MEETING
ENVIRONMENT COMMITTEE
DATE AND TIME
MONDAY 20TH JANUARY, 2020
AT 7.00 PM
VENUE
HENDON TOWN HALL, THE BURROUGHS, LONDON NW4 4BQ

TO: MEMBERS OF ENVIRONMENT COMMITTEE (Quorum 3)

Chairman: Councillor Dean Cohen BSc (Hons)
Vice Chairman: Councillor Peter Zinkin

Elliot Simberg	Laithe Jajeh	Alison Cornelius
Felix Byers	Alan Schneiderman	Jo Cooper
Laurie Williams	Geof Cooke	

Substitute Members

Sarah Wardle	Weeden-Sanz	Nizza Fluss
Kath McGuirk	Tim Roberts	Nagus Narenthira

In line with the Constitution's Public Participation and Engagement Rules, requests to submit public questions should be submitted by 10AM on Wednesday 15 January 2020. Any requests should be submitted to paul.frost@barnet.gov.uk

You are requested to attend the above meeting for which an agenda is attached.
Andrew Charlwood – Head of Governance

Governance Services contact: Paul Frost 020 8359 2205 paul.frost@barnet.gov.uk
Media Relations Contact: Tristan Garrick 020 8359 2454

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ORDER OF BUSINESS

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1.	Minutes of the previous meeting	5 - 6
2.	Absence of Members	
3.	Declarations of Members' Disclosable Pecuniary Interests and Non-Pecuniary Interests	
4.	Report of the Monitoring Officer (if any)	
5.	Public Questions (if any)	
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10.	Garden Waste Collections - Introduction of Charges	To Follow
11.	Penalty Charge Notice Re-banding	To Follow
12.	Committee Forward Work Programme	195 - 196
13.	Any Other Items that the Chairman Decides are Urgent	

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Decisions of the Environment Committee

27 November 2019

Members Present:-

AGENDA ITEM 1

Councillor Dean Cohen (Chairman)
Councillor Peter Zinkin (Vice-Chairman)

Councillor Elliot Simberg	Councillor Alan Schneiderman
Councillor Laithe Jajeh	Councillor Jo Cooper
Councillor Alison Cornelius	Councillor Laurie Williams
Councillor Felix Byers	Councillor Geof Cooke

1. MINUTES OF THE PREVIOUS MEETING

Before the Committee considered the minutes of the pervious meeting the Chairman welcome the Executive Director for Environment, Mr Geoff Mee to the meeting. He added that he had recently joined the London Borough of Barnet and therefore that was his first meeting of the Environment Committee.

2. ABSENCE OF MEMBERS

None.

3. DECLARATIONS OF MEMBERS' DISCLOSABLE PECUNIARY INTERESTS AND NON-PECUNIARY INTERESTS

None.

4. REPORT OF THE MONITORING OFFICER (IF ANY)

None.

5. PUBLIC QUESTIONS (IF ANY)

None.

6. MEMBERS' ITEMS

None.

7. STREET LIGHTING ASSET IMPROVEMENT PROJECT PROGRESS UPDATE

The report was introduced by the Head of Network and Infrastructure, Mr Paul Bragg. He provided an update on the progress of the Street Lighting Improvement Project consisting of LED lantern and Central Management System (CMS) conversion by the Street Lighting Private Finance Initiative (PFI) Service Provider.

Having considered the report the Committee:

Resolved
That the Committee noted the progress and roll out plan of the LED lighting across the Borough.

8. QUARTER 2 PERFORMANCE (Q2) 201920

The report was introduced by the Executive Director for Environment. He outlined that the report provided Members with a thematic overview of performance for Q2 2019/20 focusing on the budget forecasts and activities to deliver both corporate and committee priorities in the Environment Committee Annual Delivery Plan.

Members of the Committee had the opportunity to ask questions in relation to the report and the performance data within. The interim Director for Street Scene, Mr Jamie Cooke was in attendance in order to answer questions.

Before the voting process Councillor Alan Schneiderman moved to refer the following:

- Environmental Sustainability to be referred to the Policy and Resources Committee to be considered in order to mitigate any risk.

Councillor Peter Zinkin stated that this element would be captured in the Transport Stagey that was expected to be reported at the next meeting of the Environment Committee on 20 January 2020.

The Chairman therefore requested this be put to the vote. This was recorded below:
For – 4
Against – 6

This was therefore lost.

Councillor Alan Schneiderman then requested that the Committee refer the item in respect to guaranteed income be referred to the Finance and Performance and Contracts Committee. This was unanimously agreed and therefore carried.

Before the Committee considered the report's recommendation the Committee requested that Mr Mee send a note to all Members of the Committee in consultation with the Director of Finance for an update the Environment budget.

Have considered the report the Committee:

Resolved

The Committee noted the report and reviewed the budget, performance and risk information for Q2 2019/20. The Committee agreed to refer the item in respect to guaranteed income to the Financial Performance and Contracts Committee.

9. COMMITTEE FORWARD WORK PROGRAMME

Resolved:

The Committee noted the work programme and agreed that the next meeting start at 6pm.

