

# London Borough of Croydon

## Third Local Implementation Plan



March 2019

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## Foreword

The development of this third Local Implementation Plan comes at an opportune time for Croydon. We are facing some unprecedented challenges in the form of increasing population growth, rising car ownership, increasing traffic congestion, an obesity-linked health crisis and mounting evidence of the impacts that air pollution has on us and the health of our children.

In Croydon we rebuilt our street environment around the car, which has contributed to making us less active and means we have a bigger challenge than many other areas. However, Croydon's Growth Zone programme offers a once in a lifetime opportunity to transform our town centre public spaces and improve the health and wellbeing of all, transforming Croydon into Outer London's most liveable and attractive borough.

The Growth Zone transport programme includes spending £160 million to support the delivery of a huge number of projects, including: the Fiveways project; a new and improved West Croydon Station; Brighton Mainline Upgrade and a new East Croydon Station; greater tram network capacity; tram extensions; additional bus services and bus priority measures; a safe and pleasant network of cycle routes; and enormously improved public spaces and walking environment in the town centre.

This programme is essential for us to continue in our ambitions to be London's most dynamic growth borough, supporting our aims of providing better transport capacity throughout Croydon, reduced air pollution and an exciting cultural offer for all to enjoy.

Of all the London boroughs Croydon has the greatest potential for cycling and walking. This is because we make a great many short journeys by car that could easily be walked or cycled given the right conditions. We are already bucking the London trend of declining bus usage with 8% growth between 2013 and 2017.

The Mayor's priorities set out how to help everyone make the most of London and we are committed to delivering healthier streets and sustainable improvements for Croydon. Our plans will help support the Mayor's Transport Strategy and will see road danger and traffic levels in Croydon reduced. It will also promote healthy streets and liveable neighbourhoods across the borough.

I want to ensure that in ten years' time that Croydon Town Centre is renowned for attractive and high quality public realm, and people choose to walk and cycle to get there. We will have a well-developed cycling culture and cycling will be seen as the norm rather than the exception, and Croydon's economy is thriving and businesses flock to the Town Centre because it is the best connected in South London.

*Signature*

A handwritten signature in black ink that reads "Stuart King". The signature is written in a cursive style with a horizontal line underneath the name.

Councillor Stuart King

**Cabinet Member for Transport, Environment and Regeneration**

## Executive summary

Croydon's third Local Implementation Plan (LIP3) sets out our priorities and proposals to support and implement: the Mayor of London's Transport Strategy (MTS) objectives and priorities; draft London Plan growth objectives; and our Corporate Plan and Local Plan ambitions, in order to deliver 'Good Growth', ensuring that a future Croydon and London are not just bigger but are even better places.

The Growth Zone (Croydon Town Centre), with its excellent public transport accessibility and connectivity, is the focus for much of this growth. The Growth Zone is also the name given to our financing mechanism to deliver the infrastructure to ensure Good Growth. Our Growth Zone financing will support national rail, tram, bus walking and cycling infrastructure improvements and major improvements to the public realm.

The overarching aim of the MTS is 80% of all journeys in London to be made by sustainable means (namely on foot, by cycle or public transport) by 2041. Croydon is currently at 49%. TfL estimates that Croydon needs to reach a 63% sustainable mode share by 2041 if the London-wide target is to be achieved. It is at the Growth Zone that we will need to work hardest to achieve this Borough-wide objective. It is here that the potential for walking and cycling is greatest and public transport is at its best. By 2041 the sustainable mode share for the Growth Zone will need to approach the 80% target set for London as a whole, if are to reach 63% of all journeys made by sustainable means averaged across the Borough.

The LIP3 ranges from mega-rail infrastructure projects to small local initiatives to create safer and healthier streets. It features:

- The £2.5 billion project to increase capacity on the Brighton Mainline and rebuild East Croydon Station into a bigger and world class station.
- Proposals to work with TfL to:
  - investigate means of financing extensions to the Tramlink network and to deliver extensions supporting the Growth Zone and wider Good Growth;
  - review bus services in the north and south of the Borough to deliver the bus capacity and new types of service to meet the differing patterns of growth north and south;
- Major Healthy Street Approaches and Liveable Neighbourhood proposals on the main road and street corridors radiating from the Growth Zone;
- Working with schools and the neighbouring communities to develop and deliver 'Healthy Schools Neighbourhoods' in which it is easier and more enjoyable for all to move around on foot and on bike.

Consultation and engagement activities have been undertaken with over 1,000 residents, businesses, visitors and workers responding. They identified that traffic dominance and the fear of road danger were key factors in why people in Croydon were not walking or cycling more often. They also identified that the school run and

associated vehicle trips were key causal factors for congestion and high car trips in the Borough, and should be an area of intervention that is prioritised.

The core transport challenge affecting the Borough is the level of car use and the resulting dominance of vehicular traffic, which gives rise to impacts including noise and air pollution, road danger and community severance. A shift away from the private car, particularly for short (and medium-length) local trips is essential, if the growth, health, access and environmental objectives identified in the local policies and the MTS are to be achieved.

The Council will focus the limited resources that are provided through LIP funding on areas of the Borough that have been identified as having the greatest potential for meeting the MTS outcomes and targets. This will include factors such as; accident history, propensity to walk and cycle, propensity to shift from car use, higher levels of deprivation, poorer air quality and the number of schools and other sensitive sites such as hospitals.

The LIP3 document outlines a 3 year programme of investment that delivers: improvements to walking and cycling routes; the rollout of electric vehicle charging infrastructure and Car Club vehicles; a Healthy Schools Neighbourhoods programme; virtual hub and electric bike share schemes; improved bus accessibility in suburban areas; Vision Zero Safer Streets schemes; traffic reduction strategies; and a Liveable Neighbourhood proposal to reconnect Old Town with adjacent residential areas, reversing the severance caused by the ring road.

Beyond the 3 year programme of investment the plan outlines a programme of longer term projects and transport aspirations that will be delivered through other means but will also contribute to delivering the Mayor's Transport Strategy outcomes.

# 1 Introduction and preparing a LIP

## 1.1 Introduction

1.1.1 The Local Implementation Plan (LIP) is prepared under Section 145 of the GLA Act and sets out how Croydon Council proposes to support delivery of the Mayor's Transport Strategy (MTS) in the Borough, it is the third LIP (LIP3) for Croydon. The LIP3:

- covers the same period as the MTS, i.e. up to 2041.
- also takes account of the transport elements of the draft London Plan, and other relevant Mayoral and local strategies, plans and policies.
- sets:
  - long terms goals and transport objectives for Croydon for the next 20 years
  - a three-year programme of investment and delivery proposals for the period 2019/20 - 2021/22
  - targets and outcomes.
- explains how we will work to achieve the MTS goals of:
  - Healthy Streets and healthy people
  - A good public transport experience
  - New homes and jobs

1.1.2 The overarching aim of the MTS is 80% of all trips in London to be made by sustainable means namely on foot, by cycle or public transport by 2041 (currently 63%), Central, Inner and Outer London need to follow differing trajectories of the London wide target is to be met. The sustainable mode share for Croydon is currently 49%. TfL has estimated that Croydon needs to reach a 63% sustainable mode share by 2041 if the London wide target is to be achieved. The LIP3 sets out our priorities, proposals and targets to help achieve this aim as well as the wider outcomes, polices and proposals of the MTS. Ultimately the LIP3 is about delivering 'Good Growth', ensuring that a future Croydon and London are not just bigger but are even better places.

## 1.2 Local approval process

1.2.1 An initial draft of the LIP3 was considered by Cabinet on 15th October 2018. The LIP is part of the Council's Core Strategy. As such it was adopted by a meeting of the Council on XXXX following its approval by the Mayor of London.

## 1.3 Statutory consultation

1.3.1 As part of the pre-consultation and engagement process and to involve representatives of potentially affected groups within the equalities impact analysis screening process, key stakeholders were invited to participate in two workshops on the 6th September 2018. The stakeholder workshop participants included local residents, council officers, councillors, and the representatives from the mobility forum and cycle forum.

1.3.2 The Croydon Cycling Forum is made up of representatives from the following organisations:

- Croydon Cycling Campaign (part of the London Cycling Campaign)
- Wheels for Wellbeing
- CyclingUK (Cyclist Touring Club)
- Right to Ride Network
- British Cycling

1.3.3 The Croydon Mobility Forum is made up of representatives from:

- Croydon Disability Forum
- Croydon Vision
- Disabled Motoring UK
- Access for All

1.3.4 An online engagement campaign<sup>1</sup> was undertaken asking residents and visitors to complete an online survey giving their views on transport in Croydon in order to shape the LIP3. The surveys were active until the end of September 2018 and over 1,000 people responded to the survey. A summary of results reveal that:

- 86% of respondents agreed that traffic levels are too high in Croydon.
- 44% of respondents agreed that traffic speeds are too high, with 37% disagreeing, 19% were not sure.
- Less than 5% agreed that the street environment encouraged them to cycle, whilst 77% disagreed, with over 52% disagreeing strongly.
- Over 55% agreed that children should be able to play in residential streets, 26% disagreeing.
- 74% stated that they are concerned about air quality.
- 72% agreed that traffic levels need to be lower.
- 40% agreed they would cycle more if conditions were right, with 43% disagreeing.
- 64% stated they would use public transport more if it was convenient.
- 61% would travel by car less if the alternatives were better.
- 78% agreed that less vehicles would mean better air quality.

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<sup>1</sup> <https://getinvolved.croydon.gov.uk/KMS/DMart.aspx>

- 1.3.5 The feedback and responses from both the workshops and the online survey were considered when developing the draft LIP3 objectives and proposals.
- 1.3.6 A subsequent consultation exercise was undertaken seeking comments and feedback on the draft LIP3 document following submission of the draft to TfL. A consultation questionnaire was published online and copies of the draft LIP3 were placed in Croydon libraries and on the Council's website. The consultation ran for six weeks from 06<sup>th</sup> December 2018 to 20<sup>th</sup> January 2019. 131 people participated in the online survey and the responses were overwhelming supportive of the proposals.
- 1.3.7 A summary of the responses received and the Council's commentary will be outlined in the LIP3 consultation report which will be posted on the Council's website<sup>2</sup>.
- 1.3.8 The GLA Act 1999 places a duty on local authorities when preparing a LIP, to consult:
- The relevant Commissioner or Commissioners of Police for the City of London and the Metropolis
  - Transport for London
  - Such organisations representing disabled people as the local authority considers appropriate
  - Other London boroughs whose area is, in the opinion of the local authority preparing the LIP, likely to be affected by the plan, and
  - Any other body or person required to be consulted by the direction of the Mayor.
- All were invited to comment on the draft LIP3 and respond to the consultation.
- 1.3.9 The following groups were also consulted:
- Historic England, Natural England and The Environment Agency
  - All Councillors
  - All Council Department Directors
  - All emergency services
  - South London Partnership (made up of the following councils: Merton, Croydon, Kingston, Sutton and Richmond), and
  - Croydon's Chamber of Commerce/Business Improvement Districts (BID).

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<sup>2</sup> <https://www.croydon.gov.uk/transportandstreets/policies>

## **1.4 Statutory duties**

- 1.4.1 Croydon Council has taken into account all the statutory duties and processes as set out in the requirements in the GLA Act in the preparation of this LIP.
- 1.4.2 The making of the LIP3 has been informed by a process of Strategic Environmental Assessment (SEA). The draft LIP3 proposals and outcomes were informed by the SEA scoping report, and initial EA and HIA, and where issues or weaknesses have been identified actions and changes have been taken to mitigate and reduce impacts.
- 1.4.3 The SEA Scoping Report, including a non-technical summary, and a draft of the initial EA were available on the Council's website during the consultation period. The Environmental Report and Environmental Statement, and the final EA will be placed on the website at this link: [www.croydon.gov.uk](http://www.croydon.gov.uk) upon final submission.

## **1.5 LIP approval**

- 1.5.1 The final LIP3 was approved by the Mayor on XX XXX. It was adopted on XXXXX.

## 2 Croydon Transport Objectives

### 2.1 Introduction

2.1.1 This chapter sets out the local policy context for the LIP3. It covers Croydon Council's local policies and proposals which will help deliver the MTS, such as the Croydon Local Plan. The chapter also considers the link between the LIP3 and other key frameworks against which the Council plans and delivers local services.

### 2.2 Local context

#### **Overview**

2.2.1 Croydon is the second most populous borough in London after Barnet with over 385,000 residents, a population that is projected to rise by 14% to 445,000 by 2031.<sup>3</sup> If Croydon was not part of Greater London it would be the 12th largest city by population in the United Kingdom.<sup>4</sup>

2.2.2 By area, Croydon is also one of the largest London boroughs at 87 square kilometres. It is bordered by the London Borough of Bromley to the east, Lambeth to the north and Merton and Sutton to the west. To the south are the Surrey County districts of Reigate and Banstead, and Tandridge.

2.2.3 The Borough is strategically placed on the main rail connections between London and Gatwick Airport, and the South Coast. East Croydon is in the top 20 busiest stations in the UK and the second largest in the UK in terms of passengers interchanging<sup>5</sup>. Train services from East Croydon station provide direct connections to a number of London main line terminals including Victoria Station (15 minutes), London Bridge (15 minutes) and St Pancras International (30 minutes) and to Gatwick Airport (15 minutes). Croydon has good connections to the City, Docklands and East London via the London Overground.

2.2.4 Croydon Tramlink provides high quality and high capacity east-west connections across the borough and South London sub-region and carries 30 million passengers per annum. The connectivity and accessibility of Croydon Metropolitan Town Centre, is only rivalled by that of the City of London and West End. This connectivity has resulted in Croydon being a main focus for regional and sub-regional growth strategies.

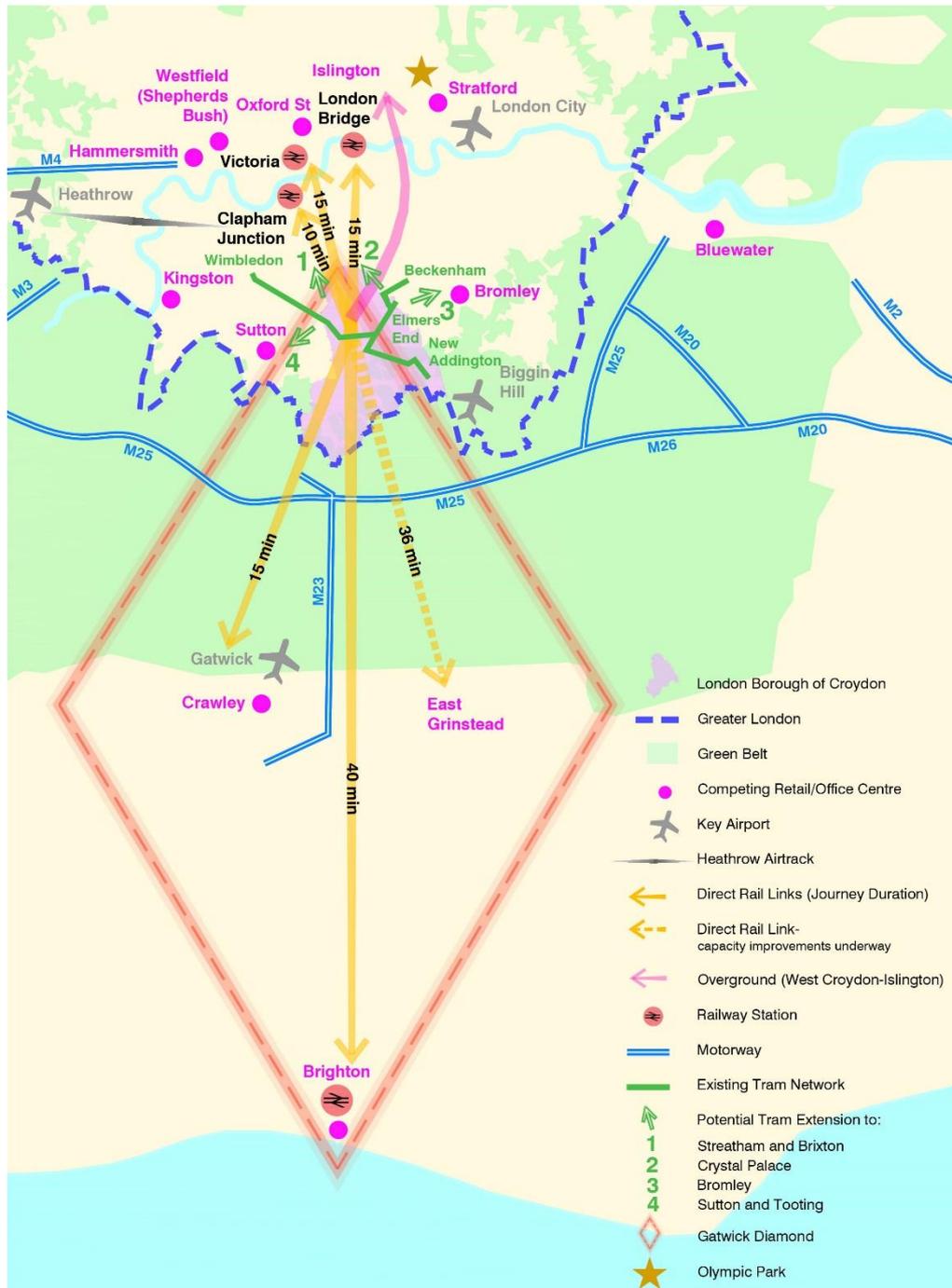
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<sup>3</sup><https://www.croydon.gov.uk/sites/default/files/articles/downloads/DRAFT%20Corporate%20Plan%202018-22.pdf> Page 6

<sup>4</sup> <https://thegeographist.wordpress.com/2016/04/07/largest-cities-uk-population/>

<sup>5</sup><https://www.croydon.gov.uk/sites/default/files/articles/downloads/DRAFT%20Corporate%20Plan%202018-22.pdf> Page 6

Figure 1: Croydon in its wider sub region context [Source: Local Plan]



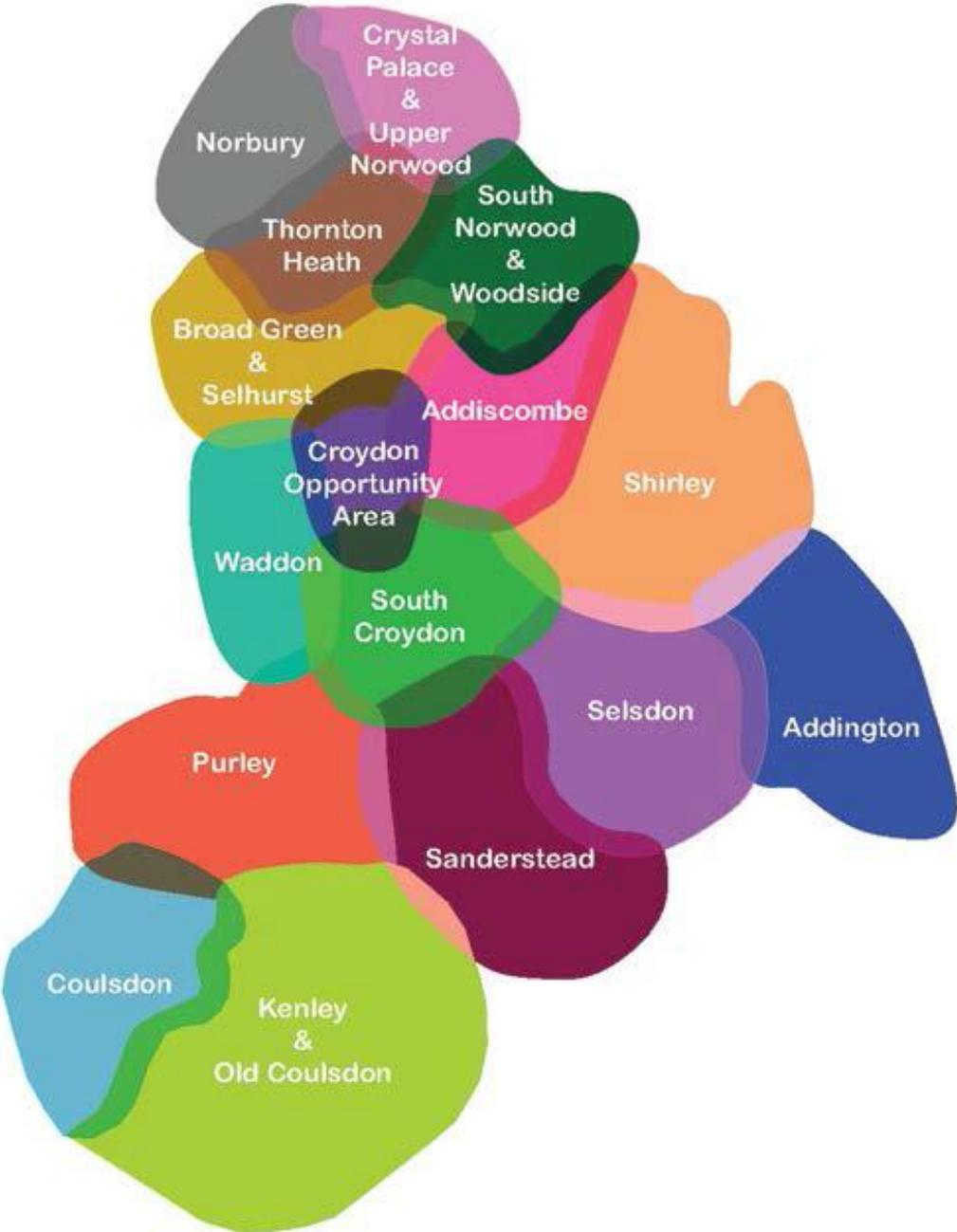
### Local Policy Context

2.2.5 This section sets out the Croydon policy and strategy documents and plans that influence or complement the Local Implementation Plan and vice versa. Further details on each of these documents can be found in the appendix A, section 1.

- Corporate Plan 2018-2022 – ‘Ambitious for Croydon’
- A Transport Vision for Croydon: Moving towards a more liveable place
- Croydon’s Community Strategy 2016-21
- Croydon Local Plan 2018

2.2.6 The Croydon adopted Local Plan 2018<sup>6</sup> sets out the spatial vision for the Borough. It is focused on Croydon Town Centre, one of London’s Metropolitan Centres, (and an Opportunity Area) and across the 16 places of Croydon.

Figure 2 Croydon’s Places [Source: Local Plan]



<sup>6</sup> <https://www.croydon.gov.uk/planningandregeneration/framework/localplan/clppolicies>

## Growth and regeneration

- 2.2.7 The Local Plan identifies the areas of specific growth which are primarily centred on Croydon Opportunity Area and a number of the identified places in the Borough in Figure 2. The housing target set in the Local Plan for the Borough is to deliver 32,890 new homes by 2036. More than 10,000 of these homes would be delivered in Croydon Opportunity Area. A further 10,000 new homes will be delivered through small scale suburban 'Windfall' developments. With the remainder being provided in district and local centres and areas of 'Focused Intensification' that have been identified in the Draft Suburban Design Guidance Supplementary Planning Document (SPD2)<sup>7</sup>. The Croydon Local Plan will be refreshed in the light of the New London Plan, once adopted. The Draft London Plan (minor amendments 2018) has set out new housing and growth targets for Croydon and requires Croydon to achieve 14,500 new homes and 10,500 new jobs in the Growth Zone between 2019 and 2041.<sup>8</sup>
- 2.2.8 The 10 year net target set in the Draft London Plan for Housing Completions for Croydon between 2019 and 2029 is 29,490 with an annualised average target of 2,949 per year.
- 2.2.9 The Croydon Opportunity Area Planning Framework [OAPF]<sup>9</sup> was adopted in 2013, it covers Croydon Metropolitan Centre and guides development over the 20 year period to 2031. The Croydon Opportunity Area (COA) is now also referred to as the 'Croydon Growth Zone'. It is the location of a Tax Incremental Financing mechanism that will provide the delivery framework for much of the transport and other infrastructure measures in and focussed on the Growth Zone. The intention is that it will run for an initial 16 years and seeks to support delivery of the new homes, jobs and renewal of Croydon's Town Centre, ensuring it is an attractive place to live, work and invest. The projects and programmes being funded through the Growth Zone are detailed in the Delivery Plan for this LIP3.

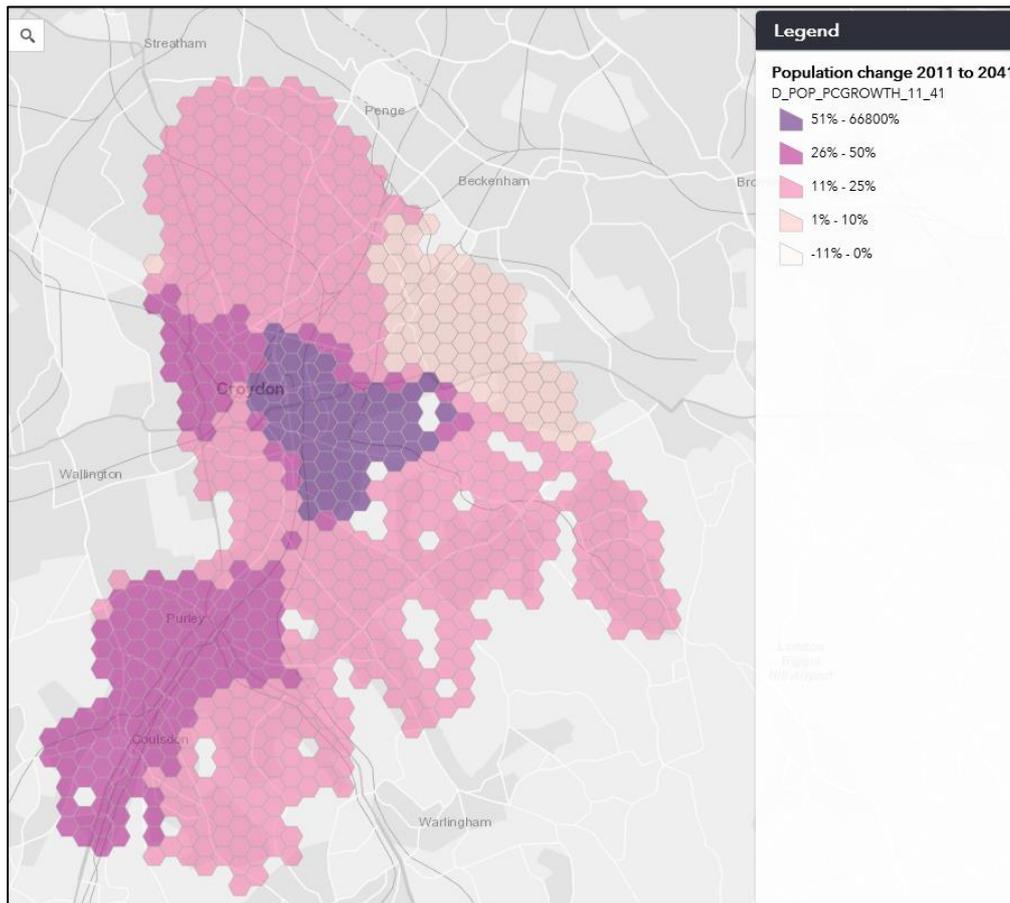
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<sup>7</sup> <https://www.croydon.gov.uk/planningandregeneration/framework/localplan/spdandoapf>

<sup>8</sup> <https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan/download-draft-london-plan-0> Table2.1

<sup>9</sup> <https://www.london.gov.uk/what-we-do/planning/implementing-london-plan/opportunity-areas/opportunity-areas/croydon-opportunity>

Figure 3: Location of population growth in Croydon from 2011 to 2041 [TfL Play Book]



## Demographics

2.2.10 Demographically Croydon is young borough with 95,000 residents aged 17 or under, the highest number in London. It is also has an ageing population with over 50,000 residents aged 65 and above, this figure is expected to increase by 41% by 2031. In contrast the population aged between 20 and 64 will have increased by just 2.5%.<sup>10</sup>

2.2.11 Croydon has a diverse population with 52% Black, Asian and Minority Ethnic (BAME) population<sup>11</sup>. This proportion is expected to rise to 55.6% by 2025. The younger population is more diverse than the older population. Over 100 different languages are spoken in the Borough.

<sup>10</sup>

<https://www.croydon.gov.uk/sites/default/files/articles/downloads/DRAFT%20Corporate%20Plan%202018-22.pdf> Page 6

<sup>11</sup> GLA 2018 Ethnic Group Projections

2.2.12 The north of Croydon is more densely populated than the south of the Borough. It has many similar characteristics to parts of Inner London such as Lambeth. The south and east of the borough are lower density and more suburban with similarities to neighbouring outer London areas such as Sutton, Bromley or adjacent settlements in Surrey. Refer to Figure 4 below.

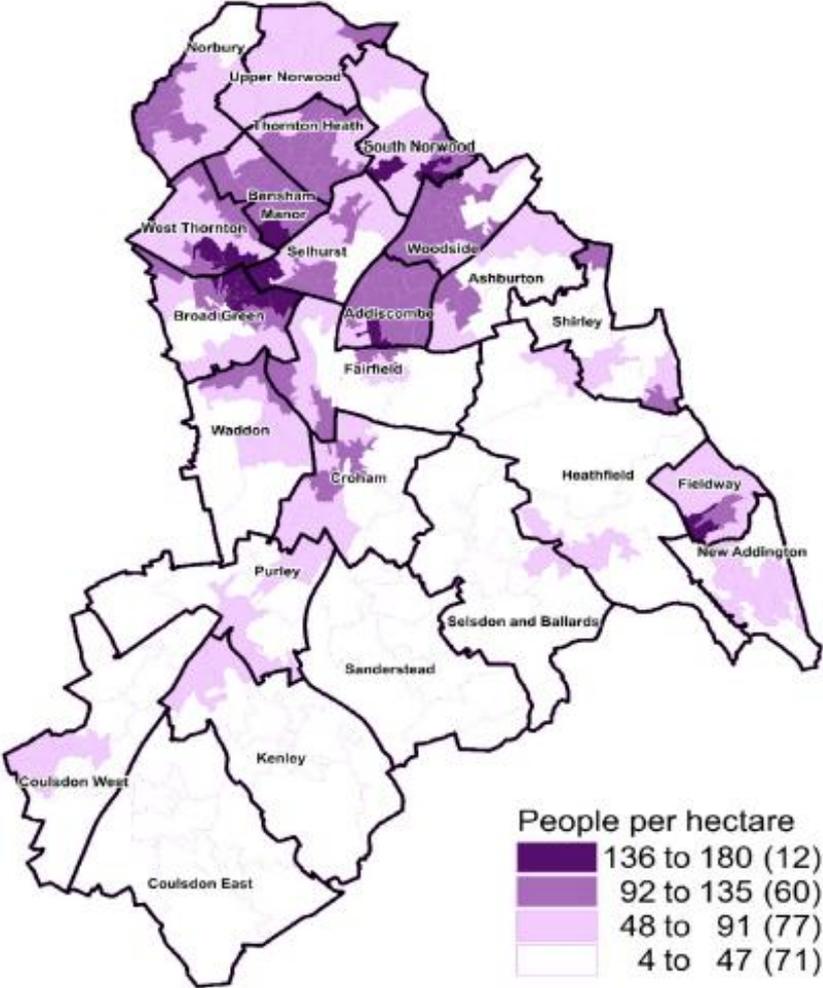


Figure 4 Population density in 2015 [Source: Local Plan]

**Deprivation**

2.2.13 Overall Croydon is the 17th most deprived borough in London. There is a significant variation in deprivation across the Borough with greater concentrations in the north and in Addington and Shirley.<sup>12</sup> About 10,000 people live in areas considered to be within the 10% most deprived in the whole country. (Further information on deprivation in Croydon, see appendix A, section 2).

