London Borough of Richmond upon Thames

Third Local Implementation Plan

November 2018

Draft for consultation

LONDON BOROUGH OF RICHMOND UPON THAMES

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1. Introduction and preparing a LIP

Introduction

The Local Implementation Plan (LIP) is a statutory document prepared under Section 145 of the GLA Act and sets out how the borough proposes to deliver the Mayor's Transport Strategy (MTS) in its area, as well as contributing to other local and sub-regional goals. It has been developed in accordance with the Guidance for Borough Officers on Developing the Third Local Implementation Plan (March 2018).

This document is the third LIP for the London Borough of Richmond upon Thames (LBRuT). It covers the same period as the MTS (published in March 2018) and it also takes account of the transport elements of the draft London Plan and other relevant Mayoral and local policies.

The document sets out long terms goals and transport objectives for the LBRuT for the next 20 years, a three-year programme of investment starting in 2019/20, and includes delivery proposals for the period 2019/20 - 2021/22 and the targets and outcomes the borough are seeking to achieve. A more detailed delivery plan is provided for the financial year 2019/20.

This LIP identifies how the LBRuT will work towards achieving the MTS goals of:

- Healthy Streets and healthy people
- A good public transport experience
- New homes and jobs

The Council notes that the overarching aim of the strategy is for 80 per cent of all trips in London to be made on foot, by cycle or using public transport by 2041, compared to 63 per cent today, and there are different targets set for central, inner and outer London. The LIP outlines how Richmond Council will set local priorities and targets to assist with achieving this aim.

This document also outlines how the Council will work with TfL to assist with delivering the outcomes, polices and proposals of the MTS.

Local approval process

Elected Members provided guidance to the borough officers during the development of the Draft LIP. The Draft LIP was considered by the Housing, Community Safety and Environment Overview and Scrutiny Committee on the 29th October 2018 and by Cabinet on 15th November 2018.

2. Borough Transport Objectives

Introduction

This chapter sets out the local policy context for the third round of LIPs. It covers the LBRuT's detailed interpretation at a spatial level and the local policies and proposals which will help deliver the MTS. The chapter also considers the link between the LIP and other key frameworks against which the borough plans and delivers local services.

The LIP is informed by evidence and analysis of local needs and issues. It is shaped by the wider context of the MTS vision, the MTS Healthy Streets Approach and the MTS policies, proposals and outcomes.

Local context

Geography

Richmond upon Thames is in southwest London and is bordered by the London Borough of Hounslow to the north, the London Borough of Wandsworth to the east, the Royal Borough of Kingston upon Thames to the south, and Surrey to the west.

The borough covers an area of 5,095 hectares (14,591 acres) and is the only London borough spanning both sides of the Thames. The borough has a resident population of 197,300 and consists of some 85,100 households.

The corporate vision is for Richmond upon Thames to be the best borough in London; a borough identified by its green character, historic buildings, high quality appearance, vibrant high streets and outstanding schools and services; one where business and the voluntary sector can thrive; where citizens can help change neighbourhoods in which they live, and feel safe being part of one of London's safest boroughs. A borough where the most vulnerable of our residents are supported and where everyone can live as independently as possible with good health and a sense of wellbeing for the better.

Richmond's Spatial Strategy reinforces the borough's context as an outer London borough that is characterised by a high quality natural, built and historic environment with highly valued open landscape, parks, green spaces and opportunities for sport, recreation, culture and tourism. The overarching principles are to protect the unique local character, maintain and enhance open spaces as well as heritage, achieve high levels of sustainability and ensure all communities have access to housing, employment opportunities, services and facilities.

The 2015 Residents' Survey showed that almost all Richmond residents (97%) are satisfied with their local area as a place to live. The natural environment with its high-

quality parks and open spaces, the location and convenience as well as the quiet and peaceful nature of the borough are the most important attributes for the borough's residents.

The borough is composed of 14 neighbourhoods, each with a distinct community, facilities and local character. The borough's neighbourhoods are attractive with many listed buildings and Conservation Areas. The local character of each is unique, recognisable and important to the community and to the character of the borough as a whole. The special quality and character of the borough and its neighbourhoods has led to the designation of 72 Conservation Areas and over 1,100 listed buildings.

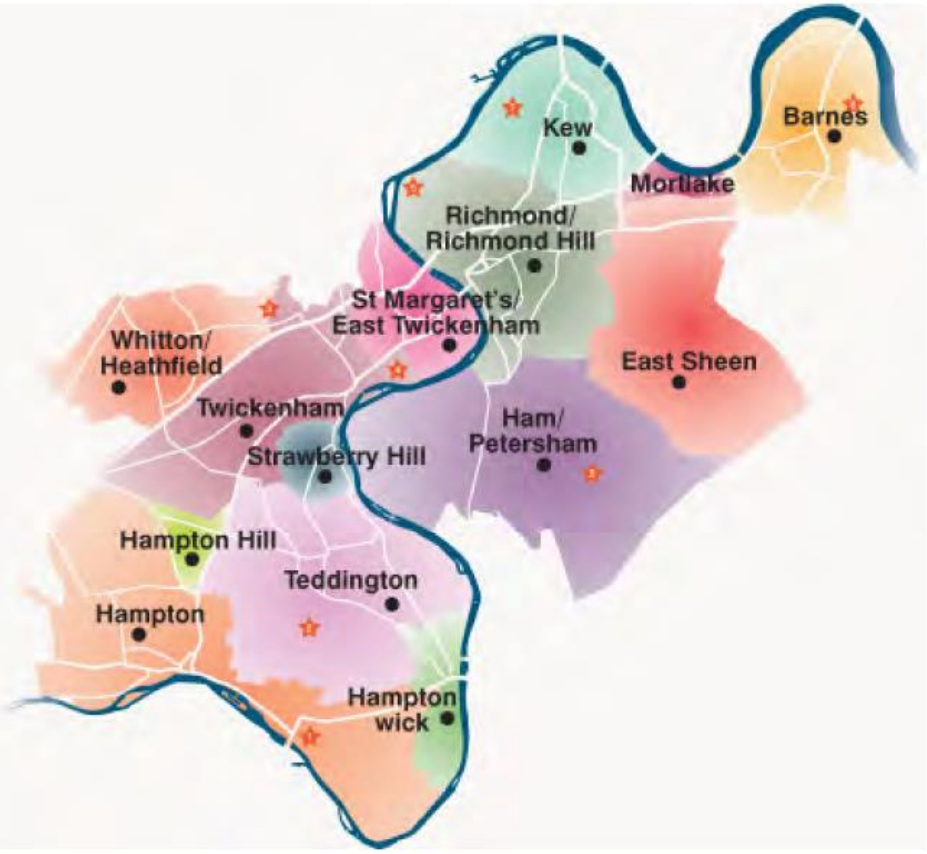

Figure 1: Richmond's 14 neighbourhoods

The borough's main town centre is Richmond, and there are four district centres at Twickenham, Teddington, East Sheen and Whitton, as well as many smaller local centres. Richmond has a range of convenience and comparison shopping, is a major office location and has a well-developed entertainment sector, theatres and cinemas. The town has considerable historic interest, Richmond Green and the Thames side location making it an attractive destination for tourists. Public transport connections are good with both rail and Underground train services.

Just over 50 per cent of the borough is greenspace, including historic landscapes such as Richmond and Bushy Parks and the Old Deer Park, the River Thames and the River Crane corridors and other tributaries.

In addition to the parks and open spaces, visitors come to major attractors within the borough such as Kew Botanical Gardens, Hampton Court Palace, the Wildfowl and Wetland Centre and the Rugby Football Union at Twickenham and other sporting venues. Approximately 4.5 million tourists visit the borough every year, generating an income of £200m.

The borough's historic environment and its protected open spaces limit the opportunities for development within the borough. Most new developments are focused on small brownfield sites, with a small number of larger sites identified within the Local Plan. Expected growth levels for the borough are the lowest of any outer London borough with an identified ten-year capacity of 8,110 new homes (by contrast, Wandsworth is 23,100, Kingston 13,640 and Hounslow 21,820).

Demographics

The borough's residents are among the most affluent in London. The median household income is £53,470, which is the highest of any outer London borough. There were approximately 95,900 employee jobs provided in the borough in 2008 and 14,185 active businesses.

Employment levels amongst residents are high, with a large proportion employed in highly skilled jobs. Education attainment levels are the highest amongst the outer London boroughs, as is gross weekly pay. While overall deprivation levels in the borough are low, there are also pockets of relative deprivation around Castlenau, Ham, Hampton Nursery Lands, Heathfield, Mortlake and Whitton.

Housing is mainly in owner-occupation (64% per the 2011 Census), and most people live in houses (nearly 60%). A key issue for the borough is the lack of affordable housing, with median house prices the highest of any borough in outer London (£535,176 in 2014). The lack of affordable housing makes it difficult for first time buyers and affordability can have an impact in terms of overcrowding and poor quality housing.

There is less ethnic diversity in the borough than many other parts of London, with 71% of residents describing themselves as White British, and an additional 12% describing themselves as 'white other'. The largest minority groups are Asian/Asian British: Indian, at 2.8% of the population, and Asian/Asian British: Other, at 2.5%. English is spoken as the main language by 90% of residents, and 99% can speak English well.

Transport & the environment

Transport in the local area is both a means to an end and a popular leisure activity. The borough has the highest cycling levels in outer London and walking is a popular option for many local trips.

There is a total of 393 kilometres of public highway in the borough, including 13 kilometres of the Transport for London Road Network (TLRN). The Council is the highway authority for all but the TLRN and Crown Roads (those running through the Royal Parks). The A316 (Great Chertsey Road) and A205 (South Circular) are the two major trunk roads in the borough and are both part of the TLRN.

Figure 2 shows the designated 'Street Types' for all roads within the borough. Street Types are designated based on a combination of the movement and place function of each street. Street Types are intended to help ensure that new schemes are appropriate to their location. There are nine Street Types, based on three possible movement categories and three possible place categories.

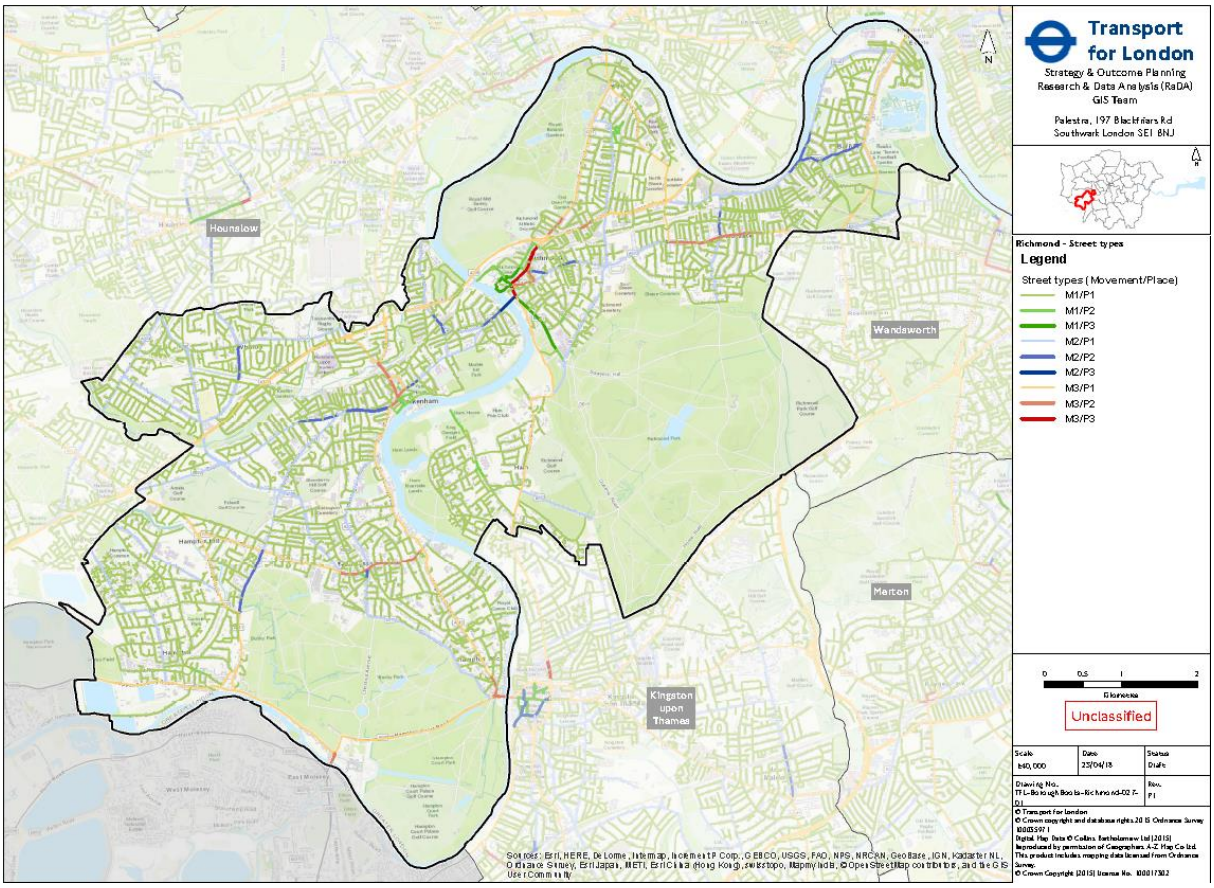

Figure 2: Street Types (Source: TfL)

The vast majority of the roads in the borough are designated as local streets (M1/P1), and the TLRN designated as core road (M3/P1). Additional core roads include the A308, Hampton Court Road and High Street in Hampton, as well as the A312, A307 and the A310. Locations with the highest ‘place’ designations are all within Richmond town centre, with parts of Twickenham, Teddington, Hampton Hill, Whitton, Sheen and Barnes having the medium place function.

The River Thames is a major source of severance within the borough, as are the Royal Parks and some portions of the national rail network. There are ten bridges that cross the River Thames within the borough. Of these, seven are road bridges and three are foot bridges. The largest gap between road bridges is over 7km, between Richmond Bridge and Kingston Bridge.

