Evidence Base Report
March 2023

Redbridge Sustainable Transport Strategy- Evidence Base

London Borough of Redbridge
Our ref: 24277601
Client ref: Redbridge Sustainable Transport Strategy

steer

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1 Introduction

Introduction and narrative

Introduction

The Sustainable Transport Strategy for Redbridge provides a strategic direction for investment into securing a more sustainable and future proof transport system for Redbridge over the period of 2022 to 2041. This Strategy will link transport improvements to land use, taking into account the borough's existing strategies, action plans and key priorities. The 10 priority areas which underpin the STS are in tune with the existing policy landscape and will enable Redbridge to take more of a strategic view of transport matters, addressing existing challenges and maximising opportunities for cleaner and greener journeys for all.

The Strategy is needed to provide a clearer framework for improved management of movements into and through Redbridge in the shorter (2025) and longer term (2041). This will help the Borough to address current barriers that affect the movement of people and goods and respond to the declared climate emergency, in such a way to unlock the benefits of healthier and more sustainable lifestyles.

The Strategy has been co-designed with stakeholders, as the Borough realises the importance of designing with and for the people of Redbridge. The Strategy will be reviewed on a regular basis to ensure it remains current and an accurate reflection of the needs and wants of all individuals who experience the Borough- as a resident, worker or visitor.

Overview of the Evidence Base

This Evidence Base represents the foundations from which the Strategy will be developed. This report provides an overview of the current policy landscape and context for Redbridge, which underpins the ten priority areas central to the direction and success of this Strategy.

A robust evidence base has been collated and reflects the following:

- Historic trends to highlight how transport patterns and other factors have changed in the past
- Current situation to define the starting point for the strategy
- Future scenarios to cover what is likely to happen under planned scenarios (taking into account planned growth)
- Benchmarking where data exists to compare against London-wide and outer London data

The themes and insights at this stage will act as a springboard for the future stakeholder engagement sessions and opportunities for feedback. This engagement will shed light on the Strengths, Weaknesses, Opportunities and Constraints for the Borough. To complement this, horizon scanning of the future ways in which the people of Redbridge will work, play, live and travel has been captured in this document through the means of a PESTLE (Political-Economic-Social-Technological-Legal-Environmental) analysis framework.

The above stages are quintessential to the visioning and objectives setting for the Strategy. Building on this Steer will develop a long list of potential actions, some of which relating to specific priorities and others more cross-cutting. An appropriate assessment framework will sift the most desirable actions, and a plan of implementation and monitoring will look to what can be achieved over the next 10 to 20 years for Redbridge.

The value of the evidence base provides a platform to leverage decision making that is informed and grounded, to underpin the decision making that is fundamental to securing a future ready Borough.

Policy landscape

Overview

This Transport Strategy arrives at a pivotal moment in the wider policy landscape. As the recovery from Covid-19 is in full swing, and the need to take drastic and immediate action to mitigate from, and adapt to, climate change becomes increasingly apparent, the time is right to deliver an assertive and comprehensive plan for a transport system that champions growth, sustainability and delivers improvements to the quality of life for residents, workers, students and visitors to Redbridge.

The last few years have brought about a wealth of new policy initiatives, introduced both at national and London levels, which help to guide policy directions locally. This Strategy takes priorities and targets from across the policy landscape as foundations for developing a strategic plan that works symbiotically with, and intends to build upon, initiatives put forward throughout other Redbridge policy, as well as national and sub-national plans.

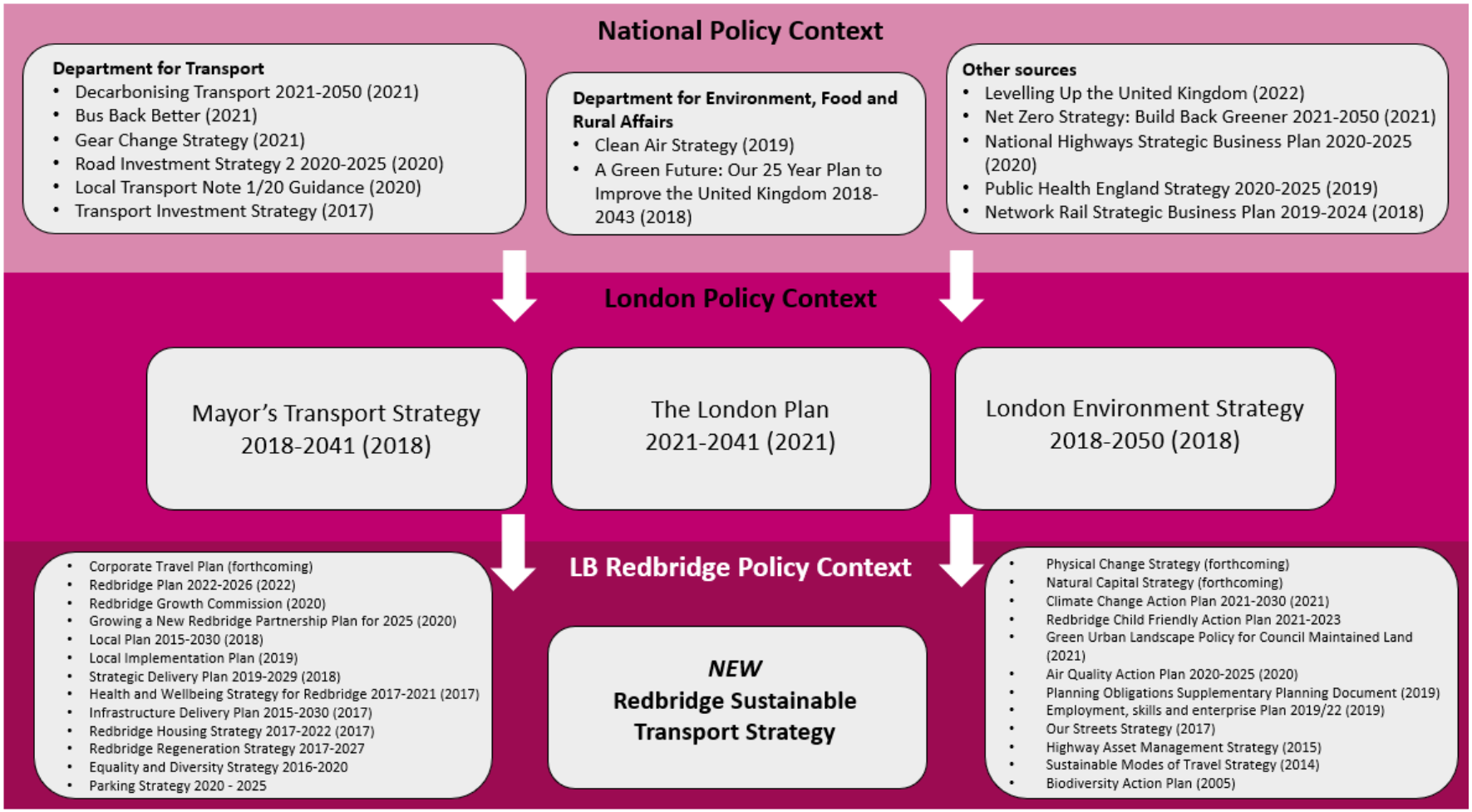
The national policy agenda in the transport sector has been mainly defined by post-Covid recovery and economic growth, addressing climate change, and improving quality of life. The Levelling Up Agenda sets out a plan to reduce inequality across the country, while the Bus Back Better strategy has delivered a plan for how bus services can fuel post-pandemic growth and development. Elsewhere, from the 'A Green Future' 25-year plan, to the Net Zero Strategy and Clear Air Strategy, there are wide ranging targets for reducing carbon emissions and curbing the UK's contribution to climate change and environmental degradation. These policies align with priorities around healthier lifestyles, environments and facilitating active travel, put forward both in the Gear Change and Public Health England Strategies.

At the sub-national level, the London Plan sets out a wide range of policy positions for developing the transport network across the capital. In coordination with the Mayor of London's Transport Strategy (MTS) the policies align with a Healthy Streets approach, with ten indicators for developing healthy, safe and welcoming environments for everyone. The MTS aims for London's transport to become net zero by 2050, and for 80% of journeys to be done by sustainable means by 2041. Moreover, targets are set for creating new homes and jobs, developing mixed-use spaces and unlocking the potential of underdeveloped places.

Policy review

A policy review has been conducted as part of this Strategy and a number of key priority areas identified as being reflective of priorities in national, sub-national and Redbridge policy documents (Figure 1-1). Targets, actions and commitments were highlighted and sorted according to priorities to better understand which sectors are of greatest interest and/or concern. These priorities are now the focus areas for this Strategy, which set the scene and are the grounding platforms for leveraging improvements. This was fundamental to ensuring that Redbridge, Steer and the key stakeholders play a key part in identifying actions that respond to the most pertinent issues facing the transport sector today in keeping with existing policy at all scales. The full policy review and alignment with the nine key priorities (excluding the cross-cutting priority area on Education) is included in Appendix A.

Figure 1-1: Policy context overview



**It is proposed that SPDs will be replaced by Supplementary Plans (SPs), which will be afforded the same weight as a Local Plan. Current SPDs will cease to have effect when the transition happens.

Priority areas for the Strategy

Priority areas identified from the policy review fall into three overarching themes (Figure 1-2).

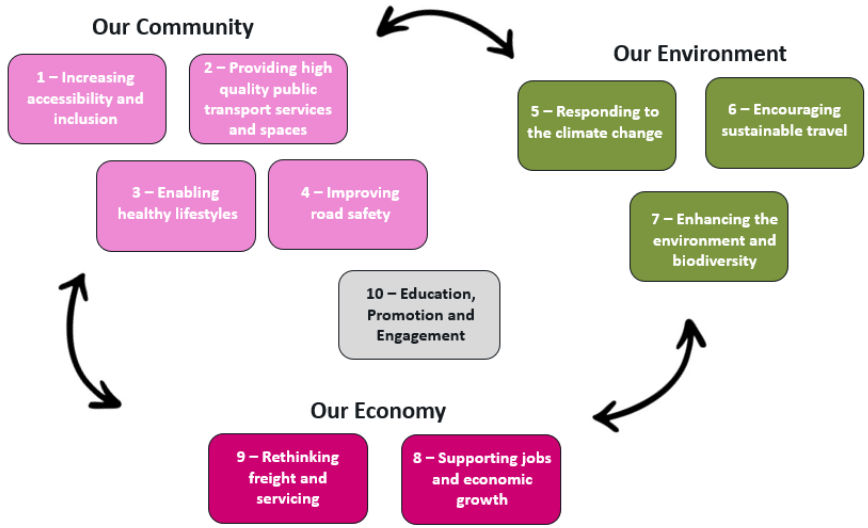
i. **Delivering transport systems that help communities thrive**
Making them both accessible and inclusive, providing high quality services, making systems feel safe to use and navigate, and taking actions to help people stay active.

ii. **Shaping transport systems to tackle climate change**
Acknowledging the immediacy of the climate emergency in order to accelerate the shift to sustainable travel and reduce private vehicle use. Supporting biodiversity and facilitating the creation of green spaces as integral elements of the fabric of the transport system.

iii. **Delivering sustainable economic and urban growth**
Creating a transport system that supports and opens new and existing economic opportunities, linking sources of supply and demand through sustainable and efficient public and freight transport. Designing new urban growth areas with backbones of sustainable transport in mind to prevent future up take of private vehicles.

A total of ten priorities have been identified and grouped under three thematic categories, to better understand how they related directly to the Redbridge context and what opportunities the Council has to enact change within each area. The priorities assess current challenges and opportunities and reflect “where we are” and will also inform “where we want to be”. They place transport in a wider and integrated socio-economic and environmental context in terms of how transport and travel are influenced by external drivers of change, but also how transport and travel can be enablers and barriers within each priority.

Figure 1-2: Key priority areas



2 The Borough at a glance

London Borough of
Redbridge

At a glance

Population

310,000 residents in 2021
365,000 residents in 2041

18% increase in 20 years

17,200 new homes

Population Density

Low — High

Travel Patterns

14 stations, 40+ bus routes,
650+ bus stops, 96 public electric vehicle chargers

Current Mode Shares

Accessibility

Over 80% of recorded disabilities affect mobility

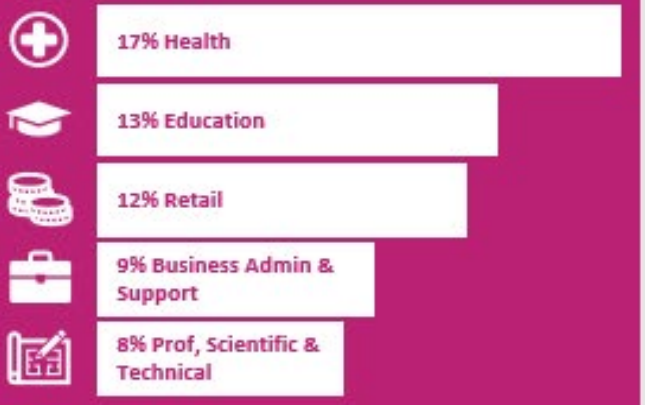
3.6% Residents are Blue Badge holders

4 out of 4 Elizabeth line stations have step-free access

4 out of 10 Central line stations have step-free access

Employment

77,000 employees in 2020
5,000 new jobs between 2015 and 2030



Population

Redbridge is growing rapidly

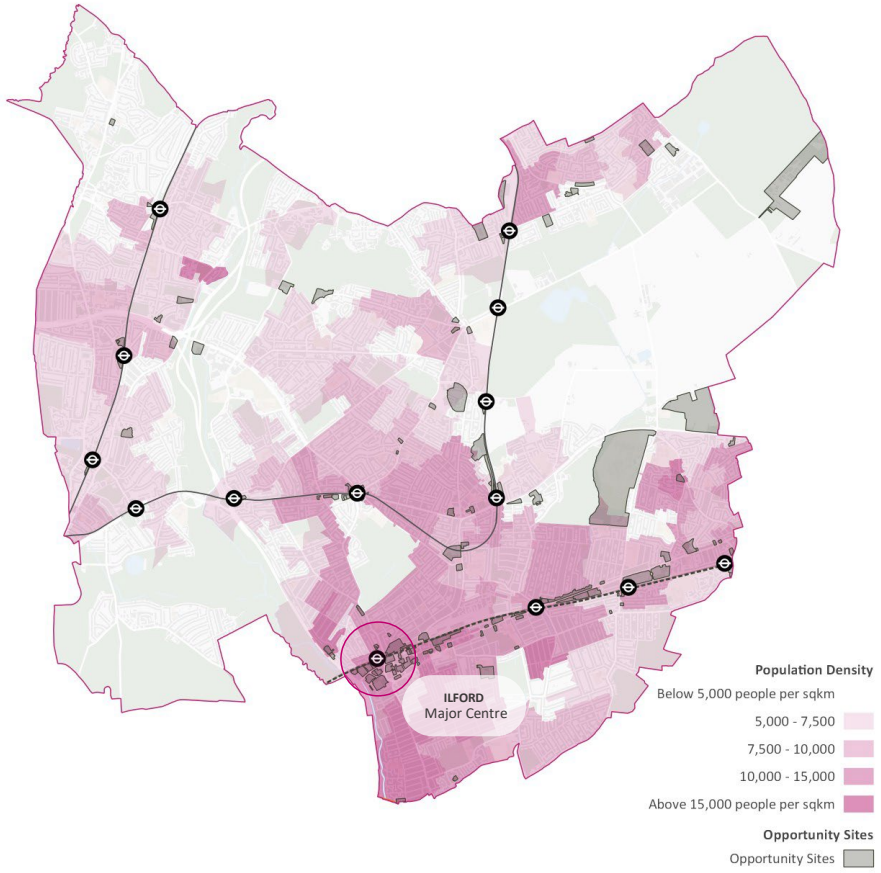
Based on the Office for National Statistics (ONS), the current population in Redbridge is estimated at **310,000**, approximately 3.5% of the total London population, an **increase of over 30,000** (11.2%) since 2011, a rate higher than the London average by ca. 4pp. Looking into the future, Redbridge is forecast to **gain a further 55,000** residents by 2041 (18%), with a significant growth in people aged 65 and above.

In short, Redbridge is projected to have **one of London's greatest population increases**. The consequence of this growth is the need for the Borough to deliver sufficient new housing, accessible transport, jobs and overall creating a place people are proud to live, work and visit.

The Elizabeth Line corridor serves the most densely populated areas of the borough.

Figure 2-1 shows the distribution of people across the borough as of 2020. Population hotspots are in and around the **key railway links** – the Elizabeth Line (formerly TfL Rail) and Central Line. Residents are densely concentrated around **Ilford – a designated major town centre**. The 2015-2030 Local Plan assumes an increase of over 17,000 homes within its timeframe. Many of the outlined opportunity sites are sited within the Elizabeth Line corridor, and within that Ilford, as shown on the right. This development will further increase the population density in the area adding further pressure on the existing stations.

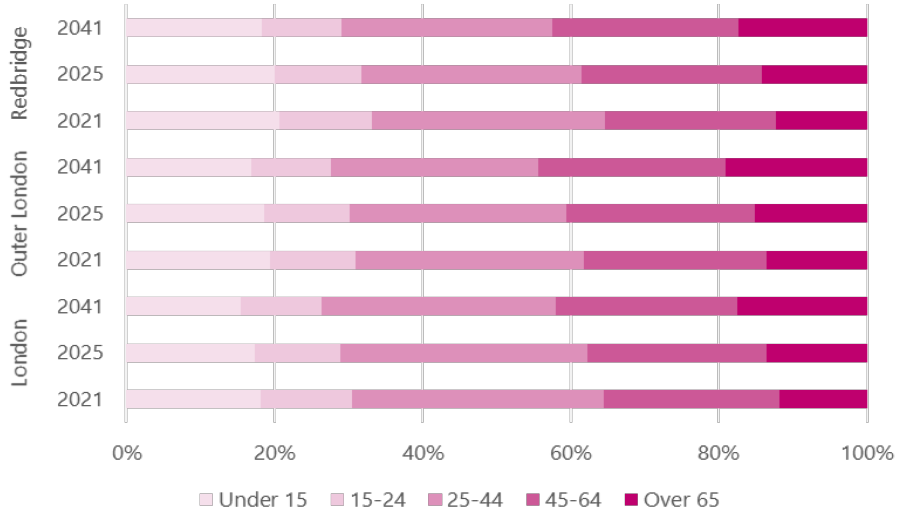
Figure 2-1: Population density in Redbridge (2020)



As shown in Figure 2-2 the demographic makeup of Redbridge is changing. Redbridge has both a growing youth population and elderly population. Redbridge's over **65 year-old population is forecasted to rise significantly** from around 38,000 to over 63,000 in 2041, a 67% increase. Following the over 65 age group, the population of 45 to 64 years is forecast to see the second highest increase of nearly 20,000 (27%). In Redbridge, the population is expected to increase by 27%. Conversely, the **least amount of growth is expected for the two youngest groups**: there will be only 3,000 more children under 15 (3%), and only 2,000 more 15 to 24 year-olds (3%). Despite this, Redbridge is one of the youngest boroughs in London; the views of young people as future residents, employees and decision-makers are crucial for the future of Redbridge.

While the overall trend is in line with the expected population ageing in London and outer London areas, the shift will have significant implications in terms of mobility, as those in the older age groups tend to need more accessible infrastructure.

Figure 2-2: Age structure for London, Outer London and Redbridge 2021-2041 (Greater London Authority, 2020)



Demographics

TfL's Transport Classification of Londoners (TCoL) demographic segments (2017) have been analysed for the Borough of Redbridge. TCoL is a multi-modal demographic segmentation tool by TfL that has been designed to categorise Londoners on the basis of the travel choices they make and their motivations for making those decisions. TCoL provides information about the existing demographic segment proportion at a borough level, and Figure 2-3 shows the TCoL'S identified nine high-level tier demographic segments.

Figure 2-3: TCoL segment summary (TfL, 2017)

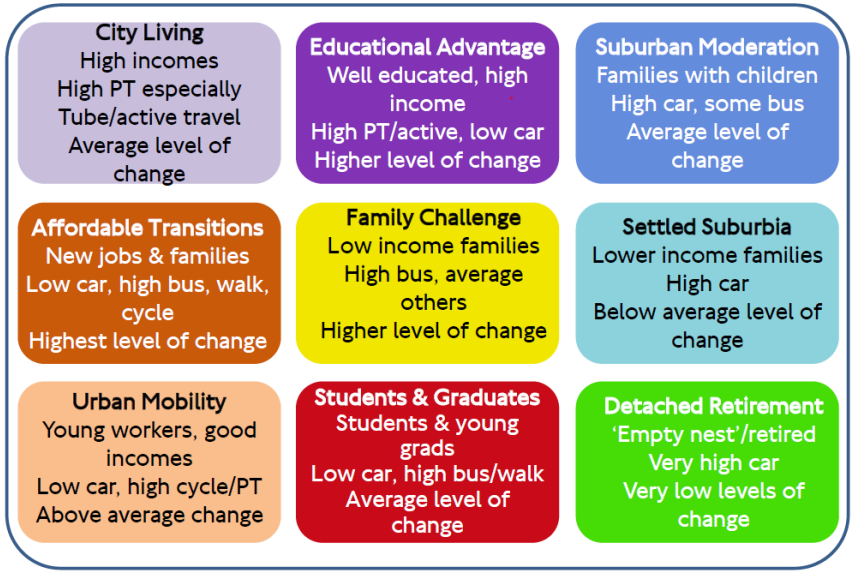


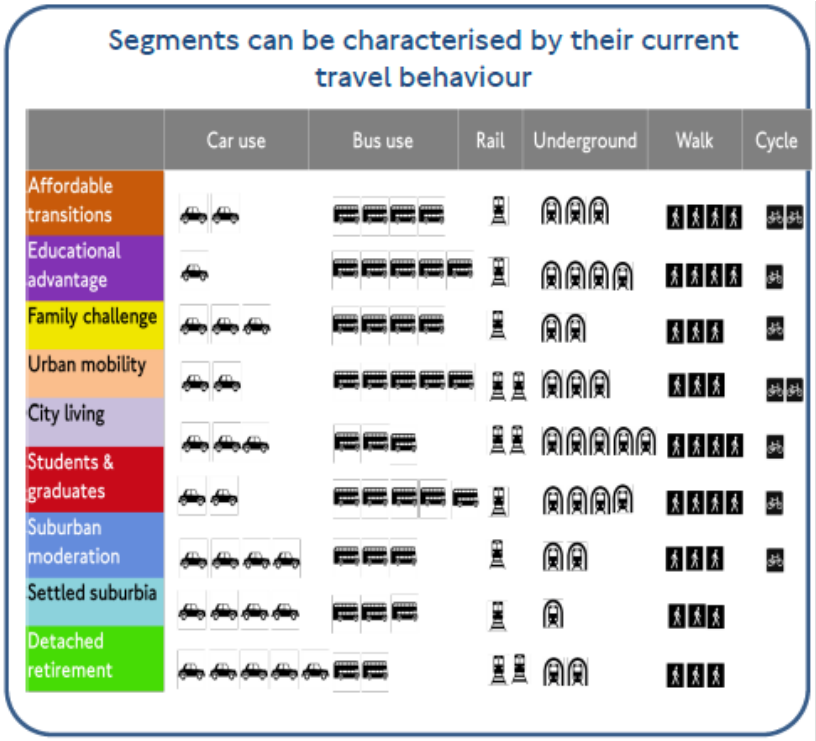
Table 2-1 shows the demographic segment proportions present within LBR. The existing demographic within Redbridge can be identified broadly by four of the segments: **Suburban moderation (31%), Family challenge (32%)** and Detached retirement (18%) and Affordable transitions (11%). Redbridge as a borough have the highest share of residents in the 'Family challenge' category (32%), compared to 22% in Newham, 18% in Barking and Dagenham and 17% in Waltham Forest. Car ownership and use is around average for this segment, as is use of active modes, while bus use is well above average. The borough has a lower proportion in the suburban moderation category (31%), compared to 63% in Barking & Dagenham. Car use for this segment is high, with use of public transport and active modes below average.

Table 2-1: Proportion of residents in different demographic groups (TCoL segments) in Redbridge and neighbouring boroughs

	Affordable Transitions	City Living	Detached Retirement	Educational Advantage	Family Challenge	Settled Suburbia	Students & Graduates	Suburban Moderation	Urban Mobility
Redbridge	11%	1%	18%	1%	32%	3%	3%	31%	0%
Barking & Dagenham	6%	0%	1%	0%	18%	7%	3%	63%	0%
Havering	0%	0%	57%	0%	0%	37%	1%	3%	1%
Newham	58%	0%	0%	4%	22%	0%	3%	11%	1%
Waltham Forest	23%	0%	8%	0%	17%	6%	26%	17%	3%

Segments can be characterised by their current travel behaviour, as shown in Figure 2-4. This shows that the three of the four dominant segments for Redbridge are characterised by high car dependency, below average use of public transport and low uptake of cycling.

Figure 2-4: Segments characterised by their current travel behaviour (TfL, 2017)



Understanding of travel behaviour for each of the dominant segments in Redbridge, in addition to motivations for shifting travel behaviour towards sustainable modes is summarised below:

- **Family challenge:** use of active modes is around average, though their propensity to increase walking and reduce car use is above average. The key for unlocking their potential for change is likely to be via their children, including influencing the 'school run'.
- **Suburban moderation:** walking is well below average with some reasonable (average) potential for increasing walking, mainly to save money, but with some interest in improving health and fitness.
- **Detached retirement:** The main opportunity for increasing walking amongst this segment is to promote attractive leisure walks, rather than walking for utility purposes or instead of another mode.
- **Affordable transitions:** Current levels of walking are around average, though their potential for increasing walking is above average. Their key motivation for this is to save money, potentially by giving up their car and adopting a car free lifestyle.

Employment

Employee and job levels in Redbridge have increased by almost 10,000 since 2011, nearing 80,000 for both measures in 2020, with most of the growth happening until 2015. The Redbridge Local Plan 2015-2030 expects **further 5,000 jobs** to be created within its timescales.

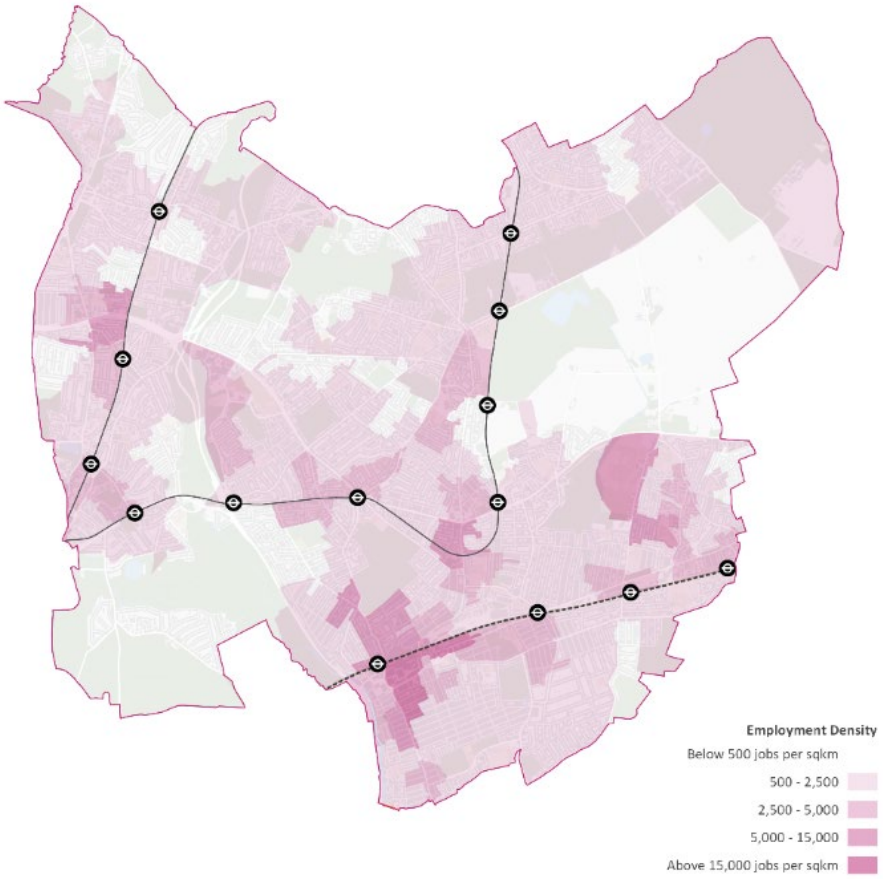
Key statistics for the borough:

- **2,500 new businesses** created each year- ranked 6th highest in London
- **7.3% unemployment rate**- higher than the London average rate of 6.1%
- The Vision for regeneration in the Borough between 2017 and 2027 will deliver **18,000 new jobs** (including construction) which will boost local spend in town centres and on leisure activities. Furthermore, **15,000 additional businesses** during this period will stimulate new markets and growth sectors.

Employment in the borough is focused in three key locations (shown in Figure 2-5– Ilford (mix of uses), South Woodford (largely retail), Seven Kings (King George Hospital). The Hainault Business Park is another key employment centre in Redbridge, yet one which is removed from any major town centres or key public transport corridors. It is home to over 200 businesses.

Ilford was identified as a Metropolitan Town Centre by the Mayor and assigned Opportunity Area status in the London Plan 2021, signalling the large scale of potential for further job growth in this area.

Figure 2-5: Employment density for Redbridge (ONS, 2021)



Mode Share

According to the London Travel Demand Survey (LTDS) and presented in Figure 2-6, most trips generated in Redbridge were made by car or van, followed by trips which were walked and then made on rail or by bus. The increase in travel by car and cycling between 2017 and 2022 coupled with the Covid-19 pandemic presents an opportunity for Redbridge to encourage a shift to sustainable modes of travel, set mode share targets in line with their future aspirations as a Borough. While the mode share over the recent years has remained stable, it has remained below that of the Outer London average (Figure 2-8: I). TfL's East and South East London Sub-Regional Transport Plan suggests that by 2031 the mode share will shift, with **8% decrease in trips by car and a 4% increase** in journeys by bicycle indicates the interest in travelling by mode which Redbridge can build on through this Strategy.

Figure 2-6: Travel mode share in Redbridge for 2017 – 2020 (TfL, 2021)

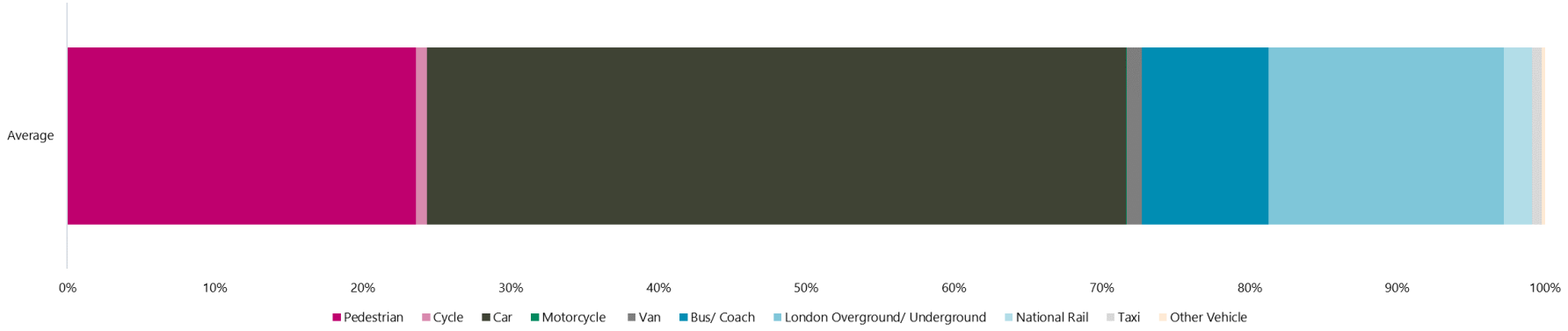
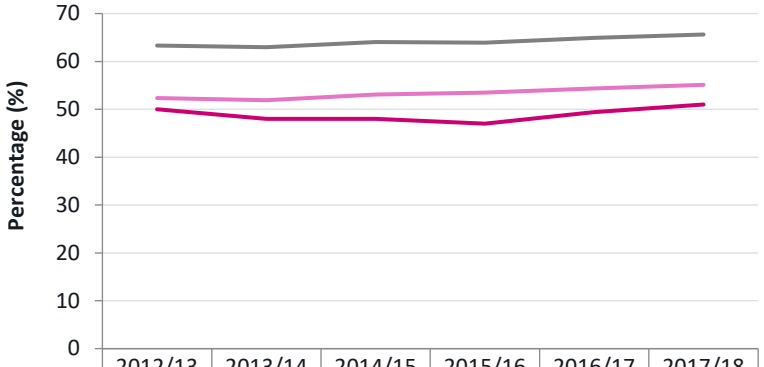


Figure 2-7: Change in sustainable travel mode share (2012 – 2020)



	2012/13 to 2014/15	2013/14 to 2015/16	2014/15 to 2016/17	2015/16 to 2017/18	2016/17 to 2018/19	2017/18 to 2019/20
Redbridge	50	48	48	47	49	51
Outer London	52	52	53	53	54	55
London	63	63	64	64	65	66

Service provision and equality

Indices of Multiple Deprivation

The Indices of Multiple Deprivation (IoMD) is produced by the Department for Levelling Up, Housing and Communities (DLUHC). The resulting decile for an area is generated by factoring seven key measures, this comprise of:

- Income
- Employment
- Education, skills and training
- Health and disability
- Crime
- Housing
- Living Environment

Based on 2019 results, Figure 2-8 and Figure 2.10: indicate that the majority of the borough's Lower Super Output Areas* (LSOAs) are categorised in the **mid-tier deciles**. A Lower Super Output Area is a geographic area, designed to improve the reporting of small areas statistics in England and Wales. In comparison, Redbridge is less affluent and with greater socio-geographic barriers than other Outer London boroughs, but less deprived than the London average.