<sup>12</sup> [https://www.croydonobservatory.org/wp-content/uploads/2016/11/Report\\_IMD2010-versus-IMD2015-LSOA-level\\_Full-ReportV2-1.pdf](https://www.croydonobservatory.org/wp-content/uploads/2016/11/Report_IMD2010-versus-IMD2015-LSOA-level_Full-ReportV2-1.pdf) - Page 15

## ***Health and Obesity***

2.2.14 Inactivity is having profound health effects and is a major contributory factor to the levels of obesity in Croydon. One in five children in the school reception year is overweight or obese and this rate more than doubles between reception and year 6. Early childhood is a critical time to tackle childhood obesity as children are developing and learning healthy or unhealthy behaviours from a young age. By year 6 (age 10 to 11 years) a greater proportion of children in Croydon carry excess weight than in London or nationally. Two in five children aged 10 to 11 years in Croydon are overweight or obese and this proportion is increasing over time.<sup>13</sup>

2.2.15 For adults the situation is more serious. A staggering two in three adults or 62% of the population are overweight or obese and one in thirty one working age people in Croydon have diabetes, a figure which is predicted to increase by 10% by 2025. Amongst older adults (over 65) one in eight are predicted to have diabetes and one in four are obese.<sup>14</sup> Children in Croydon are growing up in a borough where it is normal to be overweight.

## ***Economy***

2.2.16 Croydon Town Centre is one of London's Metropolitan Centres and is a major location for employment. There are 141,000 jobs in the Borough although there are 11,000 fewer jobs than in 2007.<sup>15</sup> It has the largest stock of offices outside the West End, City and Canary Wharf. The wider Central Croydon area is a major retail centre with more shops than anywhere else in London apart from the West End with a large out of town retail offer on Purley Way. Retail provides more than 15,000 jobs.

2.2.17 Much of the employment growth in Croydon in recent years has taken place in areas with lower levels of public transport accessibility which has implications for future travel patterns and of people being able to access jobs by sustainable means of transport.<sup>16</sup> The majority of future employment growth is planned in the Growth Zone which has excellent public transport accessibility.

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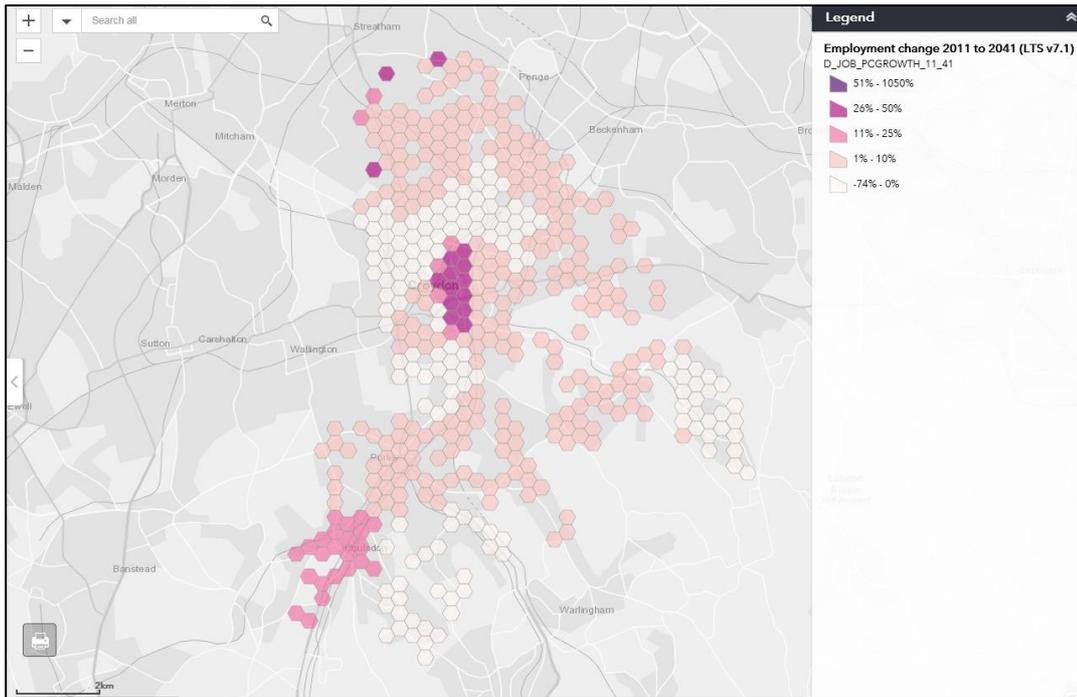
<sup>13</sup><https://www.croydon.gov.uk/sites/default/files/articles/downloads/Healthy%20Weight%20Action%20Plan%202017-2020.pdf> Page 2

<sup>14</sup> <https://www.croydon.gov.uk/democracy/dande/policies/health/annual-public-health-report> Page 30

<sup>15</sup> Croydon Local Plan 2018

<sup>16</sup> Croydon Local Plan 2018

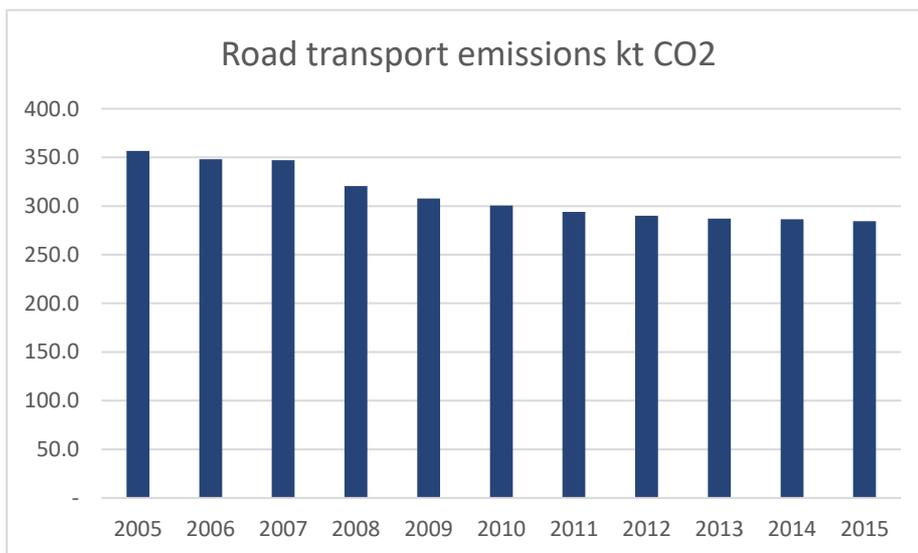
**Figure 5: Location of employment growth changes 2011 to 2041 [Source: TfL Playbook]**



***Environment***

**Climate Change**

2.2.18 Road transport produces 24% of total carbon dioxide emissions in Croydon<sup>17</sup>. The total emissions from road transport has decreased consistently since 2005. Cars emit about one third of road transport carbon dioxide emissions. The challenge is to reduce car use and to continue the move away from fossil fuel powered private vehicles.



**Figure 6 Carbon emissions [Source: DfBEIS]**

<sup>17</sup> Croydon Local Plan 2018

2.2.19 Carbon dioxide emissions as a whole have decreased by 38% per head of population over the same period. The Council has adopted a target of reducing carbon dioxide emissions by 34% from 2005 level by 2025. Carbon dioxide emissions have already been reduced by 32% by 2015.<sup>18</sup>

### Air Quality

2.2.20 An Air Quality Management Area (AQMA) has been declared across the whole of the Croydon. The AQMA was based on nitrogen dioxide concentration exceedances of the EU annual average limit for this pollutant at some of our monitoring stations, and modelling indicates it being breached at a number of other locations (generally along the busier road corridors).

2.2.21 An Air Quality Focus Area is a location that has been identified as having high levels of pollution and human exposure. There are five focus areas in the Borough.

- London Road, Norbury
- Purley Cross and Russell Hill
- Thornton Heath / Brigstock Road/ High Street / Whitehorse Lane
- London Road between Thornton Heath Pond and St James Road
- Wellesley Road

2.2.22 Croydon has the highest hospital admissions for asthma amongst children and adults in London in 2017<sup>19</sup>, with 720 emergency admissions in 2016/17, this equates to 188 admissions per 100,000 people. It also has the third highest number of asthma deaths in the capital.<sup>20</sup>

2.2.23 A new Air Quality Action Plan for the Borough was consulted upon in 2017 and was adopted in 2018.<sup>21</sup> Further information and mapping of air pollution in the Borough can be found in appendix A, section 7.

## ***Transport and Travel in Croydon***

### Public Transport

2.2.24 There are 17 rail stations in the Borough. Of these ten have more than one million entries and exits each year with East Croydon station by far the busiest with 22.6 million entry and exits in 2016/17. Details of entry and exit figures and accessibility status of rail stations in Croydon can be found in the appendix A, section 3.

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<sup>18</sup> Croydon Local Plan p.143

<sup>19</sup> <https://www.croydon.gov.uk/democracy/dande/policies/health/annual-public-health-report> Page 27

<sup>20</sup> [https://www.asthma.org.uk/get-involved/campaigns/publications/inequality/?utm\\_source=twitter%2c+facebook%2c+print+media&utm\\_medium=social&utm\\_campaign=health+inequality](https://www.asthma.org.uk/get-involved/campaigns/publications/inequality/?utm_source=twitter%2c+facebook%2c+print+media&utm_medium=social&utm_campaign=health+inequality)

<sup>21</sup> <https://www.croydon.gov.uk/environment/pollution/air-pollution>

- 2.2.25 Rail services in the Borough are principally operated by Govia Thameslink Railways which operates both Southern and Thameslink services. Fast non stopping services operated by Southern and Thameslink offer frequent and fast journeys to London Bridge, Farringdon, Kings Cross St Pancras, Clapham Junction, London Victoria, Gatwick Airport and Brighton from East Croydon, Norwood Junction, Purley and Coulsdon South stations. Other stations in the Borough are served by Southern local stopping services. London Overground services (operated by Arriva for TfL) serve West Croydon and Norwood Junction connecting the Borough to East London, Canary Wharf and Highbury.
- 2.2.26 The Tramlink network focused on Croydon Town Centre has branches to Wimbledon, Elmers End and New Addington with a total of 39 stops. Patronage increased from 19 million journeys when it opened in 2001 to a peak of 31 million journeys in 2013/14. Since then passenger numbers have dropped slightly with 29 million journeys made in 2017/18.<sup>22</sup> However, the trend is predicted to continue to rise.<sup>23</sup>
- 2.2.27 The Borough is well served in certain parts by buses, with 51 daytime routes and 7 night bus routes operating in the borough. The main bus corridors are on the north-south radial routes into and out of Croydon town centre particularly London Road, Brighton Road and Whitehorse Road. There are issues associated with bus congestion in the Croydon Town Centre area particularly around West Croydon. Some areas are considered to be poorly served by buses such as Waddon and some of the more suburban areas to the south of the Borough, particularly with regards to east-west connectivity.
- 2.2.28 Bus services are more heavily used to the north of Croydon Town Centre, predominantly in Norwood and Thornton Heath where the bus network is denser. Here more than 30% of residents using the available services to travel to work. In contrast, to the east and south of the Borough, buses are used by 10% or less of the population to get to work.
- 2.2.29 The map below [Figure 7] shows the access to public transport across the borough. In general the north and centre of the Borough is well served by public transport but large areas to the south and east of Croydon are poorly served.

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<sup>22</sup> DfT Light Rail and Tram Statistics, England 2017/18

<sup>23</sup> MTS Figure ...and 'Trams for Growth' <http://content.tfl.gov.uk/trams-for-growth-presentation.pdf>

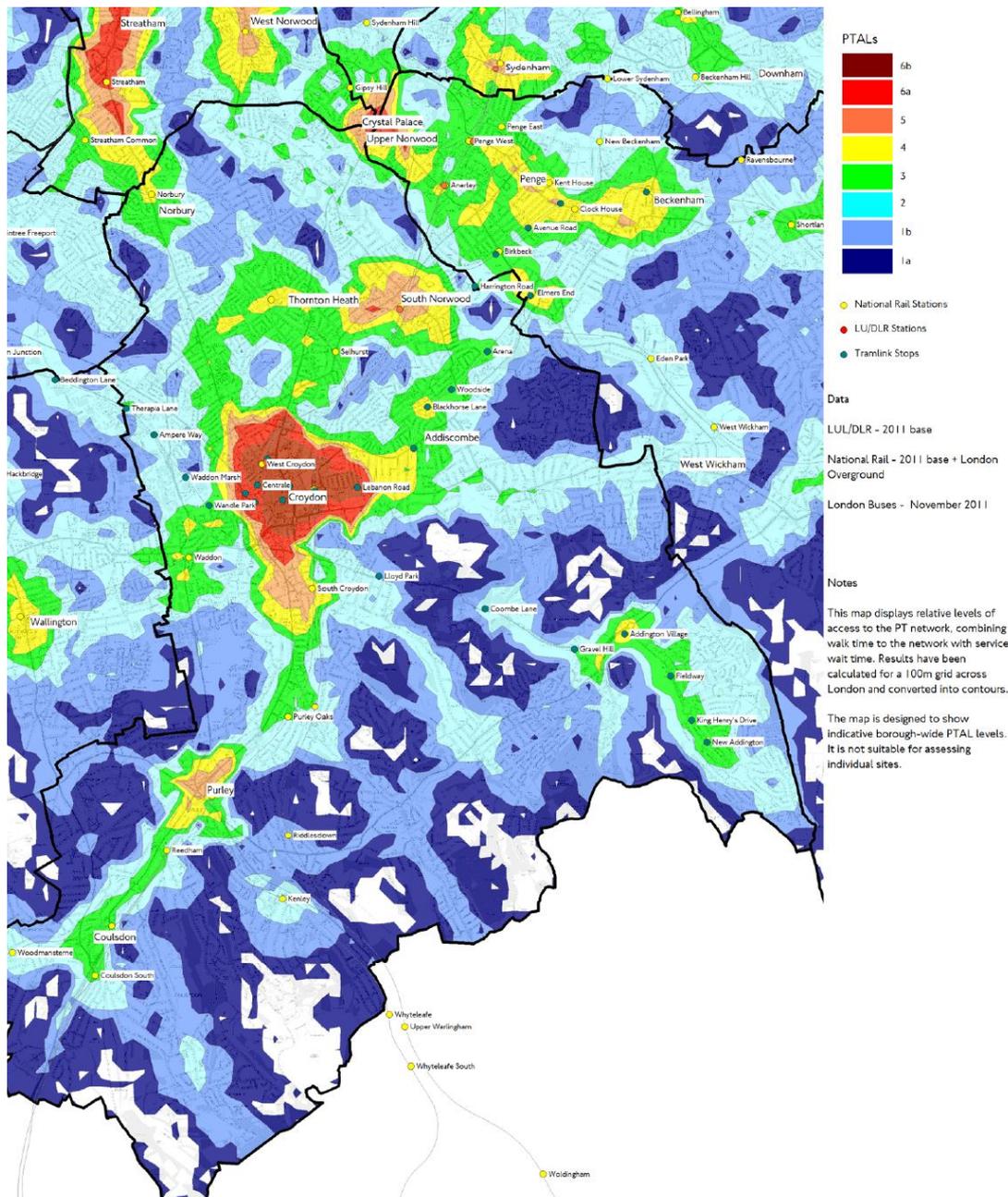


Figure 7 Public Transport Accessibility Level [PTAL] map 2012 [Source: TfL]

### Highway network

2.2.30 There are 777km of public highway in the borough, of which 77km are 'A' roads including TfL Road Network (TRLN).

### Road traffic volumes

2.2.31 The highest flows of traffic in Croydon are on the A23 TLRN corridor along the west side of the Borough, as well as on the ring road around the Metropolitan Centre including the A232 Croydon Flyover, Roman Way and Wellesley Road.

2.2.32 Over the last 10 years the volume of traffic on Croydon’s roads decreased following the economic crisis of 2008 but has started to increase again in recent years as shown in Figure 8.

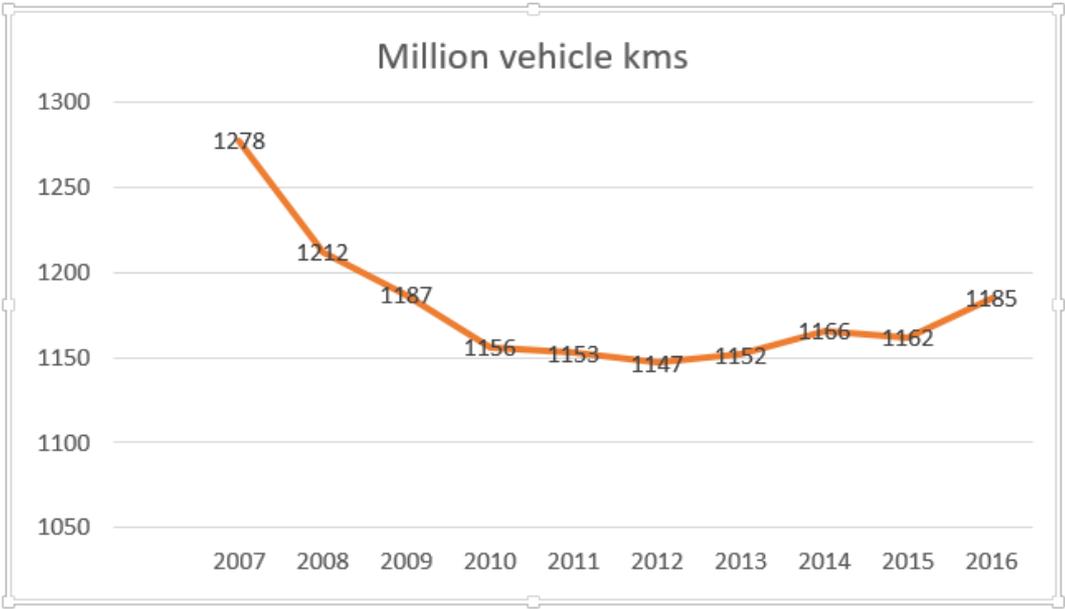


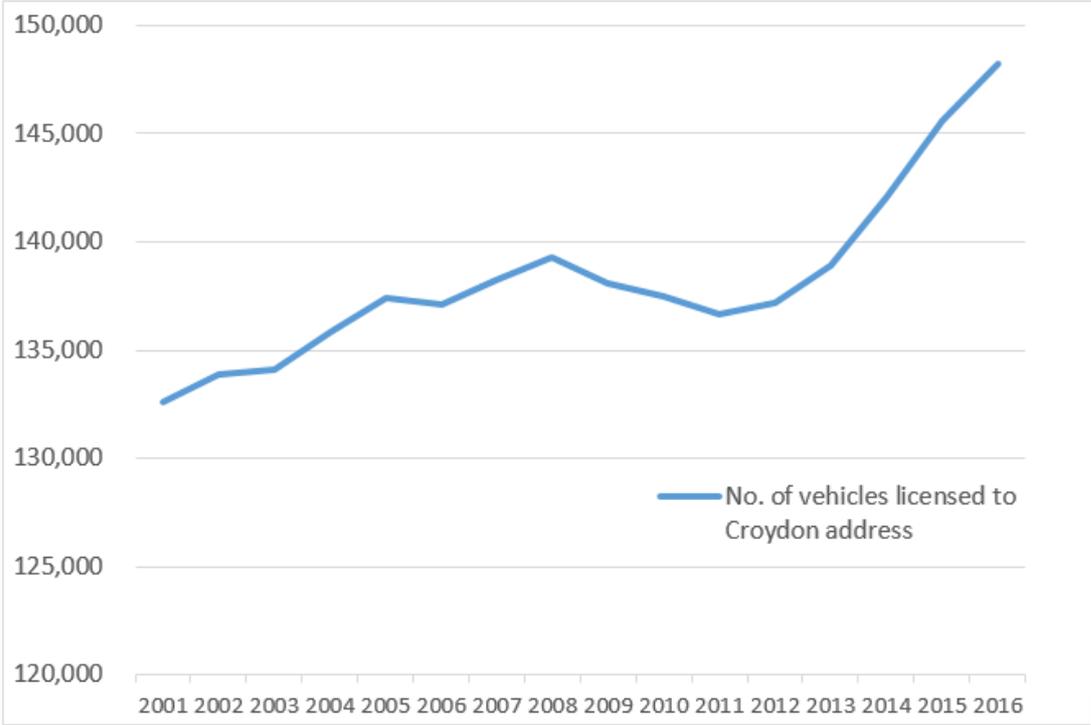
Figure 8 Volume of Traffic [Source: DfT Traffic Statistics<sup>24</sup>]

Car ownership

2.2.33 According to the 2011 Census 66.5% of Croydon households had access to a car or van. This is a 5% reduction compared to 2001 but is still higher than London as a whole (58%). However recent data provided by TfL from the DVLA suggests a dramatic increase in the number of vehicles licensed to addresses within the Borough. Figure 9 below shows the number of vehicles licensed to an address in Croydon increasing from 132,572 in 2001 to 148,256 in 2016 with an increase of almost 10,000 vehicles alone in the three years up to 2016. Further analysis and investigation is required to understand where and why this increase is occurring.

<sup>24</sup> <https://www.gov.uk/government/collections/road-traffic-statistics>

**Figure 9: Number of Vehicles Licensed to Croydon addresses 2001-2016** (Source: TfL & DVLA)



2.2.34 There is a distinct variation in car ownership across the Borough with much higher levels of ownership in the south and east of the Borough, see Figure A11 in appendix A, section 2.

Travel to Work

2.2.35 Croydon has the largest within borough commuter flows in London. The general journey to work is still dominated by the car for those that live and work in the Borough but is especially the case for those who live outside the Borough but work in Croydon.<sup>25</sup>

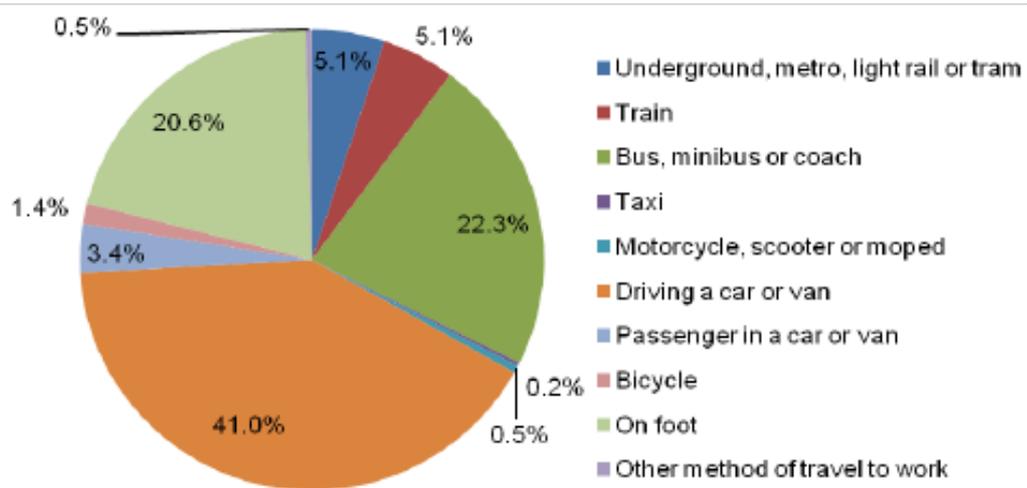
2.2.36 According to the 2011 Census, 54.8% of the 88,300 people who were recorded as working in Croydon in 2011 also lived in Croydon. However this group only accounts for 34.4% of the 140,600 Croydon residents whose place of work was recorded in the 2011 Census. The main methods of transport to work varied between those who lived and worked in Croydon, those who lived in Croydon but worked outside the Borough, and those who lived outside of the Borough but worked in Croydon. The most popular mode of travel for those who work in and live in Croydon is driving a car or van (41%); followed by bus, minibus or coach (22.3%); or walking to work (20.6%).

2.2.37 The method of travel to work for workers commuting in from outside of the Borough was somewhat different with a higher proportion driving to work (49.6%) and a larger number travelling by train (21%).

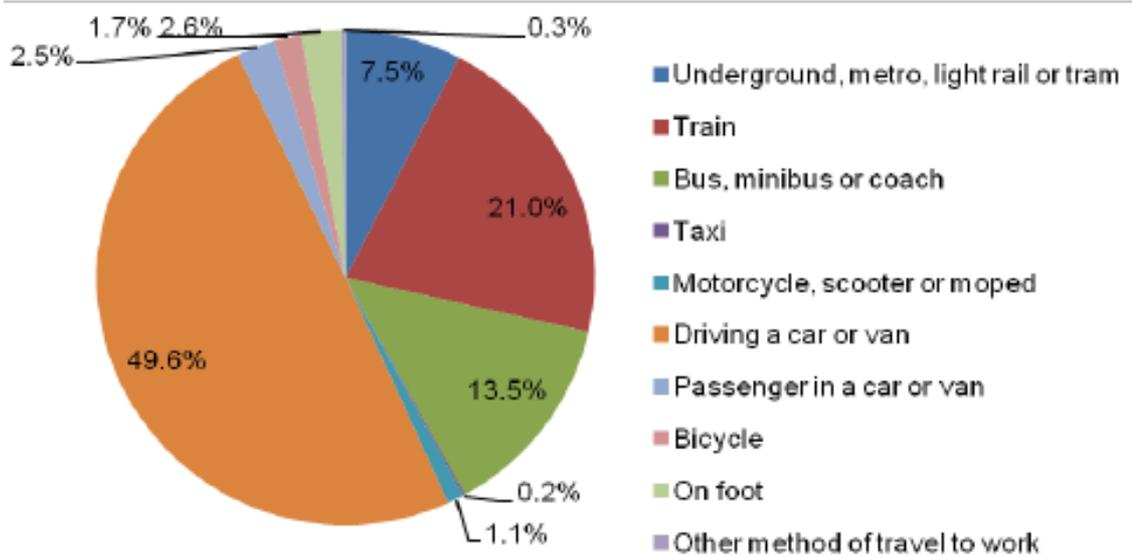
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<sup>25</sup> 2011 ONS Population Census

**Figure 10: Method of travel to work for those who live & work in Croydon** [Source: ONS 2011 Census]



**Figure 11: Method of travel to work for those who live outside of the Borough and work in Croydon** [Source: ONS 2011 Census]



## 2.3 Changing the transport mix

2.3.1 The MTS sets a challenging but necessary target for 80 percent of journeys in London to be by active and sustainable means (walk, cycle, public transport) by 2041. Central London is already at the target and Inner London near to it. It is Outer London places like Croydon that will have to work the hardest to change the transport mix if London is to meet its overall target. TfL calculates that Croydon needs to move from an active travel mode share of 49% to 63% by 2041 if it is to play its full part in enabling London meet the target. This required trajectory is reflected in the targets set in this LIP3. The actions and proposals in this LIP3 are predominately working towards changing the transport mix to achieve the active travel mode share target.

### Challenges

2.3.2 There has been significant population growth in Croydon since the last MTS which has resulted in increasing demand for and pressure on the transport system. The Croydon Growth Zone is the focus of new economic development and has excellent public transport connectivity, however current travel trends and a dominance of car travel (51% of all journeys 7 days a week<sup>26</sup>) places pressure on the existing road network, the local environment and people's health.

2.3.3 The core transport challenge affecting the Borough is the level of car use and the resulting dominance of vehicular traffic, which gives rise to impacts including noise and air pollution, road danger and community severance. A shift away from car use, particularly for short (and medium-length) local trips is essential, if the growth, access and environmental objectives identified in the local policies and the MTS are to be achieved.

2.3.4 Despite (and in part due to) strong spatial policies to promote sustainable development in Croydon, growth is predicted to increase demand on existing transport networks. Without transformative change:

- congestion, delay and pollution are predicted to increase on the strategic road network;
- crowding is predicted to rise on public transport; and
- growth plans, the economy and quality of life will be adversely affected.

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<sup>26</sup> <http://content.tfl.gov.uk/borough-local-implementation-plan-performance-indicators.pdf> TfL LTDS

2.3.5 The loss of 11,000 jobs in Croydon Metropolitan Centre since 2007 resulted in some residents having to travel further afield for work, many of them to neighbouring borough town centres such as Bromley and Sutton.<sup>27</sup> Orbital public transport connections to these locations compare poorly with driving suggesting these residents are more likely to drive to work. For example, travelling from Croydon Town Centre to Bromley Town Centre by public transport took 53 minutes in 2012 (predicted to increase to 55 minutes in 2031 without additional improvements). By comparison, driving took 39 minutes in 2012 (predicted to rise to 41 minutes in 2031 due to increased traffic congestion).<sup>28</sup>

2.3.6 The above challenges point to the need for new ways of managing traffic demand on the road network across Croydon but especially around the Metropolitan Centre Growth Zone. The traffic demand management tools we will need to consider to restrain traffic growth may include additional parking controls, vehicle access restrictions and a workplace parking levy.

2.3.7 At the same time there is an urgent need to invest in and improve public transport, walking to:

- accommodate population and employment growth;
- improve journey times; and
- make them attractive alternatives to the private car.

2.3.8 Table 1 below indicates a modest decrease in the car mode share across South London boroughs. The 2.8% decrease in Croydon is however below the Outer London average change of -4.8%.

**Table 1: Changes to mode share by car for South London boroughs 2006-2016<sup>29</sup>**

<b>Borough</b>	<b>Car mode share 2006</b>	<b>Car mode share 2016</b>	<b>Difference</b>
<b>Croydon</b>	<b>52.9%</b>	<b>50.1%</b>	<b>-2.8</b>
Merton	41.2%	40.4%	-0.8
Sutton	56.9%	52.8%	-4.1
Kingston	47.6%	45.8%	-1.8
Richmond	43.2%	38.5%	-4.7
<i>Outer London</i>	<i>50.1%</i>	<i>45.3%</i>	<i>-4.8</i>

<sup>27</sup> South London Sub-Regional Transport Plan, 2016 Update, TfL;

<sup>28</sup> South London Sub-Regional Transport Plan, 2016 Update, TfL; Page 96

<sup>29</sup> Analysis of the London Travel Demand Survey (LTDS) 2006 to 2016 data by TfL for the South London Sub-regional Transport Plan (2016 Update)

2.3.9 The data in Table 2 reveals that not only does Croydon have the lowest cycle mode share of all South London boroughs but we are also the only borough where it has decreased since 2006.