Just over 75% of households in the borough have at least one car or van, with overall car ownership at 1.06 cars per household and a car trip rate of 1.17. Both car ownership and car use rates are comparable to other outer London boroughs. Car ownership levels are highest in the west of the borough, in Hampton Hill, west Twickenham and Whitton. Ownership levels are also high in the area bordering the north side of Richmond Park, where housing densities are very low.

Access to public transport varies across the borough, with Public Transport Accessibility Levels (PTALs) ranging from 6a (the second highest level) in Richmond and 5 in Twickenham, to PTAL 2 and below in most of the borough. There is some correlation between car ownership and PTALs, with lower car ownership levels in Richmond and Twickenham.

There are 14 rail stations across the borough. While most are radial routes offering services to Central London, the borough does feature one of the few orbital routes in London with the Kingston loop running between Richmond and Kingston via Twickenham, Strawberry Hill, Teddington and Hampton Wick.

Many of the borough’s train station are in residential areas and are vital for people to access employment, shopping and leisure facilities. Although rail routes are largely segregated, there are four level crossings located in the east of the borough at:

- Vine Road, Barnes
- White Hart Lane, Barnes
- Sheen Lane, Mortlake
- Manor Road, North Sheen

Around 30 bus routes serve the borough. The major bus interchanges are located at Richmond, Twickenham and Teddington town centres. In addition, a bus garage is located at Fulwell. The garage is divided in two with one part operated by Abellio

London and the other part by London United. Between the two operators, 17 bus routes operate from the garage.

Due to the large open spaces, much of the borough has low NOx and PM levels. The worst air quality levels are along the TLRN, particularly the A316 from East Twickenham to Richmond. NOx levels are also high on the South Circular through Sheen, along Castelnau through Barnes and in Richmond and Twickenham town centres.

Changing the transport mix

Challenges and opportunities

The Mayor's Transport Strategy sets the strategic direction for transport across London. The strategy includes a headline target for 80% of all journeys to be undertaken by walking, cycling or public transport by 2041, including 75% of trips in outer London. On a local level, this will require a 14% mode shift away from cars over the next 25 years, from a baseline of 61%. Achieving this target is reliant on ongoing investment in the public transport and cycling networks, and public realm improvements that will make it easier and more enjoyable to walk.

The unique features and setting of LBRuT provide several challenges and opportunities in helping to achieve this target. The borough has strong base levels of walking and cycling (32.2% and 6.2%), with a high quality public realm in many of the town centres. Access to public transport is limited in many parts of the borough, including parts of Ham and Petersham and areas in the west of the borough. Car ownership levels are high and continue to increase, but vehicle mileage is decreasing. Severance can make some local journeys difficult, particularly for those with limited mobility. Community engagement levels are high across many parts of the borough, and it's an imperative that local groups are supportive of any infrastructure changes.

Increasing the mode share for walking and cycling provides the best opportunity for decreasing car use in LBRuT. In the long term this will be supported by improved accessed to public transport, particularly the arrival of Crossrail2 in the 2030s.

Walking

Walking plays an important part in urban life and is part of almost all journeys, whether as the complete journey or as a link between other modes of transport making up longer trips. The baseline mode share for walking is 32.2%, which is the second highest of any outer London borough, just behind Waltham Forest at 32.5%.

Per TfL's Analysis of Walking Potential 2016, there are 183,100 existing walking trips and 56,500 potentially walkable trips per day. Teddington and Richmond town centres are both identified as having high numbers of potentially walkable trips, and to a lesser extent, Twickenham, Sheen and Whitton. Figure 3 shows the potentially switchable trips across the borough. Overall, journeys to or from town centres are recognised as providing the greatest opportunity to encourage more walking. On a local level, there is also potential to increase walking levels for journeys to and from school.

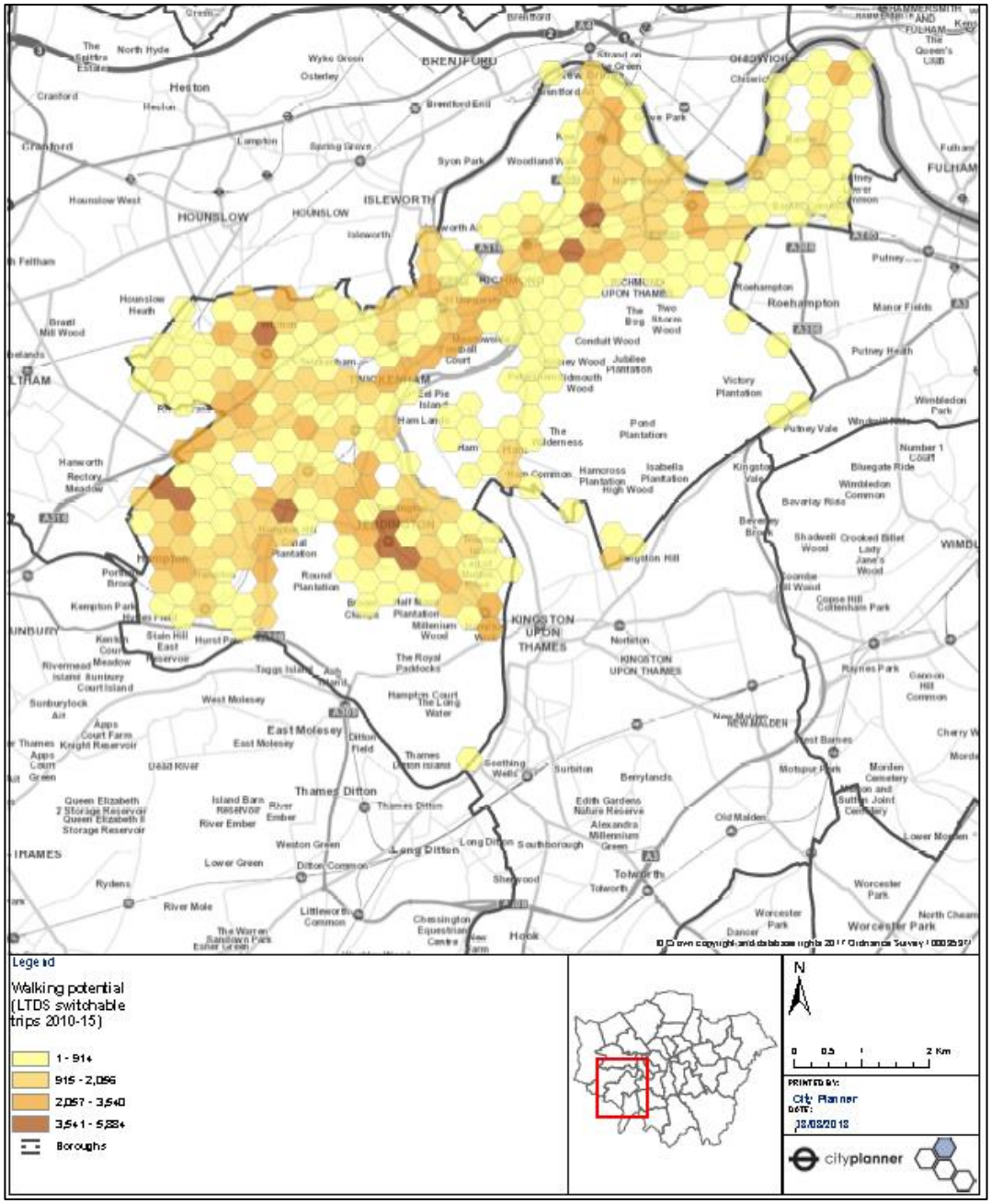

Figure 3: Potentially walkable trips (Source: TfL CityMapper)

Cycling

The cycling mode share for the borough stands at 6.2%, and the Active People Survey indicates that in 2014/15, 33% of adults in the borough cycled at least once a month. Per TfL's Analysis of Cycling Potential, 15% of Richmond's potential cycle trips are currently achieved (compared to 6% across Outer London). Most of the trips that have been classed as cyclable are currently undertaken by car, with high concentrations of these trips located in the south and west of the borough.

Introducing high-quality cycling routes, where people feel safe cycling, will be key to increasing cycling levels in the borough. Safety is identified as a key barrier to increased levels of cycling, particularly a fear of collisions, conflicts with motorists and busy traffic conditions. TfL's Attitudes to Cycling report has found that infrastructure improvements appear to be a key factor behind Londoners cycling more.

There are no strategic cycle routes currently located within the borough. A Quietway route connecting Teddington Lock to Richmond Park is currently in development with construction due to start in late 2018, and there remains considerable scope for further development of the strategic cycle network within the borough.

There are many other barriers to cycling that can also be addressed to encourage more people to cycle, more often. Dockless bikes have been recently introduced in the borough on a trial basis, improving access to bikes for everyone in the area. Ensuring that the supply of cycle parking facilities is in line with demand at stations, town centres and workplaces is an ongoing piece of work as cycling levels and travel patterns change over time. Working with schools to increase the numbers of children cycling is also critical, and the Council has engaged a BikeIt officer to work with several schools in the borough over the 2018/19 school year.

Public transport

The baseline mode share for public transport in the borough is 21.7%, which is very similar to other outer London boroughs - for example, Kingston is 21.6%. The lower densities in many areas make public transport less viable. While most areas are served by buses or trains, services are often infrequent or indirect and journey times cannot compete with the private car.

The arrival of Crossrail2, currently expected in the early 2030s, will increase the number of trains on the Shepperton line from four to six per hour, and up to eight trains per hour serving Hampton Wick. This will provide a welcome boost in an area with low PTALs.

Resident engagement levels are high in the borough, with many residents taking great pride in the place that they live.

Borough objectives

The overarching aim of this plan is to set the course for LBRuT to achieve the target of 75 per cent of trips to be made by walking, cycling and public transport by 2041, from a baseline of 61 per cent.

The following objectives support this aim and will provide the over-arching framework for transport improvements in the borough through 2041.

LBRuT will:

- Provide safe and sustainable transport choices for all people, including those with disabilities and limited mobility
- Encourage and enable higher rates of walking and cycling through the development and improvement of high-quality, comprehensive walking and cycling corridors and supporting measures, thereby increasing physical activity levels amongst residents
- Create attractive and pleasant environments and spaces that promote active and healthy lifestyles, including recognising their benefits to residents' social life and their economic benefits to the borough's centres. Locations will be assessed against the Healthy Streets Indicators
- Work closely with school and major employers to decrease car use and encourage and enable the uptake of active modes
- Make better use of the kerbside in town centres, with a focus on reducing conflict between different road users, encouraging active travel and improving bus speeds
- Reduce the number of people killed or seriously injured through collisions in LBRuT, with the long-term aim of achieving Vision Zero by 2041, by lowering speed limits on local roads, working with TfL to lower speeds on the TLRN, addressing collision hotspots and through education and training
- Reduce the environmental impacts and pollution levels due to transport, and encourage improvements in air quality, particularly along major roads and areas that already exceed acceptable air quality standards. This will include supporting the ULEZ expansion to the South Circular and improving access to electric vehicle charging points
- Encourage improvements in public transport, including quality and connectivity of transport interchanges, and support the use of Smart City technology and practices

- Improve accessibility to rail stations, including step-free access to platforms, by working with partners, including the operating companies
- Seek to improve bus journey times, particularly along key corridors and through town centres
- Support good growth by allowing development that may provide fewer parking spaces, including car free schemes, where they can demonstrate that there would be no unacceptable adverse impact on the surrounding area
- Ensure that major developments are concentrated in areas of high public transport accessibility, enabling new residents the best opportunity to use active, efficient and sustainable travel
- Work in partnership to promote safe, sustainable and accessible transport solutions, which minimise the impacts of development including in relation to congestion, air pollution and carbon dioxide emissions, and maximise opportunities including for health benefits and providing access to services, facilities and employment

These objectives are consistent with both the Mayor's Transport Strategy and the Richmond Local Plan. Targets and indicators have been set to ensure all objectives have been achieved and are detailed in Chapter 3.

Mayor's Transport Strategy outcomes

This section details how LBRuT will support the delivery of the individual outcomes within the Mayor's Transport Strategy. It details the challenges and opportunities for delivery within a local context, and is mindful of the funding currently expected to be available for implementation.

Outcome 1: London's streets will be healthy and more Londoners will travel actively

Challenges and opportunities

The borough is well poised to achieve the Mayor's targets for active travel. The borough already has the highest combined levels of walking and cycling (38.4%) in outer London and the potential to achieve even more. The borough also has the highest proportion of residents achieving a healthy level of activity through travel of any outer London borough, with 40% of borough residents currently doing at least 20 minutes of active travel each day.

The current high levels of cycling are achieved without any access to the London-wide strategic cycle network. Access to the emerging network will help cycling to become an obvious choice for even more journeys. It is expected that by 2021, 15 per cent of the population will be within 400m of the network, and that this should

increase to 72 per cent by 2041. The strategic cycle network is composed of Cycle Superhighways, Quietways and the Central London Grid. Within LBRuT, the proposed network is made up entirely of Quietway routes, with three proposed for implementation by 2022, as shown in Figure 4.

