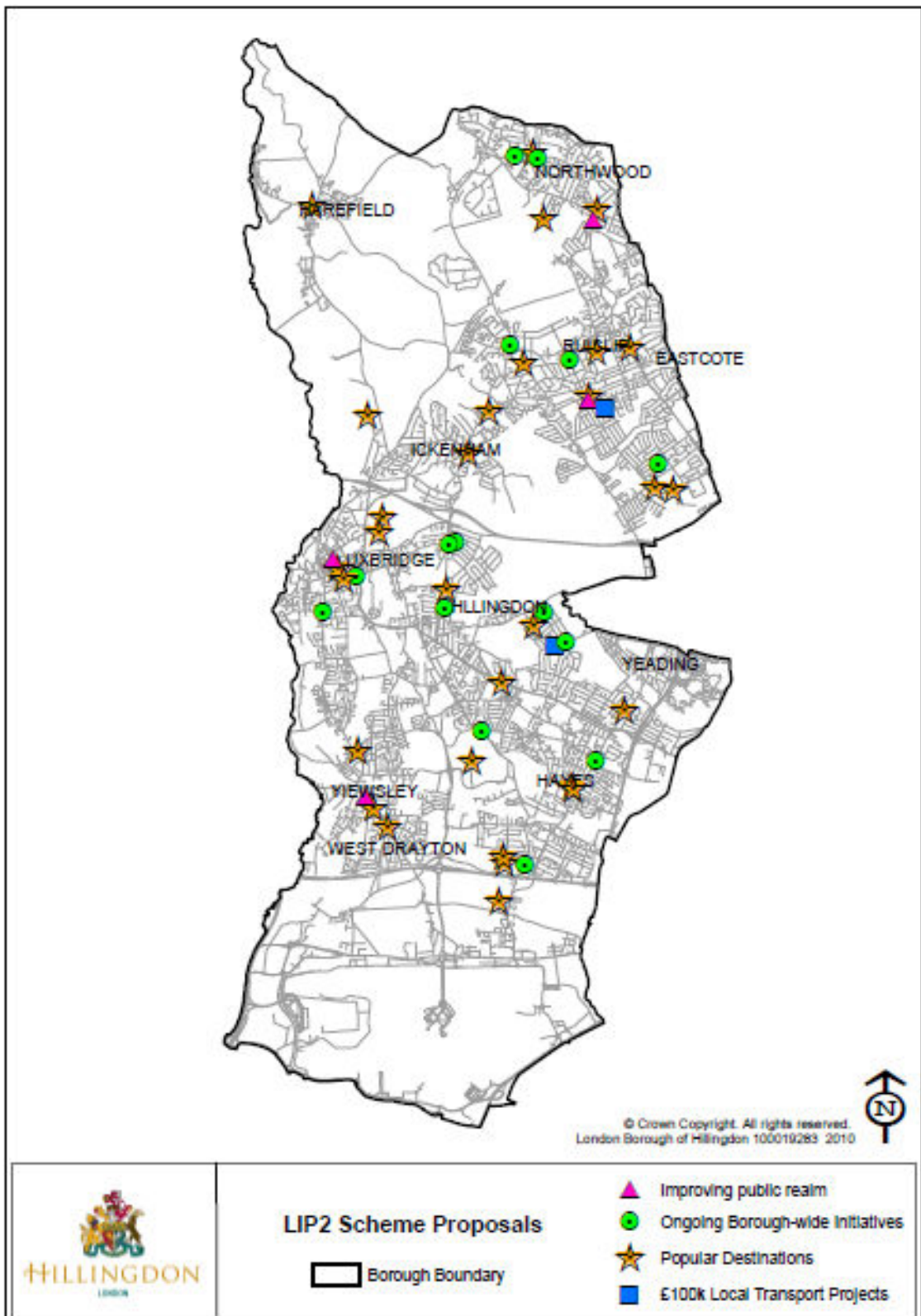
Major Schemes

3.137 The programme of investment includes three major schemes, for which TfL contribution will be sought, namely Yiewsley/West Drayton Town centre; Hayes Town Centre and Ruislip Manor. The Yiewsley and West Drayton improvement project has already been subjected to the previous Major Scheme (formerly ABS) application process and is now at Stage 2 level (see Appendix A).

Yiewsley and West Drayton Town Centre Improvements

- 3.138 The programme consists of a package of measures to upgrade the shopping environment and regenerate a town centre which was suffering one of the highest building vacancy rates in London. The Council has already contributed £0.5m of its own funds towards the £2.4m required for the project. The business case for the Major Scheme has been submitted and the application is due in December 2010.
- 3.139 The scheme will assist in regenerating the area, reducing the vacancy rate and improving shopping environment and safety, supporting LIP2 objectives as follows:
- Provide improved pedestrian facilities
 - Upgrade the foot and carriageway surface areas
 - Smooth the traffic by developing alternative routes for through traffic via Porters Way – Lavender Rise
 - Create a much improved town centre ambience and close collaboration with local community groups and the community police
 - Promote shared use principles
 - Pay special attention to access to local school and health facilities
 - Use the opportunity to improve driver awareness of disablement issues on low floor buses
 - Encourage non-local drivers to use the main road network and thus reducing stationary traffic to a minimum

Figure 3.6 Location of LIP Initiatives and Projects

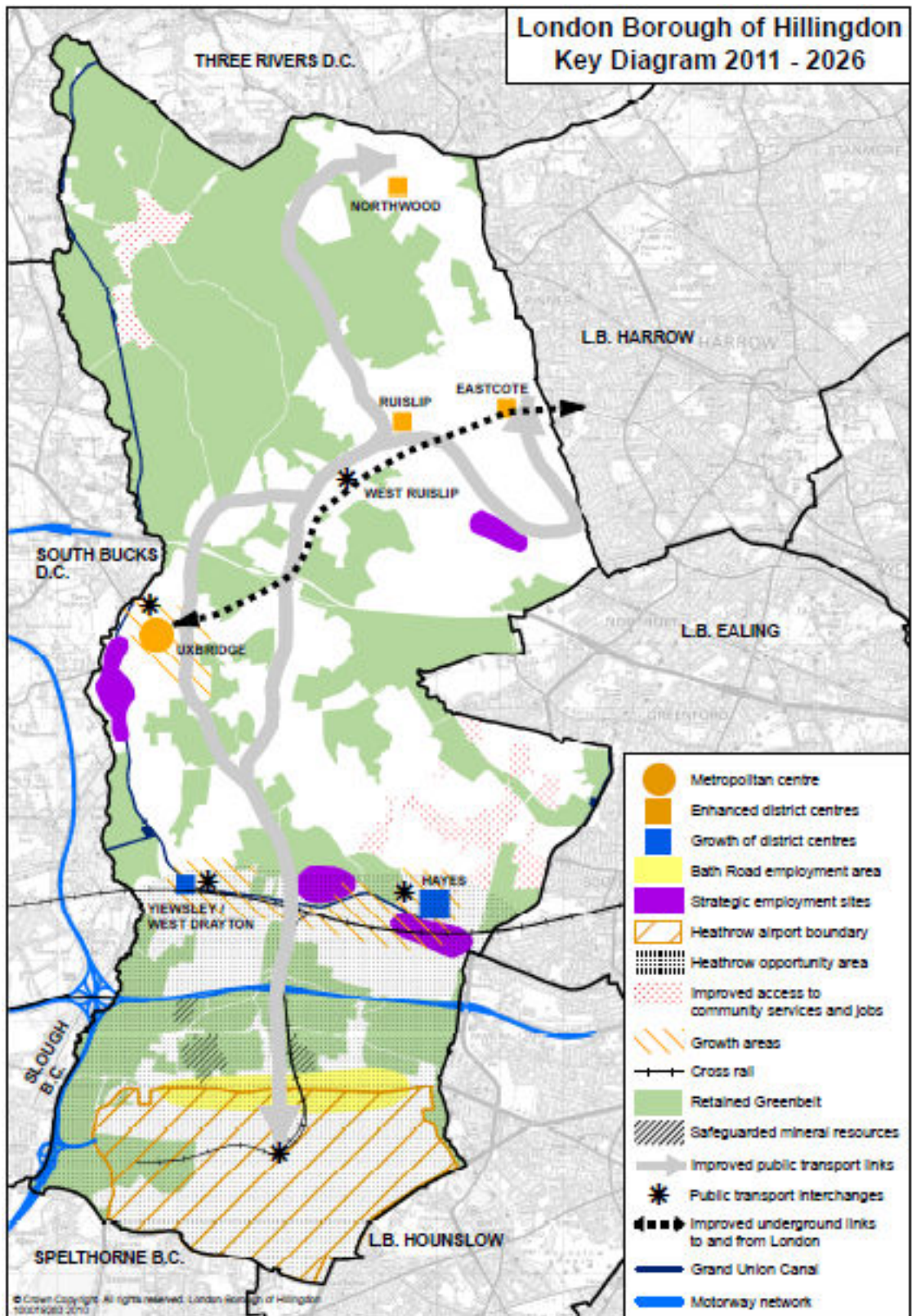


Hayes Town Centre Improvements

- 3.140 The Hayes Town Centre improvements are directly linked with the bus/train interchange at Hayes Station which will be improved in two stages. The first stage is currently in progress as part of the National Station Improvement Project to improve the station itself and its immediate access. Such works include relocation of the main pedestrian access and ticket hall to the new 'Public Square' being developed following completion of a major mixed use residential local development. The first stage will be tailored to the second stage which will be directly linked with Crossrail proposals to attract more investment in Hayes. Hayes is located within 15 minutes from Heathrow Airport providing easy and direct access to approximately 200 destinations in the world and numerous UK Cities via the UK's second busiest bus and coach station. Moreover it provides frequent and fast rail access to Central London and most UK Cities via Reading. The aspiration is to make the most of this unique location, the attractive Hayes Town Centre Scheme (Semi-Pedestrianised) and the potentially attractive pedestrian route on the eastside of Station Road with its interchange with the Grand Union Canal.
- 3.141 The Major Scheme package is to create a town square immediately to the north of Hayes Station, which will involve some demolition works, with a modern up to date bus interchange along Station Road, provide a seamless pedestrian transfer between the station and town centre via the Grand Union Canal interchange and upgrade the town centre environment itself. Council Officers are already working closely with all relevant partners concerned and an urban design study is due to be commissioned to engage the stakeholders in the process to upgrade the station environment.
- 3.142 A contribution of £2.0m is likely to be sought when submitting the scheme in December 2011. Measures will include footway realignment, construction of new public realm, possibly partnership-led building construction works, construction of canal towpath/highway interchange, dedicated pedestrian/cycle facilities, delivery access provision. It is proposed to extend the project to Coldharbour Lane between Pump Lane and Minet Drive as a second phase.
- 3.143 The scheme will assist in attracting investment to the area, improve the shopping environment and improve community safety, supporting LIP2 objectives as follows:
- Make best use of the existing and proposed public transport services in the area whilst encouraging walking and cycling in the town centre area and along the Grand Union Canal, thereby minimising the carbon footprint.
 - Improve the condition of Station Road carriageway and local footways, improve the general ambience and experience for pedestrians, public transport and drivers. The taxi interchange will improve as well.
 - Traffic flows in Station Road will improve significantly.
 - The scheme will increase surveillance and the number of activities in the public realm with associated benefits of reducing anti-social behaviour

- The environment between the station and town centre will offer a conflict-free pedestrian route, rationalised bus train interchange, removal of numerous conflicts and reducing the incentive for drivers to cause speed-related accidents.
- Hayes will strengthen its gateway function to the Heathrow Opportunity Area, the Council's main Growth Area as shown in Map 4.1 of Hillingdon's Pre-submission Draft Core Strategy Key Diagram 2011-26 (**Figure 3.7**) enabling direct access to all local facilities.
- Hayes has numerous pockets of deprived areas which will benefit from the improved public realm and increased economic activity.
- Strengthen the public transport interchange and thereby increase the use of public transport.