**Table 2: Change in cycling mode share in South London boroughs 2006-2016<sup>30</sup>**

<b>Borough</b>	<b>2006 cycle mode share</b>	<b>2016 cycle mode share</b>	<b>Change in cycle mode share</b>
<b>Croydon</b>	<b>1%</b>	<b>0.7%</b>	<b>-30%</b>
Merton	1.3%	2.6%	+100%
Sutton	0.8%	1.7%	+113%
Kingston	1.7%	3%	+76%
Richmond	3.1%	6.2%	+100%

2.3.10 Table 1 and 2 highlight the scale of the challenge facing Croydon in achieving the mode share targets set by the Mayor.

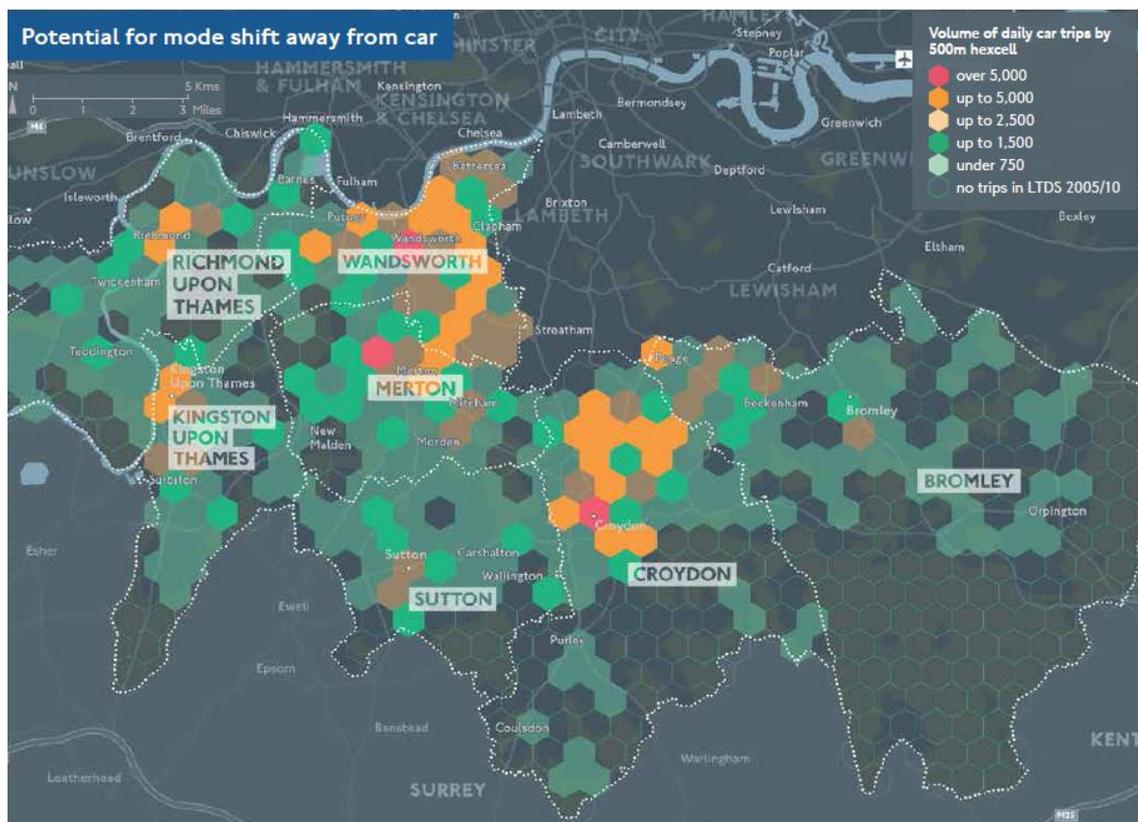
**Opportunities**

2.3.11 Through the Growth Zone framework Croydon’s Metropolitan Centre is undergoing a renaissance with new retail, residential, leisure and office development planned to deliver 10,500 new jobs and 14,500 homes between 2019 and 2041. New development within the Growth Zone will be high density and car free to enable as many people as possible to live close to workplaces, fast public transport connections and to be able to use active travel to access the amenities they need.

2.3.12 Analysis undertaken by TfL (as part of the South London Sub-regional Transport Plan 2016 Update) suggests that north and central Croydon have some of the highest potential for mode shift away from the private car in South London (Figure 12 below (red and orange hexcells reflecting areas with highest potential for mode shift)).

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<sup>30</sup> Analysis of the London Travel Demand Survey (LTDS) 2006 to 2016 data by TfL for the South London Sub-regional Transport Plan (2016 Update)



**Figure 12: Potential for mode shift away from private car**

[Source: South London Sub-regional Plan 2016; page 80]

2.3.13 The greatest opportunity to move from car use to active and sustainable modes is around the Growth Zone and in the north of the Borough. These areas already have lower levels of car ownership, good public transport accessibility, and younger demographic that exhibits higher propensity to shift away from car use. In the south of the Borough it will be more challenging to reduce car use because of the relatively poor public transport coverage, high car ownership, and older population demographic. However we will strive to achieve mode shift in these areas, in particular working with TfL to expand bus accessibility.

#### **Overarching Borough objectives and goals:**

- i) Croydon will reduce reliance on the car for local in-borough car journeys by creating streets and a transport network that prioritises walking, cycling and public transport.
- ii) Croydon will reduce the number of local car trips and to ensure that by 2021/22 at least 50% of all journeys made residents are by walking, cycling and public transport. By 2041, 63% of all journeys made by residents are by walking, cycling and public transport.

## 2.4 Mayor's Transport Strategy outcomes

2.4.1 The outcomes the MTS is working towards are interrelated and mutually supportive. As a consequence, challenges to meeting one of the MTS outcomes are often common to the other outcomes, as are many of the opportunities. If grasped, each opportunity has the potential to support a number of the MTS outcomes. In Croydon, it is often the case that a transport challenge is also an opportunity.

## 2.5 London's streets will be healthy & Londoners will travel actively

### Outcome 1

#### Key challenges

- Low physical activity amongst residents resulting impacts on obesity, poor physical health, mental health and social isolation
- Very low and decreasing cycling levels (unique in London)
- Poor access to cycles
- Hilly topography in north & south of borough
- Ageing population
- Accessibility through parks after dark
- Physical severance by road and rail infrastructure
- Traffic dominance and street environment designed for the car
- Fear of cycling and lack of safe cycle routes

#### Key opportunities

- Largest young population in London
- Huge potential demand for active travel trips across the Borough but particularly in the Growth Zone
- Growth Zone funding framework offers once in lifetime opportunity to transform the public realm and remove pedestrian severance
- Growth Zone funding framework provides unique opportunity to create a comprehensive cycle network focused upon the Growth Zone
- Increasing densities and new developments that can incorporate designs that support walking and cycling
- Remodelled Fiveways A23/A232 junction with greatly improved pedestrian and cycle facilities

*Further background information and evidence on these challenges and opportunities can be found in **appendix A, section 4**.*

## Meeting the Challenges and Taking the Opportunities

2.5.1 To meet the outcomes set in the MTS, we will need to continue to implement measures that reverse the traffic dominance around the Growth Zone and create healthy streets that prioritise active travel.

### ***Active Travel by Croydon Residents***

2.5.2 This LIP3 adopts a target of 63% of Croydon residents' journeys to be by active and sustainable modes by 2041. The current rate is only 49%, significantly lower than in our neighbour boroughs to the north in Inner London, but on a par with our neighbouring boroughs to our east and west.

2.5.3 Currently only 26% of Croydon residents are undertaking at least two x 10 minutes of active travel a day that is needed to stay healthy and we have been set the target of reaching 35% by 2021 and 70% by 2041.

2.5.4 The number of older people living in Croydon is increasing. Encouraging more older people to travel actively will mean more staying fitter and healthier for longer, in turn placing less burden on health services.

2.5.5 Croydon has the largest number of residents aged 17 and under in London. This presents an excellent opportunity to influence a generation that embraces new technology, active travel and does not necessarily aspire to drive their own car.

2.5.6 Croydon has huge potential for increased active travel. The typical weekday car journey into Croydon Metropolitan Centre is only 5km, a distance most people could easily cycle.<sup>31</sup> TfL estimates there are 400,000 potentially cycleable trips made in Croydon each day but just 6,000 cycle trips are made per day.<sup>32</sup> Currently 222,100 trips are made on foot each day, but an additional 125,600 walking stages could be made, the highest in London (see Figure A17 in the appendix). 29,000 of these are to or from the Croydon Metropolitan Centre. Combined with walking trips associated with accessing public transport, TfL estimate that there are nearly 180,000 potentially walkable trips and stages by Croydon residents, the highest figure in London.

2.5.7 TfL analysis looking at demographic propensity to walk and cycle, and the type of trips being made indicates areas with the greatest potential for active travel. Figures 13, 14 and 15 suggest key target areas should be in and around the Growth Zone, the areas to the north of the Growth Zone and an area to the south along the A23 and London Road corridors to Purley. These locations overlap with the areas of largest growth and development in the next decade.

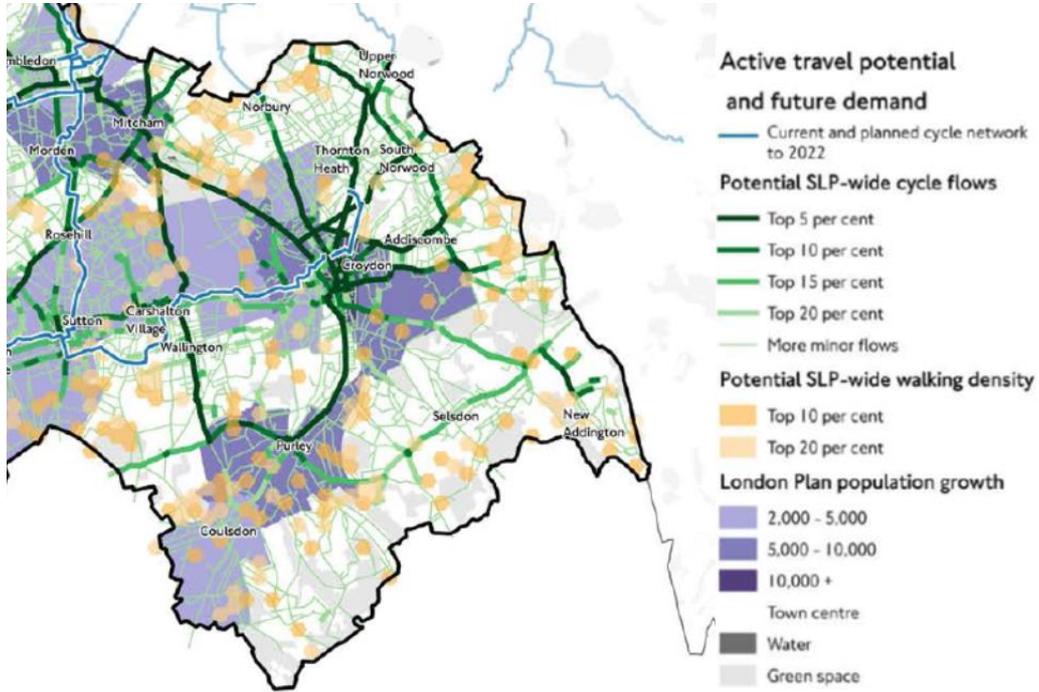
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<sup>31</sup> Croydon Cycling Strategy 2018

<sup>32</sup> <http://content.tfl.gov.uk/analysis-of-walking-potential-2016.pdf>

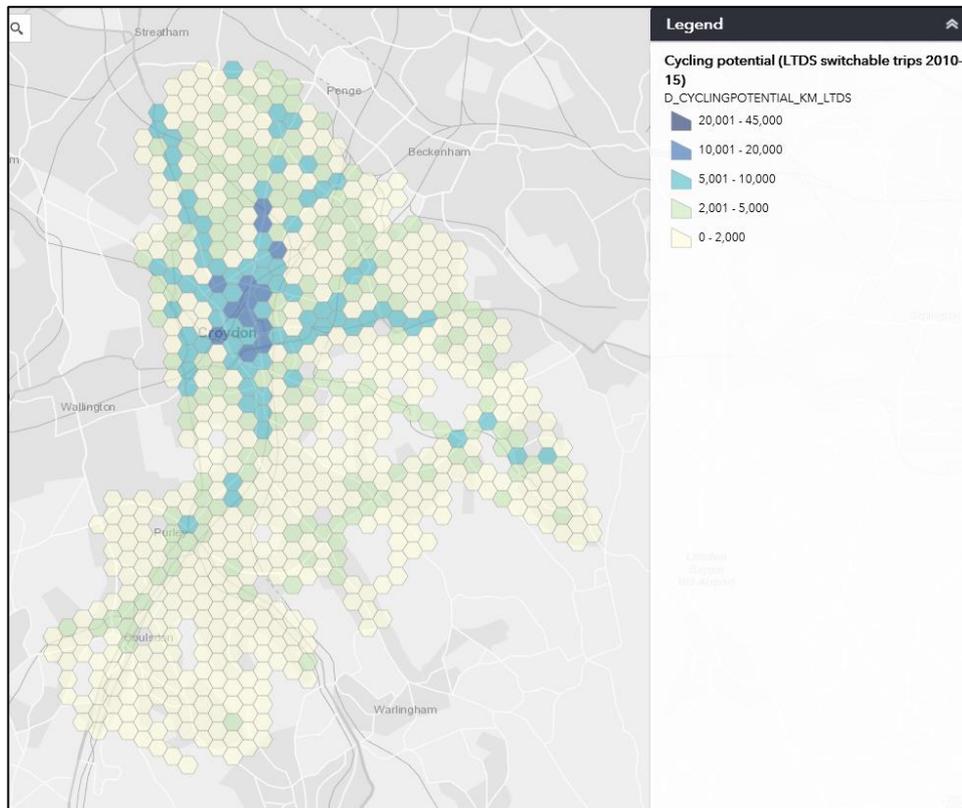
**Figure 13: Active travel potential in Croydon vs future demand**

[Source: TfL South London Sub-regional Transport Plan 2016 Update]



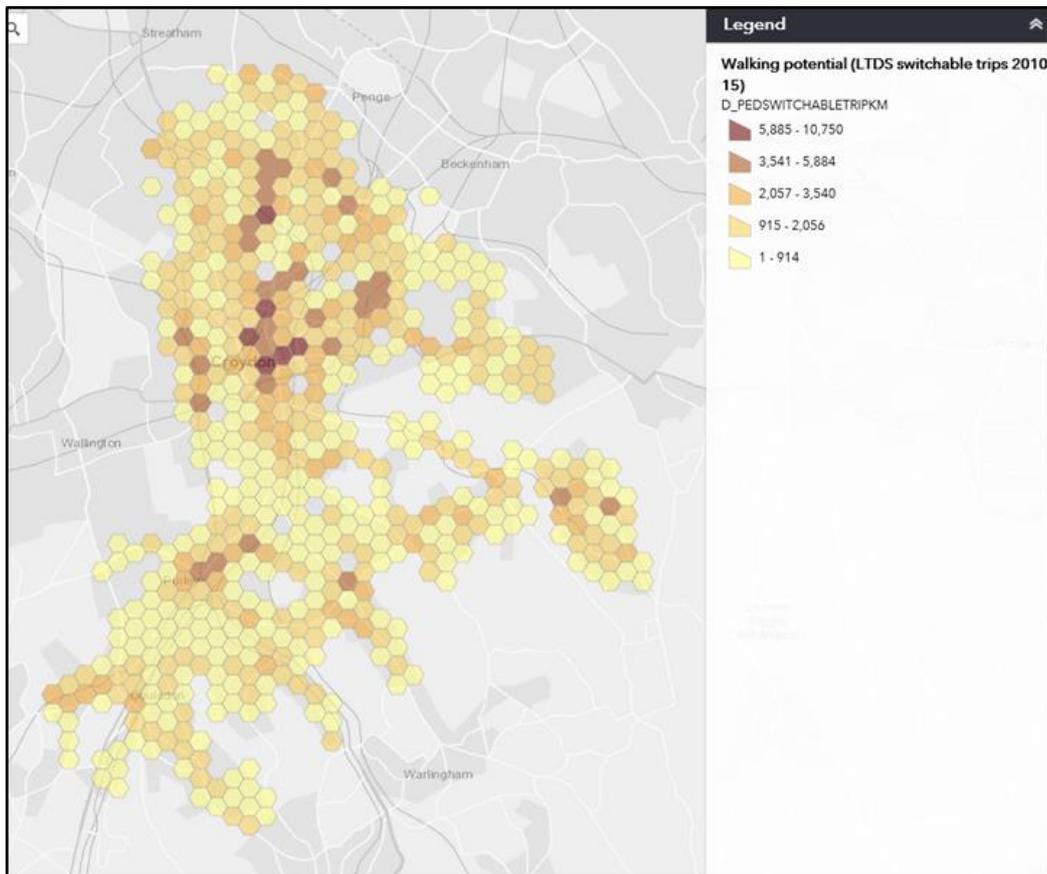
**Figure 14: Areas of greatest cycling potential**

[Source: TfL Playbook/LTDS 2010-2015]



### Figure 15 – Areas of greatest walking potential

[Source: TfL Playbook/LTDS 2010-2015]



## ***Croydon's Street Environment and Severance***

- 2.5.8 The reconstruction of the Croydon Town Centre in the 1960s resulted in a traffic dominated road environment that prioritised access by car. As a result the Growth Zone is currently constrained by urban motorways built as a ring road around and through the Town Centre.
- 2.5.9 Vehicle dominance and infrastructure around the Town Centre limits pedestrian permeability and reduces its visual appeal and aesthetics making it an active travel-unfriendly environment. The flyovers and underpasses act as a physical barrier to active travel. They are also a psychological barrier resulting from the noise generated by the fast moving traffic, poor air quality, the fear of crossing the road and intimidating subways, potentially affecting the health and mental well-being of residents.
- 2.5.10 Croydon's biggest active travel challenge, the hostile pedestrian and cycle environment, gives rise to its greatest potential. Croydon has the highest potential for cycling and walking amongst all London boroughs. This potential is greatest in and around the Growth Zone. This potential is due to the large number of short trips being made by motorised means (predominately by private car) that could be readily walked or cycled if conditions were right.



**Image 1: Subway under the Croydon Flyover – the only pedestrian route through Old Town Roundabout**

## ***Walking and Public Realm Improvements***

2.5.11 We have been implementing a major programme of public realm and walking improvements in the Town Centre over recent years. This has now been given a major boost through the Growth Zone financing mechanism.

2.5.12 The Growth Zone includes significant investment in the public realm and street environment to cater for the projected growth in residents and visitors. Improvements to the streets in the Growth Zone are required to facilitate the safe movement of significantly more people and provide a public realm that is befitting of a modern, prosperous city centre.

2.5.13 Our Growth Zone programme includes:

- A £25m Cycling and Walking programme focused on routes feeding into the Growth Zone area and predominantly funded via the Growth Zone. This includes a programme to remove the remaining pedestrian subways, replacing them with surface level pedestrian and cycle crossings.
- A £45m Public Realm Improvement programme focused on places and spaces solely within the Growth Zone.
- A £1.8m Culture and Creative Lighting programme adding interest and intrigue in to the public realm.
- A £4.1m Junction Improvement scheme at the A232 Chepstow Road / Addiscombe Road.
- A £25m contribution towards the remaking of the Fiveways Junction and surrounding area.
- A £4.9m Movement Corridor Improvement scheme for Brighton Road (following the Healthy Streets Approach mentioned above).
- A £8.3m Movement Corridor Improvement scheme for London Road (following the Healthy Streets Approach mentioned above).
- A £6.5m Movement Corridor Improvement scheme for Mitcham Road (following the Healthy Streets Approach mentioned above).

2.5.14 Whilst the Growth Zone Cycling and Walking and Corridors programmes stretch from the Growth Zone towards the corners of the Borough, active travel is being further aided beyond the Growth Zone by the TfL LIP Corridors, Neighbourhoods and Supporting Measures core funding. The £2.6m from LIP Corridors & Neighbourhoods over 3 years spent on Walking & Pedestrian Improvements, and Cycling Strategy Delivery programmes will continue to:

- provide new safe and secure pedestrian crossing facilities, with dedicated pedestrian phases and pedestrian countdown where appropriate.
- make accessibility improvements to the public realm to ensure older residents and others with mobility issues are able to access local amenities and public transport.
- improve and upgrade Public Rights of Way.

2.5.15 We are ensuring that new development contributes directly (and / or financially) to creating a more pleasant walking and cycling environment through developer contributions in the form of S106 and S278 agreements.

2.5.16 Via this new LIP3 we are taking the opportunity to focus our school related active travel promotion activities to help bring about the Healthy Streets objective via 'Healthy Schools Neighbourhoods'. In such Neighbourhoods we will work with the schools as a means of also engaging with the wider community to find and implement ways of helping all move through the neighbourhood more easily and safely on foot and by bike whilst also improving the environment within the Neighbourhoods. Active travel promotion activities including Bikelt will be directed to participating schools. This is with a view to not just improving the environment here and now, but to help ensure that our young people develop the active and healthy travel habit.

2.5.17 As part of our Healthy Schools Neighbourhood programme, but also more widely, we will expand and build on our award winning School Pedestrian Zone pilots. These zones prevent parents and carers driving up to the school gates helping to reduce the local impacts associated with the car based school run and also leading to more active travel as part of the journey to/from school.

<b>School Pedestrian Zones</b>	
At key times of the school day there is a significant increase in traffic flow and in some cases irresponsible parking. At some locations this can create obstructions, which in turn cause hazards that could endanger residents, road users, pedestrians and school children.	
	In order to tackle this issue Croydon Council has very successfully piloted a scheme restricting vehicle access to four school zones within the borough. The scheme was implemented as a pilot in September 2017 with the aim of restricting traffic from entering the street during the prescribed hours at the start and end of the school day. This scheme has now become permanent at the four sites identified and acknowledged by many as a success.
	The scheme has resulted in significant reduction in traffic around the school gates at each of the schools and in we have observed more children cycling or taking public transport to their school instead of being dropped off at the school gate.
	Given the success of the scheme and the positive results the Council has decided to make the scheme available to other suitable school roads in the Borough.

## **Liveable Neighbourhood Proposal – Reconnecting Old Town & Removing the Ring Road Severance**

Our Liveable Neighbourhood proposal involves reducing traffic dominance of the Croydon Ring Road by reallocating roadspace to pedestrians and cyclists and introducing new green infrastructure, innovative lighting and public art. These interventions will help counter the grey concrete, traffic noise and air pollution, and transform the perception of the underpasses, turning them into an attraction in their own right.



**Visualisation sketch showing what the ring road could look like in front of the Minster**

The proposal includes a number of the schemes outlined in the Old Town Masterplan including the plans to enhance the urban realm, particularly around the historic Croydon Minster and to create a new public space at Reeves Corner.



**Pedestrian underpass at Reeves Corner**

A Super Zone concept is being developed by Public Health in partnership with other departments in the Council and will focus on the 400 metres around a school within the proposed Liveable Neighbourhood area.

## **Cycling by Croydon Residents**

2.5.18 As previously mentioned, very few people cycle in Croydon. Less than 1% of journeys by Croydon residents are by bike. Only 1% of Croydon's residents cycle for at least 30 minutes five times a week. This may be reflective of the fact that currently zero percent of the Croydon population live within 400 metres of part of the London strategic cycle network (i.e. a Cycle Superhighway and Quietway). Croydon not only has the lowest cycle mode share of all London boroughs, we are also the only borough where it has decreased since 2006.

2.5.19 Our recently adopted Cycling Strategy<sup>33</sup> identified four challenges to getting more people cycling:

- Culture – need to change the perception that cycling is not for everyone to thinking that cycling is something people of all ages and abilities can do.
- Safety- the fear of traffic and road safety in general deter most people from cycling.
- Availability – availability of cycles in the household is lower in Croydon than most other outer London boroughs. The lack of cycle parking at the home end and at the destination is also a problem for many potential cyclists.
- Topography – Croydon is hilly in the northern and southern areas of the Borough which deters some people from cycling.

## **The Growth Zone and the Healthy Streets Approach**

2.5.20 It is at the Growth Zone where some of our most unhealthy streets and roads were constructed. It is also at the Growth Zone where (through our major Public Realm and Walking and Cycling Programmes) we will be doing the most to right the past mistakes and turn harsh road infrastructure back towards more pleasant, enjoyable and healthier streets.

2.5.21 The main street corridors leading into the Growth Zone are also amongst the locations where the need to pursue the Healthy Streets Approach is strongest. On each corridor the Approach will be tailored to address the differing issues and challenges. What is common to all is the need to move more people using far fewer cars and creating far less impact.

2.5.22 Our first Healthy Streets objective for the Brighton Road is to introduce high quality cycle lanes connecting the Growth Zone to Purley. This will be linked with increasing the quality of public realm at some of the important places on the route and introducing more street trees and other soft landscaping where we can.

2.5.23 The Roman Way and Mitcham Road is the focus area for our first Liveable Neighbourhood proposal. We need TfL to work with us and transform the pedestrian and cycling environment at the Lombard Roundabout if we are to

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<sup>33</sup> [https://www.croydon.gov.uk/sites/default/files/Cycling\\_strategy\\_2017.pdf](https://www.croydon.gov.uk/sites/default/files/Cycling_strategy_2017.pdf)

make this important movement corridor, one that can support and encourage healthier travel and be a more liveable place.

2.5.24 Along the London Road from Thornton Heath Pond to the Growth Zone we will continue our programme of public realm improvement, increased provision for cyclists and continue to green the corridor.

### **Measures to Help People Get Cycling**

2.5.25 To help address low levels of cycle ownership we:

- will require cycle parking as part of new built development;
- are retrofitting cycle storage at Council housing estates and on street (in the form of Cycle Hangars) with 'S106' funding secured through planning obligations relating to the new development;
- rolling out Brompton bike hire docks; and
- researching the optimum means of providing a bike share scheme in Croydon with the intention of delivering a scheme that is convenient and easy to use but with little street clutter and footway obstruction.

2.5.26 The dockless and virtual hub based bike share scheme would include electric bikes. The prime reason is to contribute to improving accessibility in areas to the south of the Borough with hillier terrain and poorer public transport coverage. A dockless and e-bike share scheme will be one means for supporting the intensification areas in the south of Croydon identified in the Croydon Local Plan and intensification in and around the Growth Zone.

2.5.27 Beyond the Healthy Schools Neighbourhoods we will continue our work with schools through the School Travel Plan process to help them:

- increase cycle storage and parking
- promote cycling
- deliver cycle training

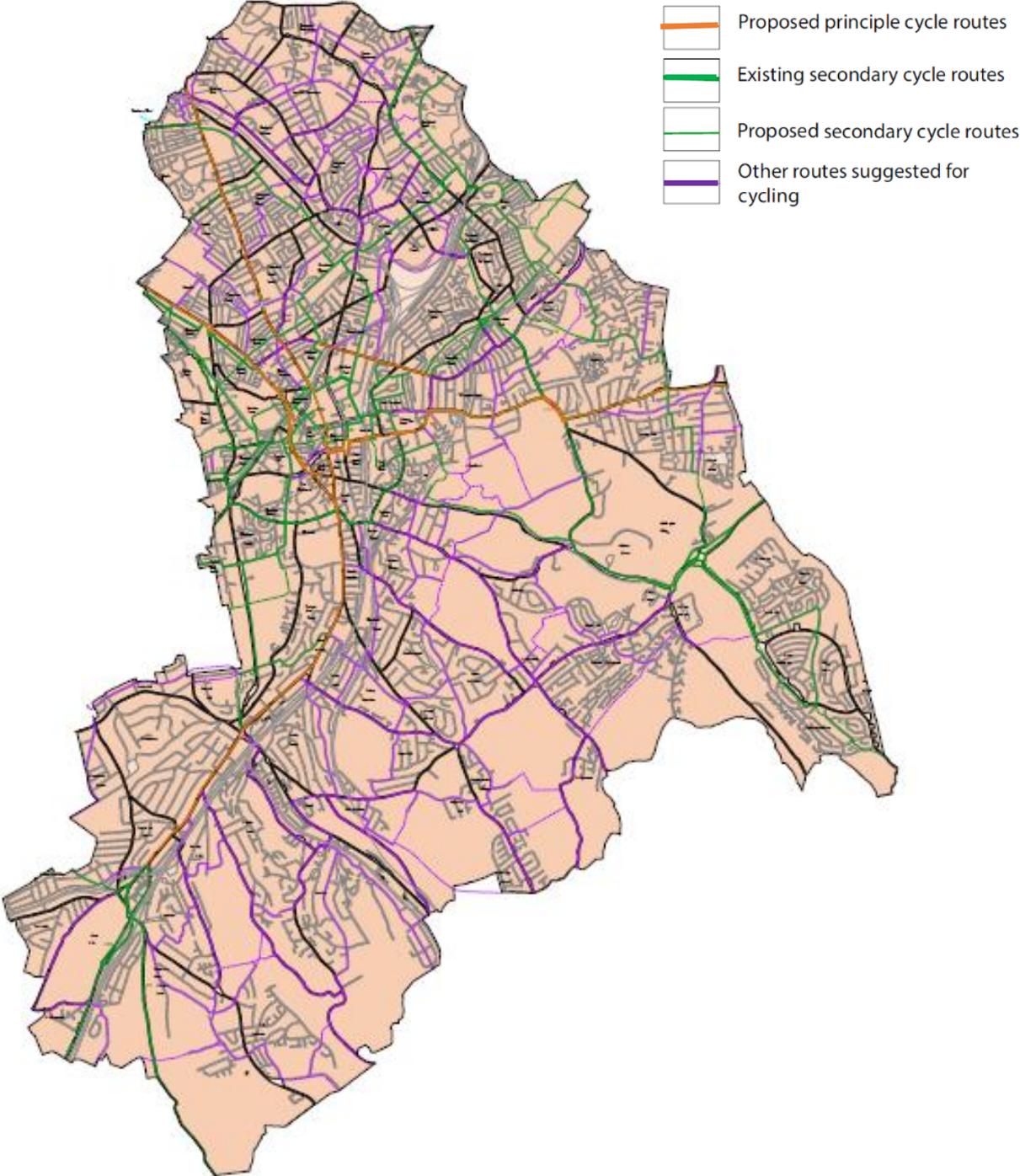
2.5.28 All of the above activities are intended to provide the next generation with a basic life skill and ultimately help contribute to bring about a cycling culture in Croydon.

### **Cycle Route Network**

2.5.29 Our Growth Zone Cycle Route Network programme is the cornerstone of our Cycling Strategy. This network of high quality routes is designed to help overcome concerns regarding road danger associated with cycling, and to tap the areas of greatest cycling potential, (identified in Figures 13 and 15). The routes include key corridors leading to the Growth Zone such as Brighton Road, Mitcham Road, London Road and the A232 east towards Bromley, as well as secondary routes on quieter roads and off road routes. It also includes St James Road (A222) where there was a fatal cyclist collision in May 2016. Further details can be found in Appendix A, section 4.

2.5.30 Through the LIP3 process Croydon has engaged with our neighbouring boroughs (Bromley, Lambeth, Merton and Sutton) to ensure that our proposed route network links up with their proposed cycle routes and the wider London Strategic Cycle Network.