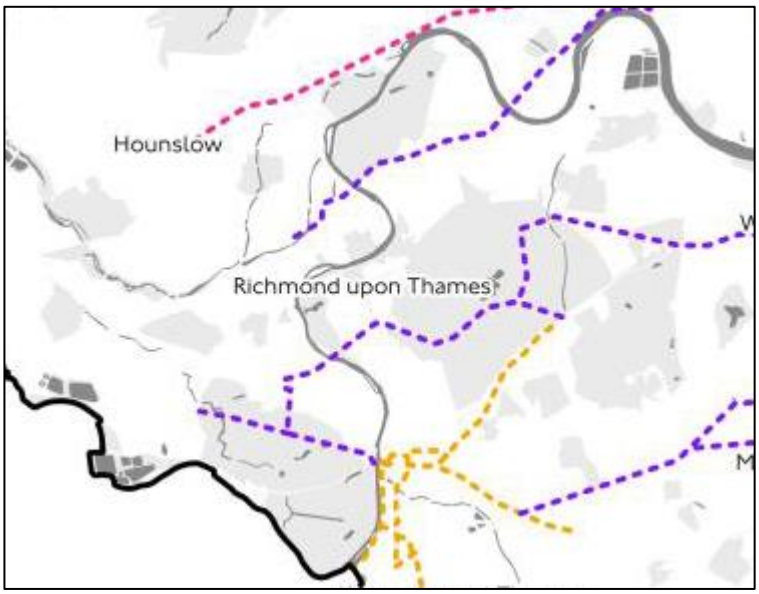

Figure 4: Proposed Quietways (Source: TfL Strategic Cycling Analysis)

An early challenge to reaching this outcome has been local opposition to the portion of the Quietway that was proposed to run from Bushy Park to Richmond Park via Teddington High Street. Following consultation on the proposed route in 2016, the scheme was revised to run from Teddington Lock to Richmond Park. The approved portion of the route is due for implementation in 2019.

The additional two routes proposed for the borough – Bushy Park to Kington and Twickenham to Hammersmith - are currently being reviewed by TfL and, pending the timescales of the review, it may not be feasible for these routes to be in place by 2022.

TfL's Strategic Cycling Analysis has highlighted several opportunities for additional cycle corridors in the area. Twenty-five 'top potential' routes across London have been identified, of which two are in LBRuT - from Twickenham to Teddington and Sheen to Putney. The need for strategic routes has also been identified between Twickenham and Hampton Hill, Richmond and Kingston and Teddington and Kingston. Development of these corridors into cycling routes could further increase the cycling mode share within the borough.

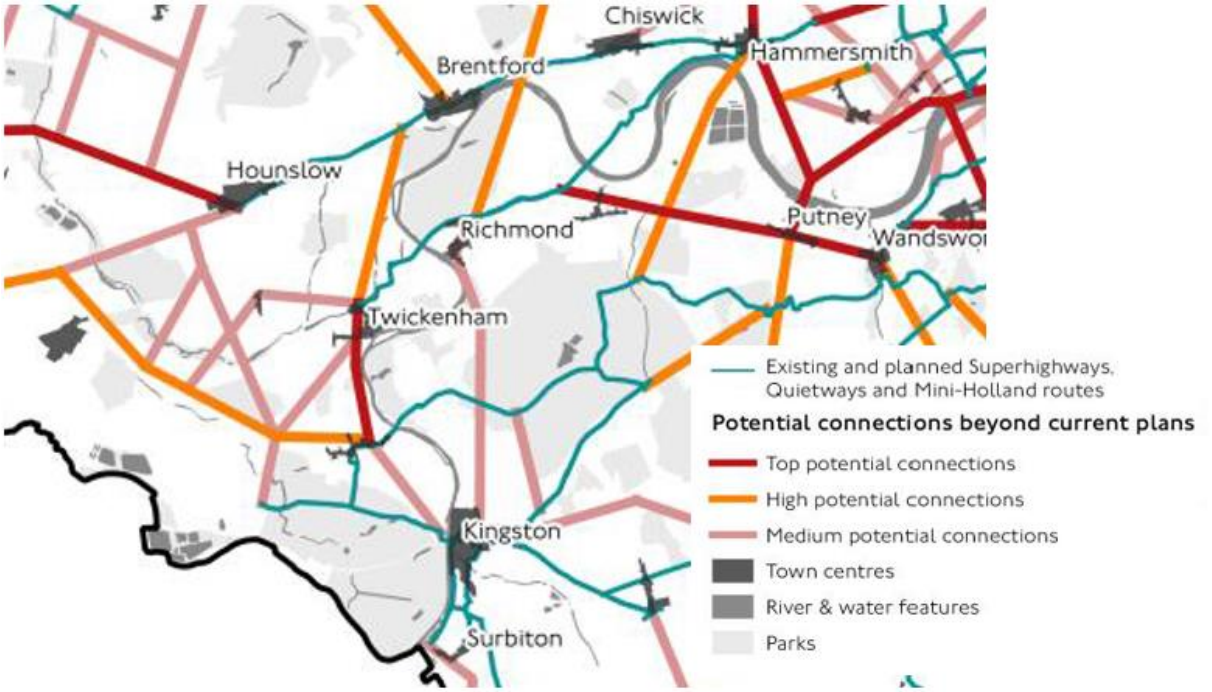

Figure 5: Prioritised strategic cycling connections (Source: TfL Strategic Cycling Analysis)

LBRuT has recently paired with ofo to introduce dockless bikes to the borough on a trial basis. This addresses cycle ownership and the need for secure cycle parking, both of which are key barriers to cycling. The trial has seen the introduction of 200 bikes onto the streets across Richmond and Wandsworth and offers everyone the opportunity to cycle for short trips within the local area. Over 6,000 trips were taken in Richmond using the bikes in July 2018.

While activity levels are higher than average across the whole borough, there is significant variation in the proportion of residents achieving the target of two, ten-minute active travel trips per day, as shown in Figure 6.

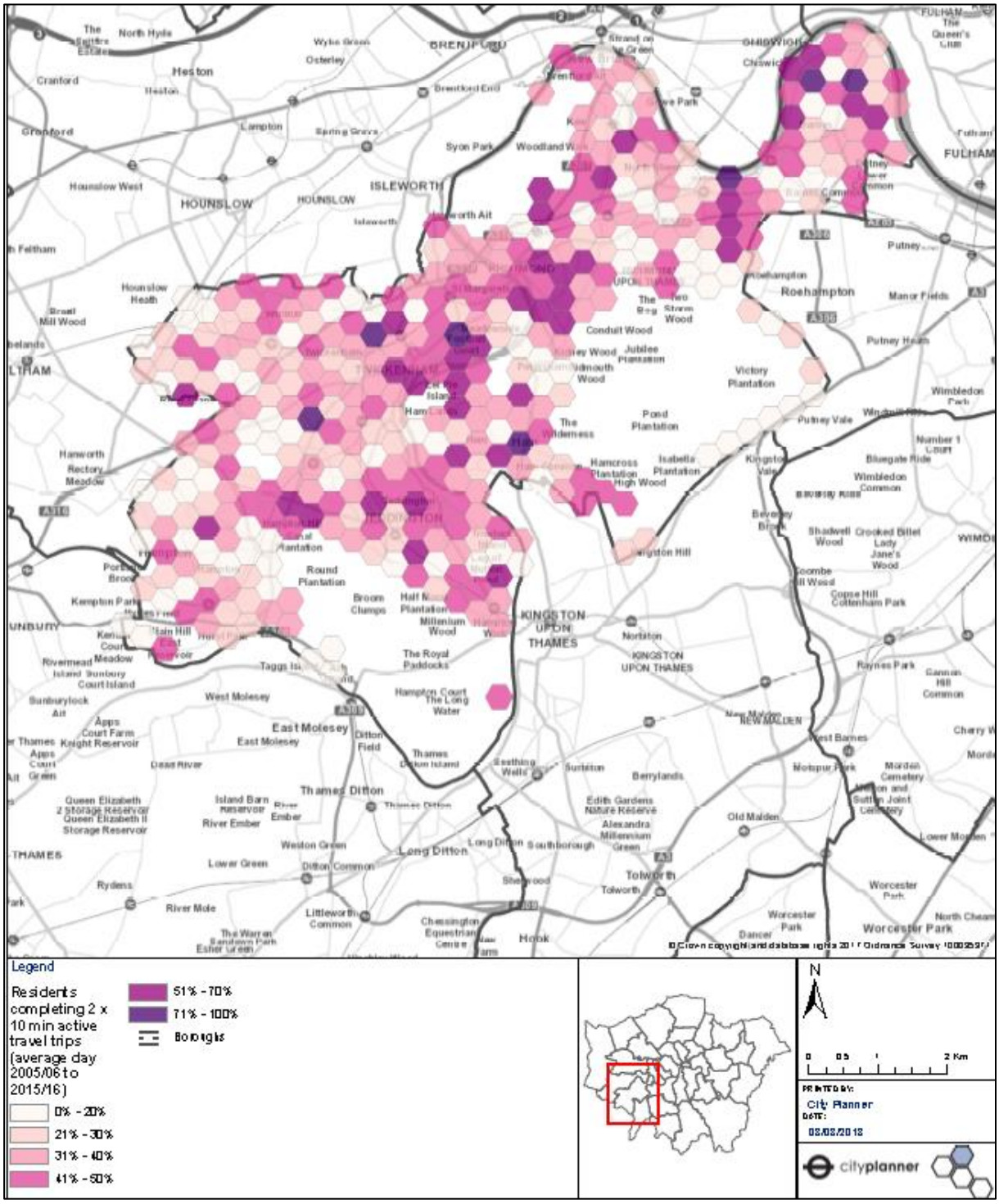

Figure 6: Residents achieving 20 minutes per day of active travel (Source: TfL CityMapper)

Residents in Whitton, Hampton and East Sheen are less likely to achieve the active travel target than those living in Twickenham, St Margaret's and Richmond. There is also considerable overlap between areas with low active travel levels and those with higher levels of health deprivation and disability. Targeting these areas will be a

priority for both infrastructure improvements and community schemes, designed in partnership with Public Health.

Borough Objectives

The council will focus on following the Healthy Streets Approach to ensure walking and cycling are the natural choices for local journeys and use the Healthy Streets Toolkit to assess new infrastructure schemes.

The Richmond Cycling Strategy was published in 2017 with an ambition for a 15 per cent cycling mode share by 2026. Implementation of the strategy will result in an improved cycle network across the borough and increase activity levels amongst residents.

The cycling strategy is a live document that will continue to evolve over time, ensuring the flexibility to adapt to change in local circumstance and respond to new opportunities. This will include:

- Develop a comprehensive cycle network through continued development of cycle corridors, including Quietways, the introduction of new strategic and local routes, and improving level of service on existing routes, including the adoption of London Cycle Design Standards for cycle route quality for new routes
- Prioritising permeability for non-car modes through the introduction of contra-flow cycle lanes and filtered permeability
- Examining existing public rights of way to formalise cycle access, where appropriate
- Continue to add more cycle parking throughout the borough, while also reviewing the location and quality of existing cycle parking spaces in town centres, schools, at stations and other key trip destinations, including examining the provision of spaces for larger cycles
- Improving signage on existing and any new cycle routes

Improving facilities for pedestrians, including those with reduced mobility, will be addressed on both a corridor and site-specific basis:

- Healthy Routes to schools will be developed, as well as improved pedestrian connectivity to and between town centres. This programme will focus on the introduction of School Streets, improving crossing facilities, including dropped-kerbs and Copenhagen crossings at side roads, but will also look at site lines, lighting and address issues of severance

- Wayfinding will be improved through the introduction of more ‘Legible London’ maps
- Review existing walking routes against the Healthy Streets Indicators to identify where improvements can be made, such as reducing street clutter or the introduction of more seating, with a focus on access to stations, town centres and other major trip attractors
- Request reviews of traffic signals with an aim of providing additional priority to pedestrians, where appropriate

Working with the local community will be a key component of helping to ensure that projects are in the right locations and include the improvements most needed by local people.

Education and training, including programmes focused on public health, will provide residents and local employees with the skills and confidence to use these facilities.

The borough has an active school travel planning programme and is introducing a BikeIt officer into several local schools for the 18/19 school year. Connecting school travel plan activity to other active travel initiatives will encourage more children (and parents) to walk and cycle to school.

Active travel will also be supported through the introduction of safety schemes, including the introduction of lower speed limits on borough roads and junction safety improvements.

Outcome 2: London’s streets will be safe and secure

Challenges and opportunities

LBRuT has seen a decrease in the number of deaths and serious injuries from road collisions over the last ten years. The Mayor has set the ambitious target for zero deaths and serious injuries on London’s roads by 2041, supported by interim targets for 2021, 2022, and 2030.

As with London as a whole, vulnerable road users account for most deaths and serious injuries from road collisions in the borough. This is expected to be an ongoing challenge as more trips are set to be made by active modes.

Figure 7 shows the location of killed and serious injury (KSI) casualty collisions in the borough between 2014 and 2016. There are relatively few locations with more than two KSI collisions in this time, with sites in Richmond town centre, the South Circular and Teddington serving as notable exceptions.