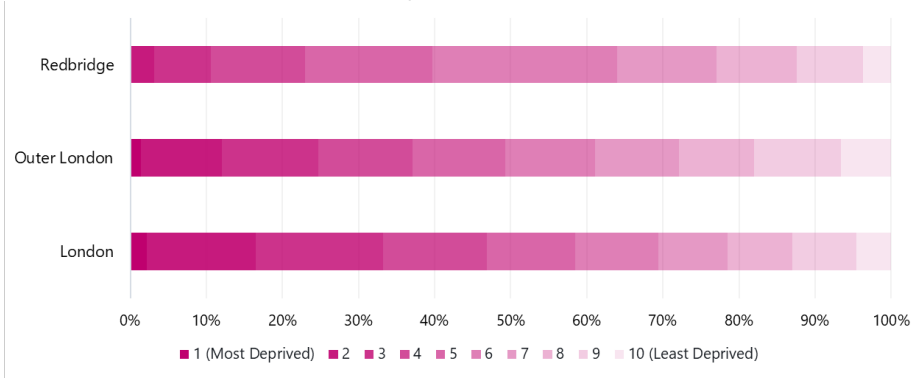
Local differences

Looking at spatial distribution of deprivation as presented in , the west of the borough lying along the established Central Line corridor shows has some of the highest income LSOAs in the country, the lowest level of deprivation.

On the other hand, the southern part of the borough, which only recently gained a convenient TfL Rail/Elizabeth Line connection into Central London, is the least affluent and shows the highest levels of deprivation.

The Public Transport Accessibility Level (PTAL), an indicator of public transport proximity and frequency, is the best in the south of the borough, an area also showing the lowest deprivation in terms of geographical barriers. Nevertheless, despite the good service and, recently, public transport provision, the area remains more deprived than the rest of borough, particularly as incomes remain suppressed.

Figure 2-8: Index of Multiple Deprivation for Redbridge (Ministry of Housing, Communities & Local Government, 2019)



Changes in Indices of Multiple Deprivation

While there have been changes to the individual IoMD indicators, Redbridge's rank has remained **constant over the last ten years** – changing from 134th most deprived position in 2010, to 138th in 2015 (out of 326), before moving to the 131st position in 2019 (out of 316).

Buses offer affordable journeys – TfL's 2012 study into understanding the travel needs of Londoners on lower incomers reports that:

"The bus is a key transport mode for people living on lower household incomes. Compared to 61% of all Londoners using the bus at least once a week, 69% of people with household incomes <£20,000 do so (and this rises to 73% amongst the lowest household income bracket of <£5,000)".

In this light it is key to note the relatively high-income deprivation rank of the borough and its trailing position in regards to the London average weekly income (Figure 2.9:) which highlights the need to provide a reliable, frequent and affordable bus service across the borough to help improve access to jobs and services.

Figure 2.9: Trends in weekly pay for Redbridge and London for 2002-2020 (ONS, 2020)

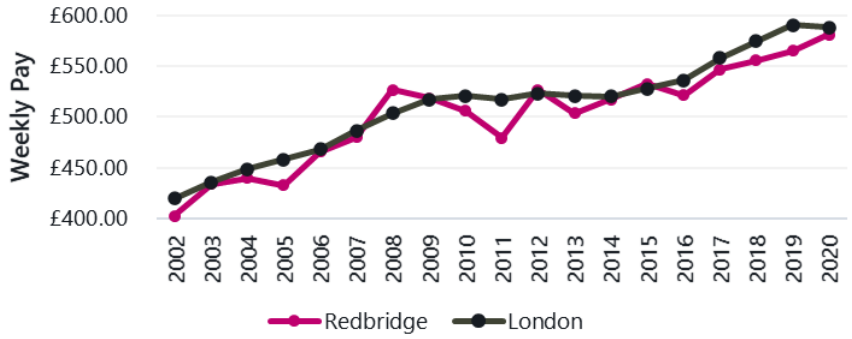


Figure 2.10: highlights the variation of income, health, employment (all IoMD indicators) and geographical barriers, as well as a public transport accessibility map for the Borough. The 'Summary' map provides a combined measure of the Index of Multiple Deprivation (2019).

This analysis indicates that low-income areas, particularly to the north east and pockets of the south do suffer from poor public transport accessibility. The south of the borough shows high levels of deprivation, despite recent improvements in transport and proximity of services, unlike the west of the borough which sits on the established Central Line corridor.

Further, that these areas face geographical barriers (e.g. road distance to key services) which heightens the need for these areas to be served by a well-connected and reliable public transport network, or new direct active travel links to enhance access employment and subsequently income growth.

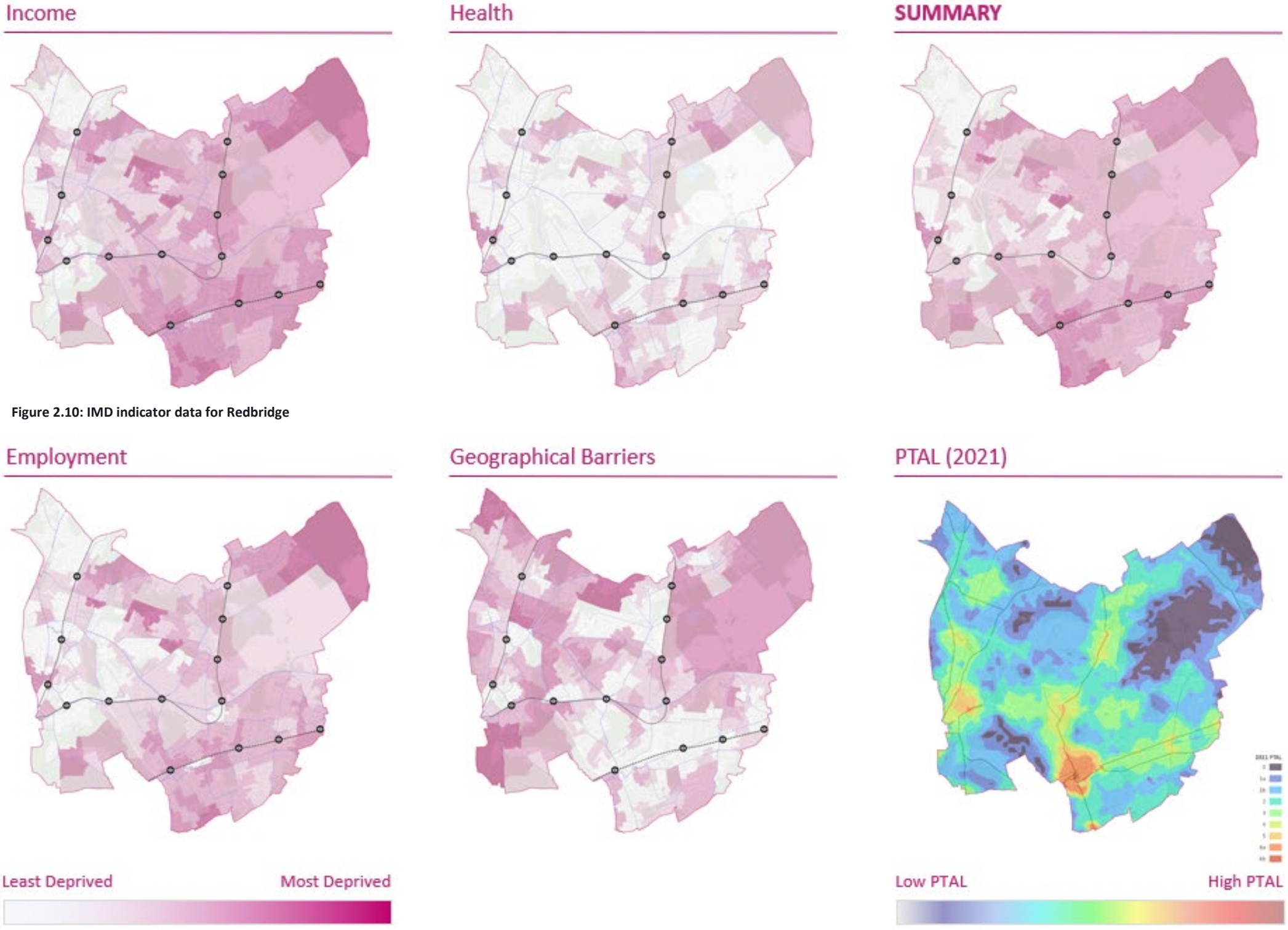


Figure 2.10: IMD indicator data for Redbridge

Key messages

- Redbridge's population is rapidly growing – the population is on track to gain almost 100,000 residents in 30 years (2011-2041).
- Most densely developed areas (EL corridor and Ilford in particular) are expected to see the highest levels of growth.
- Redbridge is ageing – those over 65 are the highest growing group which the transport system needs to cater for.
- Population increase and its distribution will increase pressures on the transport network. Improving accessibility will be key to providing good connectivity for the growing elderly population.
- The demographic composition for Redbridge highlights that the key opportunities for encouraging modal shift are through children (the future of Redbridge) and financial and health incentives.
- Despite high levels of car dependency, walking and public transport mode shares are significant, attention needs to focus on improving cycle mode share and switching car trips to public transport where possible.
- Redbridge is not as affluent as some of the other Outer London boroughs, with high levels of inequality within the borough.
- High deprivation can often be a consequence of poor transport connectivity – to help level-up the borough, it is necessary to provide reliable, frequent, and affordable services within and through Redbridge, linking residents and employees to all required services.

3 Priority Areas for the Transport Strategy

Priority mapping for the Strategy

3.1 Table 3.1 illustrates which modes of travel best correspond to the 10 priorities identified within this document. The priority areas are cross-cutting and capture multiple modes. This mapping will be used to ensure that the recommendations of the Strategy include a balance of actions across all modes, prioritising active travel, public transport, and new mobility.

Table 3.1: Mapping priority areas to modes of travel

No.	Priority Area	Active Travel	Public Transport	Private cars and motorcycles	Freight and servicing	New mobility
1	Increasing accessibility and inclusion	✓	✓			
2	Providing high quality public transport services and spaces	✓	✓			✓
3	Enabling healthy lifestyles	✓	✓			✓
4	Improving road safety	✓	✓	✓	✓	✓
5	Responding to the climate emergency	✓	✓			✓
6	Encouraging sustainable travel	✓	✓			✓
7	Enhancing the environment and biodiversity	✓				
8	Supporting jobs and economic growth	✓	✓	✓	✓	
9	Rethinking freight and servicing				✓	✓
10	Education, promotion and engagement	✓	✓	✓		✓

1 Our Community

Priority 1: Increasing accessibility and inclusion

The importance of designing a transport network for Redbridge that is accessible for all, irrespective of age, ethnicity, ability and mobility. The Transport Strategy will be co-designed with individual groups to help recognise the conflicts that arise from daily experiences of moving in and around the Borough. This will ensure the interventions and recommendations target the needs of all and surpass the key barriers and encourage travel by sustainable modes.

This priority is centred on addressing the challenges and opportunities for how the built environment and transport services meet the needs of all, irrespective of age, income, and ability, with consideration to other protected characteristics. This recognises that it only takes one small part of journey to not be accessible for the entire journey to not be viable – as such, whole systems thinking is required including the first and last mile of a journey, interchange within and between modes, information provision, and cost.

Policy context

The Borough aims to develop streetscapes and transport networks that do not impede the movement of any protected characteristic group. The MTS calls for street spaces and a public transport network that is accessible, convenient and safe to use for all. This is echoed in the national Transport Investment Strategy in its aim to create a transport network for all users.

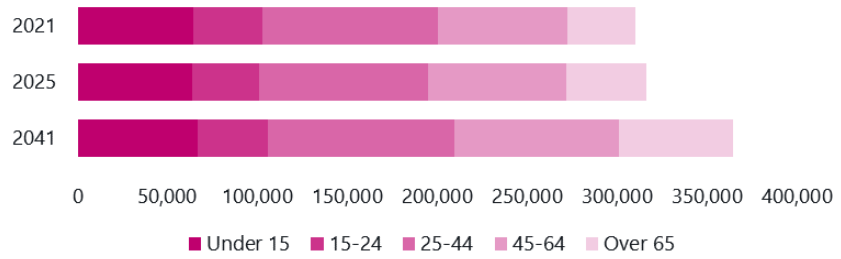
Gear Change priorities highlight the need to enable disadvantaged groups to make the most of walking and cycling for their daily journeys, while making sustainable travel increasingly accessible, inclusive and desirable. Redbridge's own Local Improvement Plan focuses on creating accessible routes, protecting vulnerable road users and creating better connections to key services.

Data insights

Age and gender profile

The demographic makeup of Redbridge is changing. As shown in Figure 3-1 Redbridge's over 65 population is forecasted to rise significantly from around 38,000 to over 63,000 in 2041, a 67% increase. It is key to note that the retired population already represents 11% of all residents, which is higher than the average across the whole London area (10.2%). Following the over 65 age group, the population of 45 to 64 years is forecast to see the second highest increase of nearly 20,000 (27%). In Redbridge, the population is expected to increase by 27%. Conversely, the least amount of growth is expected for the two youngest groups: there will be only 3,000 more children under 15 (3%), and only 2,000 more 15–24-year-olds (3%). Despite this, Redbridge had the second highest primary school entry in the UK in 2017, which supported a wholescale expansion of primary schools. These individuals will now be secondary school age, in the 15-24 category. Redbridge is also the seventh highest population of younger residents among London boroughs, as highlighted in TfL's Travel in London: Understanding our diverse communities report (2019). The Redbridge UNICEF Child Friendly Action Plan sets out changes that young people said they want to see made across safety, health and public realm.

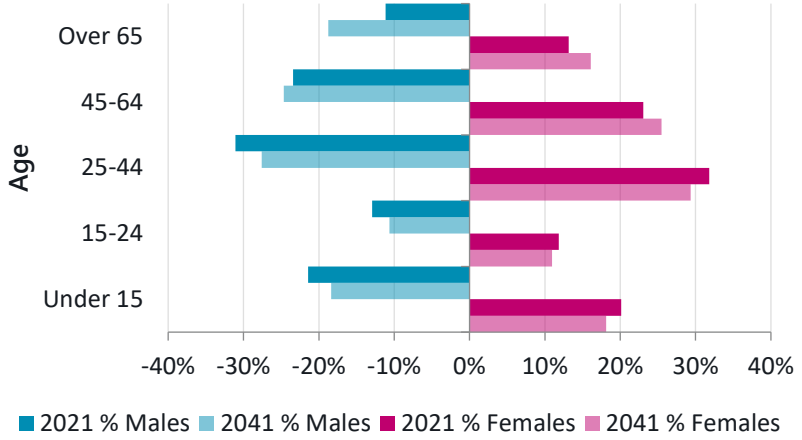
Figure 3-1: Redbridge age profile 2021, 2025 and 2041 (Census, 2021)



While the overall trend is in line with the expected population ageing in London and outer London areas, the shift will have significant implications in terms of mobility, as those in the older age groups tend to need more accessible infrastructure.

Further to the shifting age, Redbridge, London and Outer London are home to more women than men (51% against 49% for each area). According to the ONS (2020), in 2017-2019, women in Redbridge had an average life expectancy of 85.2 years, 3.7 years more than men. Nevertheless, the healthy life expectancy in the borough was only 63.7 years for women and 62.8 years for men. Figure 3-2 shows the change in age distribution by gender, between 2021 and 2041. These are broadly similar for males and females, however there is a notable difference in the number of males over 65 in 2041, compared to females.

Figure 3-2: Redbridge age and gender profile 2021 & 2041 (Greater London Authority, 2020)



Further, women tend to rely more on public transport, walking and cycling, and tend to travel more on orbital routes than men. This evidences a strong need to support accessible, safe and reliable transport infrastructure, not only on key Redbridge – Inner London corridors, but also on orbital routes connecting Redbridge with other Outer London boroughs.

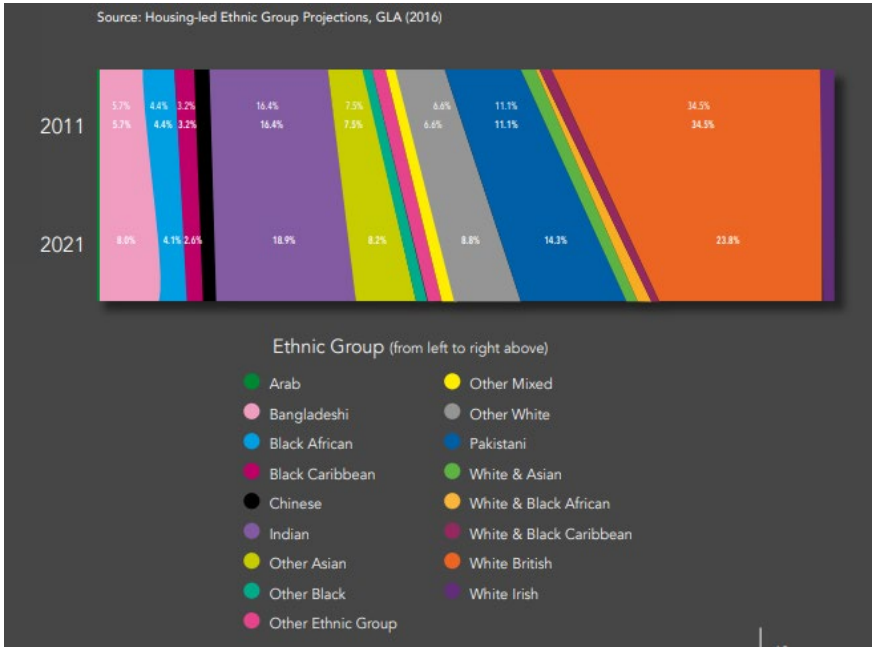
Race and ethnicity

According to Greater London Authority (GLA) data from 2022, Redbridge is a highly diverse borough, more so than the London average, experiencing rapid changes.

Redbridge is the fourth most diverse borough in London, as identified in the TfL Travel in London: Understanding our diverse communities report (2019). Between 2012 and 2020 the Asian community became the largest group in the borough, having increased by 20% regarding the number of residents and 3pp regarding share of all races (compared to a 9% and no increase for London as a whole, where it takes the second place). Those of white origin became the second largest group, with a 3% increase in terms of population and a three percentage point decrease considering their share (a 10% and no change respectively for London as a whole). The fastest growing group in terms of population was the Black community, which increased by 37% in terms of population (2pp change in share).

Looking in more detail, according to the 2011 Census and as shown in Figure 3-3, the largest ethnic groups comprising the Asian community were those of Indian (16.4%), Pakistani (11.1%) and Bangladeshi (5.7%) origin, with the White community comprised mainly of those of British origin (34.5%). By 2021, White British although lower than in 2011 remains the most prevalent group at 23.8%, followed by Indian comprising 18.9% and Pakistani comprising 14.3%.

Figure 3-3 : Change in ethnic composition for Redbridge 2011-2021 (GLA, 2022)

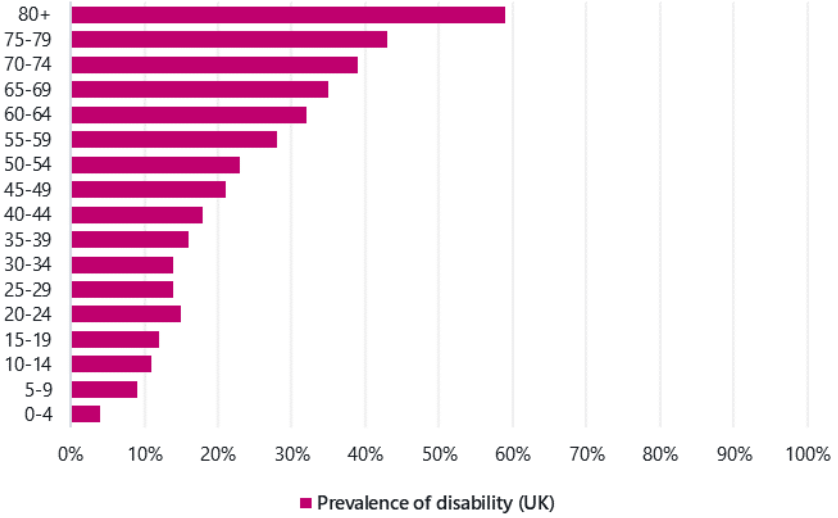


Looking at spatial distribution, those of Asian origin tend to live along the Elizabeth Line corridor, in Barkingside and in Clayhall, while those of White origin cluster around the western and northern edge of the borough. Those of Black origin tend to cluster south of the Elizabeth Line and around Chadwell Heath.

Disability and long-term health issues

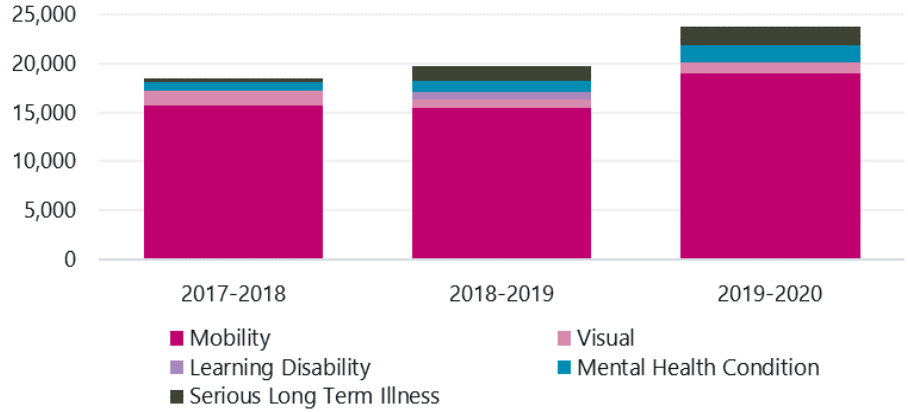
The prevalence of disability rises with age. According to the Department for Work & Pensions data and research, the share of disabled people rises consistently with age, with a 35% prevalence amongst those aged 65 to 69 and as much as 59% for those aged over 80 (averages for 2018-2021 financial years). This is shown in Figure 3-4.

Figure 3-4: Prevalence of disability across the UK (Dept for Work & Pensions, 2022)



London Transport Demand Survey (LTDS) data collected by Transport for London (TfL) as shown in Figure 3-5 suggests that mobility impairments are the most prevalent amongst Redbridge's residents, constituting between 78% and 80% of all disabilities.

Figure 3-5: Categorisation of disabilities for Redbridge (2017-2020, TfL, 2021)



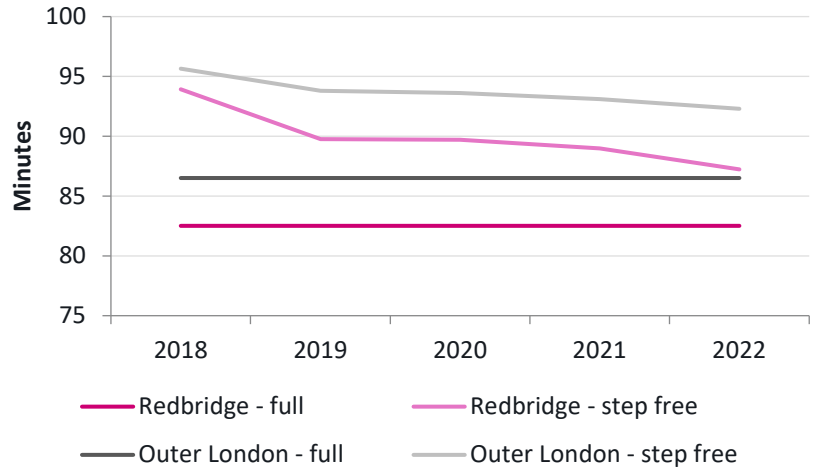
Blue Badge holders and a retiring population

According to the Department for Transport Statistics (DfT), the number of Blue Badge holders in Redbridge in March 2022 was 11,000, approximately 3.6% of the population across the borough. This is higher than the average percentage across London, which is around 2.7%. Amongst those retired, the Redbridge's ratio of retired people to badge holders is higher than that of London (3.1 to 1 against 3.7 to 1).

Step-free access

Data from TfL strategic models shows average time taken to traverse every borough's transport networks in full, compared to using only step-free access elements of the network (Figure 3-6). In the period 2018-2022, the average journey time using Redbridge's step-free network has become 7 minutes shorter, compared to only 4 minutes shorter for outer London boroughs on average. As of 2022, journeys using the full Redbridge network are only 5% slower than when using only the step-free network, compared to 6% slower for outer London borough on average.

Figure 3-6: Average journey time using the full and step-free access networks.



Key messages

- Redbridge has an ageing population, however the younger cohort of 15–24-year-olds is growing. It is important the Strategy reflects the voices of both of these groups.
- Redbridge is an ethnically diverse borough, with growth in the majority of Asian groups between 2011 and 2021.
- Based on ONS population projections, the increase in the number of the blue badge holders and the ageing population with the consequent increase in number of those with mobility impairments will require improvements to the transport services across the borough to ensure that it is safe, convenient, and accessible to everyone including disabled and vulnerable people.

1 Our Community

Priority 2: Providing high quality public transport services and spaces

Providing transport services that are reliable, comfortable, fast and easy to use is fundamental to improving day-to-day lives and facilitating a modal shift away from private vehicles. Redbridge is committed to working with TfL, as well as other stakeholders involved in bus and rail operation, to maintain and develop high quality, easily navigable networks of services that people have a desire to use. The Strategy will identify actions to make this possible.

This priority targets the improvement of connections within neighbourhoods and to key destinations to create high-quality, inclusive environments and spaces, through engagement with different communities, mindful of what high-quality means for different groups.

Policy context

Redbridge will seek to deliver and maintain high quality transport services and associated infrastructures to deliver safe, reliable, efficient and convenient travel. The Levelling Up White Paper emphasises active travel infrastructure and bus service improvements as key areas of action, while the MTS calls for increased integration of public transport services with the active and sustainable mobility initiatives set out in the Healthy Streets approach. Reliable, easy, fast and comfortable journeys are also prioritised in the Transport Investment Strategy. Moreover, travel experiences can be facilitated through implementing technological innovations, from demand responsive services to digitised passenger information and wayfinding services. The national 'A Green Future' strategy puts forward the imperative for investing in new technologies to develop the future of mobility.

Data insights

Access to services

Due to the several local and regional town centres, all key services can be easily accessed by walk, cycle or public transport. Table 3-2 summarises DfT (2019) journey time statistics to education, medical care and retail in the borough. According to this data, residents can access primary education within an average of 7 minutes (maximum of 16 minutes), a GP within an average of 9 minutes (maximum of 25 minutes), and a food store within an average of 7 minutes (maximum of 17 minutes). This spatial proximity between land use and transport is characteristic of a 20-minute neighbourhood for Redbridge, whereby key services are within reach by active or sustainable modes. This concept rose to prominence during the pandemic, by putting proximity into practice- making the concept of living, shopping and working for some within a walking distance a realistic and appealing idea.

Table 3-2: Journey time statistics to key services (DfT, 2019)

Service	Mode	Maximum Travel Time (minutes)	Average Travel Time (minutes)
Primary Education	Public Transport	16	7
	Cycle	11	8
	Walk	16	7
Secondary Education	Public Transport	24	12
	Cycle	15	10
	Walk	28	13
Further Education	Public Transport	25	13
	Cycle	20	10
	Walk	49	14
GP	Public Transport	19	9
	Cycle	14	8
	Walk	25	9
Hospital	Public Transport	54	32
	Cycle	33	23
	Walk	79	50
Town Centres	Public Transport	26	13
	Cycle	21	11
	Walk	51	17
Retail	Public Transport	9	7
	Cycle	11	7
	Walk	17	7
Employment centres (small)	Public Transport	13	5
	Cycle	19	8
	Walk	10	7
Employment centres (medium)	Public Transport	13	8
	Cycle	30	18
	Walk	9	7
Employment centres (large)	Public Transport	20	13
	Cycle	15	5
	Walk	79	40

Public transport

Some parts of Redbridge are well served by public transport connections which offer spatial connections between places of residence, employment and other points of interest. There is low bus penetration around Fairlop and around the green spaces in the north eastern part of the borough. Despite this, rail coverage is good across the borough and the network comprises the Central Line and Elizabeth Line, as shown in Figure 3.8. Access to the Central Line (Hainault Loop and Epping Branch) is provided via ten stations, four of which offer step-free access. A further two stations, one of which provides step free access, are located on the borough boundary. The Public Transport Accessibility Level map for the borough is included on page 16.

According to LTDS data (Figure 3-7), the number of daily public transport trips taken across the borough declined during the 2010s, although a notable up-tick in trips was noted during the latest 2017-2020 aggregate LTDS count. This decline was more significant than the average across outer London boroughs, suggesting that more needs to be done to encourage public transport use in Redbridge.

Figure 3-7: Thousands of daily trips by public transport

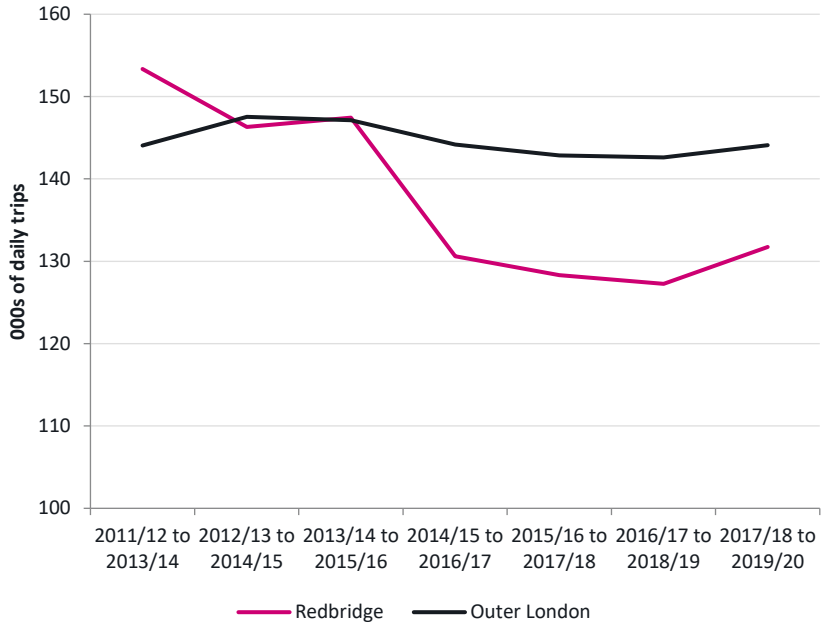


Figure 3.8: Public transport network for Redbridge (TfL, 2021)

Rail

Redbridge enjoys good connectivity thanks to the Central Line and to the newly opened Elizabeth Line (formerly TfL Rail), with between 15% and 20% of all journeys Redbridge's residents made by rail (2017-2020). Access to the Central Line (Fairlop Loop Epping Branch) is provided via ten stations, four of which offer step-free access. Central Line provides fast and direct access to Central and West London, with over 30 trains per hour in the peaks allowing a:

- 15+ minute journey to Liverpool Street
- 25+ minute journey to Oxford Street

Access to the Elizabeth Line is provided via four stations, all of which are accessible. The Elizabeth Line parallels the central section of the Central Line, with an additional opportunity to interchange at Liverpool Street to reach Canary Wharf and the wider south-east London. The Shenfield branch of the Elizabeth Line provides up to 12 trains per hour in the peaks, offering the following:

- 15+ minute journey to Liverpool Street
- 20+ minute journey to Bond Street
- 25+ minute journey to Paddington
- 60+ minute journey to Heathrow
- 20+ minute journey to Canary Wharf

While not within the Redbridge boundary, there are several other rail services available to reach for residents of certain parts of the borough:

- Barking to Gospel Oak Overground, with stations close to the south-western edge of the borough.
- C2C mainline services, along with District and Hammersmith and City lines, with stations close to the southern edge of the borough.

Existing rail demand and crowding

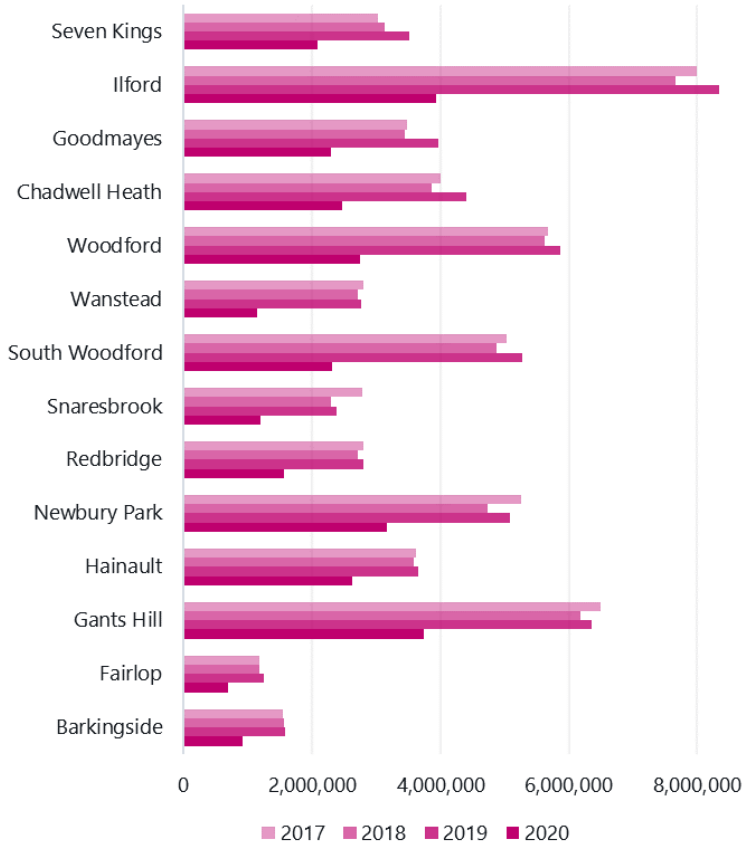
The NUMBAT dataset produced by TfL, provides statistics on the usage and travel patterns on TfL railway services as shown in Figure 3-9.