**Figure 16: Croydon Cycle Route Network 2019** [Source: Croydon Council Strategic Transport]



### **Borough objectives:**

- iii) Croydon will create healthy streets and neighbourhoods that encourage walking and cycling, and where traffic volumes and speeds are low.
- iv) Croydon will improve accessibility for pedestrians and cyclists through increased priority at key junctions and reduce severance caused by major roads, railway lines and parks.
- v) Croydon will implement and deliver the network of cycle routes and proposals outlined in the Croydon Cycle Strategy.

### **Short to medium term delivery objectives and proposals:**

- Deliver direct, safe and high quality cycle highways between central Croydon and local centres by 2023.
- Deliver a network of safe and quiet cycle routes through low traffic residential neighbourhoods to encourage new cyclists.
- Secure funding & deliver a Liveable Neighbourhood scheme to the west of the Growth Zone area.
- Reduce severance by removing or improving intimidating subways and underpasses.
- Improve access for pedestrians and cyclists through our parks and open spaces after dark by introducing lighting and improving security.
- Improve access to cycles for our residents by introducing a shared cycle hire scheme that includes e-bikes.
- Expand and upgrade our network of greenways and public rights of way to encourage more leisure walking and cycling trips.
- Continue to create attractive high streets and district centres with high quality public realm, good signage and legibility.
- Continue the delivery of visitor cycle parking at key destinations and secure residential cycle parking.
- Pilot the Healthy Schools Neighbourhoods programme to work with schools, parents and local residents to increase walking and cycling trips in these neighbourhoods.
- Ensure the successful delivery by TfL of the Fiveways Junction scheme.

### **Long term goals**

- By 2041 Croydon will have a well-developed cycling culture, and cycling will be seen as the norm rather than the exception.
- By 2041 Croydon Metropolitan Town Centre will be renowned for attractive and high quality public realm, and people choose to walk and cycle to get there.

## 2.6 London's streets will be safe and secure

### Outcome 2

#### Key Challenges

- Speeding traffic and poor driver behaviour resulting in road danger and fear of cycling and walking.
- Lack of enforcement and lack of traffic police presence on London's roads.
- Lack of safe pedestrian and cycle provision at key high risk junctions.
- Finding space to accommodate cycle routes alongside bus priority on main movement corridors.
- Increased heavy vehicle construction traffic at the Growth Zone and risk to vulnerable road users.
- Threat posed by vehicles being used in terrorist attacks in high footfall areas.

#### Key Opportunities

- 20mph speed limits recently delivered across most of the Borough with more to come.
- Creation of a network of quality cycle routes focused on the Growth Zone.
- Growth Zone funded Movement Corridors programme following the Healthy Streets approach.
- Remodelled Fiveways (A23/A232) junction with greatly improved pedestrian and cycle facilities.
- Removal of the intimidating pedestrian subways in the Growth Zone.
- More walking and cycling leading to increased natural surveillance in the street environment.
- Applying Safer by Design principles to the proposed replacing of East and West Croydon Stations with new world class stations.
- Behaviour change opportunities through the Growth Zone.
- Advent of connected and autonomous vehicles.

*Further background information and evidence on these challenges and opportunities can be found in **appendix A, section 5**.*

### Meeting the Challenges and Taking the Opportunities

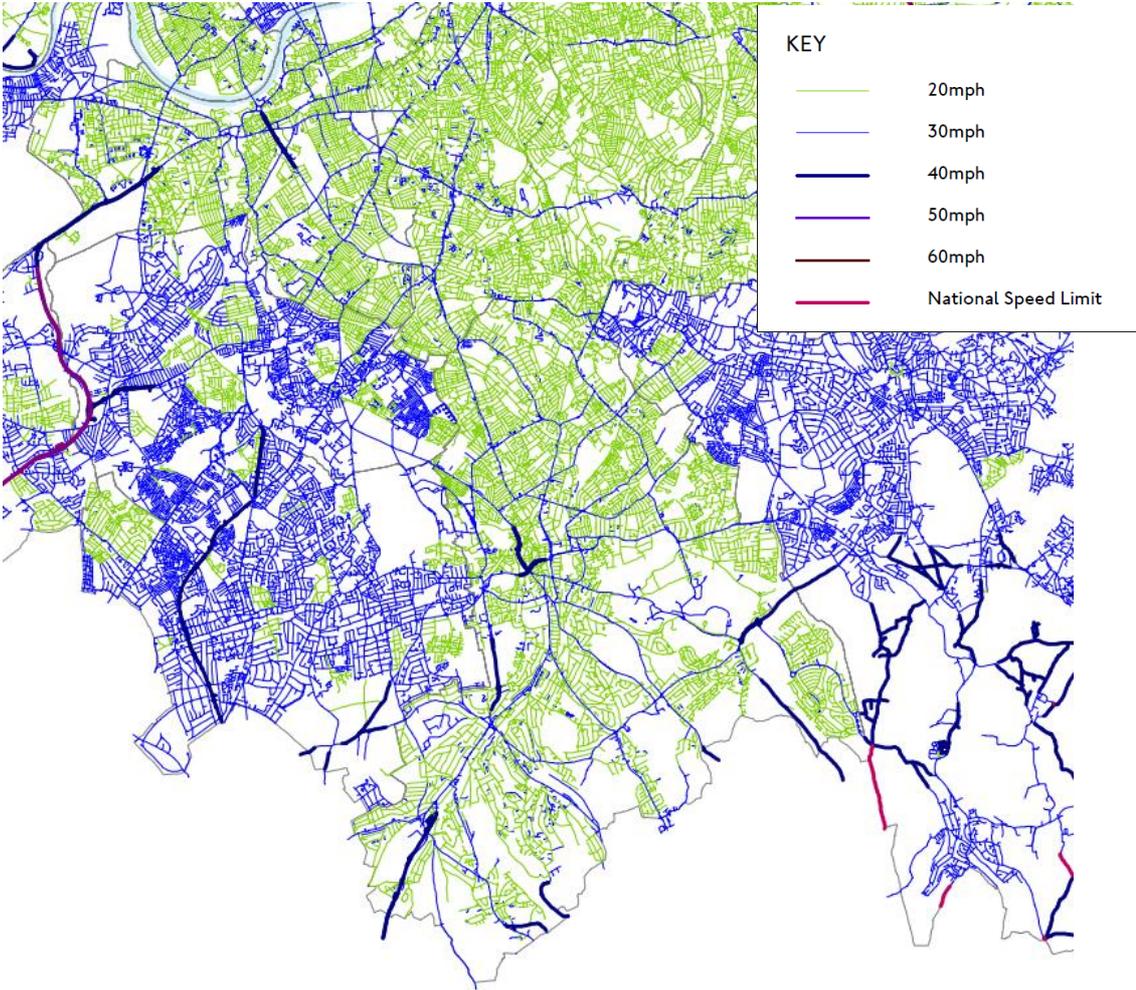
#### Road Danger

- 2.6.1 Road safety concerns are key reasons preventing many more people cycling and walking in the Borough. Lack of safe cycle routes, obstructed pavements and lack of safe and convenient pedestrian provision at key road junctions and links deters people from making active travel journeys. This in turn curtails independent mobility, particularly of children, young people, older and people with disabilities, with resulting inactivity and health consequences.

- 2.6.2 The MTS Vision Zero aim seeks to achieve zero people killed or seriously injured on London's streets by 2041. This requires a different approach to reducing road collision casualties in which road danger is reduced at source and a more pro-active approach is taken to identify and mitigate road danger. By managing traffic speeds through 20mph speed limits the severity of road collisions can be reduced and offers more scope for more cycling as the perception of danger from road traffic is reduced.
- 2.6.3 Croydon has delivered an ambitious programme of 20mph speed limit areas on our residential roads. At least 85% of Croydon Council controlled roads are now covered by a 20mph speed limit, (see Figure 17). However to improve their effectiveness and to play their potential major role in achieving the Vision Zero and Healthy Streets objectives, we need the Metropolitan Police to enforce them much more intensively.
- 2.6.4 Croydon Council already uses a number of techniques to improve compliance with speed limits and improve driver behaviour such as the installation of ANPR speed activated warning signs. In street environments with:
- high densities of pedestrians and cyclists; or
  - where there are known road danger concerns or speeding issues
- then we will work to create speed-safe environments.
- 2.6.5 This will be achieved through traffic engineering measures and the redesign of our streets to reduce road danger. In locations with a serious collision history or with specific circumstances such as high volumes of construction traffic then we will consider the introduction of enforcement technology such as Average Speed Camera Systems.
- 2.6.6 Road casualties remain focussed on the major road network and street corridors, particularly at the district and town centres that sit on them. Here pedestrians and cyclists are concentrated around the heaviest flows of vehicles often going at significant speed outside of peak times. These corridors tend to focus into the Growth Zone. We will support and encourage TfL with its proposal to cut speed limits by 10mph on stretches of some of its roads leading into the Growth Zone. In turn we will use our Growth Zone Corridor programme and hopefully TfL's Liveable Neighbourhoods programme to improve safety as part of the Healthy Streets approach on some of our busiest roads and streets approaching the Growth Zone.

2.6.7 Fiveways Corner is the traffic dominated and pedestrian hostile major intersection of the A23 (which skirts the western edge of the Growth Zone) and the A232 (connecting into and through the Growth Zone). It is a major block to people walking or cycling locally or to walking or cycling from the west of the Borough into the Town Centre / Growth Zone and an accident hotspot. We are working in partnership with TfL to deliver an £85 million improvement project (£25m from the Croydon) at the intersection. This will put sections of one-way traffic back to two way working, but more importantly deliver greatly improved pedestrian and cycling facilities.

**Figure 17: London Speed Limit Map (Croydon and adjacent boroughs) - Extent of 20mph limits shown in green.** [Source: TfL June 2018<sup>34</sup>]



<sup>34</sup> <http://content.tfl.gov.uk/digital-speed-limit-map.pdf>

- 2.6.8 The Growth Zone itself is entering the major phase of redevelopment. In order to minimise and control construction vehicle movements we are implementing a Growth Zone wide programme of Construction Vehicle Planning and Management which includes holding construction vehicles and preventing them moving in the Town Centre during the busy morning peak. This will ensure we are minimising the risk to vulnerable road users from interacting with construction vehicles and HGVs.
- 2.6.9 Away from the Growth Zone we will be using an evidence led approach to direct TfL LIP Corridors funding to address the links and nodes on our street network with the highest casualty rates (generally at district and local centres).
- 2.6.10 Looking to the more distant future, autonomous vehicle technology offers increased safety. We are currently working with TfL, as partners in the Streetwise project (part of central government CAV2 programme) to investigate the benefits that might be brought about through such technology.

### **Achieving Vision Zero – Safer Streets, Speeds, Fleets & Behaviours**

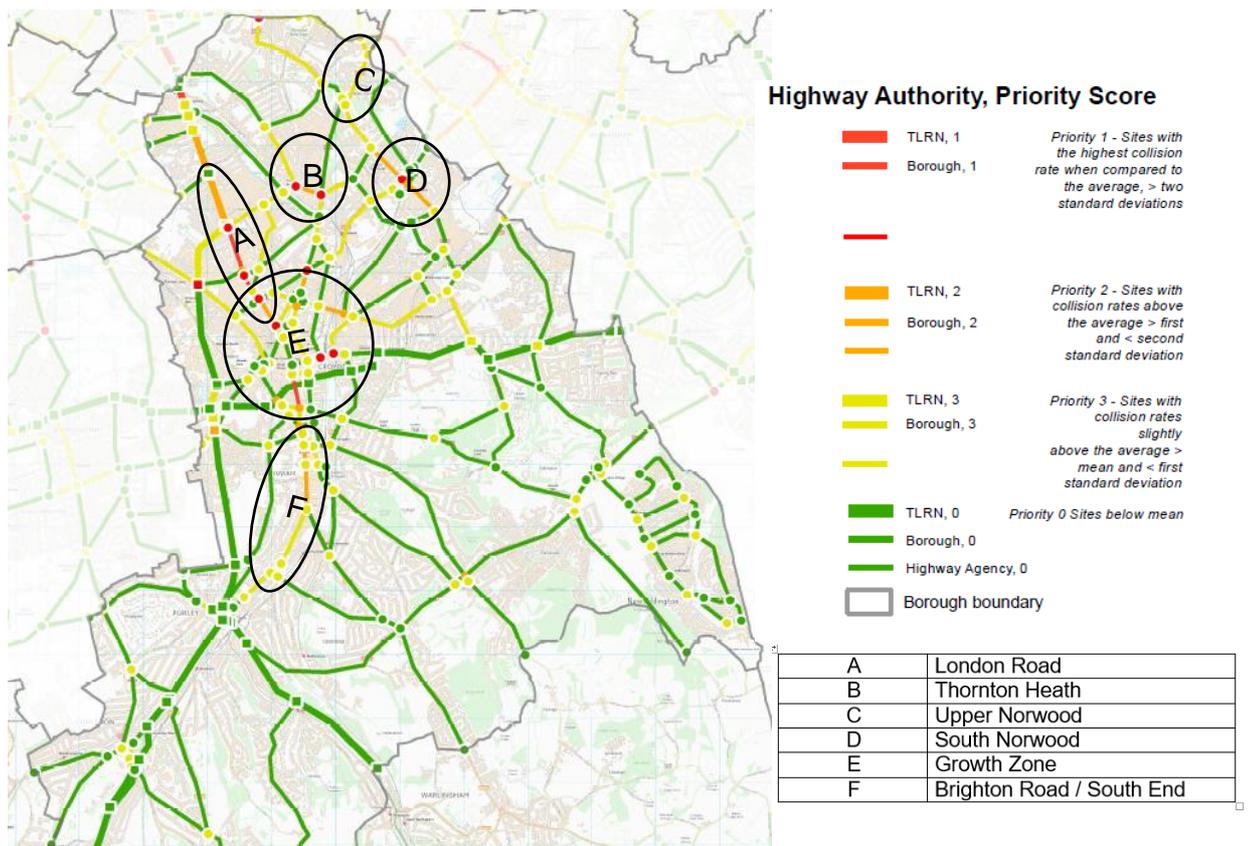
- 2.6.11 Croydon's Vision Zero Safer Streets programme will focus upon improving safety in our district centres, junctions and other locations with the highest casualty rates involving vulnerable road users and align our road safety engineering schemes to match Vision Zero principles. We will work with TfL to introduce a risk based methodology that includes a broader consideration of proactive road danger reduction that supports our active travel mode share aspirations.
- 2.6.12 Croydon will continue the rollout of 20mph zones on main roads in district centres and other locations with higher than average casualty incidences. We will consider how the design of the street contributes to road traffic collisions and where appropriate look at improvements such as junction realignment, gateway treatments and improve pedestrian crossing provision.
- 2.6.13 We are also working with and lobbying TfL to tackle collisions on the TLRN particularly along the London Road, Thornton Heath Pond, Lombard Roundabout and Purley Gyratory which currently act as a huge barriers to safe pedestrian and cyclist movement.
- 2.6.14 Our Safer Behaviours programme will reflect the new Vision Zero principles by focusing upon changing the behaviour of drivers of vehicles through education and publicity campaigns. It will also continue the successful work that has been undertaken with vulnerable road users through education and training at schools. Funding support for very successful Safe Drive Stay Alive campaign will be maintained and there will be targeted work around motorcyclists and work related road risk.

## Spatial patterns of casualties and priority junctions and links

2.6.15 The map in figure 18 below shows the priority link and junctions for vulnerable road users (pedestrians, cyclists and powered 2 wheelers). It reveals a clear pattern of vulnerable road user casualties on the main road network in the centre and north of the borough. It is noticeable that the London Road corridor is identified as a priority and the north of the borough has a much higher incidence of priority 1 and 2 sites and links than the south. This is likely to be reflective of the higher population densities and traffic levels in the north, and the higher levels of driving (and lower levels of active travel) in the south of the borough.

2.6.16 The key spatial locations for focusing our Vision Zero and Safer Streets programme are shown in Figure 18 below. London Road, the Growth Zone and Brighton Road/South End will be tackled as part of the Growth Zone Programme. The LIP funded Safer Streets programme will focus upon the district centres of Thornton Heath, South Norwood and Upper Norwood the locations of which are shown in Figure 18 (sites B, C and D).

**Figure 18: Priority Junctions and Links for Vulnerable Road User Collisions** [Source: TfL]



## Crime

2.6.17 The Croydon Town Centre was reconceived and remade in the 1960's as a place few people would live. Instead people would drive in on urban motorways,

parking at the office or retail centre and drive home at the end of the day. This left us with a pedestrian alien environment.

2.6.18 By delivering thousands of new homes in the Growth Zone accommodating thousands more residents, we are potentially increasing the levels of natural surveillance (both daytime and in the evenings) in the Growth Zone. However we have to remake an environment into one people enjoy being in and find legible and easy to navigate. Hence our multimillion pound programme of public realm improvement.

2.6.19 Our Growth Zone Cycling and Walking programme and other programmes (hopefully with additional support from TfL's Liveable Neighbourhoods programme) will remove the dangerous pedestrian subways built as part of creating the sixties motorcity. Helping more people walk and cycle into the Growth Zone will in turn provide more eyes and ears surveillance and foster a greater community cohesion.

2.6.20 The Growth Zone is a hub on the bus network and a key interchange point for young people traveling to and from school. This interchange activity can indirectly lead to antisocial behaviour. As part of making changes to bus services in the Growth Zone, we will encourage TfL to assess and consider the crime and disorder implications of any proposals.

2.6.21 We have introduced anti-terrorism infrastructure also known as 'Hostile Vehicle Mitigation' measures at East Croydon Station and are reviewing the risk and assessing the need for intervention at other important places such as pedestrianised streets.

2.6.22 The proposed remaking of both East and West Croydon stations provides the opportunity to apply safer by design principles to both the station themselves and the interchanges clustered around them.

### **Borough objectives:**

- vi) Croydon will support and deliver the principles of the Vision Zero Action Plan and work towards ensuring we have the safest roads in London with no deaths or serious injuries on our roads by 2041.

### **Short to medium term delivery objectives and proposals:**

- Lobby the Metropolitan Police to enforce 20mph limits on all our residential streets and introduce speed reduction measures on streets where there is evidence of an ongoing speed and safety issue.
- Extend 20mph speed limits onto our main roads in busy pedestrian areas such as district and town centres, and other locations with specific safety concerns.
- Provide safe and secure crossing facilities with dedicated pedestrian phases at all key junctions in the Borough, including pedestrian countdown where appropriate.
- Work with local residents to reduce external through traffic in residential areas using the [Low Traffic Neighbourhoods](#) principles.
- Undertake targeted behaviour change campaigns to encourage safer behaviours amongst drivers.
- Robustly manage construction and logistics activity in the Growth Zone ensuring safety proposals for vulnerable road users (FORS, Direct Vision, CLOCS) are required for all development sites as part of the Growth Zone Construction CLP criteria.
- Review vulnerable locations with high pedestrian footfall to determine need for Hostile Vehicle Mitigation measures and ensure all new public realm schemes consider these risks.
- Work with and lobby TfL to tackle safety at high risk junctions and links on the TLRN including Lombard Roundabout, Thornton Heath Pond, London Road and Purley Gyratory.
- Through the Safer Streets programme we will tackle the highest risk junctions and links on the Borough controlled roads.
- Through the Safer Behaviours Programme we will engage with schools and work with TfL on the school behaviour sessions such as Safe Drive, Stay Alive.

### **Long term goals**

- By 2041 Croydon will have the safest roads in London with zero deaths or serious injuries on our roads.

## 2.7 London's streets will be used more efficiently & have less traffic on them

### Outcome 3

#### Key challenges

- External traffic cutting through residential areas.
- School run car trips a key cause of traffic congestion.
- Increasing car ownership in recent years.
- Major increase in construction traffic focussed of the Growth Zone during the period of major redevelopment.
- New car park as part of the redeveloped Whitgift Centre.
- High levels of journey to work by car for trips into and within the Borough.
- High numbers of Council staff driving to and from work.
- Increasing online deliveries and associated freight traffic.
- Increasing population across the Borough including in areas poorly served by public transport.
- Taxi over ranking at East Croydon Station.

#### Key opportunities

- Direct traffic restraint delivering an income stream potentially supporting expansion of Tramlink.
- Many of the journeys currently made by car into the town centre could be made by walking and cycling if conditions are put right.
- Croydon is the London Borough with the greatest potential for walking and cycling.
- The Growth Zone's public transport accessibility and connectivity is only rivalled by that of Central London.
- Thousands of new homes and even more residents in the Growth Zone, side by side with new jobs, retail and leisure facilities
- The construction phase of the Growth Zone resulting in more difficult car journeys within it and the need to promote and encourage access by alternative means.
- Car free and car-lite development supported by on-street parking controls manging on-street parking stress.
- Car clubs removing the need to own a car.
- Increasing number of alternative forms of transport other than the private car.
- Advent of autonomous vehicles (challenge & opportunity).

*Further background information and evidence on these challenges and opportunities can be found in **appendix A, section 6**.*

## Meeting the Challenges and Taking the Opportunities

### Road traffic Croydon-wide challenges

- 2.7.1 A high volume of short journeys by private cars are made at peak hours to schools, contributing to significant congestion and carbon emissions. These short journeys may also be a consequence of a perceived risk of accidents due to unsafe roads and poor accessibility making parents feel concerned about allowing children to walk or cycle to school. This has a direct impact on children's health and well-being due to becoming physically inactive. Sustainable alternatives to the car are also less appealing in the south of the Borough which is hillier and generally has poorer public transport access than in the north. This is a deterrent, especially for more vulnerable and elderly people, to travel by bicycle or on foot.
- 2.7.2 For Croydon the most significant delays are generally on the main road network in and around the Town Centre and along the A23 corridor.

### Growth Zone challenges and opportunities

- 2.7.3 The Growth Zone presents significant challenge to those wishing to travel to it by bike and on foot. However it has the greatest potential for changing the transport mix. The Growth Zone is the location that must work the hardest if our ambitious sustainable mode share target set by this LIP is to be achieved. With its public transport connectivity and accessibility only rivalled by that of Central London and its unrivalled potential for walking and cycling, the Growth Zone will need to move closer to the MTS London wide 80% sustainable mode share target. This will mean continuing to prioritise access to the Growth Zone by means other than the private car and continuing to invest in and improve the alternatives.

### Traffic reduction strategy

- 2.7.4 The MTS states that:

*Traffic reduction strategies should be developed at a borough level as part of Local Implementation Plans, with the aim of reducing car and freight traffic levels across London. This means providing alternatives to car use, discouraging unnecessary trips, looking at how street space is used most efficiently, supporting car-free lifestyles and taking action to reduce and retime freight trips.*

- 2.7.5 The anticipated form of these strategies is still unclear. We would suggest that the multifaceted approach in this LIP is to invest in walking, cycling, public transport and more liveable neighbourhoods to bring about traffic reduction, and this will form the mainstay of our 'traffic reduction strategy'. However, for that investment to be effective, it has to be accompanied by some form of road traffic restraint. We cannot successfully pursue the Healthy Streets Approach on the main corridors leading into the Growth Zone without it. It is difficult to envisage

a Brighton Road where over time we are able to deliver the following without reduced traffic levels:

- quality cycling infrastructure;
- a significant increase in bus numbers and eventually trams;
- an improved walking environment; and
- significantly enhanced public realm at the important places.

2.7.6 Additional buses and even trams are unlikely to offer an attractive alternative to the car if they are caught in slow moving traffic with journey times significantly slower than cars on the route. Queuing buses and general traffic are not conducive to a healthy and enjoyable street environment.

2.7.7 Helping people out of cars and to travel by healthier and more sustainable means is likely to need both 'carrot' and 'stick'. There is already an inefficient form of congestion charging in Croydon, with the 'charge' paid in time wasted in slow moving traffic and in wasted fuel. The highest 'charge' is paid by those businesses and individuals with the highest value of time. Via MTS proposal 23, the Mayor offers to work through TfL with local authorities to develop and implement appropriate traffic demand management measures. Working with TfL and our sub-regional partners we will investigate the potential for additional and appropriate forms of traffic restraint, including whether a levy on workplace parking spaces would be effective. Our investigation will include:

- the efficiency of the potential mechanism;
- issues relating to equity;
- the ability to influence travel choices;
- the level of environmental gain; and
- The ability of income streams to fund high quality, high capacity alternatives to the car such as extensions to the tram network.

2.7.8 Any direct forms of traffic restraint will need to demonstrate they are delivering significant and tangible alternatives to the private car. Therefore, as we conduct our investigation, we expect TfL to work with us to implement MTS Proposal 89 and to continue to develop proposals to extend Tramlink in Croydon.

### **Managing the car parking supply**

2.7.9 When making the Croydon Town Centre Opportunity Area Planning Framework (OAPF (adopted 2013)), it was estimated that there were approximated 7,150 off-street public car parking spaces, with a similar number of private non-residential parking spaces at office developments. The OAPF:

- directs new public car parking to the retail core within the Growth Zone (happening as part of the redevelopment of the Whitgift Centre);
- caps public carpark spaces at 2013 levels; and
- requires a reduction in public car parking spaces in the more peripheral parts of the Growth Zone to ensure the cap is not exceeded.

- 2.7.10 We are currently removing and redeveloping much of the major Fairfield public car park. It is anticipated that even with the new carpark capacity planned for a redeveloped Whitgift Centre, publically available car parking spaces will reduce well below 2013 levels and the OAPF cap.
- 2.7.11 Anecdotal evidence from car park operators suggests there been a significant reduction in car park occupancy in the Growth Zone, car parks were once full in 2000, in 2018 they are half empty. The car park operators do not see this as a reflection on the Town Centre's past economic fortune, rather they blame the success of Tramlink.
- 2.7.12 The efficient and fair management of on-street parking supply is a proven tool for successfully managing congestion and highway safety, it is also an effective way of managing demand for car travel, particularly for short trips.
- 2.7.13 As part of the Growth Zone framework a review of on street parking demand in and around the centre of the Borough is currently taking place. This review will assess the need to increase the breadth and scope of parking restrictions in light of the development taking place in the Growth Zone.
- 2.7.14 Growth Zone funding has been allocated for new innovative parking and traffic management technologies such as variable messaging and dynamic parking sensors. The aim is to use this technology to better manage parking demand and traffic flows in order to reduce congestion and keep drivers informed.
- 2.7.15 The Borough's district centres away from the Growth Zone are also experiencing high levels of parking stress and competing demands for kerbside space. LIP funding will be used to undertake parking management reviews in district centres in the more suburban areas of the Borough to reduce the impacts of commuter parking and ensure sustainable growth in these areas.

#### **Timed road closures and access restrictions**

- 2.7.16 As previously mentioned Croydon has successfully introduce School Pedestrian Zones outside a number of schools to tackle the congestion and road danger caused by the school run drop off and pick up. Linked with the Healthy Schools Neighbourhoods programme this has the potential to have a significant impact on traffic congestion in parts of the Borough.
- 2.7.17 Building upon the success of School Pedestrian Zones and looking at comparable schemes in Waltham Forest, we also plan to investigate the potential for using pedestrian zones or timed road closures to reduce rat running by external traffic on residential roads.
- 2.7.18 Where supported by local residents we will investigate options for completely closing residential roads to vehicular through traffic to reduce congestion, improve air quality and encourage more active travel.

2.7.19 In our Growth Zone and other hot spots for bus delays we will investigate options for improving bus journey times and reducing traffic congestion through the introduction of further bus and cycle only access restrictions.

### **Car Clubs**

2.7.20 Car clubs aid traffic reduction aims by reducing individual car ownership and usage. By supporting car free developments in appropriate locations and setting maximum car parking standards for new developments, car club membership and usage are further encouraged. Croydon is still at an early stage of development of a car club network with about 37 car club vehicles available on and off street across the Borough. The significant level of car free and car-lite development being secured in the Growth Zone and elsewhere in the Borough (supported by our Local Plan policy requirements for the provision of Car Club bays as part of new developments) means that there will be substantial uptake of Car Clubs in the near future. As such we will be using LIP funding to support the expansion of Car Clubs in the borough including electric vehicle charging provision and the introduction of flexible Car Clubs in the north of the borough.

### **Construction logistics & traffic management**

2.7.21 Over £1 million of Growth Zone funding has been allocated for initiatives to better manage construction traffic during the redevelopment phase. The following measures will be delivered over the lifetime of this LIP document:

- Construction traffic navigation app
- CCTV monitoring
- Utility co-ordination
- Travel demand management tools
- HGV emission control and monitoring
- Communications programme
- HGV holding areas
- Part funding for the establishment of a Construction Consolidation Centre.

### **Freight and servicing**

2.7.22 Freight movement forms a significant component of traffic flows on Croydon's road network with demand generated by Croydon town centre and the extensive retail and business park areas in the west of the borough. The Borough also has many local and district centres whose businesses rely on deliveries being made on-street by a multitude of suppliers. LGVs and HGVs comprise about 17% of traffic volume with HGVs alone forming 3% of traffic volume although the amount of HGV traffic has decreased over the last 10 years or so.

2.7.23 LIP funding will be used to match fund the Growth Zone funding for the establishment of a Consolidation Centre and assess the feasibility of micro-

consolidation / micro-distribution sites in order to reduce freight movements and deliveries.

2.7.24 We will develop guidance through the planning process to secure area wide Growth Zone specific Delivery and Service Plans that include requirements such as:

- The use of electric or cargo bike delivery schemes linked with edge of town micro-consolidation sites;
- The use of edge of city major consolidation centres;
- Re-timing of deliveries with possible restrictions on entering certain areas at peak hours; and
- Consideration of Zero Emission Streets or loading areas or Ultra Low Emission Zones to restrict more polluting vehicles at certain times.

**Borough objective:**

vii) Croydon will reduce the volume of traffic on our roads and associated congestion through better management of our roads and kerbside space, and by offering pleasant, practical and safe alternatives to private cars and vans.

**Short to medium term delivery objectives and proposals:**

- Implement and deliver the Healthy Schools Neighbourhoods programme to work with schools, parents and local residents to reduce school run vehicle trips and tackle the associated congestion and air pollution.
- Investigate the use of access restrictions, timed road closures and pedestrian zones to reduce rat running and external traffic in residential areas.
- Investigate and deliver new strategies for reducing traffic volumes and congestion in the borough.
- Review the number of Council staff needing to drive their own car for work and reduce the impacts of parking stress around the Council offices.
- Reduce the need for residents to own their own car by increasing access to car club vehicles, and enabling the expansion of flexible car clubs into the borough.
- Manage the impacts of parking demand on our roads by continuing the introduction of parking controls where supported by the local community, and ongoing review of existing schemes.
- Work with businesses and residents to reduce the impact of deliveries and the growth in the online economy on our road network and investigate options for reducing freight traffic in busy areas.
- Secure Growth Zone specific Delivery and Servicing Plans (DSPs) to manage freight traffic in the town centre area.

- Establish a Construction Consolidation Centre as part of the Growth Zone framework.