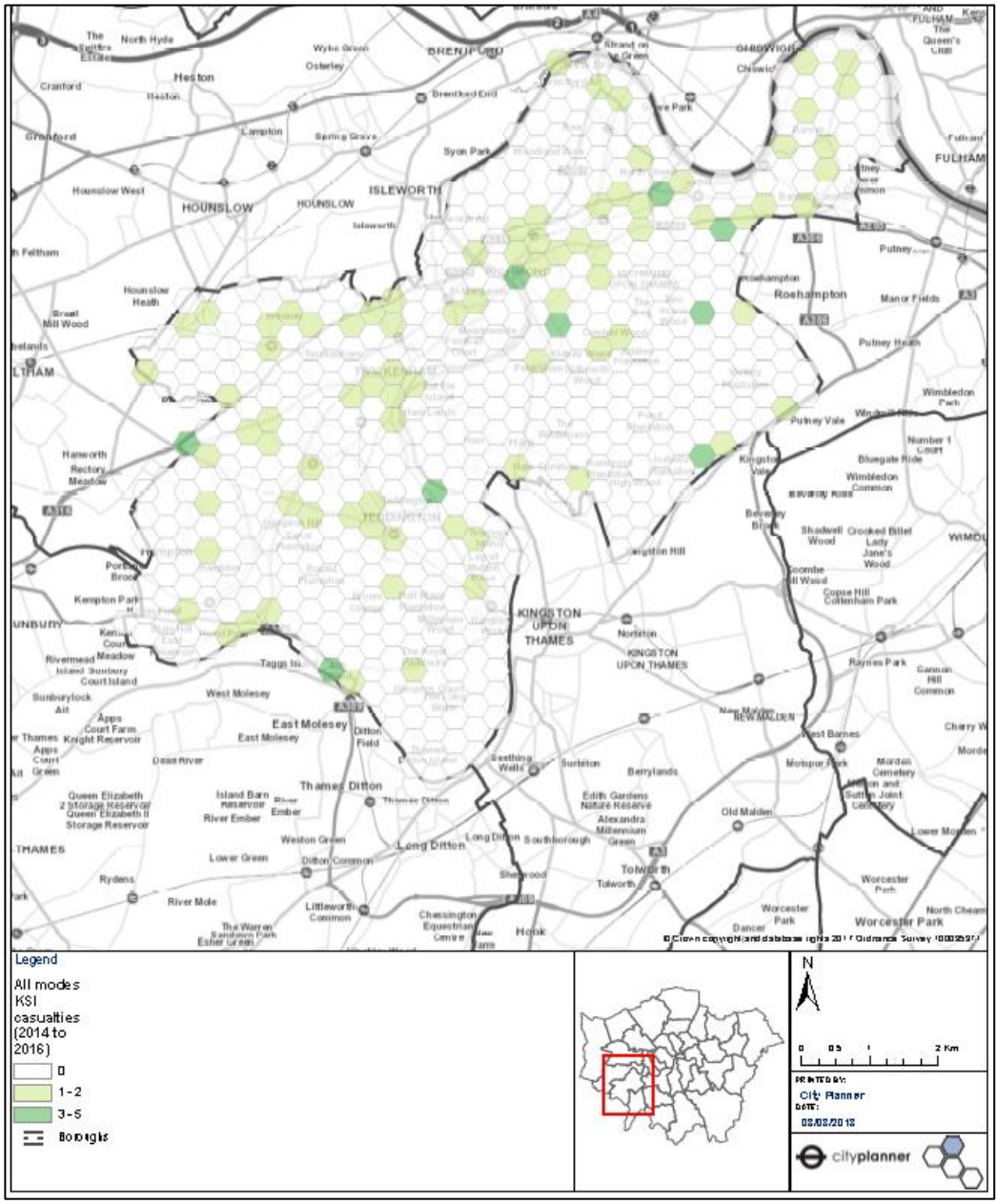

Figure 7: All mode KSI casualties (Source: TfL CityMapper)

Advancements in vehicle technology, such as automatic braking and detection monitors, are expected to reduce the chances of collisions occurring in the longer term. Local regulations, such as the introduction of the Direct Vision Standard, will help to improve visibility of pedestrians and cyclists to the drivers of HGVs.

The borough is currently undertaking a consultation on the introduction of a borough-wide 20mph speed limit. If supported, implementation of the lower speed limit will be a major focus for the Council over the following years, and will include the introduction of signing as well as traffic calming measures. The lower speed limit is

expected to reduce the number and severity of collisions, and create an environment more conducive to walking and cycling.

Borough Objectives

LBRuT supports the Mayor's ambition for Vision Zero and will support the implementation of the Vision Zero Action Plan. Figure 8 shows the observed and target trajectory collision figures which will be adopted by the borough.

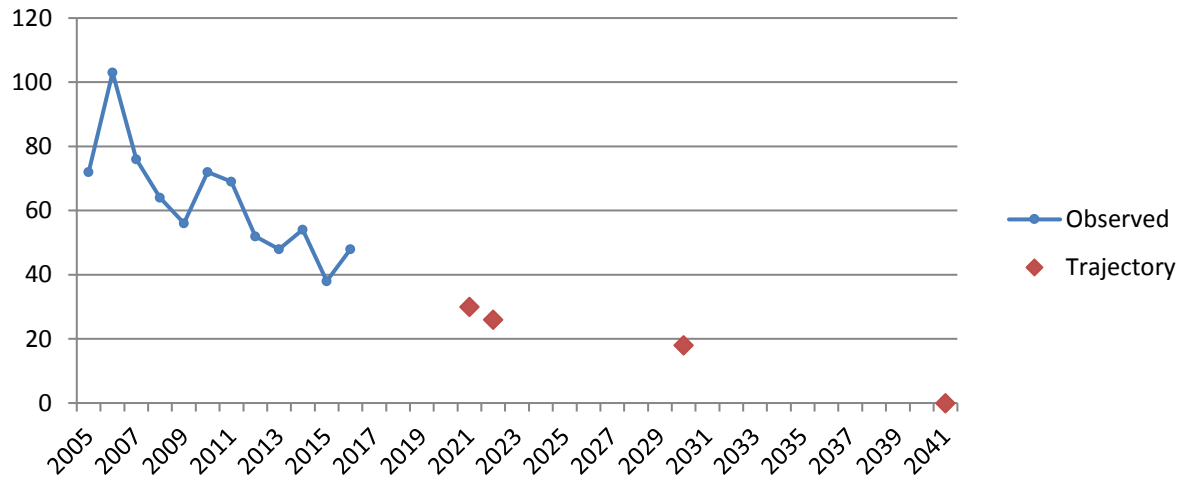

Figure 8: Observed and target KSI collision figures (Source: TfL)

Key safety objectives for the borough will be:

- Reducing vehicle speeds through the introduction of a 20mph speed limit on local roads, and by supporting TfL in the introduction of a 20mph speed limit on portions of the TLRN within the borough
- Regularly assessing and addressing collision hotspots through infrastructure improvements, including junction design. This will include using a road danger reduction approach to design, completing Road Safety Audits and formal evaluation of schemes using the Traffic Accident Diary System (TADS)
- Seek to minimise the impact of level crossings on pedestrians and cyclists
- Working with residents and cycling groups to gather additional information on 'near misses' and locations with perceived safety issues so that improvements can be made
- Empowering residents and local employees with the skills they need so they can make safe decisions while travelling, including working with schools and offering cycle and motorcycle training

Outcome 3: London's streets will be used more efficiently and have less traffic on them

Challenges and opportunities

Reducing the dominance of streets and public spaces by motorised traffic will create a pleasant environment for walking, cycling and greater use of public transport. This requires taking a whole street approach – looking at on-street car parking, freight and servicing activity and analysis of the types of trips that are being undertaken. The key focus of this objective is to increase the efficiency with which our limited road space operates through a reduction in vehicle use.

The MTS objectives of reducing both the numbers of cars and the mileage they travel will be a challenge for the borough. LBRuT has relatively high car ownership levels and car usage levels, although these are comparable to the average for outer London. There are no plans for major improvements to public transport in the borough, and while walking and cycling levels are high and expected to increase, there is seasonal variability in these modes which means many residents will wish to keep their cars for use in times of inclement weather.

Car ownership levels in the borough have been increasing since at least 2001, with a small drop of 400 vehicles between 2010 and 2012 before increasing again for the following five years. Trends in car ownership in the borough are shown in Figure 9.

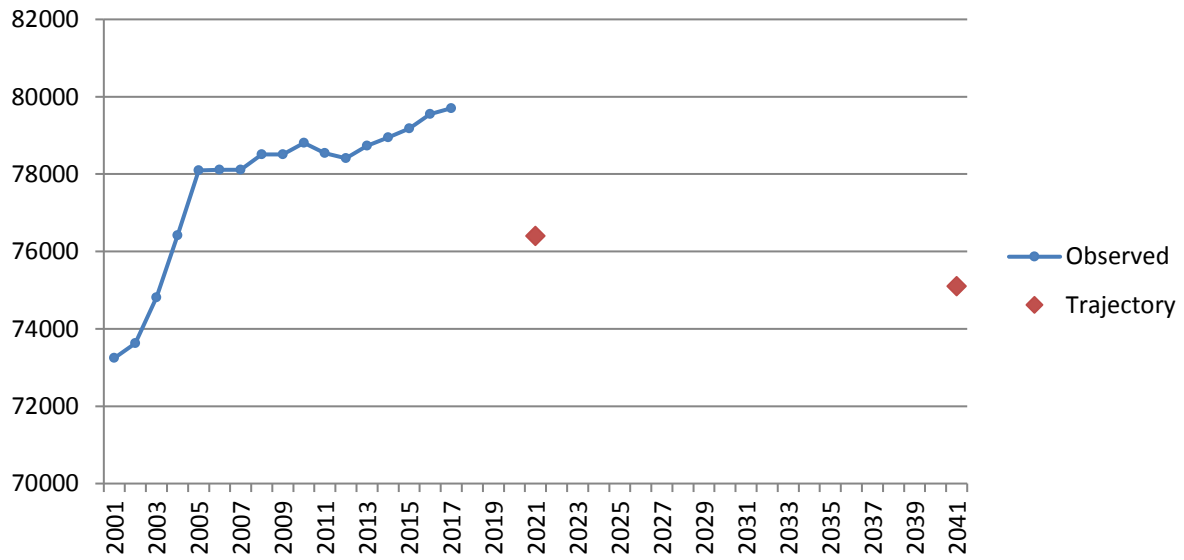

Figure 9: Car ownership figures and proposed trajectory (Source: TfL)

While the MTS calls for a decrease in the number of cars registered to residents of over 3,000 vehicles in the borough by 2021 (from 79,700 to 76,400), achieving this

milestone in the absence of any major transport investment in the borough is unlikely. The target reduction to 75,100 vehicles by 2041 will be considered over the longer term, but in the short term the focus will instead be on limiting growth in car ownership through support for low-car developments in areas of the borough with higher levels of public transport accessibility.

By contrast, annual vehicle mileage in the borough has either decreased or remained static in recent years. While car ownership levels are reflective only of those living in the borough, vehicle mileage encompasses all activity within the borough, including private trips, taxis and private hire and deliveries and servicing. The total annual vehicle kilometres travelled on roads in the borough is shown in Figure 10.

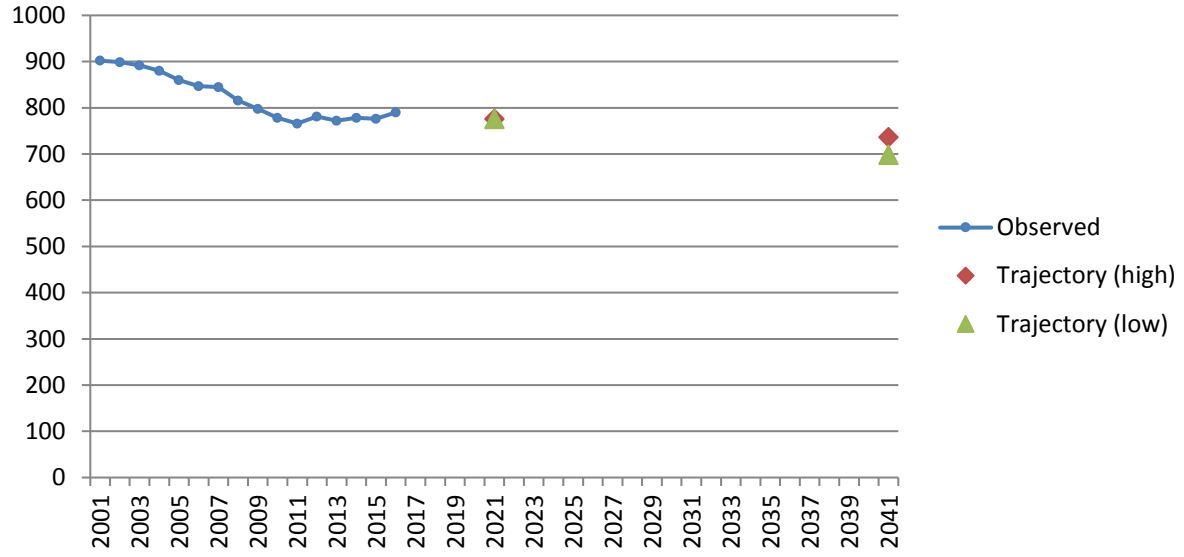

Figure 10: Annual vehicle kilometres (millions) (Source: TfL)

TfL's short-term trajectory is for vehicle kilometres to remain static through 2021, and the long-term aim is for a 5 to 10% decrease in total vehicle kilometres by 2041. Expected population growth in LBRuT and neighbouring boroughs means this is an even bigger reduction in real terms, however current trends in vehicle usage indicates that this is achievable.

Most kerbside space in the borough is used for car parking. Many of the residences in the borough are older and do not have any off-street car parking. There are over 30 controlled parking zones (CPZs) within the borough, ranging from a single road to whole neighbourhoods. Some are operational for a few hours on weekdays, while others operate seven days a week. The zones are mainly located in the north and east of the borough, with small zones in the south around Teddington station, Hampton Wick station and Hampton Court Palace. Additional CPZs are currently being planned for the borough.

Parking permits are priced to discourage ownership of more than one vehicle, with the second resident permit costing 50% more than the first, and the third costing 50% more than the second. Parking permits are currently free for the least polluting vehicles, and the borough is planning to investigate introducing a diesel surcharge to further support the adoption of cleaner vehicles. As such, CPZs are a key mechanism for the borough to influence the number and type of vehicles owned by residents.

There is limited information available on freight and servicing movements and activity within the borough. Much of the town centre servicing takes place on-street, often within designated loading bays but sometimes interfering with other traffic. There remains scope to increase our understanding of freight activity within the borough, including origins and destinations of trips, types of trips and the relative freight trip generation of different locations.

The TLRN routes carry large amounts of traffic within the borough, and are often subject to delays due to congestion. The borough will work with TfL on any proposals for these routes.

Borough Objectives

The borough will manage vehicle traffic by focusing on identified trip types. In the short term, additional information gathering and assessment will also take place, with the findings used to develop additional projects and programmes in coming years.

