Royal Borough of Kingston

Third Local Implementation Plan

FINAL – July 2019

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FOREWORD

It is recognised that the Royal Borough of Kingston upon Thames is a wonderful place to live, with its great schools, green spaces, vibrant community and strong economy, and we believe that by working with you – the residents, community groups and businesses of Kingston, we can together rise to meet the transport challenges that our growing community faces.

There are key issues to be addressed, and we know that air quality across our borough is not good enough, and the Council needs to take practical and measurable steps to address this. Looking to support and provide for more sustainable modes of transport must be our mission, and the challenge is therefore to improve our streets and air quality, whilst at the same time reducing congestion and creating a safer and healthier environment for everyone.

Our aim is that residents, visitors and business travellers should be able to move easily and safely around the borough, with a choice of transport options. To achieve this we will seek to secure improvements to our sustainable transport facilities and services, and work with partners including Transport for London, the GLA and our neighbouring authorities to ensure a truly joined-up approach.

A large proportion of car journeys in Kingston are less than 3 miles / 5km. Many of these journeys could therefore be replaced with more active and sustainable forms of travel, such as walking and cycling, which are known to improve health, reduce emissions and make our streets more pleasant places. The major new Mini-Holland cycle improvements are now taking shape on our highway network, and we will ensure that the pace of implementation is kept up whilst at the same time taking care to reduce shared space and adverse impacts on other forms of transport, especially buses. We need to make our roads safer, and we will support measures to have 20 mph speed limits on residential roads across the borough, to make our streets safer for everyone.

This LIP3 outlines a commitment to improving transport options for the community and to reducing the negative impacts of travel on our borough. It sets out the council's proposals to improve Kingston's transport, environment and streets, and how this will contribute towards the delivery of the Mayor of London's new Transport Strategy and Healthy Streets agenda.

This is a strategic plan that seeks to reduce air pollution, improve road safety and create a sustainable and inclusive transport network that can be accessed by everyone. By delivering this strategy, we are determined that we will make Kingston a better place for everyone.'

Councillor Hilary Gander
Portfolio Holder for Environment and Sustainable Transport

CHAPTER 1

Introduction

1.1 The Local Implementation Plan (LIP) is a statutory document prepared under Section 145 of the GLA Act. It sets out how the Council proposes to deliver the Mayors Transport Strategy (MTS) [1], published in March 2018, in the borough 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 Plans, published in March 2018.

1.2 The first LIP covered the period 2005/06 to 2010/11; the second LIP covered the period 2012/13 to 2017/18. This document is the third LIP for Kingston. It covers the same period as the MTS (to 2041), and takes account of the transport elements of the London Plan and other relevant local and Mayoral policies. It sets out long term goals and transport objectives for the borough for the next 20 years, a more detailed 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 is seeking to achieve. A more detailed delivery plan is provided for the 2019/20 financial year.

1.3 The LIP identifies how the council will work towards achieving the MTS goals of:

a. Healthy Streets and healthy people

b. A good public transport experience

c. New homes and jobs

as well as the key outcomes, policies and proposals of the MTS.

1.4 The council notes that the overarching aim of the MTS is for 80% of all trips in London to be made on foot, by cycle or using public transport by 2041, compared to 63% today, and that there are different targets set for central, inner and outer London. The LIP outlines the council's priorities and targets in order to assist with this aim.

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

Local Approval Process

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[1] https://www.london.gov.uk/sites/default/files/mayors-transport-strategy-2018.pdf

1.6 The draft version of the LIP was shared with the Portfolio Holder for Environment and Sustainable Transport, as well as the four Neighbourhood Committees to invite comment on the structure and content. The final version of the draft LIP will be approved by the Environment and Sustainable Transport Committee on 12 February 2019.

1.7 It should be noted that any decision made by that Committee is subject to a 'Call In' process, which means the document cannot be considered final until 26 February 2019. The 'Call In' process was invoked and the LIP3 was heard at Scrutiny Committee on 27 March and the papers for the meeting can be found on line.

Statutory Consultation

1.8 The GLA Act 1999 places a duty on boroughs, when preparing a LIP, to consult with the following organisations:

a. the relevant Commissioner or Commissioners of Police for the City of London and the Metropolis;

b. Transport for London (TfL);

c. such organisations that represent disabled people as the borough considers appropriate;

d. other London boroughs whose area is, in the opinion of the council preparing the LIP, likely to be affected by the plan; and

e. any other person required by the Mayor to be consulted. On this occasion the Mayor has not required any further persons or organisations to be consulted.

1.9 In addition, a total of 39 bodies have been consulted directly, including the statutory consultees mentioned above and a number of residents associations and religious groups. All direct consultees were written to, drawing attention to the consultation and the closing date.

1.10 The direct consultees fall into a number of broad categories as follows:

1.11 The Statutory consultees included were TfL; the Emergency Services; Disability Groups – Kingston Centre for Independent Living, Kingston Association for the Blind and Mind in Kingston; other Local Authorities – London Boroughs of Sutton, Merton and Croydon and Surrey County Council.

1.12   The non-statutory consultees included were national agencies, transport operators, business groups, community groups/residents associations and religious groups and these are listed in Appendix 1.

The number of responses to the draft LIP3 (including TfL's response) was 7, and the comments made have been incorporated into the final LIP. A report on the consultation responses, which identifies how the commentary has been reflected in the LIP3 has been produced.

Strategic Environmental Assessment (SEA) and Equality Impact Assessment (EQIA)

1.13   The Council has a statutory duty to conduct a Strategic Environmental Assessment and an Equality Impact Assessment on its LIP.

The Council consulted on the Draft SEA Environmental Report between 4 June and 28 June, with ten responses received. The full comments can be found in the SEA post-adoption statement, which along with the Final SEA Environmental Report, will be published with the final version of the LIP3 on the Council's web page. Most of the comments related to biodiversity in the borough, and in response to this objective 4.6 has been added to the LIP to ensure biodiversity matters are considered, in line with the council's wider environmental strategy - whilst recognising that any biodiversity strategy itself is not within the remit of the LIP.

1.14   The SEA Environmental Report is included with the LIP3 following the consultation, and the EQIA is available.

CHAPTER TWO
BOROUGH TRANSPORT OBJECTIVES

Introduction

2.0   This Transport Strategy has been written to reflect the aims and objectives identified in Kingston's key existing and emerging policy and strategy documents and also London wide and national policy guidance. Kingston's key policy documents include the existing and emerging Corporate and Local Plans, the Direction of Travel and a number of other Corporate Strategies (identified below). London wide and national planning guidance include the Mayor for London's Transport Strategy (MTS), the London Plan (both existing and emerging) and the National Planning Policy. The emerging Corporate Plan in particular is strongly aligned with our LIP3, focussing as it does on completing delivery of the £33m Go-Cycle programme, working with the GLA to deliver more electric vehicle charging points, do more to encourage people to stop engine idling, reviewing our parking services and charges and consulting on the introduction of 20 mph speed limits in residential roads to improve safety and traffic flow.

Local Context

2.1   Geography - Kingston is situated in outer South West London and is bordered by the London Boroughs of Richmond, Wandsworth, Merton, and Sutton, as well as Surrey County Council boroughs of Elmbridge, Mole Valley, and Epsom and Ewell. The borough covers an area of 38.66 square kilometres, which makes it the seventh smallest London borough in terms of its geographical area. The Borough has one Metropolitan Town Centre (Kingston), and three District Centres (Surbiton, New Malden, and Tolworth).
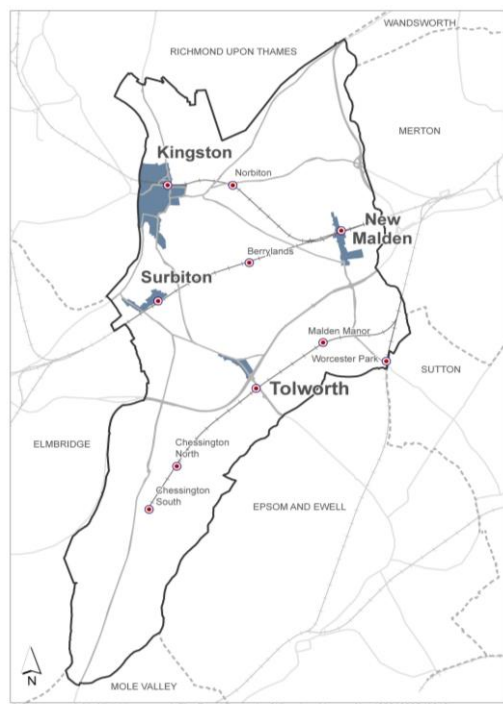
Figure 1 Borough Background

2.2   Kingston is an attractive place to live and work being a significant retail, entertainment and leisure destination of choice as well as having a reputation as one of the best places in the country for education. It is also consistently one of the safest boroughs in London and plays an important sub-regional role with its road and rail links, as well as extensive bus coverage.

2.3   Kingston has a rich historic legacy stemming from its role as a crossing point for the Thames; the town's bridge was the first in London upstream from London Bridge. There are close Royal links which have subsequently been enhanced through various charters and the proximity of Hampton Court.

2.4   Following its early beginnings as a Market Town, Kingston has undergone rapid transformation over the past 30 years or so. Kingston Town Centre is a thriving modern metropolitan centre with an extensive range of shops and services and significant new housing provision. As a cultural centre, Kingston is home to Kingston Museum Art Gallery, Kingston Museum and the Rose Theatre. The Rose Theatre has attracted a more diverse cross-section of visitors to the Borough and the wide range of bars and restaurants on offer contribute to Kingston's thriving night-time economy.

2.5   Kingston College and Kingston University are well established and attract learners from across a wide area. These will help to ensure that future generations of Kingston's workforce have the right skills to suit the needs of future economies. As the university attracts students from across the country and the world, it serves to raise the profile of Kingston and makes a significant contribution to the Borough's economy.

2.6   The Borough is made up of a range of locally distinctive areas providing local shops and services, and a range of differing residential areas. The mix of attractive residential areas, large areas of green space, high quality retail, cultural and education facilities, proximity to the Thames riverside and accessibility to central London and countryside make the Borough a popular place.

Demographics

2.7   Housing and Population - Kingston's Core Strategy was adopted in 2012 planning to deliver 375 homes per year between 2011 and 2021, a target set out in the 2011 London Plan. This target was almost doubled in the 2015 London Plan, to 643, and this is the current target we are measured against by government.

2.8 Kingston continues to grow and its population is now predicted to increase from 173,000 to over 200,000 people by 2041. The new London Plan proposes doubling the housing target again to 1,364 homes per year. This new target will be considered at a public examination in 2019 and a new, higher target is expected at the end of 2019. The Council is objecting to the 1,364 target.
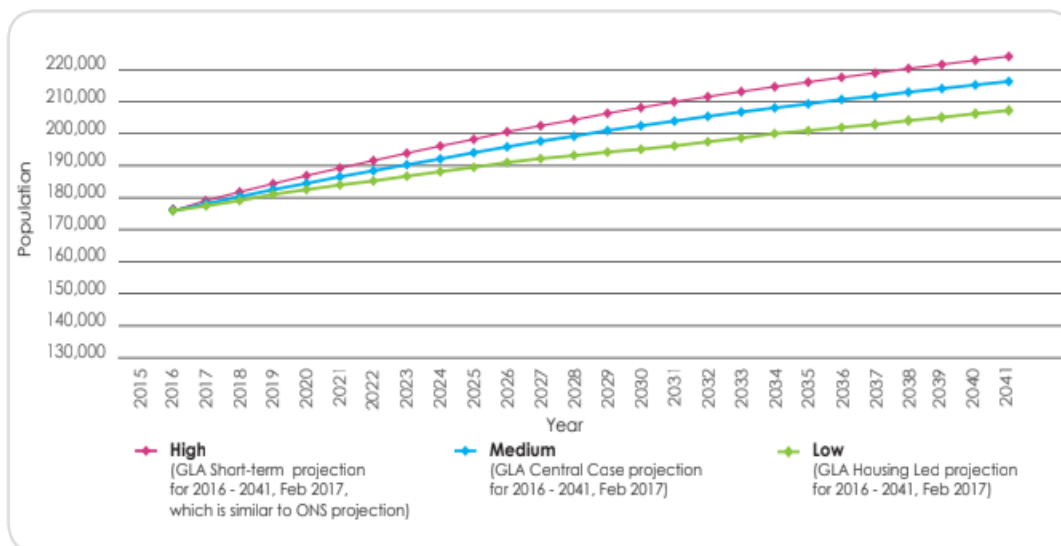
Figure 2 Kingston Borough population projections to 2041

2.9 Nationally, there has been a failure to deliver enough homes to keep up with population growth particularly in London and the South East. The government believes Greater London needs to be providing 100,000 homes per year while the Mayor of London believes that about 66,000 homes are needed. The current London Plan targets would deliver 65,000 homes per year, almost achieving the estimated need, but well below the government estimate of London's need.

2.10 The new London Plan seeks to significantly increase housing delivery in outer London boroughs such as Kingston, particularly around stations and by bringing forward a lot more housing on smaller sites. The new plan increases the contribution from the 21 Outer London boroughs to two-thirds of the total: almost all of the additional housing is to be provided in Outer London.

2.11 We do not know what the housing target will be for Kingston following the public examination for the Mayor's London Plan. However, there is a need to positively plan for a significant increase in housing delivery in Kingston, including new transport infrastructure, to manage and shape the future of our borough.
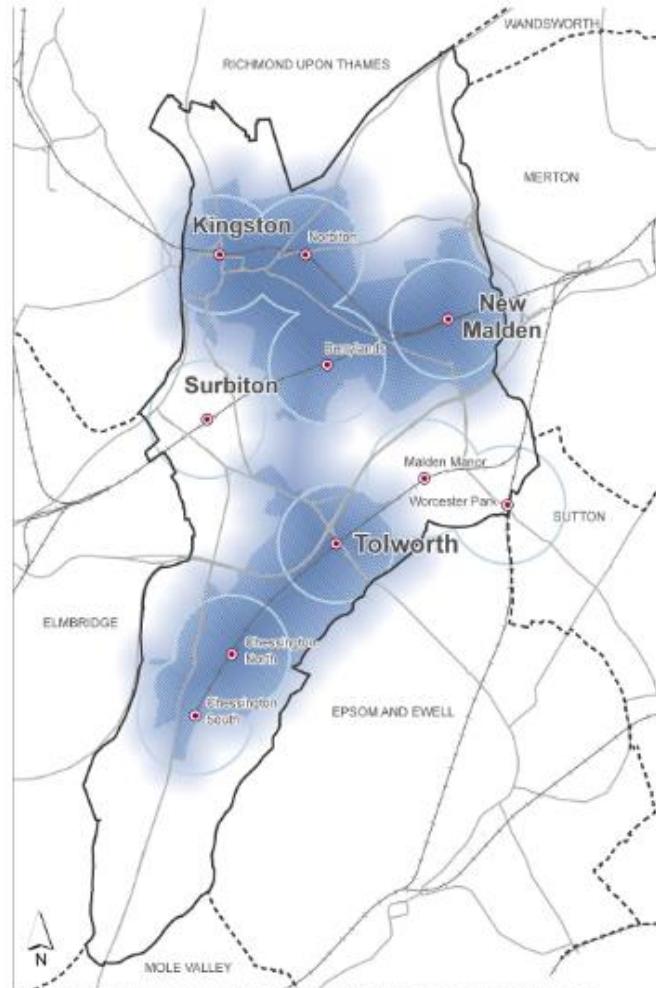
Figure 3 Potential areas for housing delivery across the borough

Employment and other activities

Figure 4 The borough's protected employment locations

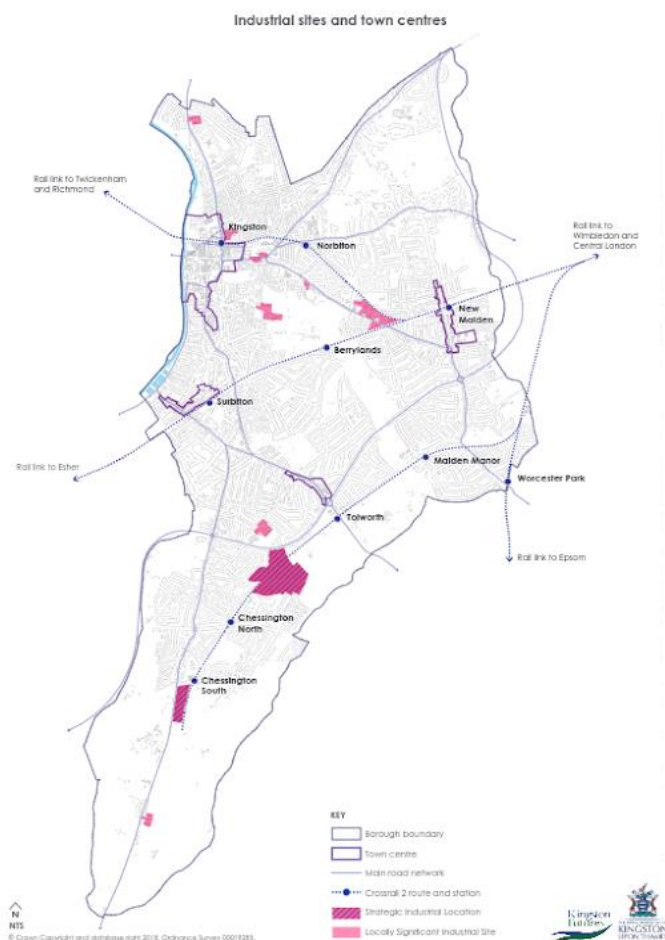2.12 Alongside housing, the Council is examining how to create spaces for people to work and access the services they need. This primarily includes retail and food and drink, industrial and light industrial activities, office-based businesses, health, education and leisure facilities, and a range of other workspaces.

2.13 The income of Kingston's residents is currently much higher than the income of its workers suggesting that our local economy would benefit from more highly skilled and highly paid jobs. To achieve this, a more diverse economy is required. Importantly, even with significant investment, our transport systems would not be able to cope if housing growth was not matched by a local employment offer to allow people who want to, to live and work in the borough.

Transport Trends

2.14 Transport Geography and Main Trip Generators - Various organisations have responsibility across different levels of the transport network. The Department for Transport (DfT) is responsible for international and national networks, Transport for London (TfL) for London-wide and certain sub-regional networks, and London boroughs (Kingston) for other sub-regional and local networks.

2.15 The Council has a key role in determining and delivering infrastructure within the borough of sub-regional and local significance, and can also influence those organisations delivering international, national and London-wide networks which affect the borough. Kingston is part of the South London Sub Regional Partnership along with the London Boroughs of Sutton, Richmond, Merton, Wandsworth and Croydon. Responsibility for transport assets and services in the borough is divided between the Council, TfL, Network Rail, the train operating company and multiple bus operating companies.

2.16 The largest trip generators in Kingston are Kingston Town Centre, the District Centres, Kingston University, Kingston College, Kingston Hospital, Chessington Industrial Estate, Barwell Business Park and Chessington World of Adventures. All of these attractions (except the District Centres) are considered to attract a significant number of trips from the wider sub-regional catchment. Significant trips are also generated to central London for commuting purposes and Heathrow Airport.

Figure 5 Number of Kingston residents out-commuting to work (Source: Table WF01BEW: Location of usual residence and place of work (ONS, 2011))

Traffic Situation

Kingston's roads (and rail services) are dominated by radial routes (south west/north easterly direction) which facilitate access to central London. As a consequence there are a large proportion of through traffic movements. Orbital routes are more limited in their number and nature but are vital for connecting more local attractors such as schools, residential areas, hospitals and local employment. All routes suffer significant congestion and overcrowding particularly during peak periods.

2.17   Kingston's road hierarchy is made up of the following categories: A Road Network (Principal Road Network), TLRN (routes on the A road network operated by TfL), A Roads (roads operated by the Council), Non-Principal Road Network - B and C Roads, Local Roads and Unclassified Roads.
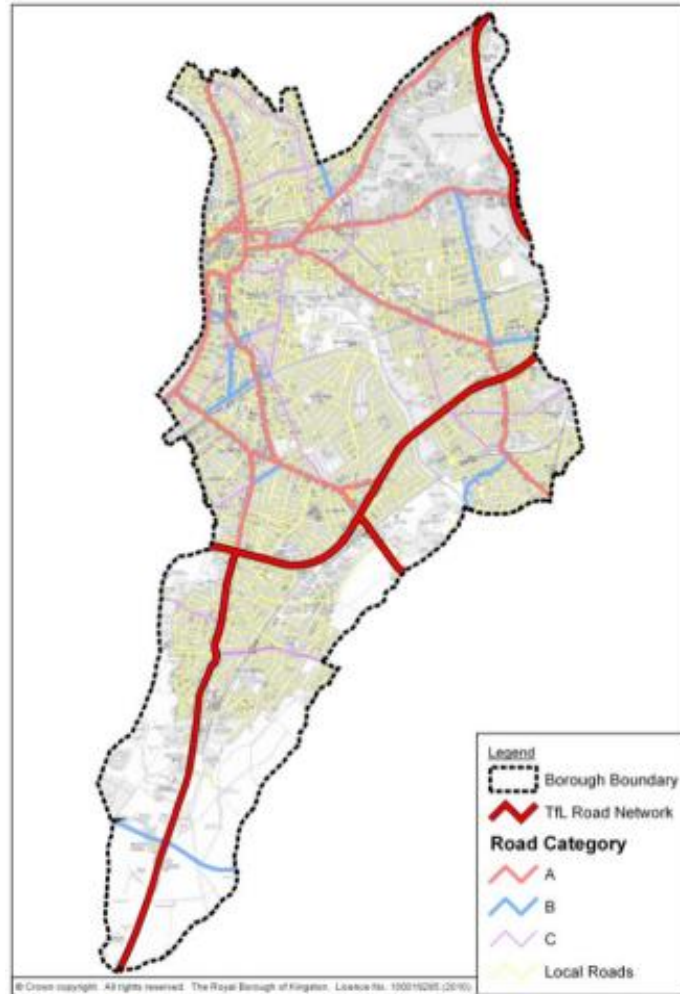
Figure 6 Kingston's Road Hierarchy
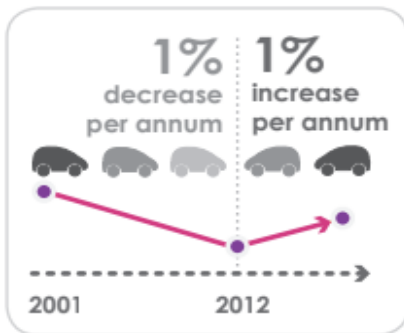
Figure 7 Traffic Reduction/Growth in Kingston

2.18   Traffic trends - volumes in Kingston demonstrated a steady decrease from 2001 to around 2012 (evidence compiled from the Council's 57 traffic counters recording lower traffic volumes) equating to a decrease of approximately 1% per annum on average.