Figure 3.7: Hillingdon's Pre-submission Draft Core Strategy Key Diagram 2011-26 (Map 4.1)



Ruislip Manor Town Centre Improvements

- 3.144 Ruislip Manor town centre suffers from a relatively high vacancy rate with its retail activities concentrated on the edge rather than in the heart of the town centre. The public realm has been subject to numerous incremental maintenance and repair activities which have created a patchy image of the public realm. A package of measures is proposed in Victoria Road to increase the vitality and viability of the local shopping centre to the value of £1.0m.
- 3.145 The Major Scheme application is proposed to be submitted at the earliest bidding opportunity after Hayes, possibly in December 2011 with a view to upgrading the environment in a holistic manner and address issues raised by shoppers, pedestrians, school representatives, local residents and other stakeholders. The public realm upgrade scheme will assist in creating a stronger core shopping area and encourage major attractors to relocate from the fringe to the heart of the town centre and convert the vacant commercial buildings into housing use. This ambitious Council's aspiration requires considerable pump-priming to attract the necessary investment in the area, through improving the shopping environment, road safety and parking.
- 3.146 The town centre major scheme application will support LIP2 objectives as follows
- Improve the pedestrian environment, encouraging people to walk rather than travel by car.
 - Improve the layout and quality of footways and carriageways to create an attractive shopping centre environment whilst enabling traffic to run smoothly, unobstructed by parked cars.
 - Provide crossing facilities on pedestrian desire lines (including school routes), creating footway areas that are responsive to where activities are concentrated and arranging parking so that it does not mask (small) pedestrians.

Risk Management

- 3.147 Every programme and individual scheme, regardless of size, will inevitably have risks and issues associated with actually delivering the work. All risks are to be recognised and managed to minimise problems and maximise the chances of success. Hillingdon considers effective risk management as part of every programme and individual scheme but to deliver a robust LIP2 programme a structured methodology has been developed to identify, assess, mitigate and manage potential risks throughout the lifecycle of the LIP2 programme. Risks associated with the investment programme have been subject to careful officer consideration taking into account known local issues and influences to ensure maximum delivery of the schemes stated in the delivery plan.

- 3.148 Hillingdon's methodology is based on three key stages 1) the identification of risks, opportunities and uncertainties at both scheme and programme level; 2) risk quantification and analysis for decision support; and 3) on-going reporting and review on a daily, monthly and quarterly basis. The primary objective of this methodology is to reduce the impacts of risks or avoided them throughout the process whilst focusing on the LIP2 objectives and exploiting opportunities for cost effective solutions as a matter of course.
- 3.149 An appropriate data base will be maintained for each individual scheme with adequate documentary evidence appropriate to the size and complexity of the risk issues to be addressed. The Council also operates its programme delivery through a well structured process with monthly and quarterly key review stages enabling effective resolution of any problems as soon as these occur including re-prioritisation of work to minimise abortive costs.

Table 3.5: Risk Management Matrix

Project Delivery Risk	Mitigation Measure(s)
Resource to plan, design and implement the programme	Work planned will be delivered by in-house contractor or established consultant resources. The Council has an identified reserve list of schemes in order to ensure efficient use of resources if other schemes are delayed/postponed.
Delays to progress of works	Timescales for delivery allow sufficient time to develop a detailed design, undertake any consultation required, and address any identified issues. Consultation with statutory groups is undertaken at the earliest possible stage. Early liaison with the Council's legal department ensures that all required notices and Orders are built into the programme.
Cost Increases/ Budget Restrictions	Project costs are reviewed internally on a monthly basis and any variants in cost are escalated to the Finance Team, relevant Director and TfL. Permission may then be given to transfer funds from one budget to another to ensure the highest priority projects are completed, while staying within the overall budget. Where a scheme experiences delays, funding will be transferred to the next highest priority scheme.
Stakeholder support (s106, CIL etc)	Early consultation is undertaken in advance of detailed design, so that any fundamental issues are addressed as early as possible. Consultation is also undertaken at detailed design stage. Council representation on Planning Process helps to identify opportunities for Section 106 contribution and other contribution i.e. from partnership working with Heath department, etc
External/Neighbouring Borough Influence	Forums are in place to discuss cross issues such as poor north-south links. This approach allows for joined up thinking and gives weight to planning for long term direction of priority programmes.
Policy Compatibility	A spread of schemes across policy areas will ensure that the Council is delivering schemes to meet objectives and outcomes. Elected members are closely involved in schemes prioritisation and programme approval.

4. PERFORMANCE MONITORING PLAN

Introduction

- 4.1 This chapter addresses the delivery monitoring of Hillingdon Council's LIP2 objectives and intended outcomes using core targets, local targets and monitoring indicators as set out in the LIP Guidance.
- 4.2 Core Targets are locally specific targets to monitor the MTS Strategic Indicators relevant to boroughs. The targets have been set and agreed with TfL officers during September 2010 and will be used to assess the delivery of MTS outcomes at borough level.
- 4.3 Local Targets are additional targets set to monitor the performance and outcomes which are a local priority for the London Borough of Hillingdon.
- 4.4 Monitoring indicators are to enable the borough to assess to what extent its Transport Objectives (Chapter 2) are being addressed. It is meant to be a tool to help identifying factors contributing to progress against the targets. Indicators currently being monitored are to be utilised as already used through other regimes such as National Indicators and the LDF Core Strategy monitoring process.
- 4.4 A full list of Core Targets and MTS goals and LIP objectives is provided in Table A whilst Local Targets can be found in Table B. Further target information, including base year and baseline data, target data and target outcome, and the anticipated target trajectory is summarised in Proforma B at the end of this chapter.

Target Setting

- 4.5 The following section shows how the targets have been developed and how delivery of outcomes will be ensured.
- 4.6 It then identifies evidence that the target is both ambitious and realistic, given indicative funding levels. It further considers key actions needed to achieve the target, including what schemes and policies need to be implemented and the role of local partners.
- 4.7 It finally identifies principal risks to the achievement of the targets and how these will be managed.

Programme Monitoring Process

- 4.8 Monitoring and evaluation against the targets and indicators will be on-going. Where a target is not on track causes will be identified and alterations to the programme of investment reviewed to ensure targets will be met. The monitoring process will complement the rigorous budget management processes already in place to maximize value for money achievements.

- 4.9 The LIP timeframe targets will always be treated as maxima to be achieved and re-stretching will be considered with a view to exceeding the MTS targets for 2031.
- 4.10 The table below identifies the monitoring sources for the LIP2 schemes contained in the Delivery Plan. LIP2 schemes will be monitored through the life of the scheme programme to ensure that the scheme is on track and the LIP2 objectives are delivered. A combination of Core and Local Targets, Residents Associations, Partnerships, Forums, user groups and other forms of monitoring will be used to achieve a robust scheme delivery programme and to ensure there is holistic ownership and transparency of the LIP2. At Scheme inception a monitoring plan contained in the Scheme programme will be developed outlining monitoring intervals set against output deliverables.

Table L11 Hillingdon’s Investment - Monitoring Schedule

Programme areas		Monitoring Source
Corridors and Neighbourhoods	Improving Public Realm	
	Legible London - introduction of pedestrian way finding signs initially in Uxbridge rolling out to other town centres including West Drayton	Uxbridge Initiative Uxbridge Area-wide Travel Plan Partnership
	District Centres - introduction of minor public realm and parking schemes initially in Ruislip Manor and Northwood Hills	Local residents and business feedback comments
	Local Shopping Parades - public realm improvements: upgraded pavements and lighting, better bus stop arrangements, de-cluttering and consideration of stop & shop parking arrangements. Dellfield Parade (South Uxbridge) is a model to roll out to other parades e.g. Merriman's Corner, Harlington Road and New Peachey Lane near Packet Boat Lane.	Local residents and business feedback comments
	Interchanges	
	Uxbridge – Station access improvements and provide real time information to promote Uxbridge as a gateway to the borough building upon the improvement scheme currently being implemented in Bakers Yard.	Uxbridge Initiative Uxbridge Area-wide Travel Plan Partnership
	Uxbridge Station access, Bakers Yard Upgrade	
	Hayes – partnership work with Hayes Town Centre and Crossrail to develop an urban design study for the immediate station area. Focus on creating better pedestrian access to the station including measures to create an attractive arrival experience, attract investment in the area and enable collection of automated traffic count (ATC) data at Hayes By Pass/North Hyde Road.	Hayes Town Partnership Hayes Interchange Steering Group (emerging) Local residents and business feedback comments
	Station Road and North Hyde Road cycling measures and junction safety scheme`	Core Target 3 – Road Traffic Casualties
	Eastcote - post Station Access scheme review to ensure deliverables have been met including any subsequent measures required.	Eastcote Residents Association Motorists Forum Local residents and business feedback comments
	South Ruislip – enhance arrival experience at key interchange between London Underground and Chiltern Railway. Measures include improved street furniture, enhanced pedestrian routes to station, convert under-used footway space possibly into cycle parking facility and use an ATC data along West End Road to provide robust evidence to support measures proposed.	Local Residents Association Rail Users Local residents and business feedback comments

Programme areas	Monitoring Source
Ruislip Gardens - upgrade the public realm including the area under the bridge to provide better pavements, lighting and improve visual amenity.	Local Residents Association Rail Users Local residents and business feedback comments
Grand Union Canal (Dawley Road / Rigby Lane) Continuation of improvements along the Grand Union Canal Towpath to improve conditions for walking and cycling. The measures will include step-free access; way finding information at entry points; and barriers to prevent motorcycle use.	Hayes Town Partnership Safer Neighbourhood Team Sustrans Rangers Local residents and business feedback comments
Grand Union Canal (Horton Bridge Road/West Drayton Interchange) Building upon Yiewsley - West Drayton major scheme measures include step free access for pedestrians and cyclists and reducing illegal motorcycle use along the towpath.	Hayes Town Partnership Safer Neighbourhood Team Sustrans Rangers Local residents and business feedback comments
Grand Union Canal (High Street – Trout Road) – comments as above	Hayes Town Partnership Safer Neighbourhood Team Sustrans Rangers Local residents and business feedback comments
Grand Union Canal (Oxford Road interchange) – comments as above	Hayes Town Partnership Safer Neighbourhood Team Sustrans Rangers Local residents and business feedback comments
Grand Union Canal (Gates and unauthorised access overhaul) – Post implementation review to adjust gates as necessary at all locations so that the route will have adequate control at all access points whilst effectively ensuring good access	Hayes Town Partnership Safer Neighbourhood Team Sustrans Rangers Local residents and business feedback comments
North-South Sustainable Transport Corridors	
Bus accessibility on north - south corridor – improvements at priority junctions explored in conjunction with London Buses and residents groups to promote better use of public transport and better efficiency for older and disabled passengers	Public Transport Liaison Group Ibus data Motorist Forum