The principle objectives for managing vehicle traffic in the borough will be:

- Improve access to town centres, schools and other major trip attractors by non-car modes, ensuring they are effective, reliable and attractive
- Introduce filtered permeability to reduce rat-running and improve conditions for walking and cycling, where supported by residents
- Continue to work with schools on developing and implementing their travel plans, focusing on reducing travel by car
- Work with major employers in the borough to develop and implement workplace travel plans
- Support the wider implementation of CPZs in the borough where they are proposed and supported by residents
- Increase the Council's knowledge of local freight and servicing activity, including kerbside activity, with the long term aim of developing a freight strategy containing a range of initiatives to:
    - Reduce the total amount of freight traffic in the borough

- Reduce the impact of freight activity along major roads and in town centres
- Reduce the environmental impact of freight activity within the borough, with a focus on town centres
- Reduce the number of personal deliveries in residential areas

Outcome 4: London's streets will be clean and green

Challenges and opportunities

Road transport is a major source of emissions within the borough. Much of the poor air quality is concentrated along the TLRN - the A306 Chertsey Road, A205 South Circular and the A3 on the south east boundary of the borough. Amongst local roads, Castelnau, the A308 Hampton Court Road and Twickenham and Richmond town centres have the worst air quality. The best opportunity for improving air quality is to focus on reducing the number of vehicles using these roads, and ensuring that remaining vehicles are low and zero emission.

The borough has an above-average take-up of electric vehicle by residents. Uptake is being supported through the installation of electric vehicle charging points across the borough. This programme will continue as electric vehicle ownership levels are expected to continue to increase.

As noted, resident car parking permits within CPZs are currently free for the cleanest vehicles, and the borough will be examining the introduction of a diesel surcharge to further encourage residents to choose cleaner vehicles.

The expansion of ULEZ to the A205 South Circular will directly impact on the north east of the borough. While the South Circular itself is not included within the zone, the road is a major source of NOx and PM. While the expansion of ULEZ is welcome, there is a risk that non-compliant vehicles will be diverted to the South Circular to avoid paying the charge, thus making local air quality worse.

Borough Objectives

LBRuT will support the expansion of the U LEZ to the A205 South Circular in 2021 by working closely with TfL and neighbouring boroughs to introduce complementary measures within the zone and in adjacent areas.

The borough will focus on reducing the environmental impact of the Council vehicle fleet, and of those under contract with the Council, through the adoption of stricter vehicle standards.

The borough will continue to expand its electric vehicle charging infrastructure for residential use and rapid charging to support ZEC taxis and commercial vehicles, with a focus on minimising the impact on space on pavements for pedestrians.

The borough will examine car parking permit charges with the aim of discouraging residents from owning diesel and other high-polluting vehicles.

The borough will work with TfL to support the introduction of low emission buses on local routes, where feasible.

Outcome 5: The public transport network will meet the needs of a growing London

Challenges and opportunities

The public transport mode share in the borough is relatively low (21.7%), although comparable to many other outer London boroughs, particularly Kingston (21.6%). This baseline is reflective of wider public transport accessibility in the borough, with many areas reliant on buses and low-frequency train services.

The number of public transport trips per day originating in the borough has remained relatively static since 2011. Increasing this figure over the short-term will be a challenge given the lack of investment in public transport in the borough. In the long term, concentrating new developments in areas with high levels of public transport accessibility and the introduction of Crossrail 2 in the 2030s is expected to increase ridership.

Neighbouring boroughs will benefit from the opening of the Elizabeth Line and the Northern Line extension, which will serve as boosts to local ridership, however the opportunity for interchange with these new services will be limited and the local impact is expected to be muted.

Buses remain the best option for regular access to public transport in many parts of the borough. Bus frequencies along roads in the borough are shown in Figure 11. Richmond town centre has the most buses with more than one bus per minute. Frequencies are also high along Castelnau and through Twickenham town centre, with between 45 and 60 buses per hour. The corridor running from Richmond to Hampton Hill via Twickenham is recognised in the MTS as a busy bus link.

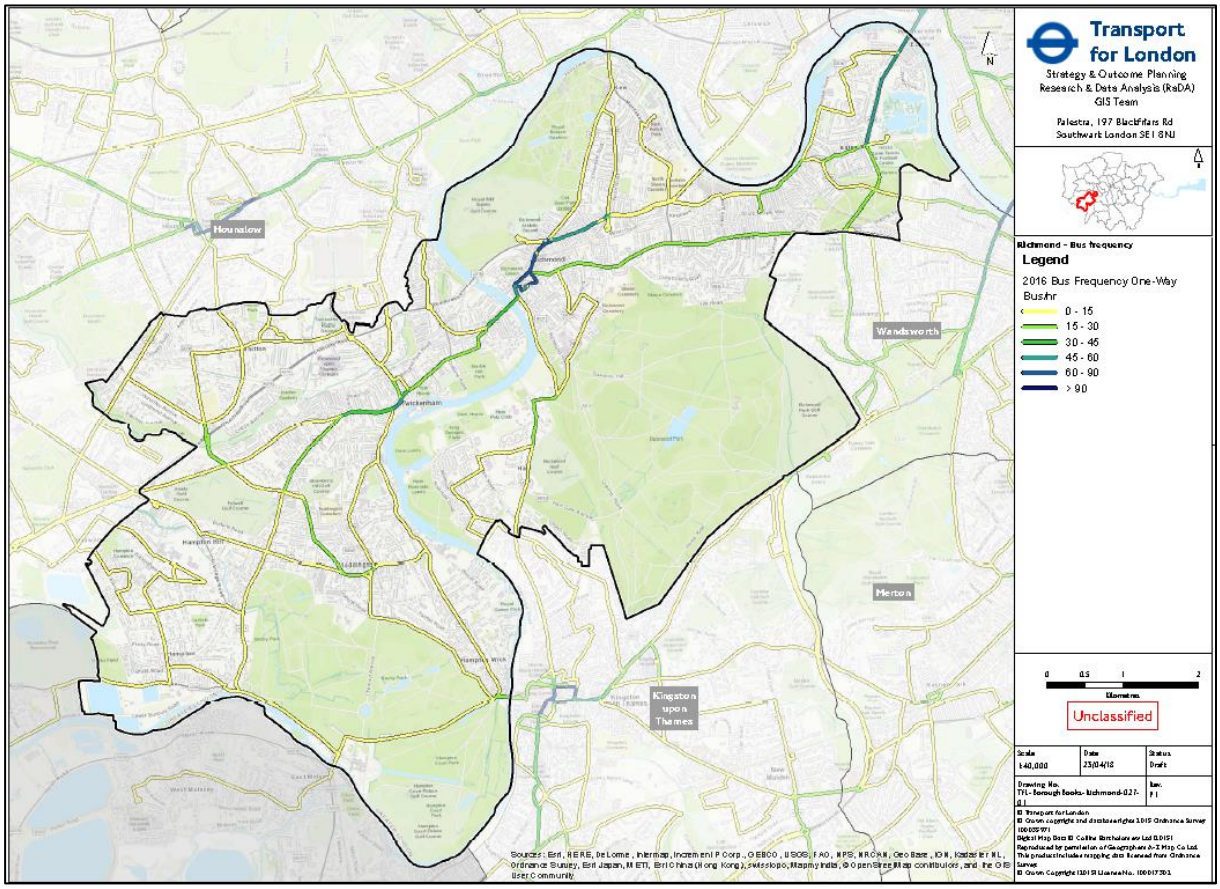

Figure 11: Bus frequencies by road (Source: TfL)

There are numerous bus lanes in operation, primarily focused around Twickenham town centre, Richmond town centre and Castelnau. Most are operational only during certain times of time, except on Castelnau and Heath Road in Twickenham, which are operational all day.

Figure 12 shows that Richmond town centre is the busiest part of the borough for bus boardings, with other busy areas in Barnes, Twickenham and Teddington. There are large numbers of stops in the south and west of the borough with fewer than 50 boardings per day, reflective of fewer services and/ or lower frequencies in these areas.

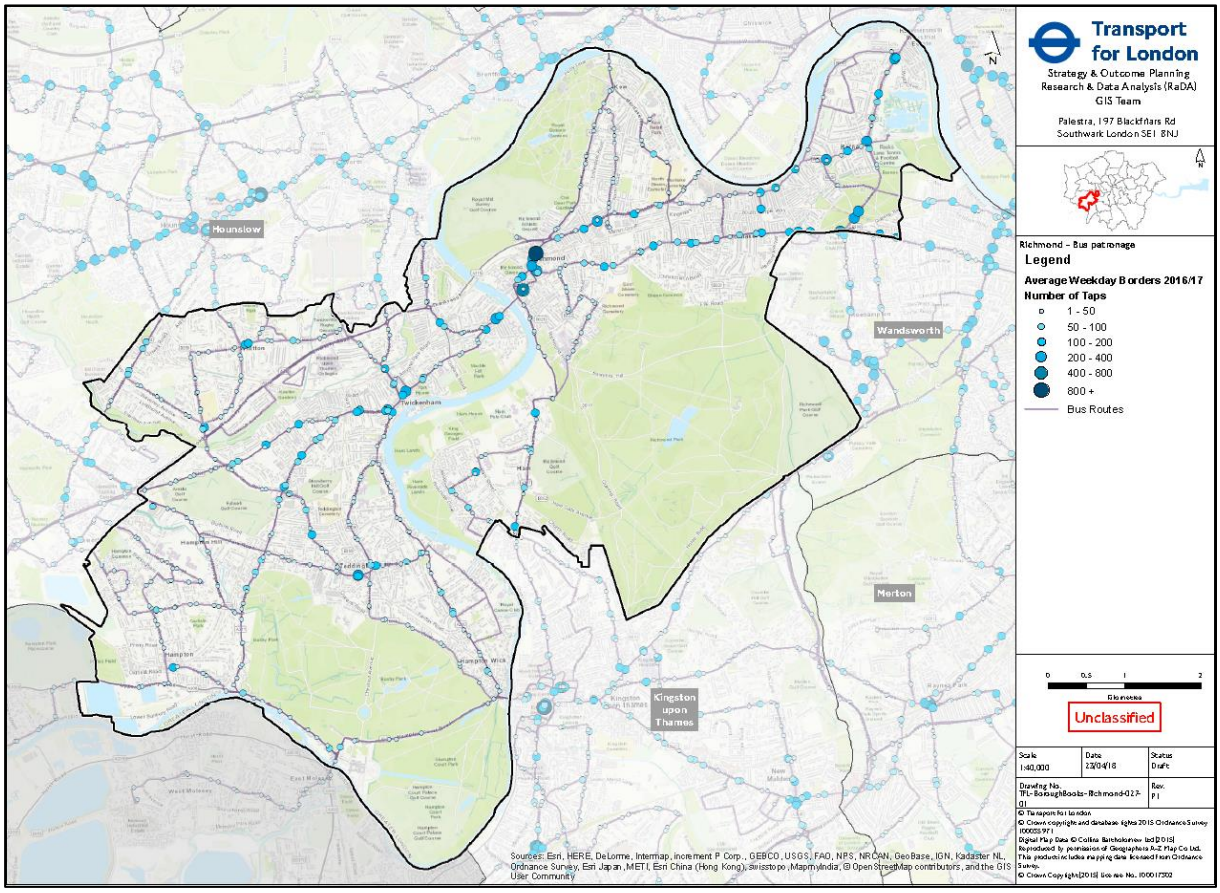

Figure 12: Average weekday bus boardings per stop (Source: TfL)

TfL sets the bus routes and frequencies for all of London. TfL is currently looking at different options for re-shaping the bus network to better match changing patterns of demand. Revisions to bus routes in the borough that improve accessibility in poorly served parts of the borough could help to encourage mode-shift away from the car, while any revisions that decrease mileage would likely do the opposite.

Technology has the potential to unlock new types of public transport. Demand Responsive Transport (DRT) is a relatively unexplored option for improving access to public transport in outer London. While the introduction of DRT, possibly operating on fixed routes within the borough, could help to improve public transport ridership, the wider implications on walking and cycling levels have not been assessed, nor have funding mechanisms.

Devolution of suburban services could potentially bring more frequent and reliable trains to the local area. Devolution and metroisation of local services would be broadly supported.

Borough Objectives

The borough will work closely with Transport for London, Network Rail and local train operators to improve public transport across the borough, including the introduction of Crossrail 2 in the 2030s. The borough will work in partnership with TfL to regularly review bus operations within the borough, with the aim of ensuring that the bus is a viable alternative to the car for as many trips as possible.

The borough will improve accessibility of local rail stations by investing in walking and cycling, and continue to work with residents and employers to identify gaps in accessibility. This will include ensuring there is secure and well-located cycle parking at stations, with enough capacity to meet existing and forecasted demand.

The borough will improve accessibility to bus stops, with an aim of all bus stops being accessible by 2022. Routes to bus stops will also be assessed in areas without access to rail, for example in Ham, with an aim improving accessibility and encouraging cycle to bus trips.

The borough will assess proposals for the introduction of demand-responsive transport on a case-by-case basis.

Outcome 6: Public transport will be safe, affordable and accessible to all

Challenges and opportunities

A safe and accessible public transport network is an imperative. An improved step-free network will enable more residents, employees and visitors to the borough to travel confidently on the public transport network.

The Mayor's Transport Strategy includes the aim of reducing the travel time difference between the total public transport network and the step-free network. On a local level this will mean improving accessibility to mainline train stations. Step-free access is currently available in Barnes, Kew Gardens, Mortlake, Richmond, Strawberry Hill, Whitton and Hampton stations. Twickenham station is currently undergoing redevelopment and will be fully accessibly upon completion of the scheme. Teddington station is being improved as part of the Access for All programme.

The remaining stations in the borough with limited access are Hampton Wick, Fulwell, St Margarets, North Sheen and Barnes Bridge.

Bus stop accessibility is reviewed regularly by LBRuT and improvements are made on an ongoing basis.

Borough Objectives

The borough will support the reduction of the travel time difference between using the full transport network and the step free network. The target set for LBrUT is to reduce the journey time difference from 8 minutes to 3 minutes by 2041.

To achieve this, the borough will support Network Rail and local train operators to improve step free access to stations. The borough will also work to improve accessibility of local bus stops and access to stations.