2.19   Despite these changes in traffic volumes, Kingston still experiences high levels of car use (almost 50% of all trips), with traffic congestion having often been one of Kingston resident's most common concerns. Generally congestion is worst on the TLRN, A Roads, and B Roads, as well as around schools and town centres. Kingston town centre itself has experienced high levels of congestion in recent years, due in particular to the delivery of various major improvements, including the Go-Cycle programme. The council is strongly committed to this as we recognise the long term benefits improvements will bring, whilst recognising there will be shorter term impacts and disruption.

2.20 The borough has high levels of car ownership, one of the highest rates in London and the high car use and ownership can largely be explained by the fact that there is no tube or tram network in the borough, poor orbital rail based links, high travel costs to Central London (London Waterloo), low train frequencies from many RBK train stations, large areas of poor public transport accessibility and poor public transport links to areas of Surrey and elsewhere.
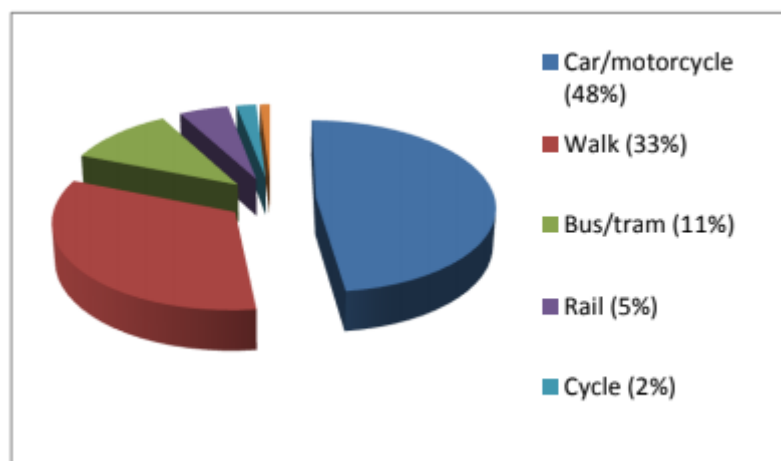
Figure 8 Mode Share - Trips originating in Kingston by main mode of travel

Public Transport Overview

2.21 The borough is serviced by two modes of public transport, trains and buses. Due to the lack of underground or tram services, poor orbital rail links, and large areas with low train frequencies, RBK is heavily reliant on its extensive bus network to provide acceptable levels of public transport accessibility. The areas of the borough with the highest levels of public transport accessibility include the main town centres such as Kingston, New Malden and Surbiton. The areas of the borough with the lowest levels of public transport accessibility are Coombe, Berrylands/Hogsmill area, and South of the Borough.
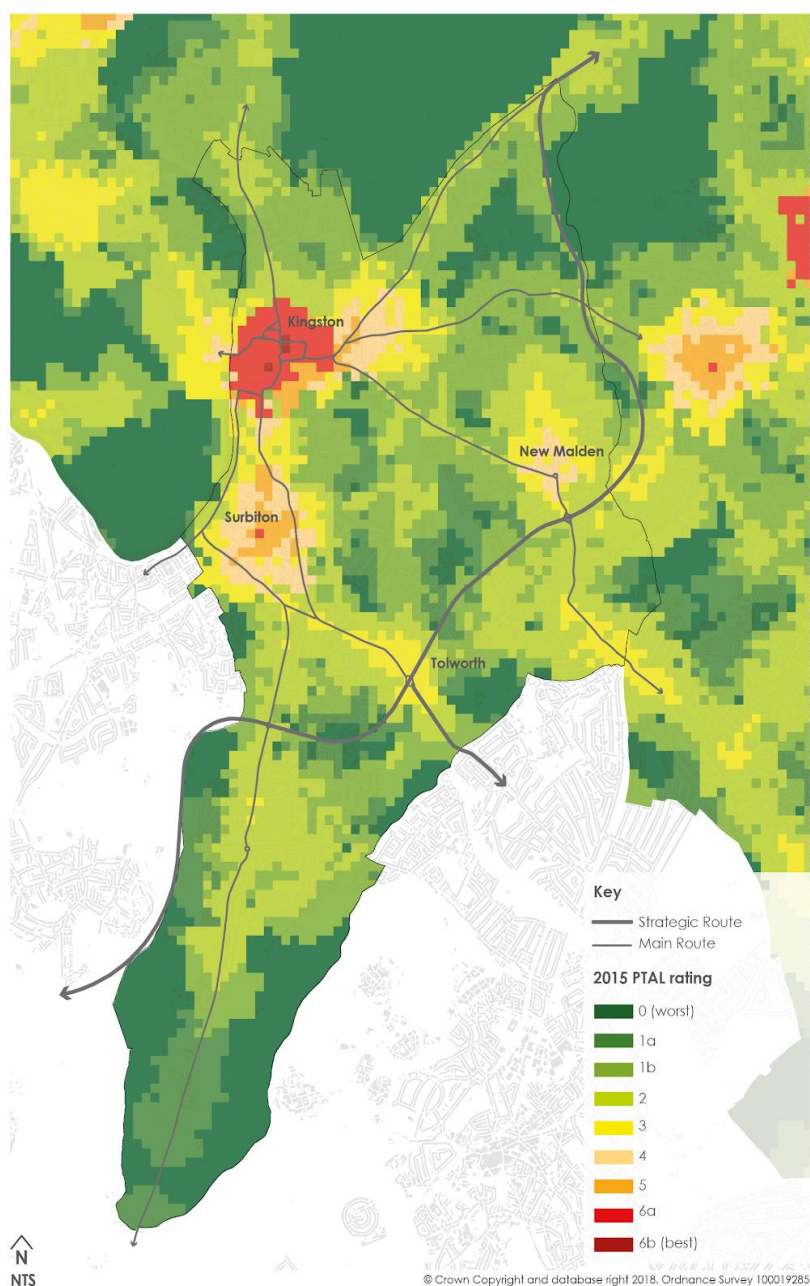
Figure 9 Public Transport Access Levels 2015 (Transport for London)

Rail Network

2.22   There are 10 train stations within the borough. Motspur Park train station is located approximately 50 metres from the borough boundary and is consequently used by a significant number of Borough residents. Train use has seen significant increases over the years and services calling at many of the borough's stations run at or above capacity during peak hours resulting in congestion and inconvenience for passengers. London Waterloo station is an important destination for RBK residents as it is the gateway to central London.

2.23   The borough enjoys reasonable radial train links to Waterloo with travel times ranging from under 20 minutes (Surbiton Station) to over 30 minutes (Chessington South Station); however train frequencies and travel costs to Waterloo continue to be a significant issue from many of Kingston's stations. The borough is poorly serviced by orbital rail links and rail links to Heathrow and Gatwick Airport. Surbiton and Kingston have the highest usage while Berrylands and Tolworth have the least number of entries and exits.

2.24   Crossrail 2 is planned to come to all 10 railway stations in the borough helping to meet the new London Plan housing targets for Kingston. Shorter journey times will support economic regeneration with most of the additional growth likely to be delivered between 2025 and 2060. The Council has commissioned associated additional studies to investigate the impact of additional housing on the transport network and how Crossrail 2 can reduce rail crowding.

Bus Network

2.25   The majority of bus services in Kingston are provided by TfL and are mostly contained within the London boundary. Surrey County Council also provides some bus services that enter into the borough, all of which terminate in Kingston town centre. In addition there are a number of dedicated school and university bus services and also 9 night bus services operated in the borough. Where bus services operate on Council administered roads, then the Council is responsible for implementing and maintaining bus lanes and the on-road aspects of bus stops; TfL are responsible for bus shelters and associated facilities such as signage.

Cycling

2.26   Kingston's relatively flat topography means it is readily accessible by bicycle. The Council has identified and implemented a network of routes across the Borough linking all major centres of employment, education, leisure and railway stations. These routes form part of the wider London Cycle Network and link to the adjoining county of Surrey. The Council's Cycle Network Plan identifies how the Kingston Go Cycle initiative will help relieve the pressure of a growing population on the transport network by encouraging cycling through a further £30m investment in cycle infrastructure improving connectivity and safety between key destinations.

2.27   National Cycle Network Route 4 runs through the borough alongside the River Thames and there are leisure routes in the South of the Borough and the nearby Royal Parks (including Richmond Park). London Cycle Network Route 75 also runs through the borough in an east-west direction, providing an excellent level route through Kingston Town Centre and linking with New Malden and Worcester Park.

2.28   Whilst not in the borough, Richmond Park is located on the border of the north-east edge of the borough, and there are well used links to the park, and also to Wimbledon Common to the east. A Go Cycle scheme is also under construction, providing a 'traffic free' route from New Malden Railway Station to Raynes Park.

2.29 Some other routes contain 'traffic free' sections, usually when crossing segregation barriers such as the Hogsmill River and the A3; these sections offer journey time savings and convenience compared with journeys made by car or public transport. Cycling numbers in Kingston have been rising in recent years as confirmed by screenline counts.

Walking

2.30 Kingston Borough contains a wide-ranging walking network largely consisting of urban footways (paths within the highway corridor), Public Rights of Way, and Permissive Paths. Kingston also contains a river-side walk in Kingston town centre and portions of two walking routes which form part of London's Strategic Walking Network: the Thames Path and Section 8 of The London Loop (also referred to in the borough as the Hogsmill Walk).

2.31 The Council has a Walking Strategy and an adopted Rights of Way Improvement Plan to help promote walking in the borough. Despite a high quality walking network there are still opportunities to increase the number of people walking particularly for transport rather than leisure purposes.

Local Plan, Core Strategy and other Corporate Strategies

2.32 The Council is preparing a new Local Plan, the key to shaping future development and the use of land in the borough, with objectives focussed on making Kingston a better place to live, work and visit. It will include consultation with residents and businesses and will set out the strategic vision for growth, development, change and priorities for the period 2019 to 2036 including new transport infrastructure. It will contain the Council's policies for determining planning applications across the borough, and guide cross boundary working. The Council is also developing a new Corporate Plan which builds on the themes set out in the current administration's Manifesto and is fully compatible with our LIP3, with a focus on the following:-

- Invest in sustainable transport - including cycling and electric vehicle charging - to reduce reliance on high polluting vehicles to tackle air pollution, with an approach to traffic enforcement which keeps the borough moving.
- Invest in the borough's essential infrastructure to support a growing population – including roads and transport - with developers paying their fair share.

2.33 Kingston's Core Strategy currently shapes future development and improvement setting the overall planning framework for the Borough. It sets a clear vision on how the borough should look balancing environmental issues with economic and social needs and ensures that development is sustainable and does not cause irreversible harm to important resources and features. The Core Strategy also sets out the local borough context including the geographical, demographic, social, economic and other borough characteristics (Chapter 2, Kingston Context, pages 5 - 10). Other relevant associated Corporate Strategies include the Economic Growth and Development Strategy, Destination Kingston, the Air Quality Action Plan, the International Strategy and the Cultural Strategy.

2.34   There are a number of key locations across the borough that are likely to see significant new development; these areas provide the best opportunity to meet the need for housing, and provide the workplaces and infrastructure (such as transport) to create places that people want to live, visit and work. The designation of an Opportunity Area will assist the council in securing additional support and resources needed to deliver this new development.

2.35   An Issues and Options document represents the council's first statutory stage of plan preparation. This identifies broad areas for new development across the borough, and the infrastructure investment needed to support this. The document will allow people to share their views on the issues affecting the borough which will help inform drafting of the new Local Plan.

Direction of Travel

2.36   The Direction of Travel provides supplementary planning advice to the London Plan policies to support the development and intensification of areas within the borough to provide new homes, jobs and investment. Kingston is growing and its population is predicted to increase from 173,000 to at least 200,000 people in 2036. This document forms part of the work undertaken by the Mayor and Kingston Council in identifying and assessing opportunities for new development in the borough for the new Local Plan and Opportunity Area Planning Framework.

Kingston Town Centre Movement Strategy

2.37   The Kingston Town Centre Movement Study provides a vision for movement in Kingston town centre, facilitating development opportunities whilst encouraging movement by sustainable modes. It considers a range of possible highway improvement scenarios, however due to the built up nature of the town centre and limited space for new infrastructure, some reductions in road capacity would be inevitable which means that trade-offs are made between competing objectives.

2.38   The preferred highway intervention converts Clarence Street and Wood Street into a sustainable transport corridor and the remainder of the gyratory into two way traffic movement. This arrangement offers the greatest overall long term benefits, however, it is likely to be dependent on the implementation of Crossrail 2 and significant modal shift

The Local Plan

2.39   To help deliver Kingston's Local Plan, TfL and RBK appointed Arup consultants in January 2015 to undertake strategic transport modelling and produce a Kingston Transport Forecasting Report. It assesses the transport implications of new development through the modelling of the impacts of projected growth on the transport network (over the lifetime of the new Local Plan) and identifies the mitigations necessary to deal with any resulting issues.

2.40   The study involved assessing both the highway and public transport networks. Further information is contained in Section 4F of the strategy 'Transport

Objective - Delivering New Homes and Jobs Through Investment in Transport'. The complete Kingston Transport Forecasting Report can be accessed via a link on the Council's website.

The London Plan
Existing London Plan

2.41   The existing London Plan was prepared by the Mayor of London and sets out the strategic planning context and policies that should be applied across Greater London. It forms part of Kingston's development plan and the policies in it are used directly for determining planning applications. The London Plan states that transport is central to the achievement of many of the key objectives for London. Chapter 6 (London's Transport) sets out policies primarily intended to support delivery of the key objective, that London should be: 'a city where it is easy, safe and convenient for everyone to access jobs, opportunities and facilities with an efficient and effective transport system which actively encourages more walking and cycling'.

The New London Plan
2.42   The Mayor of London published 'A City for all Londoners' in October 2016, the first step towards a new London Plan, building on his manifesto and setting out how he plans to respond to London's challenges and opportunities. The new London Plan covers the period up to 2041; at its heart is the ambition to achieve 'good growth', to respond positively to growth whilst protecting local communities, services and the environment by focusing on intensification at transport nodes, embedding environmental and green initiatives, with a particular emphasis on walking, cycling, air quality and 'healthy streets'

2.43   The Mayor's approach (adopted in the London Plan) resonates with the council's own ambitions to positively shape growth in the borough; it will be crucial to ensure alignment between the London Plan and the Local Plan in order to ensure conformity. The Transport Chapter of the London Plan closely reflects the aims and objectives of the new MTS which both help underpin the overarching aims of this transport strategy.

National Planning Policy framework
2.44   The National Planning Policy Framework sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally-prepared plans for housing and other development can be produced. It states that transport policies have an important role to play in facilitating sustainable development and in contributing to wider sustainability and health objectives. The transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel and also that different policies and measures will be required in different communities

Mayor's Transport Strategy
2.45   The Mayor of London's Transport Strategy sets out his vision and ambitious plan to reshape transport in London over the next 25 years. It takes forward the approach set out in 'Healthy Streets for London' and explains that for

London to function well, the way people move around will need to change. Through investment in healthy streets, public transport and measures to reduce the reliance on cars, the aim is that by 2041, 80 per cent of all trips in London will be made by sustainable modes which is a significant change from today when 36% of trips are by car. This will provide huge benefits for all Londoners including improved health and will make London fairer with streets that function more efficiently with less pollution and congestion. Public transport will be more efficient and there will be more space for people.

FIGURE 2: MODE SHARE 2015, AND 2041 (EXPECTED)

37%

2015
26.7 million
daily trips

63%

20%

2041
33 million
daily trips

80%

Walking, cycling & public transport   Car, taxi and private hire vehicle
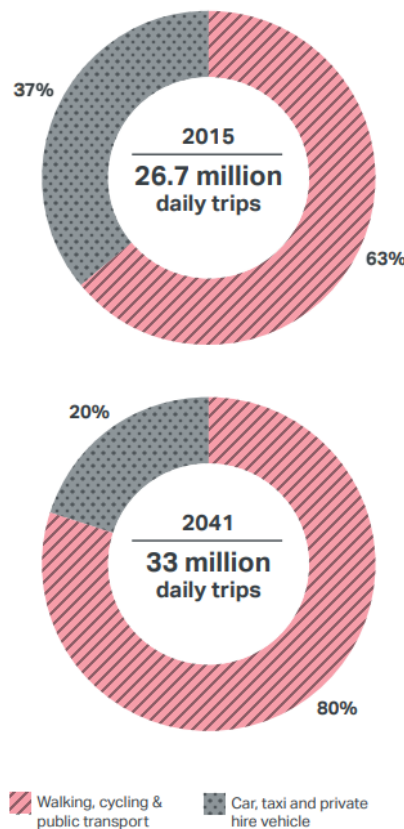
'The central aim is for 80 per cent of all trips in London to be made on foot, by cycle or using public transport by 2041.'

Figure 10 Mode Share 2015, and 2041 (Expected)

Healthy Streets

Figure 11 Healthy Streets Indicators

2.46 Healthy Streets was first outlined in the Mayor's vision for London, 'A City for all Londoners' in 2016. This new approach aims to prioritise active travel, making walking, cycling and public transport use the best choices for travel, encouraging the most efficient methods of essential travel for people and goods, and creating more attractive, accessible and people-friendly streets.

2.47 The Healthy Streets approach is based on 10 Indicators which focus on the experience of people using streets. There are two main indicators, which are supported by another eight other indicators, that point to the essential elements required to support these two main indicators:

Main indicators
- Pedestrians from all walks of life; and
- People choose to Walk, Cycle and use Public Transport.

Supporting indicators
- Easy to Cross
- Shade and Shelter
- Places to stop and rest
- Not too noisy
- People feel safe
- Things to see and do
- People feel relaxed
- Clean air.

2.48 The guidance and drive behind Healthy Streets is to focus on improving the infrastructure across broader areas, so that improvements can be considered in a more strategic manner where there are clear opportunities for improved modal choice towards encouraging people to make journeys by walking, cycling public transport. Going forward, this methodology will be considered as part of the development of all schemes, interventions and policies within the LIP, and will also influence new developments and masterplans across the borough.

2.49 Streets make up to 80% of London's public space, so making them healthy has the potential to improve the experience of living, working and spending time. The strategy states that local streets and neighbourhoods should therefore be designed to make them pleasant places. The MTS also states

that public transport is the most efficient way for people to travel distances that are too long to walk or cycle; public transport services will therefore become more efficient, attractive and pleasant to use with new technologies enhancing travel information.

2.50   Buses will be given proper priority and services planned to match demand. The MTS also recognises that more people than ever want to live and work in London and that the population will increase significantly; the strategy states that transport has an important role to play in making sure that London's growth is 'good growth', improving the quality of life.

2.51   Historically, bids to TfL for LIP funding sought to identify a range of smaller interventions at sites or junctions, resulting in the delivery of small-scale transport improvements at a local level. The Healthy Streets principles mean inevitably that there will be fewer, but larger and higher quality schemes being delivered, and it will be important that proposals for new schemes are linked to provide area wide coverage to ensure consistent modal choice opportunities.

Figure 12 Examples of schemes to promote sustainable travel

Sub-Regional Context

2.52   The Royal Borough of Kingston forms part of the South London sub-region, and so is covered by the South London Sub-Regional Transport Plan, published in December 2010. Kingston Town Centre is one of four metropolitan town centres in the sub-region, alongside Bromley, Croydon and Sutton, which are key retail and employment centres in their own right and support the wider South London economy.

2.53   South London is unique amongst the sub-regions in being largely dependent on heavy (national) rail for its rail-based public transport, due to the less dense underground network compared to other parts of London. The Overground network is limited to the East London Line to West Croydon, the South London line through Clapham Junction and part of the original North London Line terminating at Richmond. The Elizabeth Line (Crossrail) does not serve the sub-region but proposed branch lines for Crossrail 2 will do so. The sub-region does also contain the Tramlink service from Wimbledon through Croydon.

2.54   Also unique amongst the sub-regions is that South London does not contain any motorways. However, it contains a number of key radial roads which link South London to the M25 or M23, including the A3, A243, A240, A217 / A297, and A24, together with the A205 south circular and the A232 / A2043 outer-orbital routes.

Changing the Transport Mix

2.55   The MTS identifies that the success of London's future transport system relies upon reducing Londoners' dependency on cars in favour of increased walking, cycling and public transport use. Policy 1 states that the MTS will reduce Londoners' dependency on cars in favour of active, efficient and sustainable modes of travel, with the central aim for 80 per cent of all trips in London to be made on foot, by cycle or using public transport by 2041. Making alternative transport options accessible and appealing to all Londoners is the key to reducing car dependency.

2.56   Transport is crucial to the future of Kingston and is at the centre of the borough's challenges. The vision is to create a borough that is a better place to live and work, and is able to accommodate the predicted new development over the coming years.

2.57   For Kingston's transport system to be successful, it is recognised that there is a need to reduce the dependency on the car in support of Policy 1 of the Mayor's new Transport Strategy, as mentioned above. This will also help to reduce danger on our roads, limit pollution and help to develop attractive local environments. Communities can be improved and reconnected by creating places where people are given a priority over cars; it's a major opportunity to revitalise our local high streets and attract new business to our borough. While bringing about many improvements for transport, a move away from the car will also help address some of the health problems of local people by increasing activity and improving air quality.

2.58   Making alternative transport options accessible and appealing to all is the key to reducing car dependency. This means improving street environments to make walking and cycling the most attractive options for short journeys and providing more and better services to make public transport the most attractive option for longer ones.

2.59   This approach will reduce health and economic inequalities and help support an ageing population by providing low-cost, accessible travel options for residents and visitors who are currently reliant on cars or who cannot get around at all.

2.60   A shift from car use to these alternative means of travel provides the only long-term solution to the congestion challenges that threaten Kingston's status as an efficient, well-functioning town. High-quality public services, reliable deliveries and servicing and easy access to workplaces and cultural and leisure attractions are all dependent on the development of an efficient transport network. Reduced reliance on the car will be vital to shaping

Kingston's future that is not only home to more people, but is a better place for all those people to live in.