10. ANY OTHER ITEMS THAT THE CHAIRMAN DECIDES ARE URGENT

None.

The meeting finished at 8.10 pm

Environment Committee

20 January 2020

Title	**Member's Items** **Councillor Alan Schneiderman – The Poor State of Phone Boxes** **Councillor Geoff Cook – Review of FPNs for littering / flytipping**
Report of	Head of Governance
Wards	All Wards
Status	Public
Urgent	No
Key	No
Enclosures	None
Officer Contact Details	Paul Frost, 020 8359 2205, paul.frost@barnet.gov.uk

Summary

Members Items have been received for the Environment Committee from Councillor Alan Schneiderman and Geoff Cook. The Committee are requested to consider the items and give instructions.

Officers Recommendation

That the Environment Committee's instructions in relation to these Member's Items are requested.

1. WHY THIS REPORT IS NEEDED

1.1 Members of the Committee have requested that the items tabled below are submitted to the Environment Committee for considering and determination. The Environment Committee are requested to provide instructions to Officers of the Council as recommended.

Alan Schneiderman	**The Poor State of Phone Boxes** Many BT phone boxes in the Borough are not working, vandalised or in a poor state of repair. I request that the Environment committee asks the interim Environment director to write to BT to ask them to bring all of their phone boxes up to an acceptable standard within a reasonable timeframe and if this is not acted upon to investigate powers that the council may be able to use to seek to enforce this. A similar members' item was submitted to the Environment Committee meeting on 14 March 2018, but has not led to any action and the same problem still persists.
Geoff Cook	**Review of FPNs for littering / flytipping** Councillors are still receiving complaints from residents about the unfair application of fixed penalty notices being given for littering / flytipping when residents and businesses are leaving rubbish for collection. I ask the Committee to agree that officers undertake a review of the current policy and operation of the enforcement contract and report back to the Committee so any necessary changes can be made.

2. REASONS FOR RECOMMENDATIONS

2.1 No recommendations have been made. The Committee are therefore requested to give consideration and provide instruction.

3. ALTERNATIVE OPTIONS CONSIDERED AND NOT RECOMMENDED

3.1 N/A

4. POST DECISION IMPLEMENTATION

4.1 Post decision implementation will depend on the decision taken by the Committee.

5. IMPLICATIONS OF DECISION

5.1 **Corporate Priorities and Performance**

5.1.1 As and when issues raised through a Member's Item are progressed, they will need to be evaluated against the Corporate Plan and other relevant policies.

5.2 **Resources (Finance & Value for Money, Procurement, Staffing, IT, Property, Sustainability)**

5.2.1 None in the context of this report.

5.3 **Legal and Constitutional References**

5.3.1 A Member (including Members appointed as substitutes by Council) will be permitted to have one matter only (with no sub-items) on the agenda for a meeting of a committee or Sub-Committee on which s/he serves. The matter must be relevant to the terms of reference of the committee.

5.3.2 The referral of a motion from Full Council to a committee will not count as a Member's Item for the purposes of this rule.

5.4 **Risk Management**

5.4.1 None in the context of this report.

5.5 **Equalities and Diversity**

5.5.1 Members' Items allow Members of a Committee to bring a wide range of issues to the attention of a Committee in accordance with the Council's Constitution. All of these issues must be considered for their equalities and diversity implications.

5.6 **Consultation and Engagement**

5.6.1 None in the context of this report.

6. BACKGROUND PAPERS

6.1 None.

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Environment Committee

20 January 2020

Title	**Draft Barnet Long Term Transport Strategy**
Report of	Chairman of Environment Committee
Wards	All
Urgent	No
Status	Public
Key	No
Enclosures	Appendix A – Draft Long Term Transport Strategy Appendix B – Long Term Transport Strategy Evidence Base Appendix C – Initial Equalities Impact Assessment
Officer Contact Details	Geoff Mee, Interim Executive Director for Environment geoff.mee@Barnet.gov.uk Cara Elkins, Commissioning Lead Environment cara.elkins@barnet.gov.uk

Summary

The report sets out the development of a Draft Long Term Transport Strategy for Barnet, from 2020-2041. The draft strategy has been developed following an evidence-based approach and by engaging services across the Council and key external stakeholders. The strategy supports the Council's Corporate Plan 2019-2024 and existing documents such as the Joint Health and Wellbeing Strategy and emerging documents such as the Growth Strategy and Local Plan.

If approved by the Environment Committee, the Council will undertake a public consultation on the draft strategy and where appropriate the responses and comments will be fed into a revised final version of the strategy. The Committee will then be asked to approve a final version of the Long Term Transport Strategy.

Recommendations

1. **That the Environment Committee approve the proposed Draft Long Term Transport Strategy for public consultation.**
2. **That the Environment Committee note that the results of the consultation will be reported back to this Committee together with any revisions to the Strategy where appropriate.**

1. WHY THIS REPORT IS NEEDED

1.1 In July 2016, the Environment Committee instructed the Director for Environment to develop an overarching Long Term Transport Strategy for the London Borough of Barnet. Since then, considerable work has been undertaken to refine the scope of the strategy and the proposed approach to transport within the borough, develop an evidence base to support the proposals and engagement with key stakeholder groups to inform the Draft Long Term Transport Strategy.