Outcome 7: Journeys by public transport will be pleasant, fast and reliable

Challenges and opportunities

Making the public transport network easier and more pleasant to use will enable more customers to travel reliably and comfortably without needing a car. This can best be provided by ensuring access to bus and rail services is safe and easy, and by ensuring that buses can offer journey times competitive with the private car.

In 2015, the average bus speed in the borough was 11.0 mph, comparable with other Outer London boroughs. Improving local bus speeds will help to encourage mode shift away from the car by offering more competitive journey times, and can be achieved either through bus priority or making general alterations to the roadway. Kerbside loading and unloading can also have a negative impact on bus speeds, with buses often finding it difficult to pass.

Figure 13 shows the average bus speeds across the network within the borough. Junctions where bus speeds are below 5mph include:

- Church Street/A308
- A311/Sixth Cross Road/South Road
- Hospital Bridge Road/Powder Mill Lane
- A205/Rocks Lane
- Whitton Road/Rugby Road

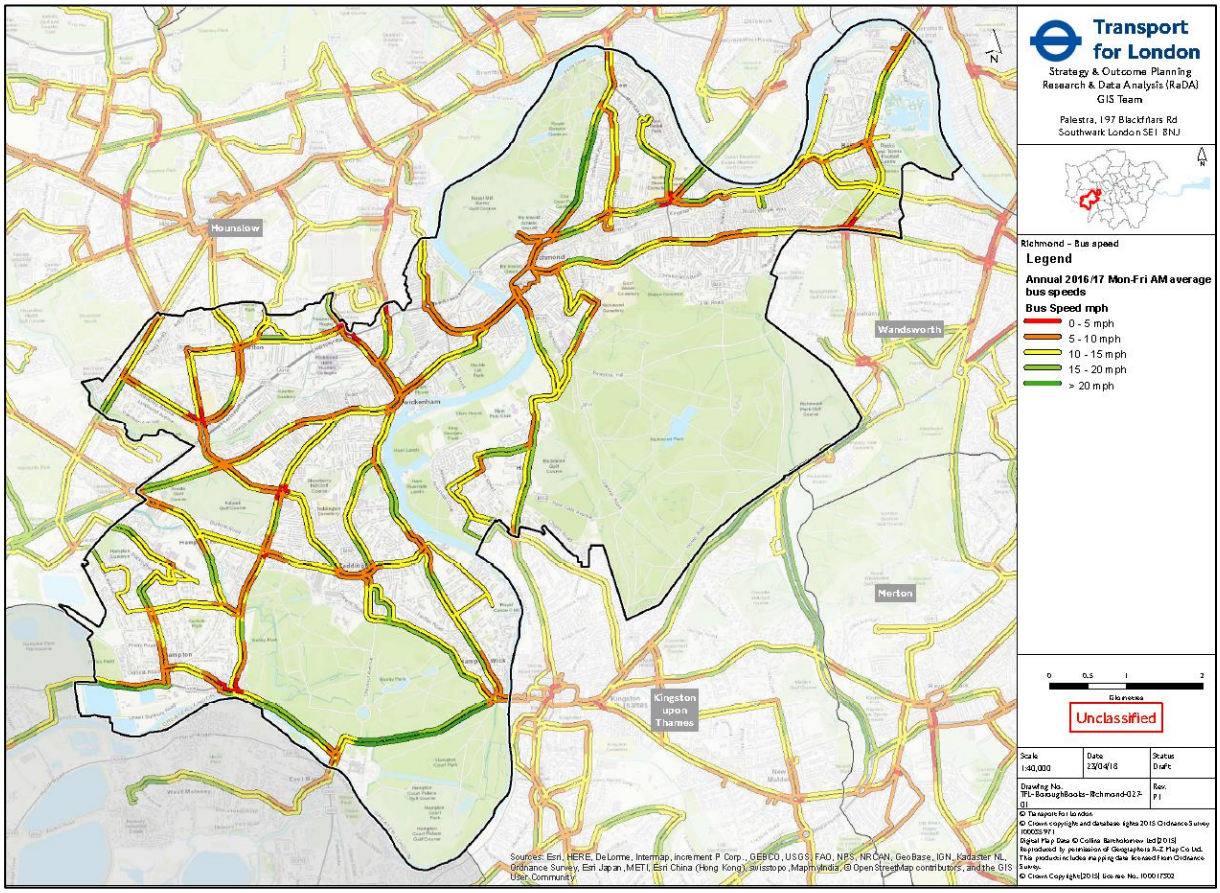

Figure 13: Average bus speeds (Source: TfL)

Borough Objectives

Improving walking and cycling routes to stations, as well as cycle parking facilities at stations, will be a key component in encouraging more local trips to be undertaken by public transport.

Bus priority can play a pivotal role in improving bus speeds. The borough has an on-going programme aimed at improving journey times and this programme will continue, subject to available funding. The operational hours of the existing bus lanes will be regularly reviewed to ensure they are providing an optimal service.

Data gathering will improve understanding of kerbside behaviour and will identify regular conflict points between buses and freight vehicles. These in turn can be addressed through revisions to kerbside layouts and better enforcement. This will be addressed as part of the freight strategy.

While reducing the speeds on borough roads to 20mph may negatively impact on bus speeds on some routes, it is expected that this impact will be minimal.

Consideration will also be given to bus speeds as part of walking and cycling schemes.

Outcome 8: Active, efficient and sustainable travel will be the best option in new developments

Challenges and opportunities

The potential for growth is limited compared to many other parts of London. Most new developments are focused on small brownfield sites, with a small number of larger sites identified within the Local Plan. Expected housing growth levels for the borough are the lowest of any outer London borough with an identified ten-year capacity of 8,110 new homes, with 6,340 of these expected to be on small sites of less than 0.25ha. This target is a considerable increase over the previous target, which was for 3,150 homes to be built between 2015 and 2025.

With fewer locations available for new homes, it is difficult to be overly prescriptive as to where they are located. Within the borough, the highest housing targets have been set for Richmond and Twickenham, the two largest town centres, which also have the highest levels of public transport accessibility.

Business development is expected to be concentrated in existing town centres, particularly in Richmond. This pattern of growth will ensure that new employment opportunities are in areas with high levels of public transport accessibility.

There are no Growth Areas or Opportunity Areas within the borough, or any other areas that would be expected to deliver high rates of development.

Borough Objectives

LBRuT will support employment growth and higher density developments in areas of high public transport accessibility. Consideration will be given to ensuring that larger developments are accessible by means other than the private car. The Local Plan has adopted the London Plan car and cycle parking standards, and these will be applied to all new proposed developments in the borough. Planning applications for new developments above set thresholds will be required to include a comprehensive Transport Assessment and Travel Plan, along with information on deliveries and servicing.

Outcome 9: Transport investment will unlock the delivery of new homes and jobs

Challenges and opportunities

A lack of major transport investment in the borough will restrict the unlocking of new sites for development. The arrival of Crossrail 2 in the 2030s could potentially open the areas around stations in the south of the borough to higher density developments, but this will be dependent on the scale of changes to be introduced.

Borough Objectives

Work with TfL on the development of Crossrail 2 options within the borough, with a focus on understanding potential increases in public transport accessibility and the impact this could have on rates of development within the surrounding areas.

Other Mayoral Strategies

The following Mayoral Strategies have been reviewed as part of the development of this plan:

- London Plan (draft)
- Economic Development Strategy for London (draft)
- London Environment Strategy
- London Housing Strategy
- Health Inequalities Strategy (draft)
- Culture Strategy (draft)
- A Tourism Vision for London

The London Plan is the Mayor's spatial development strategy. It sets the overall framework for the development of London over the next 20-25 years. The London Plan is closely linked to the Mayor's Transport Strategy and as such is reflective of the policies that have been considered in the development of this document.

The London Plan identifies several types of areas that require special consideration for planning. Of these, there are no Opportunity Areas, Growth Corridors or Strategic Areas for Regeneration within LBRuT. The borough does contain three Air Quality Focus Areas – defined as areas with both high levels of NOx and high human exposure – in Twickenham Town Centre, along Richmond Bridge and the South Circular in East Sheen. A large portion of the borough falls within a Thames Policy Area, and Richmond town centre is highlighted as an area for potentially high levels of commercial growth. The area classifications will help guide the implementation of projects within this LIP.

LBRuT defers to the London Plan standards for car parking and cycle parking for new developments. The car parking standards introduced in the new plan are much lower than previously, with a greater link to public transport accessibility levels. The borough has been identified as an area where higher standards for cycle parking should apply for some development types, reflective of the higher local cycling levels.

The Mayor's Economic Development Strategy for London stresses the importance of ensuring there is adequate transport capacity to cater for growth in the Capital. The strategy also further emphasis the need for growth to be sustainable, and reiterates his goal for London to be a zero-carbon city by 2050. The plan includes a commitment of support for high streets and town centres, including improving public transport connections and the public realm, making walking and cycling more appealing.

There is a strong link between transport and the environment, particularly air quality. The London Environment Strategy sets out a plan that will realise the potential of London's environment to support good health and quality of life and to make the city a better place to live, work and do business. It emphasises the Healthy Streets Approach as a means of improving air quality through a reduction in car trips, and includes details on the wider benefits of the introduction of ULEZ as a means of encouraging a shift to zero emission vehicles. It calls on the boroughs to use their powers to help improve local air quality. This LIP supports this strategy through its commitment to using the Healthy Streets Approach to encourage mode shift to walking and cycling, including an aim to focus on areas with poorer air quality. The borough is committed to improving access to vehicle charging points, enabling the use of more electric vehicles.

The London Environment Strategy also addresses flood risk and climate change. Portions of the Thames towpath are subject to regular flooding during high tides and this is expected to increase in the future. The borough is working with the Thames Landscape Strategy to maintain the usability of routes through the ongoing maintenance of the towpath and through the creation of alternative dry-routes.

The London Housing Strategy sets out the Mayor's approach to addressing the housing crisis, with a focus on building more homes, and ensuring that homes that are built are genuinely affordable. The strategy identifies the importance of transport to support new housing, and states that potential housing benefits should be a key determinant of which transport schemes and projects are supported and funded in the future.

The Health Inequalities Strategy has five aims for improving public health and reducing health inequalities. Two of these aims have close links to transport: healthy

places and healthy habits. Creating healthy places includes the objectives to improve air quality and improve streets by using the Healthy Streets Approach. Creating healthy habits encourages increased levels of physical activity amongst children, including through promotion of active travel to school.

The Culture Strategy stresses the link between culture and public space, and urges for consideration of public art as part of public realm improvements. It also urges for consideration to be given on the impact transport projects might have on existing culture/ heritage place and spaces.

Tourism is a key industry within LBRuT, with several major tourist sites within the borough. A Tourism Vision for London encourages making improvements to the pedestrian experience to make neighbourhoods more attractive to visitors as well as locals.

3. The Delivery Plan

Introduction

This chapter sets out our Delivery Plan for achieving the objectives of this LIP. It includes:

- Linkages to Mayor's Transport Strategy priorities
- A list of potential funding sources for the period 2019/20 to 2021/22;
- Long-term interventions
- Three-year indicative Programme of Investment for period 2019/20 to 2021/22
- A detailed annual programme for 2019/20

Linkages to the Mayor's Transport Strategy priorities

The Delivery Plan was developed to align the borough's projects and programmes with the policy framework of the Mayor's Transport Strategy, the overarching mode share aim, each of the nine outcomes, and the relevant policies and proposals.

The analysis undertaken for the development of this LIP has been used to shape the Delivery Plan, as well as previous studies that have been undertaken in the borough to understand and address collision hotspots.

The Delivery Plan provides a balance between Healthy Streets and Vision Zero, covering both capital and revenue projects. There are also programmes focused on schools and air quality, however there are strong linkages and overlaps between the programmes.

Over the next three years, reductions in the borough's LIP funding allocation has dictated a strict approach to prioritisation, with the preferred method being to focus on undertaking a smaller number of projects while maintaining a high quality of the finished project.

The introduction of a borough-wide 20mph speed limit in 2019 will be the largest project undertaken in the borough and is supportive of many of the Mayor's Transport Strategy priorities. Once the lower speed limit is in place, and strengthened by the infrastructure to ensure the scheme is self-enforcing, it is expected that the number and severity of collisions will fall across the borough, and walking and cycling levels are expected to increase as the feeling of vehicle dominance is dampened through lower speeds.

The implementation of Vision Zero will be further supported by projects addressing collision hotspots, training and community safety initiatives. The borough also has a set of 20 speed indicator devices that are regularly rotated across 50 regular sites.

The Healthy Streets and active travel programme encompasses the previous cycling programme as well as a focus on walking, town centres and access to stations. In addition to a focus on mode shift, this programme focuses on increasing activity levels and improving access to public transport. The programme incorporates the implementation of additional CPZs in the borough, and the Delivery Plan includes work in Richmond town centre and a study aiming to improve walking and cycling routes in the south west of the borough.

The schools programme encompasses infrastructure improvements and engagement, and encompasses the Mayor's Transport Strategy outcomes for modal shift, increased rates of active travel and supports Vision Zero. The borough has an active school travel planning programme in place to work directly with schools to identify need.

The air quality programme focuses on the installation of electric vehicle charging points and funding for air quality initiatives across the borough. This programme is designed to focus on improving air quality and reducing the environmental impact of trips that must be undertaken by vehicles.

Table ST01 details the MTS outcomes addressed by each of the overarching programmes and each of the projects proposed as part of the three-year delivery plan.