Programme areas	Monitoring Source
B466 High Road (Ickenham) / B467 Swakeleys Road - continue to work with TfL and its suppliers to introduce measures to complement junction priority works and use an ATC data at Swakeleys Road junction with A40 to provide robust evidence to support measures proposed.	Public Transport Liaison Group Ibus data Motorist Forum Bus Operators
A4180 Duck's Hill - Bury Street - High Street (Ruislip) - B466 Eastcote Road - High Road Ickenham / West Ruislip Station - B457 Swakeleys Road A437 - Long Lane (whole length south of A40) - work with TfL and its suppliers towards modal change and carbon footprint reduction using pilot information technology	Public Transport Liaison Group Ibus data Motorist Forum Bus Operators
A437 Long Lane / Freezeland Way / Sweetcroft Lane & A437 Long Lane - Hercies Road – Building upon 2010/11 works measures will improve pedestrian safety and access to U2 bus service	Public Transport Liaison Group Ibus data Motorist Forum Bus Operators
East-West Sustainable Transport Corridors (A4020)	
A4020 Park Road (Uxbridge Road) - improve crossing facility between bus stops on opposite sides of A4020 near Park Road, Hayes. In particular for vulnerable user groups to gain safe and convenient access to bus services on the A4020 Uxbridge Road.	Bus Operators Local Traders Ibus data
A4020 Green Way (Hillingdon) - improve pedestrian road safety at junction of Hillingdon Hill and The Greenway to address the existing footpaths and central island provision not meeting the volume of school children at pm school peak.	Bus Operators Local Traders Ibus data
Kingston Lane (West Drayton) and Hillingdon Hill -cycle facility improvements	Bus Operators Local Traders Ibus data
A4020 future schemes - Prioritise future schemes to enhance the East West corridor to support local shopping parades, improve road safety and smooth traffic. Consideration given to Hayes End, Hillingdon Village, 641-693 Uxbridge Road, Wood End, 124-152 Uxbridge Road, Hayes and Crescent Parade, Hillingdon.	Bus Operators Local Traders Ibus data
School Safety Measures	
Deanesfield Primary (Queens Walk, South Ruislip) - introduce measures to address traffic calming such as a pedestrian crossing in Queens Walk	Local Target 4 - School Travel Plans

Programme areas	Monitoring Source
Frithwood Primary (Carew Road, Northwood) - introduce measures to address traffic calming and road safety such as a raised crossing and improved lighting	Local Target 4 - School Travel Plans
Glebe Primary (Sussex Road, Ickenham) - introduce measures to address traffic calming such as a raised crossing on Sussex Road	Local Target 4 - School Travel Plans
Harefield Academy (Northwood Way, Harefield) - extend traffic calming measures from village centre to Academy	Local Target 4 - School Travel Plans
Harlington Community & Pinkwell Primary (Pinkwell Lane) – next phase of streetscape overhaul with new raised crossings, bus stop relocation, parking bays and traffic regulations including traffic calming.	Local Target 4 - School Travel Plans
Harlyn Primary (Tolcarne Drive, Pinner) - introduce measures to address traffic calming such as a raised crossing on Tolcarne Drive as identified in School Travel Plan.	Local Target 4 - School Travel Plans
Heathrow Primary (Harmondsworth Lane / Sipson) - introduce measures to address traffic calming such as a pedestrian crossing and 20mph zone on Harmondsworth Lane	Local Target 4 - School Travel Plans
Hermitage Primary (Belmont Road, Uxbridge) - introduce measures to address traffic calming such as a pedestrian crossing on Belmont Road	Local Target 4 - School Travel Plans
Hillingdon Primary (Nickels Avenue, Hillingdon) - introduce measures to address traffic calming such as a pedestrian crossing on Harlington Road	Local Target 4 - School Travel Plans
Longmead Primary (Laurel Lane, West Drayton) - introduce measures to address traffic calming such as a pedestrian crossing on Laurel Lane	Local Target 4 - School Travel Plans
Northwood College (Maxwell Road, Northwood) - introduce measures to address road safety concerns such as Drop & Go in public car park and new gate and path construction	Local Target 4 - School Travel Plans
Ryefield Primary (Ryefield Avenue, Hillingdon) - extend 20mph zone to school area and include a pedestrian crossing on Ryefield Avenue	Local Target 4 - School Travel Plans
Ruislip Gardens Primary (Stafford Road: Ruislip) Gardens - introduce measures to address traffic calming such as a pedestrian crossing on Stafford Road	Local Target 4 - School Travel Plans

Programme areas	Monitoring Source
Ruislip High School (Sidmouth Drive, Ruislip) - introduce measures to address traffic calming such as a pedestrian crossing in Sidmouth Drive	Local Target 4 - School Travel Plans
St John's School (Potters Street Hill, Pinner) - introduce measures to address traffic calming such as a pedestrian crossing on Hillside Road	Local Target 4 - School Travel Plans
St Swithun Wells RC Primary (Hunters Hill, Ruislip) - introduce measures to address traffic calming such as a pedestrian crossing on East Mead	Local Target 4 - School Travel Plans
Vyners School (Warren Road, Uxbridge) - introduce traffic calming measures such as kerb build outs and footway widening. Residents have also suggested remedial works.	Local Target 4 - School Travel Plans
Warrender Primary (Old Hatch Manor, Ruislip) - introduce measures to address traffic calming such as a pedestrian crossing on The Ridgeway. This will support works carried out in 2010/11 (pedestrian crossing at Windmill Hill)	Local Target 4 - School Travel Plans
West Drayton Primary (Kingston Lane, West Drayton) - introduce measures to address traffic calming such as a pedestrian crossing on Station Road	Local Target 4 - School Travel Plans
Whitehall Primary School and Whitehall Junior School (Cowley Road) - introduce measures to address pedestrian safety issues such as a possible drop and go scheme within the school grounds off Whitehall Road	Local Target 4 - School Travel Plans
Woodend Park Community (Judge Heath Lane) - introduce measures to address pedestrian safety issues such as kerb realignment, traffic signs and measures to create a prominent school access	Local Target 4 - School Travel Plans
Footpath improvements relating to Bishop Ramsey School (Hume Way) - improve the public footpath (R158) from Warrender Way to Myrtle Avenue	Local Target 4 - School Travel Plans
Footpath improvements relating to Haydon School, (Wiltshire Lane) - improve the public footpath (R54 and R55) from Chamberlain Way to Chamberlain Lane	Local Target 4 - School Travel Plans

Programme areas	Monitoring Source
<p>Popular Destinations 1) Barrier overhaul preventing anti-social motorcycle use whilst avoiding access restrictions for disabled and older people in alleyways (£25k/annum) 2) Demand responsive installation of appropriate tactile paving on dropped kerbs (£25k/annum) 3) Introduce contrast banding around street furniture, particularly litter bins, to ensure they can be seen by partially sighted people (£25k/annum) 4) A-Z guide on door to door transport schemes for older and disabled people: Issue regular updates (£25k initially, £5k yearly thereafter)</p>	<p>Mobility Forum Local Residents Association Local residents and business feedback comments</p>
<p>Uxbridge Town Centre – measures will address issues associated with mobility impairments. For Windsor Street and Vine Street introducing a transport operated or time-programmed bollard to restrict access to traffic in pedestrian areas and for Uxbridge Town Centre installing accessible relief pen (dog toilet) for guide and assistance dogs</p>	<p>Local Target 7 Transport Network – Transport Network and Social Inclusion Mobility Forum Residents Association</p>
<p>Heathrow (A4-M4) Villages: Harmondsworth, Sipson, Harlington, Cranfield and Longford - proposal includes a series of environmental enhancements in the Heathrow Villages and surrounding area potentially including measures for pavement upgrade, benches and improvement to roads currently subject to HGVs routes and rat running</p>	<p>Residents Association No Third Runway Action Group Local Target 6 – Heathrow Airport, Modal Share for Hillingdon</p>
<p>Ruislip - proposal to address issues associated with mobility impairments lead from discussions with mobility forum</p>	<p>Residents Association No Third Runway Action Group Local Target 6 – Heathrow Airport, Modal Share for Hillingdon</p>
<p>Eastcote - proposal to address issues associated with mobility impairments lead from discussions with mobility forum</p>	<p>Residents Association No Third Runway Action Group Local Target 6 – Heathrow Airport, Modal Share for Hillingdon</p>
<p>Ickenham - proposal to address issues associated with mobility impairments lead from discussions with mobility forum</p>	<p>Residents Association No Third Runway Action Group Local Target 6 – Heathrow Airport, Modal Share for Hillingdon</p>
<p>West Drayton - proposal to address issues associated with mobility impairments lead from discussions with mobility forum</p>	<p>Residents Association No Third Runway Action Group Local Target 6 – Heathrow Airport, Modal Share for Hillingdon</p>
<p>Borough-wide</p>	

Programme areas	Monitoring Source
Yiewsley - West Drayton Lavender Rise, Porters Way & Harmondsworth Road – proposal to develop and implement schemes to improve the quality of life in the area whilst coping with existing/projected traffic flows. Measures include a series of Porters Way/Station Road area junction modifications and bus priority measures to reduce congestion along the High Street between Porters Way and Cowley Road	West Drayton Action Group Local residents and business feedback comments Ibus data
Further area-wide travel plan partnerships - proposal to introduce public transport travel and journey planning info facilities (building upon existing and new information technology including the TfL journey Planner & Countdown 2). Information will be provided in significant reception areas of public amenities to enable and promote sustainable public transport options	Local Target 1 – Congestion Hotspots (9 priority locations) Green Travel Plan Partnership
On-going Borough-wide Initiatives	
Road safety improvement measures	Core Target 3 – Road Traffic Casualties
Charville Lane, Langdale Drive & Grosvenor Avenue, Hayes End - introduce measures to address road safety concerns	Core Target 3 – Road Traffic Casualties
Cowley Road/Cowley Mill Road - introduce measures to address road safety concerns	Core Target 3 – Road Traffic Casualties
Green Lane Station Approach, Northwood - post implementation audit of traffic signal controlled junction with pedestrian phasing	Core Target 3 – Road Traffic Casualties
Long Lane/ Sweetcroft Lane/ Ryefield Avenue - review of options for the introduction of a pedestrian phase in Ryefield Avenue	Core Target 3 – Road Traffic Casualties
Harlington Road/Judge Heath Lane - introduce measures to address road safety concerns; conflicting movements at the junction; visibility and speed issues	Core Target 3 – Road Traffic Casualties
Kingshill Avenue/Lansbury Drive - introduce measures to address road safety concerns; particularly conflicts at the junction with visibility and speed issues	Core Target 3 – Road Traffic Casualties
St Andrews roundabout - introduce measures to address road safety concerns; particularly poor lane discipline and conflicts on this major roundabout	Core Target 3 – Road Traffic Casualties
Bury Street/Ladygate Lane - introduce measures to address road safety concerns; and desire for pedestrian crossing facility	Core Target 3 – Road Traffic Casualties