1.2 The Draft Long Term Transport Strategy 2020 – 2041 can be found in Appendix A. The Strategy:

- Articulates the vision for transport in Barnet to 2041;
- Outlines proposals to achieve the vision; and
- Provides an evidence base for this strategy.

1.3 The full Evidence Base can be found at Appendix B. The Evidence Base was developed to cover historic trends, the current situation and an assessment of future scenarios. Data was taken from a broad range of sources: the DfT and TfL data stores but also Barnet Council's own work in developing policies such as the Local Plan and the Growth Strategy. Data relating to Barnet was compared to other London boroughs to provide a benchmark.

1.4 This report sets out the progress undertaken to date in developing the Draft Long Term Transport Strategy.

2. REASONS FOR RECOMMENDATIONS

2.1 **Recommendation 1** – It is recommended that the Environment Committee approve the draft strategy for public consultation. This will ensure that Barnet residents, the Council's partners and other stakeholders all have an opportunity to comment on the Transport Strategy before it is finalised

2.2 **Recommendation 2 –** It is recommended that the Environment Committee approve that, following the public consultation and any associated updates to the Strategy, the final version of the Strategy be reported back to the Environment Committee to be considered for adoption.

3. ALTERNATIVE OPTIONS CONSIDERED AND NOT RECOMMENDED

3.1 The Environment Committee has already instructed officers to prepare a new Long Term Transport Strategy. The alternative approach is to not produce a Transport Strategy however this is not considered good practice and would not support the Council's Corporate Plan and other Council strategies, such as the Draft Growth Strategy, Local Plan and Joint Health and Wellbeing Strategy.

4. POST DECISION IMPLEMENTATION

4.1 If the Committee is minded to approve Recommendation 1 then a public consultation exercise is planned to take place in late winter / early spring 2020.

4.2 Subject to its approval of Recommendation 1, the Environment Committee will be asked to consider and approve a final version of the strategy.

5. IMPLICATIONS OF DECISION

5.1 Corporate Priorities and Performance

5.1.1 The Corporate Plan, Barnet 2024, is focused on three main outcomes:

- A pleasant, well maintained borough that we protect and invest in.
- Our residents live happy, healthy, independent lives with the most vulnerable protected.
- Safe and strong communities where people get along well.

5.1.2 The Council's key areas of focus include:

- Delivering quality services – improving the overall approach to planning and enforcement, including taking action against enviro crime such as littering and fly tipping
- Delivering services that our residents value most to a high standard, including keeping our neighbourhoods and town centres clean, safe and health, maintaining our parks and open spaces, ensuring that our roads and pavements are well looked after.

5.1.3 The proposed Long Term Transport Strategy contributes to all three outcomes of Barnet 2024, but in particular, will directly deliver against the outcome 'A pleasant, well maintained borough that we protect and invest in'.

5.1.4 The proposed Transport Strategy also supports the Council's draft Growth Strategy (2019-2030) and draft Local Plan (2021-2036) to ensure planning for future housing and transport needs is delivered in a joined-up way. In addition, the Strategy will also support the delivery of outcomes from other adopted Council strategies, including the Joint Health and Wellbeing Strategy, the Parks and Open Spaces Strategy and the Fit and Active Barnet Framework. It will support Barnet's ambitions to become London's most family friendly borough and to improve healthy life expectancy through the creation of healthier and more resilient neighbourhoods.

5.2 **Resources (Finance & Value for Money, Procurement, Staffing, IT, Property, Sustainability)**

5.2.1 **Finance & Value for Money**: The issues of funding and implementation of any proposals noted in the Transport Strategy has been considered in the high level delivery plan near to the end of the Strategy. The delivery plan includes estimated costs (excluding staff costs) and potential sources of funding. There are a range of funding opportunities including CIL and S106 and external funding from TfL etc which will need to be considered and explored as part of the feasibility study for each proposal.

5.2.2 **Procurement**: Preparation of the strategy has fully complied with Contract Procedure Rules. Any proposals identified in the Transport Strategy will be subject to procurement plans that will comply with the Council's Contract Procedure Rules.

5.2.3 **Staffing:** Key Stakeholders have been considered as part of the Delivery Plan and will be engaged as part of each proposals feasibility study. Resources will be required post adoption of the strategy to develop the detailed feasibility studies and project management for the delivery of the strategies delivery plan.

5.2.4 **Property**: At this time there are no implications, however some proposals may require the purchase or change of use of land or property. This will be considered and explored as part of the feasibility study for each proposal.

5.2.5 **IT:** At this time there are no implications.

5.2.6 **Sustainability:** At this time there are no implications.

5.3 **Social Value**

5.3.1 The Public Services (Social Value) Act 2012 requires local authorities who commission public services to consider how what is being procured might improve the social, economic and environmental well-being of the relevant area. This will be done as part of any procurement. No procurement is currently planned as a result of the recommendation in this report.