ST01 - Linkages between LIP projects and programmes and the Mayor's Transport Strategy outcomes										
Project / Programme		**MTS mode share**	**MTS outcomes**							
		Improving active, efficient and sustainable mode share	No !:-Active	No 2:- Safe	No 3:-Efficient	No 4:- Clean & Green	No 5:- Connected	No 6:- Accessible	No 7:- Quality	Nos 8 & 9 Sustainable Growth/Interchange
1	**Support of Vision Zero**	✓	✓	✓		✓	✓	✓		
1.1	Introduction of borough-wide 20mph	✓	✓	✓		✓				
1.2	Safety schemes to address collision hotspots	✓	✓	✓			✓	✓		
1.3	Safety supporting measures – awareness campaigns, rotation of SIDS, collision investigation	✓	✓	✓						
2	**Healthy Streets & active travel**	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.1	Cycle training (adults and school children)	✓	✓	✓			✓			
2.2	Healthy Streets fund – allocations for cycle parking, cycle routes, pedestrian improvements and bus stop improvements	✓	✓	✓			✓	✓		

2.3	Car parking & town centre improvements	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.4	Access to stations studies and implementation	✓	✓	✓	✓		✓	✓	✓	✓
3	**Working with schools**	✓	✓	✓	✓					
3.1	Healthy Routes to Schools (linked to school travel plans)	✓	✓	✓	✓					
3.2	School based programmes – training, safety education, BikeIt, Junior Road Safety Officers, Junior Citizen, etc	✓	✓	✓	✓					
3.3	Safe Routes to Schools (engineering measures to address road safety issues around schools)	✓	✓	✓						
4	**Improving air quality**					✓				
4.1	Electric vehicle charge points, air quality monitoring and measures supporting the implementation of an expanded ULEZ					✓				

TfL Business Plan

In developing and preparing the borough's programme of works (as outlined in the Delivery Plan), the borough has considered the Mayor's aspiration to deliver the major projects in TfL's Business Plan and the milestones associated with these projects – including major infrastructure associated with Growth Areas and Opportunity Areas.

The following TfL projects have implications for the borough.

ULEZ expansion

The Ultra-Low Emission Zone (ULEZ) will be introduced in central London in April 2019 and – subject to consultation – then expanded to the North and South Circulars for all vehicles in 2021. The ULEZ will require motorcycles, cars, vans, minibuses, coaches and HGVs to meet minimum emissions standards, or pay a daily charge.

Implications for borough

The South Circular transverses the north east of the borough, and the ULEZ will include parts of Kew, Mortlake and Barnes. The area includes the A316 which includes Chiswick Bridge. The charge will therefore have implications for both local traffic and through traffic.

Complementary works to be carried out by the borough

The expansion of ULEZ will be complemented by a supporting package of works to raise awareness of the changes amongst residents and businesses in the affected area. The installation of electric vehicle charging points is already being concentrated in this area to support the wider uptake of zero emission vehicles.

Quietways

The TfL Business Plan currently includes three Quietway routes within LBRuT. These are Bushy Park to Richmond Park, Bushy Park to Kingston and Twickenham to Hammersmith. The Bushy Park to Richmond Park route, Quietway 21, has been consulted on and the portion from Teddington Lock to Richmond Park will be implemented imminently. The other two routes are paused pending a review.

Implications for borough

The Quietways will form the core of the strategic cycle network within the borough and provides the opportunity for the borough to develop feeder routes.

Complementary works to be carried out by the borough

The Richmond Cycling Strategy includes proposals for feeder routes connecting to the Quietways. Design of these routes will focus on following the London Cycle Design Standards with the aim of some routes being adopted as part of the strategic cycle network. The Quietways will also be supported through the borough's ongoing cycle training and cycle parking programmes.

Sources of funding

Table ST02 below identifies potential funding sources for the LIP, including LIP funding allocation from TfL, contributions from the borough's own funds, and funding from other sources.

The key source of funding is the borough's LIP allocation. Figures provided by TfL indicate that the borough will receive £1,455,500.

The borough also uses its own resources and resources from developers to pursue local objectives and ensure that the road network remains in a safe and serviceable condition.

Parking revenue is currently used to cover the costs of enforcement and the Freedom Pass, with no additional funding available to complement LIP delivery. As more controlled parking zones are implemented, it is expected that the increased income can be used to support the development of wider parking policy projects and provide an additional form of income to support transport projects.

Development levels are lower in the borough that many other parts of London. As a result, the sums available from developers via section 106 agreements are minimal.

The borough's NCIL funding is allocated through a bidding process to projects led by community groups. The most recent NCIL funding pot is £550,000 and has been awarded to eight projects across the borough. While none of these current projects are related to transport, there is scope for transport projects to receive funding in future funding rounds.

Table ST02 Potential funding for LIP delivery				
Funding source	2019/20	2020/21	2021/22	Total
	£k	£k	£k	£k
TfL/GLA funding				
LIP Formula funding –Corridors & Supporting Measures	£1,455.5	£1,455.5	£1,455.5	£4,366.5
Discretionary funding (See 3 Year Programme)	£0	£0	£0	£0
Strategic funding	£0	£0	£0	£0
GLA funding	£0	£0	£0	£0
Sub-total	£1,455.5	£1,455.5	£1,455.5	£4,366.5
Borough funding				
Capital funding	£350	£0	£0	£350
Revenue funding	£0	£0	£0	£0
Parking revenue	N/A	N/A	N/A	N/A
Workplace parking levy	N/A	N/A	N/A	N/A
Sub-total	£350	£0	£0	£350

Other sources of funding				
S106	TBC	TBC	TBC	TBC
CIL	TBC	TBC	TBC	TBC
European funding	N/A	N/A	N/A	N/A
Sub-total				
Total				

Long-Term interventions to 2041

In the medium to long-term the borough believes that a number of significant, but currently unfunded, investments will be required to ensure the economic and social vitality of the borough. These are shown in Table ST03 below with indicative funding and indicative but uncommitted timescales.

The investments included within the table focus on improving facilities for walking and cycling. Several of the borough's town and neighbourhood centres have undergone extensive public realm improvement projects in recent years, including Twickenham, Whitton and Hampton Hill. Working to improve the remaining centres, using the Healthy Streets Approach, will encourage residents to undertake more trips to their local centre, thereby reducing the need to travel by car. These works will be supported by accessibility studies to improve routes to centres, schools and stations.

The South Circular (A205), which forms part of the TLRN, runs through East Sheen town centre, with a negative impact on local air quality and noise levels. With the expansion of ULEZ in 2021, the South Circular will form the southern boundary but will not be included within the scheme. This section of the South Circular has also been highlighted for potential speed reduction to 20mph as part of the Vision Zero Action Plan. These two proposed changes provide a great opportunity for making wider improvements to the local area, offering traffic calming, cleaner air and improved facilities for pedestrians and cyclists.

Following the expansion of ULEZ, there may be scope to increase additional air quality zones within the borough, with a focus on either expanding the ULEZ or creating additional zones. This would ensure there is no disbenefit to the wider scheme due to non-compliant vehicles being displaced to areas outside of the zone. The borough will work with TfL to look at additional options, with an aim for implementation in the early to mid-2020s.

Richmond town centre is subject to frequent congestion, with pedestrians, cyclists, buses and vehicles all operating in a confined space. There is limited pavement width in many areas and air quality is often poor. The Council will look at options for removing vehicle traffic from the core of the town centre, which would result in the creation of a partially or fully pedestrianised George Street. This would be expected to include removal of the one-way system on the A307, and full-pedestrianisation would require making some alterations to bus routes.

Severance is a key issue in many parts of the local area, particularly in Ham and Petersham. The area is bordered by the River Thames to the north and west, and by Richmond Park to the east. The A307, linking Kingston to Richmond, is the primary road into and out of the area. Teddington Lock, despite being a pedestrian-only bridge, carries high numbers of cyclists highlighting a lack of route options in the local area. Initial feasibility has been carried out for a new pedestrian and cycle bridge in the borough, with the best location found to be connecting Ham to Twickenham. Additional studies are required to determine the economic feasibility of the bridge, and funding for the bridge must still be found.

This list of medium to long-term interventions is not considered exhaustive and will continue to be reviewed and refreshed considering growth in the borough and to reflect TfL strategy.

Table ST03: Long-term interventions up to 2041				
Project	**Approx. date**	**Indicative cost**	**Likely funding source**	**Comments**
Neighbourhood centre improvements	2020 - 2025	£500K - £1.0M	LB Richmond	Expected to include Hampton, Ham, Hampton Wick
East Sheen town centre redevelopment	2022-2027	£1.0M - £5.0M	LB Richmond, TfL	Public realm, walking and cycling improvements, traffic calming – link to introduction of 20mph on the South Circular
Introduction of low-emission areas	2022-2027	£250K - £1.0M	LB Richmond, TfL	Dependent on future TfL
George Street – full or partial pedestrianisation	2025-2035	£10.0M - £25.0M	LB Richmond, TfL	Create either fully-pedestrianised or bus-only area through Richmond town centre
Pedestrian & cycle bridge connecting	2020-2035	£10.0M - £15.0M	LB Richmond, TfL	Pedestrian and cycle bridge

Three-year indicative Programme of Investment

The three-year indicative programme of investment has been completed in the table ST04 below.

Table ST04: Three-year indicative programme of investment for the period 2019/20 to 2021/22

The table summarises, at a programme level, the borough's proposals for the use of TfL borough funding in the period 2019/20 – 2021/22.

London Borough of Richmond upon Thames TfL BOROUGH FUNDING 2019/20 TO 2021/22	Programme budget		
	Allocated 2019/20	Indicative 2020/21	Indicative 2021/22
Local transport initiatives	£1,455,500	£1,455,500	£1,455,500
CORRIDOR, NEIGHBOURHOODS & SUPPORTING MEASURES	£1,455.5k	£1,455.5k	£1,455.5k
Support of Vision Zero	£885k	£835k	£531k
Healthy Streets and active travel	£321.5k	£331.5k	£587.5k
Working with schools	£149k	£189k	£237k
Improving air quality	£100k	£100k	£100k
Sub-total	£1,455k	£1,455k	£1,455k
DISCRETIONARY FUNDING	£0k	£0k	£0k
Liveable Neighbourhoods	N/A	N/A	N/A
Major Schemes	N/A	N/A	N/A

Principal road renewal	N/A	N/A	N/A
Bridge strengthening	N/A	N/A	N/A
Traffic signal modernisation	N/A	N/A	N/A
Sub-total	£0k	£0k	£0k
STRATEGIC FUNDING	£0k	£0k	£0k
Bus Priority	N/A	N/A	N/A
Borough cycling programme	N/A	N/A	N/A
London cycle grid	TBC	TBC	TBC
Crossrail complementary works	N/A	N/A	N/A
Mayor's Air Quality Fund	N/A	N/A	N/A
Low Emission Neighbourhoods	N/A	N/A	N/A
Sub-total	£0k	£0k	£0k
All TfL borough funding	£1,455k	£1,455k	£1,455k

Supporting commentary for the three-year programme

The three-year programme is driven by the introduction of the borough-wide 20mph speed limit. The introduction of the scheme will spearhead a new approach to strategic transport planning in the borough, with more focus on Healthy Streets and reducing vehicle dominance in residential areas.

By March 2022, the borough will have better facilities for walking and cycling, with improved access to stations and bus stops. Vehicles will be travelling more slowly, with fewer collisions, and those that do still take place being of lower severity. More people will choose to travel by public transport, and it will be more difficult to use

residential streets as rat-runs. Air quality will be improved by increased uptake of cleaner vehicles, and the freight will be managed more effectively.

The programme has been derived through internal and external engagement. Internally, workshops have been held with borough officers to discuss the wider LIP objectives and how their work areas can support the desired outcomes. Internal stakeholders were also invited to request LIP funding to support on-going projects (primarily revenue-based) and engineering schemes, including safety schemes and those focused on improving walking and cycling corridors.

We have also held external sessions with borough-wide stakeholder groups to discuss our proposed approach and get early feedback on how we can make the borough a better place to live and work. These sessions focused on providing the policy background for the LIP, the target outcomes and the objectives we were proposing to ensure these outcomes were achieving. Revisions were made to the objectives following the sessions, and the conversations helped in the prioritisation exercise for the delivery plan.

The initial list of proposed LIP schemes exceeded the borough's allocation. The list of proposed schemes was analysed to ensure they were consistent with the wider LIP objectives and scored against each of the nine outcomes. The highest priority was given to the introduction of the borough-wide 20mph speed limit and completion of already committed schemes, and the rest of the programme was derived to ensure that all LIP outcomes would be addressed and that all areas within the borough would benefit from infrastructure improvements. Consideration was also given to the balance between capital and revenue programmes, with the aim for an 80:20 split. This process was iterative and was undertaken by a group of officers.

The proposed programme, as with the draft LIP document, went through the formal approvals process, including Director's Board, Housing, Community Safety and Environment Overview and Scrutiny Committee and the Cabinet. The consultation for the Draft LIP was approved by Cabinet on 15th November 2018.

Risks to the delivery of the three-year programme

Table ST05 shows the principal strategic risks associated with delivery of the LIP together with possible mitigation actions for the three-year programme.

TABLE ST05 - LIP Risk Assessment for three-year programme 2019/20-2021/22					
Risk	**Likelihood**			**Potential mitigation measures**	**Impact if not mitigated**
	H	**M**	**L**		
Financial					
TfL funding allocation reduces for 2020/21 and 2021/22		M		Further prioritisation of potential projects undertaken with projects either reduced in scale or delayed	Funding shortage could affect borough's ability to deliver core programmes
Public / Political					
Public do not support implementation of 20mph speed limit and it is not adopted		M		Consultation materials designed to encourage support	Delivery programme for 2019/20 adjusted, more junction/ corridor safety schemes implemented
Lack of local support for delivery of schemes		M		Early engagement with the public to discuss proposed changes and take their views into account in designs	Projects either do not get implemented or are implemented in such a way as they do not achieve target outcomes

				Encourage the public to nominate their local area for improvements, and encourage community-led design Develop list of contingency projects, including bringing projects forward, to be implemented if other projects are placed on hold.	
Programme & Delivery					
Projects are delayed due to lack of planning or low staffing levels		M		Ensure projects are fully scoped and planned before starting and that staff will be available	Delays in spend or underspend across programme
Projects take longer to implement or are more expensive than predicted	H			Contingencies are built into timescales and budgets	Delays in spend or overspend across programme

Annual programme of schemes and initiatives

The annual programme of schemes has been completed and submitted to TfL via the Borough Portal (Proforma A). The programme of schemes will be updated annually. A summary of the proposals is shown in Appendix 1.