### **Long term goals**

- By 2041 Croydon will be a place of mixed modality with a world class walking and cycling environment, and a reduced reliance on the car.
- By 2041 we will have safely and sustainably accommodated autonomous vehicles on our road network and they will have contributed to the reduction of traffic on our roads.

## 2.8 London's streets will be clean and green

### Outcome 4

#### Key challenges

- Air pollution along main radial roads from traffic sources
- School run congestion
- Idling engines outside schools and town centres
- New schools being located adjacent to busy roads
- Significant flooding risk across the Borough
- Significant construction levels impacting upon air quality through HGV movements, demolition and construction activities and NRMM
- Noise impacts from roads particularly flyovers and main roads
- Hotter summers and wetter winters due to climate change

#### Key opportunities

- Growth Zone funding for construction management and monitoring
- Mayor's Air Quality Fund
- Low Emission Neighbourhood bid
- New technology for managing traffic movements and parking demand
- Increasing uptake of electric vehicles
- Increased awareness of air quality
- New development opportunities to incorporate SUDs and low emission infrastructure
- Manifesto commitments for electric vehicle charging points and street trees

*Further background information and evidence on these challenges and opportunities can be found in appendix A, section 7.*

### Meeting the Challenges and Taking the Opportunities

#### Air quality

- 2.8.1 The Council's Air quality Action Plan<sup>35</sup> sets out a long list of interventions for improving air quality with a strong focus upon managing emissions from construction and construction, particularly associated HGV traffic.

<sup>35</sup> <https://www.croydon.gov.uk/environment/pollution/air-pollution/improve-airquality>

## **Growth Zone**

- 2.8.2 With the planned growth in Croydon Town Centre (about 50 major schemes over the next 5 years) there is a particular concern in relation to emissions from construction traffic. The air quality priorities are:
- Tackling emissions from construction sites and construction vehicles through compliance with the Town Centre Construction Logistics Plan.
  - Tackling emissions due to servicing and freight vehicles – 17% of transport emissions are from vehicles associated with delivery and servicing.
  - To reduce exposure to air pollution and to raise awareness for residents and those who work in Croydon through publicity campaigns and air pollution alerts.
- 2.8.3 The Growth Zone framework includes funding to monitor and enforce construction related traffic and associated emissions, as well as development related non-road mobile machinery (NRMM).
- 2.8.4 The measures previously mentioned to reduce construction related vehicle movements such as the Construction Consolidation Centre will have a big beneficial impact on air quality.

## **Idling engines**

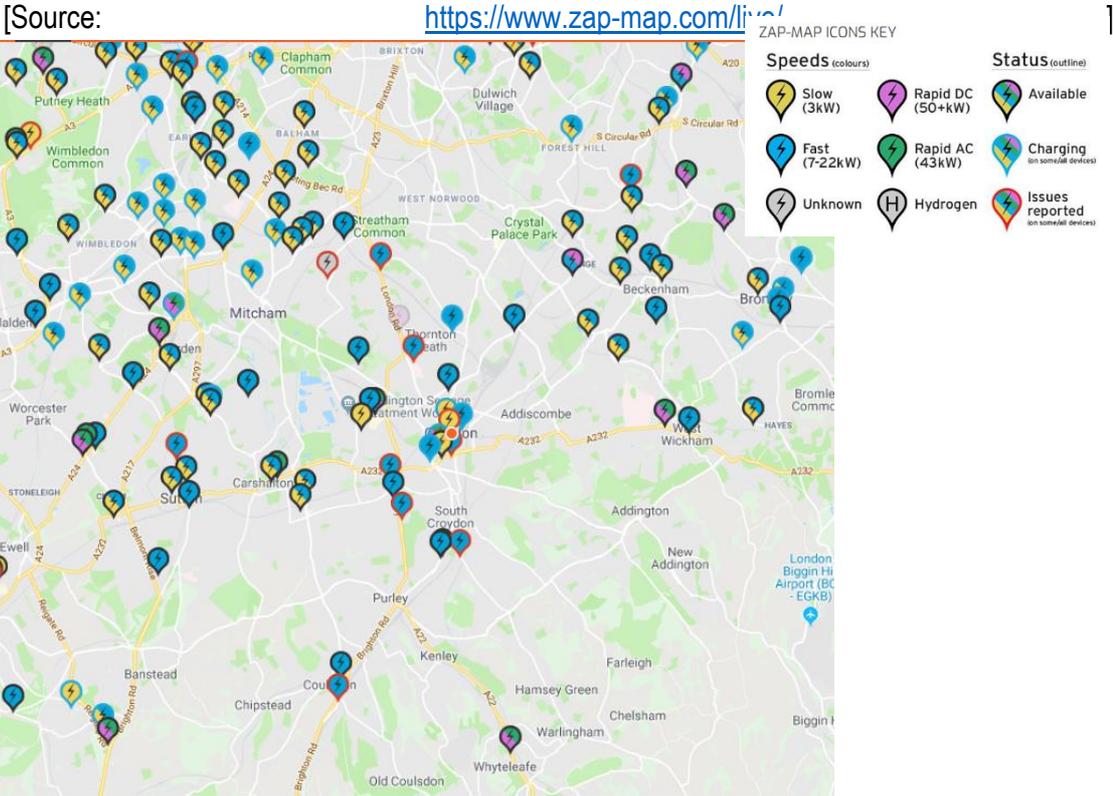
- 2.8.5 Idling engine is a key concern especially outside sites with high numbers of vulnerable people such as schools and hospitals. The introduction of School Pedestrian Zones at a number of schools in the Borough has had beneficial impacts on air quality at these locations.
- 2.8.6 Croydon intends to continue to participate in the Pan-London Idling Engine project and submitted a joint bid alongside other London boroughs to the MAQF. The Borough's Air Quality Team will continue to deliver a programme of activities and events to raise awareness of air pollution from traffic sources.
- 2.8.7 Idling engines at taxi ranks, particularly the one at East Croydon station where there are high numbers of pedestrians is a concern. Croydon submitted a Mayor's Air Quality Fund (MAQF) bid to the GLA for a scheme to improve queuing and management of taxis at East Croydon station that will also incentivise the uptake of electric taxis.

## **Electric vehicle charging points**

- 2.8.8 The Council has committed to invest in 400 electric vehicle charging points across the Borough by 2022 to enable residents, business and visitors to make the shift to zero tailpipe emission vehicles (if they have no alternative to driving) resulting in improved air quality for all. The current location of publicly accessible EV charging points in the Borough are shown in Figure 14.

2.8.9 The Council has robust policies in its recently adopted Local Plan to secure electric vehicle charging points for all new developments over and above what is required in the current London Plan.

**Figure 19 – Map showing location of public EV charging points in and around Croydon**



**Mayor’s Air Quality Fund (MAQF)**

2.8.10 Croydon submitted a bid to create a Low Emission Neighbourhood (LEN) along the London Road between West Croydon Station and Thornton Heath Pond. The intention is to transform the environment along this busy bus corridor and shopping street by introducing green infrastructure, reducing traffic volumes and introducing low emission vehicles.

2.8.11 We submitted a MAQF borough bid for East Croydon Station Taxi Rank to introduce a smart queuing and call up system. The bid will include the introduction of rapid EV charging points and priority access for ULEVs to incentivise the uptake of electric taxis.

2.8.12 In partnership with neighbouring South London boroughs we submitted a bid for the establishment of a Construction Consolidation Centre on the A23 corridor. Part of the proposal will include the provision of electric lorries to undertake the last mile journey and build upon the previous Go Ultra Low Cities (Neighbourhoods of the Future) project undertaken with Sutton.

2.8.13 Croydon participated in the joint bid for a Pan London Idling Engine Campaign to change driver behaviour and remind them to switch off their engines and reduce air pollution.

2.8.14 Other innovative ideas to incentivise ULEVs we will consider during the lifetime of this LIP:

- Working with TfL to pilot a scheme to allowing ULEVs to use the Coulsdon Bypass bus lane (Coulsdon Bypass forms part of the TLRN); and
- Timed road closures & ULEV only access at peak hours in Growth Zone locations.

**Flood Risk – Mitigating climate change**

2.8.15 Croydon has a history of severe flooding. Most recently Purley and Kenley experienced significant flooding from the Caterham Bourne due to extremely high groundwater during January to March 2014, when an emergency situation was declared. Severe surface water flooding also occurred during July 2007 and brought Purley Town Centre to a standstill.

2.8.16 The Preliminary Flood Risk Assessment (PFRA) and Surface Water Management Plan (SWMP) identify the following parts of Croydon to be particularly susceptible to surface water flooding:

- Brighton Road through Purley up to Central Croydon
- The A22 Godstone Road through Kenley

2.8.17 The Adopted Local Plan ensures that all new developments in flood risk and sensitive drainage areas are required to incorporate sustainable urban drainage systems into their design.

2.8.18 Where practical Croydon also seeks to ensure all new public realm schemes developed by the Council incorporate SUDs and additional green infrastructure into their design.

2.8.19 The Council has made a commitment to plant 3,500 trees over the next 3 years to increase green infrastructure, provide additional shade and mitigate the impacts of wetter winters and hotter summers.

**Borough objectives:**

viii) Croydon will tackle road based air pollution by reducing traffic volumes, supporting the shift to zero emission vehicles and introducing new green infrastructure.

**Short to medium term delivery objectives and proposals:**

- Support the shift to electric and low emission vehicles by introducing over 400 electric vehicle charging points in the next 4 years.
- Facilitate the expansion of rapid electric vehicle charging hubs for particular use by taxis and freight vehicles.
- Submit a MAQF bid for East Croydon Station Taxi Rank – smart queuing/call up system & Rapid EV charging points and priority access for ULEVs.

- Investigate the establishment of a Construction Consolidation Centre and zero emission last mile delivery scheme near Purley Way.
- Introduce 3500 new street trees and new green infrastructure along our main roads with known air pollution issues.
- Investigate innovative ideas for incentivising uptake of ULEVs, such as allowing ULEVs into the bus lanes such as the one in Coulsdon Bypass.
- Bid to create a Low Emission Neighbourhood along the London Road between West Croydon and Thornton Heath Pond.
- Secure electric vehicle charging points for all new developments through the planning process.
- Secure and enforce Construction and Logistics Traffic Management Plans for all new developments in the Growth Zone to minimise impacts on air quality and the safety of pedestrians and cyclists.
- Continue the rollout of School Pedestrian Zones to tackle air pollution outside schools.
- Participate in pan London engine idling campaign to get drivers to turn off their engines.
- Support transition of the Council's fleet and the grey fleet to low emission vehicles.
- Work with the Air Quality Team to develop air quality information campaign to publicise alerts for high emission days and ways of reducing exposure.

### **Long term goals**

- By 2041 we will have worked with neighbouring boroughs to have delivered innovative and efficient ways of managing freight and logistics that minimizes the number of vehicles on our roads with resulting air quality benefits.
- We will have adapted the public realm and transport systems to cope with the changes to our climate, and the integration of Sustainable Urban Drainage (SUDs) across the public realm has mitigated the impacts of surface water flooding.

## 2.9 The public transport network will meet the needs of a growing London

### Outcome 5

#### Key challenges

- Brighton Mainline predicted to become one of the most congested mainlines into central London
- Overcrowding on the tram network
- Overcrowding at East Croydon Station
- Slower bus journeys due to road congestion
- Poor bus access and east–west connections in the south of the Borough
- Significant housing and population growth in areas with very poor public transport accessibility
- Poor train operator performance

#### Key opportunities

- Thameslink programme
- Brighton Mainline Upgrade
- Growth Zone funding for movement corridors, trams and bus priority and infrastructure
- New technologies and innovations, Mobility as a Service (MaaS)
- On Demand Public Transport services
- Connected and autonomous vehicles
- Developments in bus rapid transit
- Bus resources released from central London enabling improvements in public transport access in the outer suburbs

*Further background information and evidence on these challenges and opportunities can be found in **appendix A, section 8**.*

## Meeting the challenges and taking the opportunities

### Focusing growth at the best connected locations

- 2.9.1 By focussing new homes and jobs at the Growth Zone we are ensuring ready access by public transport for the growing numbers of workers and residents. The Growth Zone enjoys enviable public transport connectivity and accessibility, being a hub in South London's bus network, being the fulcrum of the Tramlink system and sitting on the Brighton Mainline.
- 2.9.2 However, we are fully conscious of the need for major investment in the Growth Zone's public transport services and infrastructure. Hence our major programme of Growth Zone financed investment including:
- Tram network capacity enhancements
  - Bus priority, and bus standing
  - West Croydon Station set out in the section of this LIP
- 2.9.3 Although some areas of the borough are well served by public transport there is little difference in the geographic area within Croydon covered by the higher PTAL rating (level 4 and above) in 2021 and 2031 compared to the 2015 base year. This would be a reflection of the limited extent of the committed public transport investment by TfL over the next 15 years or so.

### Thameslink and the Brighton Mainline

- 2.9.4 The completion of the Thameslink Upgrade has delivered more passenger capacity on the Borough's rail spine. However, the Brighton Mainline which carries the service, is predicted to shift from being one of Croydon's and the Growth Zone's strongest assets, to being a potential weakness. The Thameslink upgrade and wider GTR timetable change addressed recent passenger overcrowding. They helped accommodate the increase in passenger journeys seen between 2005 and 2017, numbers rising from 45 million to 75 million per annum. However, as numbers of residents and jobs continue to grow, so will passenger demand on the Brighton Mainline. Passenger journey numbers are predicted to rise to 90 million per annum in the early 2030s. South London is facing having the two most congested mainlines in the Capital. One is the South West Mainline, which Crossrail2 will alleviate. The other is the Brighton mainline. It is not possible to squeeze any more capacity out of the existing infrastructure. The major capacity constraints on the BML are in Croydon, namely East Croydon Station; the Selhurst Triangle Junction to the north (where tracks to London Bridge and Victoria cross each other and separate out) and the track between the two.
- 2.9.5 We are working with Network Rail to aid its development of designs to remove the capacity constraints and to prepare the Strategic Business Case for the Brighton Mainline Upgrade. The Upgrade is critical to achieving the MTS objective of a metro style suburban rail network and service in South London.

Without the Upgrade, the Mayor's Metroisation ambitions cannot be realised in South London. Delivery of the circa £2.5 billion upgrade needs to coincide with the planned 2022 signals renewal on the Mainline. We will be lobbying hard to ensure that the Upgrade is funded and look forward to support from TfL, the GLA and the Mayor of London in doing so.

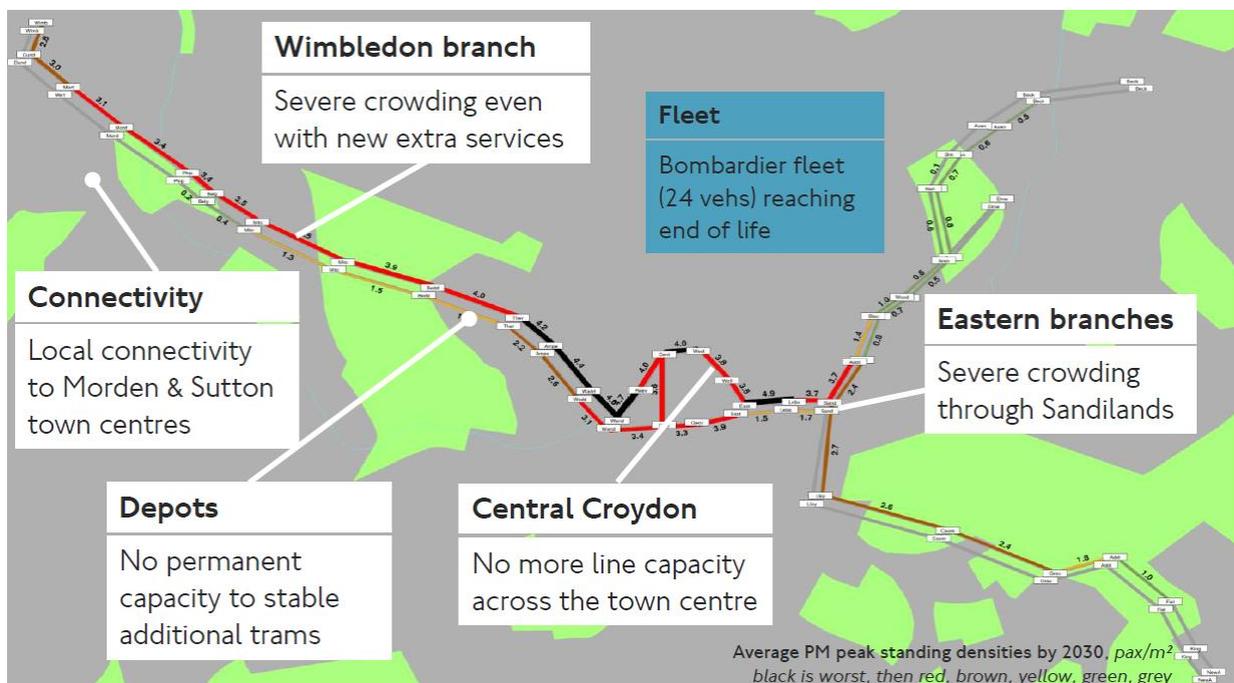
2.9.6 As well as supporting the growth in new homes and jobs, rail infrastructure replacement (in particular the redevelopment of stations) offers the opportunity to directly deliver with new homes and jobs. We are encouraging Network Rail to maximise the potential of over-station development at East Croydon Station. Our masterplan for West Croydon includes the proposal for the development of a trackside residential tower at the Station which in turn will help fund development of new station infrastructure. The feasibility study for the development West Croydon Station and the associated new homes has been completed.

### The Growth Zone supporting additional capacity on the Tramlink network

2.9.7 Passenger numbers on Tramlink have doubled since its opening in 2000. Passenger standing in the peak periods is commonplace particularly on the approaches to the town centre from the New Addington/Elmers End/Beckenham Junction branches, as shown below in Figure 20.

**Figure 20: Crowding on Tramlink [morning peak 2030] and key challenges without investment**

[Source: TfL South London Sub Regional Transport Plan, 2016]



2.9.8 TfL's 15-year plan, Trams for Growth, addresses the growing demand. A number of infrastructure solutions are identified and Croydon is contributing £27

million towards delivering the first phase of these network enhancements and feasibility studies for delivery of the proposals.

2.9.9 The full programme of Tramlink capacity enhancements is currently proposed to be supported / part funded by the Growth Zone financing mechanism, it is outlined within the longer term programme section of this LIP.

2.9.10 Trams for Growth (currently under review by TfL) aims to address current and future demand on the existing Network and the potential for an extension to Sutton. Our ambitions are considerably higher. We see Tramlink as one of Croydon and South London's major assets that connects four Opportunity Areas and Metropolitan Town Centres, the benefits of which need to be spread more widely.

### **Reviewing and enhancing the bus network to meet the needs of a growing Croydon.**

2.9.11 Broadly one third of Croydon's growth is planned to be focussed at the Growth Zone, a third is expected in the north of the Borough and a third in the south. Each area poses differing challenges to and opportunities for buses to support the needs of a growing Croydon. As a result we are working with TfL on a three pronged approach to the review and enhancement of bus services. Each approach is different in each of the three areas. The south area bus review has been initiated with TfL. The review is based on our projected housing growth figures for places within the southern suburbs. Based on these, passenger demand increase is being estimated and required bus supply increase on existing bus routes/corridors calculated. The review is also looking at what routes can potentially be extended, in what stages and what time period into areas of lower PTAL to support new housing. This is being done in an iterative manner with the refresh of the Croydon Local Plan. The Local Plan will look to direct new housing in low PTAL areas towards the proposed bus route extensions / new bus routes.

2.9.12 In the south of the Borough, there are areas with low public transport accessibility where densities are currently too low to support traditional high frequency bus services. To improve accessibility in these areas (to support suburban intensification areas) we will be using LIP funding to investigate new mobility as a service (MAAS) concepts such as demand responsive minibuses and connected and autonomous public transport vehicles (CAVs). We are currently working with TfL, Bromley and FiveAI to pilot CAVs as a passenger transport service on routes between Croydon and Bromley. Findings from this

pilot will inform the south area bus review and ongoing enhancement of public transport services in a growing Croydon.



Figure 21 Streetwise Project FiveAI vehicles operating in Croydon [Image: FiveAI]

## Taxis

2.9.13 Taxi 'over ranking' at East Croydon Station is significant, resulting in congestion and associated pollution. Planned development adjacent to the Station requires ranking arrangements to be significantly altered during that construction period. This challenge also provides the opportunity to trial new and alternative means of managing the ranking. Lessons from this 'trial' will be applied in the redesign of East Croydon Station and the associated interchange arrangements clustered around it.

### Borough objectives:

- ix) Work with the Mayor, TfL, Network Rail, bus operators and TOCs to improve public transport links, reduce overcrowding on the public transport network and ensure Croydon is the best connected Metropolitan Town Centre in Outer London.

### Short to medium term delivery objectives and proposals:

- Partner with Transport for London and Network Rail to improve public transport links to our local high streets, including introducing new bus routes to better connect Croydon's places.
- Work with the Mayor, TfL, Network Rail, bus operators and TOCs to improve public transport links and reduce overcrowding on the public transport network.
- Work with TfL and the Mayor to increase capacity and reduce overcrowding on the tram network.
- Continue to work with partners in the Coast2Capital LEP including Gatwick Airport to enhance our national and international links making Croydon one of the best connected and best places to do business in London and the South East.

- Design and deliver 3 'Movement Corridors' serving the Growth Zone; Brighton Road, Mitcham Road and London Road, that consider holistic improvements for buses, cycling and walking.
- Work with TfL and the Mayor to ensure Overground Rail Metroisation meets needs of Croydon's residents and boosts the local economy.
- Taxis – East Croydon station – resolve the over ranking problems.
- Pilot demand responsive transport and a bus accessibility project in southern suburbs of Croydon.
- Pilot the Streetwise Connected and Autonomous Vehicles (CAVs) project in partnership with Bromley, TfL and FiveAI.
- Work with TfL to undertake bus service reviews in the south and the north of the Borough.

### **Long term goals**

- By 2041 Croydon's economy is thriving and businesses flock to the Town Centre because it is the best connected in South London.

## 2.10 Public transport will be safe, affordable and accessible to all

### Outcome 6

#### Key challenges

- Affordability of public transport
- Lack of step free access at rail stations in the borough particularly West Croydon
- Accessibility between different modes at interchange hubs
- General accessibility of the wider public transport network lacking
- Recommendations from the tram incident
- Bus casualties in town centre area
- Anti-social behaviour on buses at school exit times
- Some areas lacking direct bus services to key destinations such as the University Hospital
- Limited space and opportunities for cycle parking provision at rail stations and public transport interchanges

#### Key opportunities

- Growth Zone funding and development opportunities
- West Croydon redevelopment proposals
- Brighton Mainline and East Croydon station redevelopment
- Access for All station funding
- Bus service reviews
- Suburban intensification
- New demand responsive mobility services

*Further background information and evidence on these challenges and opportunities can be found in **appendix A, section 9**.*

### Meeting the Challenges and Taking the Opportunities

2.10.1 Almost all of the Borough's bus stops are now considered accessible (99%) which complements the fully accessible London bus network. All tram stops in the borough are step free. However, it is a different picture for rail stations. Of the borough's 17 rail stations, currently only East Croydon, Thornton Heath, Coulsdon Town and Purley have adequate step free access. Network Rail has proposals to make Selhurst and Coulsdon South stations step free by 2019. With an ageing population who will have greater mobility problems, a fully

accessible public transport network will become increasingly important especially in the south of the Borough with its older demographic.

### **Improving access around rail stations and interchanges**

2.10.2 Even if the stations are fully step free themselves there is a need to ensure that the public realm to and from the station and between interchanges is accessible. We have retained an ongoing Public Realm Accessibility programme in the LIP3 to improve accessibility across the Borough but particularly around rail stations and at public transport interchanges.

### **Norwood Junction Station**

2.10.3 Improvements to the public realm around Norwood Junction Station, including widening of footpaths and removal of street furniture clutter, have so far been incorporated in the Streets Improvement Scheme for South Norwood. £1.65 million has been made available, with the focus being on improvements to Station Road, Market Parade on Portland Road and the junction of the High Street and Portland Road.

2.10.4 Improvements to the station itself, are being sought by Croydon Council, including accessibility for all users (step free access) as part of the Brighton Mainline Upgrade, if not before.

### **West Croydon Station**

2.10.5 West Croydon is the point of arrival and departure for Overground rail line through East London to Highbury and Islington and Southern Services into London Victoria and London Bridge.

2.10.6 Croydon is currently working in partnership with TfL and Network Rail to deliver a first phase of improvements to the Station funded through the Growth Zone Framework. As a minimum, the scheme will address some of the fundamental issues with the existing station to improve the ticket hall capacity and achieve step free access. This first phase will be intended to provide some of the enabling works prior to the comprehensive redevelopment of the station that may take longer to realise given the complexities associated with major station projects.

### **New demand responsive bus and mobility services**

2.10.7 These services have the potential to be more accommodating and flexible for users than traditional bus services and existing door to door transport services such as Dial-a-Ride.

## **Bus and tram safety**

2.10.8 Croydon will continue to lobby TfL to adopt the safety recommendations of the tram derailment investigation and reduce the number of collisions between vulnerable road users and buses in the Town Centre area.

### **Borough objectives:**

- x) Work with the Mayor, TfL, Network Rail, bus operators and TOCs to ensure the entire public transport network is accessible, safe and step free.

### **Short to medium term delivery objectives and proposals:**

- Work with TfL and technology partners to pilot autonomous and demand responsive vehicles to improve public transport accessibility in harder to reach areas of the borough.
- Lobby TfL to ensure the adoption of safety recommendations from the tram derailment investigation.
- Work towards ensuring all rail stations in Croydon are fully accessible and step free.
- Work with Network Rail and TfL to ensure the successful redevelopment of West Croydon station to increase capacity, reduce overcrowding and provide adequate step-free access and interchange.
- Ensure the bus network is accessible in Croydon by tackling the few remaining bus stops that are not accessible.
- Work with TfL, the Metropolitan Police and secondary schools to reduce anti-social behaviour and crowding on buses at school closing times.
- Improve connections between modes at public transport interchange hubs, ensuring it is easy and safe to walk and cycle to and from them.
- Continue to install cycle parking at stations and interchanges to accommodate demand.

### **Long term goals**

- By 2041 every station and stop will be step free and fully accessible.

## 2.12 Journeys by public transport will be pleasant, fast and reliable

### Outcome 7

#### Key challenges

- Bus congestion in Growth Zone and on approaches to it
- Level of construction and redevelopment taking place in Growth Zone with resulting disruption to bus routes and stops
- Increasing bus wait times due to increasing traffic congestion
- Poor performance of train operating companies (TOCs)
- Frequency of stopping rail services at certain times of day and week

#### Key opportunities

- Growth Zone funding for bus priority and routes within town centre
- Growth Zone funding for 3 Movement Corridors on Brighton Road, London Road and Mitcham Road
- TfL Bus Priority Delivery programme
- Traffic reduction strategies

*Further background information and evidence on these challenges and opportunities can be found in **appendix A, section 10**.*

### Meeting the Challenges and Taking the Opportunities

#### Shaping and growing the bus network

2.12.1 The average bus journey speed in Croydon is 10.7mph. Bus speeds are amongst their lowest on the busiest bus corridors approaching the Growth Zone. However, bus use remains strong in Croydon. Whilst other parts of London have seen declining or stagnating bus passenger numbers, Croydon is bucking the trend with a significant increase in passenger numbers compared to most other boroughs that have seen a decrease in bus patronage. In fact Croydon had by far the largest increase in bus capacity utilisation between 2014/15 and 2016/17 at 8% (the next highest borough was Richmond with 1% and all other London boroughs saw stagnation or a decrease).<sup>36</sup>

<sup>36</sup> <https://consultations.tfl.gov.uk/buses/central-london/> Map 3



2.12.2 Across the south London sub-region bus wait times have increased by 9% between 2013 and 2015.<sup>38</sup>

2.12.3 With the growth in jobs and population particularly in the Growth Zone the challenge is to support this growth in a sustainable way such as by encouraging people to use buses.

2.12.4 Through the Growth Zone framework the following bus priority and Movement Corridor programmes are being funded:

Growth Zone Project	Funding amount £
Bus Priority programme	4,900,000
Bus Route Upgrades	10,000,000
A232 Chepstow Rd / Addiscombe Rd	4,120,000
Brighton Road Corridor	4,900,000
London Road Corridor	8,280,000
Mitcham Road Corridor	6,503,000

**Bus priority and accessibility**

2.12.5 The TfL Bus Priority Portfolio Delivery programme in Croydon includes a suite of targeted interventions on the bus priority network that will result in significant improvements to public transport reliability and frequency within the Borough. This funding will be used to match fund the bus priority schemes being delivered through the Growth Zone framework.

2.12.6 TfL provides funding for bus improvements through the Strategic Bus Priority programme only applies to main bus corridors. The LIP Bus Accessibility funding will examine what can be done to improve bus services in the south of the borough, with specific focus upon improving accessibility to support the suburban intensification areas. As well as traditional bus services the work will consider new concepts such as on demand mini-buses and autonomous vehicles. TfL’s funding is being more than matched by Growth Zone funding.

**Borough objectives:**

- xi) Work with TfL to introduce additional bus priority measures on key road corridors to improve efficiency and reliability of bus services.
- xii) Lobby the TOCs and the DfT to improve performance of train services and reduce gaps in service frequencies

<sup>38</sup> South London Sub-regional Transport Plan 2016 Update (TfL 2016)

### **Short to medium term delivery objectives and proposals:**

- Work with TfL to review bus services operating in the Growth Zone to improve efficiency and reduce bus congestion.
- Work with TfL to introduce additional bus priority measures on key road corridors to improve efficiency and reliability of bus services to accommodate growth in the borough.
- Continue to effectively lobby Network Rail, DfT and the train operating companies (TOCs) to improve rail services.

### **Long term goals**

- By 2041 Croydon will have by 2041, public transport will be the most convenient way of getting between Central Croydon, our local centres and locations further afield.

## 2.13 Active, efficient and sustainable travel will be the best option in new developments

### Outcome 8

#### Key challenges

- 10 year net targets set in the Draft London Plan for 24,490 new homes between 2019 and 2029, significant proportion will be built in areas of low PTAL.
- Suburban densification and impacts on parking and transport network in lower PTAL areas
- 3,000 new car parking spaces as part of the redevelopment of the Whitgift Centre
- Construction impacts on our streets and transport network in the Growth Zone

#### Key opportunities

- The Growth Zone funding framework
- 1,000 car free homes to be delivered as part of the redevelopment of the Whitgift Centre
- A redeveloped Whitgift Centre providing new, high quality retail and leisure:
  - within walking distance of the growing residential population of the Growth Zone;
  - at a major hub on London's rail, tram and bus networks; and
  - at the centre of our Growth Zone funded cycling and walking route network.
- Much of future development will be car-free or car-lite

*Further background information and evidence on these challenges and opportunities can be found in **appendix A, section 11**.*

### Meeting the Challenges and Taking the Opportunities

2.13.1 The Council's recently adopted Local Plan includes policies to support sustainable development within Croydon Town Centre and local centres, which will become the focus for growth in jobs and housing through higher density developments. The Local Plan explains that all development has an impact on traffic movement in the Borough. In order to reduce the impact on traffic movement the Plan requires new development to promote measures to increase the use of public transport, cycling and walking. This includes ensuring

new development has good access to public transport and has good links to main pedestrian and cycle routes in the borough. The design of new developments should prioritise walking and cycling routes into and through developments over routes for cars. Designs should also prioritise access to public transport over accessibility to private motor cars.