5.4 **Legal and Constitutional References**

5.4.1 The Council's Constitution sets out the terms of reference of the Environment Committee. This includes

- Responsibility for all borough-wide or cross-constituency matters relating to the street scene including, parking, road safety, lighting, street cleaning, transport, waste, waterways, refuse, recycling, allotments, parks, trees, crematoria and mortuary, trading standards and environmental health.

- To submit to the Policy and Resources Committee proposals relating to the Committee's budget for the following year in accordance with the budget timetable.
- To make recommendations to Policy and Resources Committee on issues relating to the budget for the Committee, including and virements or underspends and overspends on the budget. No decisions which result in amendments to the agreed budget may be made by the Committee unless and until the amendment has been agreed by Policy and Resources Committee

5.5 **Risk Management**

5.5.1 The key risks to the preparation of the Transport Strategy include resourcing and making sure key stakeholders are engaged at the appropriate time. Risks relating to the delivery of the strategy will be considered at the feasibility stage in the preparation of specific projects.

5.6 **Equalities and Diversity**

5.6.1 Under section 149(1) of the Equality Act 2010 (EA 2010) the Council must, in exercise of its functions, have due regard to the need to:

- eliminate discrimination, harassment, victimisation and other conduct prohibited by the EA 2010;
- advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;
- foster good relations between persons who share a relevant protected characteristic and persons who do not share it

5.6.2 The relevant protected characteristics are: age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex, and sexual orientation.

5.6.3 The Initial Equality Analysis (at Appendix C to this report) has identified that, in relation to all protected characteristics, there is minimal impact or a net positive impact because of the proposed strategy, in the long term.

5.6.4 Due to the overarching nature of a proposed Transport Strategy, almost every protected group could be impacted. It is recognised that the strategy and proposals support improvement to the broader environmental context and on the whole benefits all protected characteristics who should experience a net beneficial impact from improved accessibility and connectivity of transport, healthier streets and access to a range of transport options. Some potential negative impacts relate to the availability of parking, or service alteration, which would impact those who are most reliant on car use to move around the borough, such as those with limited mobility (e.g. older people, people with disabilities, parents with young children, and carers). However, there are also some positive impacts for these groups which could help to mitigate potential negative impacts, such as prioritising car parking for blue badge holders and proposals to improve footways in the borough and improve access to public transport for example by installing step free access at stations.

5.6.5 This initial equalities impact assessment will be reviewed and updated following public consultation. In addition, in the event of the proposed Strategy being adopted and as the proposals within the Strategy being developed the equalities impact will continue to be considered.

5.7 **Corporate Parenting**

5.7.1 Not applicable.

5.8 **Consultation and Engagement**

5.8.1 Initial engagement has been undertaken. Four steering groups were formed to feedback and gather views from some key stakeholders to inform the Draft Long Term Transport Strategy, i.e. a Councillor group, Officer group, Community Group and Transport and Infrastructure Group. The Community Group included organisations such as Age UK Barnet, Federation of Small Businesses and Middlesex University and the Transport & Infrastructure Group included organisations such as TfL, Network Rail and the Metropolitan Police. Feedback has also been gathered from officers developing the Growth Strategy and Local Plan.

5.8.2 Subject to approval by the Environment Committee, a wider public consultation will take place in late winter / early spring 2020. This will include an online survey which invites comments from residents, businesses, partner organisations and other stakeholders.

5.9 **Insight**

5.9.1 The Transport Strategy has been informed by the Evidence Base which includes high level transport modelling. The Evidence Base is attached as Appendix B.

6. BACKGROUND PAPERS

6.1 Moving Around in Barnet – “A Direction of Travel”, July 2016 https://barnet.moderngov.co.uk/ieListDocuments.aspx?CId=695&MId=8634&Ver=4

Barnet Long Term Transport Strategy 2020 - 2041

DRAFT – December 2019

Contents

Figures

Tables

1 Introduction

Introduction

What is this document?

The Long Term Transport Strategy is part of Barnet Council's wider strategy to create a prosperous, inclusive and healthy future for the borough. It sets out a vision for transport in Barnet and a roadmap for achieving this vision, supporting other council policies such as the Draft Growth Strategy, the Joint Health and Wellbeing Strategy and the Local Plan.

This Strategy:

- Articulates the vision for transport in Barnet to 2041;
- Proposes possible proposals to achieve the vision; and
- Provides an evidence base for this strategy.

It sets strategic goals and suggests high level actions, with associated timescales and delivery plans. Further work, such as data collection, detailed design and public consultation, will be required before recommended actions can be implemented.

Why is it needed?

Having an overarching transport strategy enables investment to be targeted in order to achieve desired outcomes in a coherent manner. This means the transport network is considered in-the-round when prioritising spending and takes full account of other council strategies such as the Draft Growth Strategy.

Why 2041?

The timescale of 2041 has been chosen to tie in with the Mayor of London's Transport Strategy. It is far enough into the future to allow for major infrastructure changes, whilst still allowing prediction of social, economic and technological change with some degree of confidence.

Context

Who controls transport in Barnet?

Not all transport in the borough is under the Council's control.