Supporting commentary for the annual programme

The annual programme was derived simultaneously with the three-year programme. While some components of the three-year programme have been left vague, e.g. budget has been allocated for currently unidentified future Safe Routes to Schools projects, the entire annual programme has been allocated to specific projects. Many of these projects have arisen following corridor studies that have taken place this financial year.

The primary focus for the borough in 2019/20 will be the introduction of the borough-wide 20mph speed limit. Consultation for the scheme will close in December 2018. The scheme is expected to be introduced either on all borough roads or to excluding the strategic road network. The exact use of the funding will be dependent on the results of the consultation and will be updated accordingly for the final LIP submission in February 2019.

There is some carryover of projects from previous years. This includes £100,000 that has been allocated for the White Hart Lane Footbridge, which is providing an alternative to a busy level crossing. Work to improve Richmond town centre, including cycling, pedestrian, public realm and freight consolidation, will also continue.

Approximately 20% of the 2019/20 budget will be focused on revenue projects. This includes cycle training for adults and school children, pedestrian training for school children and a range of road safety schemes aimed at both school children and the wider public. The borough has engaged a BikeIt officer to work in local schools for the 2018/19 school year, and budget has been allocated to ensure this can continue in future years.

Revenue budget has also been allocated to undertaken studies to better understand the need for improvements to support mode shift in areas of the borough where car use is higher. For the coming financial year this spend will focus on the south west of the borough, encompassing Hampton and the area around Fulwell station. Funding will also be provided to support the expansion of CPZs in the borough. Funding for these projects has been prioritised to ensure that the borough is addressing all outcomes within the Mayor's Transport Strategy, with locations identified as part of the data analysis exercise undertaken in preparation of this document.

Infrastructure improvements are focused on safety schemes, in line with TfL's requirements. The location of the safety schemes has been determined based on collision figures.

Risk assessment for the annual programme

Table ST06 below shows the principal risks associated with delivery of the LIP together with possible mitigation actions for the annual programme. The risk register summarises the strategic risks identified that could impact on the annual programme of schemes / initiatives.

TABLE ST06 - LIP Risk Assessment for annual programme - 2019/20					
Risk	**Likelihood**			**Potential mitigation measures**	**Impact if not mitigated**
	H	**M**	**L**		
Public / Political					
Public do not support implementation of 20mph speed limit and it is not adopted		M		Consultation materials designed to encourage support	Delivery programme for 2019/20 adjusted, more junction/ corridor safety schemes implemented
Lack of local support for delivery of schemes		M		Early engagement with the public to discuss proposed changes and take their views into account in designs Encourage the public to nominate their local area for improvements, and encourage community-led design Develop list of contingency projects, including bringing projects forward, to be implemented if other projects are placed on hold.	Projects either do not get implemented or are implemented in such a way as they do not achieve target outcomes
Programme & Delivery					

Projects are delayed due to lack of planning or low staffing levels		M		Ensure projects are fully scoped and planned before starting and that staff will be available	Delays in spend or underspend across programme
Projects take longer to implement or are more expensive than predicted	H			Contingencies are built into timescales and budgets	Delays in spend or overspend across programme

Monitoring the delivery of the outcomes of the Mayor's Transport Strategy

Overarching mode-share aim and outcome Indicators

LBRuT has a target to achieve 75% of trips by walking, cycling and public transport by 2041. This mode-share target is supported by additional targets set to ensure that all the outcomes within the Mayor's Transport Strategy are achieved. These targets are detailed in Table ST07. Transport for London will supply the data for assessing progress towards achieving these targets.

Delivery indicators

The borough will monitor and record the delivery indicators and report to TfL once a year in June using Proforma C. The information provided will include progress towards the outcome indicators as well as details on delivery of cycle parking, cycle training, cycle and pedestrian infrastructure improvements, road safety training, vehicle charging points, etc.

Local targets

The borough has adopted many of the MTS outcome targets as local targets, including short-term targets for mode shift and KSI reduction. The borough has also set targets for installation of electric vehicle charging points (set at 300 for 2018/19), and the number of cycle parking stands to be installed (set at 100 for 2018/19). Local targets will continue to be updated on an annual basis, reflective of ongoing projects and funding allocations.

Table ST07 - Borough outcome indicator targets				
Objective	**Metric**	**Borough target**	**Target year**	**Additional commentary**
Overarching mode share aim – changing the transport mix				
Londoners' trips to be on foot, by cycle or by public transport	Active, efficient and sustainable (walking, cycling and public transport) mode share (by borough resident) based on average daily trips. Base period 2013/14 - 2015/16.	75%	2041	
Healthy Streets and healthy people				
Outcome 1: London's streets will be healthy and more Londoners will travel actively				
Londoners to do at least the 20 minutes of active travel they need to stay healthy each day	Proportion of London residents doing at least 2x10 minutes of active travel a day (or a single block of 20 minutes or more).	70%	2041	Interim target of 46% by 2021

Objective	Metric	Borough target	Target year	Additional commentary
Londoners have access to a safe and pleasant cycle network	Proportion of Londoners living within 400m of the London-wide strategic cycle network.	70	2041	Dependent on TfL funding
Outcome 2: London's streets will be safe and secure				
Deaths and serious injuries from all road collisions to be eliminated from our streets	Deaths and serious injuries (KSIs) from road collisions, base year 2005/09 (for 2022 target)	26	2022	
	Deaths and serious injuries (KSIs) from road collisions base year 2010/14 (for 2030 target).	18	2030	
Outcome 3: London's streets will be used more efficiently and have less traffic on them				
Reduce the volume of traffic in London.	Vehicle kilometres in given year. Base year 2015. Reduce overall traffic levels by 10-15 per cent.	5-10% reduction	2041	

Objective	Metric	Borough target	Target year	Additional commentary
Reduce the number of freight trips in the central London morning peak.	10 per cent reduction in number of freight vehicles crossing into central London in the morning peak period (07:00am - 10:00am) by 2026.	N/A	N/A	N/A
Reduce car ownership in London.	Total cars owned and car ownership per household, borough residents. Quarter of a million fewer cars owned in London. Base period 2013/14 - 2015/16.	75,100	2041	From a baseline of 79,553
Outcome 4: London's streets will be clean and green				
Reduced CO_2 emissions.	CO_2 emissions (in tonnes) from road transport within the borough. Base year 2015/16.	41,900	2041	
Reduced NO_x emissions.	NO_X emissions (in tonnes) from road transport within the borough. Base year 2013.	30	2041	

Objective	Metric	Borough target	Target year	Additional commentary
Reduced particulate emissions.	PM_{10} and $PM_{2.5}$ emissions (in tonnes) from road transport within borough. Base year 2013.	PM_{10} - 29 $PM_{2.5}$ - 15	2041	
A good public transport experience				
Outcome 5: The public transport network will meet the needs of a growing London				
More trips by public transport - 14-15 million trips made by public transport every day by 2041.	Trips per day by trip origin. Reported as 3yr moving average. Base year 2013/14 - 2015/16.	To achieve an annual increase in ridership	Annually to 2041	In lieu of a specific target, the borough will aim to continually increase ridership figures
Outcome 6: Public transport will be safe, affordable and accessible to all				
Everyone will be able to travel	Reduce the difference between total public transport network journey time and total step-free public transport network	-57% (from 8 to	2041	

Objective	Metric	Borough target	Target year	Additional commentary
spontaneously and independently.		3 minutes)		
Outcome 7: Journeys by public transport will be pleasant, fast and reliable				
Bus journeys will be quick and reliable, an attractive alternative to the car	Annualised average bus speeds, base year 2015/16	11.6mph	2041	Baseline of 11.0mph
New homes and jobs				
Outcome 8: Active, efficient and sustainable travel will be the best options in new developments **Outcome 9: Transport investment will unlock the delivery of new homes and jobs**				
		N/A	N/A	Outcomes delivery based

Appendix 1: Summary of Annual Spending Submission to TfL

Scheme	Description	Ongoing from 2018/19?	Proposed LIP Funding (£)		
			2019/20	2020/21	2021/22
Richmond's Support of Vision Zero		*Sub-total*	*885,000*	*835,000*	*531,000*
White Hart Lane Footbridge	Contribution to project to enable pedestrians to cross the railway line during long periods when the level crossing is in operation, reducing pedestrian delay and exposure to traffic pollution	Y	100,000		
Introduction of borough-wide 20mph	Implementation of borough-wide 20mpoh scheme, including sign, lines and traffic calming schemes	Y	350,000	150,000	100,000
A310 Kingston Road/ Strawberry Vale	Safety schemes - collision investigation and corridor study – sub-divided into 3 schemes - Cross Deep Waldegrave Road Junction, plus corridor schemes on Cross Deep and Strawberry Vale	N	140,000	140,000	
A305 Sheen Road Corridor	Safety schemes – collision investigation and corridor study – high number of PIC involving pedestrians and P2W. Sub-divided into 3 schemes – A305 Upper Richmond Road corridor, Sheen Road/ Manor Road junction, A305 Sheen Road corridor	N	40,000	100,000	65,000
A305 Staines Road (Heath Road/ King Street to The Green)	Safety schemes – collision investigation and corridor study – high number of PIC involving cyclists	N	15,000	75,000	
A308 Upper Sunbury Road/ Hampton Court Road	Safety schemes – collision investigation and corridor study – high numbers PIC. Junction improvements at A308/A309 Hampton Court Roundabout and corridor improvements Hampton Court Roundabout to Church Road	N	165,000	235,000	50,000
A313 Uxbridge Road Corridor	Safety schemes – collision investigation and corridor study – high numbers of collisions involving pedestrians and child pedestrians	N	20,000	100,000	
A307 Kew Road Corridor	Safety schemes – collision investigation and corridor study – high number of PIC involving P2W, pedestrians and vehicles turning right	N	20,000		80,000
Rotation of speed indicator devices	Ongoing SID Rotation of 20 signs across 50 regular sites, with ad hoc sites added as requested.	Y	10,000	10,000	10,000
Borough-wide collision investigation	Collision Investigation to identify future Safety Schemes.	Y	5,000	5,000	5,000

Scheme	Description	Ongoing from 2018/19?	Proposed LIP Funding (£)		
			2019/20	2020/21	2021/22
Road safety awareness campaigns	Partnership programme with police to deliver rolling programme targeting issues such as Drink/Drug Drive and other road user behaviour.	Y	5,000	5,000	5,000
Community safety initiatives	Rolling programme of safety initiatives and campaigns to tackle identified road safety priorities each year.	Y	15,000	15,000	25,000
Future safety schemes	Allocation for future safety schemes to address collision hot-spots	N			191,000
Healthy Streets & active travel		*Sub-total*	*321,500*	*331,500*	*587,500*
Cycle training	To deliver cycle training to adults and Yr 5/6 pupils.	Y	81,500	81,500	82,500
Cycle parking	To provide cycle parking on street, at stations and for other community uses	Y	30,000	30,000	30,000
Healthy Streets fund - cycle routes, pedestrian measures, bus stop improvements	Previously cycle routes line item. Fund to improve Healthy Streets scores across the borough by supporting provision for walking and cycling, improving public realm and improving access to public transport	Y	75,000	75,000	100,000
Hampton and Fullwell access to stations/ town centre studies	Study to examine current station, school and town centre access and develop plans to encourage mode shift in the area	N	50,000	50,000	100,000
Whitton and West Twickenham access to stations study	Study to examine current station, school and town centre access and develop plans to encourage mode shift in the area	N			50,000
Controlled parking zone development and implementation	Contribution to the development and implementation of new controlled parking zones in the borough	N	25,000	25,000	25,000
Barnes High St/Church Rd neighbourhood scheme	Barnes High Street & Station Road - Footway widening, loading changes, waiting times, parking changes	N	10,000	50,000	200,000
Richmond town centre neighbourhood scheme	Cycle parking, urban realm improvements, bus station improvements, smarter deliveries, crossing, ped improvements	Y	30,000		
Rocks Lane/ Mill Hill Road	Development of junction improvements including pedestrian facilities	Y	20,000	20,000	

Scheme	Description	Ongoing from 2018/19?	Proposed LIP Funding (£)		
			2019/20	2020/21	2021/22
Schools – training and engineering		*Sub-total*	*149,000*	*189,000*	*237,000*
Healthy Routes to Schools	Renamed - previously 'sustainable travel to school'. To implement measures arising from School Travel Plans to encourage more pupils to walk/cycle to school, focusing on spot infrastructure improvements	Y	45,000	45,000	45,000
School based programmes	Rolling programme of projects (available to all schools) e.g. scooter training, Junior Citizen etc, and ad hoc safety education measures to address school-specific problems.	Y	25,000	25,000	30,000
Junior road safety officers	To appoint Junior Road Safety Officers and provide resources to support their work.	Y	1,000	1,000	1,000
Pedestrian training	To deliver pedestrian training to Yr 3 pupils.	Y	22,000	22,000	25,000
Bike It schools	1/4 Sustrans post to work with schools on cycling initiatives and modal increase. Supports the 75% active travel target for outer London	Y	16,000	16,000	16,000
Safe Routes to Schools – St Stephen's Winchester Road	Mayor's Air Quality Report – consultation and implementation of a School Street in Winchester Road with CCTV enforcement	N	25,000		
Safe Routes to Schools – St Margaret's Road/ Sandycoombe Road junction	Scheme to improve safety through improved pedestrian facilities and general streetscape improvements	N	15,000	80,000	20,000
Safe Routes to Schools – future schemes TBD	Allocation for further safe routes to schools work	N			100,000
Clean & green		*Sub-total*	*100,000*	*100,000*	*100,000*
Air quality initiatives across the borough	Air quality measures including electric vehicle charging points, ULEZ expansion supporting measures, air quality monitoring	Y	100,000	100,000	100,000
		Total	**1,455,500**	**1,455,500**	**1,455,500**