Programme areas	Monitoring Source
Eastcote Road/ Windmill Hill - introduce measures to address road safety concerns; and particularly an improved layout of this large roundabout which forms a pedestrian route for school children and residents walking to Ruislip Manor LUL Station	Core Target 3 – Road Traffic Casualties
Station Road/ Dawley Road/ Shepiston Lane, Hayes - introduce measures to address road safety concerns; and particularly better pedestrian crossing arrangements and measures to reduce traffic speeds (including unauthorised HGV traffic)	Core Target 3 – Road Traffic Casualties
Station Road, Dawley Road and Shepiston Lane HGV Signage	Core Target 3 – Road Traffic Casualties
Angus Drive/The Fairway - introduce measures to address road safety concerns; and particularly rationalised parking and an improved junction layout to reduce vehicle conflicts	Core Target 3 – Road Traffic Casualties
Green Lane, Northwood (near The Glen) - to introduce measures to address road safety concerns; and particularly a request from vulnerable road users for a new zebra crossing	Core Target 3 – Road Traffic Casualties
Clifton Gardens, Hillingdon - to introduce measures to address road safety concerns; including pedestrian safety	Core Target 3 – Road Traffic Casualties
Borough-wide schemes - other accident remedial schemes	Core Target 3 – Road Traffic Casualties
Parking Management Schemes and associated measures	
Residents parking schemes - parking schemes will be rolled out across the borough in response to local issues and public concerns	Core Target 3 – Road Traffic Casualties
Stop and Shop Parking Schemes - rolled out across the town centres and shopping parades in the borough in response to local issues and concerns from businesses and residents	Core Target 3 – Road Traffic Casualties
Rationalisation of resident parking in narrow residential streets - measures will address road safety concerns associated with footway parking and narrow streets as practical solutions to a key and growing issue of concern to residents	Core Target 3 – Road Traffic Casualties
Bus accessibility improvement measures	

Programme areas	Monitoring Source
Dawley Road near Botwell Lane - replacement of former temporary bus stop with new stop, together with safer pedestrian access	Local Target 7 Transport Network – Transport Network and Social Inclusion Residents Association Local residents and business feedback comments
Other measures under development - improve access to and from bus services identified through audit and studies largely completed in 2010	Local Target 7 Transport Network – Transport Network and Social Inclusion Residents Association Local residents and business feedback comments
Public footpath improvements	
London Outer Orbital Loop (Iver Lane to Cowley Mill Road) - improve public footpath at River Colne	Rights of Way Improvement Plan update User Feedback
Frays River (Braybourne Close northwards to the South Bucks) - improve public footpath at Frays River from Braybourne Close northwards to the South Bucks borough boundary.	Rights of Way Improvement Plan update User Feedback
Yeading Valley (Charville Lane to Sharvel Lane) - improve public footpath (U73) from Charville Lane to Sharvel Lane	Rights of Way Improvement Plan update User Feedback
Ancient Highway to Ruislip Woods (Jackets Lane to Northwood Road) - Improve Jackets Lane – Ancient Highway	Rights of Way Improvement Plan update User Feedback
Public Bridleway– (Copse Wood, Ruislip Woods National Nature Reserve - Ducks Hill Road) - improve public bridleways	Rights of Way Improvement Plan update User Feedback
Northwood Hills footpath (Wiltshire Lane to Haste Hill Golf Course) - improve public footpath	Rights of Way Improvement Plan update User Feedback
Congestion Reduction	
Major transport infrastructure proposals - measures will provide a robust set of data to determine future decision making on proposals for High Speed Rail 2 Company, Crossrail, Airtrack, BAA and traffic associated with Heathrow Airport.	Local Target 1 – Congestion Hotspots (9 priority locations)
Freight Management	

Programme areas		Monitoring Source
	WestTrans support and HGVS Route Signposting - measures have been submitted as part of WestTrans partnership work, joint-funded by West London boroughs	Freight Quality Partnership Motorist Forum feedback
	Emissions Monitoring & Modelling	Core Target 5 - CO2 Emission Reduction in Hillingdon
	NOx, PM10 and CO² emission simulation through tailor-made simulation software - to monitor environmental effects of LIP2 from implementation initiatives including the following: area-wide travel plans, sustainable N-S Corridor, free parking for Electric Vehicles at 25+ locations, possible feasibility assessment for provision of hydrogen infrastructure (champion to be identified, scheme to be developed), champion, development and application of sustainable checklist to quantify emission reduction benefits of transport schemes and identification and monitoring of target user groups, using techniques including website development	Core Target 5 - CO2 Emission Reduction in Hillingdon
	Environmental Area Noise Studies	
	Heathrow Airport Area Aircraft Noise Monitoring - borough obligation under EU's environmental noise directive to control and reduce environmental noise	Aircraft Noise Monitoring
Smarter Travel	School Travel Awareness Programme, including Monitoring and Review*	Local Target 4 – School Travel Plan School Travel Plan Steering Group
	Walk on Wednesday - WoW runs in the majority of the boroughs primary schools reducing the number of cars	Local Target 4 – School Travel Plan School Travel Plan Steering Group
	Prizes for Promotions - prizes encourage greater participation in competitions	Local Target 4 – School Travel Plan School Travel Plan Steering Group
	Resources for competitions and events - building upon successful "Mapping in Action", "Feet First" "Wheelie Great Treasure Trails"	Local Target 4 – School Travel Plan School Travel Plan Steering Group
	Transition upgrade packs - upgrade assists pupils transition from primary to secondary school	Local Target 4 – School Travel Plan School Travel Plan Steering Group
	Autumn School Conference to promote School Travel Plans - conference is effective in strengthening constructive partnership	Local Target 4 – School Travel Plan School Travel Plan Steering Group
	Small grants to purchase materials for implementing travel plans - funds to purchase badges, pedometers, compasses etc for teaching	Local Target 4 – School Travel Plan School Travel Plan Steering Group

Programme areas	Monitoring Source
Grants for completing reviews and rewrites of school travel plans - completed School Travel Plans assist in securing grants	Local Target 4 – School Travel Plan School Travel Plan Steering Group
Feasibility work by borough engineers for schemes - outline design budget to enable bidding and liaison	Local Target 4 – School Travel Plan School Travel Plan Steering Group
Signing and marking, waiting restrictions around schools and safety fencing - small engineering measures outside schools demonstrating commitment to working in partnership	Local Target 4 – School Travel Plan School Travel Plan Steering Group
Road Safety Education	Local Target 8 – School Road Safety
The Road Safety Partnership Forum - development of the group for support and resource materials such as promotional pens, printing costs for leaflets or hire costs for event venues	Local Target 8 – School Road Safety
Campaigns – advertising, promoting and the cost of supporting some of the campaigns, with resource materials	Local Target 8 – School Road Safety
Theatre in Education - one tour of theatre in education for primary or secondary sector schools	Local Target 8 – School Road Safety
Student Road Safety Officers - initiatives by the students to promote the scheme including printing and advertising costs for poster competitions	Local Target 8 – School Road Safety
Junior Road Safety Officers Material - materials for 80 Junior Road Safety Officers in schools and accident analysis support	Local Target 8 – School Road Safety
Moving On programme - resource booklet for all year 6 & 7 students in the boroughs primary and secondary schools	Local Target 8 – School Road Safety
Young Drivers programme - resources to run programme of schools education and driver workshops to reduce the level of casualties to 17 – 25 year olds	Local Target 8 – School Road Safety
Walking Programme - training of all year 3 children, and on request years 2 & 4 children in practical pedestrian training	Local Target 8 – School Road Safety
Cycling Programme Bikeability - to support programme of 1750 children trained to this national recognised standard	Local Target 8 – School Road Safety
Adult Cycle Training - to support the training of borough residents	Local Target 8 – School Road Safety
Borough Wide Modal Change Promotion	Core Target 4 – Number of People Traveling in/out of Hillingdon by Mode Local Target 1 – Congestion Hotspots Local Target 6 – Heathrow Airport, Modal Share for Hillingdon

Programme areas		Monitoring Source
	Borough-wide Travel Plan Monitoring - external workplace Travel Plan Monitoring	Core Target 4 – Number of People Traveling in/out of Hillingdon by Mode Local Target 1 – Congestion Hotspots Local Target 6 – Heathrow Airport, Modal Share for Hillingdon
	Electric Vehicles - converting existing charging points to comply with London-wide standards and increase number of charging points in the borough	Core Target 4 – Number of People Traveling in/out of Hillingdon by Mode Local Target 1 – Congestion Hotspots Local Target 6 – Heathrow Airport, Modal Share for Hillingdon
	Active Travel promotional events - promote Party in the Park and organise Try Cycling, Led-rides, Dr Bike at work place events	Core Target 4 – Number of People Traveling in/out of Hillingdon by Mode Local Target 1 – Congestion Hotspots Local Target 6 – Heathrow Airport, Modal Share for Hillingdon
Local Transport	Dawlish Drive (Ruislip) - traffic calming measures including raised crossing and informal one-way operation for Lady Bankes Infant & Junior School	Core Target 3 – Road Traffic Casualties Local Target 8 – School Road Safety
	Kingshill Avenue (Hayes) - measures to improve pedestrian safety and encourage pupils, parents and staff to walk to school, as outlined in the School Travel Plan	Core Target 3 – Road Traffic Casualties Local Target 4 – School Travel Plan Local Target 8 – School Road Safety
	Local Transport future schemes - specific schemes will be identified and agreed in 2011/12.	Core Target 2 – Principal Roads Asset Condition Core Target 3 – Road Traffic Casualties
Maintenance	Duck's Hill Road (A4180 from Drakes Drive to Northgate) - improvements to Principal Road Network to ensure that roads are in a safe condition for all roads users	Core Target 2 – Principal Roads Asset Condition Core Target 3 – Road Traffic Casualties
	Rickmansworth Road (A404 from Green Lane to Murray Road) – comment as above	Core Target 2 – Principal Roads Asset Condition Core Target 3 – Road Traffic Casualties
	West End Road (A4180 from Grosvenor Vale to Wood Lane) – comment as above	Core Target 2 – Principal Roads Asset Condition Core Target 3 – Road Traffic Casualties
	West End Road (A4180 from Bridge Water to Sidmouth Drive) – comment as above	Core Target 2 – Principal Roads Asset Condition Core Target 3 – Road Traffic Casualties
	Future Principle Road Renewal schemes (Specific projects are to be confirmed in 2011/12)	Core Target 2 – Principal Roads Asset Condition Core Target 3 – Road Traffic Casualties

Programme areas		Monitoring Source
Major Schemes	1. Yiewsley/ West Drayton High Street – this scheme will assist in regenerating the area, reduce the vacancy rate, improve shopping environment and safety	West Drayton Action Group High Street Building Vacancy Rates
	2. Hayes Bus/Train Interchange (Hayes Town Centre Semi-Pedestrianised Scheme, Station Road eastside footway) - package of measures to upgrade the town centre environment	Hayes Town Partnership High Street Building Vacancy Rates
	3. Ruislip Manor - package of measures to increase the vitality and viability of the local shopping centre	High Street Building Vacancy Rates Local Residents Association

Before and After Scheme Implementation Monitoring

- 4.10 Before and after scheme implementation analysis work will be carried out to determine effects on travel demand, changes in behaviour and levels of user satisfaction. Schemes will be sampled and analysis results used to inform subsequent scheme prioritisation to ensure that positive impact of previous investment is maximised.
- 4.11 Proforma B shows the interim targets set to deliver the mandatory targets within the LIP2 period and the targets set to deliver the Mayor's Transport Strategy outcomes to 2031.