Public realm, roads and parking

Major roads which form part of the Transport for London (TfL) Road Network are controlled by TfL (A1, A41, A406) and motorways by Highways England (M1); TfL also operate and maintain traffic signals on all roads, and have certain wide-ranging powers, such as the ability to introduce road pricing proposals like the Ultra Low Emission Zone and the Congestion Charge. However, the Council are responsible for managing and maintaining the majority of Barnet's roads.

The Council oversees the creation and enforcement of on-street parking spaces and Council owned car-parks.

The Council's decisions on road space allocation and parking have wide ranging impacts, not only on the efficiency of moving people and goods but also on the creation of pleasant spaces and successful high streets in the borough.

London Underground and buses

Both the London Underground network (including stations) and bus services are parts of the TfL network and are not managed by the Council. Nevertheless, the Council can and does engage with TfL and can help shape how its residents interact with both modes of transport and can influence the services, for example through changing road design around an Underground Station.

National Rail

Network Rail (NR) own and manage the majority of railway infrastructure in the borough, including tracks and power lines. Railway stations and services in Barnet are managed and operated by Govia Thameslink Railway and its subdivisions (Thameslink, Southern and Great Northern franchises).

Taxis and private hire vehicles

TfL are responsible for licensing taxis and private hire vehicles. Without a license from TfL, it is illegal to work as a taxi or Private Hire Vehicle (PHV) driver.

New mobility

New forms of travel are increasingly available in London, such as dockless bikes and electric scooters. The regulatory framework for these is still emerging: TfL released a Code of Practice for dockless bike operators to work with London boroughs.

Policy

This strategy complements and supports the Council's other strategic policy documents. Transport is particularly important for achieving the aims of the Draft Growth and Joint Health and Wellbeing strategies. This strategy must also work within the framework of regional and national policy.

The Council's Corporate Plan[1]

The Council's existing Corporate Plan 2019 – 2024, includes the objective to

keep the borough moving

It states that delivering this will involve:

- Improving the condition of our roads and pavements
- Encouraging the use of public transport, walking and cycling through the 'healthy streets' approach
- Lobbying for improvements to public transport
- Developing a cycle network to major destinations in the borough without impeding busy and narrow traffic routes
- Promoting and continuing to roll out electric vehicle charging points and car clubs
- Using enforcement to increase compliance and support smooth and safe traffic movement.

This strategy document is aligned with these objectives and seeks to develop them across the longer time frame.

The Council's Local Plan

The Council's emerging Local Plan will cover the 2021-2036 period. It will provide a positive strategy for delivering The Council's priorities through sustainable development. It identifies areas for housing and employment growth and reflects the benefits of major investment in infrastructure that the new Brent Cross Thameslink Station will bring and Crossrail 2 and the West London Orbital could bring to the Borough. It will also assist in the delivery of other Council Plans and Strategies. This includes the Draft Growth Strategy which sets out where The Council will focus its interventions to support delivery of development and regeneration. These plans and strategies will provide a robust planning framework against which the aspirations of The Council can be successfully delivered.

The Council's Growth Strategy[2]

At the time of writing, feedback from the consultation on the Draft Growth Strategy is being analysed and considered and a final version of the strategy is being developed. The Draft Growth Strategy runs from 2019 to 2030 and it includes three objectives relevant to this strategy, aiming to create "a connected borough".

A connected borough

Enable new and enhanced public transport connections	improving orbital connectivity and interchange between rail lines, reducing congestion and improving transport accessibility.
Deliver healthier street design to support all forms of travel	responding to demographic and cultural changes to enhance travel choices, promote active travel and improve safety.
Deliver a cleaner, greener and more pleasant borough	reduce congestion and improve air quality, by encouraging the use of more sustainable forms of transport and supporting the transition to electric vehicles and other technologies as they emerge.
State-of-the-art digital infrastructure	Work with public and private sector partners to incorporate this into regeneration schemes, council assets and where local employers need it, such as across our town centres.

The Strategy describes how The Council will facilitate the major growth that is expected in Barnet over the next decade. More information is included in the next chapter.

The Council's Health and Wellbeing Priorities[3]

Barnet's Health and Wellbeing Board's priorities include "creating a healthy environment", which they are seeking to deliver by interalia promoting walking and cycling through the 'healthy streets' approach.

The Council's Local Implementation Plan and Mayor of London's Transport Strategy[4]

The Local Implementation Plan (LIP) details how The Council will play its part in achieving the objectives set in the Mayor of London's Transport Strategy (2018). The overarching objective for the Mayor of London's Transport Strategy is for 80% of all trips in London to be on foot, by cycle or public transport by 2041. For this to be achieved, the Mayor of London has set the target of increasing the proportion of trips made by walking, cycling and public transport in Barnet from 59% today to 72% in 2041. A proportion of The Council's transport budget comes through the LIP process: to get funding, proposals will need to demonstrate how they help achieve the Mayor of London's targets.

A lack of public transport options, particularly to travel from west to east across the borough (and vice versa), and the concentration of key national freight routes on Barnet roads that The Council does not control makes meeting the Mayor of London's targets challenging, particularly for mode share (how people travel), road safety, air quality and parking standards. Despite this, the current annual LIP includes projects to move towards these targets.