Ilford was the busiest station on the Elizabeth Line, both before and during the pandemic, reflecting the high density of the surrounding development and mix of uses available at Ilford major town centre. The MTS crowding figures for a committed-investment only scenario suggest that crowding on the Elizabeth Line (within Ilford) will not exceed three to four passengers standing per square metre by 2041, although the forecasts may be subject to review following the pandemic.

As highlighted in Figure 3-9, patronage is well-distributed amongst the Central Line stations, with Gants Hill on the Hainault Loop and Woodford on the Epping branch being the two busiest stations. Gants Hill despite having the highest level of usage currently does not provide any form of step free access, which makes it more difficult for disabled/vulnerable users. The MTS suggests that the Central Line will reach up to four to five passengers standing per square metre by 2041 on the section upward from Snaresbrook and Redbridge, with over five passengers standing per square metre south of Leytonstone.

This suggest that while the newly upgraded Elizabeth Line will offer a reliable service within the borough, the Central Line is close to capacity, and improvements are needed to maintain a good and reliable service.

Figure 3-9: Usage and travel patterns on TfL Railway services in Redbridge 2017-2020 (TfL, 2021)



**Data for Seven Kings, Ilford, Goodmayes and Chadwell Heath refers to services run under the TfL Rail brand*

Bus

More than 40 different bus routes serve Redbridge, stopping at over 650 locations across the borough. Buses remain an important mode of transport in the borough, accounting for 8% to 9% of all trips made by Redbridge's residents (2017-2020).

The TfL's Bus Action Plan (2020) highlights Ilford in particular as a key area for bus boardings, with between 20,000 and 30,000 bus boarding recorded in 2019 and 30,000 to 40,000 forecast for 2041.

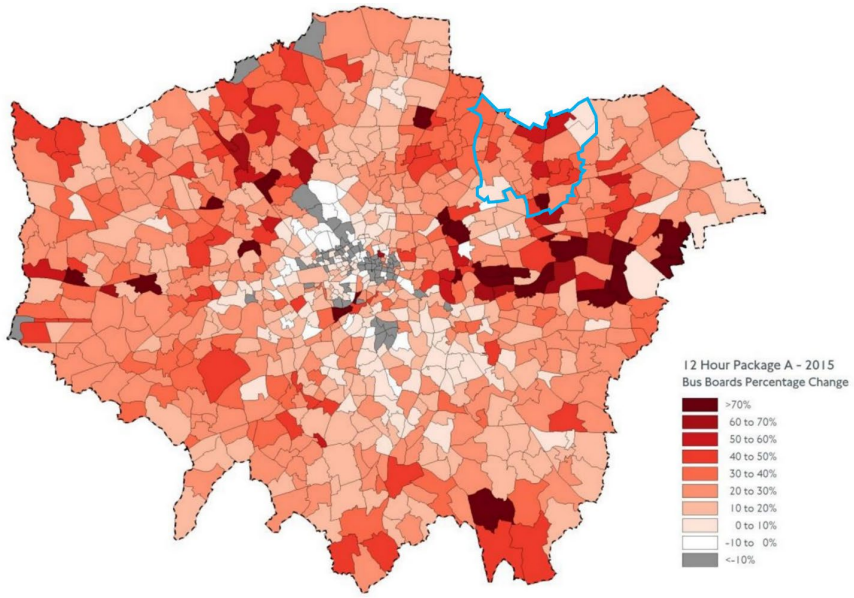
As an example, route 25 which connects Ilford with the City of London recorded nearly five million journeys in 2020/21, albeit a significant decrease from over 20,000,000 journeys in 2017/18 when it was the busiest route across the whole of London.

While majority of the decrease should be attributed to the impacts of the pandemic, a decrease in bus patronage can also be traced to worsening travel speeds – in first quarter of 2022/23, the average bus speed in Redbridge was about 10.3 miles per hour, reduced from 10.7 miles per hour in 2013/14. In contrast, the Sustainable Transport, Walking and Cycling London Planning Guidance (2022) shows increasing projects for bus use across most of the borough (Figure 3-11). Only the Hainault and Wanstead Flats areas are projected to see stagnation or decline in bus use.

Figure 3-10 shows the bus route and stop coverage across the borough.

Figure 3-10: Bus routes and stops in Redbridge (NaPTAN, 2022)

Figure 3-11: Projected change in daily bus use (2041)



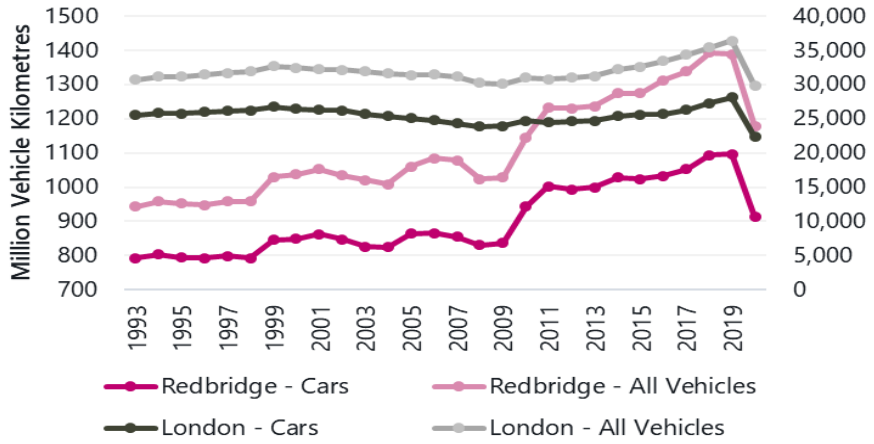
Highways

Redbridge is well connected by major highway roads (Figure 3-12) including the North Circular A406, M11 and A12 and cars remain the most popular mode of transport, with between 44% and 50% of all Redbridge residents' journeys being made by car (2017-2020). As of 2021, there were 105,083 cars owned in the borough, 4% fewer than in 2016.

Figure 3-12: Highway network of Redbridge (Ordnance Survey, 2022)

DfT Vehicle Kilometres Travelled statistics, shown in Figure 3-13, indicate that the levels of vehicle travel in Redbridge have increased at a rate higher than London's, increasing from about 800 million car vehicle kilometres in the 1990s to about 1,100 million car vehicle kilometres prior to the pandemic – over a 38% increase compared to about a 10% increase across London as a whole. The change in all vehicle traffic (i.e. including freight), shows an even higher increase of about 47% compared to London's average of 18%.

Figure 3-13: DfT vehicle kilometres travelled for cars in Redbridge 1993-2019 (DfT, 2020)



While the number of vehicle kilometres increased, the number of vehicles registered to Redbridge's residents did not experience major variations, the total number of vehicles in Q1 of 2022 was less than 1% higher than that in Q1 of 2010, with fluctuations of -1 to +4% within the period. This suggests the key role of Redbridge as a through corridor.

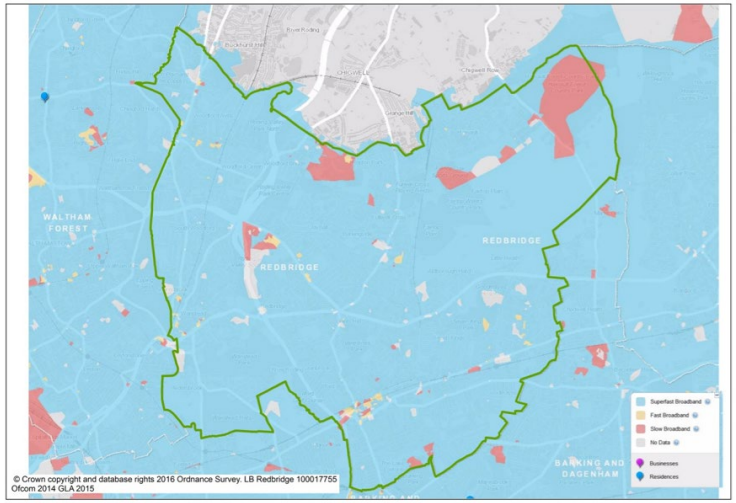
Despite this, private car ownership levels in Redbridge remain high, with 95 cars registered per 100 households, according to the Health Street Scorecard 2022.

Broadband connectivity

As shown in Figure 3-14, the vast majority of the borough in 2016 had 'superfast broadband' connection (over 10mps per second), with pockets of slow broadband around Hainault and Woodford. Redbridge has above average connectivity for London and provides a good network to support business and home connections, potentially eliminating the need for some individuals to travel to work every day.

Broadband connectivity can have an impact on socio-economic opportunities as well the ability to arrange certain transport modes, such as taxi services, and check online information and service quality across public transport. Addressing broadband connection quality in remaining hot spots will be important for providing all residents with access to high quality transport services.

Figure 3-14: Broadband connectivity in Redbridge (Ordnance Survey, 2017)



Future forecasts

Unlike similar Boroughs, such as Newham and Greenwich, there is relatively limited potential for future mode shift away from the car across Redbridge. As shown in Figure 3-15, up to 5,000 daily car trips in Redbridge with the exception of the Ilford area, could be shifted to more sustainable modes. This is the case without a substantive increase in the bus network. The Council must understand the reasons for why mode shift potential, especially in the northern areas of the borough, is limited. This is likely closely related with existing public transport and active travel provision, as well as general urban design. Future actions for transport and new urban development interventions will need to be designed to increase mode shift potential in these areas.

Figure 3-15: Potential mode shift away from the car in east London (TfL, 2016)

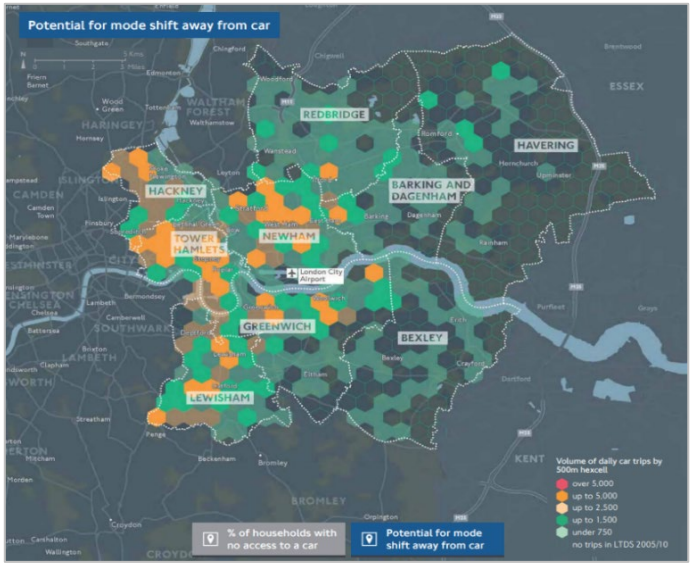
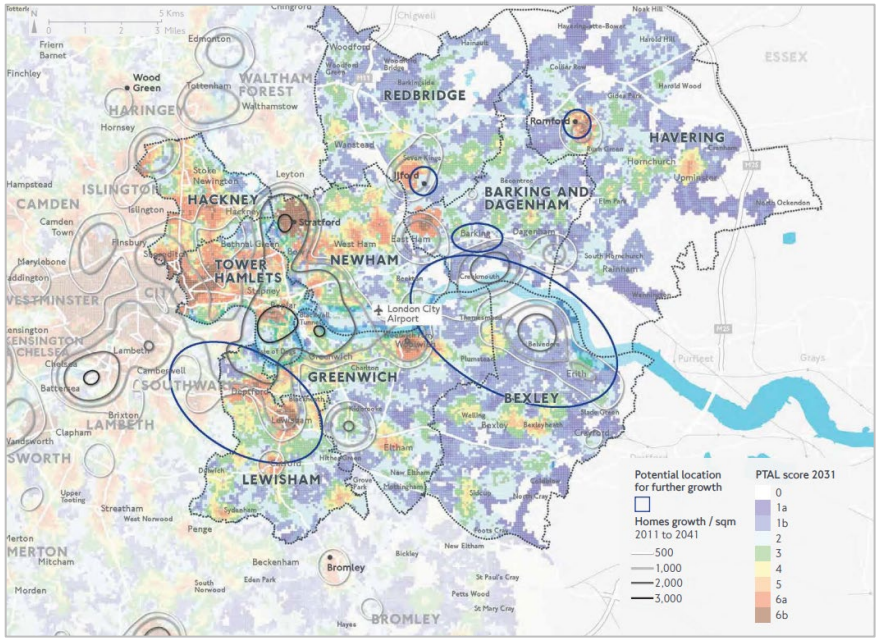


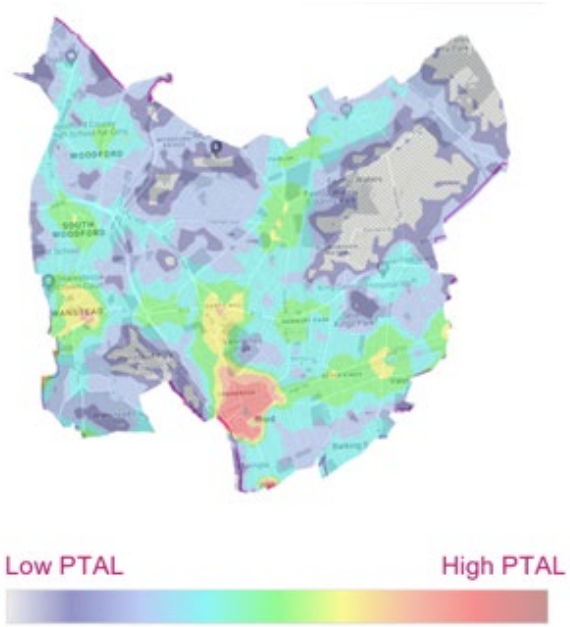
Figure 3-16 demonstrates that forecasts for housing growth in Redbridge concentrate most new development in the Ilford area, with little elsewhere across the borough. New urban development is unlikely to take places in areas with low public transport accessibility levels (PTALs).

Figure 3-16: Housing growth 2011-2041 and 2031 PTAL (TfL, 2016)



Therefore, this transport strategy is well positioned to provide interventions for boosting PTAL levels in the north of the borough, which could unlock more housing development potential and provide better opportunities for sustainable journeys. The future forecast PTAL for 2031 is shown in Figure 3-17. This future PTAL is not too dissimilar from the current levels, with the highest public transport accessibility levels around Ilford Town Centre.

Figure 3-17: PTAL 2031 forecast for the borough (TfL WebCAT, Census 2011)



Regeneration

The Redbridge Regeneration Strategy is centred around transforming town centres, building new homes for all, enabling high quality spaces and ensuring everyone shares in the future prosperity. The vision for regeneration in the borough it to:

"harness the regeneration benefits of growth, leveraging investment from our East London location to enable our residents, businesses and communities to thrive, prosper and enjoy a high quality of life"

It is integral that the transport network of Redbridge is able to accommodate the future demand associated with the regeneration projects. Regeneration brings an opportunity for public transport and active travel options to be made accessible, to encourage modal shift to these more sustainable modes. New developments in Ilford:

- Ilford Circus- new development (1,330 homes and 8,750 square metres of commercial space) to enhance the route to the high street and civic heart of Ilford.
- Ilford Riverside- new development (1,500 homes and 7,350 square metres commercial space) enhancing the riverside and improving connections to the town centre.
- Historic Cranbrook- new developments welcoming people to the town centre (350 homes and 1,750 square metres commercial space).
- High Road Central- new shops and leisure uses as well as homes. (1,020 homes) and employment space (4,900 square metres commercial space).
- Cultural Quarter- new cultural and civic quarter for Ilford enhancing the setting of the new town hall and creating new public spaces in the town centre (840 homes and 5,950 square metres commercial space).
- Ilford Eastside - enhancing the eastern end of the High Road with new homes (960 homes), community uses including a new school and employment spaces (6,300 square metres).
- Ilford Town Centre – a development comprising five tower blocks on the Sainsbury's stie at 55 Roden Street. It is expected to provide 1,200 new homes with ground-floor public green space and flexible commercial units.

Other notable forthcoming developments in the borough:

- Billet Road – land that was taken away from the Green Belt is now earmarked for at least 800 new homes. This application is currently under assessment.
- Goodmayes and King George's Hospital – it is expected that at least 500 new homes will be provided in this area. The planning application has not yet been submitted

The four key growth areas as identified in the current Local Plan entail new investment in homes, jobs and social infrastructure- all of which are demand generators and therefore require a transport network that caters to this. LP1A Ilford Investment and Growth Area:

- LP1D South Woodford Investment and Growth Area
- LP1E Barkingside Investment and Growth Area
- LP2B Crossrail Corridor Investment and Growth Area
- LP2B Gants Hill Investment and Growth Area

Key messages

- If the people of Redbridge can reach the most important everyday destinations within 20-minutes by foot or bicycle, this reduces the need to own a car.
- More frequent bus services and connecting the north east of the borough to the network would help increase accessibility of the areas of the Borough that need it the most.
- Need for the transport network to accommodate regeneration plans and anticipated increase in future demand.
- An inner London degree of bus accessibility needed to be provided in this Outer London borough.
- A key aspiration for the STS could be to achieve PTAL 4 in the built-up parts of the Borough (Redbridge can lobby for this via the strategy).
- The Strategy should aim to take into account findings and outcomes from the Redbridge Walking and Cycling Accessibility Studies (2022).

1 Our Community

Priority 3: Enabling healthy lifestyles

Creating safe environments for all street users and enabling individuals to pursue travel by healthier modes will increase the attractiveness of living, working and visiting the Borough. The Transport Strategy is geared around accelerating the delivery of safe and active travel to meet the commitment of a declared climate emergency with regards to cleaner and greener lifestyles. Pedestrian and cyclist safety for key corridors connecting urban and rural environments is fundamental to encouraging modal shift. Courses of action for reducing air and noise pollution are also considered for the role they play in shaping the health of residents across the Borough.

This priority in its widest sense focuses on ensuring that the transport system enables individuals to fully participate in society, alongside improving access to green spaces and other places for leisure and recreation; making hospitals, GPs, pharmacies and other community services more accessible; and making active travel a choice for journeys wherever possible.

Policy context

The Borough will aim to deliver street spaces that facilitate safe, healthy and active lifestyles. At the London level, the Healthy Streets Approach and associated indicators (as set out in the MTS) underpin actions to improve health and well-being through changes to the transport system. The Public Health England Strategy calls for the creation of physical, social and economic environments that facilitate good health, while Redbridge's own Local Plan aims to improve the health of the population through good spatial planning.

London's Environment Strategy outlines the ambitious aim for London to have the best air quality of any major world city by 2050, while the national government aims to make all cars fully zero emissions capable by 2035, helping to curb air and noise pollution.

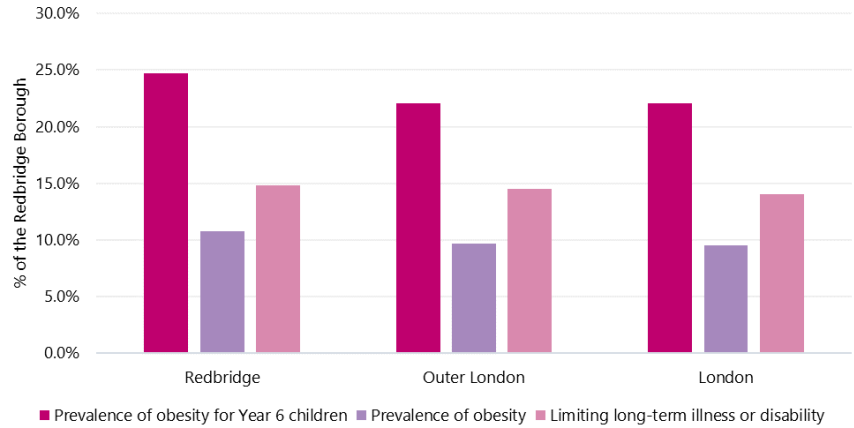
Data insights

Changing the mode share away from private car will be key to helping Redbridge becoming a healthier borough, as evidenced in the following sections.

Public health indicators

The Office for Health Improvement & Disparities collates data on obesity (and physical activity) among children and adults in England down to the local authority level (Figure 3-18). The data shows that obesity and physical inactivity among children in Redbridge are higher compared to the whole outer London and Greater London area. The same result is shown for individuals with limiting long term illness or disability. As shown, child obesity in Redbridge is higher than London as a whole. There are also higher levels of projected mental health issues amongst the Redbridge population than London as a whole.

Figure 3-18: Prevalence of obesity in Redbridge, Outer London and London (2017-2020, Office for Health Improvements and Disparities, 2021)



According to LTDS data, 21% of Redbridge residents engage in at least 20 minutes of active travel a day in the 2017-2020 aggregate period. This was up from 18% for the 2016-2019 aggregate period. The average across outer London boroughs for the 2017-2020 aggregate period was 27%, significantly higher than Redbridge. This suggests that more needs to be done to encourage regular active travel in the borough.

TfL's report on the economic benefits of walking and cycling indicated that outside of health benefits tied to these activities, investing in walking and cycling can help increase retail spend, limit the number of sick days and markedly improve engagement with the community.

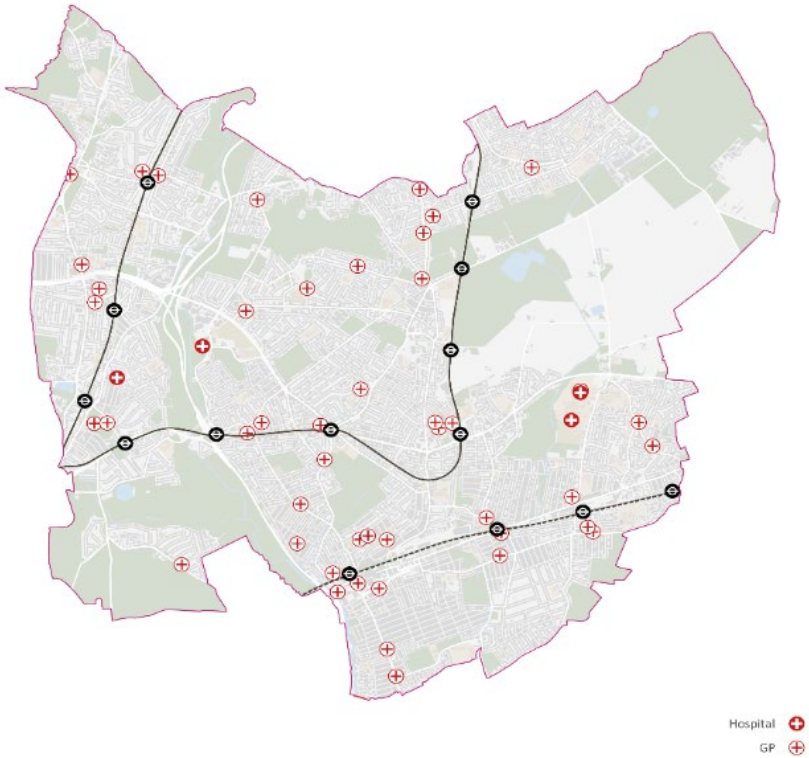
Provision of active travel infrastructure and initiatives through LTP4 that enable people to build physical activity into their daily travel, especially initiatives which encourage people to convert short car trips to walking and cycling, can support improvement in health outcomes.

Access to health services

As illustrated in Figure 3-19, there is good provision of health services across the borough, including within close proximity of the Central and Elizabeth lines. The distribution of health services is well aligned with urban and developed areas of the borough.

Two major hospitals located just outside the borough boundary are Whipps Cross University Hospital west of Wanstead, and Queens hospital in Romford, east of Little Heath. Both are used by Redbridge residents and are well served by bus services, and within a 15-minute walk of rail services- either the London Overground or Elizabeth Line (Romford station).

Figure 3-19: Spatial distribution of medical services in Redbridge (OpenStreetMap, 2022)



Healthy Streets

The Healthy Streets Scorecard sets out data to show the health of each borough's streets according to nine indicators.

Five input indicators:

- Low Traffic Neighbourhoods
- 20mph Speed Limits
- Controlled Parking Zones
- Physically Protected Cycle Track
- School Provision

Four outcome indicators:

- Sustainable Mode share
- Active Travel Rate
- Road Collision Casualties

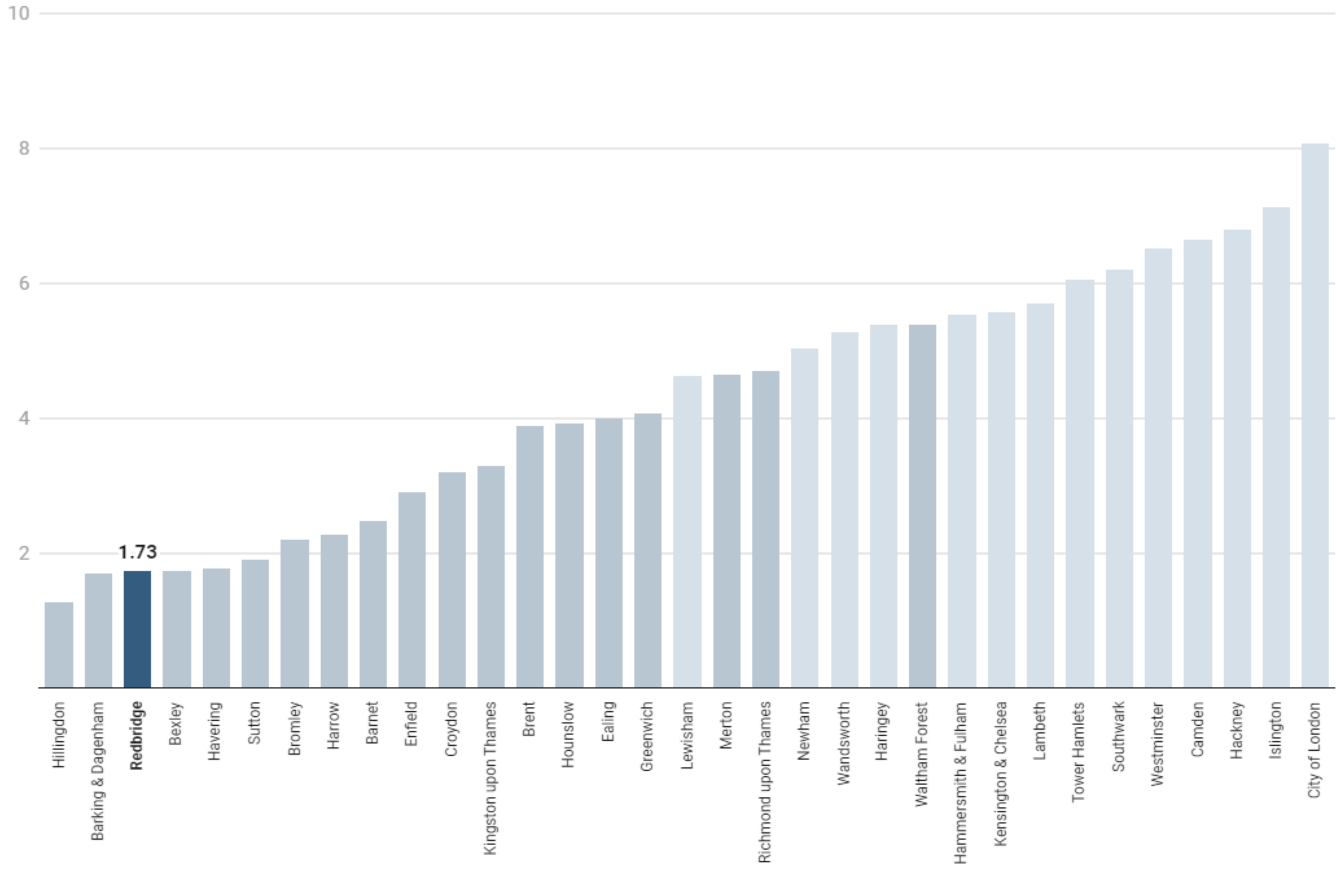
Car ownership rates

As a result, the data is used to help councils and residents to identify areas where the borough currently excel in providing healthier and more sustainability mobility, as well as where improvements can be introduced.

According to the 2022 Healthy Streets Scorecard results, Redbridge scores 1.73, one of the lowest scores across London. This is shown in Figure 3-20. Of the Outer London Boroughs, Redbridge is the third lowest with a similar score to Bexley, Barking & Dagenham with some of the unhealthiest streets in London. The Healthy Streets Coalition also published data on the proportion of total length of bus route in each borough which is 'prioritised' for buses using measures such as bus lanes. Less than 5% of routes are prioritised in Redbridge[1].

[1] Healthy Streets Score card (2022) **https://www.healthystreetsscorecard.london/results/#:~:text=2022%20final%20scores%20%26%20London%2Dwide%20overview,-New%20data%20reveals&text=Highest%20scoring%20London%20boroughs%20were,the%20top%20South%20London%20borough**.

Figure 3-20: Healthy Streets Scorecard for Redbridge Healthy Streets Coalition, 2022)



Dark blue: Outer London boroughs, light blue: Inner London boroughs.
Scores factored to 10, rather than total indicators (8 in 2019, 9 in 2020, 2021 & 2022), with School Provision indicator not present in 2019 and included in 2020, 2021 & 2022 (new indicator for 2020).

Air and noise pollution

Maintaining good air and noise levels is key to a healthy and satisfied population. However, according to TfL's Air Quality Information for Public Health Professionals (2022) report:

"In 2016, the whole of London exceeded the previous WHO guideline limit for PM2.5 of 10 µg/m3. The latest data from LAEI2019 shows there are now almost 1.2 million Londoners living in areas below the 10 µg/m3 limit and there has been a 19 per cent reduction in PM2.5 across the whole of the city since 2016. However, with the WHO guideline limit for PM2.5 reducing to 5 µg/m3, there is still work to be done to ensure Londoners can breathe clean air".

According to Redbridge's Air Quality Action Plan 2020-2025, "*In 2003 LB Redbridge designated the whole of the borough as an Air Quality Management Area (AQMA) due to exceedances in NO_2 and particulate matter (PM10)"*.

London Borough of Redbridge's analysis suggests that *"If all residents living in high or medium NO_2 exposure areas moved to a low NO_2 area in 2022, cases of asthma would drop by 115 per 100,000 people, cases of diabetes would drop by 346 per 100,000, and cases of lung cancer would drop by 3 per 100,000 by 2032. There would be a reduction in the rate of deaths by 25 per 100,000 people by 2032. In total, this would result in £3.55 million in health and social care costs saved per 100,000 people between 2022 and 2032."*

Poor air quality and high levels of noise affect in particular those most vulnerable - children and the elderly, who both show lowered life expectancy and heightened number of deaths attributable to poor quality of the environment. Indirectly, noise and pollution can discourage some people shifting from private cars to walking and cycling, as these come with a greater exposure to the pollutants, in turn decreasing the overall health and life quality of Redbridge's residents. However, research has illustrated that people who commute by car have higher exposure to pollutants than people walking or cycling.[2]

Main sources of air pollutant within the borough originate from road transport emissions, particularly from heavily trafficked roads including the A406, A12, A1400 and M11. Following this are emissions from residential and commercial areas, which relates to gas boilers and construction sites. Figure 3-21 shows that most of the borough, and in particular the A406 and A12 corridors along the western edge of the borough are in exceedance of the established NOx limits, reaching as high as 35µg/m^3. London Borough of Redbridge's Air Quality Action Plan 2020-2025 states that:

"*The focus areas remain the same since 2013 and include:*

- *A12 Eastern Avenue at Wanstead (east and west of Tunnel)*
- *Ilford A123 and Ilford Hill*
- *A12 Eastern Avenue from Redbridge to A12/Aldborough Road*
- *Hermon Hill The A12 routes are managed by TfL*

[2] Clean air hub (2022) **https://www.cleanairhub.org.uk/clean-air-information/what-can-i-do/how-can-i-protect-myself-and-my-family-when-i-am-out-and-about#:~:text=Polluted%20air%20from%20the%20exhaust,that%20people%20walking%20or%20cycling**.

Ilford Hill and Hermon Hill are managed by Redbridge Council. We will prioritise these areas when developing and implementing actions listed in this plan wherever relevant and work with TfL in delivering measures to improve air quality."

Figure 3-22 to Figure 3-25 demonstrate changes to key air pollutants over time, comparing Redbridge to outer London boroughs on average using LAEI data. Over the period 2013-2019, Redbridge has seen higher levels of CO2, NOx and particular matter emissions from road transport than the average outer London borough. However, with respect to both CO2 and NOx, this gap has notably narrowed with time. NOx emissions from road transport saw the greatest decline over this six-year period, followed by less prominent declines in PM10 and PM2.5 emissions. CO2 emissions from road transport remained relatively stagnant in this period.

In addition to air quality, there are several designated Noise Action Planning Important Areas (also shown on Figure 3-21). Similar to the key areas requiring interventions to improve air quality, these are located along the A12, A406, M11 and on Winston Way. The level of noise pollution currently experienced along the key corridors and in the major town centre often exceeds 75 dB, volume comparable to a vacuum or an alarm clock.