TABLE A: CORE TARGETS

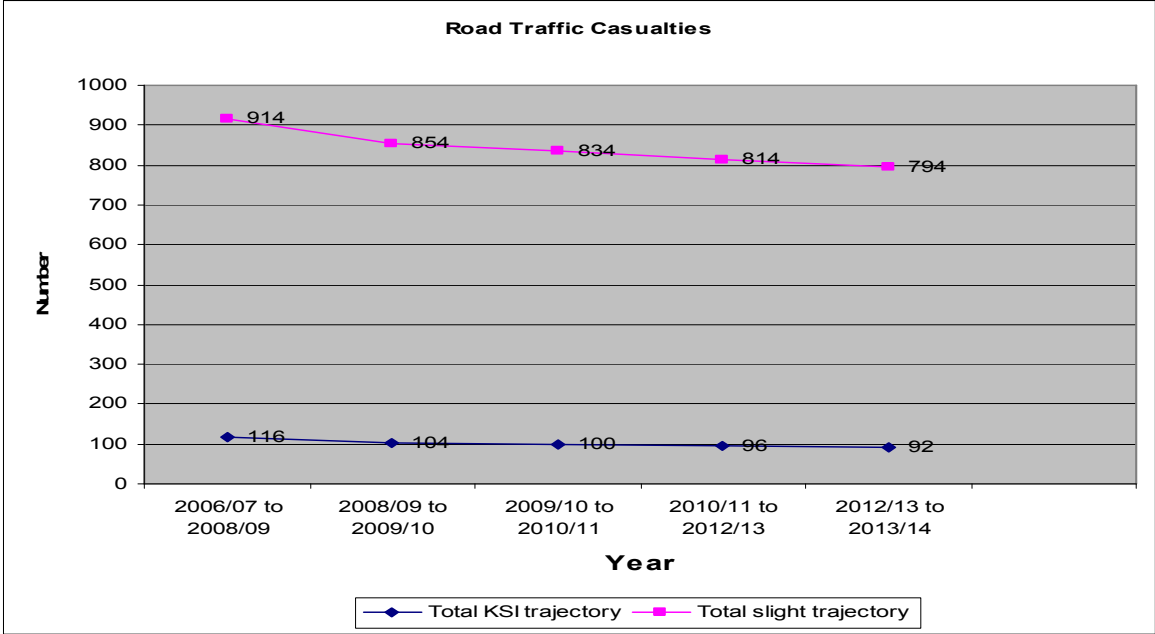
C1 BUS SERVICE RELIABILITY					
Target	<p>Maintain the existing Average Excess Waiting Time of 0.9 minutes to 2013/14 Buses Quality of Service Indicators remain in excess of Outer London targets Introduction of at least one north-south bus service linking the north and the south of the borough Increase percentage of work trips by bus in 2010 from 8.8% to 10% by 2013/14</p>				
Data source	London Buses Quality of Service Indicators (Quarterly Reports) iBus Data				
Link to LIP objectives	Obj1, Obj7				
Evidence that the target is ambitious and realistic	<p>No direct north-south bus services exist at present. Very few locations within Hillingdon would be considered to provide acceptable public transport journey times if a travel time of 45 minutes for journeys starting in the morning peak period (7am to 10am) between home and work is taken as indicative of typical commuting times within London (Figures 8.1, 2 and 3, and Page 132 in Travel in London 2 report). Significant bus priority measures will have to be considered to ensure competitive and reliable journey times. Third party cooperation needs significant lead-in time. Base information to support strong business case will require considerable resource not available at present.</p>				
Key actions for the Council	<p>Actively promote the need for introduction of the North-South Services through TfL and existing Bus Quality Partnerships. Implement schemes along preferred corridor at some critical locations to ensure competitive journey times. Pro-Actively assist in promotion, publicity and service information provision. Use centres of projected population growth to grow public transport demand by planning agreements.</p>				
Key actions for partner organisations	TfL, BAA and private operators to promote and operate the service.				
Principal risks and how they will be managed	<p>Ensure that the service is commercially viable. TfL Business Plan is seeking to reduce its financial commitment to bus services. Significant infrastructure investment is required to guarantee fast and reliable bus services on the borough's most popular travel demand corridors. Substantial multi-modal transport modelling data, not currently available, is required to support the Council's business case. The risks will be managed through incrementally introducing north-south services building upon TfL's support; BAA's travel plan CAA modal split targets and potential attractiveness to transport providers.</p>				
Interim milestones for bus service reliability					
	2006 to 2008	Base 2010	2011	2012	2013
*Excess Waiting Time	1.0	0.9	0.9	0.9	0.9
Service 222					
Average Waiting Time	0	2.8	2.8	2.8	2.8
Service 607					
Average Waiting Time	0	0.7	0.7	0.7	0.7
Service 90					
Average Waiting Time	1.6	0.6	0.6	0.6	0.6
Service U2					
Average Waiting Time	0	2.5	2.5	2.5	2.5

* Excess Waiting Time is affected by cross boundary services. These services are not in the complete control of the Council therefore, TfL have agreed that an average figure derived for the baseline should be maintained.

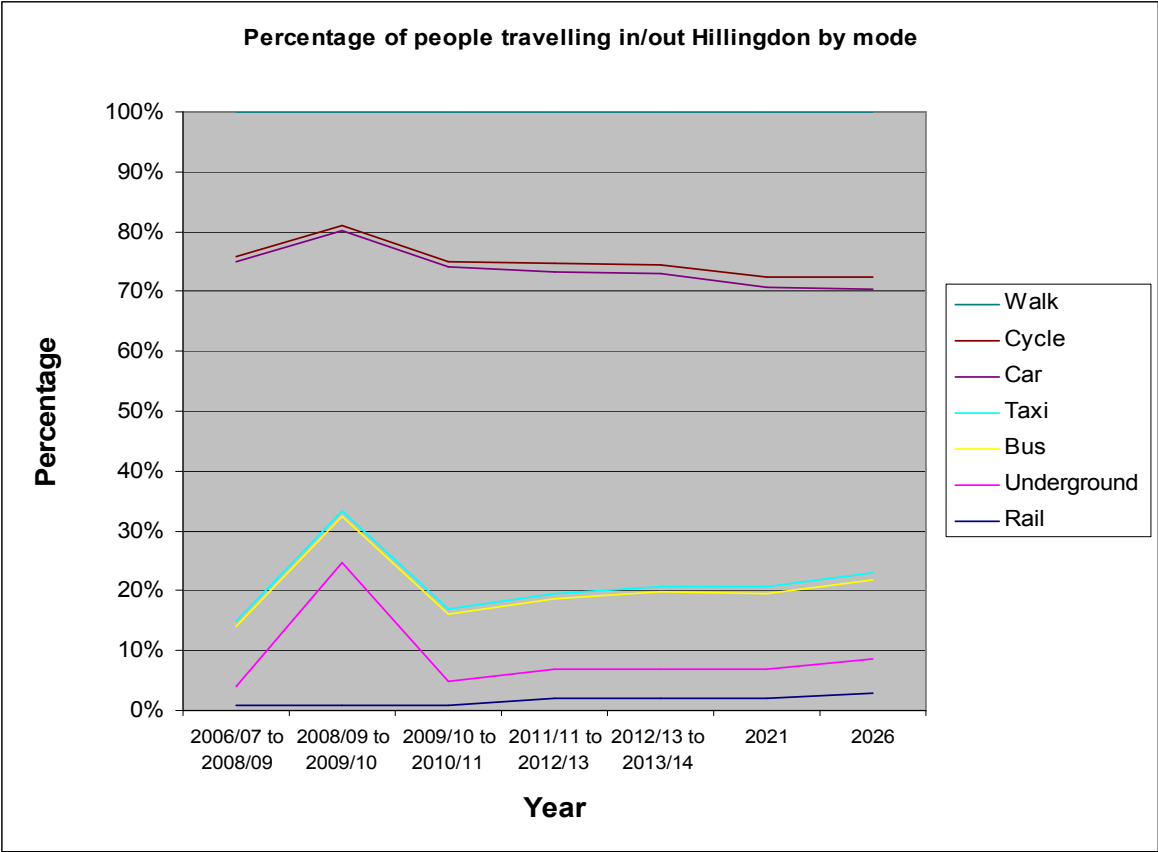
C2 PRINCIPAL ROADS ASSET CONDITION					
Long term target	Maintain the percentage of principal roads in need of repair (NI 168) from 4% in 2010 to 4% in 2030/31. Reduce the percentage of classified non-principal roads in need of repair (NI169) from 6% in 2010 to 4% in 2030/31.				
Short term target	Maintain the percentage of principal roads in need of repair (NI 168) From 4% in 2010 to 4% in 2013/14. Maintain the percentage of classified non-principal roads in need of repair (NI169) from 6% in 2010 to 6% in 2013/14.				
Data source	Detailed Visual Inspection data collected by LB Hammersmith & Fulham				
Link to LIP objectives	Obj2, Obj10				
Evidence that the target is ambitious and realistic	To improve the borough's status in comparison with other boroughs with regard to the condition of its principal roads and reduce the 4% of road length in need of repair to 3% by 2013. To sustain its better performance than the national and London averages for the condition of the footpaths/other rights of way which are easy to use significantly improving on the last assessment.				
Key actions for the Council	LB Hillingdon implements a TAMP which identifies the desired levels of service across all road assets, which represent priorities in terms of the wider role in managing and maintaining the network. LIP2 will maximise potential for economies of scale by making use other programmes to maintain and improve these for example as part of projects to improve townscape.				
Key actions for partner organisations	TfL and LB Hillingdon are to bring all 'A' roads and busy bus routes up to a serviceable standard.				
Principal risks and how they will be managed	Significant budget cuts will result in decline of material asset condition. Pressure for housing development such as on the Southall Gasworks Site will accelerate deterioration.				
Interim milestones for principal road carriageway where maintenance should be considered					
Interim milestones for non-principal road carriageway where maintenance should be considered					
	2006 to 2008	Base 2010	2011	2012	2013
BV224b Condition of unclassified non-principal roads (% in need of repair)	13.0%	24.0%	23.0%	21.0%	19.0%
BV178 % of total length of footpaths/other rights of way which are easy to use	92.0%	95.0%	96.0%	96.0%	97.0%
BV187 Footways in need of repair	25.0%	17.9%	17%	17%	16%
NI 168 Condition of principal roads (% in need of repair)	4.0%	4.0%	4.0%	4.0%	4.0%
NI 169 Condition of classified non-principal roads (% in need of	6.0%	6.0%	6.0%	6.0%	6.0%

repair)			2021	2026	2030 MTS Target
NI 168 Condition of principal roads (% in need of repair)			3.0%	3.0%	4.0%
NI 169 Condition of classified non-principal roads (% in need of repair)			6.0%	6.0%	4.0%
BV224b Condition of unclassified non-principal roads (% in need of repair)			9.0%	7.0%	5.0%
BV178 % of total length of footpaths/other rights of way which are easy to use					
BV187 Footways in need of repair			15.0%	11.0%	10.0%