The Council shares many of the same goals articulated in the Mayor of London's Transport Strategy, including improving air quality, reducing car dependency, and enabling more Londoners to walk and cycle.

Healthy Streets Approach

The Healthy Streets Approach embodied in the Mayor of London's Transport Strategy, puts human health and experience at the heart of planning the city. It uses ten evidence based indicators to assess the experience of being on London's streets. Rather than providing an ideal model for a street, the approach accounts for each street's function and points towards how better quality environments can be created. The approach is a guide to policy. The Healthy Streets indicators are shown in Figure 1.1.

[1] Barnet Council (2019) Barnet 2024: Corporate Plan 2019-2024 https://www.barnet.gov.uk/sites/default/files/corporate_plan_-_barnet_2024.pdf

[2] Barnet Council (2019) Growth Strategy 2030 https://engage.barnet.gov.uk/growth-strategy

[3] Barnet Council https://www.barnet.gov.uk/health-and-wellbeing/barnets-health-and-wellbeing-board

[4] Barnet Council (2018) Local Implementation Plan; TfL (2018) Mayor's Transport Strategy

Figure 1.1: TfL Healthy Streets indicators

Climate Change Act 2008[5]

The UK Climate Change Act commits the country to reducing greenhouse emissions by at least 80% compared to 1990 emission levels by 2050. In May 2019, UK Parliament declared a climate emergency, calling on the Government to:

> 'increase the ambition of the UK's climate change targets under the Climate Change Act 2008 to achieve net zero emissions before 2050, increase support for and set ambitious, short term targets for the roll-out of renewable and low carbon energy and transport.'[6]

Transport is the largest emitting sector of the UK greenhouse gas emissions and, whereas other sources are decreasing, emissions from transport continue to increase.[7]

[5] UK Public General Acts (2008) Climate Change Act 2008
http://www.legislation.gov.uk/ukpga/2008/27/contents

[6] UK Parliament (2019) Votes and Proceedings Wednesday 01 May 2019
https://publications.parliament.uk/pa/cm201719/cmvote/190501v02.html

[7] Department for Business, Energy & Industrial Strategy (2017) UK Greenhouse Gas Emissions
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/776083/2017_Final_emissions_statistics_one_page_summary.pdf

Policy Objectives: Mayor of London's Transport Strategy & Barnet Council's Local Implementation Plan

Mayor of London's Transport Strategy (2018)	Overarching mode share								
	London's streets will be healthy and more Londoners will travel actively	London's streets will be safe and secure	London's streets will be used more efficiently and have less traffic on them	London's streets will be clean and green	The public transport network will meet the needs of a growing London	Public transport will be safe, affordable and accessible to all	Journeys by public transport will be pleasant, fast and reliable	Active, efficient and sustainable travel will be the best option in new developments	Transport investment will unlock the delivery of new homes and jobs
LB Barnet LIP (2019)	Promote physical activity	Healthy Streets	Vision Zero and reduced crime	Sustainable commutes	Improve air quality, particularly for children	Orbital public transport	Bus priority improvement	Step-free facilities	Sustainable regeneration and growth

Methodology

How has the Long Term Transport Strategy been created?

The strategy has been developed through an evidence-led approach involving extensive stakeholder engagement.

Stage 1: Evidence base

An evidence base was developed covering historic trends, the current situation and an assessment of future scenarios. Data was taken from a broad range of sources: the DfT and TfL data stores, The Council's own work in developing policies such as the Local Plan and the Growth Strategy. Data relating to Barnet was compared to other London boroughs to provide benchmarks. The evidence base was shared with stakeholders via our Transport Strategy steering groups, including the Members, Officers, transport and infrastructure stakeholders and community group stakeholders, in a series of workshops to ensure it reflected their experience of the borough.

Stage 2: Vision

Rather than attempting to predict the future of transport in the borough and then seeking to provide the infrastructure to meet predicted demand, this stage recognised the influence that the strategy will have on shaping the future of transport in Barnet. A vision was developed with officers and Members to articulate what transport in Barnet should achieve by 2041 and how it can contribute to creating a better Barnet.

Stage 3: Action Plans

Transport proposals were then developed and assessed in terms of their contribution to achieving the vision. These proposals were developed through engaging with the same stakeholders from stage 1 and collated into action plans.