ROAD HIERARCHY

2.61 A road user hierarchy has been identified (Figure 13) which is a response to the latest challenges and objectives, balancing the need to move people and goods in the most effective manner. The aim is to encourage the use of sustainable modes of travel through the improvement of the street environment and rebalancing of the road network.
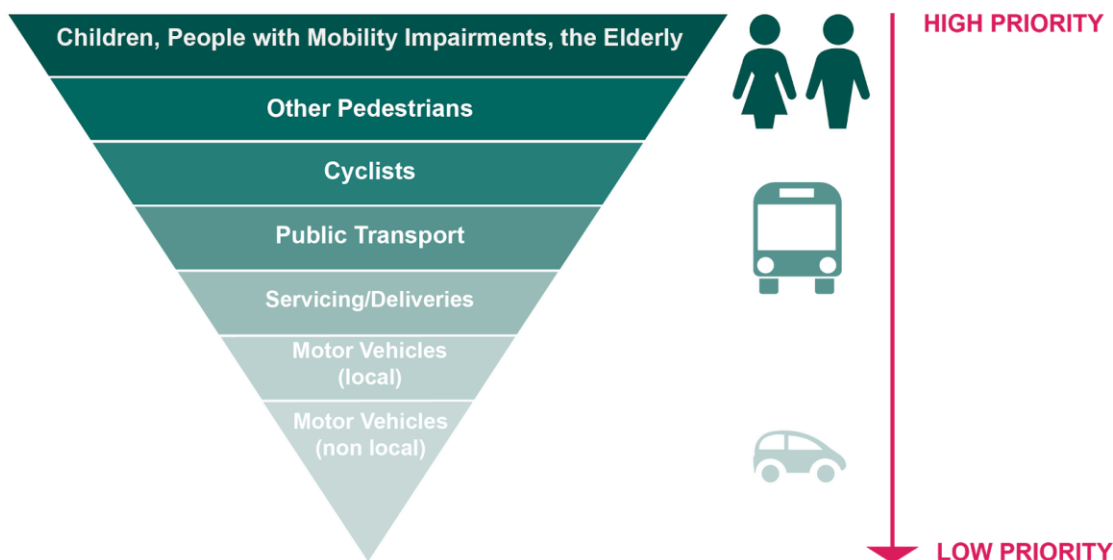
Figure 13 Road User Hierarchy

Challenges and Opportunities
Active Streets and Quality of Life

2.62 Kingston's streets should facilitate active travel and social interaction but many are dominated by cars, while human inactivity and consequent poor health are often due to an over dependence on cars. London statistics demonstrate that today's children are the first generation that is expected to live more of their lives in ill health from chronic diseases than their parents. Traffic congestion has huge impacts on residents, causing pollution, making streets unpleasant places to be and causing delays to public transport. It also reduces the efficiency of freight and commercial journeys, the trips that help keep our businesses running.

2.63 Motor vehicles are responsible for the greatest environmental challenges we face, with road transport being responsible for half of the main air pollutants, some of which are most harmful to human health. Danger on our roads is often caused by the presence of large, heavy vehicles in places where people want to be. Recent reductions in fatalities and injuries in our area (and across London) have mostly been achieved amongst drivers and occupants through improved vehicle design, while the risk experienced by pedestrians and cyclists who pose very little danger to other road users, remains unacceptably high.

Figure 14 Heavy vehicle activity in Eden Street, Kingston Town Centre

Public Transport

2.64   Kingston borough is serviced by two modes of public transport, trains and buses, however, many people who use public transport are not getting the quality of experience they are entitled to expect. Unreliable rail services make journey times unpredictable and overcrowding on rail and bus networks has a big impact on people's lives, often making people's daily routine unpleasant and deters some people from using public transport. Buses are Kingston's most heavily used form of public transport, but the buses often suffer delays in heavy peak hour traffic which is becoming an increasingly common experience, particularly in Kingston town centre. For the elderly and disabled, this can be a real problem as buses may be the only form of public transport they can use.

2.65   Kingston does not have any underground or tram services and parts of the borough suffer poor transport connections which compromises economic activity by limiting access to jobs, education and training, which in turn can isolate communities, while new development and job growth rely on good connectivity. Significant investment is required in the area to improve public transport infrastructure. Figure 9 identifies public transport accessibility levels across the borough, showing that many areas (particularly those to the south) are poorly served by public transport.

2.66   More and more people are wanting to live and work in Kingston (and London as a whole) and this will generate many additional trips each day. Planning is key as new homes and jobs are delivered, otherwise increased overcrowding and congestion will occur, air quality will get worse and our streets and public places will become dominated by motor traffic. As the rate of homebuilding increases to meet demand, transport is key to unlocking housing potential.

2.67   Kingston is required to meet its share of the population increase providing new homes and other development in the area including associated supporting new infrastructure. The 2017 Housing Trajectory (Kingston 2016/17 Annual Monitoring Report) projects delivery of 10,740 homes between 2017/18 and 2031/32, while the 2017 London Strategic Housing Land Availability Assessment (SHLAA) identifies capacity for delivery of 13,640 homes between 2019/20 and 2028/29. A further capacity of 4,866 homes (on large sites only) have been identified for delivery between 2029/30 and 2040/41.

2.68   The SHLAA also includes a Crossrail 2 growth scenario that is an indicator of the potential additional capacity that could be realised as a result of infrastructure investment, with Kingston identified as having capacity to deliver a further 16,309 homes (on large sites only) between 2019/20 and 2040/41. Investment in public transport and other sustainable forms of transport such as walking and cycling is therefore urgently required to accommodate the new trips that will be generated. Also, as with most parts of London, our population is aging with increasing accessibility requirements and other needs.

2.69   The Kingston Transport Forecasting Report (detailed in Section 4, Objective F of that strategy) assesses the transport implications of the projected new development across the borough and identifies the mitigations necessary to deal with the resulting increased demand for travel.

Summary of the Borough's Key Challenges
- Projected population growth will increase demand for travel putting additional strain on the transport network and increasing the number of journeys and congestion.
- Kingston already has high levels of car ownership, use and dependency, particularly in those areas with poor public transport connections as shown on the graph above.
- Traffic congestion is common, particularly on many of the main roads and in the town centres. High volumes of peak time traffic in Kingston Town Centre cause congestion on the gyratory and a poor environment for walking and cycling.
- Poor traffic conditions for cycling on many roads, which deters people form travelling by bike, with only a portion of these routes being upgraded as part of the Go Cycle work.
- The A3 suffers congestion and acts as a significant barrier between the north and the south of the borough, polluting the local environment with associated health implications.

- Some local neighbourhoods suffer traffic intrusion making life unpleasant for local residents. Options to address through traffic include measures such as filtered permeability.
- Traffic volumes in the borough have been slowly decreasing since 1999, however, in the last few years this trend has seen a reversal.
- The borough has no underground or tram services and suffers poor regional public transport links, yet Kingston has an important regional role as a Metropolitan Town Centre.
- Large areas of the borough have low levels of public transport accessibility while orbital public transport is poor yet many journeys are orbital in nature. Significant investment is required to improve public transport infrastructure.
- Rail overcrowding is already a problem from some stations at peak times and this is projected to worsen by 2031 if no action is taken, particularly on the line through Surbiton.
- The borough has a comprehensive network of frequent bus services, primarily on the main road network, and has benefitted from significant bus investment improvements. These routes are impacted by peak hour congestion on the main roads, which often cause an unreliable journey experience.
- Cross boundary bus services to Surrey Districts are generally less frequent and more expensive than TfL services and this may contribute to high levels of car use between Kingston Town Centre and Surrey.
- There are relatively low levels of walking, cycling and public transport use in Kingston based on survey data from 'Travel Demand in London'.
- This is despite the fact that most journeys are short in length and the borough has a relatively flat topography with many traffic free routes providing attractive and convenient cycle and pedestrian routes. There is therefore significant potential for mode shift to cycling and walking for local trips; however MTS targets will be difficult to achieve.
- Parking stress exists in some older residential areas with no off-street parking.
- Use of alternatively fuelled vehicles (such as electric vehicles) in the borough is still quite low, but research has identified that opportunities exist for high levels of take up of such vehicles in future years. We need to ensure the infrastructure is in place to accommodate this change.
- Limited sources of funding for new transport schemes and highway maintenance, other than TfL grants.
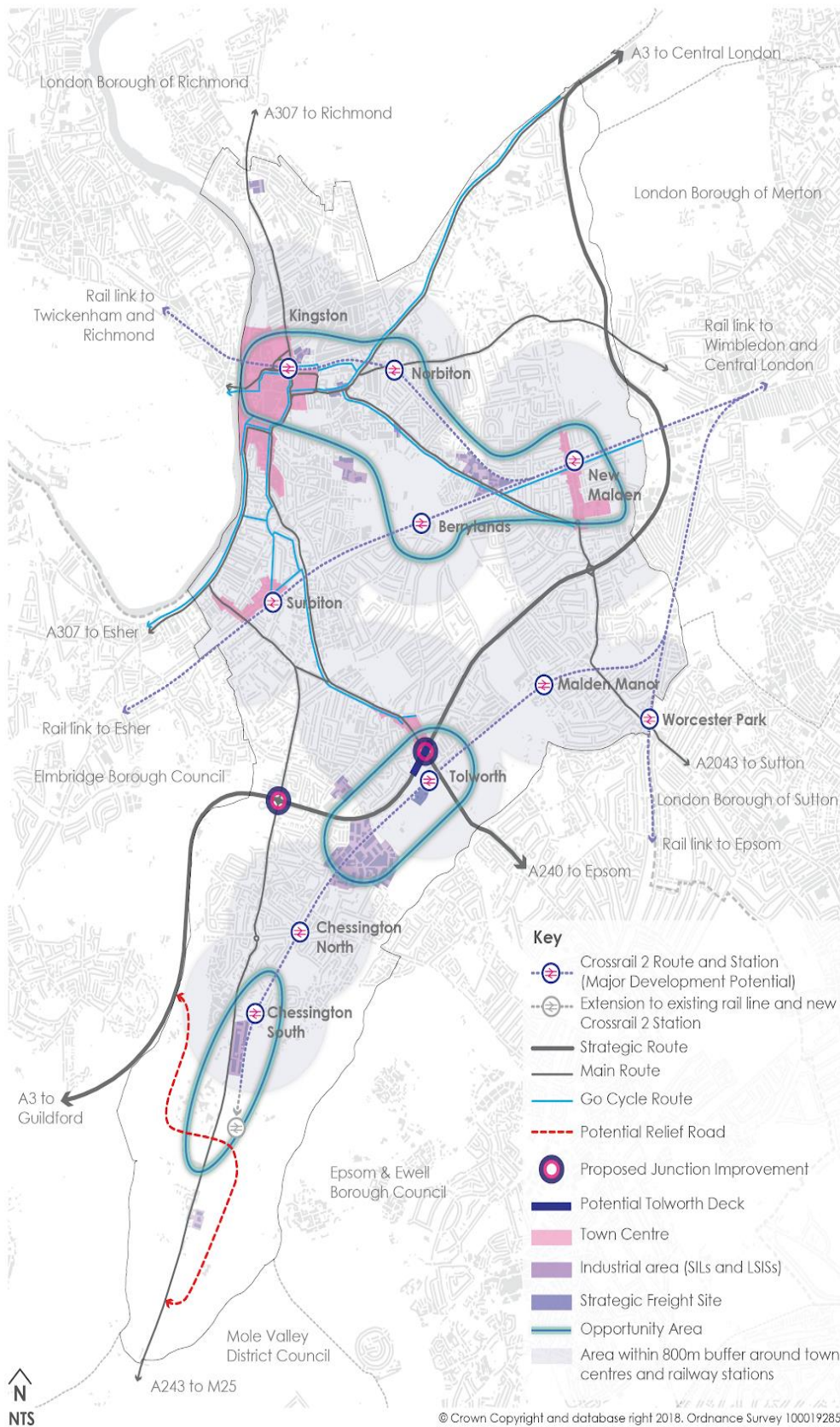
Figure 15 Growth Areas and Transport Improvement Opportunities

Key Borough Opportunities

Encouraging Active Travel

2.70   Kingston Go Cycle programme. The Council's ongoing investment in cycling has helped cycling grow considerably over recent years. Kingston's Cycle Network Plan identifies how the Kingston Go Cycle initiative will encourage a lot more cycling in the borough, particularly new and less experienced cyclists, through a £30+m investment in cycle infrastructure. This will improve connectivity and safety between key destinations helping provide a viable alternative to the car thereby encouraging mode shift and relieving the pressure of a growing population on the transport network. This is very supportive of the Healthy Streets approach and will contribute positively to the indicators and approach set out in sections 2.46-47 and illustrated in Figure 11, and some of the key monitoring in Section 4.

2.71   Following the installation of the schemes in Portsmouth Road and the Surbiton Town Centre area, progress is being made with the design and installation of a number of other schemes such as the measures in and around Kingston town centre including Wheatfield Way and Wood Street. The end result will be a comprehensive borough wide cycle network which also connects into other cycle routes/facilities across borough boundaries. Given that many car trips in the borough are local and of relative short distance, there is considerable potential for transfer to cycling.

Figure 16 Go Cycle Scheme, Portsmouth Road

2.72   Schemes to provide those further connections will be delivered as part of the 3 year delivery plan, with important links in Jubilee Way, route 75 enhancements in South Lane and on Malden Road and a section of Coombe Road in New Malden. Investigations on the Richmond Road and King Charles Road corridors will include specific consideration of cycling elements along the road.

2.73   The links referred to in Jubilee Way will also act as useful pedestrian facilities, providing access to Tolworth Court Farm, which is on the east side of Jubilee Way. A significant number of the 19/20 projects involve the introduction of improved pedestrian facilities at numerous locations across the borough.

2.74   The borough will aim to deliver 20mph schemes on those residential roads that are not currently 20mph, creating an environment that will encourage more journeys to be made by either walking or cycling.

2.75   Aspirations for the TLRN - There are a number of enhancements to the Transport for London Road Network which the Council would like to see progressed as a matter of urgency and for which considerable work is currently being undertaken. The primary aims are to improve environmental conditions, facilitate new development and encourage modal shift.

2.76   In particular the A3 roundabout junctions at both Tolworth and Hook currently suffer a number of problems in an area which is very likely to see considerable new development over the coming years. Problems include severe peak hour congestion, traffic dominance, severance, delays to public transport, a hostile environment for active road users and an unacceptably high accident rate. Improvements would seek to address each of these significant problems helping facilitate new development and encouraging sustainable transport.

2.77   The borough also welcome moves by TfL to introduce 20 mph schemes along the A3 slips roads, to offer a more comprehensive and joined up network of 20mph areas. This may also assist in reducing the level of signage required, reducing street clutter.

2.78   Sustainable deliveries - The increase in the number of delivery vehicles on our roads has been one of the most notable contributors to congestion on our road network. To help combat this increasing problem, there is an opportunity for major new development to take advantage of changing shopping habits and trends in transport, for example the fact that a greater proportion of purchases are being made on line. When planning new development steps are being taken to reduce the number and impact of trips made by delivery vehicles in the borough such as the provision of consolidated delivery/collection points in major new sites.

2.79   The new approach of 'Embedding Healthy Streets' into the Planning process through a revised approach to Transport Assessments is also strongly welcomed, providing tools to better assess and support opportunities to improve the highway network.

Public transport improvements

2.80   Crossrail 2 - The Council has been working with TfL and other key partners for a number of years to progress the Crossrail 2 project. Network capacity would be significantly increased and all railway stations in the borough would benefit from enhanced train frequencies substantially improving travel times through London and beyond, e.g. into Surrey. Crowding and congestion on the network, which is currently severe and predicted to worsen, would be significantly relieved.

Figure 17 Crossrail 2 Network, South West London

2.81   Crossrail 2 will play a vital role in helping meet the new London Plan housing targets for Kingston and also supporting the 20,000 additional new homes in outer south-west London. Shorter journey times will support economic regeneration with most of the additional growth likely to be delivered between 2025 and 2060. The Council has already completed associated additional work such as investigations into the level of development that may be feasible in New Malden adjacent to the station.
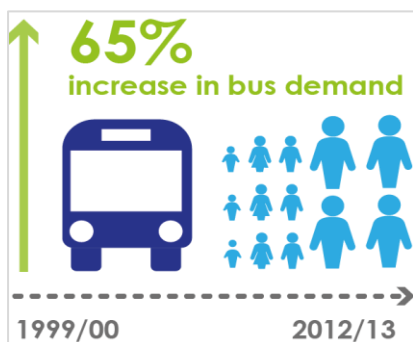
Figure 18 Bus Demand Increase (1999-2013)

2.82   Buses - Kingston has benefited from bus service improvements over a number of years including increased frequencies and extended routes. The Council would like to continue to work with TfL to seek further improvements to service provision where required. In particular there is scope for improvements to bus services in the South of the Borough (the least well connected area of the borough), other areas of low public transport accessibility, and areas that are further than 400m from a bus stop. Local bus service improvements will complement major transport infrastructure investment helping facilitate major new development.

2.83   Eden Street is the borough's busiest road in terms of buses and the borough have an aspiration to make Eden Street a 'Clean Bus zone', with only green buses on the routes using this busy road. This will have a positive knock-on effect across the borough, as most buses go through Eden Street.

Kingston Town Centre transport improvements
2.84   The Council is planning for the development of Kingston town centre through its emerging Local Plan and other planning documents. Significant new development is planned across the area and the authority has been working with the GLA to promote Kingston as an Opportunity Area through the new London Plan. A number of supporting studies have already been undertaken including a Movement Strategy for the town centre and a Transport Forecasting Report which looks across the wider area.

2.85   Through these studies, in partnership with TfL and other key partners, a preferred highway scheme for Kingston town centre has been identified. This

involves removing traffic from Wood Street, converting Clarence Street into a sustainable transport corridor and converting the remainder of the existing one way road system into two way traffic movement. The aims are to help facilitate the significant new development planned in the centre through the freeing up space, reducing severance outside the station and in Clarence Street, improving environmental conditions such as air quality, helping facilitate and encourage all forms of sustainable transport, reducing major peak hour congestion and slow traffic movement thereby enhancing road safety.
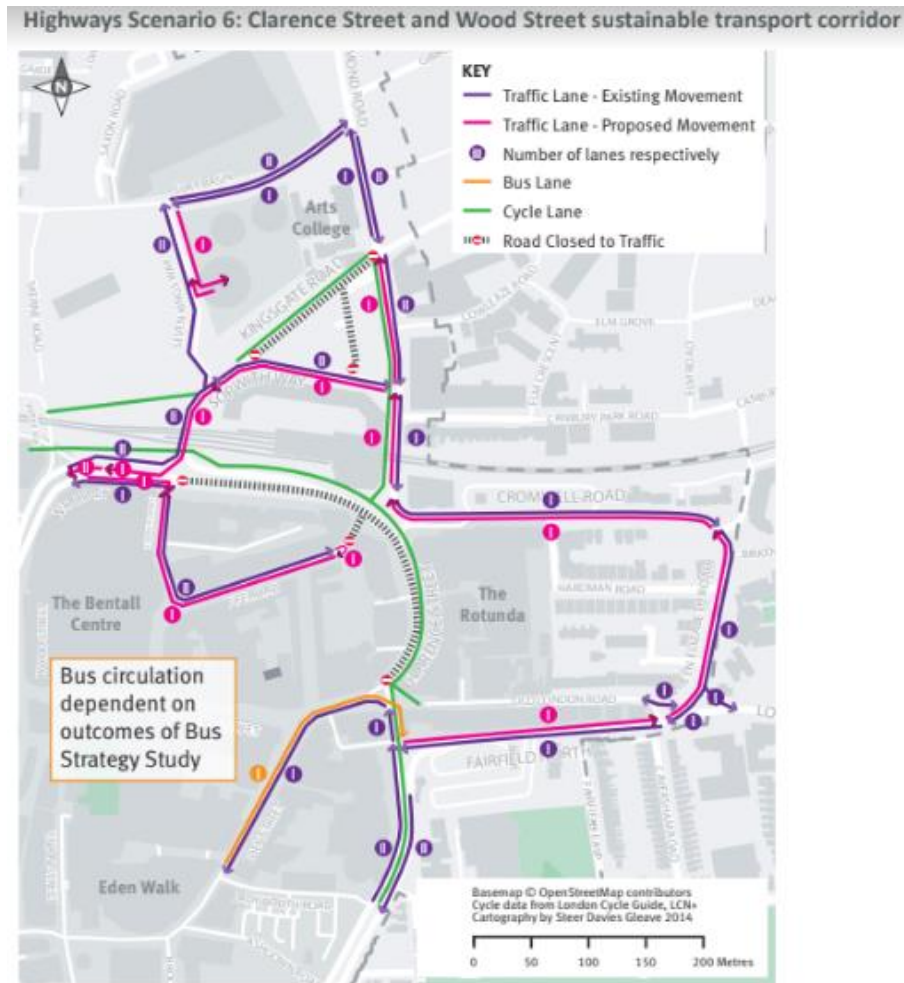
Figure 19 Clarence Street and Wood Street - Sustainable Transport Corridor Scenario

Growth and Regeneration

2.86   New development and regeneration will bring investment into the borough with the associated opportunity to introduce strategic transport infrastructure improvements. The growth will strengthen the business case for these improvements, which would otherwise be unlikely to be forthcoming.

2.87   Some of the key highway and public transport infrastructure improvements are identified above including the following:

- Crossrail 2
- Kingston Town Centre highway scheme
- improvements to the TLRN at Tolworth and Hook intersections

2.88   These measures will play a vital role in providing much needed capacity on the transport network particularly for sustainable forms of transport thereby achieving modal shift aspirations and facilitating new development to meet new London Plan housing targets. Other improvements include environmental (such as reduced severance and improved air quality) and vital safety enhancements necessary to satisfy Vision Zero aspirations.

2.89   Kingston takes the opportunity to work with its neighbouring authorities on a regular basis to achieve a number goals. For example it participates with the group meetings of the South London Partnership (SLP) which discuss a range of planning, transport and growth related issues across the region. A key opportunity is the securing of new infrastructure associated with (and that is necessary for) the large amount of growth that is anticipated across the region.

2.90   In particular, SLP discuss the major schemes in the area (such as Crossrail 2, Tramlink and railway mainline improvements) with key partners such as TfL and Network Rail with the opportunity to promote the benefits and where appropriate facilitate additional (accelerated) growth. The work of the group is centred around visualising good growth in South London through working across borough boundaries. This includes the investigation of local employment opportunities and the assessment of necessary orbital transport requirements of the region, such as improvements to bus and rail services and provision of new cycle infrastructure across borough boundaries. Additionally, airport expansion and its environmental and surface access impacts have been topical items for discussion in recent times, with the need to ensure that valuable infrastructure capacity that should be used to facilitate growth isn't used purely to enable airport expansion.