C3 ROAD TRAFFIC CASUALTIES						
Target	Reduce Total KSI from 104 in 2010 to 92 in 2013/14 Reduce Total Slight Casualties from 854 in 2010 to 794 in 2013/14					
Data source	London Road Safety Unit TfL Hillingdon Road Safety Plan					
Link to LIP objectives	Obj3, Obj6					
Evidence that the target is ambitious and realistic	Hillingdon's Road Safety Plan 2008. 1994-1998 average number of Killed and Serious Injury Accidents were 255 per annum and reduced to 111 in 2008. 58% reduction exceeds both the London average of 47% and the 2010 reduction targets both 50% for the total number of KSI's and for the respective modes. This compares very favourably with the London average reduction which stands at 47%.					
Key actions for the Council	KSI targets will be revised in accordance with DfT guidance currently at consultation stage. LB Hillingdon intends to follow the pan London targets in due course subject to Cabinet Member approval for the new road safety plan. LB Hillingdon will develop more stretching targets as an interim measure. It is proposed pedestrian, cyclists, motorcycles and children killed and seriously injured casualties, be reduced by one, each year to 2010. Slight casualties being a higher figure, it is proposed a suitable target would be a decrease of 20 casualties each year.					
Key actions for partner organisations	Work with schools and other partner organisations on education and training initiatives.					
Principal risks and how they will be managed	Budget reduction Impact from development pressures on the highway network					
Interim milestones for Road Casualties (% reduction)						
Category	2006 to 2008	Base 2010	2011	2012	2013	
Pedestrians	22 (60)	19 (65)	17 (69)	16 (71)	15 (73)	
Cyclists	10 (50)	7 (65)	6 (70)	6 (70)	5 (75)	
Motorcyclists	12 (50)	9 (64)	9 (64)	9 (64)	9 (64)	
Children	13 (65)	10 (73)	9 (76)	9 (76)	8 (79)	
TOTAL KSI	116 (55)	104 (60)	100 (61)	96 (63)	92 (64)	
TOTAL Slight	914 (32)	854 (37)	834 (38)	814 (40)	794 (41)	



C4 NUMBER OF PEOPLE TRAVELLING IN/OUT OF HILLINGDON BY MODE					
Target	Increase walking and cycling by 25% mode share in 2010 to 35% by 2013/14 Reduce car modal split by 0.5% per annum from 59% in 2010 to 53% by 2013/14				
Data source	London Travel Demand Survey				
Link to LIP objectives	Obj1, Obj3, Obj4, Obj7, Obj9				
Evidence that the target is ambitious and realistic	Travel by car is currently nearly 60% with only 14% of the population using public transport to travel to work. Hillingdon has inadequate north-south public transport provision with long bus journey times and extensive in-commuting from the west by car. Public transport will require a very significant upgrade before it appears responsive to demand.				
Key actions for the Council	Support area-wide travel plan partners in achieving their targets Range of campaigns to encourage modal change Physical measures to increase north-south sustainable travel capacity Business Travel Plan monitoring School travel plan monitoring Sustainable travel advice when addressing planning development management Encourage quality bus partnerships to align north-south bus services through the borough Develop demand responsive transport solutions, especially in remote and deprived areas				
Key actions for partner organisations	Implement travel plan schemes and performance monitoring Participation in campaigns and events to encourage modal change Provide funds and initiatives increase north-south sustainable travel capacity, especially as part of the Mayor's A40 Smoothing Traffic project Participation through school curriculum Planning project implementation Operate viable north south bus services through the borough Develop and operate demand responsive transport solutions				
Principal risks and how they will be managed	Lack of performance monitoring resource Lack of resource to run campaigns and events Lack of commercial viability to run north-south bus services Overloaded school curriculum Economic climate hampering private project implementation Lack of private sector interest in operating demand responsive transport services				
Interim milestones for mode share by (percentage of trips)					
Main mode of Travel	2006 to 2008	Base 2010	2011	2012	2013
Rail	1	1	1	2	2
Underground	3	3	4	5	5
Bus	10	10	11	12	13
Taxi	1	1	1	1	1
Car	60	59	57	55	53
Cycle	1	1	1	1.5	1.5
Walk	24	24	25	26	27



C5 CO ² EMISSION REDUCTION IN HILLINGDON																							
Long term target	Reduction of CO ² emissions from 1456 (kt/year) in 2010 to 855 [kt/year] by 2025																						
Short term target	Reduction of CO ² emissions from 1456 (kt/year) in 2010 to 1309 [kt/year] by 2013/14																						
Data source	GLA LEGGI Inventory																						
Link to LIP objectives	Obj3, Obj9																						
Evidence that the target is ambitious and realistic	<p>GLA LEGGI inventory gives information on CO² emissions from all sources of ground-based transport (GBT) across the whole GLA. Where appropriate to each borough, it can provide emissions information regarding road traffic, (including trunk roads and motorways), from railways, from shipping and from airports (ground-based aviation). Annual CO² emission updates are shown below with details of reductions needed over the years in order to meet the Mayor's CO² targets.</p> <table border="1"> <thead> <tr> <th>Borough: Hillingdon</th> <th>Emission [kt/year]</th> <th>% of transport CO² emissions</th> </tr> </thead> <tbody> <tr> <td>Domestic Aviation</td> <td>1,134</td> <td>73%</td> </tr> <tr> <td>Domestic Shipping</td> <td>-</td> <td>0%</td> </tr> <tr> <td>Railways</td> <td>42</td> <td>3%</td> </tr> <tr> <td>Road Transport</td> <td>387</td> <td>25%</td> </tr> <tr> <td>Total transport</td> <td>1,563</td> <td>100%</td> </tr> </tbody> </table>					Borough: Hillingdon	Emission [kt/year]	% of transport CO ² emissions	Domestic Aviation	1,134	73%	Domestic Shipping	-	0%	Railways	42	3%	Road Transport	387	25%	Total transport	1,563	100%
Borough: Hillingdon	Emission [kt/year]	% of transport CO ² emissions																					
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Railways	42	3%																					
Road Transport	387	25%																					
Total transport	1,563	100%																					
Key actions for the Council	LB Hillingdon will be developing a borough-specific emission database over the coming months which will allow officers to determine the likely contribution of CO ² reductions derived from the broad programmes within the LIP2 document. This will help to confirm the scale of reductions achievable given the proposed funding and the particular problems Hillingdon face such as lack of adequate north-south transport provision.																						
Key actions for partner organisations	LB Hillingdon will continue to work closely with TfL, the West London Partnership and BAA Heathrow to maximise investment into reducing CO ² emissions.																						
Principal risks and how they will be managed	<p>Aviation contribution: LB Hillingdon has limited control over the major source of ground based CO₂ emissions (73% of the total emissions) within the borough, namely domestic aviation. An additional risk is that the national UK target for aviation is to maintain GHG emissions at 2005 levels through to 2050. This means the CO₂ emissions from domestic aviation could theoretically stop at the 1,134kt level as shown for 2008 and remain within the national target as far out as 2025. If this occurs in practice, the Mayor's carbon dioxide target of 855 kilo tonnes by 2025 will not be met even if every other source was reduced to zero.</p> <p>Major Roads Contribution: Hillingdon is home to major parts of both the strategic road network and the TLRN network. The operation of these networks contributes a major part of the road transport CO₂ emissions within the borough. It may be difficult for Hillingdon to control and base a target for CO₂ reduction from road transport sources without a full understanding of what the partnership working between partners such as HA and TfL plan to contribute by way of CO₂ reductions from their respective road networks.</p>																						
Interim milestones CO ² emission reduction																							
2006 to 2008 (kt/yr)	Base 2010	2011	2012	2013	2026																		
1563	1456	1405	1356	1309	855																		

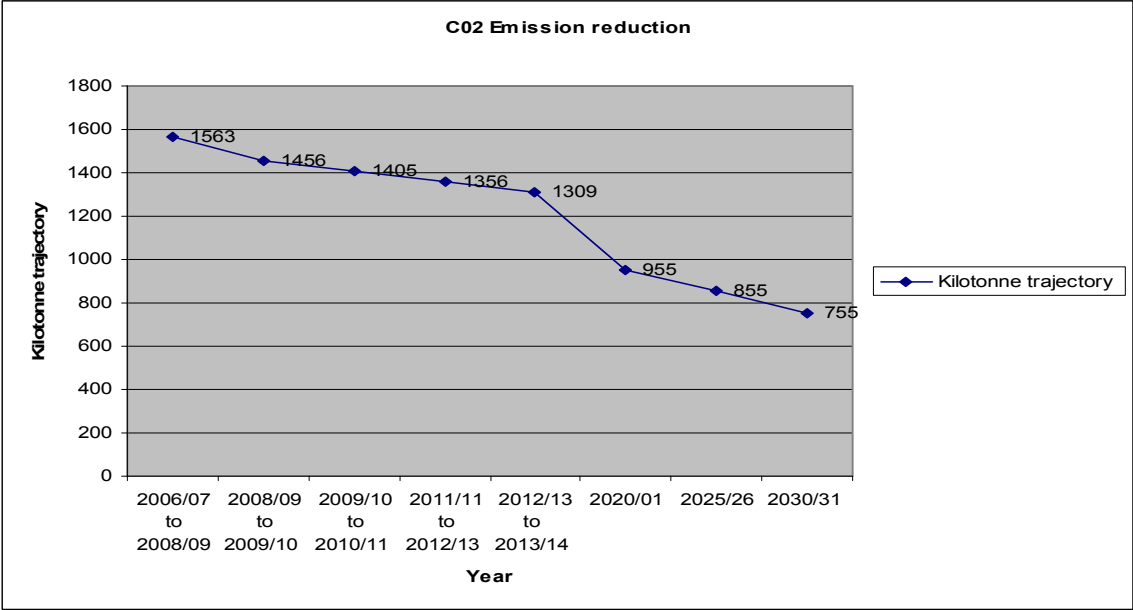


TABLE B: LOCAL TARGETS

L1 CONGESTION HOT SPOTS				
Indicator	Increased throughput by public transport (number of bus movements through links) Increased throughput by active travel Reduced delay (bus delay/minutes) Reduced Emissions (CO ₂ and NO ₂ tonnes per year)			
Data source	TfL West London Model, TEEM and LEGGI Emissions Data Base			
Link to LIP objectives	Obj1, Obj3, Obj7, Obj8, Obj9 Obj10			
Link to MTS Goals	CO ² , Road safety, Air Quality			
Evidence that the target is ambitious and realistic	It is a new project. No other local authority has established its carbon footprint and monitored comprehensively the effect of the measures proposed in the LIP. Lead-in time may restrict proposed monitoring proposal to being pilot-borough only until LIP3			
Key actions for the Council	Measures taken to reduce congestion, improve traffic flow, reduce traffic levels and improve modal shift from private car to more sustainable modes of transport, especially along the congested road corridors, will all help reduce emissions of local air quality pollutants.			
Key actions for partner organisations	Ensure a consistent approach and agreed methodology across all boroughs to quantify emission effects from transport initiatives. Monitor the congestion hotspots (table below) with full support from TfL.			
Principal risks and how they will be managed	Resource implications outside Council control Progress will be tailored to resource availability			
Delay*/ Location	AM (07.00–10.00)	Interim Peak (10.00–16.00)	PM (16.00–19.00)	Comment
	Junction throughput vph Pax/hr	Junction throughput vph Pax/hr	Junction throughput vph Pax/hr	
A40 Western Avenue & Freezeland Way / A437 Long Lane	>1.5	<1.0	>1.5	AM Southbound Interim: Some northbound delay >1.5 PM: Both southbound delay and through junction Bus routes: 697, 698 and U2 all travel along Long Lane
A4020 Hillingdon Hill / Kingston Lane *Traffic counts Hillingdon Road North / South junction,	1-1.5 Number of vehicles traveling through the junction during period: 4,925	>1.5 3,627	1->1.5 6,218	AM: Eastbound Interim & PM: Westbound Bus routes 427, A10 and 607 travel along Hillingdon Hill straight through the junction Routes U1, U7 and U4 travel along Kingston Lane before turning left onto Hillingdon Hill