Figure 3-21: NOx concentration across Redbridge (DEFRA, 2020)

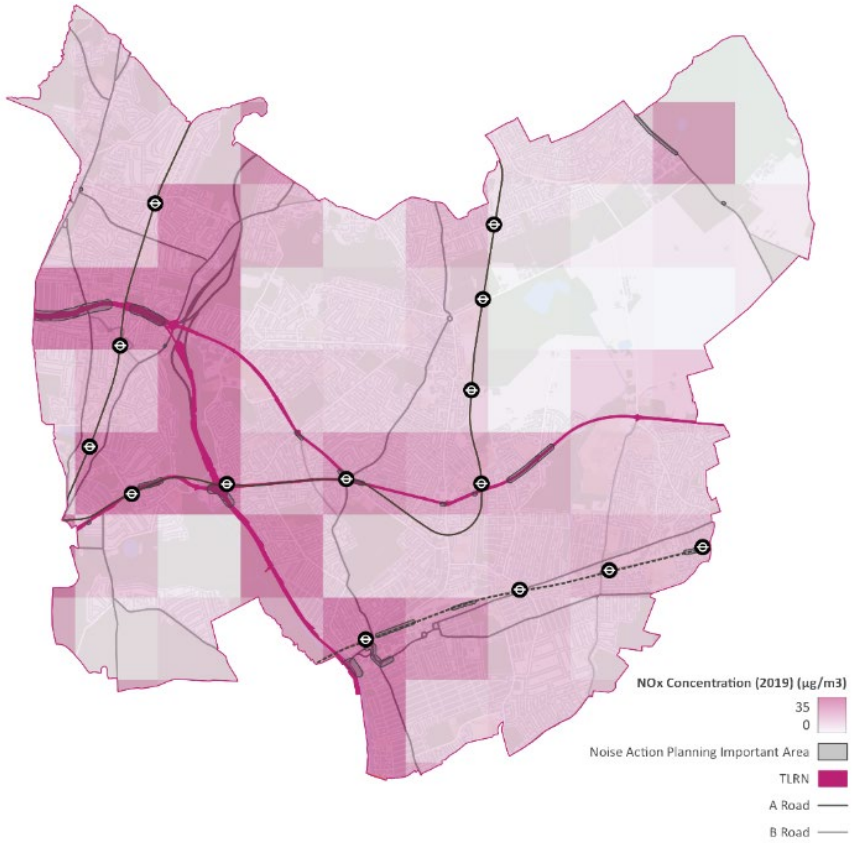


Figure 3-22: CO2 emissions from road transport (tonnes)

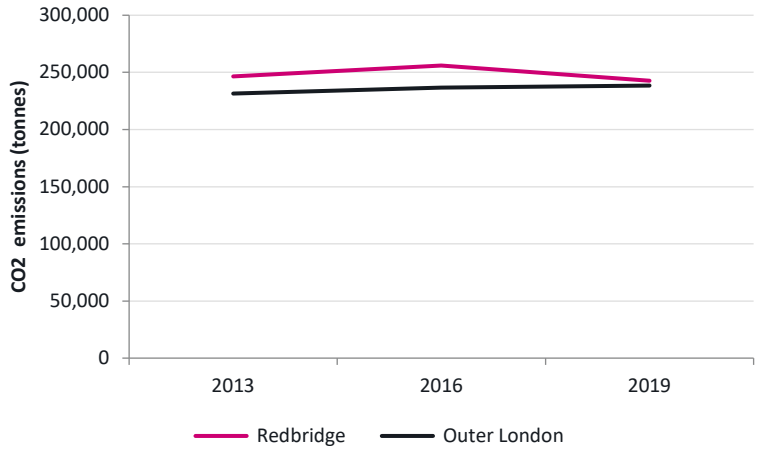


Figure 3-23: NOx emissions from road transport (tonnes)

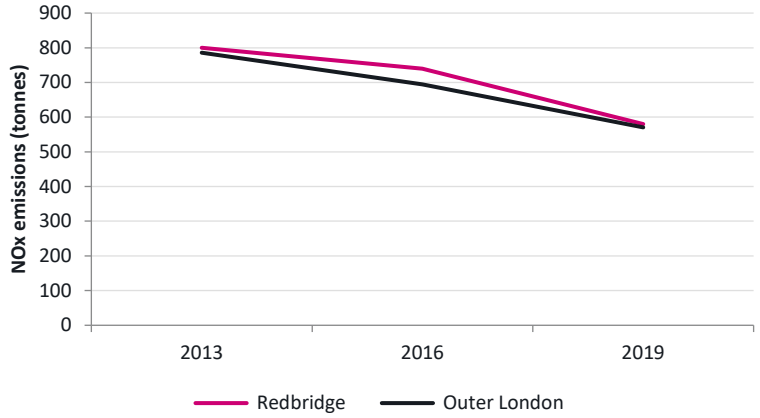


Figure 3-24: PM10 emissions from road transport (tonnes)

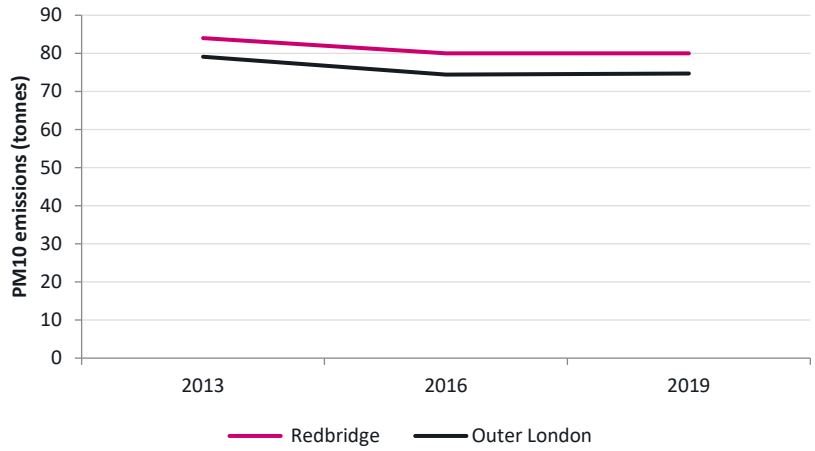
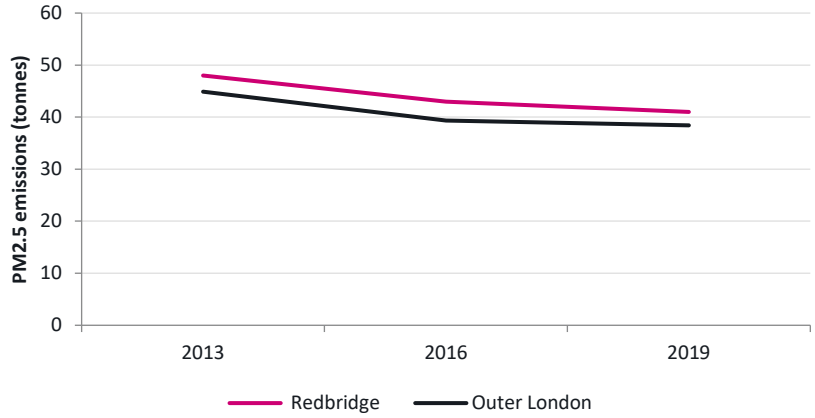


Figure 3-25: PM2.5 emissions from road transport (tonnes)



Redbridge is one of three local authorities within the recreation Zone of Influence for the Epping Forest Special Area of Conservation (SAC). It has a duty to ensure that planning application decisions comply with the Regulation and do not result in adverse effects on the integrity of the Epping Forest SAC. In addition, Redbridge must mitigate the air quality impact on the Epping Forest SAC, which is expected to be implemented either through transport and/or green infrastructure interventions.

Key messages

- The high prevalence of obesity and mental health issues in the borough can be addressed through increased education and awareness of the benefits associated with active travel choices.
- Redbridge has higher levels of transport related emissions compared to other Outer London Boroughs, however between 2013 and 2019 the gap has reduced. Noise pollution is concentrated along key corridors of the TRLN network.
- The good provision of health services across the borough and proximity to the Central Line and Elizabeth Line provide opportunities for increased travel by rail.
- There is a need to re-prioritise space to make existing streets and spaces more attractive to active travel, and to ensure that new streets and spaces are designed to prioritise active travel.

1 Our Community

Priority 4: Improving road safety

Safety is a key priority for Redbridge, and it is understood as a gateway to encouraging individuals to consider using modes whereby the journey passes through different environments that need to feel safe and comfortable to the user. Improving safety for all is integral to encouraging individuals to switch from using their car to travelling by public transport, foot or cycle. Often safety is a barrier to using these modes, and so is integral to this future Transport Strategy.

This priority needs to address key safety issues on our highways and rail networks and improving public safety and security that act as barriers, preventing individuals from choosing active and sustainable modes, as well as ensuring emergency services can always access all locations across the borough.

Policy context

Summary

Safety goes hand in hand with good health and is often a barrier to travel by walking or cycling. The Borough will need aim to achieve high levels of personal safety across its transport networks, as well as road safety in street spaces. This should align symbiotically with the Mayor's Vision Zero goal of eliminating all deaths and serious injuries from road collisions by 2041. Gear Change published during the Covid-19 pandemic sets out new design guidance and higher quality and safety requirements to incentivise walking and cycling activity. Locally, the Redbridge Our Street Strategy places emphases on creating safe and vibrant streets. Furthermore, the Sustainable Modes of Travel Strategy for Redbridge has a target to improve the safety of pupils on the school journey.

Data insights

Road safety

Road collision data for a 36-month period between 2018 to 2020 has obtained from Transport for London (TfL). According to the data as shown in Table 3-3, a total of 2,060 collisions were recorded in London Borough of Redbridge. This comprised of 87% slight collisions, 13% serious collisions and 0.2% fatalities. Table 3-3 shows a breakdown of collisions by year and severity. Between 2018 and 2020, there was a general decrease in the number of collisions, partially influenced by the pandemic which drastically limited traffic. The number of serious collisions has fluctuated between the three years and fatalities has remained similar.

Table 3-3: Redbridge Collision statistics (TfL, 2019-2021)

Year	Collisions			
	Fatal	Serious	Slight	Total
Jan 2018-Dec 2018	1	97	659	757
Jan 2019-Dec 2019	2	93	604	699
Jan 2020-Dec 2020	1	80	523	604
Total	**4**	**270**	**1,786**	**2,060**

Figure 3-26 demonstrates KSI trends over time between Redbridge and outer London boroughs on average. Since 2018, the number of killed and seriously injured has been declining and in 2021, for the first time in four years, the KSI rate in Redbridge fell below that of the average outer London borough.

Figure 3-27 illustrates that Redbridge had the second highest number of collisions in comparison to neighbouring London boroughs, in 2020. Newham had the highest number of collisions, whereas Barking and Dagenham and Havering showed similar results.

Figure 3-26: Killed and seriously injured casualties (STATS19)

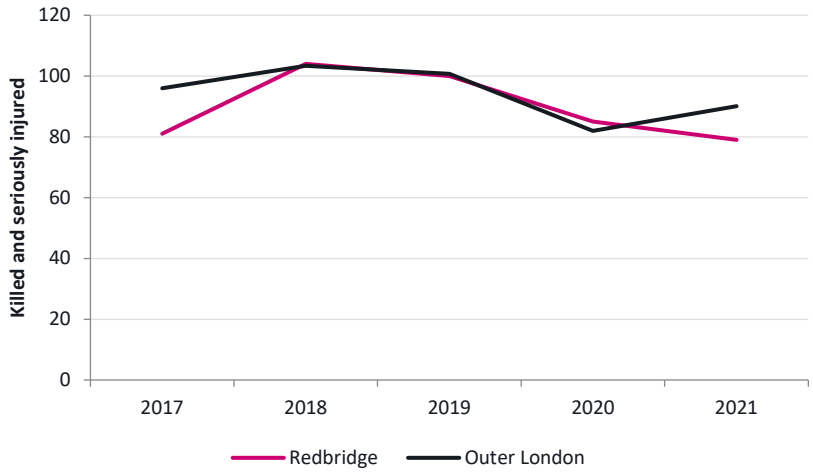


Figure 3-27: Comparison of collision statistics for Redbridge and neighbouring boroughs (TfL 2019-2021)

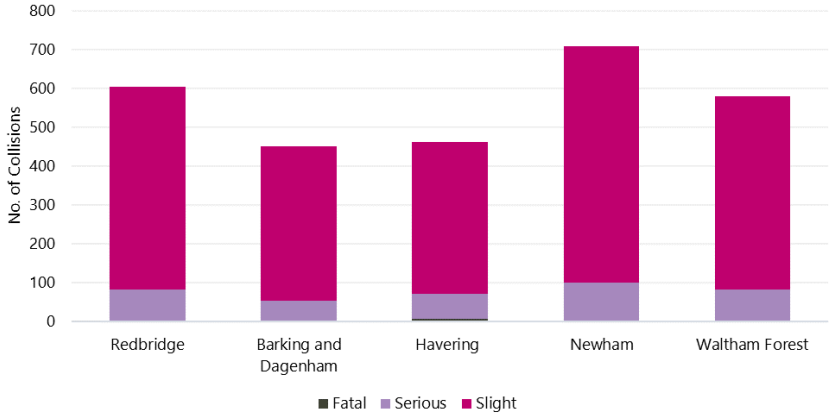
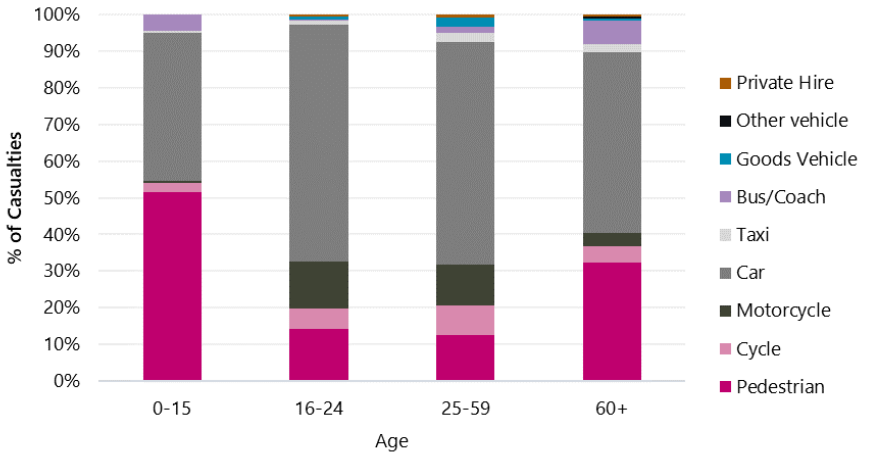


Figure 3-28 shows the number of casualties by age and mode of travel. Results indicate that most of the collisions involved cars, following pedestrians and motorcycle users, which can reflect high car traffic flows in the borough. It is also important to note that most of the accidents involving pedestrians are individuals between the ages 0-15 years old.

Figure 3-28: Redbridge number of casualties by age and mode of travel (TfL, 2019-2021)



Trust for London 2020 research into road collisions and deprivation indicated a positive correlation between the two – traffic accidents, particularly those involving pedestrians, tend to occur at a higher rate in less affluent neighbourhoods. Therefore, road safety investments should focus on targeting the most deprived areas of Redbridge first, as indicated in the *Borough at a Glance* section, to help the greatest number of residents.

Key messages

- Road safety is a key priority of the council, given that Redbridge have one of the highest rates of collisions compared to neighbouring boroughs.
- As the youngest cohort of 0–15-year-olds have the highest number of casualties, this Strategy should focus on how safety can be improved for the typical journeys (i.e. to school) that are made by this group of the population.
- Making street environments safer for pedestrians and cyclists

2 Our Environment

Priority 5: Responding to climate change

Redbridge is amongst many other London Boroughs that have declared a climate emergency in response to reaching a tipping point. The decarbonisation of transport is integral for mitigating the impacts of travel and pollution on planetary health. The Transport Strategy will identify interventions that reduce demand, shift to active travel and public transport and create pathways towards net zero emissions from travel, in line with local and national targets.

This priority requires taking action now and continuously until the Borough's goals for carbon neutrality (2030) and zero (2050) following a budget-based approach, by reducing the need and demand for travel, tailpipe emissions from travel, and the embedded carbon from infrastructure. The priority needs to consider reenforcing a whole-lifecycle carbon accounting in decision-making and emphasising the need to make best use of our existing assets.

Policy context

The Borough of Redbridge has declared a climate emergency and is focussed on becoming a carbon neutral Council by 2030 and achieving net zero by 2050. The Borough has set out a range of deliverable 'cleaner journey' policies as part of its Climate Change Action Plan 2021, aiming to reduce associated emissions from road-based travel and deliver transport decarbonisation.

These are integral to helping the borough become carbon neutral by 20230 and carbon zero by 2050. The national 'A Green Future' strategy sets out the necessity of adapting to climate change, improving the resilience of infrastructure, housing and the natural environment.

Looking ahead, the Government is expected to consult on Quantifiable Carbon Reduction guidance in 2023, as part of the statutory Local Transport Plans process. There are likely to be changes around how carbon assessment takes place, including in relation to the national planning framework.

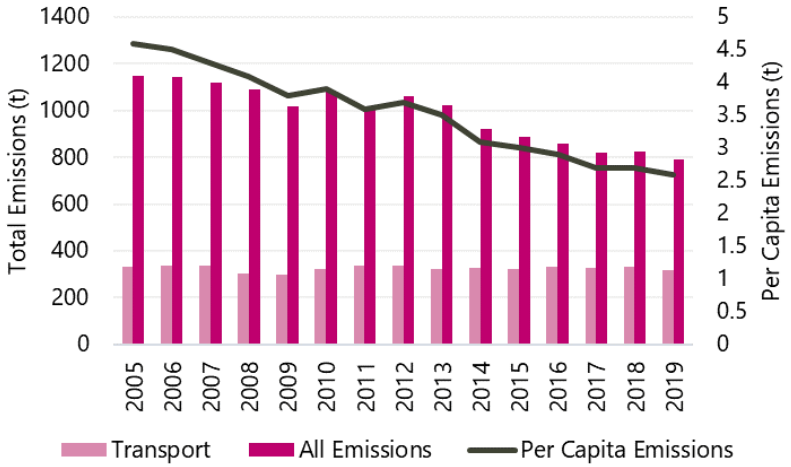
Data insights

Looking at the Department for Business, Energy & Industrial Strategy (2021) data on local authority and regional carbon dioxide emissions, the CO_2 emissions of Redbridge have decreased significantly (by 31pp) between 2005 and 2019, with overall emissions per capita decreasing by 43 percentage points – a higher proportional decrease given the rise in Redbridge's population.

This is represented in Figure 3-29. Nevertheless, while total emissions have decreased, those emitted by transport have remained relatively constant, showing a decrease of only five percentage points. The

Redbridge Climate Action Plan highlights that the fleet (refuse vehicles, school transport) accounts for 24% of the council's total emissions[3].

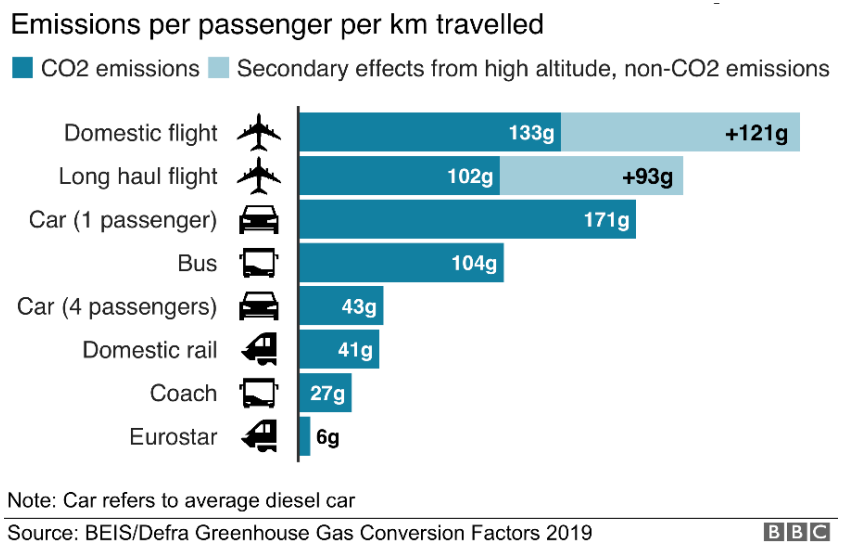
Figure 3-29: Emission trends (Department for Business, Energy and Industrial Strategy (BEIS), 2021)



Transport is one of the greatest contributors to climate change, responsible for over 16% of CO_2 emissions worldwide and as much as 36% of emissions within Redbridge, as shown in Figure 3-30. Within urban transport, private tends to be the greatest polluter, exceeding bus, rail and, obviously, walking and cycling.

According to the Borough's Climate Change Action Plan, when broken down, 61% of the Borough's transport emissions arise from on-road transport, the second highest carbon emitter in the borough. This is partially because as an Outer London borough, Redbridge's residents are less likely to travel using a sustainable mode compared to Inner London, and also because an average household in Redbridge has more than one car.

Figure 3-30: Emissions from different modes of transport (BEIS/DEFRA, 2019 via BBC)



[3] Redbridge Council Climate Change Action Plan (2021) https://www.redbridge.gov.uk/media/9400/appendix-b-climate-change-action-plan-final.pdf

Key messages

- This Strategy needs to recommend interventions that will contribute to the reduction of emissions associated with transport, this is to help the borough achieve carbon neutrality by 2030 and carbon zero by 2050.
- Car travel is clearer the largest producer of CO_2 emissions when compared to other forms of transport that are available to the people of Redbridge. This coupled with the naturally higher car dependency for this Outer London Borough highlights the need for a Sustainable Transport Strategy that encourages travel by greener and cleaner modes.

2 Our Environment

Priority 6: Encouraging sustainable travel

Redbridge is committed to generating more cleaner journeys across the Borough. Encouraging people to make the switch for the private vehicle and make more frequent sustainable journeys using active travel methods or via public transport can yield great benefits for their quality of life. The Strategy aims to set out measures to encourage sustainable travel, incentivising cleaner journeys and demonstrating that they can be healthier, quicker, cheaper and more enjoyable than using the car.

This priority focuses on the incentivisation of travel by sustainable modes to be an attractive and viable alternative to the private car through better integrated infrastructure and services, information provision, addressing issues of affordability, and greater awareness of the benefits of making more sustainable travel choices (e.g. cost savings, improved health and air quality).

Policy context

The Borough aims to support a 'green' modal shift by facilitating the uptake of sustainable alternatives to the private vehicle, predominantly walking, cycling and the use of public transport. The MTS sets out a London-wide target for 80% of trips to be made by foot, cycle or public transport by 2041, while the Clean Air Strategy calls for action to encourage the use of the cleanest modes of transport for both freight and passengers, including active travel. The government is seeking to introduce 4,000 new electric buses and associated infrastructure as part of its Net Zero Strategy, while the MTS aims to make London's bus fleet fully zero-emission by 2037.

Reducing vehicle use goes hand-in-hand with promoting sustainable travel. The MTS aims to reduce overall traffic congestion by 10-15% in the capital by 2041. Redbridge will seek to curb vehicle use and incentivise alternative travel by reducing rat running, promoting traffic-free routes and rolling out more stringent speed limits, as promised in the Local Implementation Plan.

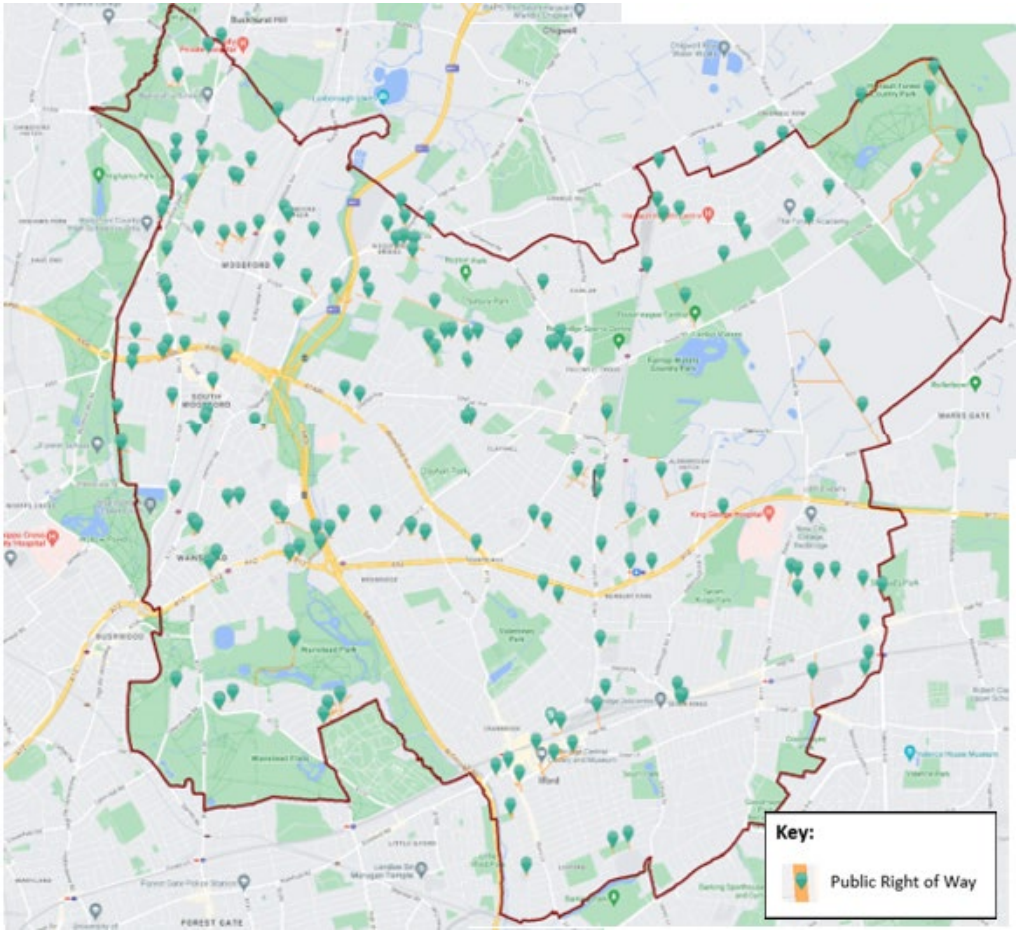
Data insights

Sustainable travel

According to the Healthy Streets Scorecard (2022) results for Redbridge, current sustainable mode share is 27% via public transport, 23% walking and 1% cycling, compared to the Greater London average which is 30% via public transport, 33% walking and 3% cycling. This reflects that more measures could be in place to encourage more active travel in order to work towards the 80% sustainable mode share set out in the Mayor's Transport Strategy (MTS).

The existing public rights of way network in Redbridge is shown in Figure 3-31. These routes show potential for pedestrian connectivity over and above the existing road network. Managing the attractiveness, comfortability and safe of these routes will help ensure that key destinations of work and leisure are more easily accessible by walking.

Figure 3-31: Existing Public Rights of Way (PROW) for Redbridge

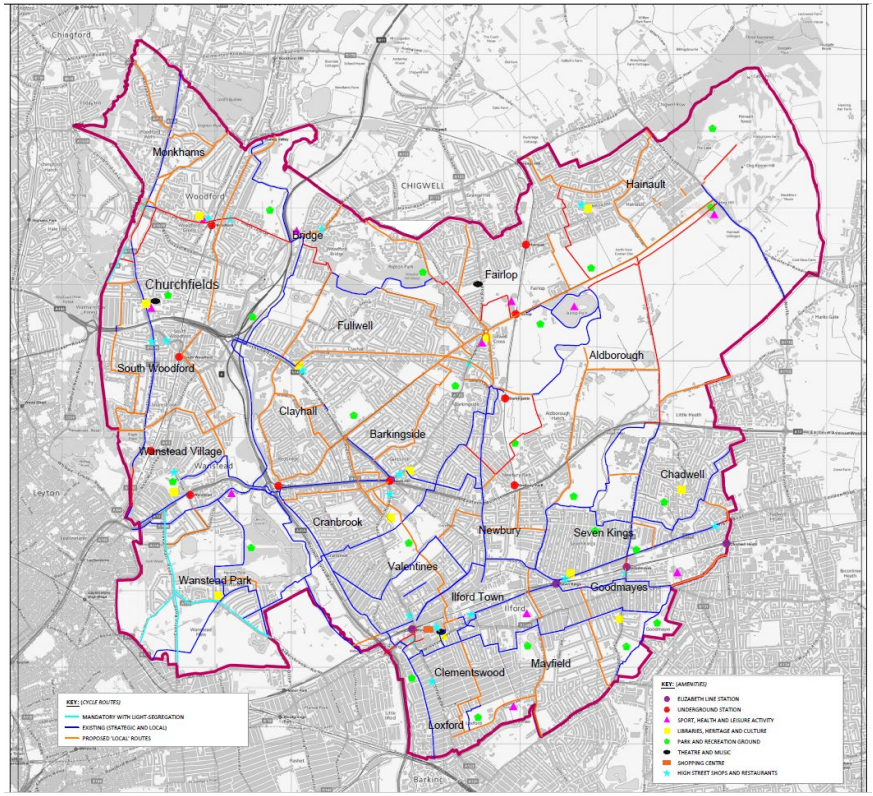


Source: © Crown copyright and database rights 2012 Ordnance Survey. LB Redbridge 100017755. Open Street Map Data: © OpenStreetMap contributors, CC-BY-SA

Partially responsible for the lower-than-average uptake of cycling can be a limited cycle network (shown on Figure 3-32). While Cycleway 16 (formerly Quietway 6) connects Manor Park in the London Borough of Newham to Barkingside, the route is poorly maintained, and does not provide much separation or protection from vehicular traffic. While other, local, cycle routes exist, these do not form a cohesive network, allowing residents to cycle either to access local services or cycle for leisure. As shown in Figure 3-32, there are gaps in the cycle network in the north east of the borough, particularly around Fairlop, Aldborough and Hainault. In particular, the green spaces to attract leisure activity in these areas are not well served by the cycle network.

TfL strategic analysis shows that only 8% of the borough's population live within 400 metres of the strategic cycle network as of 2022. This is slightly lower than the average for outer London boroughs (10%). However, there is significant opportunity in Redbridge to increase this figure; implementing the proposed cycle routes shown in Figure 3-22 would bring the cycle network within reach of many new residents.

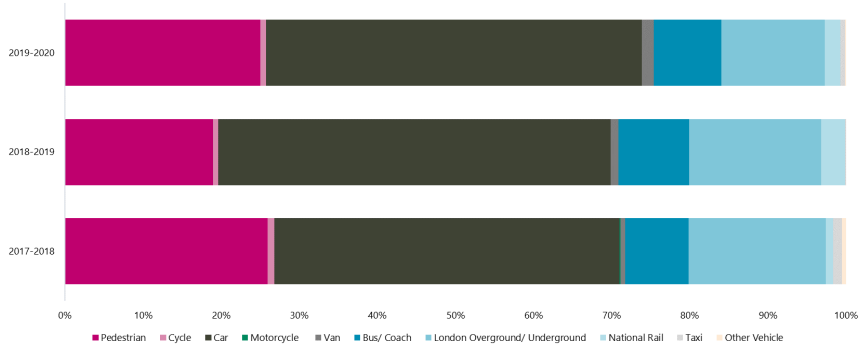
Figure 3-32: Cycling infrastructure in Redbridge



Mode Share

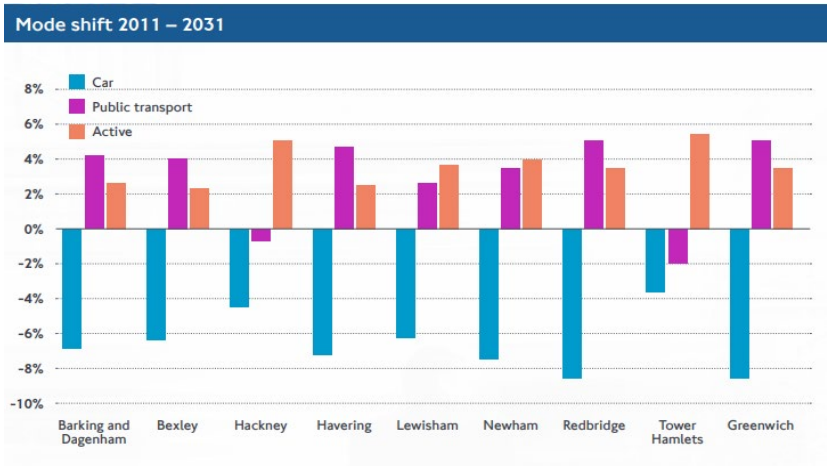
The London Travel Demand Survey (LTDS) is a survey carried out by TfL each year to understand the travel habits of people living in the Greater London area. As part of the LTDS, 8,000 randomly selected households are interviewed. Weights are used to extrapolate from the 8,000-household sample size to population of Greater London. The mode share for Redbridge is presented in Figure 3-33 .

Figure 3-33: Redbridge Mode Share (2017-2020)



Most trips generated in Redbridge were made by car or van, followed by trips which were walked and then made on rail or by bus. While the mode share over the recent years has remained stable, TfL's East and South East London Sub-Regional Transport Plan suggests that by 2031 the mode share will shift, with -8% decrease in trips by car and a 4%. This is shown in Figure 3-35. This is a greater projected decrease in car use than most other adjacent boroughs.

Figure 3.34: Mode shift in Redbridge compared to other boroughs (2011-2031)



Vehicle Ownership and Licensing

According to the 2021 Census, Redbridge had higher levels of car ownership than both the Outer London and London averages, with 72% of households with access to at least one car. This is shown in Table 3-4. The number of households without access to a car or van has remained the same as in the 2011 Census.