Transport objectives

2.91   To achieve the borough's sustainable transport strategy, the Council is adopting the following transport objectives: and the strategy contains explanatory statements and details of how the Council intends to deliver it. The objectives deal with the borough approach to responding to the outcomes identified in the Mayor's Transport Strategy, in particular with the aim of increasing the sustainable travel mode share and have been used to populate the following outcomes. The Delivery Plan sets out how the Council will implement the strategy through the progression of a set of proposals.

2.92   The aim is to achieve a transport network that is healthy with an attractive public realm with clean air thereby maximising the uptake of active travel and positive health outcomes. The transport network should operate in an efficient manner encouraging transfer from the private car to sustainable forms of travel, facilitating economic growth in particular new homes and employment opportunities. The number of people killed and seriously injured on Kingston's roads will be reduced significantly, contributing towards the Mayor's Vision Zero target

Objectives:

- Kingston's streets will become more healthy and encourage active travel
- Vehicular trips will be reduced in support of Mayoral mode split targets ensuring that efficient use is made of our streets
- The harmful effects of transport on the environment and our neighbourhoods will be reduced.
- The public transport offer will be enhanced to meet the future needs of the borough.
- Kingston's communities and transport network will become safer as the Council adopts the Mayor's Vision Zero approach.
- Delivery of homes and jobs will be supported through investment in new transport infrastructure

MAYOR'S TRANSPORT STRATEGY OUTCOMES
<u>Outcome 1 – London Streets will be Healthy and more Londoners will travel actively</u>.

2.93   This objective has specific targets to measure that all Londoners are doing a healthy level of activity through travel and that walking or cycling will be the best choice for shorter journeys.

2.94   The borough is committed to encouraging residents to take advantage of the existing good opportunities for walking and cycling, while seeking to improve the public transport connections and access to key centres via sustainable means.

ACTIVE TRAVEL
2.95   Everyone needs to keep physically active to keep their body functioning well; physical activity assists in preventing long-term health conditions and helps us to feel positive and to sleep well. The Healthy Streets Approach does not just benefit health, it also helps to reduce the negative health impacts of transport noise, air pollution, road danger, social isolation and the severance effects of busy roads. Making our streets more welcoming places to spend time, walk, cycle and access public transport helps to strengthen our communities and reduce unfair health inequalities.

2.96   The Council will work with its partners to make Kingston an area where people choose to walk and cycle more often by improving street environments, making it easier for everyone to get around on foot and by bike, and promoting the benefits of active travel. The Council will improve and manage its streets to create a high-quality public realm that encourages walking and cycling by working with its partners to improve the environment by reducing the dominance of vehicular traffic.

Challenges
- There is considerable resistance to changes in travel behaviour among residents, caused by low levels of public transport and perceived safety issues due to heavy traffic on some key routes.
- There are high levels of car ownership, use and dependency in Kingston, particularly in those areas with poor public transport connections.
- Traffic congestion is a problem on many of the main roads in the borough and in the town centres. Kingston Town Centre suffers congestion on the gyratory and a poor environment for walking and cycling.
- A3 and A243 (Hook area) are unfriendly environments for walking and cycling, with existing facilities not considered conducive to providing attractive routes.
- A number of local residential areas suffer traffic intrusion making life unpleasant for local residents.

Opportunities
- Improving street environments to create a high quality public realm and liveable neighbourhoods, reducing the impact of motorised transport.

- Through TfL and other partners, make it easier for people to use active forms of travel in the borough through implementation of a range of measures.
- Making Kingston a place where people choose to walk and cycle, working towards the MTS targets for sustainable travel.
- Working with schools, employers, the community and user groups to promote walking and cycling.
- Working with TfL, local communities and cultural organisations to promote one-off, trial closures of streets to some or all motorised traffic so that local people can see their streets differently.

2.97   Physical activity undertaken as part of daily life can have a very positive effect on health and is closely linked to transport. Everyone needs to keep their body physically active throughout their whole life to keep it functioning well. Physical activity assists in preventing certain long-term conditions such as stroke and some cancers and also helps to keep us feeling positive. In childhood, physical activity helps our bodies to grow and assists in the development of skills such as balance and coordination. As we get older, everyday activity helps us to maintain our strength and cognitive skills

Figure 20 Time spent being physically active by mode of travel

2.98   Active travel includes walking and cycling and also public transport, as this often involves walking or cycling at either end of the journey and frequently involves the use of stairs at stations. Many people struggle to find time for physical activity, so the best way of keeping active is to build this activity into our existing routines. Our travel time is one of the few opportunities we have for incorporating activity into our day, and most people's daily journeys contain stages that can be walked or cycled.

Opportunities
- Encouraging greater use of active travel modes such as walking and cycling, which can have a significant positive impact on health.

- Helping create an environment where people choose to walk and cycle more often and promote the benefits of active travel

WALKING

2.99 Due to its low environmental impact, cost effectiveness, health benefits, and accessibility to all, walking is an extremely important and popular mode of transport. Despite its popularity, there is still significant potential in Kingston to increase walking for short distance trips which are often completed by car. The Council has recognised the importance of increasing walking numbers by placing it at the top of the transport user hierarchy and developing a Walking Strategy.

2.100 While walking is already the norm for many short journeys, its importance as a mode of travel and the need for good walking conditions are often undervalued. Many people do not see walking as part of their daily travel, although they may walk ten minutes to and from a station every day. More appealing walking environments will encourage people to walk more, improve the quality of journeys that are already walked all or part of the way, and enable everyone to make the most of their local area. This is particularly important in town centres, around homes, workplaces and schools, and in the links to and from bus and rail services.

2.101 The council will encourage walking as a healthy, free and convenient mode of transport for short journeys and aim to increase the proportion of journeys made on foot through improvements to walking routes and the pedestrian environment. These will include the creation of new pedestrian routes and spaces, footway maintenance, improved standards of street design and landscaping, and better signing. Particular attention will be paid to the needs of people with disabilities and other mobility impairment

Challenges
- The street environment can be hostile due to traffic dominance, congestion, high vehicle speeds, a poor quality public realm and air pollution problems.
- In particular, these factors tend to detract from the number of children who walk to school which has led to an increasing obesity rate amongst younger people.
- The car is still often the only viable mode of transport for many types of journeys, for example orbital journeys where public transport is limited.
- The A3 acts as a significant barrier between the north and the south of the borough, polluting the local environment with associated health implications.
- Poor maintenance of pavements has an adverse impact on those with limited mobility such as the elderly and disabled.

Opportunities (to encourage walking)
- Implementing measures to improve the walking environment and establish new routes.
- Providing infrastructure, including crossing facilities, to overcome specific barriers to the safety and convenience of walking trips, such as the A3, busy roads/junctions, rail lines and the Hogsmill River.

- Improving pedestrian routes, signing and access to bus stops and rail stations.
- Improving street lighting and CCTV to enhance pedestrian safety and security.
- Promoting walking including through school and workplace travel plans and provide supporting measures such as cycle training.

CYCLING

2.102 Cycling is an important part of an efficient, integrated, and sustainable transport network and has many benefits as a mode of transport, including: reduced traffic congestion, improved air quality and improved health/fitness. Cycling is considered particularly beneficial in terms of health and wellbeing, with those who cycle regularly reporting less stress, less ill-health and improved cardiovascular fitness levels. Additionally, cycling is a low cost mode of travel, making it accessible to a large section of the population; in particular, for those without access to a car cycling can expand the distance which an individual is able to travel increasing the number of destinations that they can access.

2.103 Cycling has grown considerably over recent years and provision for cyclists has become more important. This confirms the success of the Council's ongoing investment in cycling. The Council's Cycle Network Plan identifies how the Kingston Go Cycle initiative will help relieve the pressure of a growing population on the transport network by encouraging cycling through a £30m investment in cycle infrastructure improving connectivity and safety between key destinations. The Portsmouth Road scheme (Figure 12) has already been implemented and progress is being made with the design and installation of a number of other schemes which will form a comprehensive borough wide cycle network.

Figure 21 A) Cyclists on Portsmouth Road; B) Cycle trips made in Kingston town centre: Kingston Go Cycle Town Centre Cordon Counts (TfL, 2015)

2.104 Despite this positive trend in cycling, there is still significant potential to increase cycle trips particularly for journeys under 5km since currently 50% or more of these journeys are undertaken by car. The Borough's small size, relatively flat topography and existing network of quiet residential roads and

open spaces make it particularly attractive for cycling. The Council aims to capitalise on these attributes to increase the number of cycle trips and foster a strong local culture of cycling by giving a high priority to schemes that support cycling by improving physical infrastructure and providing supporting measures such as cycle training and information. The council's vision for cycling is to create a cycle-friendly borough where cycling becomes the preferred mode of choice for an increasing proportion of journeys.

2.105   An annual report on 'Cycling in Kingston', is produced as a monitoring measure for the Go Cycle project, which captures resident's changing behaviours. The insights shared in The 'Cycling in Kingston Annual Report 2019' report are highly encouraging, as the increased take-up of cycling in the Royal Borough of Kingston upon Thames coincides with the completion of key cycleway schemes within the Go Cycle Programme.

2.106   The two top reasons people gave for not choosing to not cycle is fear of being in a collision (49%) and too much traffic (44%). To address these issues and while continuing to improve overall road safety, the Council also needs to work on promoting cycling as a safe activity and reduce the fear of collision. One way to do so, is to increase the confidence of cyclists, which is done through cycle training programmes branded as Cycle Skills and Bikeability.

2.107   In terms of too much traffic the borough has prepared a cycle network mapping across the borough. This mapping, in addition to TfL maps, provides suggested traffic free and low stress routes for cyclists to help riders avoid traffic.

2.108   The report identifies 9 objectives that cover a number of measures to help support cycling in the borough that include making it a healthy option; making it an enjoyable mode of transport; making it a money saving mode of transport and encouraging a change in travel behaviours.

Challenges
- On the majority of our streets those who choose to cycle are the only road users who do not have any dedicated road space, usually having to share the space used by motorised vehicles.
- Many people perceive cycling to be dangerous. A large proportion of people make journeys which could be undertaken by bike (and many own a bike) but people are put off due to safety concerns.
- A regularly cited concern from people who cycle relates to poor road condition and the number of potholes, and with continuing pressures on Council budgets there is a challenge in maintaining a level of investment in carriageway programmes.
- Some street environments make cycling a real challenge, for example Eden Street in Kingston town centre has many conflicting movement from road users resulting in a high level of collision risk.
- Longer distance cycle routes are often fragmented with gaps at critical points such as major intersections.

Opportunities
- Implementing measures to improve the existing cycling environment establishing new routes including the delivery of a borough wide network of cycle routes.
- Seeking to increase the number and proportion of cycle journeys in the borough and encourage more people to cycle through the £30m Kingston Go Cycle investment in cycle infrastructure improving connectivity and safety between key destinations.
- Securing funding to maximise cycling opportunities and for additional cycling measures as required to meet the objectives of this strategy.
- Continuing to install cycle parking in public places and require provision in new developments.
- Ensure that provision of new infrastructure is in line with the London Cycle Design standards and meets the quality criteria as set out in the TfL Cycling Action Plan.
- Tackling bike theft and providing adequate secure and convenient cycle parking across the Borough at key locations, for example in town centres, at shops, schools and train stations.

SMARTER TRAVEL

2.109 The aim of smarter travel campaigns is to change the way in which people travel in the borough, and in particular to reduce the proportion of journeys made by car and increase the proportion of journeys made by sustainable transport. Travel awareness campaigns promote a better understanding of the environmental, social, and economic implications of travel choices, particularly car use. They also increase the use of sustainable forms of transport through a combination of educational and campaigning initiatives and the development of partnerships with the local community, business, schools and voluntary sectors.

Borough Objectives for Outcome 1

1.1 Deliver improvements to walking routes and the pedestrian environment.

1.2 Complete the delivery of the Go Cycle project, to create a high quality framework of routes across the borough.

1.3 Continue to engage with residents with the Annual survey/report on Cycling for Kingston, and use the 9 objectives to support and guide the identification of opportunities within the borough.

1.4 Deliver improvements to cycling routes, with current projects on Jubilee Way, Coombe Road, King Charles Road, South Lane area and Richmond Road corridor forming key elements.

1.5 Deliver travel awareness and behaviour change programmes

1.6 Improve street environments to create a high quality public realm and liveable neighbourhoods, with the Malden Manor area to form a bid for funding in 2020/21.

1.7 Deliver 20mph schemes across the borough on residential roads, to create an environment that encourages a higher level of walking and cycling trips.

Outcome 2: London Streets will be safe and secure.

2.110   Vision Zero - Deaths and serious injuries from all road collisions to be eliminated from our streets. The Council commits to the adoption of a Vision Zero approach to road danger reduction with deaths and serious injuries from all road collisions to be eliminated from the borough's streets by 2041 (in accordance with Policy 3 of the MTS).

2.111   The Metropolitan Police Service (MPS) introduced a new collision reporting system in November 2016 - the Case Overview and Preparation Application (COPA). The City of London Police also moved to the Collision Reporting And SHaring (CRASH) system in October 2015. This has had a number of impacts on the data that is available to Transport for London (TfL), and the London Boroughs in the ACCSTATS database for collision investigation.

2.112   Under the new systems officers use an 'injury-based assessment' in line with DfT STATS 20 guidance and online self-reporting is available. Both of these changes are expected to provide a better assessment of injury occurrence and severity but have made data collected from November 2016 onwards difficult to compare with earlier data.

2.113   TfL commissioned the Transport Research Laboratory (TRL) to undertake a back-casting exercise to enable pre November 2016 data to be compared with post November 2016 data. These initial back cast estimates include the number of people killed or seriously injured (KSI) for each borough between 2005 and 2017 and this data has been used to update borough targets to align with those contained in the Mayor's Transport Strategy, namely a 65 percent reduction in KSIs by 2022 against the 2005-09 baseline, a 70 percent reduction in KSIs by 2030 against the 2010-14 baseline and zero KSIs by 2041. The targets contained in this final version of our LIP have been set against Outcome 2 for Vision Zero to reflect the reporting changes. The level of ambition remains unchanged, despite these revised figures.

2.114   The collision data for Killed and Seriously injured (KSI's) in the borough for the last three years are recorded as 2015 – 51; 2016 – 53 and 2017 - 50, indicating that the level of KSIs in the borough have been stable for the past three years.   This is compared to baseline data provided by TfL for 2005-09 which recorded (an average of) 103 KSIs, and 2010-14 of 76 KSIs suggesting a downward trend. This profile is to be continued with the future targets for the borough for 2022 – 29 KSI's, 2030 – 16 and the target for 2041 – 0.

2.115   Kingston Borough continues to perform well in terms of road safety, with one of the lowest levels of road collisions and casualties in London. There are now no major collision 'hotspots' in the borough on Council operated roads with a large majority of collisions occurring on the main highway corridors under the control of Transport for London. Whilst the borough is performing well, collisions and perceived danger are still cause for significant concern and the Council will continue to take a proactive approach to ensure that Kingston remains one of the safest boroughs in London. Safety improvements for the pedestrian and cycling networks will be further developed to improve these environments and encourage modal shift while the strategic road network will

continue to be reviewed including consideration of potential safety improvements.

2.116 The figure below demonstrates how total collision and casualty numbers have changed over the last 20 years in Kingston. There were significant reductions in both collisions and casualties between 1996 and 2006 with numbers then generally remaining constant since this time (with some minor variations). Accident and casualty numbers are now at their lowest levels, 288 and 351 incidents respectively. Pedestrians, car occupants and motorcyclists have all shown encouraging reductions throughout the 20 year period; however pedal cyclists is the one group where there has been an increase in incident numbers in recent years (albeit mostly in 'slight' casualties), most likely due to the significantly increasing number of cyclists on our roads.

2.117 It is also highlighted that TfL will need to work with the borough to reduce the number of collisions that occur on their sections of the highway network within the borough, and a review of the most recent 3 year figures show that 20% of the boroughs totals have occurred on TfL roads.
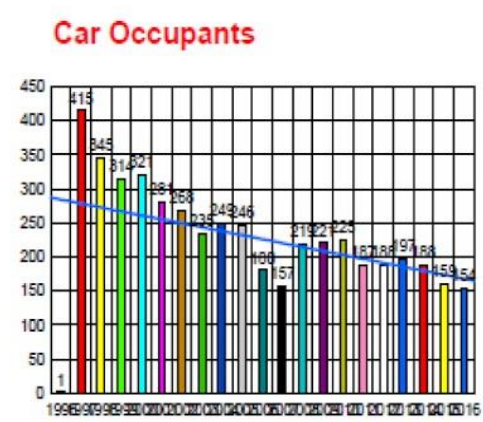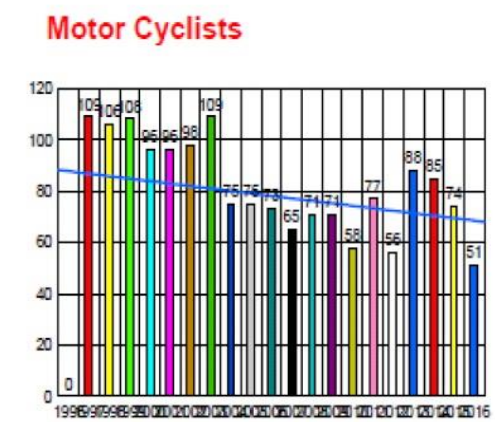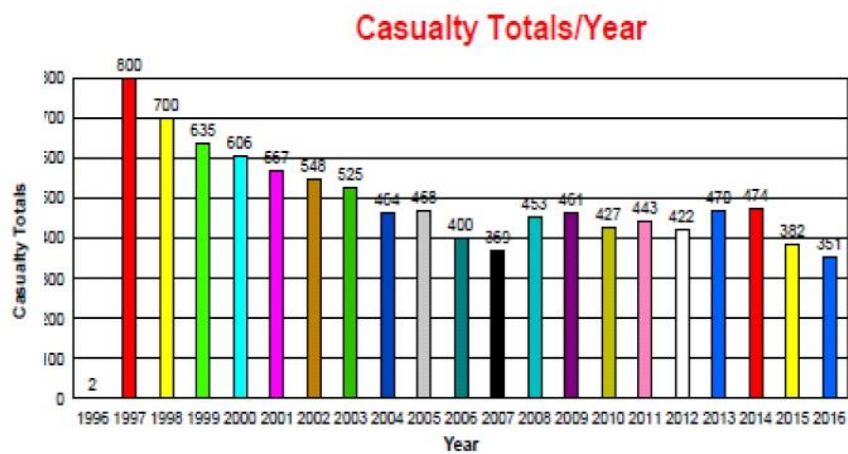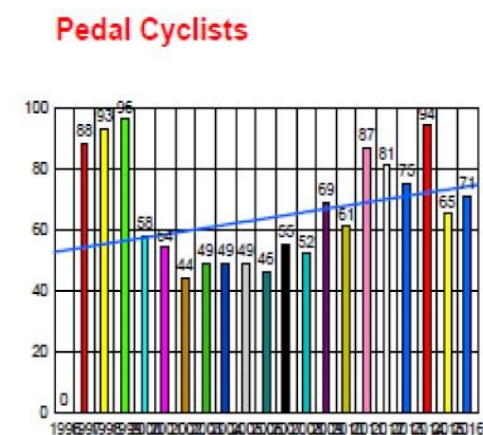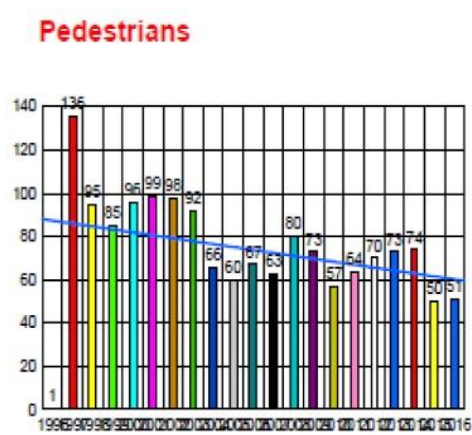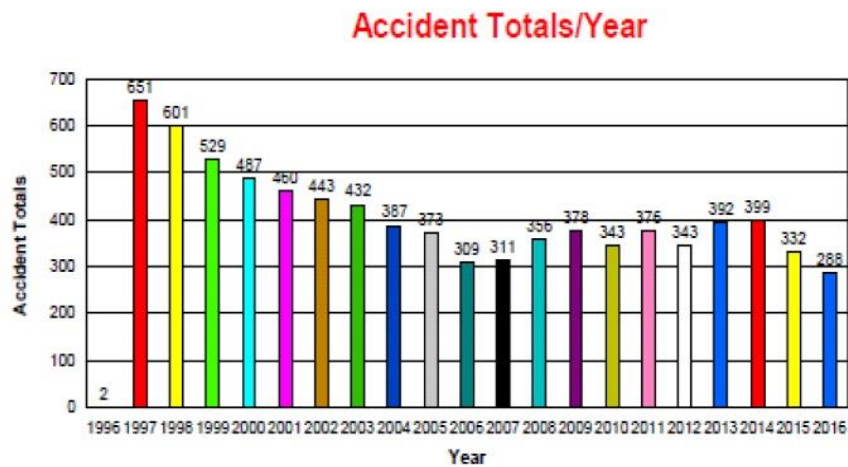
Figure 22 TfL Accident and Casualty data for Kingston upon Thames in the last 20 years (1996-2016)

2.118 The MTS has much to say on safer communities and a safer transport network, stating that reducing road danger will make people feel safer and more comfortable walking and cycling. The Mayor's aim is that no one is killed in, or by, a London bus by 2030, and for deaths and serious injuries from road collisions to be eliminated by 2041. Designing streets that encourage lower speeds and demanding safer standards for buses and lorries will help to make this happen.

2.119 Vision Zero highlights that the shift in emphasis from tackling historic casualty trends, to a proactive approach of targeting road danger, presents an opportunity to set road danger reduction within a broader context. Addressing the inherent danger on London's roads will help create more forgiving, welcoming streets that feel safer, making walking and cycling a more attractive option. This encouragement of 'inexperienced' people to take up more 'vulnerable' forms of transport, such as cycling, makes the Vision Zero task more challenging, but even more important.+

2.120 An anomaly that has arisen is that the new Police data handling system, appears to have led to an increasing number of KSIs, due to the reclassification of injury severity and the ability to self report collisions. The loss of the full collision description (due to data cleansing etc) is likely to hinder the design of collision reduction schemes.

2.121 To make Kingston's roads safer and reduce actual and perceived danger the council will continue to implement a range of road safety measures and campaigns. A programme of area based traffic calming schemes will be developed and progressed aimed at giving priority to sustainable modes of travel and environmental improvements. Road Safety Education

2.122 The use of 20mph restrictions in residential roads and around schools and shopping areas can be one of the most effective ways to reduce the number and severity of road collision as well as making road conditions more attractive for cycling and walking. Projects such as Low Traffic Neighbourhoods and School streets will also be considered as part of any area wide schemes that are being developed.