200m along Hillingdon Hill from this junction				
A437 Harlington Road / B465 West Drayton Road	>1.5 Number of vehicles traveling through the junction during period: 7,239	>1.5 5,283	>1.5 9,600	AM and interim: Three out of 4 approaches PM: Northbound Bus routes Routes U4 and A10 travel along Harlington Road, straight through the junction. Route U7 west along West Drayton Road and then turns right onto Harlington Road.
A4020 Uxbridge Road / Coldharbour Lane / Yeading Lane	<0.5	<0.25	>1.5	AM and interim: both directions PM: Eastbound Bus routes 140 and E6 travel along Coldharbour Lane through the traffic lights to Yeading Lane. 90 travels north along Coldharbour Lane before turning left onto Uxbridge Road. 427 and 607 travel along Uxbridge Road and continue straight through the junction.
A437 North Hyde Road / A437 Station Road	>1.5	1->1.5	>1.5	AM & Interim: Small stretches PM: Eastbound Bus routes Nine travel along Station Road; seven pass straight through the junction – 90, E6, 140, 696, 698, U4, H98. One route, 195, travels west along North Hyde Road before turning right onto Station Road. 350 travels east along North Hyde Road before turning left onto Station Road.

L2 PEDESTRIAN TRAINING				
Target	Maintain training programme participants numbers of 3,269 for school years 3 and 7 from 2010 to 2013/14			
Data source	Road Safety Programme			
Link to LIP objectives	Obj1, Obj3, Obj4, Obj6			
Link to MTS Goals	Mode Share, Road Safety, Better Streets			
Evidence that the target is ambitious and realistic	Hillingdon Council wants to ensure that three out of four secondary school pupils continue to walk to school, an excellent result for the second largest borough in London where average walking distances between destinations are amongst the longest in London.			
Key actions for the Council	Develop and sustain training programme			
Key actions for partner organisations	Participate in training programme			
Principal risks and how they will be managed	Insecure level of resource allocation to service the programme			
Interim milestones Number of children trained between school years 3 and 7				
2006 to 2008	Base 2010	2011	2012	2013
2452	3269	3269	3269	3269

L3 CYCLE TRAINING				
Target	Increase Bikeability trained numbers per annum from 1750 in 2010 to 2000 in 2013/14			
Data source	Road Safety Programme			
Link to LIP objectives	Obj1, Obj3, Obj4, Obj6			
Link to MTS Goals	Mode Share, Road Safety, Better Streets, Cycling			
Evidence that the target is ambitious and realistic	The cycle training programme is ongoing. Hillingdon Council officers regularly send bulletins to all schools regarding the service provision for cycle training to improve the service. Fostering a special interest in sustainable travel to the Olympics in 2012.			
Key actions for the Council	Arrange and provide the training programme			
Key actions for partner organisations	Participate in the training projects			
Principle risks and how they will be managed	Resource availability The programme will be tailored to resource availability			
Interim milestones Number of school children cycle trained				
2006 to 2008	Base 2010	2011	2012	2013
1500	1750	1750	1750	2000

L4 SCHOOL TRAVEL PLANS	
Short term target	Reduce car dependent Primary School trips from 40% in 2010 to 30% by 2013/14 Reduce car dependent Secondary School trips from 25% in 2010 to 15% by 2013/14 Increase the percentage of schools where review of travel has been completed from 85% in 2010 to 100% by 2013/14 100% Delivery of all school travel plan schemes set out in Delivery Plan by 2013/14
Data source	Annual School hands-up surveys
Link to LIP objectives	Obj1, Obj3, Obj7, Obj8, Obj9, Obj10
Link to MTS Goals	Mode Share, Road Safety, Better Streets, Cycling
Evidence that the target is an realistic	17% reduction in car dependency has already been achieved since the introduction of school travel plans, amongst the highest in London and certainly considerably higher. Three out of four secondary school pupils walk to school, an excellent result for the second largest borough in London where average walking distances between destinations are amongst the longest in London. 39% of all school trips are currently by car with a further 42% on foot, 16% by bus and 3% on pedal cycle.
Key actions for the Council	Pro-active campaigning tailored to individual schools Implementation of measures as set out in school travel plans
Key actions for partner organisations	Hillingdon's school communities, health authority, parking enforcement officers, local police and school travel plan advisors to work in partnership
Principal risks and how they will be managed	Resource availability to implement the campaigns and schemes Necessary School staff availability and willingness to support in target driven approach
School Travel Plans	
STP's	

	No. and % of schools where review of travel has been completed			No. and % of schools where travel plan deemed necessary and developed			No. and % of schools where travel plan has been implemented			No. and % of schools where review of travel has been completed			No. and % of schools where travel plan deemed necessary and developed			No. and % of schools where travel plan has been implemented			No. and % of schools where review of travel has been completed			No. and % of schools where travel plan deemed necessary and developed			No. and % of schools where travel plan has been implemented		
No of Schools in Hillingdon	2006/07			2007/08			2008/09			2009/10			Base 2010/11			2011/12			2012/13			LIP2 Target 2013/14					
Primary 65	0	65	42	31	65	50	23	65	62	15	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
Secondary 18	0	18	12	5	18	13	8	18	15	62	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Independent 11	0	11	1	0	11	3	0	11	4	4	11	9	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Special 6	0	6	1	0	6	1	0	6	4	4	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Total 100	0	100	56	36	100	67	31	100	85	85	100	98	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

L5 TRAFFIC VOLUMES IN HILLINGDON				
Target	Maintain a 4% increase in average daily traffic flow percentage from 20,569 trips to 20,709			
Data source	Data can be collected from a variety of sources such as automatic traffic counters, pollution monitors and traffic surveys.			
Link to LIP objectives	Obj1, Obj3, Obj7, Obj8, Obj9, Obj10			
Link to MTS Goals	Mode Share, CO ² , Air Quality			
Evidence that the target is ambitious and realistic	Journey times by mode (Table 2.3) show that Hillingdon residents have little alternative to using the car between the north and the south within the borough. Public transport will require some time to be re-structured and attract ridership from existing drivers			
Key actions for the Council	<p>Manage their road networks for the benefit of all road users this report has been produced to assist in this work required in the Traffic Management Act 2004 places a statutory Network Management Duty on all local traffic authorities. The London Borough of Hillingdon is using data produced by the Department for Transport.</p> <p>The Council is currently undertaking further work on this issue including an initial analysis of vehicle volume and speed data collected on local roads in 2009. To supplement this data the Council's Traffic Management Section put in place a programme to collect data on the borough's B & C road network (Local Strategic Network)</p>			
Key actions for Partner organisations	The DfT carry out manual classified surveys on all 'A' roads in the country and the data collected on Hillingdon's network is made available to the Council. This data, in the form of Annual Average Daily Flows (AADFs), can be used to monitor trends and traffic flows on the classified 'A' road network to give an accurate picture of the state of traffic on the borough's major roads.			
Principal risks and how they will be managed	Transport impact of planning development pressures, especially applications granted on appeal			
Interim milestones Traffic Volumes (Average Daily Flows)				
2006 to 2008	Base 2010	2011	2012	2013
20,469	20,569	20,609	20,669	20,709

L6 HEATHROW AIRPORT, MODAL SHARE FOR HILLINGDON						
Target	Increase the Public Transport Mode Share from 33% (Passengers) and 37% (Staff) in 2010 to 40% for both Passengers and Staff					
Data source	Heathrow Surface Access Strategy (HASA) survey results Heathrow Area Transport Forum Steering Group Data					
Link to LIP objectives	Obj1, Obj3, Obj4, Obj7, Obj9					
Link to MTS Goals	Mode Share, CO2, Air Quality					
Evidence that the target is ambitious and realistic	40.7% sustainable transport target has been achieved, exceeding 40% target for 2012 for non transferable passengers Hillingdon's percentage is only 32% and needs to be brought into line. The proportion of staff using single occupancy cars reduced from 71% to 61% since 2004, with increases across all sustainable travel modes, and exceeding the 2012 target of 65%.					
Key actions For the Council	Actively participate in Heathrow Area Transport Forum and West London Liaison Meetings. Pursue initiatives to introduce direct bus services between Heathrow and the north of the borough, align the route via popular destinations. Ensure full integration of initiatives within planning development management Procedures.					
Key actions for partner organisations	BAA to monitor and review its public transport service provision. BAA and transport providers to actively engage in quality bus partnerships. BAA, TfL and transport operators to negotiate constructively demand responsive transport solutions					
Principal risks and how they will be managed	Economic climate Commercial viability for operation of bus services Availability of resources to operate services					
Interim milestones Traffic Volumes (%)						
Mode	2007	2008	Base 2010	2011	2012	2013
Kiss and Fly	22.7	25.2	24.1	*N/A	*N/A	24
Single Occupancy Car			49	*N/A	*N/A	*N/A
Hire Car	2.8	2.3	1.4	*N/A	*N/A	*N/A
Taxi/ Minicab	31.3	32.5	29.6	*N/A	*N/A	*N/A
Bus/Coach	27.1	26.3	27.1	27.1	*N/A	*N/A
Tube	2.1	1.7	2.1	*N/A	*N/A	*N/A
Rail	4.3	0.8	2.7	*N/A	*N/A	*N/A
PT ALL (Staff)	A		37.0	37.0	38.0	40.0
PT ALL (passengers)	33.5	28.8	33.0	33.0	35.0	40.0
Other	0.2	1.8	3.5			
Total	100	100	100	100	100	100

* Please note that HASA data released next year will be used for future trajectory data

L7 TRANSPORT NETWORK - ACCESSIBILITY AND SOCIAL INCLUSION						
Target	Number and rate of trips made by Equality and Inclusion Target Groups					
Data source	Evidence submitted through Mobility Forum					
Link to LIP objectives	Obj1, Obj3, Obj4, Obj7, Obj9					
Link to MTS Goals	Better Streets, Mode Share					
Evidence that the target is ambitious and realistic	<p>Considerable effort was made to develop a specific accessibility component within LIP2.</p> <p>The package of measures proposed carries considerable support.</p> <p>90% of pedestrian crossings have facilities for disabled people considerably higher than London and national averages and a marked increase from 2007/08 levels.</p>					
Key actions for the Council	<p>Continue to encourage inclusive access at neighbourhood level.</p> <p>Ensure through the development management process that places of work and leisure, streets, neighbourhoods, parks and open spaces are designed to meet the needs of the community at all stage of peoples lives.</p> <p>Implement measures to provide improved access to people with a mobility impairment especially those listed in the delivery programme, supplemented by tactile paving, dropped kerbs, footway widening, seating provision and surface upgrades.</p>					
Key actions for partner organisations	<p>Local stakeholder participation in the programme for local area accessibility to ensure that key priorities are delivered.</p> <p>Constructive two-way liaison at relevant forums.</p>					
Principal risks and how they will be managed	<p>Resource availability to secure full implementation</p> <p>Signal upgrades are dependent on TfL support</p>					
Number of Trips made by Equality and Inclusion Target Groups						
Mode	2007	2008	Base 2010	2011	2012	2013
Public Transport			5113			
Walk/Cycle			10567			
Car (+van/lorry/motorcycle)			16410			
Taxi			1385			
Other			199			
All Modes			33674			