2.13.2 The Plan states that:

- All major development proposals should demonstrate by means of a Transport Assessment; Travel Plan; Construction Logistics Plan; and Delivery & Servicing Plan, or equivalents, how they will promote measures to increase the use of public transport, cycling and walking and that they will not result in a severe impact on the local transport networks;
- The Council will actively manage the pattern of urban growth and the use of land to make the fullest use of public transport and co-locate facilities in order to reduce the need to travel;
- The Council will support improvement in the borough's Wi-Fi, fibre optic broadband and mobile broadband in order to reduce the need to travel, encourage higher levels of home working, and improve the economic competitiveness of Croydon Opportunity Area and the borough's District Centres to reduce the need to travel further afield for work or shopping; and
- The Council and its partners will seek to limit parking spaces in the borough and aim to reduce the overall amount of surplus car parking spaces in the Croydon Opportunity Area in accordance with the Croydon Opportunity Area Planning Framework parking strategy.

2.13.3 The new 10 year net targets set in the Draft London Plan for 24,490 new homes between 2019 and 2029, means an annualised average target of 2,949 per year. It is anticipated that up to 50% of these homes will be built in areas of PTAL 3 or lower. The challenge in these locations will be to offer attractive alternatives to the private car as public transport provision may be lacking.

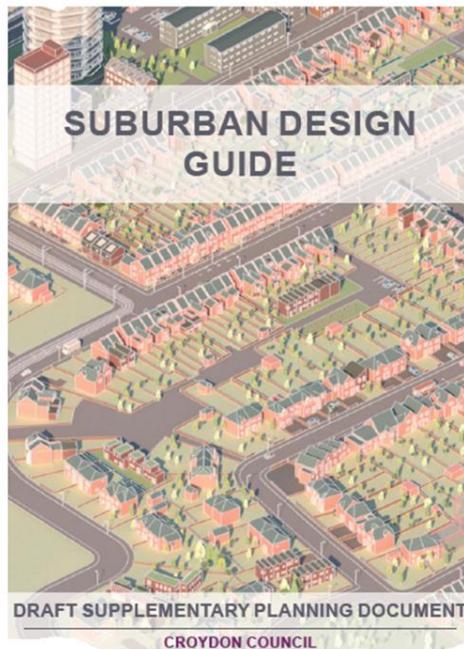
### **Evolution of the Suburbs - Supplementary Planning Document (SPD)**

2.13.4 Croydon has developed a draft Supplementary Planning Document (consultation started October 2018) in recognition of the number of homes that will need to be built in the suburbs in order to meet our housing targets. The intention is that it will act as a holistic guide to deliver tangible public benefits to suburban communities.

2.13.5 The evolution of the suburbs to provide homes that will meet the needs of a growing population has the potential to add new vitality to the places of Croydon. More people living in a place provides a better prospect of improved public services, such as transport and health care. This is particularly important in the remotest of suburban locations which may have suffered from a lack of infrastructure to support the local community. The Council and partners are

planning for an increased population and how transport services can be delivered to support them. For example, through the LIP Bus Accessibility programme we are looking to develop services that will connect existing communities that are currently poorly served, benefiting existing as well as new residents. The SPD also notes the role that electric bikes and cycles can play in improving the accessibility and connectivity of these suburban areas to the public transport network.

Figure 24: Croydon Suburban Design Guide, 2018



2.13.6 The SPD encourages parking provision below the maximum car parking standards set in both the current and draft replacement London Plan in locations that meet the following criteria and on a case by case basis:

- The site is within a controlled parking zone (or where one is under development); and
- Is within an area of at least good connectivity to the wider public transport network and the Growth Zone by public transport, walking and cycling; or
- Is within an area that will be subject to future public transport or walking, cycling improvements as part of the Growth Zone delivery proposals or Mayor's Transport Strategy proposals that will result in it having moderate to good connectivity (PTAL 4 and above).

### **Delivery and Servicing Management**

2.13.7 Through the Growth Zone £100,000 has been allocated to establish an area wide framework for managing deliveries and servicing being generated by both the existing land uses and the significant increase in both retail, commercial and residential development in an already congested town centre. LIP funding is

being used as match funding to develop the proposals and deliver the framework.

2.13.8 Robust Delivery and Servicing Plans are being secured for all new developments within the Growth Zone and we are looking to develop area-wide proposals such as timed restrictions and micro-consolidation and cargo bike delivery facilities.

### **Securing funding for active travel**

2.13.9 We will seek to secure contributions and improvements to the public realm and cycling infrastructure in the immediate vicinity of all development sites through the planning agreements.

### **Healthy Streets Assessment**

2.13.10 New development will be assessed against the 'Healthy Streets' indicators. Where a new development involves the creation of public realm or street layouts then a 'Healthy Streets' Scoring Exercise will be undertaken.

#### **Borough objectives:**

- xiii) Croydon will ensure all new development incorporates the ten Healthy Streets principles into their design, and ensure they are integrated with the local walking and cycling networks as well as public transport.

#### **Short to medium term delivery objectives and proposals:**

- Deliver Ensure construction works and development related traffic does not impact on businesses operating in the town centre.
- Ensure all new development incorporates the ten Healthy Streets principles into their design, reduce the dominance of vehicles and connect to local walking and cycling networks as well as public transport.
- Use the planning system to direct higher density development to the most accessible places in the borough and secure funding to upgrade the public realm and transport infrastructure.

#### **Long term goals**

- By 2041, residents in new developments will be more active and walk and cycle more than the borough average.

## 2.14 Transport investment will unlock the delivery of new homes and jobs

### Outcome 9

#### Key challenges

- New transport infrastructure to accommodate growth along main movement corridors in the Borough
- Scale of development occurring in the Growth Zone taking place over a relatively short period of time
- 10,500 new jobs in Growth Zone in the next decade
- 10 year net targets set in the Draft London Plan for 24,490 new homes between 2019 and 2029
- Mayor of London and TfL financial position
- Central Government funding bias for major transport projects outside of London

#### Key opportunities

- Extending the unique benefits of Tramlink
- Huge potential benefits and development opportunities resulting from increased capacity to the Brighton Mainline through resolving the 'Croydon bottleneck'
- Intensification opportunities from the Metroisation of suburban South London rail services

*Further background information and evidence on these challenges and opportunities can be found in **appendix A, section 11**.*

### Meeting the Challenges and Taking the Opportunities

2.14.1 The Growth Zone includes significant investment in the local transport network to cater for the projected growth in residents and visitors. Through the assessment of future growth and travel patterns, a range of schemes have been developed which will ensure people can travel in, out and around Croydon safely and efficiently.

2.14.2 A number of the projects remain in the early stages of scheme development. Subsequently, much of the recent work has focused on the progression of concept / developed design options, with project delivery scheduled over the next 4 years. In addition, a key component of the current programme has focused on Croydon's project management input into schemes led by external partners such as the Brighton Main Line Upgrade Project (led by Network Rail)

and two TfL-led projects: Transforming Fiveways and Tram Capacity Improvements.

## Extending the Tramlink Network

2.14.3 The MTS states:

*'As it grows, the city requires the public transport capacity to reduce crowding and support increasing numbers of people travelling more actively, efficiently and sustainably.'*

2.14.4 Whilst describing the needs of London as a whole, we could repeat the statement for Croydon and in particular the Growth Zone. The MTS also tells us that across the Capital public transport trips are expected to rise by around 50% by 2041. The trajectory TfL has plotted for Croydon (repeated in the Croydon targets set within this LIP) is at the very top of the public transport demand growth range in the MTS. Croydon's daily public transport trips need to rise from 205,000 per day in 2014/15-2016/17 to 321,000 by 2041.

**Figure 25: Public Transport Trips Trajectory**  
(taken from the MTS)

**FIGURE 18: FORECAST GROWTH IN PUBLIC TRANSPORT TRIPS TO 2041**



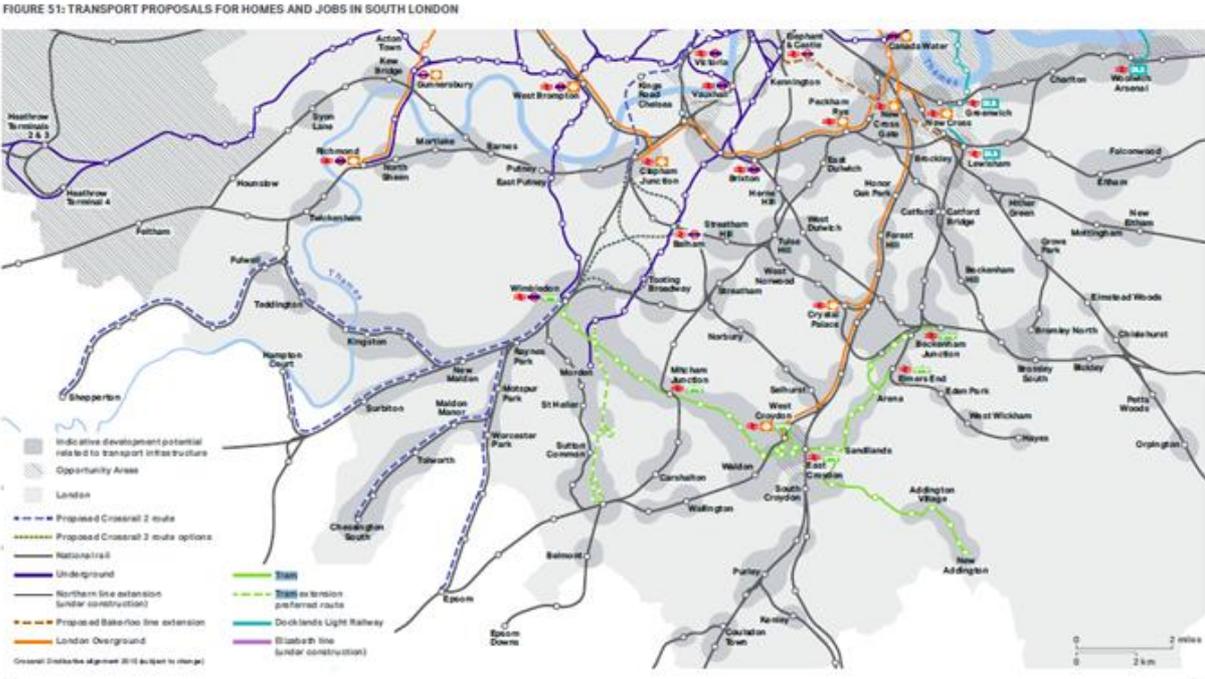
2.14.5 The MTS also tells us that:

*'A significant capacity increase is needed on the tram system serving Croydon and south London to address crowding and help accommodate the anticipated growth in homes and jobs in south London, without reliance on the car.'*

2.14.6 It goes on to highlight the unique and special nature of Tramlink. Whilst public transport across the Capital needs to increase by 50% by 2041, the MTS plans a much sharper increase in demand on Tramlink, planning to deliver an 85% increase in passenger capacity by 2030.

2.14.7 The MTS also highlights the potential for trams to support intensification and Good Growth. This is developed further within the draft London Plan as the 'Tram Triangle' concept.

**Figure 26: MTS Illustrating Trams and Heavy Rail Supporting New Homes and Jobs**



2.14.8 We are convinced of the unique benefits of the Tram. We see it as the tool for delivering the Healthy Streets Approach on some of our busiest corridors connecting into the Growth Zone. It is high capacity, high quality, and zero emission public transport that is a positive addition to Croydon’s streetscape. As a result it is a powerful means of delivering a better not just bigger Croydon. We will work with the Mayor and TfL to deliver on MTS Proposals 89 a).

**Proposal 89**

*The Mayor, through TfL and the boroughs, will use the tram network to enable Good Growth by:*

*a) Considering opportunities to extend the network where they would enable the provision of new homes and jobs, are supported by Local Plans and can be funded primarily through locally derived sources’*

2.14.9 Much of the preparation has been done. Policies supporting extensions to the Tramlink network including to Crystal Palace sit within our recently adopted Local Plan. In the early part of this decade, we worked with TfL and our South London partners to progress the technical feasibility and business cases for a series of tram network extensions. The one with the strongest business case was the ‘extension’ from Wimbledon to Crystal Palace via Croydon Town Centre. Whilst described as an ‘extension’ the scheme was also a capacity enhancement mechanism for the existing network. In the west there was to be more dual tracking and a second platform at Wimbledon. These improvements

have now been delivered. In the east, additional trams from Crystal Palace would arrive on the network just before Arena, providing additional capacity to alleviate overcrowding on the busy Arena to East Croydon section of the network.

2.14.10 The stumbling block to delivery was not a technical one, it was a financial one. TfL's South London Transport Plan 2014 Update explained:

*'TfL is undertaking a feasibility study into the potential extension to Sutton to bring it up to the same level of project development as the Crystal Palace extension. This will enable the projects to be assessed on a comparable basis in future funding rounds.'*

*'For both the Crystal Palace and Sutton extensions, work is underway to assess need and development potential along the proposed routes. It is clear that in the current economic climate, any large transport infrastructure project must demonstrate a significant uplift in jobs, homes or other development to prove viable. This piece of work will determine the level of uplift possible along each of the proposed extensions, and examine ways of drawing on this development gain to contribute towards the cost of constructing the extensions.'*

2.14.11 The development related financing approach described above was based on the 'Nine Elms' model, namely a very large brownfield site needing public transport infrastructure to support major development which in turn was able to financially support delivery of that infrastructure. Whilst Croydon is accommodating some of the highest levels of growth in London and can clearly demonstrate a significant uplift in jobs and homes, it lacks major brownfield sites to support this model. Hence we are looking more imaginatively at financing mechanisms including working with the Mayor, TfL and our South London partners to press forward on MTS Proposal 23 to investigate 'appropriate' travel demand measures, part of that assessment of appropriateness being their ability to help fund the provision of high quality, high capacity alternatives to the car such as trams.

### **Brighton Mainline Upgrade**

2.14.12 Figure 27 shows projected overcrowding on the Brighton Mainline in 2043 if there are no further interventions after those recently implemented. It is taken from the Network Rail Sussex Area Route Study 2015,<sup>39</sup>. A subsequent DfT commissioned study of the London to South Coast rail corridor suggests overcrowding will be worse than the Network Rail prediction in Figure 27. The DfT study estimated that demand on the Brighton Mainline corridor would double between 2015 and 2060.<sup>40</sup>

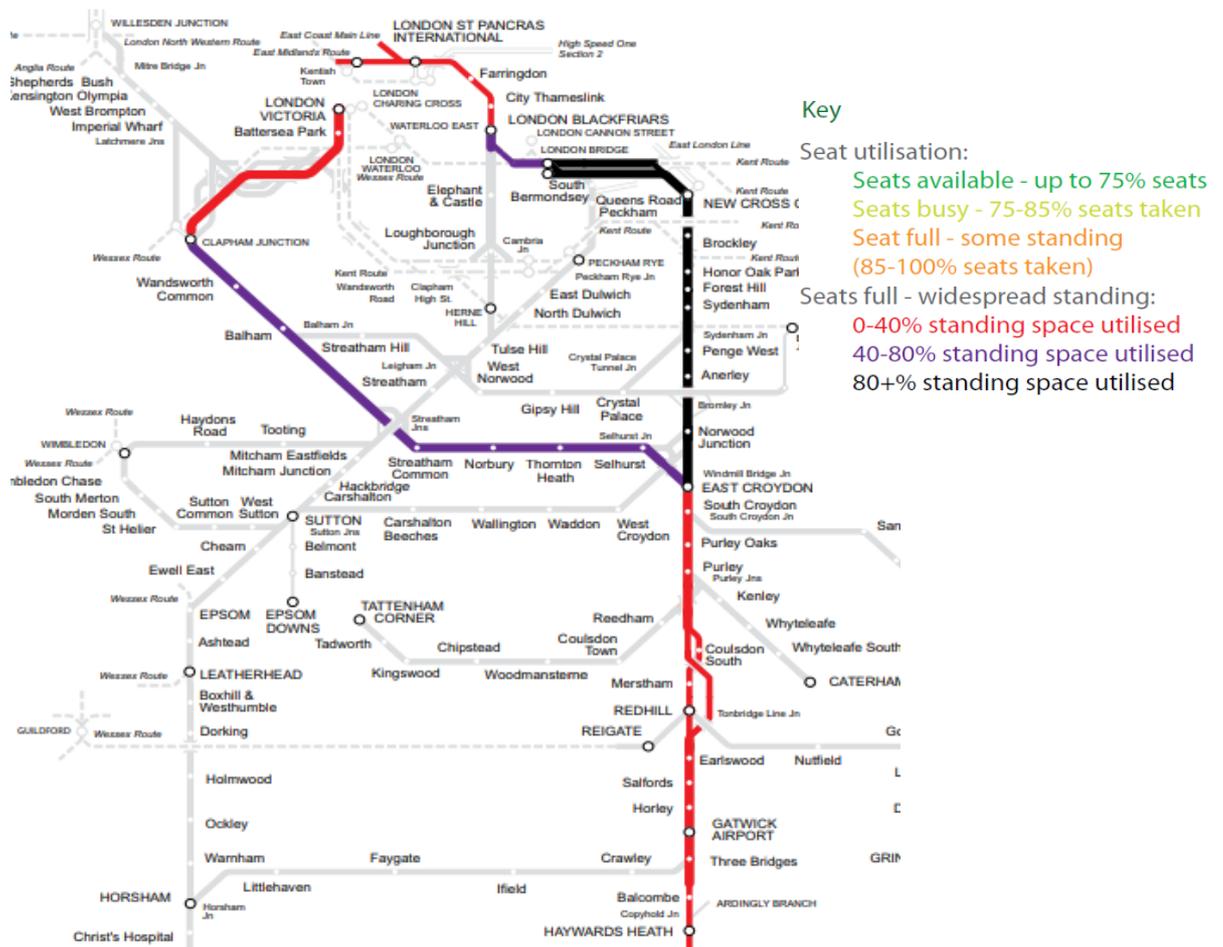
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<sup>39</sup> <https://www.networkrail.co.uk/wp-content/uploads/2016/11/South-East-Route-Sussex-Area-Route-Study-FINAL.pdf>

<sup>40</sup>

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/595947/london-south-coast-rail-corridor.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/595947/london-south-coast-rail-corridor.pdf)

**Figure 27: BML Overcrowding – Seat Utilisation in 2043 with no interventions after CP5**  
 (Source: Network Rail South East Route – Sussex Area Route Study 2015 – Figure 31, page 41)



2.14.13 Comparing the DfT load factor estimates with Network Rail’s seat utilisation forecasts for 2023, there are a number of key differences. Network Rail expects seating availability between Brighton and Haywards Heath, and then between Gatwick Airport and East Croydon, with standing between Haywards Heath and Gatwick Airport, and then from East Croydon to London. The DfT’s estimates are slightly less favourable, indicating in both scenarios seating availability only between Brighton and Haywards Heath. Standing from Haywards Heath to East Croydon and beyond exceeds the 20-minute standing threshold for passengers in excess of capacity (PIXC). Network Rail expects total capacity (seats plus standing) to be exceeded between East Croydon and London, whereas the DfT estimate indicates that this could occur as early as Purley Oaks or Merstham. In both cases, the need for passengers to stand from Preston Park or Hassocks onwards to London – a journey of up to one hour 15 minutes - would be classed as PIXC.

2.14.14 Overall, the DfT’s ‘do nothing’ capacity assessment has shown that without further interventions and investment post-CP5, the BML will see unacceptable periods of standing as the norm and PIXC commonplace for much of the high peak hour, with total rolling stock capacity regularly exceeded in certain

locations by as soon as CP7 (2024- 2029). With the addition of rapid housing development and resulting rail demand growth, the DfT expects crowding to become an even more pressing issue than described in Network Rail’s Sussex Route Study.

2.14.15 The DfT and Network Rail recognise that the two key issues which need to be addressed on the BML are the capacity at East Croydon Station and the constraints of the flat junctions immediately to the north of East Croydon. There is no possibility of running additional trains with the current track capacity.

### **Metroisation**

2.14.16 The provision of transport infrastructure can support and encourage growth in jobs and homes in the most sustainable locations. Capacity enhancement on the heavy rail and tram networks serving Croydon places is needed if growth is not to be constrained. “Metroisation” of South London suburban rail services is needed to serve the increasing population. This will only be realised with the much needed investment in Brighton Main Line as discussed above.

**Figure 28: Mayor of London South London Metroisation Network**  
(Source: Mayor’s Transport Strategy)



#### **Borough objectives:**

- xiv) Work with key partners to increase public transport capacity in the borough to support the creation of new homes and jobs planned over the next two decades, including the extension of the tram to Crystal Palace and the upgrade of Brighton Mainline.

### Short to medium term delivery objectives and proposals:

- Increase the public transport capacity in the borough to support the creation of new homes and jobs.
- Lobby TfL and the Mayor to develop proposals for tram extensions to Crystal Palace and Purley.
- Work with Network Rail to upgrade East Croydon station and create 2 additional platforms to reduce overcrowding and accommodate growth.
- Work with Network Rail to successfully deliver the Brighton Mainline Upgrade works in the borough.
- Metroisation – lobby TfL to recognise that Metroisation cannot be achieved the BML Upgrade

### Long term goals

- By 2041, the Brighton Mainline Upgrade will have been successfully completed and there will be new tram and rapid bus connections linking our local centres with central Croydon.

## 2.15 Other Mayoral Strategies

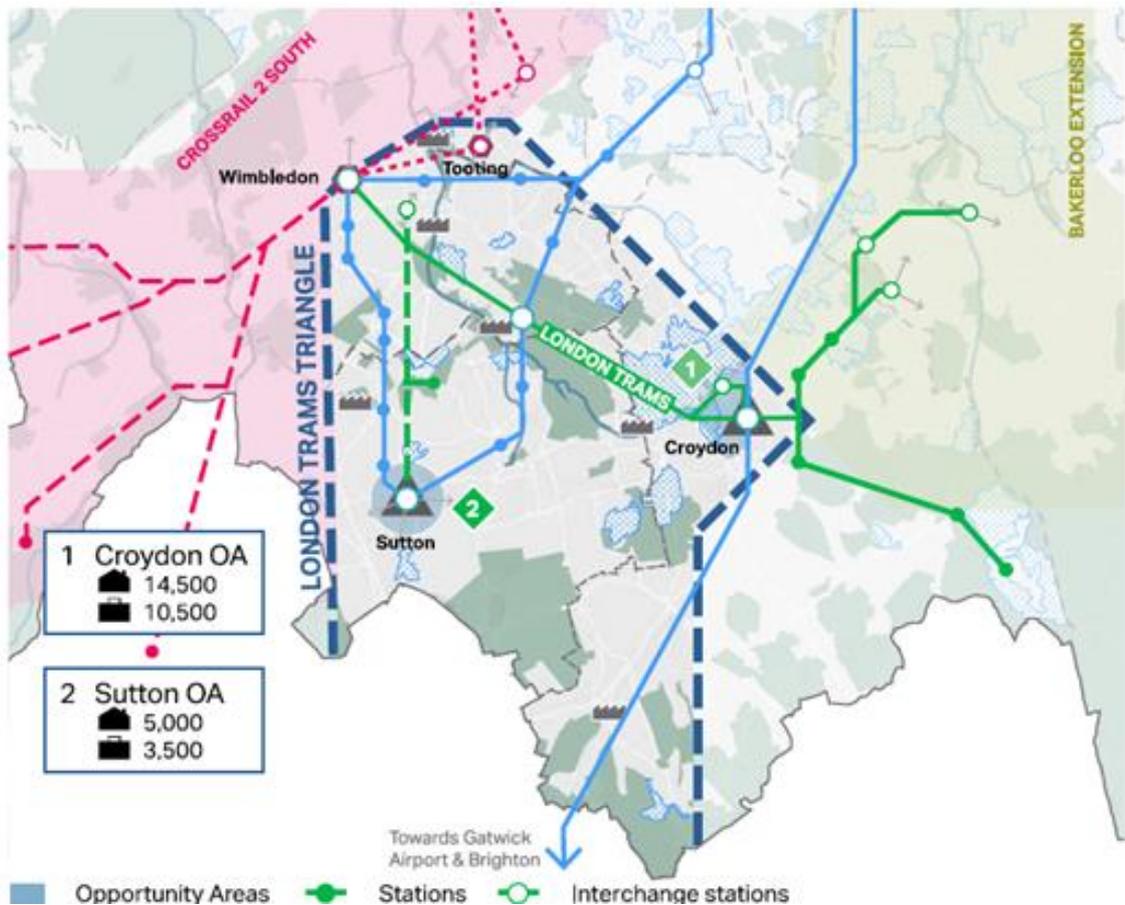
### Draft London Plan 2018

- 2.15.1 The Draft London Plan (minor amendments 2018) sets out new housing and growth targets for Croydon and requires the Borough to deliver 14,500 new homes and 10,500 new jobs in the Growth Zone between 2019 and 2041.<sup>41</sup>
- 2.15.2 The 10 year net target set in the Draft London Plan for Housing Completions for Croydon between 2019 and 2029 is 29,490 with an annualised average target of 2,949 per year.
- 2.15.3 Croydon's LIP3 supports the aims, goals and transport projects outlined of the plan, specifically the 'Good Growth' vision and Croydon seeks to be London's Growth Borough. Most of the transport projects in the Draft London Plan however are not relevant to Croydon with the exception of the Metroisation proposals.
- 2.15.4 Croydon looks forward to finding out more and working with the Mayor and GLA on their Tram Triangle concept and is interested to know how the Bakerloo Line Extension Zone of Influence fits with our tram extension aspirations in the east of the Borough.

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<sup>41</sup> <https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan/download-draft-london-plan-0> Table2.1

Figure 29: Tram Triangle (Source: Draft London Plan 2018)



### Mayor's Environment Strategy

2.15.5 The Mayor's Environment Strategy brings together an assortment of approaches and actions to tackle environmental issues affecting London in an integrated way; including air quality, green infrastructure, climate change, waste, the low carbon economy and noise.

2.15.6 Three key outcome themes for London are:

- Cleaner
- Greener
- Ready for the Future

2.15.7 The table below outlines how Croydon's LIP3 will support the Mayor's Environment Strategy.

**Table 2.15 – LIP3 proposals that support MES**

Areas of influence	LIP3 proposals that support MES
Climate change and energy	<ul style="list-style-type: none"> <li>• Freight reduction and management</li> <li>• Construction Consolidation Centre</li> <li>• Traffic reduction strategies</li> </ul>

	<ul style="list-style-type: none"> <li>• Installation of 400 electric vehicle charging points including rapids for taxis and freight</li> <li>• Mode shift from private cars to active modes</li> </ul>
Green infrastructure	<ul style="list-style-type: none"> <li>• Street tree planting programme</li> <li>• Incorporating green infrastructure into all new public realm schemes</li> <li>• Healthy Streets</li> <li>• Liveable Neighbourhood proposals</li> </ul>
Adapting to climate change	<ul style="list-style-type: none"> <li>• Sustainable urban drainage schemes</li> <li>• Tree planting programme</li> </ul>
Air quality	<ul style="list-style-type: none"> <li>• Construction Logistics and Traffic Management proposals</li> <li>• Installation of 400 electric vehicle charging points including rapids for taxis and freight</li> <li>• Construction Consolidation Centre</li> <li>• Traffic reduction strategies</li> <li>• Mode shift from private cars to active modes</li> <li>• Healthy Schools Neighbourhoods schemes</li> <li>• Liveable Neighbourhoods proposal</li> </ul>
Noise	<ul style="list-style-type: none"> <li>• Liveable Neighbourhoods proposal</li> <li>• Tree planting programme</li> <li>• Traffic reduction strategies</li> <li>• Mode shift from private cars to active modes</li> <li>• Freight reduction and management</li> <li>• Construction Logistics and Traffic Management proposals</li> </ul>

### Health Inequalities Strategy

2.15.8 The Mayor’s Healthy Inequalities Strategy sets out an over-riding vision of “A healthier, fairer city, where nobody’s health suffers because of who they are or where they live” It describes the main issues which lead to inequalities and proposes a set of aims for reducing them.

2.15.9 These are summarised under the broad headings of Healthy Children, Healthy Minds, Healthy Places, Healthy communities and Healthy habits. Many of the themes discussed share an overlap with MTS outcomes, specifically Healthy Streets and Healthy people. Additionally they support Croydon’s own Health and Wellbeing Strategy 2018-2023.

### Housing Strategy

2.15.10 The Mayor’s London Housing Strategy sets out his vision for housing and his policies and proposals to make it happen. It also outlines his longer-term ambitions for the future. This vision underpins the five priorities of the Mayor’s London Housing Strategy:

- Building homes for Londoners;

- Delivering genuinely affordable homes;
- High quality homes and inclusive neighbourhoods;
- A fairer deal for private renters and leaseholders; and
- Tackling homelessness and helping rough sleepers.

2.15.11 The central aim is to build more homes for Londoners, particularly affordable homes.

#### Economic Development Strategy

2.15.12 In his Draft Economic Development strategy, the Mayor sets out his plans to grow London's economy, support businesses, boost innovation and create a city that works for all.

2.15.13 The draft strategy has three main goals:

- Opening up opportunities – everyone should be able to benefit from all our city offers
- Growth – ensuring our economy will continue to thrive and is open to business
- Innovation – to make London a world leader in technology and a hub of new ideas and creativity

#### Draft Culture Strategy

2.15.14 The Mayor has made culture and the creative industries one of his top priorities. The Draft Culture Strategy sets out his policies and commitments for culture and invites all Londoners to support him in the development and delivery of his ambitions for culture in the capital.

2.15.15 The Draft Culture Strategy recognises the central role culture plays in the capital's success – as well as its economic contribution, it drives tourism, improves the quality of our lives and our health and it brings us together. Culture and the creative industries contribute £47bn to London's economy every year and account for one in six jobs in the capital.

2.15.16 The policy has four themes:

- Love London - more people experiencing and creating culture on their doorstep
- Culture and Good Growth - supporting, saving and sustaining cultural places
- Creative Londoners - investing in a diverse creative workforce for the future
- World City - maintaining a global powerhouse in a post-Brexit world

2.15.17 Whilst Croydon was not successful in bidding to be a London Borough of Culture it was successful in securing funding to bid to become a Creative Enterprise Zone in the Croydon Town Centre area.

2.15.18 Separately through the Growth Zone framework the Borough has set aside £1.8 million in funding for cultural events and activities in the Town Centre over the next 5 years.