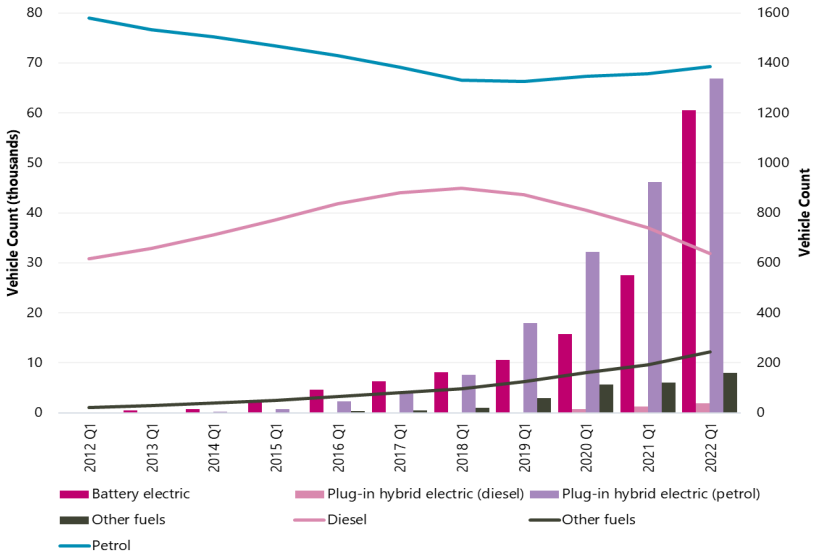
Table 3-4: Vehicle ownership levels for Redbridge, Outer London and London (ONS, 2021)

	No cars or vans in household	1 car or van in household	2 cars or vans in household	3 or more cars or vans in household
Redbridge	28%	45%	20%	7%
Outer London	31%	45%	19%	6%
London	42%	40%	14%	4%

The DfT and Driver and Vehicle Licensing Agency (DVLA) provides datasets for licensed vehicles within the Greater London Area. These vehicles are classified by body types, fuel type, keeperships and local authority.

As outlined in the earlier sections, the number of vehicles registered to Redbridge's residents did not experience major variations over the last decade, the total number of vehicles registered in the first three months of 2022 was less than one percent higher than that in the first quarter of 2010, with fluctuations of -1 to +4% within the period. The relatively constant number of vehicles shown against the increase in Redbridge's population suggests that there are now fewer vehicles per capita than in 2011.

Figure 3-35: Public electric vehicle charging points across Redbridge



LBR data on 45 slow chargers installed across the borough shows their rapidly increasing popularity – in 2021 the chargers were supplied 55,325kWh energy (enough to power over 1,100 Model 3 Teslas); in the first six months of 2022, the usage increased up to 82,140kWh (enough to power over 1,600 Model 3 Teslas), demonstrating an increase of over 190%.

The spatial distribution of Public Vehicle Electric Charging Points is illustrated in Figure 3-36. In total there are 59 publicly available charge points across the borough. As shown, most existing EVCPs are clustered in the western end of the borough around Woodford with few chargers available in other areas. This in correlation with the expansion of the ULEZ zone in October 2021 which has created a single, larger zone up to the North Circular Road (A406) and South Circulate Road (A205). The zone includes western areas of the Borough such as South Woodford, Snaresbrook, Wanstead and Aldersbrook. This suggests there is a need to develop a comprehensive network of charging points in other parts of the borough, particularly in the densely populated southern part.

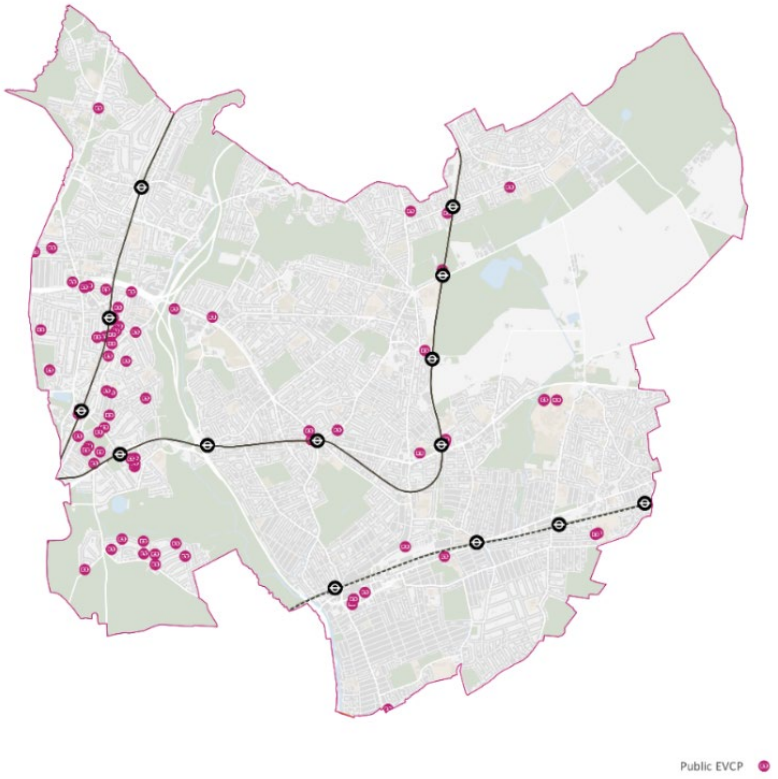
Redbridge Council have committed to installing a further 310 electric vehicle charge points across the borough by the end of March 2023, this will increase the availability of plug-in vehicle charging infrastructure for those residents who do not have access to off-street parking[4]. shows the number of vehicles by fuel type between 2012 to 2022 in Redbridge.

Since 2012 the share of petrol fuelled vehicles reduced, albeit with petrol vehicles remaining the most popular. Diesel vehicles, gaining popularity before 2017 saw a rapid decrease in numbers after that year. Vehicles fuelled by alternative sources have seen a steady increase, nearly multiplying their share ten-fold since records began.

As such, it is worth noting that the numbers of electric and hybrid vehicles have increased since 2012, indicating a growing demand in electric vehicle charging points across the borough, as well as other infrastructure which support these vehicles.

[4] Redbridge Council (Jan 2022) Funding to help supercharge Redbridge's electric vehicle network, Available at: **Redbridge - Funding to help supercharge Redbridge's electric vehicle network**

Figure 3-36: Publicly available electric vehicles charge points in Redbridge (DfT, 2022)



Furthermore, Uber has partnered with three London boroughs to install over 700 new electric-vehicle chargers across north and east London. These charges will be on-street charging points, meaning they will not interfere with pedestrian infrastructure[5].

[5] Future Transport News (March 2022) Uber partners with London Boroughs to install EV Chargers, Available at: **Uber Partners with London Boroughs to Install EV Chargers | Future Transport-News**

Car Parking

Redbridge is home to 27 Controlled Parking Zones (CPZs), predominantly located along the western Central Line and Elizabeth Line corridors as shown in Figure 3-37. Between April 2021 and March 2022 there were over 23,000 CPZ permits issued, with ca. 55% permits issued to zone residents and ca. 41% issued to zone visitors. The coverage of CPZs is low in comparison to the neighbouring boroughs of Newham, Havering and Barking and Dagenham. Further to the CPZs, the council manages 18 major car parks distributed throughout the borough.

In the year to July 2022, these accommodated over 280,000 stays, and average of 24,000 per month, with the busiest car park – Grove Park, located off Wanstead High Street, attracting over 54,000 visits. This data is represented in Table 3-5.

Identifying the busiest car parks can be the starting point to looking at areas attracting high levels of travel by car, with further investigation into measures that can be applied to help shift visitors to those areas to more sustainable modes of travel.

The Redbridge Local Plan sets out the borough's current approach to car and cycle parking in policy LP23. It notes that new residential development within close proximity to public transport nodes should aim to deliver low levels of parking provision, in line with London Plan standards. Where proposals seek to reduce off-street car parking, developers are required to demonstrate that sufficient parking will remain to serve local needs.

Figure 3-37: Redbridge Controlled Parking Zones and 10 largest Car Parks (Redbridge Council, OS data, 2012)

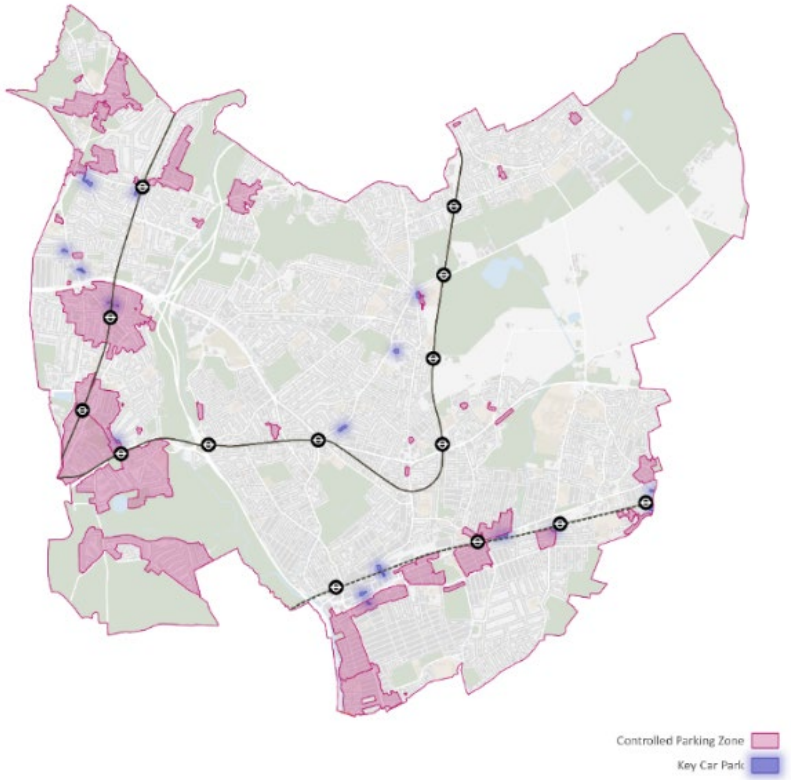


Table 3-5: Redbridge car parks and occupancy levels (London Borough of Redbridge, 2022)

Car Park	Busiest Month (December 2021)	August 2021 – July 2022
Grove Park	5,354	54,301
Cranbrook Road	3,590	34,778
Craven Gardens	2,616	28,979
Charteris Road	3,285	22,123
Derby Road	1,799	21,618
Seven Kings High Road	1,397	17,809
Sir James Hawkey Hall	3,435	16,431
Station Road	1,077	15,351
High Road SW	1,108	14,836
Wangey Road	814	11,126
Ley Street Multi Storey	808	9,148
Mildmay	968	9,037
Eastwood Road CP7	766	8,965
Goodmayes Road	537	7,600
Court Way	500	5,559
Primrose Road	260	3,077
Mulberry Way	248	3,033
Eastwood Road CP8	78	1,173
Total (all car parks)	**28,640**	**284,944**

Car parking spaces often restrict space for the implementation of dropped kerbs, posing issues of accessibility and movement across streets. In Redbridge, a planning application for the creation of a dropped kerb is currently only needed if the property is on a classified road, in a conservation area or on a TfL red route.

Future forecasts of travel demand - transport modelling

Transport for London have developed a set of strategic transport models to provide a robust and reliable evidence base for assessing impact of different growth strategies and investments in the transport infrastructure[6]. The models consist of mathematical tools which aim to predict some or all of the proposed decisions; in addition, some models often combine to provide an overall picture[6].

Transport for London's (TfL) Models: TfL's models typically represent the behaviour of passengers, cyclists, pedestrians and drivers as they travel on London's transport network. The models cover the most common modes of transport, and help TfL and other stakeholders to plan London's future transport needs and identify which proposed schemes should be implemented to meet the goals of the Mayor's Transport Strategy.[6] TfL have a range of strategic transport models which represent the different decisions that an individual makes and the understanding the long-term impacts of schemes and policies. The focus of the analysis in this study are the MoTiON and LoHAM models.

MoTiON: MoTiON is a strategic multi-modal model of travel in London and the surrounding area. The model is used to predict how personal travel habits in London respond to changes in needs or as a result policy changes.[6] The model uses five demand modules which aim to forecast trip change and mode shift by taking land use assumptions, economic travel behaviour assumptions and planned transport investment. The model forecasts how many trips there are likely to be, their origins and destinations, and their modes of transport.[6] The model works in four stages which include: how many trips will be made, where people will travel to and from, which mode they will use, and which routes they will take through the network.[6] All key modes of transport are modelled including car driver, car passenger, PHV, public transport (London Bus, National Rail, Underground, Overground, Docklands Light Railway and Tramlink), cycling and walking. MoTiON also models light goods vehicles, other goods vehicles, coaches, and taxis.

[6] **londons-strategic-transport-models.pdf (tfl.gov.uk)**

LoHAM: LoHAM is the London Highway Assignment Model, which represents the routing and congestion of motorised highway trips using London's highway network.[7] The model splits highway users into different vehicle types; car, taxi, personal hire vehicles, light goods vehicles, and other goods vehicles. In addition, the model can separate the movement of ULEZ compliant vehicles versus non-compliant ones as well as including representations of buses and cycles. The base year travel patterns have been estimated by using aggregated and anonymised mobile phone data, to model routes based on journey times and distance.[7] The model is used to provide an understanding of major highway schemes, employment, and large residential developments. Data extracted from the modelled scenarios includes congestion hotspots, total distance or time travelled, number of vehicles using primary roads, origins and destinations of vehicles, and average speeds[7]. LoHAM is the primary tool used by TfL to assess the long term impacts on the highway network of different landuse, policy and transport infrastructure investments. LoHAM provides the highway assignment element of the MoTiON model, so the two models are intrinsically linked.

Forecast trip growth

As part of developing the Redbridge Sustainable Transport Strategy we have conducted analysis of zonal trip growth origin and destination analysis across Redbridge, to understand how trips could grow in origin and destination by 2041.

2016 to 2041 change in the origins of trips in the AM peak: Figure 3-38 highlights the zonal trip growth origin analysis for the between the 2016 and 2041 AM peak reference case. It is evident that the majority of trip origin growth will be around Ilford, particularly near Ilford Station, with a number of geographically small zones seeing increases in higher trips greater than 100. However, pockets in the north of Redbridge including Fairlop will also experience high origin trip growth, greater than 50. Overall trips originating in Redbridge will increase by 2041, with a particular concentration around Ilford.

2016 to 2041 change in the destinations of trips in the AM peak: Figure 3-39 shows the growth in trips to destinations between 2016 and 2041 in the AM peak (reference case). In parallel to Figure 3-38, the majority of trip destination growth will be concentrated around Ilford (greater than 100). In addition, Figure 3-39 highlights increased trip destinations east of Ilford and northeast of the borough towards Fairlop, which will experience high destination trip growth (greater than 50). The growth in destination trips follows a similar pattern to the origin trips.

[7] **londons-strategic-transport-models.pdf (tfl.gov.uk)**

Figure 3-38: 2016 to 2041 change in the origins of trips in the AM peak

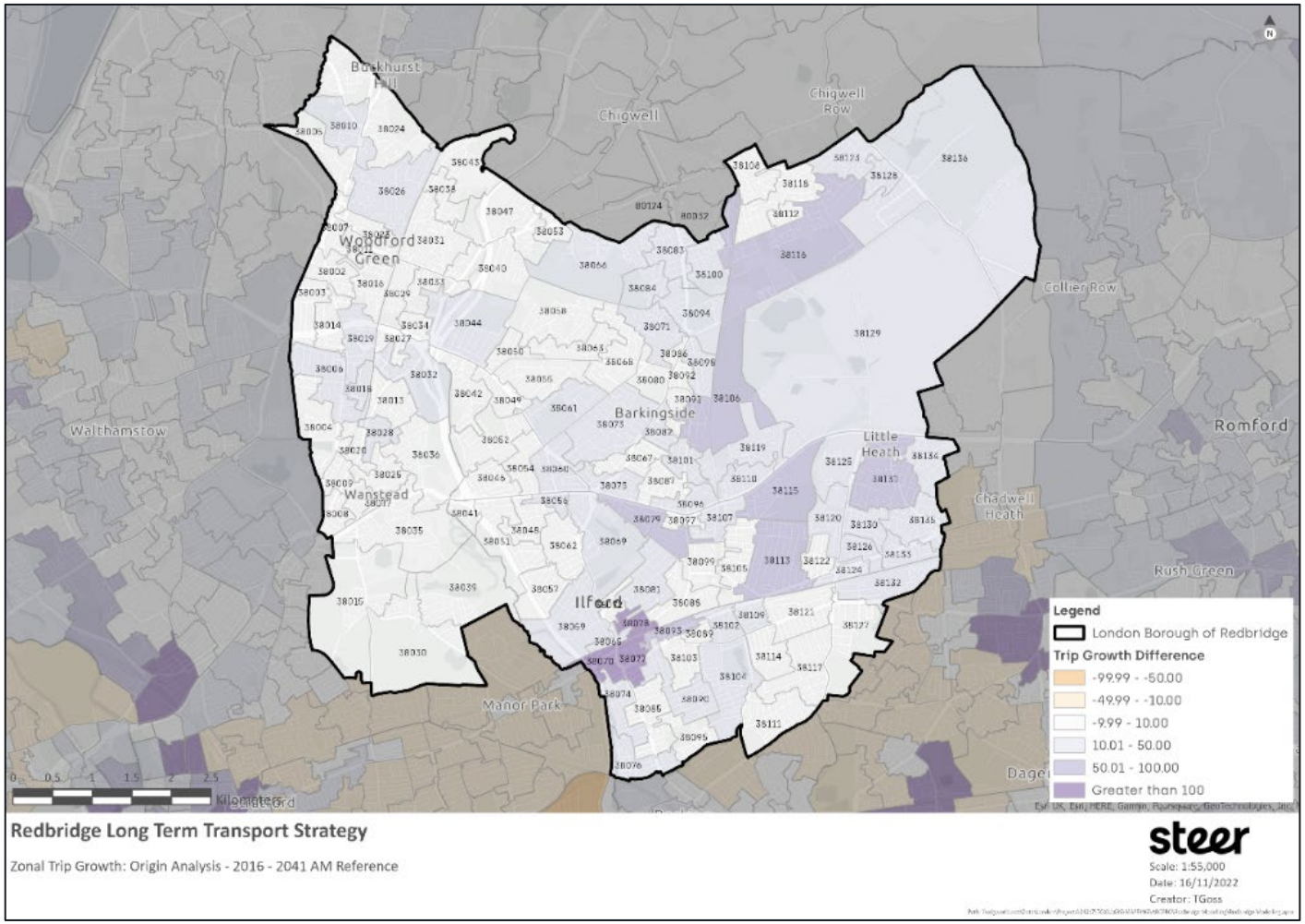
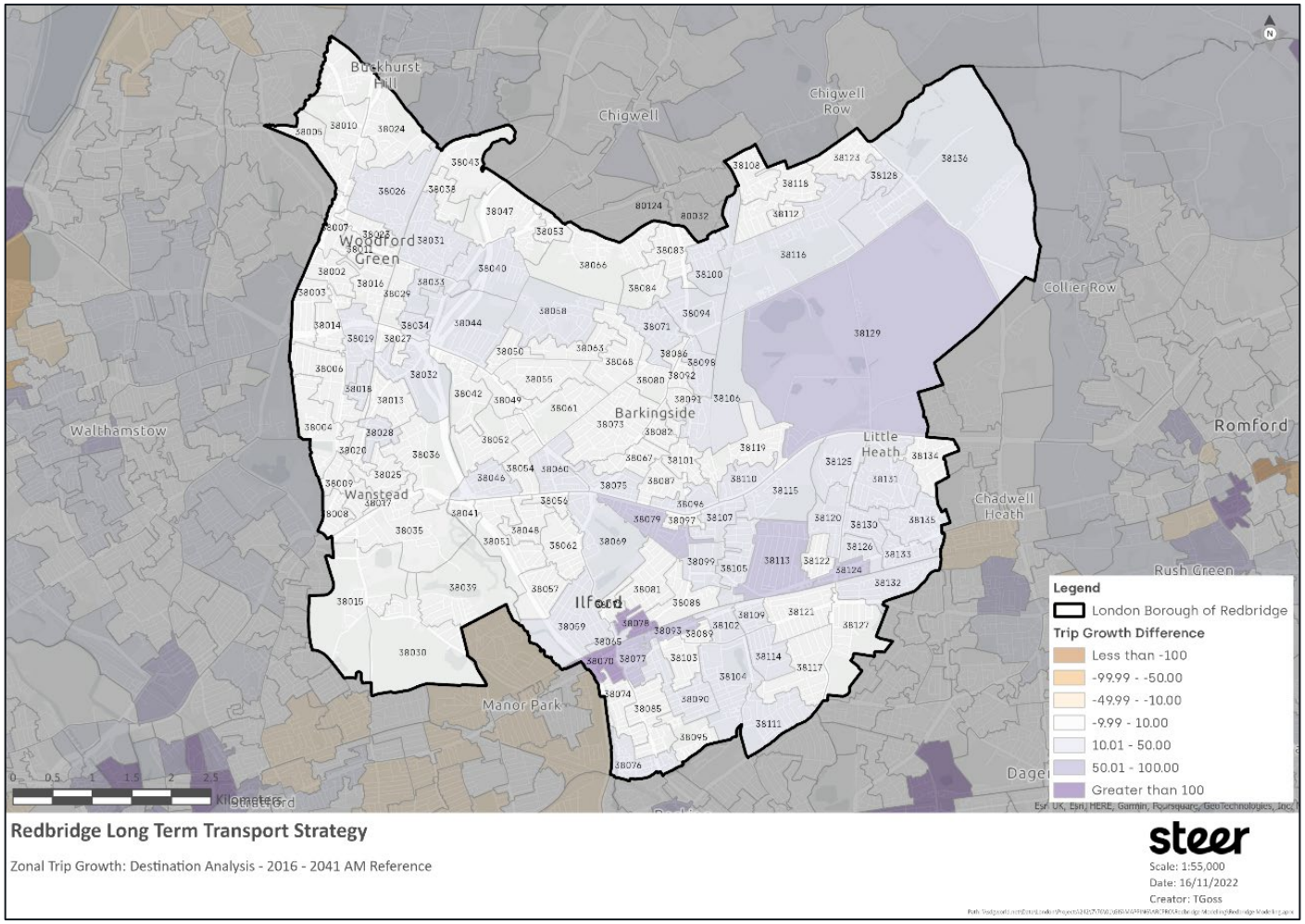


Figure 3-39: 2016 to 2041 change in the destinations of trips in the AM peak



Forecast pinch-points

An analysis of potential pinch-points on the highways network in Redbridge has also been conducted. This is calculating a ratio of the volume of traffic on a highways link divided by the capacity of the link, highlighting links where the volume of traffic is close to or higher than the capacity of the link, and through average junction delays. This is done by comparing 2016 base year conditions to a forecast of a 2041 (reference case) scenario.

Volume over capacity assessment for the AM peak - 2016 and 2014

Figure 3-40 and Figure 3-41 indicate the volume over capacity ratio for the 2016 base year and 2041 reference case AM peaks. Percentage ratios over 100 indicate there are more vehicles on the link in the peak hour than there is capacity, which is likely to produce significant traffic queues. In addition, links will increasingly suffer from congestion as the ratio approaches 100, with links over 85% generally considered to be suffering from congestion.

Overall Redbridge is relatively uncongested, but with pockets of congestion particularly connecting to local centres, such as Wanstead, Little Heath, Woodford Green and particularly Ilford. In addition, the M11 North of the A406 is over capacity.

Figure 3-40 highlights the volume and road capacity for the 2016 base year. The majority of roads in Redbridge are below 85%, which suggests that the overall the network is not highly congested. However, there are some locations where the network is under stress, particularly around Ilford (High Road) and roads connecting to Ilford and towards Fairlop (Forest Road), where the volume over capacity is over 100.

Figure 3-41 showcases the traffic volume and road capacity analysis for the 2041 reference case. This shows a similar pattern to the 2016, but with a noticeable increase in links that will suffer capacity issues around Ilford. These increases are in line with the growth seen in highway trips shown in the trip growth section above, indicating that new development around Ilford will cause issues on the road network unless mitigations or reduced highway mode shares are implemented.

Figure 3-40: 2016 AM peak volume over capacity assessment

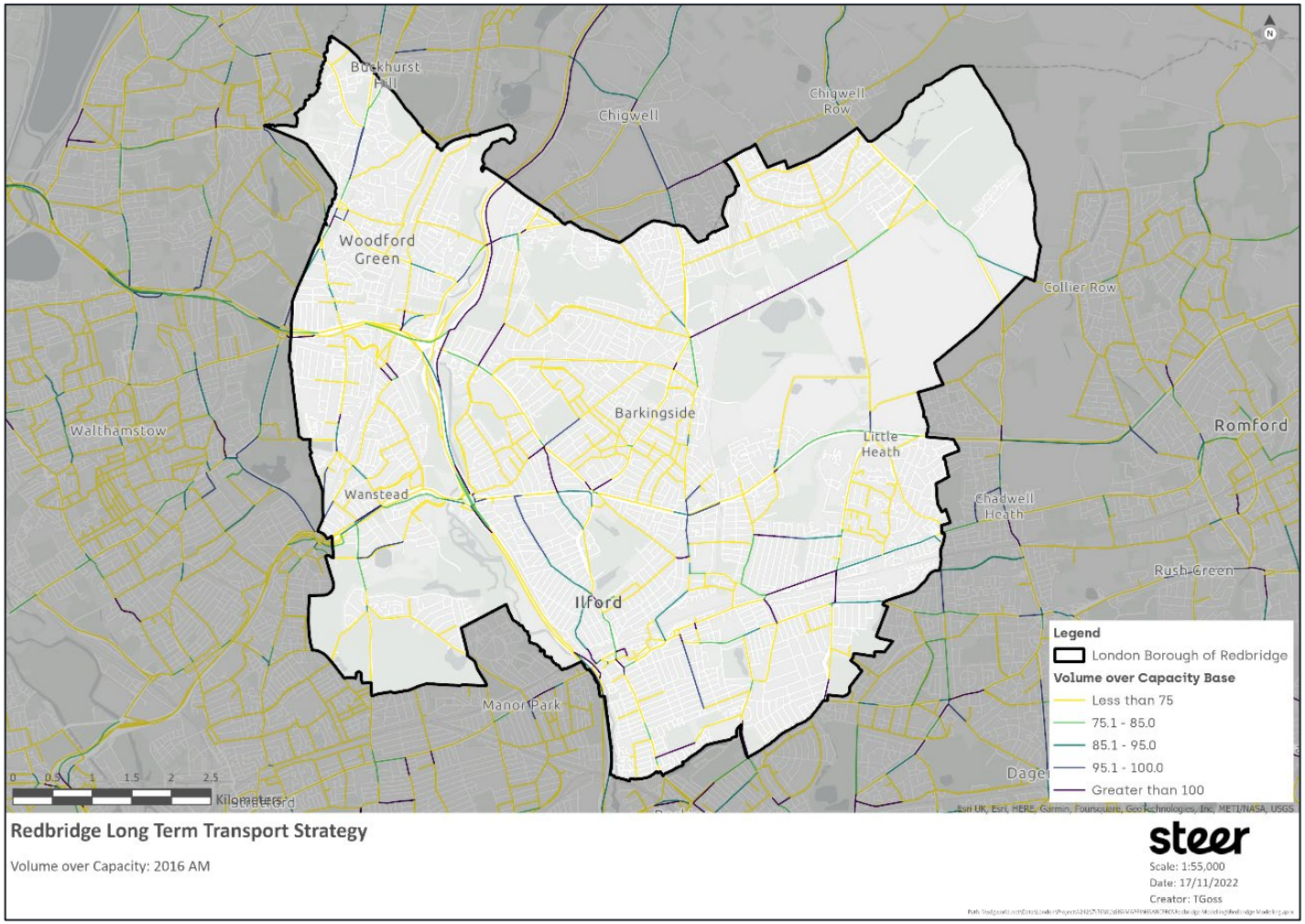
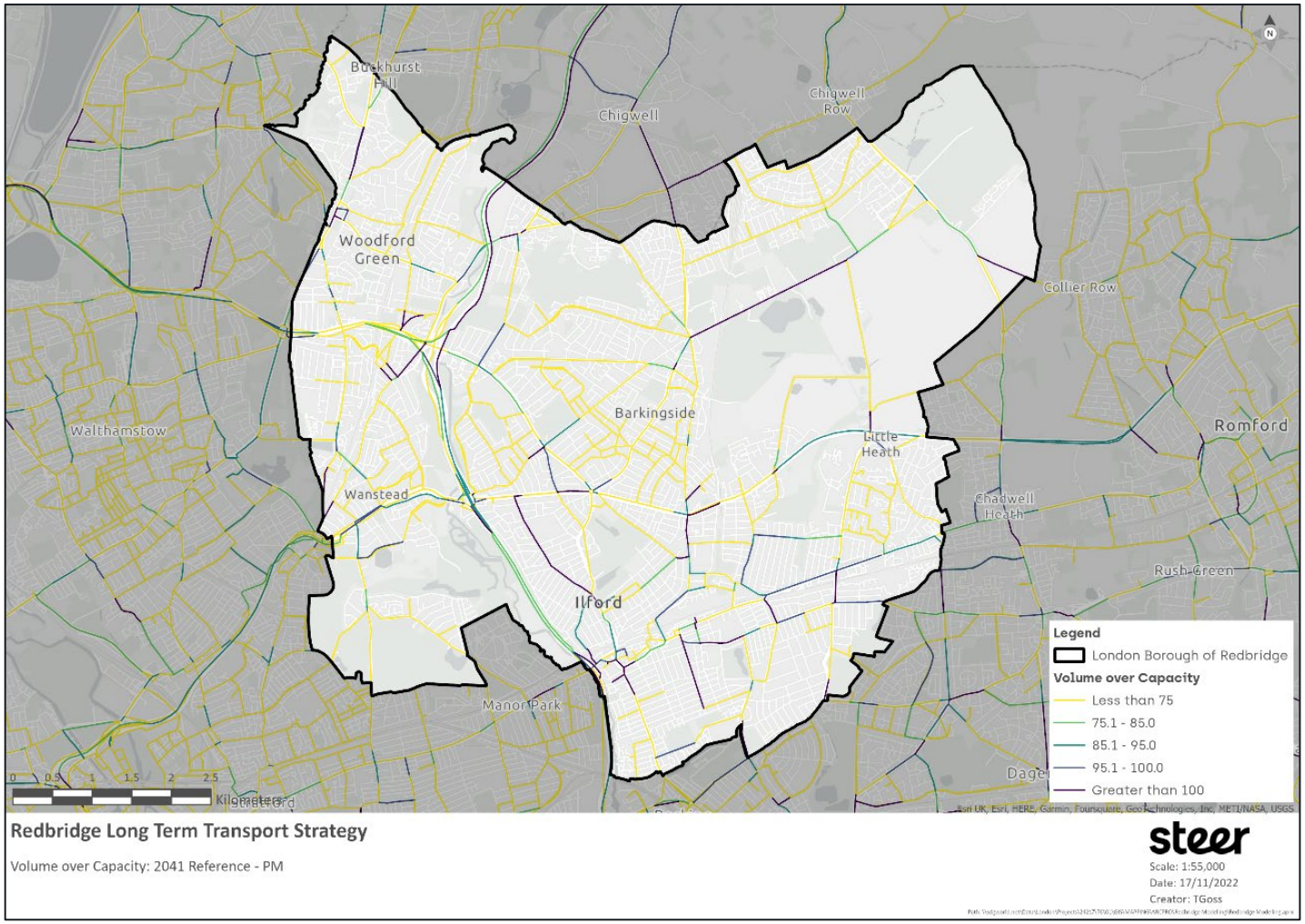


Figure 3-41: 2041 AM peak volume over capacity assessment

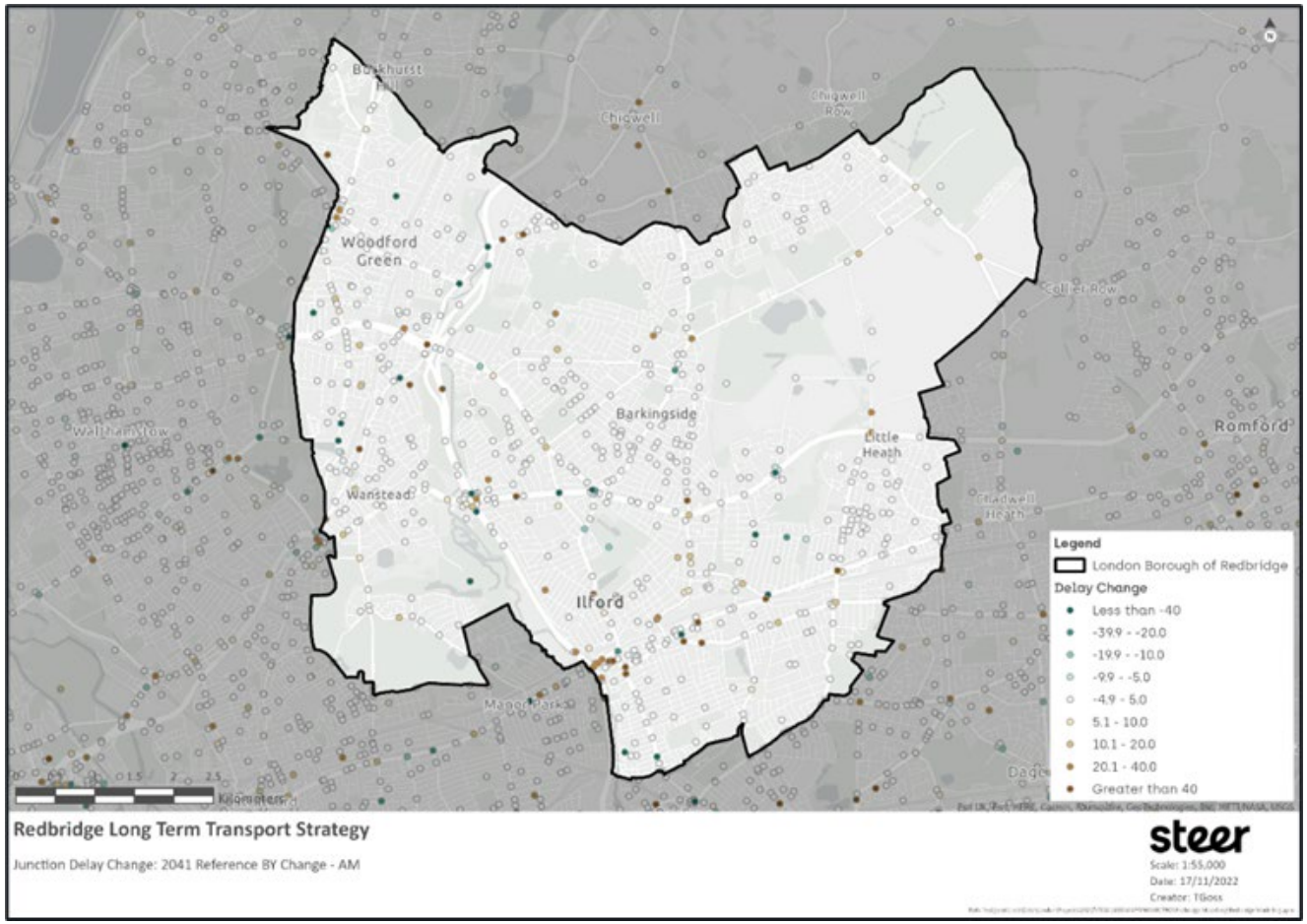


Changes in junction delay

Figure 3-42 highlights the junction delay change between the 2041 reference case and the 2016 base year in the AM peak in Redbridge. Across the borough, the majority of junction delay change is below 5 seconds indicating there is not a significant increase in congestion expected in the model. However, there are areas with higher junction delay change, largely focused on local centres such as Ilford where some roads, particularly around Ilford station and High Road have a junction delay increase that is greater than 40. In addition, local centres such as Woodford Green and at the Woodford Green Road and the A1009 T junction has high levels of delay change, greater than 40.