Note LATS survey for 2011 will give an update and assist in developing a target

L8 SCHOOL ROAD SAFETY							
Target	Increase the number of Primary and Secondary School Safety Reviews from 36 (Primary) and 8 (Secondary) in 2010 to 65 (Primary) and 14 (Secondary) in 2013/14						
Data source	London Accident Analysis data bank Site observations						
Link to LIP objectives	Obj1, Obj3, Obj7, Obj8, Obj9						
Link to MTS Goals	Road Safety, Cycling, Better Streets						
Evidence that the target is ambitious and realistic	New project – progress to date shows target is realistic						
Key actions for the Council	Carry out reviews in a systematic manner Annual report on findings and recommendations Specific accident remedial and prevention LIP2 schemes Tailor made campaigns to improve safe behaviour such as Moving On classroom visits for year 6 (11 years old children) Enable teachers to teach road safety in SEN (Special Needs Education) schools by providing packs with details for activities for the children to engage in to learn basic road safety skills. Explain how to use to every SEN school within the borough.						
Key actions for Partner organisations	Teachers to teach road safety in SEN (Special Needs Education) schools by using packs with details for activities for the children to engage in to learn basic road safety skills. Use training packs at schools.						
Principal risks and how they will be managed	Availability of resources to review road safety Target will have to be adjusted to level of resources						
Interim milestones – School road safety reviews							
No of Schools in Hillingdon	2007	2008	2009	Base 2010	2011	2012	2013
Primary: 71	15 (21%)	15 (21%)	27 (38%)	36 (51%)	45 (63%)	54 (76%)	65 (91%)
Secondary: 17	2 (12%)	2 (12%)	8 (47%)	8 (47%)	10 (59%)	12 (71%)	14 (82%)
Total: 88	17 (16%)	17 (16%)	35 (40%)	44 (50%)	55 (62%)	66 (75%)	79 (90%)

Pro-forma B: Locally specific targets for mandatory indicators to deliver LIP2

v1.0

Borough:		Hillingdon											
Core indicator	Definition	Year type	Units	Base year	Base year value	Target year	Target year value	Trajectory data				Data source	
								2010	2011	2012	2013		
BUS SERVICE R	Excess wait time in mins	Calendar	Mins	2010	0.9	2013	0.9	2010	2011	2012	2013	iBus	
								0.9	0.9	0.9	0.9		
PRINCIPAL ROAD ASSET CONDITION	% length in need of repair (principal)	Calendar	percentage	2010	4	2013	4	2010	2011	2012	2013	Detailed Visual Inspection (DVI) data supplied for each borough to TfL by LB Hammersmith and Fulham	
	% length in need of repair (non principal)				6		6	6	6				
ROAD TRAFFIC CASUALTIES	Total number of people killed or seriously injured	Calendar	Number	2010	104	2013	92	2010	2011	2012	2013		London Road Safety Unit
								104	100	96	92		
ROAD TRAFFIC CASUALTIES	Total casualties	Calendar	Number	2010	854	2013	794	2010	2011	2012	2013	London Road Safety Unit	
								854	834	814	794		
MODE SHARE	% of trips by walking and cycling	Calendar	percentage	2010	25	2013	35	2010	2011	2012	2013	LTDS	
								25	28	32	35		
CO ² EMISSIONS	CO ² emissions	Calendar	Tonnes/year	2010	1456	2013	1309	2010	2011	2012	2013	GLA's London Energy and Greenhouse Gas Emissions Inventory (LEGGI)	
								1456	1405	1356	1309		

Pro-forma B: Locally specific targets for mandatory indicators to deliver MTS													v1.0	
Borough:	Hillingdon													
Core indicator	Definition	Year type	Units	Base year	Base year value	Target year	Target year value		Trajectory data				Data source	
ASSET CONDITION	% length in need of repair (principal)	Calendar	percentage	2010	4	2031	4		2014	2021	2026	2031	Detailed Visual Inspection (DVI) data supplied for each Borough to TfL by LB Hammersmith and Fulham	
	% length in need of repair (non principal)				6		4		2014	2021	2026	2031		
CO ² EMISSIONS	CO ² emissions	Calendar	Tonnes/year	2010	1456	2031			2014	2021	2026	2031		GLA's London Energy and Greenhouse Gas Emissions Inventory (LEGGI)
									1309		855			

Pro-forma B: Additional (non-mandatory) local ta												
Local indicator	Definition	Year type	Units	Base year	Base year value	Target year	Target year value	Trajectory data				Data source
								2010	2011	2012	2013	
CONGESTION HOTSPOTS	Increased throughput by public transport (number of bus movements links) Increased throughput by active travel Reduced delay (bus delay/minutes) Reduced Emissions (CO2 and No2 tonnes per year)	Calendar	Various	2010		2013						TfL West London Model, TEEM and LEGGI Emissions Data Base
PEDESTRIAN TRAINING	Number of (Year 3 children 7 years) trained	Calendar	Number	2010	3269	2013	3269	2010	2011	2012	2013	Road Safety Programme
								3269	3269	3269	3269	
CYCLE TRAINING	Bikeability	Calendar	Number	2010	1750	2013	2000	2010	2011	2012	2013	Road Safety Programme
								1750	1750	1750	2000	
SCHOOL TRAVEL PLANS	Car dependent trip (Primary)	Calendar	Percentage	2010	40	2013	30	2010	2011	2012	2013	Annual School hands-up surveys
	Car dependent trip (Secondary)				25		15	40	36	33	30	
								25	21	18	15	
TRAFFIC VOLUMES IN HILLINGDON	Reduction in traffic volumes	Calendar	Percentage	2010	20569	2013	20709	2010	2011	2012	2013	automatic traffic counters,
								20569	20609	20669	20709	

APPENDIX A:

MAJOR SCHEME PROPOSAL AT YIEWSLEY/WEST DRAYTON FOR 2011/12

Purpose of scheme

1. To revitalise one of the borough's key town centres – which in fact comprises the heart of two adjacent communities – the wards of Yiewsley and West Drayton. The route in question forms part of a link between Uxbridge and Cowley to the north and Heathrow to the south, and includes key public transport routes which from 2014 will also interact with the Crossrail station at West Drayton. Following a very extensive public consultation in 2009, there have been a number of key aspirations that have been identified by the local community, including a desire for a much higher quality of streetscape, enhanced landscaping, improvements to a number of key landmarks and the opportunity to open up access to and from the Grand Union Canal, which intersects the centre of the route. At present, while there are a good number of bus stops within this corridor, few are well integrated and accessible, and the opportunity will be taken to rectify this but in a way that does not impact in a negative way on traffic congestion. On street short term parking will remain a key issue of concern to the many smaller traders – in particular in West Drayton – and the proposals have been carefully tailored to achieve a 'win win' situation of little impact on overall parking space provision but coupled with some widening of the narrower footways.

Description of the key urban design elements

2. The twin town centres of Yiewsley and West Drayton lie in the south of the London Borough of Hillingdon, and the approximately one kilometre long corridor that runs from Falling Lane, Yiewsley (in the north) to Swan Road, West Drayton (in the south) mainly comprises a typical urban mix of small and large retail, new housing, office and other mixed uses. Major redevelopment – in particular in Yiewsley – has led to large gaps in the former retail frontages and has threatened some loss of identity. The facades of most of the buildings date from the period of post WWI expansion, but there are a number of older buildings and landmarks that help give the area character. The public highway space between opposite parades of shops varies considerably in width, with for example some wide areas of paving in High Street, Yiewsley that lend themselves to the creation of more attractive urban spaces (with the creation of piazza areas, with trees, benches, high quality paving and uplighters) and some areas where narrow footways and dense parking (such as in parts of Station Road, West Drayton) will benefit from reconfiguring to make the footways wider and more inviting. An extensive public consultation, with a series of open questions posed to local residents, brought an excellent response and a fund of ideas and concepts which the Council has been able to embrace and work into the present proposals. The has been especially fortunate to have formed a very positive

working relationship with the highly proactive local Town Centre Action Group, which has shared information of the draft proposals at various stages on its own website, which also generated interest in the local media.

3. In advance of the Major Scheme Project, the Council decided to implement two 'pilot areas' – one each in Yiewsley and West Drayton – and in 2009/2010 these were implemented with £0.5m of money derived mainly from the Council's own capital reserves and s106 contributions. These two pilot areas were publicised and illustrated with the use of 3D artwork and the result has been very well received by local groups. Key aspirations in these pilot schemes were to test a proposed pallet of materials, paving layouts, remodelled kerb lines, soft landscaping and in particular the careful rationalisation of street furniture. Useful lessons have been learned from these pilot projects which will feed in to the major project.

4. In addition to the opportunity to significantly enhance the paving and carriageways – and remove excess street clutter and improve the soft landscaping – two key locations have been identified which may be seen as 'iconic' in the context of the local area; in other words, these are such significant landmarks that major improvements to both will reinforce the message of urban improvement in Yiewsley and West Drayton.

5. One of these is Colham Bridge, a 1930s concrete and brick road bridge over the Grand Union Canal (just south of Horton Road, Yiewsley). This is the third bridge in over a hundred years, and this location has long formed a key staging point for those travelling along this road to and from Uxbridge. The existing solid brick parapets, coupled with the dense and poorly integrated soft landscaping, conspire to make the canal largely invisible to passers-by on the road and in the same way, make the town centre largely unknown to users of the canal and its towpaths. The original concept brief was to find a way to enhance the bridge, possibly in the form of lighting over the parapets; this has developed to the present proposals of bold open stainless steel arches with integral downlighters, which will provide not only a significant and exciting visual statement but will open up the vista of the canal and towpaths. Combined with improvements to the soft landscaping and separate work that is being progressed in conjunction with British Waterways, this particular feature will be an especially bold feature which the local town centre action has already described as 'Yiewsley's Wembley Arch'.

6. The second 'iconic' feature is the substantial concrete rail bridge just north of the junction with Tavistock Road. This bridge carries the main rail line in to Paddington and in due course the Crossrail line, with a new station planned nearby at West Drayton Station. The present proposals do not include any measures at the station itself, as it is recognised that the design work by Crossrail and their Partners is still being developed, but it is recognised that the whole area will benefit from significant visual enhancement even if, as is the

case, Network Rail have no plans at present to invest in the rail bridge structure, which is ugly and suffers from water leaks that have led to stains on the undersurfaces. As part of the proposals, the Council plans to invest in improving the pedestrian walkways under the bridge, cleaning the structure and mounting suitable cladding slightly away from the bridge structure. Uplighters and improved railings to deter pigeon infestation problems are planned as part of this work. The main bridge parapet is plain concrete, and in light of the need to avoid fixing any structures that might interfere with the integrity of the bridge structure (and need future maintenance) the proposals include a deep-clean of the external faces of the bridge abutments and parapet and careful painting of Trompes-l'œil, to create a significantly enhanced appearance. There will be an opportunity to engage the community in the final design of the artwork.