## **3 The Delivery Plan**

### **3.1 Introduction**

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

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

### **3.2 Linkages to the Mayor's Transport Strategy priorities**

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

3.2.2 All of our LIP projects and programmes were developed with the MTS outcomes in mind. We have cross-referenced and assessed the relevance of each project and programme against the each of MTS outcomes in Table ST01.

**TABLE ST01 - Linkages between LIP projects and programmes and the Mayor's Transport Strategy outcomes**

Project / Programme		MTS mode share	MTS outcomes							
			Improving active, efficient and sustainable mode	No 1:-Active	No 2:- Safe	No 3:-Efficient	No 4:- Clean & Green	No 5:- Connected	No 6:- Accessible	No 7:- Quality
	<b>Construction &amp; Freight Traffic Management</b>									
1	Construction Consolidation Centre Feasibility	✓	✓	✓	✓	✓				✓
2	Freight Reduction Strategy	✓	✓	✓	✓	✓				✓
3	Growth Zone Construction Traffic Management	✓	✓	✓	✓	✓				✓
	<b>Borough Traffic Reduction Strategy</b>									
4	Parking Management Reviews	✓	✓	✓	✓	✓			✓	✓
5	District Centre Parking Demand Surveys	✓	✓	✓	✓	✓			✓	✓
6	Traffic Reduction Strategy Research	✓	✓	✓	✓	✓	✓		✓	✓
	<b>Buses</b>									
7	Suburban Bus Accessibility Review	✓	✓		✓		✓	✓	✓	✓

	<b>Walking &amp; Pedestrian Improvement Programme</b>									
8	Public Realm Accessibility Improvements	✓	✓	✓	✓	✓		✓	✓	✓
9	Public Rights of Way Upgrade & Improvements	✓	✓	✓	✓	✓				
10	Accessibility in Parks & Green Spaces	✓	✓	✓	✓	✓		✓		✓
11	Pedestrian Priority Crossing Improvements	✓	✓	✓	✓	✓		✓	✓	✓
	<b>Cycling Strategy Delivery Programme</b>									
12	Cycle hire scheme delivery	✓	✓		✓	✓				✓
13	Croydon Arena Cycle Hub		✓		✓					
14	Cycle Network Infrastructure Delivery	✓	✓	✓	✓	✓			✓	✓
	<b>Urban Mobility</b>									
15	Car Club development	✓			✓	✓				✓
16	E-mobility - EVCP rollout					✓				
	<b>Active Travel Behaviour Change</b>									
17	Cycle Training	✓	✓	✓	✓	✓				
18	Cycling for Health		✓		✓	✓				
19	Healthy Workforce		✓		✓	✓				
20	Promoting walking & cycling activities & events	✓	✓	✓	✓	✓				
	<b>Healthy Schools Neighbourhoods</b>									
21	Healthy Schools Neighbourhoods Coordination	✓	✓	✓	✓	✓				✓
22	Broad Green neighbourhood	✓	✓	✓	✓	✓				✓
23	Thornton Heath neighbourhood	✓	✓	✓	✓	✓				✓

	<b>School Travel Planning</b>									
24	STP Monitoring & Implementation	✓	✓	✓	✓	✓		✓	✓	
	<b>Vision Zero</b>									
25	Safer Streets – South Norwood	✓	✓	✓	✓	✓		✓		✓
26	Safer Streets – Thornton Heath	✓	✓	✓	✓	✓		✓		✓
27	Safer Streets – Upper Norwood	✓	✓	✓	✓	✓		✓		✓
28	Safer Streets – Responsive Local Safety Schemes	✓	✓	✓	✓	✓				✓
29	Safer Speeds – Speed mgt & 20mph enforcement	✓	✓	✓	✓	✓				✓
30	Safer Fleets – FORS registration	✓	✓	✓	✓	✓				✓
31	Safer Behaviours – Safe Drive Stay Alive			✓						
32	Safer Behaviours – Targeted Motorcycle Campaign & Work Related Road Risk Campaign			✓						
33	Research & Evidence gathering	✓	✓	✓	✓					✓

### 3.3 TfL Business Plan

- 3.3.1 In developing and preparing our programme of works (as outlined in the Delivery Plan), we have 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.
- 3.3.2 The only funded major projects identified in the Transport for London Business Plan for 2018/19 – 2022/23 is the Fiveways Junction Scheme and Blackhorse Lane bridge replacement. Other longer term major programmes which are likely to benefit Croydon residents and businesses if /when they are funded and delivered are indicated in Table 3.4 below:-

### 3.4 Major Funded Projects:

#### **Fiveways**

- 3.4.1 This is a scheme on the TfL road network at the junction of the A23 and A232 near Waddon Station. Following public consultation in summer 2017, Croydon Council endorsed the Fiveways scheme design in September 2018. Transport for London issued their Consultation Report in September 2018. A planning application for the scheme is anticipated in autumn 2019.
- 3.4.2 The Council has an existing commitment to contribute £20 million to the TfL led Fiveways project. Following recent design changes to better accommodate cyclists, TfL has requested an additional £5 million from the Council. The Council's total contribution to the Fiveways project is now requested to be £25 million made up of £5 million from the Council's capital programme and £20 million from the Growth Zone. The total cost of the project is approximately £85 million. The key project milestones include concept design completion by December 2019, detailed design completion by May 2021, with construction commencing June 2021 and completion by June 2023.
- 3.4.3 Overall the proposals aim to:
- Improve road safety
  - Create better conditions for pedestrians and cyclists
  - Support growth in Croydon and beyond
  - Improve journey times
  - Create new public spaces to develop Fiveways as a local centre for Waddon.

#### **Blackhorse Lane bridge replacement**

- 3.4.4 Blackhorse Lane road-bridge over the tram lines between Blackhorse Road tram stop and Addiscombe tram stop is being replaced by TfL in partnership with Croydon Council. The road has been closed since 2016 for safety reasons and the works to replace the bridge are not expected to be complete until late 2019 when it should open to single lane traffic before main construction work finishes in spring 2020. The closure continues to cause significant disruption to local businesses and residents and traffic delays and there is frustration that the project has taken as long as it has.
- 3.4.5 Croydon Council-owned Addiscombe Railway Park Bridge is being replaced at the same time in one joint project to save public money and time. That new bridge will be two metres wider to accommodate a cycle path, improving facilities for local cyclists.

### **Longer term unfunded projects referred to in MTS Delivery Plan**

- 3.4.6 Other long term projects and programmes in the MTS business or delivery plan that will have implications for the Borough include:

**Table 3.4 – Long term unfunded MTS Delivery Plan projects**

<b>Project or Programme</b>	<b>Croydon implications and commentary</b>
Deliver Tram Upgrades: <ul style="list-style-type: none"> <li>• 1<sup>st</sup> phase tram network enhancements</li> <li>• Elmers End 2<sup>nd</sup> platform</li> </ul>	Croydon is working with TfL and Bromley to support these proposals and is contributing towards delivery.
Sutton Tram Extension	Croydon have been in discussion with TfL regarding the project and the potential benefits to frequency and capacity on the Tramlink network
Bakerloo Line extension	Croydon are keen to work with TfL to understand the potential for linkages between the BLE and tram extensions
Brighton Mainline Upgrade	The Brighton Mainline Upgrade is a critical infrastructure project needed to free up additional capacity on the rail lines between London and the South Coast. Croydon is working with Network Rail

	and contributing towards the development of the scheme. Croydon believes that the importance of the BML upgrade works to the whole of London and Southern England has not been fully recognised in both the MTS and London Plan.
Deliver London Suburban Metro - Metroisation	Whilst Croydon supports the concept of the South London Suburban Metro (Metroisation), we recognise that it cannot happen until the BML upgrade is complete.
Pilot Bus Transit Networks in Opportunity Areas	Croydon are keen to work with TfL to further develop these concepts and understand a potential role for improving access on key Growth Zone corridors.

### 3.5 Sources of funding

- 3.5.1 Table ST02 below identifies potential funding sources for implementation of our LIP3, including LIP funding allocation from TfL, contributions from our own funds, and funding from other sources.
- 3.5.2 TfL indicates that Croydon will receive approximately £2,362,000 LIP funding per annum for the next three years through core Corridor, Neighbourhoods and Supporting Measures formula funding.
- 3.5.3 In addition to the above, Croydon may potentially receive approximately £7,000,000 from TfL between 2019/20 and 2021/22 in response to the following discretionary bids (if successful) and strategic funding applications:
- a. Liveable Neighbourhood Proposal (£9.6 million in total, £6.4m up to 21/22)
  - b. Strategic Funding – Bus Priority Delivery Portfolio & Quietways Cycling programme (£1 million)
- 3.5.4 Croydon Council 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.
- 3.5.5 The largest source of funding for transport improvements in the Borough over the next several years will be from the Croydon Growth Zone Framework. The Croydon Growth Zone is a Tax Incremental Financing (TIF) model which harnesses business rates uplift to enable borrowing to fund infrastructure. The Croydon Growth Zone programme consists of a range of transport, public realm

social infrastructure and technology projects. They are deemed essential to mitigate the impact and maximise the opportunities of the growth planned (as detailed in the Croydon Local Plan 2018, Croydon Opportunity Area Planning Framework 2013 and the London Plan) in Croydon for the benefit of existing and future residents, businesses and visitors. The total amount available between 2019 and 2023 for public realm and transport improvements is £160 million.

3.5.6 Developer contributions to Sustainable Transport made via section 106 agreements have been allocated to and spent on delivering infrastructure to facilitate sustainable travel and avoid or mitigate transport impacts. There is currently £1,350,000 predominately allocated to cycling infrastructure, both new route infrastructure but especially cycle parking to mitigate impact of the loss of the Borough Cycle Parking fund that used to be provided by TfL.

3.5.7 All parking revenue is used to fund parking operations and to support concessionary travel. As yet there is no CIL funding allocated for transport as it is allocated to other priority areas.

<b>TABLE ST02 - Potential funding for LIP delivery</b>				
Funding source	2019/20	2020/21	2021/22	Total
	£k	£k	£k	£k
<b>TfL/GLA funding</b>				
LIP Formula funding – Corridors & Supporting Measures	2,362	2,362	2,362	7,086
Discretionary funding - Liveable Neighbourhood Bid- <i>dependent upon the bid being successful</i>	1,176	2,466	2,725	6,367
Strategic funding	529	600	800	1,929
GLA funding	0	0	0	0
<b>Sub-total</b>	<b>4,067</b>	<b>5,428</b>	<b>5,887</b>	<b>15,382</b>
<b>Borough funding</b>				
Capital funding – Highways & Transport	9,566	16,214	tbc	25,780
Capital Funding – structures & bridges	1,818	5,944	3,073	10,835
Revenue funding	4,658	Tbc	Tbc	4,658
Parking revenue	0	0	0	0
Growth Zone Funding 2019-2023	3,000	16,000	42,000	61,000
<b>Sub-total</b>	<b>19,042</b>	<b>38,158</b>	<b>45,073</b>	<b>102,273</b>
<b>Other sources of funding</b>				

S106	1,350	tbc	tbc	tbc
CIL	0	0	0	0
European funding	0	0	0	0
Sub-total	1,350	Tbc	Tbc	tbc
<b>Total</b>	<b>24,459</b>	<b>43,586</b>	<b>50,960</b>	<b>117,655</b>

### 3.6 Long-Term interventions to 2041

3.6.1 In the medium to long-term a number of significant investments will be required to ensure the economic and social vitality of the Borough. Some of the interventions are currently funded, particularly through the Growth Zone framework. but many are unfunded. These are shown in table below with indicative funding and indicative but uncommitted timescales.

<b>TABLE ST03 - Long-term interventions up to 2041</b>				
<b>Project</b>	<b>Approx. date</b>	<b>Indicative cost</b>	<b>Likely funding source</b>	<b>Comments</b>
Fiveways junction	2018-2023	£85m	TfL, LBC Growth Funding & Capital Funding	Consultation complete, feasibility design complete Dec 2019, detailed design complete by May 2021, construction commence June 2021 and completion by June 2023. MTS outcomes 1, 2, 3, 4, 8, 9
Street tree planting	2018-2023	£0.9m	LBC Capital	3,500 street trees to be planted by 2023 MTS outcomes 4,
Construction Consolidation Centre	2019-2023	£1-2m	GLA, LB Croydon Growth Zone, South London Partnership boroughs, MAQF	South and South West London is the only part of London that does not have readily available access to a CCC. The level of development occurring in the Borough over the next decade makes this project a priority. MTS outcomes 2, 3, 4

Growth Zone Construction Mgt & Logistics	2019-2023	£1.7m	LBC Growth Zone	Various measures to manage construction logistics in the Town Centre during growth zone construction phase MTS outcomes 2, 3, 4
Cycling & Walking Network Improvements	2019-2025	£20m	Growth Zone, TfL Quietways, LIP, CIL, LBC	Croydon's Cycle Strategy was approved in early 2018. This programme will deliver the routes set out in the Strategy. MTS outcomes 1, 2, 3
Growth Zone Traffic Management Technology	2019-2025	£1m	LBC Growth Zone	Traffic Mat measures including variable messaging and app based tools to inform and manage traffic in town centre MTS outcomes 3
Growth Zone Parking Mgt Improvements	2019-2025	£1.2m	LBC Growth Zone	Review and expansion of CPZs MTS outcomes 1, 2, 3, 4
Old Town Public Realm Improvements	2019-2023	£5.7m	LBC Growth Zone	As per schemes identified in Old Town Masterplan MTS outcomes 1, 2
Mid Croydon Public Realm Improvement (incl. North End & Crown Hill)	2019-2023	£22.7m	LBC Growth Zone	As per schemes identified in Mid Croydon Masterplan MTS outcomes 1, 2
East Croydon Public Realm Improvement	2019-2023	£4.6m	LBC Growth Zone	As per schemes identified in East Croydon Masterplan MTS outcomes 1, 2
West Croydon Public Realm Improvement	2019-2023	£1.4m	LBC Growth Zone	As per schemes identified in the West Croydon Masterplan MTS outcomes 1, 2
Fairfield Gardens /Park Lane Public Realm Improvement	2019-2023	£10m	LBC Growth Zone	As per schemes identified in Fairfield Masterplan MTS outcomes 1, 2
A232 Chepstow Road / Addiscombe Rd	2019-2025	£4.1m	LBC Growth Zone	Critical junction, providing access to the Growth Zone from the east for walking, cycling, trams, buses

				whilst providing a strategic east-west traffic 'movement' function. MTS outcomes 1, 2, 3, 5, 6, 8, 9
Wellesley Rd ped /cycle crossing	2019-2025	£1.5m	LBC Growth Zone	The Wellesley Road surface level crossing, to link the redeveloped Whitgift Centre main entrance to Lansdowne Road will be delivered by 2023. Subways underneath Wellesley Road will be closed MTS outcomes 1, 2
Mitcham Road/Roman Way corridor	2019-2025	Tbc	Part funded - LBC Growth Zone £6.5m Subject of the Liveable Neighbourhood bid	Key Growth Zone 'movement' corridors – scheme to consider walking, cycling, bus and local requirements MTS outcomes 1, 2, 3, 4, 5, 8, 9
London Road corridor	2019-2025	Tbc	LBC Growth Zone, MAQF LEN – Part funded - £8.2m	Key Growth Zone 'movement' corridors – scheme to consider walking, cycling, bus and local requirements MTS outcomes 1, 2, 3, 4, 5, 8, 9
Brighton Road corridor	2019-2030	Tbc	Partly funded - £4.9m Growth Zone	Key Growth Zone movement corridor – cycling, walking and public realm improvement plus potential for Bus Transit scheme or Tram extension MTS outcomes 1, 2, 3, 4, 5, 8, 9
Electric vehicle charging point programme	2019-2023	£1.0 m	GULCS, S106, CIL, LIP, LBC	400 EVCPs MTS outcomes 4
Bus Priority Measures	2019-2025	£12.8m	Growth Zone, CIL, LIP, TfL	Multiple projects including corridor schemes MTS outcomes 3, 5, 6, 7, 8
Buses – Bus route upgrades	2019-2023	£10m	Growth Zone	Over the next 4 years a comprehensive programme of bus priority measures will be delivered to support access to and from Croydon Town Centre. MTS outcomes 3, 5, 6, 7

Buses - Park Lane Gyratory Bus Layby	2019-2023	£5.6m	Growth Zone, S106, CIL	Gyratory redesigned to accommodate bus standing and The junction has an important relationship with the longer term bus network strategy for the town centre. MTS outcomes 3, 5, 6, 7
Trams - Elmers End Line Enhancements & 2 <sup>nd</sup> platform	2019-2022	£9m	TfL	MTS outcomes 3, 5, 6, 7, 8, 9
New Addington 12tph – additional tram cars	tbc	tbc	tbc	MTS outcomes 3, 5, 6, 7, 8, 9
1 <sup>st</sup> phase Tram Network Enhancements	2019-2023	£26.8m	Growth Zone	Tram capacity enhancements, in response to expected growth are expected to be addressed by the 1 <sup>st</sup> major phase of tram enhancement schemes. MTS outcomes 3, 5, 6, 7, 8, 9
George Street tram stop	2019-2023	£1m	Growth Zone	George Street Tram Stop is anticipated to be upgraded and improved prior to the opening of the redeveloped Whitgift Centre. MTS outcomes 3, 5, 6, 7, 8, 9
Croydon to Morden improvements: Wandle Flyover double tracking Phipps Bridge double tracking Additional trams	tbc		Part funded – feasibility Growth Zone	Scheme development is anticipated to commence on some of the longer term tram schemes, including the double tracking at Wandle flyover and further along the line to the west to help address capacity constraints. MTS outcomes 3, 5, 6, 7, 8, 9
Tram stabling & power upgrades – eastern satellite depot & Therapia Lane	tbc	tbc	Not currently funded	MTS outcomes 3, 5, 6, 7, 8, 9
Trams Beckenham Branch capacity enhancement	Tbc	Tbc	Not currently funded	MTS outcomes 3, 5, 6, 7, 8, 9

Tram extension – Crystal Palace	2020-2041	£200m	Not currently funded	MTS outcomes 3, 5, 6, 7, 8, 9
East Croydon Station Rebuild – additional platforms and and new concourse (part of the Brighton Mainline Upgrade (see below)	2019 - 2032	Tbc	Not currently funded	MTS outcomes 3, 5, 6, 7, 8, 9
Brighton Mainline Upgrade	2019 - 2032	£2,000m	Not currently funded	MTS outcomes 3, 5, 6, 7, 8, 9
West Croydon Station interchange – rebuilt station	2019-2023	£80m	Growth Zone £21.4m, Funding from associated housing development  Potential Access for All funding	Early stages of feasibility, intention to first phase of improvements by 2023.  MTS outcomes 3, 5, 6, 7, 8, 9
South London Metroisation	2022-2030	tbc	Not currently funded	Requires Brighton Mainline Upgrade  MTS outcomes 3, 5, 6, 7, 8, 9
Norwood Junction Station Accessibility Improvements	2022-2027	£25m	Not currently funded  Ideally delivered as part of the BML Upgrade  Access for All nomination made	Partners: Network Rail, TfL, TOCs  MTS outcomes 3, 5, 6, 7, 8, 9
Purley Cross gyratory environment improvement	2020-2030	TBC	Not currently funded	Aspirations for changes to gyratory to make it less traffic dominated, & a more liveable town centre  MTS outcomes 1, 2, 3, 5, 6, 7, 8, 9
Purley Way Public Realm & Access Improvements	2020-2040	TBC	Not currently funded	Leading on from Tram Triangle proposal in the Draft London Plan  MTS outcomes 1, 2, 3, 5, 6, 7, 8, 9

Tram Extensions	2025-2035	TBC	Not currently funded	Work with TfL to identify financing mechanism for tram network extensions (e.g. to Crystal Palace and Purley) and to deliver extensions  MTS outcomes 1, 2, 3, 5, 6, 7, 8, 9
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### 3.7 Three-year indicative Programme of Investment

3.7.1 The Three Year indicative Programme of Investment has been completed in the table ST04 below.

<b>TABLE ST04 - Three-year indicative programme of investment for the period 2019/20 to 2021/22</b>			
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 Croydon  TfL BOROUGH FUNDING 2019/20 TO 2021/22	Programme budget		
	Allocated 2019/20	Indicative 2020/21	Indicative 2021/22
Local Transport Funding	100,000	100,000	100,000
<b>CORRIDOR, NEIGHBOURHOODS &amp; SUPPORTING MEASURES</b>	<b>£k</b>	<b>£k</b>	<b>£k</b>
Construction & Freight Traffic Management	75	0	0
Borough Traffic Reduction Strategy	150	75	75
Bus Accessibility Reviews	30	20	0
Walking & Pedestrian Improvements	390	320	320
Cycling Strategy Delivery	591	550	500
Urban Mobility & EVs	60	60	60

Active Travel Behaviour Change	215	215	205
Healthy School Neighbourhoods	135	310	337
School Travel Planning	150	130	130
Vision Zero – Safer Streets	250	372	425
Vision Zero – Safer Speeds	150	150	150
Vision Zero – Safer Fleets	6	0	0
Vision Zero – Safer Behaviours	160	160	160
Sub-total	£2362k	£2362k	£2362k
<b>DISCRETIONARY FUNDING</b>	<b>£k</b>	<b>£k</b>	<b>£k</b>
Liveable Neighbourhoods	1,176 <sup>(a)</sup>	2,466 <sup>(a)</sup>	2,725 <sup>(a)</sup>
Principal road renewal	0 <sup>(b)</sup>	tbc <sup>(b)</sup>	Tbc <sup>(b)</sup>
Bridge strengthening	0 <sup>(b)</sup>	tbc <sup>(b)</sup>	tbc <sup>(b)</sup>
Traffic signal modernisation	Tbc	tbc	tbc
Sub-total	£1,176k	£2,466k	£2,725k
<b>STRATEGIC FUNDING</b>	<b>£k</b>	<b>£k</b>	<b>£k</b>
Bus Priority	200 <sup>(c)</sup>	200 <sup>(c)</sup>	200 <sup>(c)</sup>
Borough cycling programme	tbc <sup>(d)</sup>	tbc <sup>(d)</sup>	tbc <sup>(d)</sup>
Mayor’s Air Quality Fund	Tbc <sup>(e)</sup>	tbc <sup>(e)</sup>	Tbc <sup>(e)</sup>

Low Emission Neighbourhoods	Tbc <sup>(f)</sup>	tbc <sup>(f)</sup>	Tbc <sup>(f)</sup>
Sub-total	£200k	£200k	£200k
All TfL borough funding	£3,838k	£5,128k	£5,387k

### 3.7.2 Notes

- (a) These figures reflect the Liveable Neighbourhoods bid submitted, and these amounts are dependent upon the bid being successful.
- (b) TfL has frozen funding for Principal Road Maintenance & Bridge Strengthening until 2020/21 however it is unclear if funding will be reinstated.
- (c) Bus Priority Delivery funding – these figures are indicative based upon initial discussions with Bus Delivery Portfolio Team.
- (d) Borough Cycling programme – still to be confirmed.
- (e) Croydon’s Air Quality & Transport Teams submitted two MAQF bids in January 2019 and will find out if successful in March 2019.
- (e) Croydon’s Air Quality & Transport Teams submitted a LEN bid in January 2019 and will find out if they are successful in March 2019.

## 3.8 Supporting commentary for the three-year programme

3.8.1 The three year programme of investment was derived by assessing which existing initiatives and work streams have achieved their stated objectives and which have not, then cross referencing these stated goals against the current Mayor’s priorities. If a current work area has been proven to be successful and meets the new MTS outcomes then we have retained it. In some cases we have adapted existing work areas to make them more aligned to the Mayor’s priorities and we have also introduced new work programmes to reflect the new MTS outcomes and policy frameworks, specifically the Healthy Streets principles, Vision Zero ambition and a road traffic reduction strategy.

3.8.2 The Council will focus the limited resources that are provided through LIP funding on areas of the Borough that have been identified as having the greatest potential for meeting the MTS outcomes and targets. This will include factors such as; accident history, propensity to walk and cycle, propensity to shift from car use, higher levels of deprivation, poorer air quality and the number of schools and other sensitive sites such as hospitals.

- 3.8.3 Consultation and early engagement with key stakeholders identified that traffic dominance and the fear of road danger were key factors in why people in Croydon were not walking or cycling more often. Stakeholders highlighted particular concerns around speeding vehicles, dangerous driving and lack of priority for pedestrians or dedicated infrastructure for cyclists. Discussions with both internal and external stakeholders identified that the school run and associated vehicle trips were key causal factors for congestion and high car trips in the Borough, and should be an area of intervention that is prioritised.
- 3.8.4 Analysis of transport data including the census 2011, DVLA registrations and London Travel Demand Survey revealed that a large number of short journeys to work were being made by car and car ownership levels in the Borough have increased dramatically in the past five years. As such we have identified the need for expansion of car clubs in Croydon to offer practical alternatives to owning a car and also measures to manage parking demand and kerbside activity better.

#### **Continued work areas**

- 3.8.5 The following programme areas are being continued with some amendments as they have been deemed successful and will support the new MTS outcomes.

#### Cycling Strategy

- 3.8.6 The proposals and infrastructure schemes previously agreed through the Croydon Cycling Strategy will continue to be progressed and funded as part of the LIP3 alongside Growth Zone funding. This includes the Cycle Quietway route to Sutton, safe cycle routes in parks and residential areas, and the continued installation of secure cycle parking provision at all rail stations, district centres and residential areas. Proposed LIP expenditure on network routes and schemes is outlined below in Table 3.8. The schemes should be cross-referenced with the Cycle Strategy Network Route map in Appendix A, section 4.

**Table 3.8 – LIP funded Walking and Cycling Programme**

<b>WALKING AND CYCLING PROGRAMME COSTS</b>	<b>LIP 2019/20 £'K</b>	<b>LIP 2020/21 £'K</b>	<b>LIP 2021/22 £'K</b>	<b>Total LIP £'K</b>	<b>Other funding £'K</b>
Total annual LIP funded budget	531	500	500	1,531	-

<b>C2 NCN 212 Access to Wandle Park</b> The NCN212 (W) runs from Sutton / Merton into Croydon Town Centre	6	-	-	6	34
<b>C3 Quietway 5</b> Q5 runs from Waterloo to the Borough boundary but with the potential to continue into Croydon Town Centre subject to achieving a suitable route	-	-	-	-	412
<b>C4 NCN 232 / NCN 212 Connect2</b> NCN232 (W) and NCN 212 (W) run from Sutton / Merton into Croydon town centre	20	-	-	20	558
<b>C5 Phase 2 Route Improvements &amp; signage</b> Borough wide improvements to existing routes (including routes outside town centre which do not directly link into the town centre)	55	50	47	152	54
<b>C6 LCN 23 / LCN 75 Fairfield plus</b> Town Centre Scheme. LCN75 (E) runs from Bromley into the town centre	50	-	-	-	2,058
<b>C7 LCN 73 Mitcham Road Corridor</b> Corridor scheme. LCN 73 runs from Sutton / Merton into Croydon Town Centre	50	20	5	75	6,600
<b>C8 NCN 232 Northern and Southern Extensions</b> NCN232 (W) runs from Sutton / Merton into Croydon Town Centre NCN232 (E) runs from New	50	20	20	90	2,932

Addinton into Croydon Town Centre					
<b>C9 LCN 222 Lower Addiscombe Corridor</b> Corridor scheme. LCN222 runs from South Norwood into Croydon Town Centre	20	50	50	120	1,259
<b>C10 LCN 75 Old Town plus</b> Town Centre Scheme. LCN75 runs from Sutton into Croydon Town Centre	30	30	33	93	858
<b>C11 Phase 2 Junction Improvements</b> Schemes across the Borough, including town centre. Routes into town centre include LCN23, LCN77, LCN755, LCN29	100	20	10	130	1,454
<b>C12 LCN 75 Shirley Addiscombe</b> Corridor scheme. LCN75 (E) runs from Bromley to Croydon Town Centre.	50	30	10	90	2,160
<b>C13 LCN 77 Waddon plus</b> LCN77 (W) runs from Sutton to Croydon Town Centre	-	-	-	-	2,161
<b>C14 LCN 23 Crystal Palace Norwood</b> LCN 23 (N) runs from Crystal Palace to Croydon Town Centre	5	100	100	205	381
<b>C15 LCN 755 Drummond Road</b> Town Centre Scheme. LCN755 (W) is local link from Roman Way to North End	25	20	-	45	342
<b>C16 LCN 23 Dingwall Loop plus</b> Town Centre Scheme. LCN23	5	10	-	15	985

(N) runs from Crystal Palace to Croydon Town Centre.					
<b>C17 LCN 23 Brighton Road Corridor</b> Corridor scheme. LCN23 (S) runs from Coulsdon into Croydon Town Centre	25	10	15	50	5,370
<b>C18 NCN 212 Bedford Park - Poplar Walk</b> Town Centre Scheme. NCN212 (E) runs from South Norwood to Croydon Town Centre	-	-	-	-	553
<b>C19 LCN 23 Coulsdon and Purley</b> LCN23 (S) runs from Coulsdon into Croydon Town Centre	5	100	100	205	945
<b>C20 LCN 5 London Road Corridor</b> Corridor Scheme. LCN5 runs from Norbury into Croydon Town Centre	20	10	80	110	390
<b>C21 NCN 212 Blackhorse Lane Bridge</b> NCN212 (E) runs from South Norwood to Croydon Town Centre	5	20	10	35	525
<b>C22 LCN 75 Chepstow Rd - Addiscombe Rd Corridor</b> Corridor scheme. LCN75 (E) runs from Bromley to Croydon Town Centre.	5	5	10	20	480
<b>C23 NCN 212 NCN 232 Wellesley - Park Lane</b> Town Centre Scheme. NCN 232 and NCN212 run from Sutton / Merton to South Norwood / New Addington to Croydon Town Centre	5	5	10	20	480

- Supports overarching mode share target and MTS outcomes 1, 2, 3

#### Pedestrian Improvements

3.8.7 This programme area will include continued provision of safe and secure pedestrians crossing facilities, with dedicated pedestrian phases and pedestrian countdown where appropriate. There will continue to be funding for accessibility improvements to the public realm to ensure residents with mobility issues are able to access local amenities and public transport. It also includes funding to improve and upgrade Public Rights of Way.

- Supports overarching mode share target and MTS outcomes 1, 2, 3

#### Active Travel Behaviour Change

3.8.8 This work stream includes a variety of activities such as cycle training, led rides, cycling events, promotional events, education and behaviour change projects to encourage more walking and cycling.

- Supports overarching mode share target and MTS outcomes 1, 2, 3, 4

#### School Travel Planning

3.8.9 This is a continuation of the school travel planning programme for schools that are outside of the Healthy Schools Neighbourhoods areas.

- Supports overarching mode share target and MTS outcomes 1, 2, 3, 4

#### Car Clubs

3.8.10 This programme area will continue the expansion of Car Clubs in the Borough including electric vehicle charging provision and the introduction of flexible Car Clubs in the north of the Borough. This will reduce the need for individual car ownership by increasing access to shared car club vehicles.