On the strategic and major road networks there is increased junction delay greater than 40 seconds north of Ilford at the A406 and the A12 crossroad. However, the most significant forecast increase in junction delay is in Redbridge's local centres and primary roads.

Figure 3-42: Change in AM peak junction delay between 2016 base year and 2041 (reference case)



Network wide changes

Analysis of network wide changes has also been conducted for highways across Redbridge, and compared to changes forecast for Central London, Inner London and Outer London. This compares a number of network wide statistics in the AM peak between 2016 and 2041.

Table 3-6 shows that in Redbridge the total travel distance increase by 5.7% between 2016 and 2041, which is lower than the Outer London average (9%) indicating that many areas of the borough have Inner London characteristics where there is limited scope for increased traffic growth.

Borough wide there are significant increases in the level of delay of 23% in line with the Outer London average increases. While the increases in delays are similar this occurs with smaller increases in vehicle kms travelled indicating that Redbridge has greater capacity issues compared to other outer London boroughs.

Table 3-6: Network statistics- comparisons

Zone	Travel Distance (pcu-km) % Change	Level of Delay (delays pcu-hours) % change
Redbridge	5.7%	23%
Central	-3.0%	23%
Inner	4.0%	27%
Outer	9.0%	23%

Table 3-7 highlights that in Redbridge average speed will decrease in 2041 compared to the 2016 base year, showing similar patterns to the delay increases described above.

Table 3-7: Average speed- comparisons

Zone	2016 Average Speed (km/h)	2041 Reference Case Average Speed (km/h)	Average Speed (km/h) % change
Redbridge	17.9	15.8	-7.9%
Central	10.8	9.2	-15.0%
Inner	16.8	15.2	-10.0%
Outer	27.8	26.4	-5.0%

Summary

This analysis highlights that there will be moderate increases in highway trips and delays across Redbridge. However, there are significant areas of delay evident around local centres including but not limited to Ilford, Woodford Green and in the northeast of the borough in Fairlop.

Ilford in particular has higher levels of congestion in the existing situation compared to the rest of the borough. This is likely to be exacerbated in future years as this area is forecast to be the focus of growth in the borough particularly around Ilford Station.

Key messages

- Sustainable mode share for Redbridge is lower than the Greater London average, and this is indicated by the Healthy Streets scorecard.
- There are limited cycle connections in the northeast of the borough between residential areas, key services and green spaces, particularly in Hainault. 8% of the borough's population live within 400 metres of the strategic cycle network, this is slightly lower than the average for Outer London boroughs (10%).
- Modal shift patterns between 2011 and 2031 indicate that Redbridge is projected to have a larger decrease in car use between 2011 and 2031 compared to other adjacent boroughs.
- This STS will supersede the borough's current parking strategy (2020-25) and inform future policies and ambitions for parking.
- Due to the low CPZ coverage in the borough, Redbridge require greater parking controls to discourage car use and parking.
- Multiple vehicle ownership is high for Redbridge, with 27% of households having access to two or more cars or vans, compared to 18% for London as a whole.
- The modelling data highlights that Ilford is currently a hotspot for delay and congestion. The future housing growth concentrated in Ilford will only further exacerbate this, and therefore intervention is needed to encourage a shift from vehicular to sustainable travel.

2 Our Environment

Priority 7: Enhancing the environment and biodiversity

London Borough of Redbridge has committed to promoting green infrastructure and encouraging environmentally responsible travel. consequential impacts of travel by non-sustainable modes on the environment and the degrading consequences for biodiversity are recognised. Interventions recommended will need to connect and promote green spaces and encourage greater awareness of their value in sustaining biodiversity and the wider environment.

This priority requires enhancing the local environment and ensuring biodiversity net gain within the Borough by minimising the negative impacts of transport and travel, but also seizing opportunities for change through enhancing existing infrastructure or when planning and delivering new schemes.

Policy context

Summary

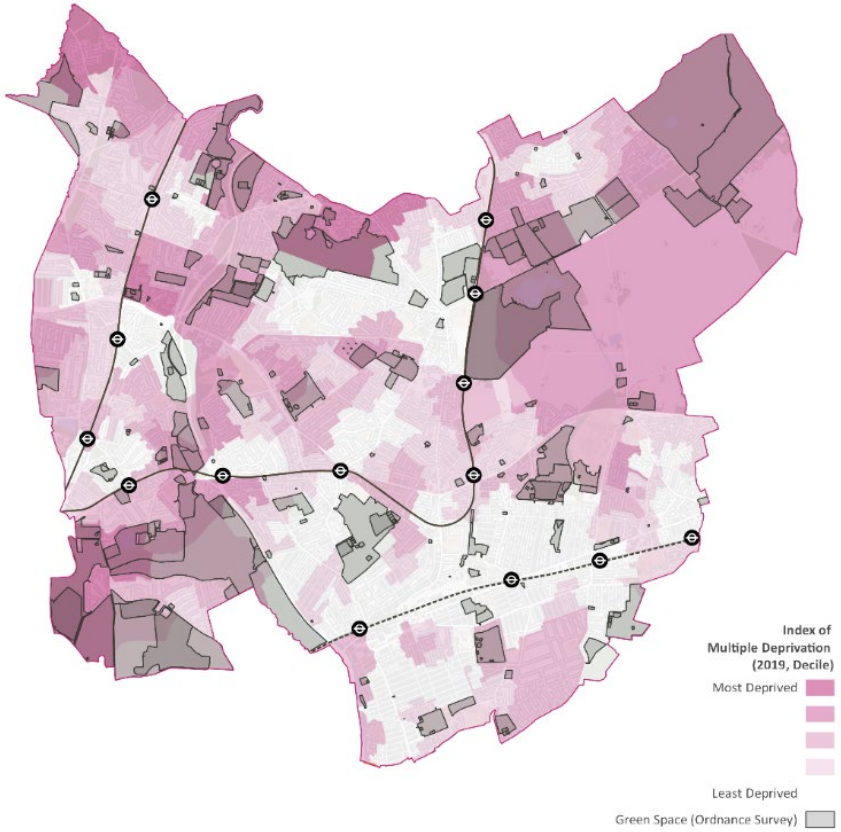
Redbridge plans to contribute to the delivery of sustainability targets by improving biodiversity through spatial planning tools. The Borough seeks to use green infrastructure to cultivate biodiversity, improve the street environment and reduce levels of air and noise pollution. These priorities are set out in the Our Streets Strategy and the Borough's Environmental Action Plan. On a sub-national level, London's Environment Strategy aims to make more than half of London's area 'green' by 2050. The borough's Biodiversity Action Plan sets out priorities for enhancing green space, establishing green corridors and managing green spaces in development areas. Redbridge have approved a Green Urban Landscape Policy which is a plan for managing and improving Council greenery across the borough, the goal of this policy is to protect and manage these assets to help make Redbridge a great place to live.

Data insights

Green Spaces

Redbridge has over 250 green spaces (as designated by the Ordnance Survey), ranging from large open areas, to small, dedicated play or sports areas. Figure 3-43 shows that these are well-distributed across the borough, allowing all residents a green respite within a walkable or cyclable distance.

Figure 3-43: Redbridge IMD and Green Spaces (Index of Multiple Deprivation, Ministry of Housing, Communities & Local Government, 2019 and ONS, 2021)



The IoMD sub-indicator of geographical barriers, which looks at the road distance to key points of interest can often highlight areas where green spaces act as obstacles to movement by active modes unless well connected.

This is true for areas such as:

- Wanstead Flats
- Fairlop Waters
- Repton Park

Which show high degrees of deprivation in terms of geographical barriers. These can be looked at as key priority areas to provide pedestrian and cycle through-routes, to help bring communities together.

Roads through large areas of green space are often busy, narrow and allow for high speeds, posing safety concerns for those wishing to engage in active travel. The Strategy should consider such routes and their potential for becoming important active travel arteries if suitable safety measures are implemented. This could create new opportunities around the Wanstead Flats and the Fairlop Plan.

Green Urban Landscape policy

The Green Urban Landscape policy will help the borough to achieve a more equitable distribution of greenery across Redbridge. Of the public consultation which sough residents' views on managing and improving the areas, air quality was one of the issues of great Concern. By encouraging individuals to make these greener and healthier journeys where possible will help to reduce the negative impacts of air quality on the enjoyment of these green spaces.

All London Green Grid

This Supplementary Planning Guidance for 2011 set out a framework for protecting, managing and developing green corridors and spaces across London. The document identifies key elements of the Epping Forest and Roding Valley Green Grid which stretches across Redbridge via a number of strategic corridors and links (Figure 3-44).

Transport improvements and biodiversity

The Biodiversity Action Plan outlines areas where significant transport improvement works overlap with designated biodiversity and biodiversity action zones. The Elizabeth line rail corridor, where significant transport improvements have recently taken place, aligns with a bat buffer zone area as shown in Figure 3-45 . Moreover, house sparrow town regeneration work has been underway in Ilford, in close proximity to transport interventions. This proximity highlights the need to consider impacts of any future transport interventions of biodiversity as a whole, as well as specific biodiversity initiatives underway in Redbridge.

Figure 3-44: Epping Forest and Roding Valley Green Grid (ALGG. 2011)

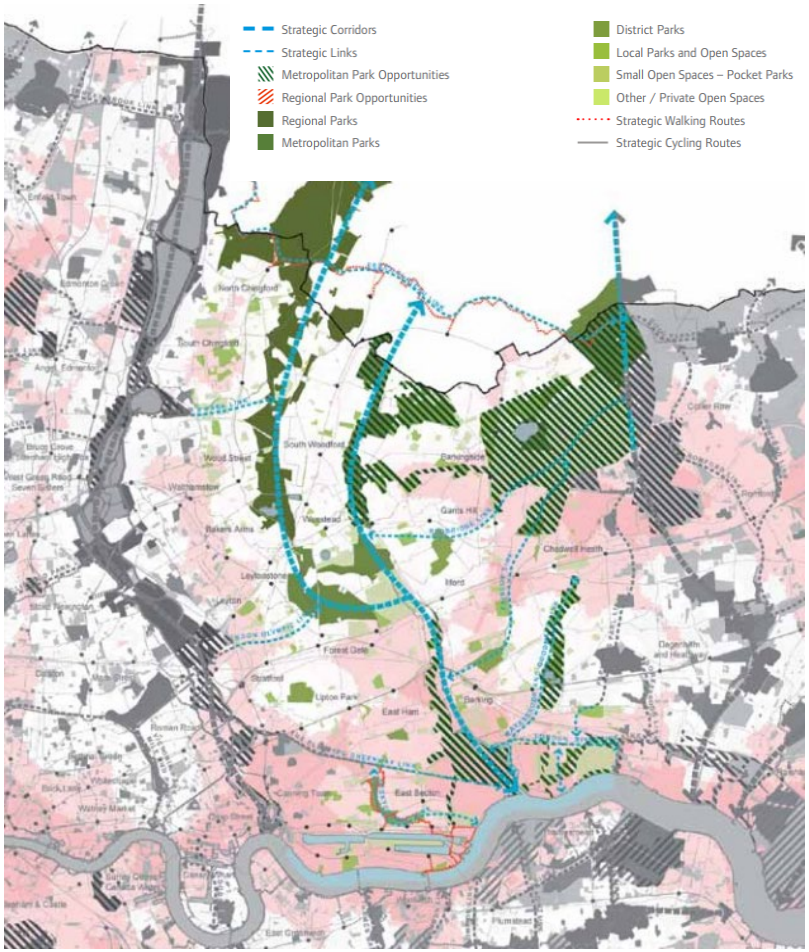
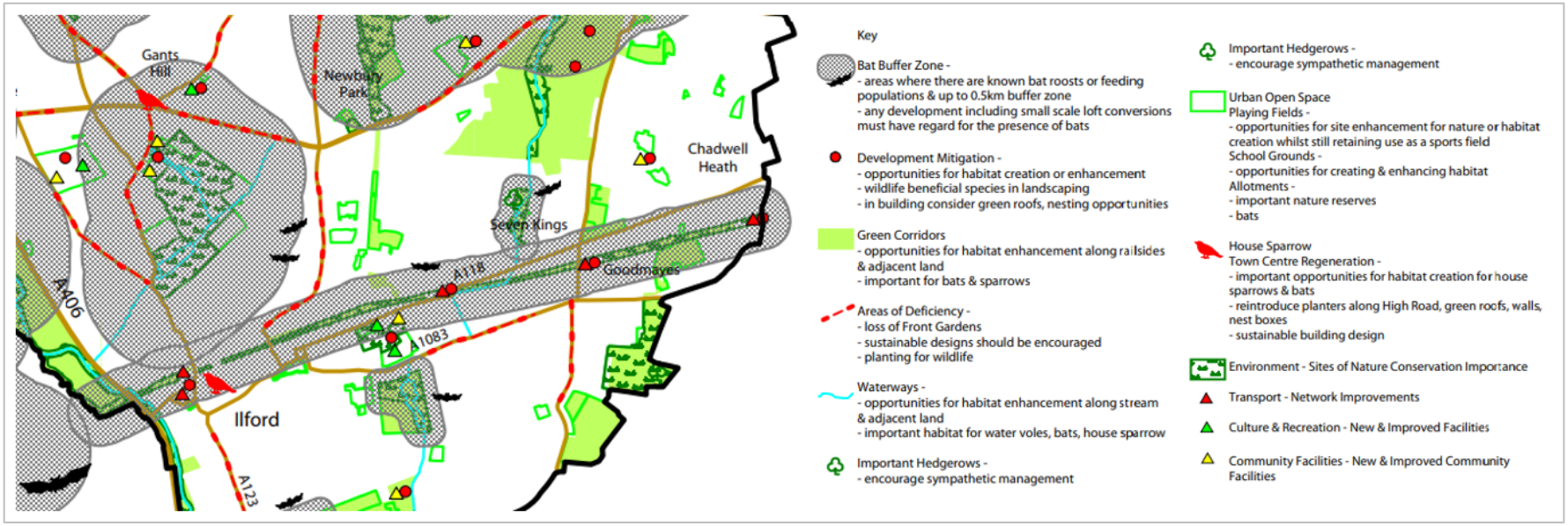


Figure 3-45: Transport improvements and biodiversity zones



Key messages

- The green spaces of Redbridge are one of the borough's biggest natural assets, and serve as places to enjoy nature, encourage outdoor activity, allow people to meet, and benefit from improved well-being.
- These green spaces can help to encourage physical activity which will help to reduce obesity and improve mental health for the people of Redbridge.

3 Our Economy

Priority 8: Supporting jobs and economic growth

An accessible and comprehensive transport network can be a great enabler of new economic opportunities, connecting people to jobs and customers to businesses. Creating sustainable communities is integral to the Council's development strategy, and sustainable transport can form a backbone for such sustainable growth. The Strategy will deliver specific actions for delivering a transport system that facilitates the development of Redbridge's economy.

This priority entails stimulating economic growth by connecting people with places of employment and job opportunities; better connectivity businesses to their supply chains and markets across the borough and beyond; and supporting new development sustainably for the benefit and prosperity of the whole borough.

Policy context

Summary

Redbridge aspires to ensuring that transport interventions spur economic activity and deliver sustainable growth. The agenda for Levelling Up the United Kingdom aims to boost productivity, jobs and living standards while spreading opportunities and improving private services. Redbridge aims to deliver over 17,000 new homes by 2030 in its Local Plan and to encourage employers in the Borough to achieve London Living Wage status as part of the Growing a New Redbridge Partnership Plan. The London Plan highlights the necessity of considering new and improved walking, cycling and public transport connections at the early stage of the planning process of five Investment and Growth Areas identified by the Borough, as well as other opportunity areas.

Redbridge's Local Plan identifies the new Elizabeth line corridor as a key area for socioeconomic development. High quality, sustainable transport connections between residential areas and key employment and commerce opportunities will be vital for ensuring Redbridge's sustainable economic growth.

The Employment Skills and Enterprise Plan highlights three key themes for improvement to improve the quality of life for all residents, one of which is centred on improving access to employment:

- address low pay and in-work poverty;
- improve access to employment; and
- build collaborative partnerships.

Data insights

Employee and job levels in Redbridge have increased by almost 10,000 since 2011, nearing 80,000 for both measures in 2020, with most of the growth happening until 2015. As such, Redbridge represents approx. 1.3% of employee and employment numbers in London. The Redbridge Local Plan 2015-2030 expects further 5,000 jobs to be created within its timescales.

Employment

The borough's working age employment rate is 69.5%, which is below the London and national averages of 74.2% and 75% respectively.

Employment changes in Redbridge

Employee and job levels in Redbridge have increased by almost 10,000 since 2011, nearing 80,000 for both measures in 2020, with most of the growth happening until 2015. As such, Redbridge represents approx. 1.3% of employee and employment numbers in London. The Redbridge Local Plan 2015-2030 expects a further 5,000 jobs to be created within its timescales.

What are the employment characteristics?

Employment data for 2011 and 2020 is shown in Table 3-8 and Table 3-9. While most people employed in Redbridge work as full-time private sector employees, the borough has a higher-than-average Inner London share of public and part-time employees. Nonetheless, while the number of public-sector employees has been in decline, decreasing from 18,300 to 16,500 (10%) between 2011 and 2020, the number of part-time employees grew by almost 4,000 (16%), reaching 26,500 in 2020.

Table 3-8: Employment breakdown for Redbridge and Outer London in 2011 (ONS, 2011)

Local Authority County	Full time employees	Part time employees	Total employees			Total employment		
	All	All	Public	Private	All	Public	Private	All
Redbridge (000s)	42.7	22.9	18.3	47.3	65.7	18.4	49.5	67.9
Redbridge	100%	100%	28%	72%	100%	27%	73%	100%
Outer London (000s)	1,123.7	534.3	338.5	1,319.4	1,657.9	339.3	1,371.4	1,710.7
Outer London	100%	100%	20%	80%	100%	20%	80%	100%
London (000s)	3,165.5	1,136.9	783.4	3,520	4,303.3	786	3,662.9	4,448.8
London	100%	100%	18%	82%	100%	18%	82%	100%

Table 3-9: Employment breakdown for Redbridge and Outer London in 2020 (ONS, 2021)

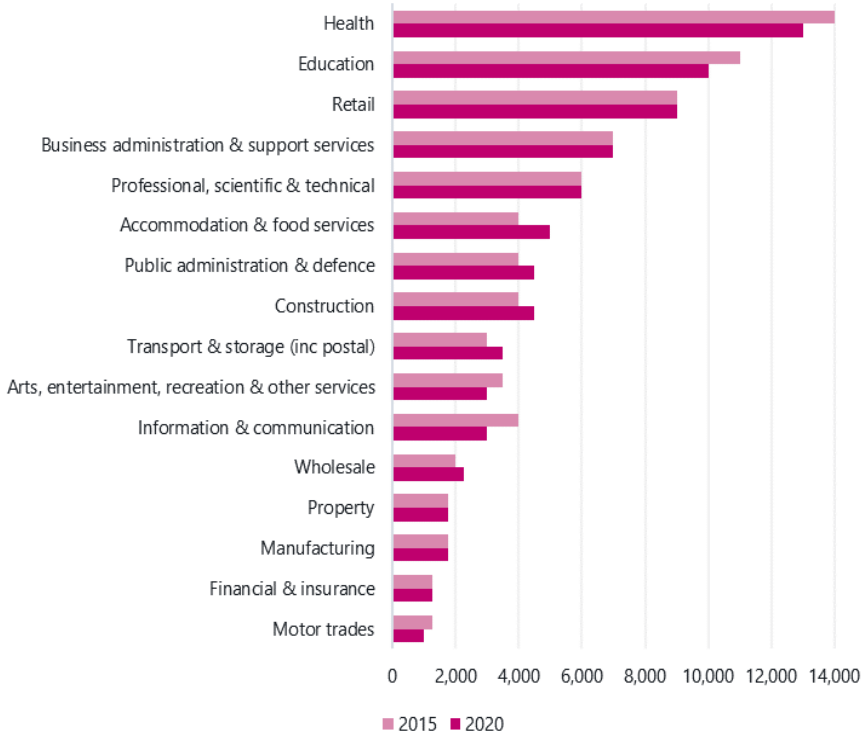
Local Authority County	Full time employees	Part time employees	Total employees			Total employment		
	All	All	Public	Private	All	Public	Private	All
Redbridge (000s)	50.1	26.5	16.5	60	76.5	16.5	61.9	78.4
Redbridge	100%	100%	22%	78%	100%	21%	79%	100%
Outer London (000s)	1,258.8	609.7	317.6	1,550.9	1,868.5	318.2	1,597.4	1,915.5
Outer London	100%	100%	17%	83%	100%	17%	83%	100%
London (000s)	3,738.9	1,381.7	767.7	4,333	5,120.6	790.3	4,473.2	5,263.5
London	100%	199%	15%	85%	100%	15%	85%	100%

All figures in Table 3-5 and Table 3-6 have been rounded to 1.d.p

What are the key employment sectors?

Reflecting the key employment characteristics of public-sector work and part-time work, the key employment sectors are health (17%), education (13%) and retail (12%). Employees in these sectors often need to travel outside the established peaks, requiring safe travel options to be available throughout the whole day. Similarly, health and retail industries have lower than average potential to work from home – ONS 2021 data reports 18% and 30% of health and retail employees working remotely against the 36% all industries average. This is represented in Figure 3-46.

Figure 3-46: Redbridge employment sectors (ONS, 2021)



**Excludes agriculture, forestry, fishing and mining, quarrying and utilities*

Where do people work?

According to the 2011 Census, Redbridge's residents tend to work in the borough itself or in neighbouring or nearby boroughs. In order of numbers working in other authorities:

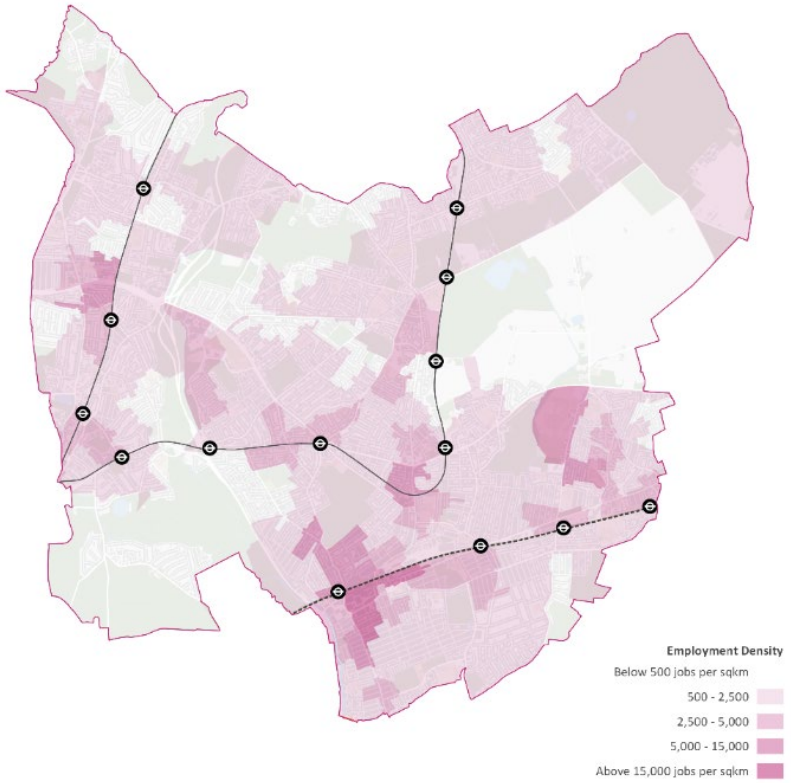
- Westminster and City of London (~17,000)
- Tower Hamlets (~9,000)
- Newham (~8,000)
- Waltham Forest (~5,000)
- Barking and Dagenham (~5,000)

Similarly, those working in Redbridge also tend to live in the neighbouring boroughs, after living in Redbridge itself:

- Barking and Dagenham (~5,000)
- Havering (~5,000)
- Waltham Forest (~4,000)
- Newham (~3,000)
- Epping Forest (~3,000)

Employment in the borough is focused in three key locations (shown in Figure 3-47**) -** Ilford (mix of uses), South Woodford (largely retail), Seven Kings (King George Hospital).

Figure 3-47: Employment density for Redbridge (ONS, 2021)



Key messages

- Employment in the borough is slowly increasing. Those working in Redbridge tend to be in public and part-time employment, requiring safe, flexible, transport solutions available throughout the day and night.
- High employment in sectors not suited to working from home (health and retail) lowers the potential to reduce the number of commuting trips.
- High flows to and from the neighbouring boroughs require convenient lateral and orbital links.

3 Our Economy

Priority 9: Rethinking freight and servicing

Besides the active modes and public transportation, the sustainable movement of freight and deliveries is a key area for targeting the reduction in road emissions. The Transport Strategy will consider solutions to solving first and last mile issues and retiming and rethinking deliveries to reduce the numbers of individuals vehicles. The sustainable movement of goods and services is crucial to securing a prosperous and resilient economy for Redbridge.

This priority is centred on reducing the impact of vehicle fleet movements associated with the movement of freight vehicles, servicing of sites, and deliveries through better co-ordination, retiming and sustainable last mile deliveries and servicing where possible.

Policy context

Summary

Redbridge aims to deliver a sustainable and efficient freight network that facilitates economic growth while meeting targets around environmental sustainability and road safety. The Borough aims to promote best practices around freight consolidation, low emission last mile deliveries and electric charging infrastructure for commercial use, as set out in the Local Implementation Plan. The London Plan underlines the importance of sustainable freight movements by rail, waterways and road across the city, and highlights the need for new development plans and Opportunity Area Planning Frameworks to have dedicated freight strategies.

Data insights

Freight and logistics are vital to the functioning both of the borough and, given Redbridge's strategic location at the crossroads of the A12, the M25 and the A406, London and the wider region.

TfL's Sub-Regional Transport Plan for East London states that:

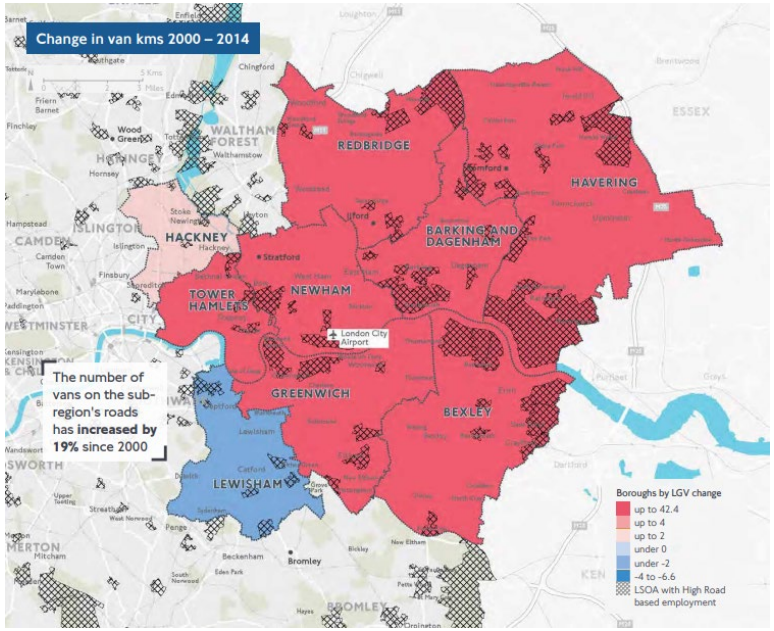
"The sub-region has a significant concentration of businesses where the movement of freight is a key part of their day-to-day operations, with total freight vehicle kms the highest of any sub-region in London. However, these businesses both contribute to and suffer from road congestion and poor reliability. The majority of business that depend on freight movements are located close either side of the River Thames, on Strategic Industrial Land, although other clusters exist throughout the sub-region."

Redbridge are now part of the London Lorry Control scheme (LLCS) which is a control to manage the environmental impact of HGV journeys in London, in particular noise pollution.

Historical freight traffic patterns

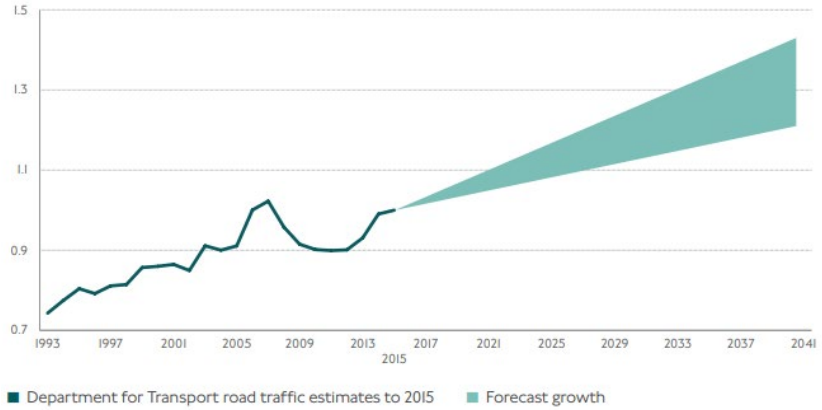
Traffic levels in Redbridge have been growing steadily before the pandemic – the DfT Vehicle Kilometres Travelled statistics shows that the levels of travel in Redbridge have increased at a rate higher than London's - the change in all vehicle traffic (i.e. including freight), shows an increase of ca. 47% compared to London's average of 18%, suggesting a greater increase in freight kilometres than for cars only (which increased by 38% compared to a ca. 10% increase across London as a whole).

Figure 3-48: Change in van kilometres for Redbridge (2000-2014, TfL, 2017)



Freight is expected to grow even further: the weight of goods transport by heavy freight transport is expected to increase by between 27% and 45% in the next thirty years; more home deliveries, which have become particularly popular over the pandemic, will put further stress on the transport network and can worsen the air quality and noise levels. TfL estimates indicate that LGVs and HGVs were responsible for 10 per cent and 13 per cent of road transport CO2 emissions in London in 2010 respectively, with a more recent Freight Servicing Action Plan suggesting that freight is responsible for 33% of NOx emissions and 29% PM2.5 emissions.

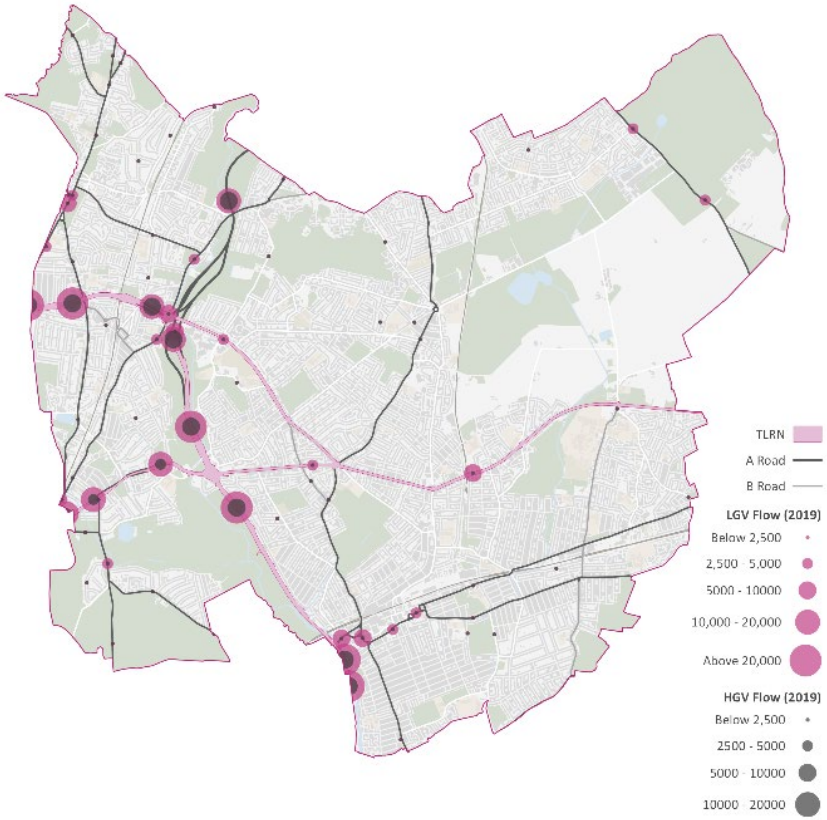
Figure 3-49: DfT Historic road traffic estimates (1993-2041, TfL, 2021)



As such, it is key for Redbridge to help grow freight in a sustainable manner to minimise impacts on journey times and reliability, minimise environmental impacts and ensure the safety of all road users. This can be achieved by encouraging deliveries by more environmentally friendly vehicles (including cargo bikes and e-bikes for local deliveries), introduction of consolidation centres or careful introduction of restrictions on entry of LGVs and HGVs in key pedestrian areas.