2.123 The scheme development process will consider that the design and layout of the physical environment and physical building security is key to creating safe environments and reducing crime and disorder. Designing out crime 'Secured by Design' accreditation and the incorporation of its principles should be core, and form part of planning any new development, town centres, public spaces, transport hubs and streets.

2.124 The London Plan also supports this approach and states that "Measures to design out crime should be integral to development proposals and be considered early in the design process, taking into account the principles

contained in Government guidance on 'Safer Places' and other guidance such as Secured by Design published by the Police.*"*

2.125 The annual crime rate in Royal Borough of Kingston upon Thames compared with other boroughs in Metropolitan Police Service area show it to be below average, and the map below shows the Royal Borough of Kingston upon Thames divided into wards. Although Kingston borough, as a whole, has a low crime rate, Grove Ward (which contain Kingston Town Centre) has a high crime rate. It is three times the Police Force average crime rate, with 3889 crimes reported between October 2017 – 2018. All other wards have a low crime rate.
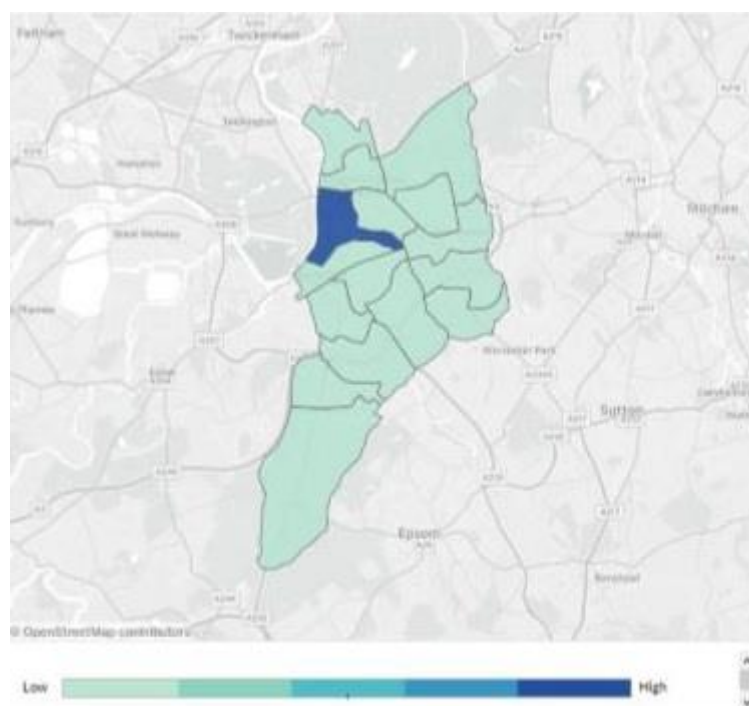
Figure 23 Borough Map divided into Wards

2.126 The Council support Improving personal security and reducing fear of crime in the public realm through better street design, improved lighting and sight lines, CCTV and police patrols .This links with the environmental benefits of the Secured by Design scheme which are supported by independent academic research consistently proving that results in reducing crime and the fear of crime, with up to 75% decreased chance of being burgled, 25% less vehicle crime and a 25% reduction in criminal damage. The scheme is also successful at reducing anti-social behaviour, through a raft of measures including robust communal door standards, access control and careful design and layout of new estates.

2.127 Kingston is a safe borough with relatively low levels of crime, indeed crime rates have generally been falling for a number of years along with the fear of crime. However, as mentioned above the perception of safety is a key factor when judging how satisfied people are with the place where they live and work. Many issues that make people feel unsafe are not associated with actual crime but with other issues such as groups of youths, speeding traffic,

inconsiderate parking and littering, with a number of these being transport related, often round transport interchanges.
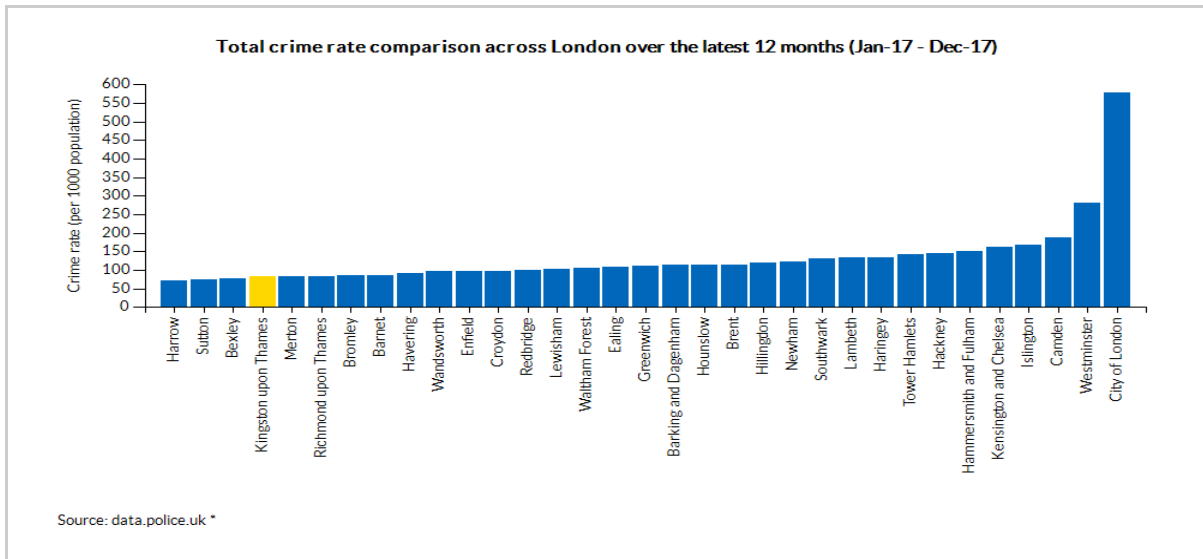
Figure 24 Total crime rate comparison across London over the 12 month period (Jan 2017 - Dec 2017) (RBK Data, Crime and Community Safety https://data.kingston.gov.uk/crime-and-community-safety/)
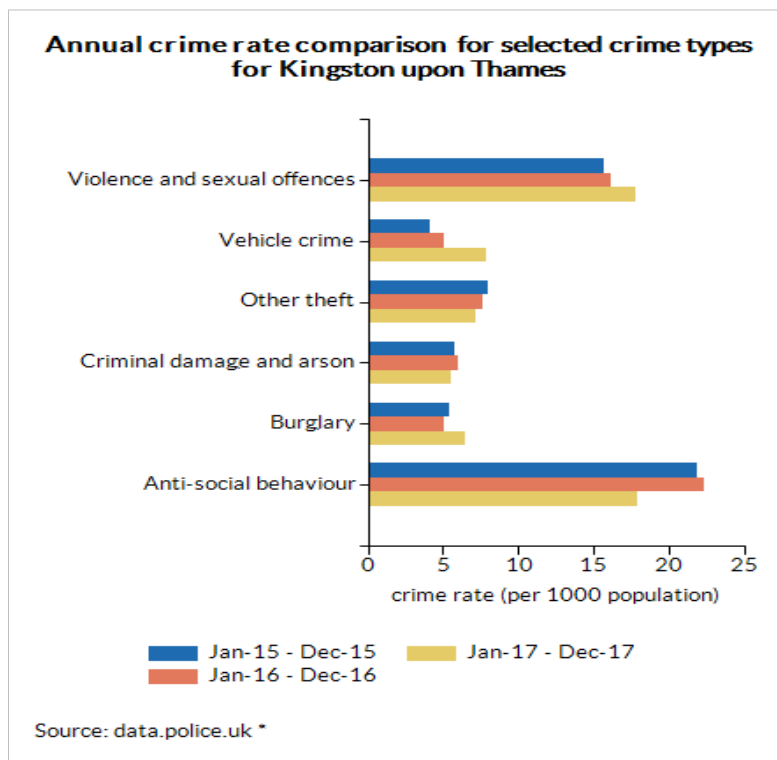
Figure 25 Annual crime rate comparison for selected crime types for Kingston upon Thames (Kingston Data, Crime and community safety https://data.kingston.gov.uk/crime-and-community-safety/)

2.128 Concerns over personal security can deter people from using the streets and public transport; reducing the fear of crime is important in facilitating greater use of sustainable transport. The council will therefore continue to improve street lighting and visibility, installing and monitoring CCTV cameras and improving the safety of the public realm using latest guidelines and

technology. These include improvements to pedestrian and cycle routes and improved visibility by reducing overgrowth of foliage, reducing the heights of walls, removing blind corners and improved maintenance and landscaping.

2.129 The borough welcome recent proposals from TfL in relation to Direct Vision Standard (DVS) and Safety Permits for Heavy Goods Vehicles (HGV). The borough will be reviewing the impacts of these proposals and will seek to support these measures when approved.

Challenges
- Whilst accident and casualty numbers have generally shown healthy reductions over a long period, some of the more vulnerable road users (particularly cyclists) have seen increases, including the number of more serious incidents.
- 20% of those collisions within the borough occur on the TfL network.
- New/improved cycle facilities provide a safer cycling environment but are likely to encourage less experienced/capable people to take up cycling who may be more vulnerable to accident risk.
- Many people are discouraged from making trips (particularly shorter ones) by active modes due to the fear of being involved in an accident.
- A challenge to maintaining the low collision rates is the freeze on funding for maintenance for the Principal Road Network, as this will result in poorer road surfaces, which highlights safety concerns for the vulnerable road users such as cyclists and P2W's.
- This situation is also subject to scrutiny since the changes to the way Met Police collect KSI collision data means that it is not currently possible to determine the nature of collisions, in order to see whether infrastructure or other changes could be made to reduce the potential for further incidents at that location.

Opportunities
- Striving to further reduce the number of road accident casualties in the Borough working towards Mayoral road safety targets.
- Investigating traffic management schemes to improve road safety, including a programme of corridor and neighbourhood schemes, giving priority to pedestrians, children and cyclists.
- Investigating new and innovative solutions to create safer and more liveable streets, including home zones and 20mph zones.
- Continuing to provide cycle training for school children and adults and carry out road safety campaigns and initiatives in conjunction with key partners.
- Working with the Metropolitan Police, emergency services and residents to address localised safety issues, and poor road user behaviour.
- Provide training to improve the safety and confidence of those wishing to use active forms of transport
- Ensuring that safety is a primary consideration in all public realm projects by including the Healthy Streets approach in the design process.
- Work with the construction industry to ensure a safe environment around construction sites.
- Improve goods vehicle drivers' awareness of vulnerable road users by offering free Safe Urban Driving courses for all those living or working in the borough.

2.130 The Council will continue to work with transport operators, Network Rail, Transport for London, the British Transport Police and other relevant partners to reduce crime and the fear of crime, and address issues of safety and security on trains and buses and at stations and bus stops. Particular attention is given to the safety of vulnerable travellers such as the elderly, disabled, children and people with learning difficulties.

2.131 Environmental improvements, including the creation of streets and other public spaces which are more attractive, will help create places that people want to spend time and are more accessible to all; this in turn will help bring about a change of public attitude and reduce crime and anti-social behaviour. The council would like to see all transport services and supporting infrastructure fully accessible and to transform streets and other public spaces to more attractive places with their own local identity that promote greater community interaction and are accessible by everyone

2.132 The Council supports:
- Working with key partners, including TfL, Network Rail and the public transport operators to improve security and reduce crime and the fear of crime when using public transport.
- Creating public spaces that are attractive, accessible and in which people want to spend time, helping to reduce crime and anti-social behaviour.

Borough Objectives
2.1 The borough will embrace the Safe Systems Approach, embedding the methodology set out in Vision to set Safe Speeds, design Safe Streets, ensure Safe Vehicles are on the roads, and encourage Safe Behaviours for those using our roads.
2.2 The borough will ensure that as part of the scheme development process new transport schemes will comply with Secured by Design, and the process will include proper consultation with Designing out Crime Officers.
2.3 The borough will deliver a programme of area based traffic calming schemes, aimed at giving priority to sustainable modes of travel and environmental improvements.
2.4 The borough will introduce 20mph restrictions in residential roads and around schools and shopping areas.
2.5 The borough will continue to work with TfL to identify opportunities to reduce the 20% of collisions on the TLRN.

Outcome 3: London Streets will be used more efficiently and have less traffic on them.

2.133 The Council recognises the need to seek enhanced transport links to those areas with good public transport accessibility, particularly Kingston and Tolworth Town centres, as well as the District Centres to accommodate growth, particularly for Kingston which requires improved regional transport links to support its important role as a Metropolitan Centre and allow for the growth anticipated in the emerging Local Plan.

2.134 Travel plans are required through the planning process (usually for larger new developments in the borough) and encourage people to make changes to the way they travel. They are generally aimed at employees of workplaces but can also be applied to other developments, seeking to promote the use of sustainable transport. The council's supplementary planning documents set out the requirements for travel plans secured through the planning process.

2.135 The primary aim of a school travel plan is to reduce the number of pupils being driven to school and encourage greater use of sustainable modes, such as walking, cycling and public transport. Kingston Council actively works with the schools in the development and implementation of their travel plans.

2.136 Car clubs have been proven to be effective in reducing the number of vehicles privately owned by its members and the dominance of the private car in our streets which helps make space available for sustainable transport and improve amenity and road safety. The council will continue to work with operators and developers to develop and promote car clubs alongside alternative forms of transport to the car.

2.137 The car club market is continually changing and the council will consider new ways of working with partners to ensure they provide viable and sustainable options, for example through the securing of infrastructure associated with new development. Areas of high public transport accessibility tend to generate the greatest demand for car club use; this is likely to be relevant for Kingston in the future since the highest levels of housing growth are also anticipated in these areas, for example in and around Kingston Town Centre.

2.138 The most heavily trafficked roads in the borough form part of the TLRN, those roads being the A3, A243 south of the Hook interchange, and A240 east of Tolworth interchange. At the peak periods these roads experience significant congestion and as such poor air quality. The borough and TfL will continue to work together to manage traffic flows on these roads, with consideration of opportunities to reduce the level of congestion at these junctions.

2.139 The borough and TfL will continue to work together to manage traffic flows on these roads, with consideration of opportunities to reduce. The current project in the Malden Manor area is investigating options to address this through traffic, and a traffic management measures that is being promoted is looking at introducing local closures that restrict through traffic, but offer filtered permeability for cyclists on the local network.

Challenges

- A high proportion of traffic on the main road network is through traffic, and when main roads are congested, traffic diverts to more sensitive residential areas.
- New London Plan housing targets are very demanding. Projected population growth will increase demand for travel putting additional strain on the transport network and increasing the number of journeys and congestion.
- The borough has no underground or tram services and suffers poor regional public transport links yet Kingston has an important regional role as a Metropolitan Town Centre.
- For many people car ownership is seen as essential. Without significant investment in new public transport infrastructure, a large proportion of trips will be undertaken using the car.
- Due to shopping trends and other changes, there has been a significant increase in the number of light goods vehicles on the roads.

Opportunities

- Supporting significant investment in major new transport infrastructure such as Crossrail 2
- Promoting active forms of travel through workplace and school travel plans and provide supporting measures such as cycle training.
- Working with schools to address their travel impacts including the development and implementation of school travel plans.
- Considering schemes that seeks to exclude vehicles on the roads around schools at drop off and pick up times.
- Promotion of car clubs can help reduce car ownership and provide a realistic option for people who only require occasional access to a vehicle
- Working with the freight industry, freight traffic can be managed and reduced through last mile delivery consolidation and re-timing of deliveries to off peak.

2.140 Parking policies and standards are extremely effective tools in terms of managing traffic levels and the associated congestion and pollution, since the availability of a parking space at the destination is a key determinant in the decision whether to use a car and therefore encouraging trips to be made by sustainable modes. This matter is highlighted in the new London Plan through the establishment of several new parking policies. London Plan parking policies state that:

- Car parking should be restricted in line with levels of existing and future public transport accessibility and connectivity.
- Car-free development should be the starting point for all development proposals in places that are (or are planned to be) well-connected by public transport, with developments elsewhere designed to provide the minimum necessary parking ('car-lite').

2.141 The council has developed its parking policies to manage parking to meet the needs of residents and businesses while seeking to reduce unnecessary car use. The council also manages car parking provision in new developments through the planning process.

2.142 The Council will manage car parking in the borough to support the following objectives:
- Achieve modal shift and create a more attractive and healthy street environment.
- Reduce the attractiveness of car travel and associated traffic congestion.
- Improve road safety particularly for cyclists, pedestrians, and children.
- Retain the economic vitality of the town centres and shopping parades and making adequate provision for the servicing and delivery needs of business.
- Provide suitable and adequate parking facilities for residents, particularly disabled people

2.143 There are significant areas around Kingston Town Centre and Surbiton Centre where CPZ's are in place, and have been for some time, and these were introduced in response to the high levels of non-resident parking that was taking place by people working in and around the Town Centres. Some surrounding areas continue to feel on-street pressures around the centres, and further expansion CPZ's are being delivered. This will potentially impact on how people travel to work in those areas, but without widespread CPZs across the borough it is more likely to result in displacement, rather than modal shift.

2.144 There are growing parking pressures across other district centres within the borough, with regular issues raised at a local level in New Malden and Tolworth. Similar issues are also experienced in Chessington, where parking often associated with the Industrial Estate leads to on-streets pressures.

2.145 The borough are considering whether a more strategic approach to delivering area wide CPZ's will be rolled out, as recent consultations in New Malden did not receive the support of the residents. It is also considering the introduction of emissions based permits to encourage take up of cleaner vehicles within CPZs.

2.146 In his new Transport Strategy, the Mayor of London has stated that there is a need to investigate new ways to discourage nonessential car and freight trips, especially for shorter trips; it states that local road user charges or workplace parking levies are options that could be considered. It goes on to say that changing the way Londoners pay for using private vehicles on London's roads could help significantly to reduce the congestion and emissions associated with car dependency and inefficient freight and servicing trips. In the meantime he will keep existing and planned road user charging schemes under review.

2.147 The next generation of charging systems are likely to replace existing schemes including sophisticated road user charging and/or workplace parking levy schemes; these will contribute to the achievement of the MTS policies and proposals, including mode share, road danger reduction and environmental objectives, and to help reduce congestion on the road network and support efficient traffic movement.

2.148 The offer from the Mayor is that TfL will work with those boroughs who wish to develop and implement appropriate demand management measures as part of traffic reduction strategies where they are consistent with the policies and proposals set out in the MTS. London boroughs are therefore being requested to think about the role of demand management measures in tackling local challenges. However, a strategic approach is required, to be developed and administered by overarching London authorities such as TfL, to ensure a consistent approach across the wider area that won't economically disadvantage any borough or individual centre.

2.149 The borough objectives under this outcome are as follow:
3.1 Consideration of the ideas put forward in the MTS to discourage unnecessary journeys by car and freight including road user charging schemes and workplace parking levies (on the basis of no significant detriment to local business/economy).
3.2 Introduce schemes that address through traffic issues, considering measures such as local closures with filtered permeability.
3.3 Working in partnership with TfL and other bodies to take forward and implement other schemes as appropriate.
3.4 Consider a strategic approach to on-street Parking Management and the introduction of CPZ's as well as introduction of emissions based permits
3.5 Introduce EV/Car clubs bays on-street to provide opportunities to make use those facilities.

Outcome 4: London Streets will be clean and green.

2.150 The metrics that cover this outcome involve reductions in the various particulates and emissions for CO_2, NOx, PM10 and PM2.

2.151 Kingston and much of London is affected by poor air quality which requires input at both the local and regional level. Enhancing the borough's streets will bring benefits for users of the entire transport network. The interventions proposed through our work programme seek to reduce transport related carbon emissions and contribute towards climate change mitigation. All relevant matters, such as noise and environmental conditions affect how people perceive their surroundings and a good experience makes active travel choices more likely.

2.152 There are residential areas within the borough that suffer from through traffic issues, primarily those close to the A3, where traffic has historically sought alternative routes to avoid busy and congested junctions with the A3 at Hook, Tolworth and New Malden. A current project in New Malden, in the Malden Manor area, is investigating options to remove through traffic and, subject to local support, will be submitted as a Liveable Neighbourhood bid for 2020/21. This approach would then see local areas having their environment improved, with through traffic removed.

2.153 Kingston monitors air quality in the borough in line with the recommendations of TfL and other strategic bodies, in particular focussing on areas where high human exposure is considered likely. Monitoring stations are generally on major transport corridors such as the A3 (which suffers high traffic volumes) and also in town centres such as Kingston (which has high bus activity), so that the exposure of residents in these areas can be monitored. The figures show that there are exceedances in NOx levels in these areas.

2.154 The Borough has an Air Quality Action Plan (AQAP) in place, which followed the declaration of the whole borough as an Air Quality Management Area. The plan has a life of 2016 – 2021, and the LIP Programme works to support the Action Plan, which is reviewed annually.

2.155 The Borough's position will be to take advantage of increasingly cleaner forms of transport to improve local air quality, while working with TfL and partners to promote increased public transport capacity and Healthy Streets contributions from new developments. The Council will take practical and measurable steps to address air quality issues.

2.156 It is acknowledged that buses currently are a significant contributor to transport emissions, and whilst TfL are seeking to convert their fleet to hybrid/electric vehicles it is likely that his will happen in central and inner London first. Buses make a significant contribution to road transport emissions. Outer London bus fleet will not be converted to hybrid/electric as quickly as inner/central London.

2.157 The Borough will continue to pursue Low Emission Neighbourhoods (LEN) in consultation with the GLA. Discussions around the most appropriate sites are ongoing with the borough seeking to deliver around the Worcester Park area. This provides the opportunity for cross borough working with LB Sutton, and has formed a key part of a bid as part of the Mayor's Air Quality Fund for both boroughs, with LIP funding providing the match funding element.

2.158 The introduction by the Mayor of the Ultra Low Emission Zone (ULEZ) will further accelerate the uptake of cleaner vehicles. ULEV car clubs assist by providing both the vehicle and charging points at an affordable price, which in turn increases the exposure of ULEVs to the public.

2.159 Historically, access to ULEVs on a private basis has been restricted due to the comparatively high cost of the vehicles, restricted range, long charge times and the lack of easily available charging infrastructure. The cost of producing the batteries has been a major factor in leading to EVs being prohibitively expensive. Additionally the charging process is not easy for some people, for example those in flatted development. However, these barriers are gradually being overcome with falling vehicle prices, a growing charging infrastructure, faster charging and more practical vehicle ranges. Additionally electric vehicles are easier to maintain than their petrol/diesel equivalents with fewer moving parts and consequent reduced maintenance requirement.