- Supports overarching mode share target and MTS outcomes 1, 3, 4

#### Electric Mobility

3.8.11 This will support the Council's ambition for 400 electric vehicle charging points across the Borough by 2022 and enable the shift to zero tailpipe emission vehicles resulting in improved air quality.

- Supports overarching mode share target and MTS outcomes 4

#### **New work areas**

3.8.12 The following new work areas have been developed in order to support the delivery of the new MTS outcomes:

## Construction Logistics & Freight Management

3.8.13 This work will consider options for better managing construction traffic through the establishment of a Construction Consolidation Centre. It will also continue the work to monitor and enforce construction and logistics plans for development sites. A further piece of work will involve assessing the feasibility of micro-consolidation, micro-distribution centres and cargo bike delivery schemes in the Borough in order to reduce freight movements and deliveries.

- Supports overarching mode share target and MTS outcomes 1,2,3,4,8

## Healthy Schools Neighbourhoods

3.8.14 This will be a holistic approach to tackling the school run and encouraging walking and cycling to and from school whilst also helping all in the neighbourhood make local journeys on foot and by bike. It will include a package of measures such as school pedestrian zones, bikeability training, school safety schemes, neighbourhood traffic reduction schemes and behaviour change measures, all focused upon a cluster of schools in the same neighbourhood at the same time.

3.8.15 Three areas that have been identified as having clusters of schools suitable for piloting the concept are Broad Green and Thornton Heath. These areas have been identified as suitable for piloting the concept because they are in well-defined neighbourhoods that have high levels of external through traffic but are bordered on all sides by main distributor roads. These areas have clusters of schools in close proximity to each other and the surrounding roads have a recent record of vulnerable road user casualties. These areas also have higher than Borough average levels of deprivation and childhood obesity and have been identified as having good propensity for mode shift from car trips to sustainable modes of travel.

3.8.16 The funding for each work area in this programme has been spread over three years for the Broad Green and Thornton Heath areas so that in the initial year engagement will take place to obtain buy-in and develop proposals that are supported by the schools and local community. Delivery of engineering and traffic management measures will commence in the second year of the programme and will continue into the third year.

3.8.17 The expected outcomes of the successful delivery of this programme area will include dramatically reduced vulnerable road user casualties, higher levels of walking and cycling, reduced traffic levels and external traffic volumes within the catchment areas, improved health and well-being of students, parents and local residents within the catchment area. All of which contribute to the Healthy Streets, Vision Zero and Traffic Reduction policies and outcomes of the new MTS.

- Supports overarching mode share target and MTS outcomes 1, 2, 3, 4

#### Dockless and electric bike share schemes

3.8.18 This will involve the successful introduction of a dockless and virtual hub based bike share scheme that will include electric bikes (e-bikes). The e-bikes in particular will help contribute to improving accessibility in areas to the south of the Borough that have hillier terrain and poorer public transport coverage. A dockless and e-bike hire scheme will be a key means for supporting the intensification areas identified in the Council's Suburban Design Guide Supplementary Planning Guide (SPD2).

- Supports overarching mode share target and MTS outcomes 1,3,4,8

#### Bus Accessibility Review

3.8.19 TfL provides funding for bus improvements through the Strategic Bus Priority programme however it only applies to main bus corridors. This programme will examine what can be done to improve bus services in the south of the Borough, with specific focus upon improving accessibility to support the suburban intensification areas. As well as traditional bus services the work will also consider new concepts such as on demand minibuses and autonomous vehicles. TfL's funding is being more than matched by Growth Zone funding for Bus Priority and Bus Standing.

- Supports overarching mode share target and MTS outcomes 1, 3, 5, 7

#### Vision Zero, Safer Streets

3.8.20 This will be an evidence led approach to road danger reduction and safer streets in accordance with the Vision Zero Action Plan. 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. Croydon's Vision Zero Safer Streets programme will focus upon improving safety in our district centres with the highest collision rates involving vulnerable road users starting with South Norwood, followed by Thornton Heath and then Upper Norwood/Crystal Palace. These locations are also areas with some of the highest levels of deprivation in the Borough as well as having the highest potential for increasing mode shift to active travel. It will involve aligning our road safety engineering schemes to match Vision Zero principles. It will include the introduction of 20mph limit on main roads in district centres and other locations with higher than average casualty incidences. It will consider how the design of the street contributes to road traffic collisions and where appropriate look at improvements such as junction realignment, gateway treatments and improve pedestrian crossing provision.

- Supports overarching mode share target and MTS outcomes 1, 2,

## Traffic Reduction Strategies

3.8.21 This programme area will investigate and deliver new strategies for reducing traffic volumes and congestion in the Borough as required by the MTS. It will include reviews of parking management in the Borough to rollout further controlled parking areas and feasibility work on the potential of a Workplace Parking Levy. The work stream will also consider the demand management tools proposed in the MTS and understand whether they are appropriate mechanisms for both reducing traffic congestion and funding new transport infrastructure such as tram extensions.

- Supports overarching mode share target and MTS outcomes 1, 2, 3, 7

## **Discretionary programme areas**

3.8.22 There are a number of other discretionary LIP programme areas where funding is provided on a needs or competitive bidding basis. The programmes include:

### Principal Road Network Maintenance

3.8.23 This includes resurfacing and major maintenance works on the strategic road (A roads) network in the Borough. In recent years Croydon has received up to £1 million per annum from TfL for repairing our main roads. However the TfL has decided to freeze all Principal Road Network Maintenance funding (other than for 'emergencies') to borough councils until 2020/21. This is a result of the ending of revenue support to TfL from central government and London being unable to seek monies from the new National Roads Fund, which is funded by ring-fenced Vehicle Excise Duty (VED). With the TfL financial position having worsened due to the delays to the Crossrail programme it is in doubt whether the Principal Road Network Maintenance Funding will be reinstated in 2020/21.

### Bridge Strengthening

3.8.24 Funding was allocated to borough councils based upon an assessment and prioritisation of critical road bridges and structures Londonwide. As with Principal Road Maintenance Funding, there is a short term funding freeze until 2020/21 but the likes of Black Horse Lane Bridge will be funded to completion. However the funding need / amount for the Bridge for 2019/20 has yet to be confirmed with TfL. With the TfL financial position having worsened due to the delays to the Crossrail programme, it is in doubt whether the Bridge Strengthening Funding will be reinstated in 2020.

### Liveable Neighbourhoods

3.8.25 The objective of the programme is to deliver transformational changes to town centre areas and adjacent residential neighbourhoods through dramatically improved walking and cycling conditions, and reducing traffic dominance.

Croydon has submitted a bid of £9.65 million that will be focused on the Old Town and Roman Way corridor and extending into the neighbourhoods either side. Growth Zone Walking and Cycling Programme and Public Realm Programme funding would be match funding for the bid.

### **Strategic Programme Areas**

3.8.26 The Strategic Funding Programmes are areas that the Mayor considers strategic priorities and require cross borough cooperation.

#### Borough Cycling Programme

3.8.27 Croydon is determined to increase the level of cycling in the Borough and recognises that in order to do so it must provide a safe and continuous cycle network. The Croydon Cycling Strategy (2018) sets out the cycling network to be delivered over the next ten years. The network includes dedicated cycle highways on three main roads leading into the Growth Zone and a comprehensive network of quieter routes on low traffic residential roads and neighbourhoods. Funding for delivery of the strategy and network of routes will come from LIP funding, Strategic Borough Cycling funding and principally from Growth Zone funding.

#### Mayor's Air Quality Fund

3.8.28 Croydon's Air Quality Team working in partnership with the Strategic Transport Team have submitted a number of bids to the Mayor's Air Quality Fund (MAQF). A bid for a Low Emission Neighbourhood (LEN) was submitted for London Road and the MAQF bids included the provision of electric vehicle charging infrastructure at East Croydon taxi rank and the development of a Construction Consolidation Centre on the A23 corridor. Bids were submitted in January 2019 and we will know if we have been successful in March 2019.

#### Bus Priority Programme

3.8.29 The Croydon bus priority programme is being developed using funding from the LIP Strategic Programme area alongside Growth Zone funding. The key corridors for bus priority measures in the Borough are those routes feeding into the Growth Zone including Brighton Road, Mitcham Road, London Road and Whitehorse Road.

## **3.9 Risks to the delivery of the three-year programme**

3.9.1 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.

3.9.2 The risks associated with the LIP3 programme are from TfL reducing or withdrawing funding for future years resulting in the abandonment or curtailment of projects and corporate priority schemes. However this is mitigated by the fact that each year, the Council must submit a more detailed and revised programme to TfL to release the following year's LIP Funding allocation in the form of the Annual Spending Submission (ASS). If there is a reduction in funding then the Council will be informed several months before and necessary project adjustments can be made.

**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		
<b>Financial</b>					
TfL finances deteriorating resulting in withdrawal or dramatic reduction in LIP funding		✓		Anticipate and plan for delivery of schemes with different funding level scenarios. Reprioritise and reduce delivery of schemes were necessary	The reduction in LIP funded schemes will mean it is much harder to meet the MTS objectives and outcomes and it is unlikely Croydon will meet the overarching mode share targets.
Growth Zone funding dramatically decreased			✓	Limited mitigation options due to nature and scale of Growth Zone funding mechanism. Identify alternative sources of funding.	Cut entirely or scale back delivery of jointly funded schemes. MTS outcomes unlikely to be met.
Liveable Neighbourhood bid fails to win support of TfL and the Mayor and is unsuccessful	✓			Understand why the proposal was not successful and refine bid for following year or decide to identify an alternative scheme.	Project outcomes will take longer to be met, if at all.
Increase in costs due to staffing resources or increased materials costs resulting from Brexit.	✓			Consider setting aside part of budget for contingency funding. Identify additional sources of funding to cover shortfall.	Difficulties in delivering projects in entirety, potentially resulting in project being spread over multiple years or curtailed entirely.

				Scale back extent of project.	
TfL funding for principal road network and bridges not reinstated	✓			Currently assumption that it may not be reinstated and politicians being warned about deterioration in road network quality particular surfaces and bridges.	Significant deterioration in road network quality – increased number of road and bridge closures and pothole damage claims.
<b>Statutory / Legal</b>					
Dockless cycle hire schemes – legislation related to enforcement and management of operators. Delays to introduction of a London wide bye-law		✓		Lobby TfL, Mayor, London Councils and Central Government to speed up action on this front. Decide on alternative route for managing dockless bikes	Damaged reputation for cycling and bike hire industry, reoccurrence of mistakes made by dockless operators that have withdrawn after loss of bikes.
Judicial Review of any proposed parking or traffic management schemes.		✓		Ensure all schemes have a strong business case and evidence base and there is a fair and thorough consultation process.	Delay or postponement of schemes or programmes meaning MTS outcomes may not be met.
<b>Third Party</b>					
External partners such as Network Rail, TfL object to specific proposals or delay implementation of their element of the scheme			✓	Early engagement with them and lobby to ensure they are on track. Regular meetings and updates.	MTS outcomes and objectives will not be met.
Lack of cooperation from schools and other key stakeholders		✓		Early engagement, lobbying, increased resources to engage.	MTS outcomes and objectives will not be met.

<b>Public / Political</b>					
Change of political leadership or party			✓	Engage with new leadership team and members early on and brief them on proposals	Schemes in the Programme of Investment will have to be revised and potentially curtail and MTS objectives may not be met.
Projects and schemes fail to receive support at consultation stage.		✓		Initiate engagement and buy-in from the earliest stage and involve stakeholders in the design & development process	Projects may have to be revised and altered meaning the intended outcome may not be achieved.
Councillors or cabinet member do not approve individual schemes		✓		Early and detailed engagement with all relevant members. Ensure fair and comprehensive consultation has been undertaken.	Projects may have to be revised and altered meaning the intended outcome may not be achieved.
<b>Programme &amp; Delivery</b>					
Lack of experienced staff and resources.	✓			Liaise with HR on resourcing and rely on additional agency or contract staff	Projects may have to be scaled back and the intended outcome may not be achieved.
Construction traffic associated with Growth Zone development hindering the delivery of traffic management and engineering schemes within the vicinity of the Growth Zone.	✓			Ensure there is a robust construction traffic management plan for the entire area and individual sites and monitored closely.	Projects may delayed and the intended outcome may take longer to achieve.

### **3.10 Annual programme of schemes and initiatives**

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

3.10.2 In the 2019/20 annual programme we are proposing to deliver the following schemes and projects:

- Feasibility study for the development of a Construction Consolidation Centre near the Purley Way to match fund the work being delivered to minimise the impacts of construction on the town centre as part of the Growth Zone works.
- A study to assess the impact of online deliveries and freight traffic in the Growth Zone and how best to accommodate them with the large number of high density residential towers being built in the town centre.
- Funding for the continued rollout and development of controlled parking zones to better manage parking for environmental, congestion management and highway safety reasons.
- Study looking at potential traffic reduction measures and strategies that could be successfully implemented in the Borough.
- Selection of engineering schemes to improve pedestrian safety at junctions in the Borough.
- Development of a cycle hire scheme that will include electric bikes.
- Safer Streets schemes to implement 20 mph limits and safety improvements in South Norwood district centre.
- Continuation of the School Travel Plan programme.
- Enforcement and speed management programme for 20 mph and known sites with speeding problems.
- Healthy School Neighbourhoods scheme commencing in Broad Green area.
- Car clubs and electric vehicle charging point rollout.
- Continuation of the cycle training and active travel promotion programmes.

3.10.3 Refer to Proforma A for the full details of the annual programme of schemes and initiatives.

### **3.11 Supporting commentary for the annual programme**

3.11.1 A detailed commentary on the three year programme of investment has been provided in the sections above. The schemes and initiatives in the annual programme are the same as those referred to in the three year programme.

3.11.2 Croydon is proposing to retain some of the previous LIP2 work areas that have proven successful in past years whilst also introducing new work programmes

that reflect the new MTS outcomes and policy frameworks, specifically the Healthy Streets principles, Vision Zero ambition and a road traffic reduction strategy.

3.11.3 The Council will focus the limited resources that are provided through LIP funding on areas of the Borough that have been identified as having the greatest potential for meeting the MTS outcomes and targets. This will include factors such as; accident history, propensity to walk and cycle, propensity to shift from car use, higher levels of deprivation, poorer air quality and the number of schools and other sensitive sites such as hospitals.

### **3.12 Risk assessment for the annual programme**

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

**TABLE ST06 - LIP Risk Assessment for annual programme 2019/20**

Risk	Likelihood			Potential mitigation measures	Impact if not mitigated
	H	M	L		
<b>Financial</b>					
TfL finances deteriorating resulting in withdrawal or dramatic reduction in LIP funding		✓		Anticipate and plan for delivery of schemes with different funding level scenarios. Reprioritise and reduce delivery of schemes were necessary	The reduction in LIP funded schemes will mean it is much harder to meet the MTS objectives and outcomes and it is unlikely Croydon will meet the overarching mode share targets.
Growth Zone funding dramatically decreased			✓	Limited mitigation options due to nature and scale of Growth Zone funding mechanism. Identify alternative sources of funding.	Cut entirely or scale back delivery of jointly funded schemes. MTS outcomes unlikely to be met.
Liveable Neighbourhood bid fails to win support of TfL and the Mayor and is unsuccessful	✓			Understand why the proposal was not successful and refine bid for following year or decide to identify an alternative scheme.	Project outcomes will take longer to be met, if at all.
Increase in costs due to staffing resources or increased materials costs resulting from Brexit.	✓			Consider setting aside part of budget for contingency funding.	Difficulties in delivering projects in entirety, potentially resulting in project

				Identify additional sources of funding to cover shortfall. Scale back extent of project.	being spread over multiple years or curtailed entirely.
TfL funding for principal road network not reinstated	✓			Currently assumption that it may not be reinstated and politicians being warned about deterioration in road network quality particular surfaces and bridges.	Significant deterioration in road network quality – increased number of road and bridge closures and pothole damage claims.
<b>Statutory / Legal</b>					
Dockless cycle hire schemes – legislation related to enforcement and management of operators. Delays to introduction of a London wide bye-law		✓		Lobby TfL, Mayor, London Councils and Central Government to speed up action on this front. Decide on alternative route for managing dockless bikes	Damaged reputation for cycling and bike hire industry, reoccurrence of mistakes made by dockless operators that have withdrawn after loss of bikes.
Judicial Review of any proposed parking or traffic management schemes.		✓		Ensure all schemes have a strong business case and evidence base and there is a fair and thorough consultation process.	Delay or postponement of schemes or programmes meaning MTS outcomes may not be met.
<b>Third Party</b>					
External partners such as Network Rail, TfL object to specific proposals or delay implementation of their element of the scheme			✓	Early engagement with them and lobby to ensure they are on track. Regular meetings and updates.	MTS outcomes and objectives will not be met.

Lack of cooperation from schools and other key stakeholders		✓		Early engagement, lobbying, increased resources to engage.	MTS outcomes and objectives will not be met.
<b>Public / Political</b>					
Change of political leadership or party			✓	Engage with new leadership team and members early on and brief them on proposals	Schemes in the Programme of Investment will have to be revised and potentially curtail and MTS objectives may not be met.
Projects and schemes fail to receive support at consultation stage.		✓		Initiate engagement and buy-in from the earliest stage and involve stakeholders in the design & development process	Projects may have to be revised and altered meaning the intended outcome may not be achieved.
Councillors or cabinet member do not approve individual schemes		✓		Early and detailed engagement with all relevant members. Ensure fair and comprehensive consultation has been undertaken.	Projects may have to be revised and altered meaning the intended outcome may not be achieved.
<b>Programme &amp; Delivery</b>					
Lack of experienced staff and resources.	✓			Liaise with HR on resourcing and rely on additional agency or contract staff	Projects may have to be scaled back and the intended outcome may not be achieved.
Construction traffic associated with Growth Zone development hindering the delivery of traffic management and engineering schemes within the vicinity of the Growth Zone.	✓			Ensure there is a robust construction traffic management plan for the entire area and individual sites and monitored closely.	Projects may be delayed and the intended outcome may take longer to achieve.

### **3.13 Monitoring the delivery of the outcomes of the MTS**

#### **Overarching mode-share aim and outcome Indicators**

3.13.1 Table ST07 below sets out Croydon's nine outcome indicator targets as set by TfL.

#### **Delivery indicators**

3.13.2 Croydon will monitor and record the delivery indicators and report to TfL once a year in June using Proforma C.

#### **Local targets**

3.13.3 The local targets we have set ourselves align with the delivery indicators that we are required to report on annually through Proforma C.

**TABLE ST07 - Borough outcome indicator targets**

Objective	Metric	Borough target	Target year	Additional commentary
<b>Overarching mode share aim – changing the transport mix</b>				
Londoners' trips to be on foot, by cycle or by public transport	Active, efficient and sustainable (walking, cycling and public transport) mode share (by borough resident) based on average daily trips.  Base period 2013/14 - 2015/16 for Croydon = 49%	50%	2021	An increase of 1% sustainable mode share to 50% by 2021 is still very challenging as it is against a backdrop of falling mode share - in the 2012/13 to 2014/15 mode share was 52%
		63%	2041	
<b>Healthy Streets and healthy people</b>				
<b>Outcome 1: London's streets will be healthy and more Londoners will travel actively</b>				
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).  Croydon Baseline 2013/14-16/17= 26%	35%	2021	The interim target of 35% by 2021 is an increase of 10% points from the baseline in only 3 years. This is a very challenging. The long term target of 70% by 2041 means an increase of 44%
		70%	2041	

Objective	Metric	Borough target	Target year	Additional commentary
Londoners have access to a safe and pleasant cycle network	Proportion of Londoners living within 400m of the London-wide strategic cycle network. <b>Croydon</b> <b>Baseline 2016 = 0%</b>	6%  51%	2021  2041	There are no strategic (Cycle Superhighway or Quietway) cycle routes in the Borough therefore 0% residents are within this distance of a strategic cycle route. With the level of Cycle Network funding being provided the Growth Zone & the LIP the interim figure will be achievable. However that will be determined by TfL categorising our routes as Strategic Cycle Routes.
<b>Outcome 2: London's streets will be safe and secure</b>				
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) - Casualties Killed or Seriously Injured (KSIs) according to STATS19 data  <b>Observed with back casting applied 2005-09 baseline = 252</b>  <b>Observed 2017 = 126</b>	2022	88	The target of 88 KSIs in 2022 represents a 65% reduction on the 2005-09 baseline of 252.
	Deaths and serious injuries (KSIs) from road collisions base year 2010-14 (for 2030 target).	2030 2041	51 0	The target of 51 KSIs in 2030 represents a 70% reduction in KSIs on the 2010-14 baseline. Whilst Croydon supports the

Objective	Metric	Borough target	Target year	Additional commentary
	<p>Observed with back casting applied 2010-14 baseline = 170</p> <p><i>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. 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.</i></p>			<p>Vision Zero principles the 2041 targets will be extremely challenging.</p> <p><i>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.'</i></p>

Objective	Metric	Borough target	Target year	Additional commentary
<b>Outcome 3: London's streets will be used more efficiently and have less traffic on them</b>				
Reduce the volume of traffic in London.	Vehicle kilometres in given year. Base year 2015. Reduce overall traffic levels by 10%.	<b>1,162</b>	2021	The interim target trajectory of 1,162 represents a 0% change on the 2015 base year.
	<b>Observed annual vehicle kilometres (millions) in 2015 base year = 1,162</b>	<b>1,046</b>	2041	The 2041 target of 1,046 represents a 10% decrease on the 2015 base year.
Reduce the number of freight trips in the central London morning peak.	10 % 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.	141,200	2021	Very challenging target in the context of growth of at least 36,000 new dwellings between now and 2031.
	No. of cars owned (no. of vehicles registered to Croydon addresses) <b>Baseline average 2013-2016 = 143,710</b>  <b>Latest year 2016 = 148,256</b>	137,800	2041	The 2021 interim trajectory represents a decrease of 2,510 vehicles from the 2013-2016 baseline.  The 2041 target of 137,800 vehicles represents a decrease of 5,910 vehicles from the 2013-2016 baseline.

Objective	Metric	Borough target	Target year	Additional commentary
<b>Outcome 4: London's streets will be clean and green</b>				
Reduced CO <sub>2</sub> emissions.	CO <sub>2</sub> emissions (in tonnes) from road transport within the borough.	211,300	2021	The 2021 interim trajectory represents a decrease of 38,900 tonnes of CO <sub>2</sub> from the 2013 base year.
	Base year 2013 = 250,200	56,700	2041	The 2041 target represents a decrease of 193,500 tonnes of CO <sub>2</sub> from the 2013 base year.
Reduced NO <sub>x</sub> emissions.	NO <sub>x</sub> emissions (in tonnes) from road transport within the borough.	330	2021	Interim 2021 target of 330 is a decrease in 560 tonnes of NO <sub>x</sub> from 2013 base year.
	Base year 2013 = 890	40	2041	2041 target of 40 is a decrease in 850 tonnes of NO <sub>x</sub> from 2013 base year.
Reduced particulate emissions.	PM <sub>10</sub> emissions (in tonnes) from road transport within borough.	75	2021	Interim 2021 target of 75 is a decrease in 13 tonnes of PM <sub>10</sub> from 2013 base year.
	Base year 2013 = 88	41	2041	2041 target of 41 is a decrease in 47 tonnes of PM <sub>10</sub> from 2013 base year.

Objective	Metric	Borough target	Target year	Additional commentary
Reduced particulate emissions.	PM <sub>2.5</sub> emissions (in tonnes) from road transport within borough.  Base year 2013 = 49	36	2021	Interim 2021 target of 36 is a decrease in 13 tonnes of PM <sub>2.5</sub> from 2013 base year.
		20	2041	2041 target of 20 is a decrease in 29 tonnes of PM <sub>2.5</sub> from 2013 base year.
<b>A good public transport experience</b>				
<b>Outcome 5: The public transport network will meet the needs of a growing London</b>				
More trips by public transport - 14-15 million trips made by public transport every day by 2041.	Trips per day (000s) by borough of residence. Reported as 3yr moving average.  Base year 2013/14 - 2015/16 = 216.	229	2021	The interim trajectory of 229000 trips per day in 2021 is an increase of 13000 trips from base year.
		321	2041	The 2041 target of 321000 trips per day is an increase of 105000 trips from the base year.
<b>Outcome 6: Public transport will be safe, affordable and accessible to all</b>				
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.	2 mins	2041	By 2041 the average journey time difference between the full network and the step free network is 2 minutes. A

Objective	Metric	Borough target	Target year	Additional commentary
	Baseline – Time difference in 2015 = 5 minutes			reduction of 3 minutes from the 2015 base year.
<b>Outcome 7: Journeys by public transport will be pleasant, fast and reliable</b>				
Bus journeys will be quick and reliable, an attractive alternative to the car	Annualised average bus speeds from ibus in mph.	10.8	2021	The interim trajectory for 2021 of 10.8 mph is a 0.1 mph increase in bus speeds from 2015 base year.
	Base year 2015 = 10.7 mph	11.2	2041	The 2041 target of 11.2 mph is 0.5mph or 5% increase from the 2015 base year.
<b>New homes and jobs</b>				
<b>Outcome 8: Active, efficient and sustainable travel will be the best options in new developments</b>				
<b>Outcome 9: Transport investment will unlock the delivery of new homes and jobs</b>				
NA	NA	NA	NA	NA

## Borough Outcome Delivery Indicators & Local Targets

Delivery output	Metric	Borough target	Target year	Additional commentary
<b>Healthy Streets and healthy people</b>				
<b>Outcome 1: London's streets will be healthy and more Londoners will travel actively</b>				
Increase in cycle parking facilities	<ul style="list-style-type: none"> <li>On-street spaces</li> <li>Off-street spaces</li> </ul>	100 150	Per annum up to 2022	Based upon available funding sources such as s106/LIP we believe this is a challenging but achievable figure.
Improved facilities for pedestrians and cyclists	Number of new or upgraded pedestrian & cycle crossing facilities delivered	12	Per annum up to 2022	Again with the funding aside for pedestrian and cycling improvements in the LIP we believe this is a challenging but achievable figure.
<b>Outcome 2: London's streets will be safe and secure</b>				
Safer speeds	% of borough road network with 20mph limit	90%	By 2022	Current coverage is 85%.

Delivery output	Metric	Borough target	Target year	Additional commentary
Safety schemes & monitoring	Number of completed infrastructure schemes and % entered into Traffic Accident Diary System (TADS)	10 50%	Per annum up 2022	Many infrastructure schemes will not be of significant scale to be beneficial for TADS
Deliver a programme of training and education to improve the safety of vulnerable road users	Number and proportion of STARS schools – bronze, silver and gold	Bronze 45 Silver 15 Gold 25	2022	Based upon previous years these figures are challenging but realistic
Deliver a programme of training and education to improve the safety of vulnerable road users – Motorcyclists	Number of people receiving 1:1 training skills such as BikeSafe London  Targeted campaign	100	2022	
Deliver a programme of training and education to improve the safety of vulnerable road users – adult cycle training	<ul style="list-style-type: none"> <li>Trained to Basic cycle skills</li> <li>Trained to Urban cycle skills</li> <li>Trained to Advanced cycle skills</li> </ul>	300 80 5	Per annum	Based upon previous years these figures are challenging but realistic
Deliver a programme of training and education to improve the safety of vulnerable road users – children cycle training	<ul style="list-style-type: none"> <li>Trained to Bikeability level 1</li> <li>Trained to Bikeability level 2</li> <li>Trained to Bikeability level 3</li> </ul>	400 270 80	Per annum	Based upon previous years these figures are challenging but realistic
Deliver a programme of Education through publicity to improve the safety of <b>Older Road Users</b>	Borough Wide Campaign with extra targeted awareness raising through publicity	1	Per Annum	

Deliver a programme of training and education to improve the safety of <b>Young Drivers</b>	Number of students attending SDSA educational programme	1500		
Deliver a programme of training and education to improve the safety of vulnerable road users through <b>All Drivers</b>	Targeted campaign to All Drivers with focus on vulnerable road users	1	Per Annum	
Deliver a programme of training and education to improve the safety of <b>Child Pedestrians</b>	Number of children receiving educational input regarding pedestrian safety	5000	Per Annum	Based on previous years, this figure is halved, due to introduction of Vision Zero and will be reviewed annually
<b>Work Related Road Risk</b>	Initially – awareness raising campaign to Croydon Council staff	1	2019	To be reviewed

<b>Outcome 3: London's streets will be used more efficiently and have less traffic on them</b>				
Support the provision of car clubs where it reduces car use and ownership	Number of car club vehicles present in the Borough	100	2021/22	Currently 38 vehicles based in the Borough
Deliver a London-wide strategic cycle network, with new, high-quality, safe routes and improved infrastructure	Kilometres of new or upgraded cycle routes	15km	2022/23	With the level of funding Croydon is committing to cycling through the Growth Zone mechanism and LIP we believe this will be achievable
<b>Outcome 4: London's streets will be clean and green</b>				
Increase number of publicly accessible electric vehicle charging points	Number of new EVCPs	400	2021/22	Set in the Corporate Plan
Incorporate sustainable drainage infrastructure into schemes	The effective area (m <sup>2</sup> ) of impermeable surface (carriageway/ footway/cycle lane/car park, etc.) which drains into the SuDS feature	tbc	Per annum	Discussions ongoing as to who will monitor this outcome
<b>A good public transport experience</b>				
<b>Outcome 5: The public transport network will meet the needs of a growing London</b>				
NA	NA	NA	NA	

<b>Outcome 6: Public transport will be safe, affordable and accessible to all</b>				
Upgrade and maintain network of accessible bus stops	% of stops accessible in borough	99%	2022	Current figure is about 98%. There are a small number of sites that will be impossible to make accessible because of location so we will never meet 100%.
<b>Outcome 7: Journeys by public transport will be pleasant, fast and reliable</b>				
Improve bus journey time reliability with bus priority improvement projects	<ul style="list-style-type: none"> <li>• Number of schemes delivered</li> <li>• Additional km's of bus priority</li> </ul>	10 0.5	2021/22	With the level of funding committed to buses through the Growth Zone we believe this will be achievable
<b>New homes and jobs</b>				
<b>Outcome 8: Active, efficient and sustainable travel will be the best options in new developments</b>				
<b>Outcome 9: Transport investment will unlock the delivery of new homes and jobs</b>				
Number or proportion of housing units in areas within PTALs 3-6 or within 800 metres of a tube, rail station or town centre area	<ul style="list-style-type: none"> <li>• No. of approved units</li> <li>• No. of started on site units</li> <li>• No. of completed units</li> </ul>	Tbc	2031	This figure is to be updated based upon the new draft London Plan (amended 2018) figures

Proportion of new A1, A2 and B1 within PTALs 3-6 or within 800 metres of a tube, rail station or town centre area	Gross floor area m2 - approved units Gross floor area m2 - started on site units Gross floor area m2 - completed units	Tbc	2031	This figure is to be updated based upon the new draft London Plan (amended 2018) figures
Proportion of referred applications	Above London Plan car parking standard • At London Plan car parking standard • Below London Plan car parking standard	Tbc - % of referred applications in each category (at Stage 2 or 3)	2031	