Figure 3-50 indicates LGV and HGV flows across the TLRN and local highway network. There are several hot spots of freight vehicle flows, concentrated in the west of the borough on key roads such as the A406 (North Circular Road), A12 and M11. Key hot spot locations have remained the same, while vehicle flow quantities have increased over the nine-year period. By encouraging the sustainable management of deliveries and servicing, there is potential for the Council to relieve the network at these key points.

Figure 3-50: LGV and HGV flows in 2019 (DfT, 2019)



Key messages

- To achieve the carbon neutrality target by 2050, Redbridge will need to convert fleet to electric or hydrogen power sources and support with the necessary infrastructure.
- An emissions-based approach adopting the 'polluter pays' principle could be an effective way of charging the larger, heavier vehicles that are running on unsustainable fuel.
- This STS could consider charging individuals for use of their car in areas of particularly good public transport accessibility.
- With the anticipated increase in freight over the next few decades, it is important this Strategy recommends interventions that accommodate for this demand and enable electrification of fleet.

4 Horizon Scanning

Overview

The Horizon scanning has been captured through a PESTLE (Political, Economic, Social, Technological, Legal, Environmental) framework which considers the key exogenous drivers that might impact Redbridge and the STS. The ten priority areas identified in this report have been used to inform the horizon scanning research. The value of this framework is to identify cross-cutting factors that may influence the Transport Strategy, which will be complemented by the SWOC (Strengths, Weaknesses, Opportunities and Challenges) analysis that stakeholders will input directly to. This is discussed further in Chapter 5.

Table 4-1: PESTLE Analysis of key challenges and opportunities for Redbridge

Drivers of change	Key considerations for Redbridge
Political	**Climate change action and environmental awareness** • There is increasing awareness and understanding across the political spectrum that climate change and environmental destruction threaten social and economic stability across the world. This has generated increasing policy priorities around climate change adaptation and mitigation. Redbridge must endeavour to meet or exceed national/ London-wide commitments to tackling climate change and environmental destruction at the local policy level. **The "Levelling Up" agenda** • The government has set out intentions to reduce inequality by 'levelling up' the economy across the country. While London and towns and cities around the South East are not the intended recipients of Levelling Up funding, Redbridge would benefit from extending these policy intentions across the local level, ensuring that inequalities across the Borough are reduced, and pursuing actions that facilitate economic growth. **"Build Back Better"** • The government developed the Build Back Better plan for growth to aid in the wider recovery from the Covid-19 pandemic, committing significant capital investment into transport infrastructure, supporting the transition to Net Zero and a breadth of other sectors. This may help Redbridge secure necessary funding to enact future transport projects and policies. **Government stability** • With a change in Prime Minister and cabinet taking place in September 2022, and a general election on the horizon within the next two years, predicting how national government priorities will evolve can be challenging. This poses issues

	for developing long-term plans and strategies for all sectors, including transport. Funding cycles typically align with electoral cycles and political aims, so frequent changes in leadership are likely to bring out frequent changes in policy direction. Redbridge will need to continually evaluate its transport strategy to ensure that it remains symbiotic with national level goals. **Redbridge's Policy Priorities** • Taking into account the Borough's wider policy stance is fundamental to developing a transport strategy that is coherent and effective. Redbridge is growing at a fast pace and all policy documents need to tie together to effectively manage the changes that this will bring. For example, the Local Plan's growth target for 17,237 new homes to be built across the Borough and related knock-on effects on the transport system need to be carefully considered when setting out actions for this Strategy.
Economic	**Covid-19 Pandemic** • The pandemic has had significant impacts on the national economy, and these impacts have been felt in Redbridge as well. The UK plunged into recession as a result of the pandemic, as a series of lockdowns imposed severe restrictions on economic activity. As of March 2021, the Borough had issues 8,000 grants (worth £62 million) to support small businesses struggling during the pandemic. In times of austerity, the central government may reduce funding for local authorities, including towards the transport-related projects, especially following unprecedented public spending during the height of the pandemic. This has been exemplified by how the national government has been increasingly reluctant to provide further financial support to Transport for London (TfL) as it struggles to regain profitability in a post-Covid world. This means that there is likely to be limited capacity for TfL to provide funding for transport projects in Redbridge. **Local Indices of Multiple Deprivation (IMD)** • Redbridge is home to areas across the deprivation spectrum according to the latest 2019 data from the Index of Multiple Deprivation. This Strategy will need to consider how actions to improve the transport network can be used to reduce deprivation and inequality across the Borough. Different spatial approaches and measures may need to be implemented in the most deprived areas to provide greater support and economic opportunity to residents living there. **Changes in land use** • The strategy for managing Redbridge's varied land uses is set out in the Local Plan. The Council has set out policies to balance the types of land uses in town centres to best promote economic growth while recognising the value contribution that remaining industrial areas makes to local employment. This Strategy needs to take into account

	existing patterns of land use as well as proposed areas of urban growth and development in order to develop a transport system that facilitates appropriate flows between these different uses and strengthens a sustainable and prospering socioeconomic fabric of the Borough. **Industry strengths** • As seen across London, the industrial base in Redbridge has declined over time, with a shift towards service sector employment. The Local Plan highlights how an over-supply of outdated and underutilised accommodation is suppressing the office market in town centres. A shift in land uses and the creation of new office developments is likely required to unlock further service sector growth, as demand is likely to rise further especially along the Elizabeth line corridor due to improved accessibility and connectivity. The Council identifies 14 Business Areas and Strategic Industrial Locations across the Borough. These need to be taken into account in this Transport Strategy as they are likely to generate different, and specific types of road freight movements, not seen in service sector industries. **Levels of employment and skills of population** • The Borough's working age employment rate is 69.5% which is below the London and national averages of 74.2% and 75.0% respectively. This supported by 5,000 new jobs by 2031 for a population whereby 52% have achieved NVQ4 qualifications or above, sets a secure economic future for the borough. Dominant sectors of employment include health, retail and education- employing 7.5% of the borough's total population in 2020. • Redbridge have produced an Employment, Skills and Enterprise Plan (2019/2022) sets out skills and employment challenges facing the borough and key actions and priorities for the future. Actions are geared around key themes of addressing the issue of low pay and in-work poverty, improving access to employment for all residents, and building on existing and developing new collaborative partnerships with local businesses and education institutions.
Social	**Inequality** • Data from the Index of Multiple Deprivation (2019) shows that 10% of households in Redbridge fall into the 20% most deprived across the UK, while 13% of households fall into the 20% least deprived in the UK. Over half (53%) of Redbridge households fall into the middle 30% of UK households when ranked by deprivation. This is significantly larger than the 36% average for Outer London boroughs and 37% for London as a whole. This suggests that there is less deprivation inequality in Redbridge than in surrounding Boroughs and in London as a whole. Despite this, the Borough still needs to develop tailored approaches to maintain and improve transport in the most and least deprived areas, in order to meet their specific needs.

Demographics

- Different demographic groups have varying preferences and needs for travelling across the Borough. All needs will need to be considered to ensure that the measures proposed in the Strategy do not have any negative impacts around equality, accessibility and inclusion for any protected characteristic groups, or wider demographic strata.

Youthful/ ageing population

- Redbridge has a relatively young population compared to the London average. As of 2015, 22.5% of residents were aged 0-15, compared to 19.9% for London as a whole. On the other hand, projected population growth for 2041 shows that the over 65s age group will experience the largest increase, growing by an estimated 68% for Redbridge between 2021-2041. This is higher than the average for Outer London boroughs.

Changing in working and travel patterns

- The Covid-19 pandemic, alongside the increased digitisation of daily life, have brought about dramatic changes to working and travel patterns. As working from home and flexible working hours have become increasingly common, the nature of 'rush hour' commutes has changed. While passenger numbers have steadily climbed back towards their pre-pandemic levels, many office workers are preferring to work from home on some days more than others, with less people travelling on Mondays and Fridays. Likewise, the rush hour time itself is becoming increasingly less concentrated, with a less pronounced peak in passenger numbers. These changes have altered the ways in which London's transport system is utilised. This Strategy will need to carefully consider how to make the most of these impacts, for example, utilising empty car parking spaces in alternative ways on days when most employees are working from home.

New lifestyle trends

- A combination of factors, such as the Covid-19 pandemic, increasing digitisation and increasing awareness of climate change, have precipitated changes to how people and goods are transported. The rise of online shopping and last-minute deliveries, which were consolidated by the pandemic, have led to the proliferation of small delivery vehicles on the roads, such as cargo bikes, motorbikes and small delivery vans. For example, many weekly grocery shopping trips have been converted from private vehicle trips to supermarkets to delivery vans servicing multiple addresses in one go. The proliferation of new mobility trends such as the use of electric bikes and scooters, and their appeal from a convenience and climate change mitigation perspective, have led increasing numbers of these vehicles on the roads. Many of these are left standing on pavements, creating new challenges for a kerbside management perspective. Redbridge will need to account for these and other new mobility and lifestyle trends in this Strategy. The emergence of new trends should be monitored and assessed continually in the future.

Technological	**New mobility** • New and emerging technologies are reshaping the way people and goods move around cities. From micro-mobility initiatives around e-bikes, e-scooters and cargo bikes, to the proliferation of ride sharing apps, and new business models based on sharing rather than owning assets, the Council must carefully consider how best to support these new technologies and their users, to ensure that negative impacts are effectively mitigated, and the benefits can be enjoyed by as many residents and businesses in the borough as possible. **Broadband and mobile phone connectivity** • Social changes, like improved capabilities around home-working, have been enabled by better and more widespread coverage of internet services. Not only has this contributed to changes in travel behavioural patterns, as discussed above, but it has also enabled the sharing of real-time transport network data on an unprecedented scale. Redbridge will benefit from collaborating with TfL and other key players involved in the Borough's transport network to monitor, collect and share data on network performance in order to provide high quality customer information and to identify and address issues when they arise. **Travel planning applications and influence on decision making** • Wayfinding and travel planning applications form the foundations of many modern-day trips, as people turn to AI and GPS services to provide them with optimal ways of navigating multi-faceted and potentially complex transport systems. The Council will need to endeavour to collaborate with these companies to ensure that they information they are providing to customers is up-to date, and in line with any infrastructure and service changes the Council plans to make. This will help to avoid confusion and facilitate smoother journeys.
Legislative	**UK Exit from EU** • Fundamental changes in the legal systems which govern trade flows between the UK and the European Union were introduced in March 2021. This has had an impact on the flows of people and goods moving between London, the Channel Tunnel and ports along the south-eastern coastline. Changes have occurred to imports and exports of businesses across Redbridge who have and are trading with the European Union. While direct changes to vehicle types and volumes through Redbridge are likely to be minimal, the Council should monitor how Brexit has impacted businesses across the borough and attempt to understand knock-on impacts to freight movements.

	Relevant procedures and legislation • The Strategy needs to abide by all relevant legislative frameworks at documents at local, national and sub-national levels. The Council's decision-making processes are dictated by the Redbridge constitution which sets out how the Council operates to ensure that it is efficient, transparent and accountable to the local people. Likewise, any legally binding targets and priorities at all levels of policymaking must be adhered to.
Environmental	**Climate change and extreme weather** • The increasing severity of climatic change is expected to change both the mean climatic conditions across the south-east of England, and increase the likelihood of extreme weather events such as droughts or floods. The infrastructure in the UK is designed to cope with a particular range of climatic conditions. As this range becomes increasingly exceeded, greater strain will be placed on transport network and supporting infrastructures. Adaptation measures will need to be put in place to improve network resilience to ensure that transport can function under the 'new normal' climate brought about by anthropogenic climate change. Redbridge must ensure it collaborates with all relevant stakeholders to protect people and transport from the impacts of a changing climate. **Planning for Net Zero and reducing impacts of travel** • Mitigating climate change by reducing transport emissions is increasingly one of the dominant policy priority areas at all levels of government. The Council will need to ensure that it actively pursues the targets outlined in its Cleaner Journeys Action Plan and other travel decarbonisation policy to effectively reduce the impact of transport on a changing climate. In the long term, Redbridge needs to self itself up to effectively transition to a Net Zero transport network, in line with national policy goals. This Strategy will aim to outline the key steps necessary to make this journey. **Changing attitudes and behaviours to sustainability** • The general public has become much more aware of wider climate issues and the dire need for change. Opposition to schemes that facilitate car use and other polluting modes of travel are facing increasing resistance. Redbridge needs to gain an understanding of how local residents perceive transport decarbonisation in the Borough and make the most of opportunities were support for sustainable travel exists in order to spur mode shift towards lower emission modes. Moreover, changing attitudes and behaviours ties in to all aspects of the strategy, with the potential to create significant social and economic change.

5 Strengths, Weaknesses, Opportunities and Challenges (SWOC)

Summary

The SWOC (Strengths, Weaknesses, Opportunities and Challenges) framework has been completed following engagement with members, officers and external stakeholder groups. The feedback has been organised by priority area which falls into either Our Community, Our Environment and Our Economy. The strengths and weaknesses highlight where Redbridge are today, and the opportunities and challenges shed light on where Redbridge with this Strategy could be in the future. Table 5-1 provides an overview for members and officers, Table 5-2 for all other external stakeholders. Upon reflection of the completed SWOC analysis for the priorities discussed, the implications for Redbridge and the Transport Strategy will be highlighted.

Table 5-1: SWOC Framework for Members and Officers

	Stakeholder Group	
Redbridge Today	**Officers**	**Members**
Strengths	**Our Community** Priority 1 – Increasing accessibility and inclusion • Elizabeth Line provides increased accessibility and connectivity. The stations all provide step-free access. Priority 2 – Providing high quality public transport services and spaces • Unoccupied retail in Ilford could be used for cycle parking. • Bus prioritisation along Ilford Lane. **Our Environment** Priority 5 – Responding to climate change • Council's Green Fleet Strategy is currently in development (due Feb 2023) Priority 6 – Encouraging sustainable travel • Sustainable travel routes exist to open spaces in the north-east of the borough (e.g. Hainault Country Park). • Large numbers of bike couriers, especially around the Ilford area, acting as sustainable last-mile delivery. • Council's Green Fleet Strategy is currently in development (due Feb 2023) Priority 7 – Enhancing the environment and biodiversity • Good quality street trees planted on streets east of South Park (e.g. Morab Gardens). • Aldersbrook has lots of green space, however it is also cut-off by it, resulting in higher levels of car use. **Our Economy** Priority 8 – Supporting jobs and economic growth • A more thriving economy and higher levels of affluence to the west of the A12 (Woodford and Wanstead). • Goodmayes 'Tesco' site is currently in development and will provide new housing within close proximity of the Elizabeth Line. • Elizabeth line provides better access to employment across London from Redbridge. Priority 9 – Rethinking freight and servicing • Large numbers of bike couriers, especially around the Ilford area, acting as sustainable last-mile delivery. • Low emission zone and London Lorry Control Scheme operates throughout the borough.	**Our Community** Priority 2– Providing high quality public transport services and spaces • Lots of areas in LBR earmarked for regeneration in the near future; Implementing 15-minute neighbourhoods – will be the case at the new Tesco site near Goodmayes Station. • There are certain 'soft' measures LBR can put in place to encourage the move to net zero and sustainable modes, for example to subsidise bike hangars. **Our Environment** Priority 7 –Enhancing the environment and biodiversity • Significant investment in green spaces in Fairlop High usage of Loxford Park and South Park by residents **Our Economy** Priority 8 – Supporting jobs and economic growth • King George's hospital is a big employer – nearby development is scheduled • Fibre broadband being delivered in Fairlop development with the intention to increase attractiveness of Hainault Business Park

	Our Community Priority 1 – Accessibility and inclusion • Current poor road and foot links across railway lines segregate the borough and make it more difficult to reach destinations of employment and commerce. • New City College and King George Hospital site is not well connected by public transport. • Poor links north-south across the Elizabeth Line corridor, only facilitating east to west movement. Diagonal journeys across the borough by public transport are also seen to be tough. • Leisure facilities are often inaccessible by public transport or foot cycle, especially in Fairlop/ Hainault area (e.g. Redbridge Cycling Centre and Hainault Forest Country Park). Priority 2 - Providing high quality public transport services and spaces • Concern about safety of leaving bikes parked in Ilford town centre. • Popular cycle route between Hainault and Little Heath, however there is no cycling infrastructure here and no alternatives e.g. public transport (which could be a reason for why people choose to cycle in this direction). • Crime issues were highlighted in the Cranbrook area. • Commuters tend to park around Gants Hill, leaving less space for residents and businesses. • Rat running on roads in the Fairlop area. • Hainault Business Park, home to many SMEs, is poorly connected via public transport, traditionally a lot of parking – how do we encourage mode shift here? Priority 3 – Enabling healthy lifestyles • Safety issues around walking and cycling in green spaces. Priority 4 – Improve road safety • Safety issues around walking and cycling in green spaces. • Concern that road accident rate is higher in Redbridge that in adjacent boroughs. **Our Environment** Priority 6 – Encouraging sustainable travel • Popular cycle route between Hainault and Little Heath, however there is no cycling infrastructure here and no alternatives e.g. public transport (which could be a reason for why people choose to cycle in this direction). • High traffic congestion around hospital/college site in Little Heath due to very little public transport in the area. Priority 7 – Enhancing the environment and biodiversity • High proportion of paved gardens and driveways, especially in the Ilford area leading to rainwater runoff issues.	**Our Community** Priority 2 – Providing high quality public transport services and spaces • Ilford interchange can be a victim of its own success – very busy bus stops. • Lack of resident support in Ilford for restricted parking zones which would tackle high levels of parking • Ilford underpass is dangerous – particularly at night. Work being done with the police to make streets safer. • There aren't many sites in the borough that are available for development. The Council is being criticised by the government because it isn't meeting the quota for the number of new housing units built every year. • Different approaches for different areas of housing stock Priority 3 – Enabling Healthy Lifestyles • School run traffic issues around Little Heath • Air quality issues due to M11, A406 and A12 Priority 4 – Improving Road Safety • Cyclists are critical of road conditions – situation is worsening. Currently the council have a gorilla approach to responding to potholes (often filled pre-election) • For cyclists- obstacles at junctions that are complex **Our Environment** Priority 6 – Encouraging Sustainable Travel • Area east of Cranbrook and north west of Seven Kings has limited connections to London Underground • The Elizabeth Line does not bring benefit to the entirety of the South Ilford ward • Travelling on diagonals using public transport is tough – encourages people to use their cars for these journeys. • Poor bus provision in Hainault • Public transport options are not designed for travelling locally in the borough • Buses mainly focus on Ilford. • Poor bus connectivity between Little Heath and Romford. • Missing public transport link between just north of the Elizabeth line around Seven Kings and the residential areas of Newbury ParK • Poor public transport provision in area stretching from Hainault, through Little Heath towards Goodmayes • Poor access to public transport in Hainault – this area also has lower household incomes • Loxford is further from the Elizabeth Line – less likely to encourage residents to use sustainable transport mode • Traffic associated with the A12. Signalisation intervention has not been successful in reducing traffic. The A12 also creates a barrier for north-south movement that needs to be addressed. • Ilford Hill experiences lots of through road traffic to other areas, including access to the A406 • Ilford Lane is very busy, need to look at access to and from this area, or avoid the need for it at all. • Bottlenecks to movement in Ilford, in particular east-west corridors. • Travel into Ilford has seen a traffic increase directly resulting from developments in neighbouring boroughs • Strategic Road Network featuring heavily in the borough creates highly congested areas during peak time.

	• Issues with deer collisions in the Epping Forest area. • Environment impact of visitors coming to the Epping Forest area, including higher levels of NOx. • **Our Economy** Priority 8 – Supporting jobs and economic growth • Hainault Business Park, home to many SMEs, is poorly connected via public transport, traditionally a lot of parking – how do we encourage mode shift here? • There are many economic centres just outside the borough boundaries, meaning that many residents don't go for shopping and leisure within Redbridge. • Most Redbridge residents go to Stratford or Romford for shopping and entertainment. • Current poor road and foot links across railway lines segregate the borough and make it more difficult to reach destinations of employment and commerce. • Poor links north-south across the Elizabeth Line corridor, only facilitating east to west movement. • Some car parks around Redbridge are being used as park and ride sites for people heading into Central London. Priority 9 – Rethinking freight and servicing • None of the freight weight bans in the borough are actually enforced.	• Rat running onto the North Circular is common in the Cranbrook area between Redbridge, Gants Hill and Ilford • Blake Hall Road between Wanstead and Aldersbrook is frequently congested • Congestion on key routes especially at main junctions • Rat running onto the North Circular is common in South Woodford (around the Charlie Brown roundabout) • Ilford Lane – no opportunity to remove on street parking Priority 7 – Enhancing the environment and biodiversity • Green spaces in Fairlop are hard to access from south of the borough • South Ilford has poor access to green space **Our Economy** Priority 8 – Supporting Jobs and Economic Growth • Hainault Business Park is difficult to get to from south of the borough • Tesco development in Goodmayes has reduced business for independent shops in this area Priority 9 – Rethinking freight and servicing • Last mile deliveries are causing congestion – rise of Getir (groceries in 20mins) • Freight congestion in and around Hainault Business Park • High levels of growth in Ilford has resulted in increased traffic (incl. delivery and services)
Redbridge Tomorrow	**Officers**	**Members**
Opportunities	**Our Community** Priority 1 – Accessibility and inclusion • Potential to provide step-free access across Central Line station in Redbridge. Opportunity to prioritise step-free access roll-out in terms of cost – above ground stations next to overbridges that can be utilised likely to be the cheapest. • Opportunity to improve accessibility and wayfinding around Ilford town. Priority 2 – Providing high quality public transport services and spaces • Town centres act as opportunity areas from improving safety and fostering healthy and active lifestyles. • LTNs could play a key role in the reduction of crime. • Opportunity identified to put in modal filters in residential streets around the Barkingside station area. • Opportunity for more place-making at Fulwell Cross. • Gants Hill is a significant bus hub and town centre in its own right • Station refurbishment or development of adjacent property • Opportunity to extend existing bus routes to make them more useful, for example the 128 bus could be extended to South Woodford station. Priority 3 – Enabling healthy lifestyles • LTNs could play a key role in the reduction of crime.	**Our Community** Priority 1 – Accessibility and Inclusion • Language barrier in Redbridge due to the culturally diverse nature of the Borough, this could be introduced on wayfinding and signage to maximise accessibility to all. • Improved bus routes would ease residents travelling around the borough, needs to be inclusive of elderly residents, and the type of buses could include hop on/ off. The buses need to be accessible for disabled users. Priority 2 – Providing high quality public transport services and spaces • Lobbying TfL for improved public transport improvements. Need for TfL to modernise their bus fleet, needs new depots/ infrastructure. Depots- locations/ land/ industrial sites? • With densification plans for Chadwell and Hainault, this increases the need to provide sufficient public transportation links. • Collaboration between Redbridge and neighbouring boroughs to minimise the knock-on impacts of measurements, this is particularly important for major developments where the sharing of corporate knowledge is needed. • Opportunity sites for housing has caused backlash around Barkingside • Gants Hill- transport hub of high activity Priority 3 – Enabling Healthy Lifestyles • Opportunity for Little Heath to become a 20-minute neighbourhood • Chadwell Heath marked as an opportunity area for changing travel behaviour

	Priority 4 – Improve road safety • Town centres act as opportunity areas from improving safety and fostering healthy and active lifestyles. **Our Environment** Priority 6 – Encouraging sustainable travel • Idea to implement a parking pricing policy based on PTAL levels across the borough. • Adding EV chargers to new council housing estates. • Building an integrated cycle network across the borough. • Opportunities for implementing active travel schemes in the Barkingside and Newbury Park areas, including cycle lanes and P&R facilities for stations. • It is likely easier to incentivise modal shift in the south of the borough where there is greater density and better public transport provision (including the EL corridor). • Increased active travel will lead create better economic value on the high street. Impression of cycling safety in Ilford needs to be improved. Priority 7 – Enhancing the environment and biodiversity • Idea to implement more pocket parks and sustainability hubs around the borough. • Encourage more street-greening initiatives, there has been good evidence that they work from PHE. • More people need to be made aware of green spaces that are in their local areas, this could improve usage. **Our Economy** Priority 8 – Supporting jobs and economic growth • Increasing accessibility to employment in the borough. Questions about how this can be best leveraged? Central Line Hainault shuttle (to Woodford) is currently seen as an infrequent service, however, could be improved and development encouraged. • Increased active travel will lead create better economic value on the high street. Impression of cycling safety in Ilford needs to be improved. • Population growth could be seen as a burden, but also as an opportunity to grow the borough's economy. • One third of the borough's new housing growth is expected to be around the Ilford area (around 6,000 homes out of 18,000 across LBR). Priority 9 – Rethinking freight and servicing • More sustainable methods of delivery and servicing can be put in placed in the Ilford town area. • Need to develop and comprehensive access and servicing strategy for Ilford and other hubs across the borough to better manage freight and servicing traffic. Retiming deliveries to alleviate pressure on roads and improve road safety.	• Future needs and wants of Redbridge- living and working in the borough • New school in Goodmayes, intention here is to introduce more localised shopping and living (local neighbourhood lifestyle) • High potential for active travel within Wanstead, Snaresbrook and north past South Woodford • Education needed for parents to encourage healthier lifestyles for their children, mainly at the primary and infant school stage. • Education in schools, introduction of school buses, assessments by school catchment areas Priority 4 – Improving Road Safety • Road regeneration in Ilford to make all one level (years away) • High potential for traffic calming measures and cycle routes within Wanstead, Snaresbrook and north past South Woodford (not LTNs – or naming as such) • We need to influence driver behaviour to help improve road safety. The introduction of one way systems could be effective, alongside reconsidering the use of traffic cameras and better enforcement. **Our Environment** Priority 5 – Responding to climate change • ULEZ expansion in the future will include Redbridge Priority 6 – Encouraging Sustainable Travel • Cycle traffic between Hainault and Little Heath, however unsafe and so presents an opportunity. • Cycling route opportunities to connect Barkingside, Gants Hill, Redbridge and Ilford • Roding Valley River cycle bridge into Newham is a possibility • Bus routes linking areas is vital for encouraging modal shift away from use of the car. • Bus connectivity along the A12 is needed to connected the eastern and western parts of the borough • Proximity of new developments to rail stations will impact whether people use the stations for travel internally within the borough Priority 7 – Enhancing the environment and biodiversity • Changing lifestyles, this could be through landscaping in front gardens and the installation of driveways. Natural landscaping- could this be made a condition for new homes being built? • Linear Park connecting the green spaces south of Woodford with Redbridge. • Opportunity to improve access to Fairlop Waters and Hainault Country Park **Our Economy** Priority 8 – Supporting Jobs and Economic Growth • New recharging facility around South Woodford- this has created 200-300 jobs and new housing development has been supported around this area. • Micro businesses (particularly in the south of the borough): Regeneration team have been looking at spaces where these micro businesses could grow into Priority 9 – Rethinking freight and Servicing • Opportunity to switch to more sustainable delivery patterns; address ways to better coordinate last mile and services deliveries. Currently there are many white vans – particularly in Ilford, South Ilford.

Challenges	**Our Community** Priority 1 – Accessibility and inclusion • A need to keep footpaths clear of parked cars to help encourage using active travel modes. • Some wealthy areas (e.g. Repton Park) have little to no public transport access, so encouraging modal shift here will be difficult without more provision. Priority 2 – Providing high quality public transport services and spaces • LBR has great cultural diversity – challenge of catering to these varying needs and ways of life. • Removing car access to areas deprives those people who rely on cars to move around. Need to provide exemptions and consider how we treat different groups. • Local Authorities do not have enough powers to implement more drastic interventions on their streets (e.g. road user charging). Priority 3 – Enabling healthy lifestyles • High levels of obesity in children in some areas. Priority 4 – Improve road safety • People don't know about safe cycling routes that are available through green spaces – need to disseminate information better. **Our Environment** Priority 6 – Encouraging sustainable travel • A need to keep footpaths clear of parked cars to help encourage using active travel modes. • Some wealthy areas (e.g. Repton Park) have little to no public transport access, so encouraging modal shift here will be difficult without more provision. • A need to create active travel opportunities for those in poverty (students, low income, refugees). • Local Authorities do not have enough powers to implement more drastic interventions on their streets (e.g. road user charging). • Low-traffic areas need careful consideration with respect to crime. **Our Economy** Priority 8 – Supporting jobs and economic growth • A need to create active travel opportunities for those in poverty (students, low income, refugees). • Redbridge needs to carve out its own identity as a commercial hub, it must develop its own offering, focus on Ilford, that is complementary and not directly competing against Stratford or Romford. • Pulling greater economic development to the south and east of the borough. How can we replace car-focused weekly shops with other patterns of shopping using modes other than cars?	**Our Community** Priority 1 – Accessibility and Inclusion • Residents south of the Elizabeth Line do not necessarily benefit from this new transport infrastructure. Priority 2 – Providing high quality public transport services and spaces • Woodford Avenue serves almost as a barrier between the two sides; impacts accessibility within the borough. How is this barrier removed to reconnect sides of the borough? • Necessary work in Chadwell Heath: demolition required prior to regeneration however the work will add to congestion and result in complaints from residents Priority 4 – Improving Road Safety • Ilford Lane – very busy road which is unsafe due to driving, parking and the ways in which pedestrians cross the road. Major shopping destination: high end shoppers unlikely to get the bus. There is competing demand for curb side parking. Congestion caused by bus routes, cars coming from side roads on what is already a narrow road to begin with. No opportunity to remove on street parking and there are also high levels of parking on neighbouring roads. Not possible to put cycleway in due to the built environment and the size of road. **Our Environment** Priority 6 – Encouraging Sustainable Travel • South Ilford: hard to put in bus cages/stand as parking is consistently used • High levels of parking in Ilford/South Ilford is making it difficult to install sustainable travel infrastructure (i.e. bus cages/stands, uber charging points) • High car ownership, on road parking and bad driving in South Ilford presents challenge to installing infrastructure in Ilford South which would encourage use of sustainable modes. • Car ownership is linked to status in South Ilford – this mindset will need to be addressed to change behaviour. This also poses a challenge as residents will be less willing to engage in trials and pilots. • Attitudinal challenge: sustainable transport is considered a threat rather than an opportunity by residents. Priority 7 – Enhancing the environment and biodiversity • New developments in the Hainault area are not well connected by pedestrian and cyclist connections to enable residents to reap the benefits of being within close proximity of green space. • Residents ignore urban drainage legislation when installing driveways – increases risk of local flooding. • Greenbelt areas are less supported by transport – building in these areas is likely to encourage car ownership. TfL will not implement a service without existing demand.