2.160 The borough has an approved Ultra Low Emission Vehicle Policy, and an associated Action Plan, which were considered and approved by the Environment and Sustainable Transport Committee in November 2018. It supports the ULEV Delivery Plan for London, which was developed by TfL.

2.161 Electric chargers are available at 24 locations across Kingston borough; some locations have multiple charging points and eight charging points have both slow and fast chargers. Information about charging points across the borough and the UK can be found at www.zap-map.com (as detailed on the Council's website). This includes information about the availability, number and speed of the charging points.

2.162 As electric vehicle technology has improved there has been major growth in vehicle numbers in recent years. Bloomberg anticipates worldwide electric vehicle sales growth forecasting that electric vehicles will account for 35% of all new vehicle sales by 2040. There are a number of potential scenarios depending on how ambitious the Government is at pushing consumers towards greener vehicles. The decarbonisation of road transport is one of the few remaining 'less hard wins' which are required if the government is to achieve its carbon reduction target by 2050. In the case of an ambitious scenario, the number of electric vehicles could grow from 50,000 in 2016 to almost 10 million vehicles in the country by 2040. To reflect this, the borough's new policy commits to an additional 100 charging points over the next four years.

2.163 The growth agenda for the borough will present significant challenges in terms of ensuring the infrastructure is in plan to supports new development. A key

element for this will be in relation to how drainage and rainwater run-off are managed, and there are opportunities for improvements in both flood risk management and water quality.

2.164 Healthy streets provides the opportunity to incorporate Sustainable Drainage System (SuDS) features to reduce the risk of surface water flooding, improve water quality and slow the rate at which water drains to watercourses and rivers. Any plan to redesign a street should examine the opportunity to incorporate SuDS such as filter strips, rain gardens or permeable paving as part of the proposal. The inclusion of these features would contribute to the delivery of healthy streets. The London Plan Policy 5.13 states that development should take a hierarchical approach to the management of surface water, encouraging the use of infiltration and attenuation. The redevelopment of many of Kingston's streets offers an opportunity to implement this approach and deliver multiple sustainability benefits.

2.165 A further drainage issue relates to the loss of front gardens, in terms of green space habitat, as well as the additional surface water run off that providing additional crossovers can bring. The Councils Crossover Policy, which was approved by the Environment and Sustainable Transport Committee in February 2019, states that any hard-standing shall be constructed such that all surface water runoff shall be contained within the applicant's property boundary. The construction of any hard-standing shall be such that no loose material will be able to migrate onto the highway. If it is proposed to use a loose material (shingle) to surface the hard-standing a retaining strip must be used to prevent shingle migration.

2.166 The SEA consultation resulted in a number of comments, which related to the impact of the LIP programme on biodiversity, in particular the loss of mature trees. Following a national decline in support for Biodiversity Action Plans the London Biodiversity partnership disbanded in 2013. The council will consider biodiversity matters in consultation with its key environmental stakeholders,to inform LIP policy and investment decisions - whilst recognising that biodiversity strategy itself is not within the remit of the LIP.

Challenges
- Vehicular traffic is responsible for over 50% of the major air pollutants with heavy goods vehicles contributing to a high proportion of pollutants.
- Many of the air quality exceedances are on the major road network which is under TfL control.
- Key locations, such as Kingston Town Centre, suffer significant road transport emissions for which buses are largely accountable. It seems that inner/central London will receive most of the new low emission bus fleet while outer London will have to wait a considerable time.
- The Ultra-Low Emission Zone and its future expansion offers great potential for partnership working across areas to improve environmental conditions.
- The development and installation of rapid electric vehicle charging infrastructure has been slow due to technological issues.
- Use of alternatively fuelled vehicles (such as electric vehicles) in the borough is still quite low, but research has identified that opportunities exist for high

levels of take up of such vehicles in future years. We need to ensure the infrastructure is in place to accommodate this change.

- A high proportion of impermeable surfaces in an area can increase flood risk, reduce biodiversity and increase the volume of contaminated surface run-off entering the soil/watercourse if drainage is insufficient.
- Impermeable surfaces can increase flood risk and the volume of contaminated surface run-off entering the soil and watercourses.
- Increased parking pressures mean residents more likely to requests crossovers for off-street parking.

Opportunities
- A package of measures will be implemented to reduce congestion on the road network.
- The uptake of sustainable transport modes will reduce the number of vehicles and trips on the network.
- New ultra-low emission vehicles should result in significant improvements to air quality over time, supported by borough commitment to emissions based parking permits and 100 new EV points within 4 years
- At a wider level, ULEZ and other regional measures will bring London-wide decreases in air pollutants.
- Children are particularly vulnerable to poor air quality and measures will be pursued to reduce their exposure to pollutants. School travel plans can help reduce the number of pupils being dropped off by car and associated emissions.
- New technology is coming forward which will deliver faster electric charging for residents for example from lampposts.
- We would like to encourage TfL to accelerate the introduction of cleaner buses across our area and indeed wider south west London (in a similar fashion to central London).
- We would like to work with TfL to investigate the benefits of introducing zero emission zones in appropriate places such as town centres.
- Driving courses can educate drivers on techniques to reduce emissions whilst encouragement to reschedule deliveries to outside peak periods will significantly reduce diesel emissions.
- Sustainable Urban Drainage systems can help reduce the likelihood of flood risk and surface run-off problem.
- Crossover applications will be considered in line with a policy that protects the environment.

Borough Objectives
4.1 Continue to deliver against the objectives in the Air Quality Action Plan.
4.2 To continue to pursue Low Emission Neighbourhoods (LEN).
4.3 Make Eden Street a 'Clean Bus zone', with only green buses
4.4 To ensure developments and projects take into account SuDS systems, such as filter strips, rain gardens or permeable paving as part of the design process.
4.5 To ensure that where crossovers are being provided it happens in a sustainable way, and in line with the Council Policy.
4.6 To ensure biodiversity matters are considered for LIP projects, in line with the Council's overall environmental strategy

Figure 26 A) Zap-Map of electric charging points in Kingston (https://www.zap-map.com); B) Electric charging point at Asda Kingston, 142 London Road (Photo credit: https://www.zap-map.com); C) Electric charging point, St Mark's Hill, near Surbiton Station (Photo

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

2.167 Chapter 2 of this LIP (Local Context) sets out the significant increases in population and associated housing provision both in Kingston and London as a whole. These projections predict that between 14 and 15 million trips will be made by public transport every day by 2041.

2.168 A Borough objective is to work with TfL and the Mayor to improve the public transport offer in the borough, and provide a realistic alternative to car travel for short/medium length journeys, in particular commuting and school travel.

2.169 The proposed TfL bus reorganisation in Central London has the potential to improve bus capacity in the outer London boroughs, to counter the poor public transport accessibility levels currently faced by many residents.

2.170 Due to the lack of underground and tram services in the borough, and large areas with low train frequencies, Kingston is reliant on its extensive bus network to provide acceptable levels of access to public transport. Although the borough is reasonably well served by buses there are still some areas where residents are not within reasonable walking distance of a bus stop, and there are large areas with poor access to public transport, for example, Coombe, Berrylands and South of the Borough.

2.171 The majority of bus services in the borough are operated by TfL, and have seen considerable investment and improvement over a number of years. As a result Kingston has benefited from bus service improvements including increased frequencies, extended routes, 24 hour services and improved bus accommodation and security. The Council will continue to work with TfL to protect existing services and seek improvements to service provision where required. The Council would particularly like to continue to investigate improvements to bus services in the South of the Borough; other areas of low public transport accessibility; and areas that are further than 400m from a bus stop. Local bus service improvements will complement major transport infrastructure investment helping to facilitate new development in the borough.

2.172 Bus services in particular are important in enabling access to services, employment and education for those who do not have access to a car; they perform a vital function in reducing social exclusion and enhancing social cohesion. Through the Bus Accessibility Programme bus stops in the borough are now accessible for people with mobility impairments, facilitating independent travel, improving access to transport for groups who may otherwise struggle to move around the borough

2.173 Buses are typically the most common form of public transport used by older people, disabled people and those travelling with children, often with prams or buggies. They are an accessible form of public transport with all London buses meeting strict accessibility requirements. Work continues to investigate enhancements to the design and layout of street space to further improve access to and from bus stations and stops. The Council is also pushing key partners for the earliest possible roll out of low/zero emission buses across

Kingston to the benefit of areas which currently suffer poor air quality where bus operations are a primary contributor (e.g. adjacent to Cromwell Road bus station in Kingston town centre).

2.174 The borough hold quarterly Public Transport Liaison Meetings, where interested stakeholders, including those with mobility issues such as Kingston Association for the Blind, Kingston Centre for Independent Living and Kingston Learning Disability Parliament can raise their public transport issues. The public transport operators also attend, and the meeting allows for a two way flow of communication.

2.175 The Council supports
- Working with TfL and stakeholders to improve the quality of bus services so that they offer faster, more reliable, accessible and convenient travel.
- Working with and lobbying TfL to improve the Borough's network of bus services particularly in areas of low public transport accessibility such as the south of the Borough.
- Investigating enhancements to surrounding street space (in line with the Healthy Street) to improve access to and from bus stations and stops.
- Lobbying for earliest possible roll out of low emission buses across our area.
- Improving integration between transport modes, particularly to provide improved accessibility to train stations.

2.176 All railway stations in the borough are set to benefit from increased train frequencies which will be provided through the introduction of Crossrail 2; this is a large rail infrastructure project that will significantly increase network capacity and substantially improve travel times through London and beyond into Surrey and Hertfordshire. All stations served will see an increase in their service level, providing additional capacity that will relieve crowding and congestion on the network, while the council is also seeking a line extension to provide a new station at Chessington World of Adventures.

2.177 If progressed to schedule, Crossrail 2 will open in 2033 and support at least 20,000 additional new homes expected to be delivered in outer south-west London. Shorter journey times will support economic regeneration with most of the additional growth likely to be delivered between 2025 and 2060. The growth enabled by Crossrail 2 will be delivered using the principles of the Healthy Streets to create 'Liveable Neighbourhoods'. Active forms of movement will be promoted by densifying town centres and around stations, alongside targeted improvements in walking, cycling and the public realm.

Borough objectives

5.1 Kingston supports the proposed Crossrail 2 project linking north-east and south-west London, favouring the regional option with branches through Kingston.

5.2 Work with Rail and Bus colleagues to seek to improve integration of journeys.

5.3 Continue to facilitate the Public Transport Liaison Meeting, allowing engagement between operators and stakeholders.

5.4 Lobby TfL to provide improvements to bus services in the South of the Borough, other areas of low public transport accessibility, and areas that are further than 400m from a bus stop.

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

2.178 Reduce on average, the difference between total network and step-free network journey times by 50% by 2041

2.179 Borough vision is for modern, clean buses with greater route capacity to accommodate the needs of a growing borough, with greater interchange at key centres.

2.180 The Mayor's new Transport Strategy sets out the importance of a whole journey approach, where public transport improvements are complemented by Healthy Streets improvements. It explains how London's public transport services, which are operated by TfL, can become a more appealing option than car use by improving affordability and customer service, improving public transport accessibility, shaping and growing the bus network and improving rail services and tackling overcrowding.

2.181 Working with TfL and stakeholders, the Healthy Streets Approach can be used to deliver improvements to public transport and streets to provide an attractive whole journey experience. The design and layout of street space and transport facilities around bus and rail stations can be significantly enhanced to create safe, accessible and welcoming gateways and routes to and from public transport. This will make the transport system more navigable and accessible to all, enabling disabled and older people to more easily travel independently and without incurring significantly increased journey times.

2.182 Kingston Council does not directly fund, manage or control any public transport services, but the borough seeks to secure service improvements from Transport for London and other operators. Kingston works closely with TfL and partners in developing schemes and strategies to ensure public transport is well catered for within the Borough.

2.183 Public transport plays a key role in providing an alternative to car use and, while bus and train use are not considered to be fully active modes, they contribute to reduced congestion and lower emissions by reducing the number of car trips taking place. Depending on the length of walk to/from the train station/bus stop, public transport can often involve a significant amount of human activity with associated health benefits.

2.184 As mentioned in paragraph 2.172, the borough facilitates quarterly Public Transport Liaison Meetings, where interested stakeholders and public transport operators attend to discuss matters of importance.

2.185 The South of the Borough Neighbourhood Committee have had regular issues raised by residents that relate to poor public transport provision. This relates to routes and services which are not serving local health centres. Specific route concerns have been raised on the following routes – 467 for Epsom Hospital, K buses for Tolworth and Surbiton Hospitals.

2.186 There are 10 train stations within the borough, of which 5 have full step free access, with all others having access issues. A scheme has also recently been agreed with South Western Railway to progress accessibility improvements to Chessington South Station, with works on site due to commence in Spring 2019.

Challenges
- Transport interchanges and hubs are not always easily accessible by those with mobility/visual impairments. Step free station access is a rarity, a matter which makes life particularly difficult for those with mobility impairments. Journeys that require a step-free route often take longer than those that do not.
- Accessibility needs require consideration of a range of physical and mental impairments that may not be obvious to many people.
- A range of issues can make bus access very difficult for those with physical impairments. In particular, wheelchair users find access especially difficult and bus ramps have problems on uneven surfaces. Bus drivers are not always aware of the needs of those with physical impairments during boarding and whilst on board. Street clutter can also presents significant obstacles.
- An aging population means that unsatisfactory facilities will affect the travel behaviour of a greater number of people.
- There have been significant increasing costs associated with using public transport that have become a barrier particularly for low paid workers.

Opportunities
- Increasing accessibility and mobility in Kingston by public transport through securing new services, more capacity and greater service frequencies on appropriate routes from public transport operators.
- Working with partners, using the Healthy Streets Approach, to deliver coordinated improvements to public transport and streets to provide an attractive whole journey experience.
- Working with/lobbying partners to improve sub regional, orbital and cross boundary public transport to serve catchments of major trip attractors.
- Close working with Disability/Community Forums will ensure the needs of many different groups are considered. Early planning will be beneficial to assist the needs of an aging population.
- The council is working with partners towards achieving step free access at all stations, for example Chessington South Station is currently having a new accessibility ramp installed.
- There is potential to make significant public realm and interchange improvements at key bus and rail stations, for example at Kingston station as part of the current Kingston Go Cycle programme of work.

Borough Objectives
6.1 Lobby TfL to provide improved accessibility to bus services.
6.2 Lobby South Western Railways to improve accessibility and infrastructure provision at all railway stations in the borough
6.3 Continue to facilitate Public Transport liaison Meetings
6.4 Ensure that LIP schemes near railway stations fully assess the access requirements.

Outcome 7: Journeys made by Public Transport will be pleasant, fast and reliable.

2.187 Bus speeds will improve by approximately 5 % to 15% London-wide by 2041, with particular improvements expected in inner London

2.188 For future schemes to incorporate Healthy Streets measures to improve access to public transport, while offering priority measures where possible.

2.189 Kingston's rail services are provided via several radial routes that all terminate at London Waterloo. Orbital rail services are limited and orbital trips normally require interchanges to be made. Surbiton Station is on the main line to the South Coast so benefits from high frequency services including an express service to Waterloo. Kingston Station is served by 2 branch lines that together provide 4-6 trains per hour which is relatively poor considering Kingston's sub-regional status as a Metropolitan Town Centre and the number of trips it attracts. Worcester Park and New Malden Stations both benefit from relatively frequent services while Malden Manor, Tolworth, Chessington North and South Stations are all served by the Chessington South line that has low frequency services (2 per hour).

2.190 Passenger crowding on Kingston rail services is an increasing concern, particularly on lines from Surbiton, Kingston, Worcester Park and New Malden Stations which are approaching and exceeding capacity during peak times. Off peak and late night train services to Kingston are infrequent and services from central London end relatively early, with services to stations on the Chessington South Line being particularly poor.

2.191 Additionally, devolution of the south London rail networks would bring about an immediate improvement in service quality for existing users across a wide area. This could be followed by upgrades to signalling, track and stations to further enhance frequency and therefore capacity.

2.192 TfL have shared information on the worst performing bus routes in the borough, with the assessment based on excess wait times, speeds, passenger numbers and curtailment. The borough are working with TfL to identify measures and schemes that can be considered on some of the worst performing routes to address those delay.

Borough objectives:

7.1 Lobby partners to improve existing train services including increased capacities, frequencies and late night services, improved station capacity/facilities and fairer pricing including the rezoning of Surbiton and Kingston stations.

7.2 Deliver associated improvements to surrounding streets (utilising the healthy streets approach) to provide an attractive journey experience.

7.3 Support the devolution of suburban rail services to TfL control.

7.4 Work with TfLto identify bus priority measures on the worst performing bus routes

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

2.193 The borough will ensure that public transport, walking and cycling will be a key attractor for the occupiers of new housing developments in Kingston, by siting the majority of new homes in areas where accessibility is strongest. Opportunities will also be taken to include Green Travel Plans as part of the planning process to include sustainable options as an intrinsic part of any application where transport is considered to be an issue.

2.194 Where new developments are concerned these need to be accommodated in a sustainable way, avoiding adverse impacts on the transport network and having regard to the delivery of the Mayor's strategic target of 80 per cent of all trips in London to be made by foot, cycle or public transport by 2041. The Council therefore supports the adopted London wide approach (as identified in the London Plan) of integrating transport and development, including locating major trip generating development (employment, shopping, and high density housing) in areas with good public transport accessibility, particularly Kingston and Tolworth town centres, as well as the District Centres.

2.195 The borough support TfL's approach to embedding the Healthy Streets process into the development of Transport Assessments in the planning application process.

2.196 To reduce car dependency and encourage sustainable travel, the Council will:
- Require all major developments to submit an appropriate Transport Assessment with a focus on embedding the Healthy Streets Approach within, and in the vicinity of, new development
- Require development proposals to deliver patterns of land use that facilitate residents making shorter, regular trips by walking or cycling.
- Allow higher development densities and reduced car parking in areas of higher public transport accessibility.
- Apply restraint based parking standards (as identified in the London Plan) to ensure appropriate levels of parking are provided in new developments.
- Use Community Infrastructure Levy money collected from new development to fund transport infrastructure.
- Ensure that sites with poor levels of accessibility by sustainable modes will not usually be considered suitable for development that could generate high numbers of trips.

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

2.197 The borough will ensure that developers contribute towards the infrastructure needed such as roads, public transport links/infrastructure and open spaces by reviewing the Council's Community Infrastructure Levy (CIL) as appropriate.

2.198 Historically, new development in the area (and wider south London) has been constrained particularly by the nature of rail connections, consequently much of the area has low-density housing. Much of that network is overcrowded and where good rail connections do exist, they serve a wide catchment area, causing commuters to use cars to reach stations, adding to congestion on the streets in these areas. Significant improvements to the rail network (such as Crossrail 2) and improved walking and cycling connections will enable densification of town centres,. such as Kingston.

2.199 More people than ever want to live and work in Kingston and London as a whole. Over the lifetime of the new Local Plan, Kingston's population is projected to rise from about 183,000 in 2019 to between about 205,000 and 223,000 in 2041 (GLA 2016 based population projections). To meet the demands of the growing population, there is a need to build more than 1,000 homes every year between now and 2041.

2.200 The transport network has a crucial role to play in this. Existing and new public transport connections can make parts of Kingston viable places to build homes and create jobs. The Healthy Streets approach will be used to plan new developments around walking and cycling for local trips, and public transport for longer ones, which will help people to live active and healthy lives and Kingston to function effectively as it grows.

2.201 The principles of how to achieve this are key, with transport being used to help deliver homes and jobs in a way that will improve quality of life. The type of development will be shaped using transport services to create high-density, mixed-use places across the borough; for example land around stations provides opportunities to create new communities that are well connected to local amenities, jobs and locations further afield. The MTS states that people living in more densely developed places are less likely to depend on the car for their journeys, and more likely to use public transport, walking and cycling to get about. This will result in less congestion and more compact development patterns making the best use of scarce land.

2.202 The borough has carried out a Transport Forecasting Report has been produced assessing the transport implications of new development through the modelling of the impacts of projected growth on the transport network (over the lifetime of the new Local Plan). It identifies the mitigations necessary to deal with any resulting issues.

2.203 The study concluded that, based on London-plan based growth in employment and jobs, there are forecast to be significant stresses on both the highway and public transport networks by 2041 with increases in traffic flows

and consequential significant increases in traffic delays. The assessment of traffic conditions includes transport schemes likely to be in place by 2041. The Kingston Go Cycle programme will significantly enhance conditions for cyclists and help facilitate modal shift but does require road space reallocation. Crowding on rail services through the borough is forecast to worsen considerably by 2041, particularly on the South West Main Line services through Surbiton.

2.204 Crossrail 2 is in the early stages of planning and it is expected that permission to build the line will be sought in the early 2020's, followed by construction and potential opening by the early 2030's. As well as opening up new travel opportunities with consequential benefits to mode choice and increased public transport patronage, Crossrail 2 will offer substantial relief to the expected train crowding and will largely mitigate against the forecast levels of train crowding, despite the increase in passengers.

2.205 A number of highway schemes were assessed and it was shown that they could help to mitigate traffic conditions in the borough. The conversion of the existing Kingston town centre one-way gyratory to two-way operation, along with sustainable transport options including a bus-only operation along Clarence Street, could significantly improve the nature of the town centre. Results have shown that the impacts are relatively local but do include increases in delay at several junctions. To progress this scheme, further work will be required developing detailed designs, combined with detailed micro-simulation modelling to ensure that the scheme is viable.

2.206 However, none of the highway schemes assessed will lead to a significant shift away from car-based travel or effect a switch to more sustainable modes. This will require a much more radical approach. Consequently, a demand management scenario was tested, based on an ambitious pan-London policy to reduce car mode share that incorporated TfL's healthy streets agenda, substantial spending on public transport infrastructure (including Crossrail 2), and travel demand management. This could include measures such as: road user charging; a more sustainable freight policy; and a workplace parking levy and road space reallocation. Further work needs to be undertaken by TfL on the exact nature of demand management, and how it could be implemented across London whilst avoiding negative economic implications. The modelled forecasts indicate that this is probably the only realistic way of reducing the reliance on car-based travel within and through the borough.

2.207 The borough will strive to work with partners to help ensure that the necessary transport services and facilities are delivered at the appropriate time in order to support the successful delivery of our Local Plan targets.

2.208 The council will seek to:
- Work with key partners, including TfL, Network Rail, other boroughs and the public transport operators to further investigate the transport impacts of potential future major developments, and the mitigation measures necessary to deal with the resulting issues.