Stage 4: Reporting and consultation

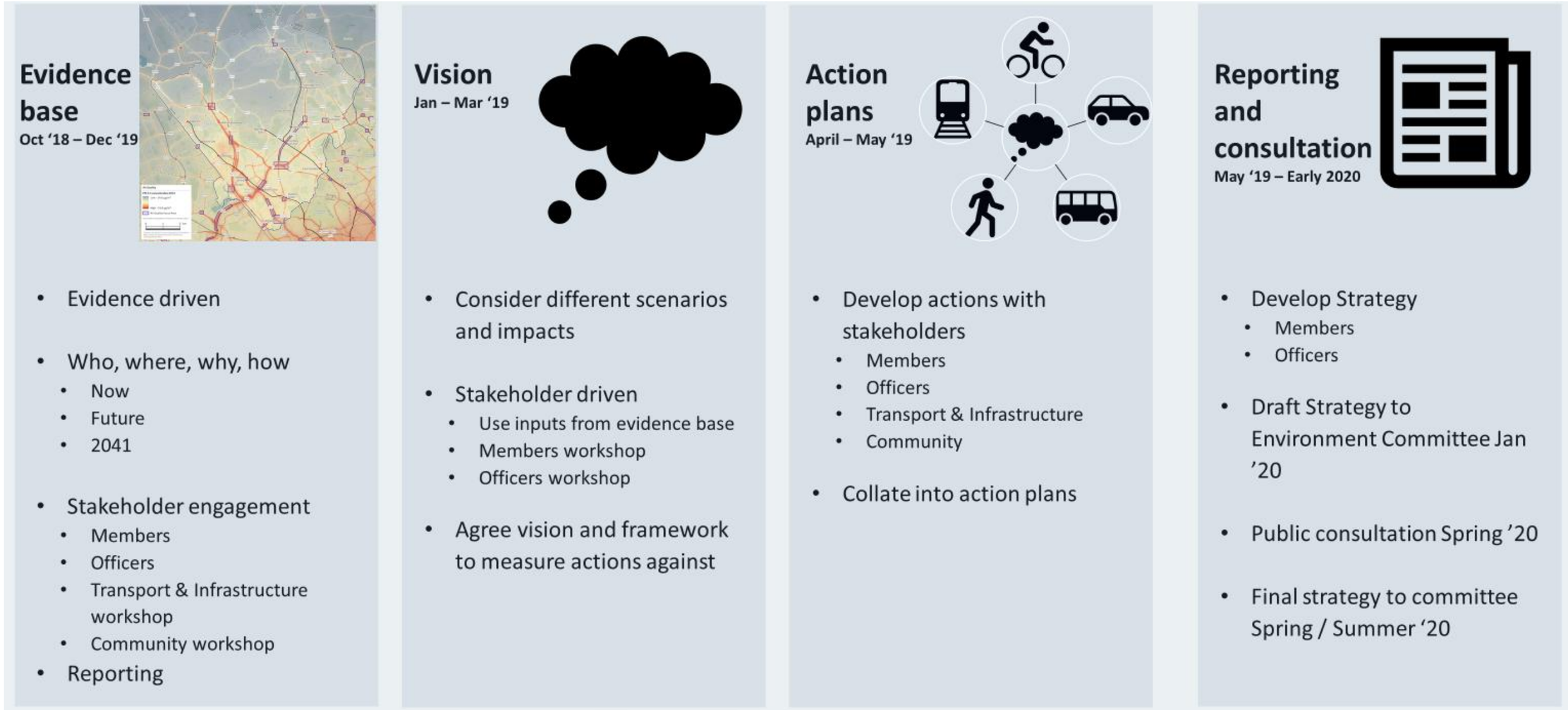
The draft strategy will be considered by Environment Committee in January 2020. Following committee, it is expected that public consultation on the draft strategy will be undertaken.

Content

What does the Long Term Transport Strategy contain?

- *Chapter 2 – Barnet in context*: Summary of existing travel patterns in the borough and likely changes, including likely impact of new technology.
- *Chapter 3 – Vision*: What the strategy hopes to achieve.
- *Chapter 4 – Proposals*: What is necessary to achieve the Vision.
- *Chapter 5 – Delivery Plan*: What actions need to be taken to consider and deliver the proposals, by whom and when.

Figure 1.2: Long Term Transport Strategy development process



2 Barnet in Context

Introduction

The information presented in this chapter is a summary of the Evidence Base document, produced as the first stage of developing the strategy, which should be referred to for full data sources. The full Evidence Base can be found online at XXX [the link will be provided in the final version – for the draft strategy the Evidence Base can be found as Appendix B to the Committee Report].

Barnet today

1.1 Barnet is a popular place to live, work and do business: it offers quick access to central London via the Northern Line, Thameslink, Great Northern and the bus network; a high quality and quantity of green space; and excellent schools, town centres and services. The borough hosts 10% of all active businesses in outer London and 5% across London as a whole.

Working with our partners, The Council has been successful in ensuring regeneration and development has continued across the borough despite the economic challenges of recent decades. The Council has focused on bringing forward specific areas for growth, such as Colindale, Mill Hill East and Brent Cross, alongside placing a strong emphasis on estate regeneration to deliver renewal on their largest housing estates. Regeneration has progressed at Dollis Valley, Grahame Park and West Hendon, with over 2,000 new homes delivered, alongside improved community facilities and better quality open spaces; notably, May 2018 marked the completion of Stonegrove Spur Road, part of a project which delivered 999 homes.

The Council has worked hard to deliver against its housing targets, for example 2,360 new homes were delivered in Barnet in 2017/18, meeting The Council's current London Plan housing target. This was the highest number of any London Borough, equating to 7.4%, or one in thirteen, of London's newly built homes being delivered in Barnet.