Table 5-2: SWOC table for all other external stakeholders

Stakeholder Group					
REDBRIDGE TODAY	**External transport groups**	**Older persons**	**Disabled groups**	**Younger persons**	**Citizens Panel**
Strengths	**Our Environment** • Asian women want to use cycling as a mode of travel to work/leisure	**Our Community** • Young people are keen to get out on the road after seventeen		**Our Community** • Many great leisure facilities in the borough	**Our Community** *Theme 1 – Increasing accessibility and inclusion* • Children today are very aware of and enthusiastic about the issues raised. • Free travel for individuals aged over 60 at certain times of the day. *Theme 2 – Providing high quality public transport services and spaces* • Elizabeth line is a good asset. • Travel from West to East is easy by train (Central and Elizabeth). • Bus connections in the east and north of the borough are good and well connected. • Buses very essential for areas not served by the tube. • Redbridge is well served with transport in terms of train (tube) and bus network. • The 123 (Walthamstow) and 179 (Chingford via South Woodford) both provide a frequent bus service from Ilford. • Other areas of London are easily accessed by train connections from Stratford and central stations. *Theme 3 – Enabling healthy lifestyles* • Noticeable increase in number of parents walking, cycling or scooting their children to school as a result of the School Streets scheme. *Theme 5 – Encouraging sustainable travel* • Fairly direct cycle routes from Redbridge to central London which are segregated from motor traffic. • Sufficient cycle lanes and quiet routes to make cycling in Redbridge relatively

Stakeholder Group					
REDBRIDGE TODAY	**External transport groups**	**Older persons**	**Disabled groups**	**Younger persons**	**Citizens Panel**
					straightforward for experienced cyclists.
Weaknesses	**Our Environment** • Pollution sinks created when hedgerows are removed from developments • Individuals, particularly women, are put off cycling by nasty congested junctions and unsafe routes (i.e. A406 and also Quietway 6 is an issue particularly at night time) • During the school drop off and pick up periods road traffic on average in the borough increases by 30%	**Our Community** • Poor pavements result in older people having slips, trips and falls • The school streets initiative has only encouraged people to park a few streets down and walk the rest of the distance – limited success in reducing use of cars for school runs • Individuals who struggle with mobility are less able to visit high rise buildings with no parking • EV charging points are less available/harder to install for individuals who live in flats • Affordability is a big issue. Bus freedom passes are not usable before 9am which creates issues for individuals looking to travel to GPs/hospitals/ town centres currently. There are also no bus freedom passes for travel into Epping Forest • Administration of blue badges is difficult; you need to renew and re-apply even though physical and mental health conditions of people are often not likely to get any better. The application can take a long time is also online which is a barrier to individuals without internet access • Issues around wheelchair access in the environment • Dial-a-Ride and community transport needs to be improved – Age UK London have done a report on Dial-a-Ride, and it brought up a lot of concerns, for example people being unable to contact them, or being told that they can't be collected at the time that they need. • A big barrier for older people accessing social activities is that	**Our Community** • Without support from staff individuals with mobility issues lack confidence – negatively impacts accessibility of services • Delineation of space on buses and rail services can be very limited if there are multiple passengers with buggies/wheelchairs, etc **Our Environment** • Extended journey times when travelling by bus – going between Seven Kings and Barking can take 2 hours • Accessibility at stations, i.e. via lifts are not always operable and working, which can really discourage an individual from choosing to travel by rail or tube • Slight indentation of the kerb can be a physical obstacle for some individuals • Safety is a barrier to using public transport – reports of people experiencing bullying/threats and attacks • Interest in PT can be lost if a walk is required either end of a journey – particularly for an individual with mobility impairments	**Our Community** • Public transport is often crowded and unsafe. People are seen taking drugs and in the summer, people throw water at each other on the bus. A participant recalled that once someone set a shoe on fire on the bus. • Concern about number of bus cancellations – resulting in having to take two or three buses to get to destination. • Public transport vehicles need to be cleaned more. • People don't cycle for safety reasons. Car drivers exhibit dangerous behaviour. • Street lights often don't work, making people feel unsafe. • Enforcement of driver behaviour is currently lacking. • Some cycle lanes aren't well visible – people can't tell where they are. • Leisure facilities are often not served well by public transport routes **Our Environment** • Pavements are icy and slippery making them difficult to walk on. Council prioritises cleaning roads from snow and ice even though pedestrians are above cars in the modal hierarchy.	**Our Community** *Theme 1 – Increasing accessibility and inclusion* • Ilford South is not pedestrian friendly; difficult for aging population to navigate streets. • Women concerned for their safety on streets at night. • Cars used instead of Ilford station due to safety concerns. • Disabled parking (6 bays) removed on Chadwick Rd for housing development – prevents individuals from accessing town centres. • Reduction in parking brings challenges for disabled individuals and their carers who rely on travelling by car. • Reliability of Dial-A-Ride – it may not turn up or will take you one way but won't return to home. • People travelling with pushchairs or mobility scooters are unable to get on a bus if there is already a pushchair/ mobility scooter on the bus. • New disabled bay placement has been poorly considered. • Stations without lifts/escalators make travelling with a pushchair difficult. *Theme 2 – Providing high quality public transport services and spaces* • Anti-social behaviour and crime on public transport, particularly from school children. • Shops overtaking the public realm. • Frequency of tube service has decreased since COVID. Standing waiting for a tube for 12 minutes to correct branch.

Stakeholder Group					
REDBRIDGE TODAY	**External transport groups**	**Older persons**	**Disabled groups**	**Younger persons**	**Citizens Panel**
		they can't get to the bus stop or the train station • In the morning buses don't stop because they are all too full of children, this is unfair for senior individuals • The Ring- Go app creates a barrier for older people wanting to visit public areas i.e. libraries and parks. **Our Environment** • It is now just as expensive, if not more, to drive an electric car compared to an ICE car • Cycle lanes and jumps make bus journeys difficult for the elderly who feel unwell due to the bus shaking (W19 through Aldersbrook is a key example) • Buses do not always pull up to the kerb to allow easy access for older and disabled people – this is also an issue at train stations with train height and the platform • Often no step-free access from train to platform on the Elizabeth Line • During commuting hours bus drivers do not wait until people are seated before pulling away – makes riding the bus feel unsafe for some individuals • The Central line is very hot, noisy and crowded which is off-putting for some individuals • Leaves on the roads create issues; street cleaners don't clean the actual pavement • Poor quality pavements with a high number of potholes across the Borough. LBR need to think about resurfacing pavements and roads • Western side of Redbridge is poorly connected to the rest of the borough by public transport • Night tube service is good however it would feel safer if more staff were available			• High amount of car theft within the borough. • Buses are unclean. • Difficulty of knowing how to travel during strikes if the TfL Go app is advising one route which contradicts another app. • Poor public transport connections to enable movement across the borough east to west and Newham to Woodford. • Pavements heavily congested in some areas (such as Barkingside station at 3.30pm) – also a particular issue around schools where parents and children are forced into roads and cycle lanes. • The quality of service on the public transport system is reduced by incidences of theft during busy periods. • Central line is very unpleasant, overcrowded and increasingly unreliable. • Infrequent tube trains– long waits and exacerbates overcrowding. • Public transport fares have increased whilst the quality of service has not. • Central line tracks very noisy – proven to be damaging to hearing. • Access to Newbury Park is very narrow with poor lighting when dark. Feels very unsafe and is avoided. • Bus services are overcrowded during peak times but this is exacerbated when the central line is down. • Tube platforms are packed during rush hours. • South Woodford platform is very narrow – feels unsafe during busy periods. • £4.80 from zone 4 to zone 1 during peak hours – expensive fares encouraging home working over paying to travel to the place of work more regularly.

Stakeholder Group					
REDBRIDGE TODAY	**External transport groups**	**Older persons**	**Disabled groups**	**Younger persons**	**Citizens Panel**
		• Speeding is an issue in areas without speed cameras - road humps do not prevent speeding (individuals speed through the humps or go in the middle of the road to avoid the humps) • No cycle area on Wanstead High Street • Some journeys by bus involve 2 or 3 buses i.e. travelling from western Redbridge to Whipps Cross Hospital			• Residential parking permits create unnecessary admin when residents have visitors • Inconsiderate parking e.g. parking blocking pavements and driveways, parking during the school run and commuter parking. • the network is under-utilised as residents are put off using it due to anti-social behaviour and an unhealthy environment immediately outside stations: e.g. drug dealing outside Ilford Station; aggressive and passive begging in Gants Hill Station, poor lighting at Redbridge Station; litter dumped outside all our stations. *Theme 3 – Enabling healthy lifestyles* • Green spaces in the north eastern part of the borough are not well connected by public transport e.g. Fairlop Waters/ Hainault area. • Green spaces are often congested – runners resort to running on the roads. **Our Environment** *Theme 5 – Encouraging sustainable travel* • Cycle lanes are lacking compared to neighbouring boroughs. • TfL journey planner takes you through main roads with no cycling provision. • Poor provision of EV charging points across the borough: Some not working, different charging rates – most are slow charging meaning car needs to be left overnight. • Integration of pedestrian, cycle and bus infrastructure is poor and often results in points of conflict on highways (e.g. widened cycle lanes make it more difficult for buses to fit into the road space

Stakeholder Group					
REDBRIDGE TODAY	External transport groups	Older persons	Disabled groups	Younger persons	Citizens Panel
					resulting in buses queuing and causing congestion). • Negative experience cycling into central London involved collision with Deliveroo bikes going through red lights, pedestrians crossing cycle lanes and causing conflict, cars stopping in cycle boxes which are intended to give cyclists additional time to get ahead of motor traffic. • Poor location of EV charging points, e.g. one on Woodford Avenue near Gants Hill Station. Cars practically have to stop on a red route to park at the point (particularly if they are queuing to use the point). • The cycle network is not very advanced and presents dangers to inexperienced riders including children. • Some busy roads have no cycle lanes, e.g. Forest Road which restricts easy access to Fairlop Waters and ironically Redbridge Cycling Centre. • There are few if any segregated cycle paths – most are shared with either motorists or pedestrians. • Cycle lanes are not integrated, i.e. cycle lanes sometimes end abruptly or cyclists are forced onto the pavement (shared) to cross at traffic lights (e.g. Gants Hill roundabout) • Cycle lanes are often not fit for purpose (too many reasons to list) so that puts people off cycling or forces cyclists on to the road. *Theme 6 – Improving road safety* • Cyclists ride on pavement due to poor road safety. This presents danger for pedestrians. Issue exacerbated by rise of delivery drivers on bikes/e-bikes.

Stakeholder Group					
REDBRIDGE TODAY	External transport groups	Older persons	Disabled groups	Younger persons	Citizens Panel
					• Parked cars obstructing views for pedestrians when trying to crossroads. • Dominance of cars around schools impedes safety of children. • Cars do not give way to pedestrians; the highway code and order of change has not been properly understood. • Gants Hill roundabout is chaotic for drives and cyclists. • Road safety for first and last mile pedestrian journeys can be dangerous – discourages people from using public transport network. • Redbridge Roundabout is prone to risk and deadlock. It is particularly difficult to access from Redbridge Lane East (where there are no red lights). Consider how to make the roundabout a more driver friendly experience. • A lot of traffic and congestion in the borough results from the morning and afternoon school runs.

Stakeholder Group					
REDBRIDGE TOMORROW	**External transport groups**	**Older persons**	**Disabled groups**	**Younger persons**	**Citizens Panel**
Opportunities	**Our Community** • Consider radial and orbital cycle routes as well as the strategic network; creating local cycling routes for people that live within neighbourhoods and around the key retail districts is important • Maintain infrastructure (including road surfaces) and improving the connections to neighbouring boroughs (LBWF) • Review the school streets initiative and how the misunderstanding around it can be addressed. Other school related initiatives suggested were: tailored maps, walk to school buddies • A big difference could be made in secondary school travel – extra safety is needed for secondary school students who are independent but are not street smart • Expand existing cycling infrastructure for quick wins, i.e. extending the CS2 (TfL) to Ilford, extending the Ilford Lane cycle route North, making the A406 North Circular Road and Ilford Gyratory commuter friendly for cyclists, improving signage at Charlie Brown's roundabout • Carefully consider how to create 15-minute liveability in several areas of Redbridge without compromising the good that already exists. Care must be taken as what works will in LTNs doesn't translate to suburbs that are less well connected by PT • Using human stories through social prescribing to highlight relevance to individuals. Messages should highlight what journey choices are possible alternative for individuals **Our Economy** • How can businesses be supported to move to greener, cleaner forms of travel? Greater messaging,	**Our Community** • Cycling should be encouraged, however cyclists could be discouraged from using pavements to avoid conflict with pedestrians • Introduce a permit or ticket system where people can buy physical tickets, instead of using the Ring-Go app. • Re-introduce cycling proficiency tests for adults, otherwise people feel like they've missed the boat if they haven't done it while they were young and feel reluctant/don't see an opportunity to learn. • More electric Dial-a-Ride buses would be beneficial. Elderly and or disabled individuals are very reliant on buses. • Introduce school buses to remove conflict between school students and elderly. A school bus between Wanstead and Leighton High School, near Whipps Hospital could help to reduce conflicts between school children and elderly individuals using buses. • Consolidate bus services into direct routes to better connect areas of the Borough • Rebalance the carriageway and footway equation. The footway should be given greater priority if we want to see more pedestrians walking and fewer cars on the road. **Our Environment** • Is there an opportunity to police cyclists? To deter them from using the pavements and therefore conflicting with the pedestrians. • Provide maps of the bus network across the Borough to educate people on what services are available and where they connect people to and from • Provide a centralised programme for teaching bus drivers what to do and	**Our Community** • Implement dropped kerbs to make it smoother for people to enter the carriageway from the footway • Providing staff training to ensure all staff can provide the assistance required to individuals that need it, i.e. ramps at stations etc. • More automated help would facilitate independent accessibility • Journeys start from home – the strategy should reflect this **Our Economy** • Freight and logistics movements using overnight trains to minimise disruption to daytime travellers • New working patterns during the pandemic have negated the need to travel to a destination. Businesses could play a role in further promoting flexible working or measure the carbon associated with employee travel for work and benchmark against targets **Our Environment** • Improve public transport connections to improve north south connectivity across the borough • Complete an audit across the borough of street environments and transport system, including parking – a useful lenses for identifying where the problems are and what actions need to be taken • Consider reduced transport passes/tickets for those with mobility impairments • More car free developments that only have provision for disabled parking, typically 5-8%. This meets the needs of all, particularly if the public transport connectivity in the surrounding area is good. • Using space more effectively to minimise length of first and last mile: could new bus and rail connections	**Our Community** • Need to think more about road safety from the perspective of weather, as well as conflict between road users. • Need to add more busses at peak times, many vehicles on the school run are overcrowded • Bus timetables – sometimes a bus comes just before school ends, and the next one doesn't arrive for a while, causing crowds at school bus stops. **Our Environment** • To cut down on driving we need the carrot as well as the stick. Enforcement for new schemes must be in place and must be effective.	**Our Community** *Theme 1 – Increasing accessibility and inclusion* • Increasing the number of disabled parking bays and bays for carers within the boroughs • Convert Ford Galaxies to take wheelchairs inside so people can go for medical appointments, social events etc. at a discounted price. Taxicards. • Providing and raising awareness of how to help visually impaired individuals using the public transport network. *Theme 2 – Providing high quality public transport services and spaces* • Installation of a CCTV monitored help point with a live talking feature should an incident occur (under consideration) • Ensure streets are well lit rather than installing cameras (which don't prevent crime) • CCTV monitoring for illegal parking (incl. parking on single and double yellow lines • Introduction of more school buses

Stakeholder Group					
REDBRIDGE TOMORROW	**External transport groups**	**Older persons**	**Disabled groups**	**Younger persons**	**Citizens Panel**
	communication and education for initiatives such as car free day/ clean air day (neither were very well promoted this year) **Our Environment** • The Strategy should identify where the greater potential for modal shift is • Softer measures include cargo bike share schemes, car share schemes at car free developments, bike share schemes, resident cycle storage in new developments, linking planning with transport • Equitable access for all road users should be promoted and road space reallocated accordingly; the Strategy should recognise and reiterate that the public highway is not just for cars but also pedestrians, cyclists and horses • Incorporate the sustainability mobility paradigm • Improve dialogue with TfL – safeguarding sites, develop cycle hire schemes etc. S106/278 improvements between TfL and Redbridge Council can include improved cycling and bus provision, e-bikes etc. which all need funding. • Create a clear parking strategy; restriction of supply and increase in cost will lead to a reduction in parking. Can be sold in a multitude of ways: bus priority, road safety or healthy living. • Hedgerows have a greater impact in reducing air pollution than trees, despite their value also in terms of shade etc. Trees are still needed to facilitate walking (by providing shade) in hot weather • Sustainable transport strategy should be closely aligned with planning strategy to ensure sustainable transport is part of the planning process (i.e. new development assessment impacts)	how to drive properly (many bus operating companies within Redbridge) • Policing of cyclists and scooters on pavements and riding through parks • Train bus drivers to ensure that safety for their passengers is a priority, at the moment buses stop and elderly individuals often fall and injure themselves.	directly link to key destinations i.e. right outside supermarkets etc.. • Role of education in renewing reasons behind the changes to transport and encouragement of active and sustainable travel • Collaboration with neighbouring boroughs (LBN and LBWF) to ensure high level connectivity • Opportunity to boost the confidence of individuals through the provision of instructions and maps to guide people from A to B via a variety of options		• Increased police presence to discourage anti-social behaviour and improve street safety • Improve consistency in travel advice across journey planning apps • Improve safety on streets and public transport network so people can feel confident walking • Resident only car parks • Increase number of roads with restrictions during working hours e.g. no parking on one side of road between 12.00 and 13.00 • Doubling excise duty (or new tax) on second cars – national issue • Make it easier to apply for dropped kerbs • Restrict road access to buses, licensed taxis, and blue badge holders wherever possible • Restrict town centre parking to car parks only (there is very little parking on Wanstead High Street but it has the most thriving and pleasant shopping area in the borough) • Restrictions on parking directly

Stakeholder Group					
REDBRIDGE TOMORROW	External transport groups	Older persons	Disabled groups	Younger persons	Citizens Panel
					outside shops – often proprietors park outside their own premises which is convenient for them but off-putting for their potential customers • Clampdown on vehicles which overlap pavements • Note Lambeth replacing parking with areas for outside cafes and more bus lanes • Visible police presence at transport hubs – zero tolerance for anti-social behaviour • Improve street lighting outside stations • Support the night tube and bus network (London is a 24 hour city and we are part of London) • Ensure no residential area is more than 400 yards from a bus stop (opponents of ULEZ say there is insufficient public transport in outer areas of the borough) • Ensure all stations in the borough (e.g. Redbridge Station) have step free access. • There are frequent tensions over priority on buses

Stakeholder Group					
REDBRIDGE TOMORROW	**External transport groups**	**Older persons**	**Disabled groups**	**Younger persons**	**Citizens Panel**
					between pushchair and wheelchair users. Is there a case for a more reliable and widely available dial-a-ride service with flooring configured for multiple buggies and wheelchairs? *Theme 3 – Enabling healthy lifestyles* • Continue to encourage children to walk to and from school • Pedestrianise town centres wherever possible • Introduce and Maintain walkways through and around all green spaces, e.g. Redbridge Recreation Ground is a large green space with no footpaths at all and as a result is massively under-utilised • First Sunday in the month close Cranbrook Road from Barkingside to Ilford – opportunity for farmer's markets **Our Environment** *Theme 4 – Responding to climate change* • TfL energy gardens – a way of harnessing solar power on platforms. • If evidence suggests 20mph limits reduce

Stakeholder Group					
REDBRIDGE TOMORROW	**External transport groups**	**Older persons**	**Disabled groups**	**Younger persons**	**Citizens Panel**
					air pollution, this speed limit should be enforced across the borough. *Theme 5 – Encouraging sustainable travel* • Wide public pavements could be used for cycle lanes or converted into another use for active travel. • Road closures to encourage people to switch from using private cars to public transport or active travel. • Introduce more segregated cycle lanes. • Consider only providing EV charging points away from the highway e.g. in car parks, garage forecourts. • Ensure there are no gaps in the cycle network so that cyclists never have to ride with other traffic on busy roads (A and B roads) • Clampdown on cars parking in existing roadside cycle lanes • Widen cycle lanes so that cyclists can pass each other without mixing with motorised traffic • Cycle (and pedestrian) route which covers the full route of the River Roding within Redbridge

Stakeholder Group					
REDBRIDGE TOMORROW	**External transport groups**	**Older persons**	**Disabled groups**	**Younger persons**	**Citizens Panel**
					• Encourage events such as Ride London to pass through Redbridge *Theme 6 – Improving road safety* • One way system around Ilford South • More road crossings on busy roads (particularly in Hainault) near schools and nurseries. • Increase the number of low 20mph limit zones in the borough (fewer than other boroughs). • Improve communication of highway code and the revised order of priority. • Traffic calming measures to better protect runners and pedestrians. • Ensure road markings complement new Highway Code rules which give priority to vulnerable road users, e.g. at busy junctions • Make Redbridge Lane East on Redbridge Roundabout exit only – may not be popular with all.

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Stakeholder Group					
REDBRIDGE TOMORROW	External transport groups	Older persons	Disabled groups	Younger persons	Citizens Panel
					Theme 7 – Enhancing the environment and biodiversity • Community gardens outside Elizabeth line stations (examples in Hackney – and Wanstead) *Theme 10 - Education, Promotion and Engagement* • Educational campaign on air quality in outer London to gain support for the ULEZ expansion; the Council should make it clear that the changes will impact a minority of car owners, explain the help and sunset periods for disabled drivers and advise how the money collected will be utilised. • Publicise figures on how many residents own cars – assuming a significant proportion don't, it would help people realise many get by without having a car. • The Council should explain why parking restrictions have been introduced and how money collected from fines is used. • Public information campaign to tackle littering within the borough – The Council should work with TfL

Stakeholder Group					
REDBRIDGE TOMORROW	**External transport groups**	**Older persons**	**Disabled groups**	**Younger persons**	**Citizens Panel**
Challenges	• Obtaining and retaining political support to deliver on the Strategy **Our Community** • Equity in data representation – data used for modelling is based on men and commuter journeys and is therefore not very representative **Our Environment** • Residential roads are used by vehicle drivers for through trips or rat-running – disincentive for cyclists on busy roads • Individuals' instinctive nature to use the car as it is a highly convenient mode – challenge for encouraging modal shift		**Our Community** • There are a range of disabilities that need to be accounted for- it is not a homogenous group- there are physical, cognitive and learning disabilities that are not always visible. Challenge of catering to these varying needs and ways of life. • Barriers exist to carers and how they are able to carry out their responsibilities – how can these be best addresses? • Issue with footpaths- allowing the trespass of motor vehicles as part of their license. This needs to change! • Challenge of shared space on public transport i.e. between buggies and wheelchair users.	**Our Community** • Perceptions of safety when using public transport. How do we show people that buses and bus stops are safe? How do we promote an experience that is safe and uneventful? How do we publicise something that is inherently not very exciting? **Our Environment** • Switching to electric cars during the current cost of living crisis will be difficult due to the price of electricity	**Our Community** Theme 1 – Increasing accessibility and inclusion • Cashless society – many people that disabled organisations support like to use cash and don't understand digital money *Theme 2 – Providing high quality public transport services and spaces* • Removal of carparks increases congestion on roads and worsens parking situations elsewhere • Addressing anti-social behaviour in public realm is necessary to improve street safety. People use cars to feel safe – especially women. • Resolving staff pressures/resourcing is required in order to have a high quality experience on the public transport system. • Public transport system needs to provide a quick and reliable service if it is going to be a genuine alternative to the private car. *Theme 3 – Enabling healthy lifestyles* • Encouraging people to walk more will place additional pressure on already

Stakeholder Group					
REDBRIDGE TOMORROW	External transport groups	Older persons	Disabled groups	Younger persons	Citizens Panel
					congested pavements. **Our Environment** *Theme 4 – Responding to climate change* • Concerns around ULEZ and compliance with low emission vehicles around healthy lifestyles and looking after the environment. • Car free developments are unsuccessful in reducing the number of cars – only push cars to nearby roads. *Theme 5 – Encouraging sustainable travel* • EVs are susceptible to economic and political crises – how can the strategy be futureproofed? • People resort to using private cars instead of public transport/ active travel modes when the weather is bad. • How to bring about behavioural change and break people's habitual and/or aspirational connection with the private car. • Will EV cars be considered a sustainable mode of transport in the future – especially if privately owned? • Greater incentives need to be provided to encourage greater

Stakeholder Group					
REDBRIDGE TOMORROW	External transport groups	Older persons	Disabled groups	Younger persons	Citizens Panel
					uptake of public transport. • Reduction in cars journeys needed in order to achieve priorities around healthy lifestyles and looking after the environment. • Affordability of EV cars • It is not likely that the Council will be able to forbid occupants of car free developments from owning cars. Car free development occupants will part their cars on neighbouring roads – likely to cause anguish for existing locals. *Theme 10 - Education, promotion and engagement* • Information fatigue regarding climate change and sustainability – lots of coverage on tv and social media. Challenge of converting awareness to action.

A Policy Review

Policy review

Policy	Relationship	Summary
National		
Decarbonising Transport: A Better Greener Britain (Department for Transport, 2021)	Transport	Sets out path to achieving a net zero transportation system in the UK, and the commitments and actions needed to get there. Decarbonisation is considered for all forms of transport and key targets and enablers are proposed.
Bus Back Better (Department for Transport, 2021)		The national bus strategy sets out priorities for how this mode of transport can be used as a tool for Covid-19 recovery, implementing the Levelling Up agenda and meeting decarbonisation targets.
Gear Change (Department for Transport, 2020)		A strategic vision, published during the Covid-19 pandemic, for incentivising walking and cycling across the UK, empowering local authorities to invest in active travel schemes and encouraging people to use them. The document sets out new design guidance and higher quality and safety requirements.
Transport Investment Strategy (Department for Transport, 2017)		A broad strategy for investing into the UK's transport system to create better connected, reliable networks, enhance economic productivity and local growth, support the creation of new housing and enhance Britain's global competitiveness.
Road Investment Strategy 2: 2020-2025 (Department for Transport, 2020)		A long-term vision for the UK's strategic road network, outlining expected standards and planned road enhancement schemes.
Network Rail Strategic Business Plan 2019 – 2024 (2018)		A strategic plan which sets out medium term priorities and targets for improving how railways around the UK are run, with a focus on reliable passenger services, potential to fuel growth and better integration between Network Rail and train operating companies.
National Highways Strategic Business Plan 2020-2025 (2020)		A document responding to the Road Investment Strategy, providing high-level direction for all parts of Highways England. These include safety, reliability, sustainability, economic growth, integration with other transport modes and new technology.

Policy	Relationship	Summary
Levelling up the United Kingdom (Department for Levelling Up, Housing and Communities, 2022)	Wider	The Levelling Up White Paper sets out the Government's strategy for addressing inequality in the UK through a range of interventions that target various indicators of inequality. One of its twelve focus areas or 'missions' is transport infrastructure.
Net Zero Strategy: Build Back Greener (Department for Business, Energy & Industrial Strategy, 2021)		A long-term strategy that sets out policies and priorities for achieving a decarbonised economy by 2050. It sets out key commitments from greening the transport sector, including a zero-emission vehicle mandate to end the sale of new petrol and diesel cars by 2030.
Public Health England Strategy 2020-25		An outline of priorities to protect people and help people live longer in good health. It sets out aims around keeping people safe, preventing poor health, narrowing the health gap and supporting a strong economy.
Clean Air Strategy (DEFRA, 2019)		This strategy sets out a comprehensive action plan for all parts of government and society to tackle air pollution and control major sources of air pollution. Relevant transport objectives are set out for all polluting modes.
A Green Future: Our 25 Year Plan to Improve the Environment (DEFRA, 2018)		This strategy sets out the Government's action plan to help the natural world regain and retain good health. It aims to deliver cleaner air and water while cultivating richer wildlife habitats. The future of mobility is identified as one of the key challenges with target priorities set our decarbonisation and encouraging new technologies and modes of transport.
Net Zero: The UK's contribution to stopping global warming (UK Committee on Climate Change, 2019)		A document setting out a high-level path for achieving 'net zero' in the UK. Transport-related strategic priorities include switching to sustainable travel, and widespread electrification across transport modes.
Subnational		
Mayor's Transport Strategy 2018	Transport	The MTS sets out three key policy directions which LB Redbridge aims to respond to. These include a focus on healthy streets and people, creating a good public transport experience, and delivering new homes and jobs. Transport-specific policies are designed to attain strategic targets, including for 80% of all

		journeys to be made by public transport or active travel, and for the transport sector to become net zero by 2050.
Mayor's Environment Strategy	Wider	This strategy is designed to provide policy direction on urgent environmental challenges facing the city. Policy priorities are outlined around air quality and green infrastructure with implications for transport across the capital.
London Plan 2021		The London Plan sets out policy positions for the city across a wide range of sectors, from heritage and culture to green infrastructure. These aim at providing a blueprint for the future development of London as a sustainable and inclusive city. The plan works together with the MTS to provide policy direction across all elements of city's transport sector.
Local		
Local Implementation Plan 2019	Transport	The LIP is a statutory document that sets out how the borough proposes to deliver the Mayor's Transport Strategy, while contributing to other local and sub-regional policy goals. It sets out a range of transport policies specific to the Borough.
Our Street Strategy		The strategy outlines the Borough's policy intentions to create and maintain clean, safe and vibrant streets. Its fundamental outcomes include putting residents at the heart of streets, investing in better services and implementing tough but fair enforcement. It creates policy implications for sustainable and active travel.
Sustainable Modes of Travel Strategy 2016		This document seeks to change travel behaviour of schools in the Borough, making sustainable travel to school a more attractive options and promoting sustainable modes for school commutes. Further objectives include improvements to safety and air quality around schools.
Highway Asset Management Strategy 2015		This strategy sets out the Borough's commitments towards managing and maintaining its highway assets to ensure they fulfil their functions in an efficient and sustainable manner.
Local Plan 2015-2030	Wider	The Local Plan sets out the Council's vision for how Redbridge will grow and develop through to 2030. Policy objectives for a range of sectors relating to urban development are presented

		which have implications for transport planning in the Borough. Moreover, there are specific policies targeting the promotion of sustainable transport, as well as cycle and car parking.
Strategic Delivery Plan		This plan outlines high-level priorities for developing the Borough and the council. These include actively implementing regeneration to benefit residents and integrate new communities, keeping the borough clean and safe, making it a great place to be and tackling the root causes of existing social challenges.
Climate Change Action Plan 2021		This action plan represents a commitment to act on the causes and impacts of climate change as a direct response to the Borough's declaration of a Climate Emergency. The Cleaner Journeys Action Plan forms a part of this document and outlines specific policy measures for reducing associated emissions from road-based travel, and from the Council's fleet in particular.
Air Quality Action Plan 2020-2025		This document outlines the Council's plan to improve air quality in the Borough. It outlines policies specifically around delivery servicing and freight, the Borough fleet, monitoring air quality, and broader measures to deliver cleaner transport.
Growing a New Redbridge Partnership Plan 2025		A plan for regeneration and social cohesion in the Borough, it expands on policy priorities set out in the Strategic Delivery Plan. The Council will need to consider how transport can be best used to meet these aims.
Planning Obligations SPD 2019		This is a supplementary planning document which sets out the Council's approach to using S106 planning obligations. These include site-specific transport planning obligations around CPZs, monitoring and bonds.
Biodiversity Action Plan		This document provides objectives and actions for supporting species and habitats across the borough in light of current and future challenges around climate change and environment degradation.

	Our Community				Our Environment			Our Economy	
National Policies	**Increasing Accessibility and Inclusion**	**Providing high quality public transport services and spaces**	**Enabling healthy lifestyles**	**Improving road safety**	**Responding to the climate emergency**	**Encouraging sustainable travel**	**Enhancing the environment and biodiversity**	**Supporting economic growth**	**Rethinking freight and servicing**
Decarbonising Transport: A Better Greener Britain (Department for Transport, 2021)			✓		✓	✓			
Bus Back Better (Department for Transport, 2021)		✓	✓			✓			
Gear Change (Department for Transport, 2020)	✓		✓	✓	✓	✓			
Transport Investment Strategy (Department for Transport, 2017)	✓	✓	✓					✓	
Levelling up the United Kingdom (Department for Levelling Up, Housing and Communities, 2022)						✓			
Net Zero Strategy: Build Back Greener (Department for Business, Energy & Industrial Strategy, 2021)			✓		✓	✓		✓	
Public Health England Strategy 2020-25			✓	✓					
Clean Air Strategy (DEFRA, 2019)			✓		✓		✓	✓	

	Our Community				Our Environment			Our Economy	
National Policies	**Increasing Accessibility and Inclusion**	**Providing high quality public transport services and spaces**	**Enabling healthy lifestyles**	**Improving road safety**	**Responding to the climate emergency**	**Encouraging sustainable travel**	**Enhancing the environment and biodiversity**	**Supporting economic growth**	**Rethinking freight and servicing**
A Green Future: Our 25 Year Plan to Improve the Environment (DEFRA, 2018)			✔		✔	✔	✔		✔
Cycle infrastructure design guidance LTN 1/20				✔			✔		
National Highways Strategic Business Plan 2020-2025 (2020)		✔							✔
Network Rail Strategic Business Plan 2019 – 2024 (2018)		✔							✔

	Our Community				Our Environment			Our Economy	
London Policies	**Increasing Accessibility and Inclusion**	**Providing high quality public transport services and spaces**	**Enabling healthy lifestyles**	**Improving road safety**	**Responding to the climate emergency**	**Encouraging sustainable travel**	**Enhancing the environment and biodiversity**	**Supporting economic growth**	**Rethinking freight and servicing**
Mayor's Transport Strategy (2018)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mayor's Environment Strategy	✓		✓		✓	✓	✓		
London Plan 2021	✓	✓	✓	✓	✓	✓	✓	✓	✓

	Our Community				Our Environment			Our Economy	
Local Policies	**Increasing Accessibility and Inclusion**	**Providing high quality public transport services and spaces**	**Enabling healthy lifestyles**	**Improving road safety**	**Responding to the climate emergency**	**Encouraging sustainable travel**	**Enhancing the environment and biodiversity**	**Supporting economic growth**	**Rethinking freight and servicing**
Local Implementation Plan (2019)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Local Plan 2015-30	✓		✓	✓	✓	✓	✓	✓	✓
Strategic Delivery Plan	✓		✓		✓	✓	✓	✓	
Our Streets Strategy 2017-2022	✓		✓	✓		✓		✓	
Air Quality Action Plan 2020-25			✓		✓	✓	✓	✓	
Growing a New Redbridge Partnership Plan 2025			✓		✓		✓		
Climate Change Action Plan 2021			✓					✓	
Sustainable Modes of Travel Strategy 2014			✓	✓	✓	✓			
Highway Asset Management Strategy 2015			✓		✓	✓			
Planning Obligations SPD 2019			✓				✓	✓	✓
Biodiversity Action Plan			✓		✓				
Local Implementation Plan (2019)	✓	✓	✓	✓	✓		✓		

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Client: LB Redbridge

Steer: Project Team

Version control/issue number		Date
V1	Draft for Internal Review	12 September 2022
V2	Draft for Client Review	16 September 2022
V3	Draft for Internal Review	22 November 2022
V4	Draft final for Client Review	22 December 2022
V5	Final for Client Review	03 March 2023
V6	Final for Client Review	07 March 2023

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