- Progress an appropriate package of transport mitigation measures necessary to deal with these impacts including an understanding of how demand management measures could assist.

2.209 This Council supports the stance adopted in the new MTS on airport expansion which states the Mayor will continue to oppose the expansion of Heathrow airport unless it can be shown that no new noise or air quality harm would result and it can be demonstrated that surface access networks will be invested in to accommodate the resultant additional demand alongside background growth.

2.210 Most recent forecasts show a large increase in the number of aviation passengers starting or ending their surface journeys in London which will result in disproportionately greater pressure on key surface access links than originally envisaged. TfL analysis has shown that established mode share targets will not be achieved by a very significant margin, even with a comprehensive package of surface transport mitigations.

2.211 The Council would like to see improvements to railway services which would help cater for the increased travel demand to the airport and encourage modal shift. However, TfL modelling demonstrates that with all committed transport schemes in place by 2031, both the highway and public transport networks become overloaded. Further measures therefore require investigation by strategic bodies to ensure that the transport network is not unduly impacted on.

2.212 The Council supports:
- The stance adopted by TfL on airport expansion, opposing new runway capacity at Heathrow (and Gatwick) unless it can be demonstrated that surface access networks will be invested in to accommodate the resultant additional demand.

Other Mayoral Strategies

2.213 Aside from the Mayors Transport Strategy, this Plan is required to have regard to the following other Mayoral strategies as they are published.

Environment Strategy (published May 2018)

2.214 This Plan and the supporting council strategies support the MTS ambitions for improved air quality, which mirror the Environment Strategy. Measures include sustainable development close to public transport, modal shift and promotion of zero emission transport such as electric vehicles, cycling or walking.

2.215 The strategy brings together approaches to every aspect of London's environment, integrating air quality, green infrastructure, climate change mitigation and energy, waste, adapting to climate change, ambient noise and low carbon circular economy.

Health Inequalities (published September 2018)

2.216 In Kingston good health is not equally distributed within the borough, and some groups of people suffer disproportionately poor health and also record

lower than average levels of physical activity than others. The Healthy Streets interventions, air quality actions and sustainable travel initiatives all link to the objectives within the Health Inequalities Strategy.

Housing (published May 2018)

2.217 The Kingston Local Plan and this document support the Mayors ambition to increase the supply of land for housing through greater intensification, higher densities, and co-location of different uses.

London Plan

2.218 The borough provided a comprehensive response to the draft London Plan and those comments are referenced in paragraph 2.42 and 2.43.

CHAPTER THREE
THE DELIVERY & INVESTMENT PLAN

Introduction

3.1 This chapter sets out our Delivery Plan for achieving the objectives of this LIP. It includes:
- Linkages to MTS 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

3.2 The Delivery Plan has been developed to align the borough's projects and programmes with the policy framework of the MTS, the overarching mode share aim, each of the nine outcomes, and the relevant policies and proposals.

3.3 As noted in Chapter 2, historically the annual submission prepared by the borough for TfL sought to identify a range of smaller schemes at sites or junctions, which ultimately delivered focussed transport improvements at a local level. It is considered delivering according to the Healthy Streets approach will be more efficient when focused on improving the infrastructure across broader areas and improvements are considered in a more 'strategic manner', that is to say where there are clear opportunities for improved modal choice towards encouraging people to make journeys by walking, cycling or because of improved access to public transport.

3.4 This will mean that there will be fewer, but larger and higher quality schemes being delivered and it will be important that as part of the development of LIP 3, that the scheme proposals being considered are linked to provide area wide coverage to ensure that the modal choice opportunities are built on across wider areas.

3.5 The schemes listed in the table below have been identified by officers, and are a repeat of those submitted in Proforma A in November 2018. They have been suggested after looking at the personal injury collision statistics for the borough, areas suitable for 20mph zones and other 'Healthy Streets' measures, to encourage people to walk, cycle or take public transport for their local journeys

3.6 The priorities that are required to be addressed by the boroughs in their LIPs are:
- A contribution to reducing Londoners' dependency on cars in favour of active, efficient and sustainable modes of travel, with the central aim of 80 per cent of all trips in London to be made on foot, by cycle or using public transport by 2041
- The application of the Healthy Streets Approach across all areas of local transport and public realm policy

- The improvement of street environments for people who are walking, cycling and spending time, including the introduction of traffic reduction strategies
- The provision of a good public transport experience for those who live in, work in, or visit the borough
- The use of the transport principles of Good Growth to guide the development of new homes and jobs

	TABLE ST01 - Linkages between LIP projects and programmes and the Mayor's Transport Strategy outcomes									
		MTS mode share	**MTS outcomes**							
	Project / Programme	Improving active, efficient and sustainable mode share	No I:-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/Unlocking
	Programme name									
1	Richmond Road Corridor Phase 2	Y	Y	Y	Y	Y	Y	Y		
2	Bridge Road/Moor Lane Corridor Phase 2	Y	Y	Y	Y	Y	Y	Y	Y	
3	A2043 Malden Road Corridor Phase 2	Y	Y	Y	Y	Y	Y	Y	Y	
4	A243 Corridor Phase 2	Y	Y	Y	Y	Y	Y	Y		
5	King Charles Road area	Y	Y	Y	Y	Y				
6	South Lane area review	Y	Y	Y	Y	Y	Y	Y		
7	Kings Road area review	Y	Y	Y	Y	Y				
8	Future Scheme development and monitoring	Y	Y	Y	Y	Y	Y	Y		
9	Monitoring Equipment	Y	Y	Y	Y	Y				
10	Neighbourhood Improvements	Y	Y	Y	Y	Y				
11	Cycle Training	Y	Y	Y	Y	Y				
12	Behaviour Change Programme	Y	Y	Y	Y	Y	Y	Y		
13	Work Place Sustainable Transport	Y	Y	Y	Y	Y	Y	Y		
14	Schools Sustainable Transport	Y	Y	Y	Y	Y	Y	Y		

TfL Business Plan

3.7 In developing and preparing the borough's programme of works (as outlined in Table ST01 above), 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.

3.8 None of the major TfL projects are centred in the borough, and as such there will be limited benefit locally, albeit some on a broader scale. These are:

Ultra Low Emission Zone (ULEZ) expansion

3.9 The ULEZ expansion to the North and South Circular roads, with stringent vehicle emission standards and charges for non-compliant vehicles to enter the zone, will not encompass Kingston as the northern borough boundary is approximately 6-7km from the A3 South Circular route at Clapham Common. However, TfL believe that a potential NOx reduction in the borough of 10-30% is possible in Kingston as a result of higher emission standards within the ULEZ area, with the impact of fewer, cleaner vehicles cascading to outer London boroughs. No complementary borough schemes are associated with the ULEZ, but the borough will continue to work towards improved bus and rail links to key interchanges, including journeys into Central London.

Bridge Road/Leatherhead Road Roundabout

3.10 The Bridge Road/Leatherhead Road Roundabout is a long standing source of traffic delays and congestion, and often these are exacerbated by its proximity to Chessington World of Adventures. The junction was on TfL's major junction list of projects, but TfL have recently advised that due to funding constraints a new scheme will not be delivered at this roundabout. There is a proposal to make the current interim scheme permanent, if there is available funding in the 2019/2020 programme, which TfL has suggested there is. The deferring of the major scheme has caused some significant disappointment.

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

3.12 The key source of funding is the borough's LIP allocation from TfL. Figures provide by TfL indicate that the borough will receive £1.309m in 2019/20. It is anticipated that there will be continued funding towards the mini Hollands Programme, and also contributions to support projects for Bus priority measures.

3.13 The borough does not currently have a Liveable Neighbourhood Scheme, albeit it will be looking to develop and submit proposals for 2020/21 submission. A potential scheme is the Old Malden Traffic Scheme, which is currently at feasibility stage, and the scope of the project is under review with local councillors and a resident working group.

3.14   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.

3.15   The sums available from developers via section 106 agreements for delivery in 2019/20 are £125,000.

TABLE ST02 - Potential funding for LIP delivery				
Funding source	2019/20 £k	2020/21 £k	2021/22 £k	Total £k
TfL/GLA funding				
LIP Formula funding – Corridors & Supporting Measures	1,309	1,309	1,309	3927
Discretionary funding (See 3 Year Programme)	0	550	750	1300
Strategic funding	175	500	100	775
GLA funding	0	0	0	0
Sub-total	1484	2359	2159	6002
Borough funding				
Capital funding	35	0	0	35
Revenue funding	0	0	0	0
Parking revenue	0	0	0	0
Workplace parking levy	0	0	0	0
Sub-total	35	0	0	35
Other sources of funding				
S106	125	0	0	125
CIL	0	0	0	0
European funding	0	0	0	0
Sub-total	125	0	0	125
Total	1644	2359	2159	6162

Long-Term interventions to 2041

3.16   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.

TABLE ST03 - Long-term interventions up to 2041				
Project	**Approx Date**	**Indicative cost**	**Likely funding source**	**Comments**
Tolworth Roundabout Improvements	2025	£10m	TfL and S106	Proposals developed to accommodate predicted growth from development sites at LIDL and Meyer Homes.
A3 Hook Roundabout improvements	2030 (est.)	Tbc	Tbc	Investigation of alterations to allow traffic join/leave A3
A243 Leatherhead Road/Bridge Road	2019/20	Tbc	TfL	Delivery of scheme to make lane adjustments permanent
A2043 Corridor cross-borough	2019-2022	£1.2m	TfL LIP and Bus Priority	Schemes at Feasibility
A3/Fullers Way North junction improvement	20/21	£1.2m	S106/TfL	Land ownership issues to be resolved to allow progress
Kingston Town Centre Gyratory	2025 - 2030	tbc	S106/CIL	Redesign would need to form part of a major Town Centre Review.

Three-year indicative Programme of Investment

3.17   The Three Year indicative Programme of Investment has been completed in 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 Kingston TfL BOROUGH FUNDING 2019/20 TO 2021/22	Programme budget		
	Allocated 2019/20	Indicative 2020/21	Indicative 2021/22
Local transport initiatives	100	100	100
CORRIDOR, NEIGHBOURHOODS & SUPPORTING MEASURES	£1209k	1209£k	£1209k
Engineering Measures	879	879	879
Smarter Travel Programme	330	330	330
Sub-total	£1,309	£1,309	£1,309
DISCRETIONARY FUNDING	£k	£k	£k
Liveable Neighbourhoods	0	550	750
Major Schemes	0	0	0
Principal road renewal	0	0	0
Bridge strengthening	0	0	0
Traffic signal modernisation	Tbc	tbc	Tbc
Sub-total	£0k	£550k	£750k
STRATEGIC FUNDING	£k	£k	£k
Bus Priority	175	500	150
Borough cycling programme			
London cycle grid	0	0	0
Crossrail complementary works	0	0	0
Mayor's Air Quality Fund	0	0	0
Low Emission Neighbourhoods	0	0	0
Sub-total	£175	£500	£150
All TfL borough funding	£1,484	£2359	£2209

Supporting commentary for the three-year programme

3.18   The level of funding set out for the Corridors, Neighbourhoods and Supporting Measures reflects the guidance received from TfL. However, it is noted that there have been variations to the final allocations that have been awarded to the boroughs in previous years, with a particular focus on the LTF pot of funding.

3.19   As has been set out earlier in this document, the borough has reviewed it's approach to the design and delivery of its LIP programme. Historically, the annual submissions the Council has prepared for TfL have typically identified smaller schemes at specific locations that delivered targeted and focussed transport improvements at a very local level. The list of schemes set out at table ST01 for 2019/20 is in line with schemes approved by the Environment and Sustainable Transport Committee in September 2018. Annex 1 attached to that report provided brief scheme explanation and proposed budgets.

3.20   The need to develop schemes and projects that will stop car use will be developed in future years Delivery Plans, as those schemes currently listed in the delivery plan are agreed and supported and it is important to deliver the current work programme. Similarly, whilst none of the current schemes tick the Unlocking and Good Growth Mayoral Outcomes schemes will feature in future 3 year spending plans. A similar situation exists with the MTS' outcomes which relate to introducing demand management schemes, and it is noted that the potential exists in this three year delivery plan to investigate schemes around the Old Malden area, which will consider filtered permeability to reduce the options for through traffic. This type of proposal is a new concept to the borough and will require extensive engagement to share and explain the benefits of this type of measures. It is expected that future three spending plans will include further measures of this type.

3.21   The guidance and drive behind the Healthy Streets agenda is to focus on improving the infrastructure across broader areas, hence the list of projects is fewer than would have traditionally been submitted. This is so that projects are considered in a 'strategic manner' where there are clear opportunities for improved modal choice to encourage people to make journeys by walking, cycling or because of improved access to public transport. Going forward, all schemes using TfL funding need to meet the objectives set out in the Healthy Streets approach.

3.22   One of the key programmes for the borough is the delivery of the RBK Go Cycle programme, which has an overall allocation of £32.7 million. The construction of three Go Cycle schemes have been completed, with five further Go Cycle schemes are currently under construction, and other Go Cycle schemes are being developed for delivery in 20/21.

3.23   The focus for the 19/20 Delivery Plan is the continuation of a review of some of the boroughs key corridors, with works being developed on the A243 Hook Road; A2043 Malden Road and A307 Richmond Road. These corridors represent some of the busiest roads in the borough, and it is noted that the section of the A243 south of the Hook Interchange is a part of the TLRN, however Members have stated that it is a priority to see improvement made to the existing pedestrian facilities, and as such the delivery of Pedestrian Countdown signs (PCATS) at the locations will be delivered.

3.24   The A2043 Malden Road provides an opportunity to work together with LB Sutton on issues that cross the boundary, and the local scheme issues here will feed into a more comprehensive Bus Priority project, which will be phased over

years 2 and 3 of the delivery plan, and will seek to reduce congestion, improve bus journey times, general traffic flow and improve air quality along the corridor.

3.25   The A307 Richmond Road is part of a Healthy Streets review, and this section of the borough has seen the construction of a new school, as well as some large development sites. As such the pedestrian and cycle facilities are being reviewed. There is also some overlap here with bus priority proposals, and there will an assessment of the schemes to develop a delivery programme, which will be focussed across 19/20 and 20/21.

3.26   Further bus priority overlaps exist with the borough project for Bridge Road/Moor Lane roundabout, where current alignments mean the roundabout does not function efficiently. The project will be in detailed design in 19/20 and it is likely that delivery will be spread over two years, as the location is difficult to manage from a traffic management perspective.

3.27   There are a number of projects in residential areas that are investigating through traffic issues, and the Malden Manor Area and South Lane area are being prepared for a Liveable Neighbourhood bid in 20/21. The investigations and discussions for these areas will allow officers to fully engage with residents to assess their appetite for measures such as filtered permeability, which will allow significant area wide changes in terms of traffic and quality of life, thus creating environments where residents will be more likely to walk and cycle for shorter journeys.

3.28   The borough is moving forwards with the roll out of 20mph schemes across residential areas, with data collection currently underway. It is important that extensive engagement is undertaken on these proposals, as the scheme will cover large residential areas. It is likely that this project will be delivered across 19/20 and 20/21.

3.29   Looking forward to Years 2 and 3 of the Delivery Plan, the focus will shift to new corridors and areas, whilst completing some of the larger corridor schemes above. It must be noted that the schemes suggested here have not been approved by the E&ST Committee, and as such are provisional. Furthermore, these schemes listed below are examples of the types of scheme that will be delivered, and do not represent a full programme.

3.30   Cycling proposals will be delivered on Jubilee Way, to continue the provision of a new pedestrian and cycle facility from the southern part of Jubilee Way to link with the new road layout being constructed around the new LIDL headquarters at the junction with A240 Kingston Road. At that point the facility will join with the excellent existing facilities on the A240.

3.31   Other cycling projects will include reviewing the road layout for the Route 75 on the north side of the A3 at South Lane, and this review will extend for the full length of South Lane where existing traffic calming features create points of conflict.

3.32 A popular east west link will also be investigated on Amberwood Rise and Motspur Park, which links in to Route 75 at South Lane. The current bus priority programme includes scheme elements to address point of conflicts with the Hoppa route that uses the road, and these investigations will consider all issues.

3.33 Walking routes will be a focus to encourage shorter journeys to be walkable, and busy routes on Red Lion Road/Fullers Way North will be assessed. This route serves a number of schools, a hospital and an industrial estate but also links to Alexandra Park on the north side of Ewell Road.

3.34 It is envisaged that the Richmond Road/North Kingston Healthy Street scheme will continue for a 3 year programme, with connections to the Thames Path being assessed a long a number of roads that link to Lower Ham Lane in 21/22.

3.35 Bus priority works will be delivered throughout the three year delivery plan, and it is anticipated that the key project will focus on the improvements to the Worcester Park area. Recent information shared with the borough have identified the worst performing routes, which are route 131, 57 and 281. The 281 route runs along the A240, and the 131 along a section of the A2043 Kingston Road, which form part of the Go Cycle Network, where the designs are currently being developed. The opportunity will be taken to review the road layout for the Route 57, along Coombe Lane West and Galsworthy Road.

Risks to the delivery of the three-year programme

3.36 Table ST05 below shows the principal risks associated with delivery of the LIP together with possible mitigation actions for the three-year programme. The risk register summarises the strategic risks identified that could impact on the three-year programme of schemes/initiatives.

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					
Insufficient funding to complete all proposed schemes and implement high quality schemes, eg due to reductions in TfL budgets and LIP		Y		Prioritise schemes according to how well they meet the MTS and borough transport objectives, and implement fewer higher quality schemes.	Key schemes not delivered or slipped beyond 2021/22 Negative effect on modal shift, road safety and air quality targets

allocations beyond 2019/20				
Unforseen significant costs e.g. moving services, or on-site problems.		Y	Contingency funding will be incorporated within all scheme budgets.	Medium term programme delays if funding reallocated from future budgets
Statutory / Legal				
Legal challenges to proposed schemes by residents, developers or other third parties (eg environmental campaigns)			Y	Planning and scheme design processes will ensure compliance with all statutory processes and take into account local issues	Cost increases to schemes Delays to implementation, or scheme not implemented. Extensive consultation and engagement will ensure any risks are flagged and mitigated for.
Third Party				
Lack of co-operation / support from external bodies e.g. utility companies, Network Rail.			Y	Discussions will need to be held and a way forward sought. If necessary an alternative scheme will be funded.	Schemes prevented from progressing
Neighbouring borough/County Council schemes cause traffic or congestion implications			Y	Duty to cooperate requirements to be used, with early discussions with authority to mitigate issues. Engagement through planning process to assess development sites.	Increased traffic and/or parking levels Development sites may increase traffic on borough roads. Congestion reduction targets put at risk Air quality reduction slowed
Changes to TfL/Mayor key strategies following public consultation or statutory examination (eg London Plan)			Y	Early engagement with TfL to discuss appropriate course of action, committees to be consulted to revise programme if required	Infrastructure capacity no longer sufficient
Public / Political				
Schemes may encounter opposition from residents and / or not be approved by the Neighbourhood Committee		Y	Outline scheme list considered and selected by local committees as part of LIP3 programme development Any necessary changes to schemes will be developed in consultation with	Delays or cancellations to schemes

Risk				Mitigation	Impact
				the public and Councillors to ensure there is support for them.	
Neighbourhood Committees and residents may request alternative schemes, or changes to existing proposed schemes, that do not contribute towards achieving LIP targets.		Y		Officers will need to make clear that all schemes must contribute towards the borough transport objectives and the MTS goals.	Programme not compliant with MTS or STS objectives and outcomes
Changes to strategies sought by new or incoming council members/administration.			Y	Whole council elections were held in May 2018. Prospect of personnel changes very low. Local and Environment & Neighbourhoods committees to provide mandate	Delays, changes to or cancellation of schemes
Change of Mayor and impact on MTS following Mayoral election in 2020			Y	Local schemes meet a wide range of local and statutory needs as well as MTS requirements so would be expected to continue	Delays, changes to or cancellation of schemes
Future changes of administration		Y		Any incoming administration may have different priorities to those being pursued by a current administration.	Delays, changes to or cancellation of schemes
Programme & Delivery					
Uncertainty of funding streams makes resource management more challenging		Y		Programmes being spread across two years, to allow adequate time for engagement and delivery	Allocation spend in year can be challenging
Modelling results not supportive of scheme designs		Y		Design scheme elements have to balance the needs of all road users, and this may challenge the assessment of the modelling results.	Early engagement required with TfL colleagues across a range of departments
Resource levels not adequate to deliver		Y		Kingston and Sutton operate shared service so resource planning allows consideration of flexible resource arrangements	Lack of resource planning may result in programme delays.

Annual programme of schemes and initiatives

3.37   The annual programme of schemes has been completed and submitted to TfL via the Borough Portal. The programme of schemes will be updated annually.

Supporting commentary for the annual programme

3.38   The list of projects that have been submitted in Proforma A have been supported by the Neighbourhood Committees, and the thrust of the discussion has identified the historical annual submissions prepared for TfL sought to identify a range of smaller schemes at sites or junctions, which ultimately delivered very focussed transport improvements at a local level. The guidance and drive behind the Healthy Streets agenda is to focus on improving the infrastructure across broader areas, where improvements can be considered in a more 'strategic manner', that is to say where there are clear opportunities for improved modal choice towards encouraging people to make journeys by walking, cycling or because of improved access to public transport.

3.39   Inevitably this will now mean that there will be fewer, but larger and higher quality schemes being delivered and it will be important that as part of the development of LIP 3, that the scheme proposals being considered are linked to provide area wide coverage to ensure that the modal choice opportunities are built on across wider areas.

Risk assessment for the annual programme

3.40   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 and is effectively a repeat of table ST05.

Highway Maintenance Programme

3.28   A provisional planned highway maintenance programme is prepared each year from Council highways inspectors' safety condition reports and road condition survey(s). This is coupled with the level of Council capital funding available and allows for a list of borough public highway locations most need of planned maintenance to be put into a works programme.

3.29   All carriageway and footway locations on the provisional planned maintenance list are prioritised using a weighting score condition assessment, which takes account the overall condition and usage of each location and incorporates feedback received from councillors and members of the public. Within this process, principal roads, bus routes and cycle ways receive a

higher priority as do footways in shopping areas and those close to hospitals, schools and care homes.

3.30   Up until now, Kingston's annual highway investment programme used Kingston capital funding to fund the planned highways maintenance programme for local roads. External capital funding, provided by Transport for London (TfL), was used to deliver principal (strategic) road maintenance. Between 2018/19 and 2019/20 TfL investment in proactive planned renewals on both the Borough Principal Road Network (BPRN) and TfL Road Network (TLRN) has been paused and the council had to submit specific bids to focus on their worst affected roads, and in 2018/19 received £100k for Cromwell Road. A London-wide allocation of circa £3m per annum for the next two years has been retained by TfL for the BPRN to continue condition surveys and deal with high priority sites. TfL, working with the boroughs through the London Technical Advisors Group (LoTAG), will agree how this allocation will be targeted to the highest priority sections of road across London.

Highways Asset Management Status Report

3.31   As a result of the above, there are insufficient funds available to meet the full need of repair to the borough's public highway network. Officers will prepare a prioritised list, which is then sent to all public utility companies for consultation as required under the New Roads and Street Works Act (NRSWA) 1991. This allows the utilities to give notice of their future planned works and provides an opportunity for schemes to be programmed in to minimise the level of any disruption to the local community. As stated above, principal roads, bus routes and cycle ways receive a higher priority, as do footways in shopping areas and those close to hospitals, schools and care homes and during the preparation of planned programme for 2019/20 this will be reflected.
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TABLE ST06 - LIP Risk Assessment for annual programme - 2019/20					
Risk	**Likelihood**			**Potential mitigation measures**	**Impact if not mitigated**
	H	**M**	**L**		
Financial					
Unforseen costs e.g. moving services, or on-site problems.		Y		Contingency funding will be incorporated within all scheme budgets.	Medium term programme delays if funding reallocated from future budgets
Statutory / Legal					
Legal challenges to proposed schemes by residents, developers or other third parties (eg environmental campaigns)			Y	Planning and scheme design processes will ensure compliance with all statutory processes and take into account local issues	Cost increases to schemes Delays to implementation, or scheme not implemented
Third Party					
Lack of co-operation / support from external bodies e.g. utility companies, Network Rail.			Y	Discussions will need to be held and a way forward sought. If necessary an alternative scheme will be funded.	Scheme slippage within 3 year programme
Public / Political					
Neighbourhood Committees and residents may request alternative schemes, or changes to existing proposed schemes, that do not contribute towards achieving LIP targets.		Y		Officers will need to make clear that all schemes must contribute towards the borough transport objectives and the MTS goals.	Programme not compliant with MTS or STS objectives and outcomes
Programme & Delivery					

SECTION FOUR
THE PERFORMANCE MONITORING PLAN

Overarching mode-share aim and outcome Indicators

Delivery indicators

4.1 The borough will monitor and record the delivery indicators and report to TfL once a year in June using Proforma C. It is likely that monitoring can be assisted by the Internet of Things platform if fully developed.

Local targets

4.2 The council, in partnership with TfL and other bodies, will monitor and report on progress towards meeting the targets and high level outputs on a regular basis throughout the year to ensure it is on track to meet them.

4.3 Much of the data, however, is supplied by TfL and other bodies so monitoring and reporting is dependent on them supplying regular updates. Key monitoring relates to the assessment of collision data, and colleagues at TfL will be aware of the current disparity between collision data up to December 2016, and data from January 2017 where adjustments to the data recording processes has resulted in a pattern shift.

4.4 It is also noted that there is a 6 month lag with the data being submitted, and these factors are important considerations in assessing how the borough is contributing towards Vision Zero, and the associated targets.

4.5 It is traditional with highway related projects that measures of success are measured in a 3 year period post-completion, and these relate to empirical survey data such as traffic (all modes) flows/speeds and accident data.

4.6 These outcomes will still provide important data in future however, it will be important to develop and introduce end users surveys, which will be more related to attitudinal surveys that allow the borough to assess if some of the key Healthy street indicators are being met.

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 13/14 -15/16.	56% 70%	2021 2041	Observed baseline data from 13/14 to 15/16 shows that currently 52% of trips are made by active means.
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).	40% 70%	2021 2041	Observed baseline data from 13/14 to 15/16 shows that currently 30% of borough residents achieve this level
Londoners have access to a safe and pleasant cycle network	Proportion of Londoners living within 400m of the London-wide strategic cycle network.	37% 71%	2021 2041	No current baseline available from TfL data
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)	36 0	2022 2041	Baseline is 103 KSIs. Observed fall to 50 in 2017.
	Deaths and serious injuries (KSIs) from road collisions base year 2010/14 (for 2030 target).	23 0	2030 2041	Baseline is 76 KSIs
Outcome 3: London's streets will be used more efficiently and have less traffic on them				

Objective	Metric	Borough target	Target year	Additional commentary
Reduce the volume of traffic in London.	Vehicle kilometres in given year. Base year 2015 with observed value of 888m. Reduce overall traffic levels by 10-15 per cent.	888millions 844m (5%) 800m (10%)	2021 2041 2041	2016 level of 913m, means target is to reduce back to 888m by 2021. Outer London borough targets 5 – 10 percent.
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 at 69,088.	68,600 68,300	2021 2041	Current car ownership levels of 70,562.
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 2013.	142,800 45,600	2021 2041	2013 baseline 139,800 tonnes
Reduced NO_x emissions.	NO_x emissions (in tonnes) from road transport within the borough. Base year 2013.	240 30	2021 2041	2013 baseline 460 tonnes.
Reduced particulate emissions.	PM_{10} and $PM_{2.5}$ emissions (in tonnes) from road transport within borough. Base year 2013.	46 (PM10) 23 (PM2.5) 33 (PM10) 16 (PM2.5)	2021 2041	2013 baseline is 53 tonnes (PM10) and 30 tonnes (PM2.5)
A good public transport experience				
Outcome 5: The public transport network will meet the needs of a growing London				

Objective	Metric	Borough target	Target year	Additional commentary
More trips by public transport - 14-15 million trips made by public transport every day by 2041.	Trips per day by borough of residence. Reported as 3yr moving average. Base year 2013/14 - 2015/16.	(,000's) 98 143	 2021 2041	2014/15 – 2016/17 baseline is 89,000 trips on a rising trend from 2011/12. Rail disruption will be a potential inhibitor.
Outcome 6: Public transport will be safe, affordable and accessible to all				
Everyone will be able to travel spontaneously and independently.	Reduce the difference between total public transport network journey time and total step-free public transport network	4 minutes	2041	Average difference in 2015 was 10 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 at 11.1 mph	11.4mph 12.7mph 11.2mph 11.6mph	2021 2041 2021 2041	Refers to 15% speed improvement Refers to 5% improvement

APPENDICES

Appendix A

List of organisations consulted / to be consulted on the draft LIP

Appendix B

Links to Strategies, Plans and Supporting Documents

Appendix C

MTS Outcomes and supporting policies

Appendix A

List of organisations consulted / to be consulted on the draft LIP

Internal

Kingston Town Neighbourhood Committee
Maldens and Coombe Neighbourhood Committee
South of the Borough Neighbourhood Committee
Surbiton Neighbourhood Committee
Environment & Sustainable Transport Committee

Statutory

Greater London Authority
Transport for London (TfL)

Metropolitan Police – Traffic Division, Safer Transport Team and Safer
Neighbourhoods
London Fire Brigade
London Fire and Emergency Planning Authority

Reigate and Banstead Borough Council
Epsom and Ewell Borough Council
London Borough of Merton
London Borough of Richmond
London Borough of Sutton
Surrey County Council

Kingston Centre for Independent Living (KCIL)

Non-statutory - National

British Medical Association
British Transport Police
Department for Communities and Local Government
English Heritage
Environment Agency
Highways England
National Grid
National Trust
Network Rail
Rambler's Association

Non-statutory - Regional

BioRegional
Groundwork London
London Climate Change Partnership
London Green Belt Council
London Wildlife Trust

London Cycling Campaign
Bus operators (Arriva, Metrobus, London General)
GTR (Southern Rail, Thameslink)
South Western Railway
Tram Operations Limited (Tramlink)
London Travel Watch
Enterprise Car Club, Zipcar (car club operators)

Local

Kingston Cycle Campaign
Disability groups
Local educational institutions
Local health trusts
Local religious groups
Local trade organisations / Business Improvement Districts
Local transport fora
Residents' Associations

Appendix B

Links to Strategies, Plans and Supporting Documents

Royal Borough of Kington

- Emerging Local Plan https://www.kingston.gov.uk/info/200157/planning_strategies_and_policies/1353/new_local_plan
- After Dark Strategy - Kingston Town Centre (Royal Borough of Kingston upon Thames, 2007)
- Air Quality Action Plan for Royal Borough of Kingston upon Thames (Royal Borough of Kingston upon Thames, 2016)
- Allotment Strategy 2015-2021 (Royal Borough of Kingston upon Thames, 2015)
- Annual Public Health Report (Royal Borough of Kingston upon Thames, 2015)
- Climate Change and Sustainability Communication and Engagement Strategy (Royal Borough of Kingston upon Thames in partnership with Kingston Environment Group, 2011)
- Community Infrastructure Levy Charging Schedule (Royal Borough of Kingston upon Thames, 2015)
- Direction of Travel for the Royal Borough of Kingston upon Thames (Greater London Authority and Royal Borough of Kingston upon Thames, 2016)
- Economic Analysis Study (Nathaniel Lichfield & Partners on behalf of the Royal Borough of Kingston upon Thames, 2014)
- Economic Baseline (Shared Intelligence, 2017)
- Economic Growth and Development Strategy 2017-25 (Shared Intelligence, 2017).
- Financial Viability in Planning Supplementary Planning Document (SPD) (Royal Borough of Kingston upon Thames, 2016)
- Good Practice Guide - Biodiversity & the Development Process In Kingston upon Thames(Royal Borough of Kingston upon Thames, 2015)
- Green Spaces Strategy 2015-21 (Royal Borough of Kingston upon Thames, 2015)
- Indoor Sports and Leisure Facility Strategy (Royal Borough of Kingston upon Thames, 2016)
- Kingston Decentralised Energy Network - Feasibility and business case study (ARUP on behalf on Royal Borough of Kingston upon Thames, 2015)
- Kingston Town Centre - Historic Area Study (Historic England, 2016)
- Kingston Town Centre Movement Strategy (Steer Davies Gleave on behalf of Royal Borough of Kingston upon Thames, 2014)
- Kingston Transport Study (ARUP on behalf of The Royal Borough of Kingston upon Thames, 2018)

- Public Health Outcomes Framework - Kingston upon Thames (Public Health England, 2016)

Emerging

- Air Quality Joint Strategic Needs Assessment (Kingston Clinical Commissioning Group)
- Cycling Strategy/Network Plan (Royal Borough of Kingston upon Thames)
- District Centre/CPZ Parking Study Reviews (Mott MacDonald on behalf of Royal Borough of Kingston upon Thames)
- Kingston Joint Health and Wellbeing Strategy 2017-2019 (Kingston Health and Wellbeing Board)
- Kingston and Tolworth Opportunity Area Transport Strategies (ARUP on behalf of the Royal Borough of Kingston upon Thames)
- Kingston Town Centre, Historic Area Study (2016 interim report) (Historic England on behalf of Royal Borough of Kingston upon Thames)
- Re-imagining Kingston Town Centre Public Realm Strategy – Feasibility stage
- Cycling in Kingston annual report
- ULEV Policy and Action Plan (Royal Borough of Kingston)
- Crossover Policy (Royal Borough of Kingston)

TfL and GLA documents

Mayors Transport Strategy 2018
https://www.london.gov.uk/sites/default/files/mayors-transport-strategy-2018.pdf

The London Plan (draft)
https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan

Borough Officer Guidance on Developing the Third LIP
http://content.tfl.gov.uk/third-lips-guidance-2018.pdf

Healthy Streets for London (Transport for London, 2017)

Improving the Health of Londoners - Transport Action Plan (Transport for London, 2014)

London Sustainable Drainage Action Plan (Greater London Authority, 2016)

The London Strategic Housing Land Availability Assessment (Greater London Authority, 2013)

The London Strategic Housing Market Assessment (Greater London Authority, 2013)

Managing Risks and Increasing Resilience - The Mayor's Climate Change Adaptation Strategy (Greater London Authority, 2011)

Natural Capital: Investing in a Green Infrastructure for a Future London (Greater London Authority on behalf on the Green Infrastructure Task Force, 2015)

Older Londoners and the London Plan: looking to 2050 (Kathleen Dunmore, Margaret Edwards, Catherine Stubbings, Sarah Ballantyne Way and Laura Welch for the Greater London Authority, 2016)

Appendix C

MTS Outcomes and supporting policies

The following table lists the MTS policies in order of the 9 key outcomes, with reference to the Kingston Sustainable Transport Strategy. It is intended for reference only.

MTS Policy/ Proposal	Description	STS Objective
Policy 1	The Mayor, through TfL and the boroughs, and working with stakeholders, will reduce Londoners' dependency on cars in favour of active, efficient and sustainable modes of travel, with the central aim for 80 per cent of all trips in London to be made on foot, by cycle or using public transport by 2041.	STS A4.11, A4.15, A4.19, A4.21, B4.24, B4.27, B4.31, B4.42, C4.45, C4.49, C4.52, D4.61, D4.67, D4.72, E4.77, E4.80, E4.86
1. London's streets will be healthy and more Londoners will travel actively (policy 2, proposals 1-8)		
Policy 2	The Mayor, through TfL and the boroughs, and working with stakeholders, will seek to make London a city where people choose to walk and cycle more often by improving street environments, making it easier for everyone to get around on foot and by cycle, and promoting the benefits of active travel. The Mayor's aim is that, by 2041, all Londoners do at least the 20 minutes of active travel they need to stay healthy each day.	STS A4.11, A4.15, A4.19, A4.21, C4.45, C4.49, C4.52
2. London's streets will be safe and secure (policies 3 and 4, proposals 9-14)		
Policy 3	The Mayor, through TfL and the boroughs, and working with stakeholders, will adopt Vision Zero for road danger in London. The Mayor's aim is for no one to be killed in or by a London bus by 2030, and for all deaths and serious injuries from road collisions to be eliminated from London's streets by 2041.	STS E4.77, E4.80, E4.86
Policy 4	The Mayor, through TfL and the police, will seek to ensure that crime and the fear of crime remain low on London's streets and transport system through designing secure environments and by providing dedicated specialist and integrated policing for London's transport system.	STS E4.77, E4.80, E4.86 ,
3. London's streets will be used more efficiently and have less traffic on them (policy 5, proposals 15,16,17,19,22,23)		
Policy 5	The Mayor, through TfL and the boroughs, and working with stakeholders, will prioritise space efficient modes of transport to tackle congestion and improve the efficiency of streets for the movement of people and goods, with the aim of reducing overall traffic levels by 10-15 per cent by 2041.	STS A4.21,B4.27, B4.30

	4. London's streets will be clean and green (policies 6-9, proposals 26, 27, 32, 33, 34, 35, 43, 44, 45, 48)	
Policy 6	The Mayor, through TfL and the boroughs, and working with stakeholders, will take action to reduce emissions – in particular diesel emissions – from vehicles on London's streets, to improve air quality and support London reaching compliance with UK and EU legal limits as soon as possible. Measures may include retrofitting vehicles with equipment to reduce emissions, promoting electrification, road charging, the imposition of parking charges/ levies, responsible procurement, the making of traffic restrictions/ regulations and local actions.	STS B4.34, C4.42, C4.45, C4.49, C4.52, C4.56
Policy 7	The Mayor, through TfL and the boroughs, and working with stakeholders, will seek to make London's transport network zero emission by 2050, contributing towards the creation of a zero carbon city, and also to deliver further improvements in air quality to help meet tighter air quality standards, including achieving a health-based target of 10µg/m3 for PM2.5 by 2030. London's streets and transport infrastructure will be transformed to enable zero emission operation, and the switch to ultra low and zero emission technologies will be supported and accelerated.	STS B4.34, C4.45, C4.49, C4.52
Policy 8	The Mayor, through TfL and the boroughs, and working with stakeholders, will enhance London's natural and built environment by: a) Ensuring that transport schemes protect existing green infrastructure where possible, or – if there is a loss – providing new green infrastructure in order to deliver a net gain in biodiversity. b) Seeking additional opportunities to build new green infrastructure into the existing transport estate. c) Monitoring and protecting designated spaces on transport land, such as Sites of Importance for Nature Conservation. d) Maximising opportunities to protect, promote and enhance London's built heritage and sites of cultural importance that are affected by transport development.	STS B4.34, C4.45, C4.49, C4.52
Policy 9	The Mayor, through TfL and the boroughs, and working with stakeholders, will seek to ensure that London's transport is resilient to the impacts of severe weather and climate change, so that services can respond effectively to extreme weather events while continuing to operate safely, reliably and with a good level of passenger comfort.	STS
	5. The public transport network will meet the needs of a growing London (policies 10, 17, 18, 19, proposals 50, 72, 73, 74, 75, 76)	
Policy 10	The Mayor, through TfL and the boroughs, and working with stakeholders, will use the Healthy Streets Approach to deliver coordinated improvements to public transport and streets to provide an attractive whole journey experience that will facilitate mode shift away from the car.	STS D4.61, D4.67, D4.72
Policy 17	The Mayor, through TfL and the boroughs, and working with stakeholders, will seek the use of the full potential of the Thames to carry passengers, to integrate river services with the public transport system, walking and cycling networks, and to enable the transfer of freight from road to river in the interests of reducing traffic levels and the creation of Healthy Streets.	D4.72,
Policy 18	The Mayor, through TfL and the boroughs, and working with stakeholders, will support improvements to public transport to enhance travel between London, the rest of the UK and international destinations, and will require regional, national and international transport schemes to be integrated into London's public transport system wherever possible.	STS D4.61, D4.67, D4.72

Policy 19	The Mayor, through TfL and the boroughs, and working with stakeholders, will seek the development of London's public transport services to support the growth of the night-time economy.	STS D4.72
6. Public transport will be safe, affordable and accessible to all (policies 11, 12, 14, 20, proposals 14, 54, 55, 56)		
Policy 11	The Mayor, through TfL and the boroughs, and with the DfT, Network Rail, train operating companies and other transport infrastructure providers and service operators, will work to eliminate deaths and serious injuries from London's rail, Tube, London Overground, DLR, tram, river and cable car services by: a) Ensuring that assets and infrastructure are maintained to the required safety standards and that all new assets and infrastructure are designed with Vision Zero in mind. b) Identifying and implementing new approaches to reduce or eliminate injuries. c) Training staff on their role in helping customers and users stay safe. d) Developing new and more innovative ways of communicating safety messages to customers and users. e) Applying appropriate arrangements for maintenance and other supporting services that are contracted or licensed. f) Working closely with the emergency services to ensure rapid response to incidents.	STS D4.61
Policy 12	The Mayor will ensure public transport fare levels are set to enable access to affordable travel for all Londoners.	No direct borough action, but we will continue to support incentives to increase modal shift and reduce dependence on private car journeys.
Policy 14	The Mayor, through TfL and the boroughs, and working with stakeholders, will seek to enhance London's streets and public transport network to enable disabled and older people to more easily travel spontaneously and independently, making the transport system navigable and accessible to all and reducing the additional journey time that disabled and older users can experience.	STS A4.15, A4.21, C4.45, F4.72
Policy 20	The Mayor, through TfL and the boroughs, and working with stakeholders, will seek to ensure London has a safe, secure, accessible, world-class taxi and private hire service with opportunity for all providers to flourish.	STS
7. Journeys by public transport will be pleasant, fast and reliable (policies 13, 15, 16, proposals 52, 58, 59, 62, 67)		
Policy 13	The Mayor, through TfL and the boroughs, and working with stakeholders, will seek to make the public transport network easier and more pleasant to use, enabling customers to enjoy comfortable, confident, safe and secure, informed and stress-free travel.	STS F4.72
Policy 15	The Mayor, through TfL and the boroughs, and working with stakeholders, will transform the quality of bus services so that they offer faster, more reliable, accessible, comfortable and convenient travel by public transport, while being integrated with, and complementing, the rail and Tube networks.	F4.72
Policy 16	The Mayor, through TfL and the boroughs, and working with stakeholders, will seek to transform London's rail-based services to provide safer, modern, reliable, integrated, accessible and user-friendly	STS F4.61, F4.67

	services, with improved journey times and an increase in capacity of at least 80 per cent by 2041 to tackle crowding and facilitate mode shift to rail.	
8. Active, efficient and sustainable travel will be the best option in new developments (policy 21a, proposals 79-92, 94, 97-101) (proposals 83-86, 91 and 94 do not apply to Kingston)		
Policy 21a	The Mayor, through TfL and the boroughs, and working with stakeholders, will ensure that new homes and jobs in London are delivered in line with the transport principles of Good Growth for current and future Londoners by using transport to create high-density, mixed-use places	STS B4.24, B4.27, B4.30 F4.100
9. Transport investment will unlock the delivery of new homes and jobs		
Policy 21b	The Mayor, through TfL and the boroughs, and working with stakeholders, will ensure that new homes and jobs in London are delivered in line with the transport principles of Good Growth for current and future Londoners by using transport to unlock growth potential in underdeveloped parts of the city.	STS F4.100, F4.106, F4.110
Other MTS policies		
Policy 22	The Mayor will continue to oppose expansion of Heathrow airport unless it can be shown that no new noise or air quality harm would result and the benefits of future regulatory and technology improvements would be fairly shared with affected communities. Any such expansion must also demonstrate how the surface access networks will be invested in to accommodate the resultant additional demand alongside background growth.	The borough supports the stance adopted in the new MTS on airport expansion which states the Mayor will continue to oppose the expansion of Heathrow airport unless it can be shown that no new noise or air quality harm would result and it can be demonstrated that surface access networks will be invested in to accommodate the resultant additional demand alongside background growths.
Policy 23	The Mayor, through TfL, will explore, influence and manage new transport services in London so that they support the Healthy Streets Approach.	The borough are monitoring nearby boroughs who are running trials of demand responsive buses Revisiting car club arrangements to improve uptake, covered in SPD to provide statutory

		impetus for development
Policy 24	The Mayor will seek to ensure that London's transport system is adequately and fairly funded to deliver the aims of the transport strategy. Additional powers should be devolved to the Mayor, the GLA or TfL to enable the Mayor and his agencies to respond effectively to economic, social and environmental change. These should include financial, regulatory and other powers to enable London's challenges to be met, and emerging opportunities to be optimised.	No borough action required. However we will continue to explore innovative funding mechanisms to support local transport improvements and schemes.
Policy 25	The boroughs shall prepare and implement Local Implementation Plans (LIPs) containing proposals for the implementation of the Mayor's Transport Strategy in their area. Each LIP should also contain a delivery plan and a monitoring plan.	
Policy 26	The Mayor, through TfL and the boroughs, and working with stakeholders, will review their delivery plans to ensure the expected transport outcomes of this strategy are achieved as far as practicable should monitoring show that otherwise they would be unlikely to be achieved.	