1.2 Spatially, the borough can be divided into three areas with differing characteristics:

- **West**. The A5 road corridor links town centres such as Edgware, Burnt Oak / Colindale, West Hendon, Brent Cross and Cricklewood, which are served by the Northern line and Thameslink services. It has an urban character: wards such as Colindale and Burnt Oak have population densities approaching the inner London average. The area is also home to many key destinations including Brent Cross Shopping Centre, Middlesex University and the RAF Museum.
- **Central**. The north of the Barnet's central area includes a significant proportion the green space which the borough is known for. Population densities are some of the lowest in London: the area is key to the borough's leisure and wellbeing targets. There is limited transport connectivity across the centre from one side of the borough to the other (orbital connections), except by car.
- **East**. The east of the borough includes key employment sites and historic town centres such as High Barnet, North Finchley, Finchley Central and Golders Green. Similar to the west of the borough, there are very good north to south (radial) connections provided by the Northern Line and Great Northern services, though some areas are some way from a station.

The borough is also of critical strategic importance for London: key freight routes including the M1, A1 and A406 run through the borough, providing access for the goods and services that the city depends on. This strategic location means up to 25% of road traffic in Barnet is passing through, neither originating nor ending in the borough. Barnet is part of the London Lorry Control Scheme, designed to reduce road danger from freight vehicles.

Transport in Barnet today

Barnet has high car use for an outer London borough, particularly in the north of the borough. Barnet has the second highest car ownership levels per household in London: almost double the level of neighbouring Haringey. These cars are overwhelmingly petrol or diesel: despite the number of electric cars doubling in the past two years, in late 2018 only 1% of all cars registered in the borough were electric. Almost a third of Barnet households do not have access to a car

Journey distances in Barnet do not mean that travel by car is an inevitable choice: two thirds of car journeys in the borough are under 5km and a quarter of car trips begin and end in the borough. Furthermore, all seven main Barnet town centres have a PTAL rating above 4, meaning they are easily accessible by public transport. Although radial journeys are much easier than orbital travel. TfL also estimate that there are almost half a million journeys per day in Barnet that could be converted from motorised transport to walking and cycling, after excluding

journeys that are too long, part of a chain (such as from home to the shops to school) or involving carrying heavy shopping or equipment. The key barriers to walking and cycling are environments dominated by fast flowing traffic, lack of cycling infrastructure and fears over safety.

Commuting patterns, particularly in wards in the north of the borough, are also dominated by the car, as shown in Figure 2.1. This is unlikely to be an issue of access to other modes: 62% of all residents in the borough live within 1200m of a rail or Underground station; 100% within a 20-minute cycle. Nor is it a problem of distance: Barnet businesses mostly employ Barnet residents, and the other key centre of employment is central London, accessed mostly via the Northern Line in under 30 minutes (Figure 2.2). Instead, it is in part a result of bus, rail and Underground services not enabling people to cross the borough orbitally in a quick, efficient and comfortable manner: underground and rail services run into central London not across the borough, and buses get caught in the same congestion as private vehicles.

Those services to central London are vital for the borough, as demonstrated by the map of destinations of tube journeys originating in Barnet (Figure 2.3): the top ten are all key employment sites in central London on the Northern Line. Thameslink and Great Northern services also provide links into central London but are currently relatively underused by Barnet residents as they do not provide the frequencies offered by either the Northern line or the Piccadilly and Jubilee lines, which sit just outside of the borough boundary. The Northern Line is capacity constrained and any problems with the running of the line causes major difficulties to Barnet residents.

Figure 2.1: Proportion of commutes by car

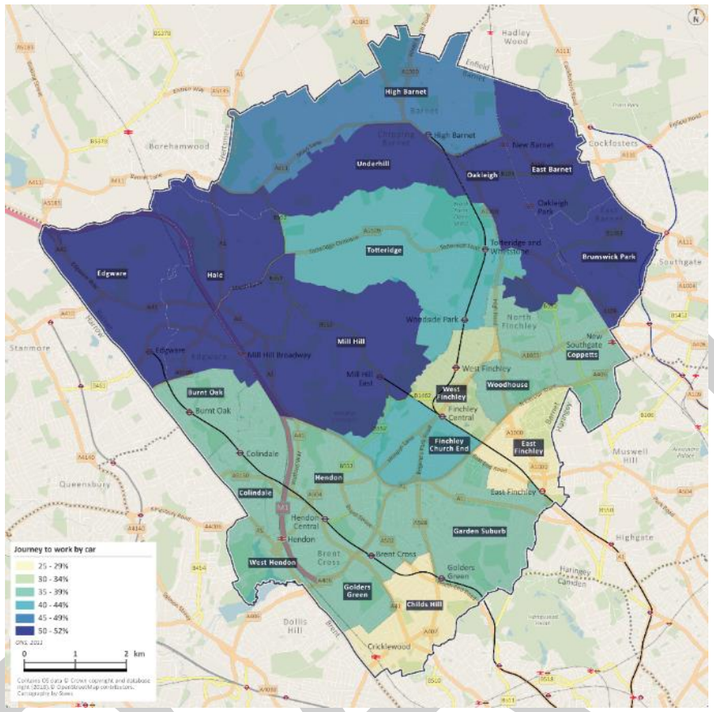


Figure 2.2: Number of employment centres within 30 minute public transport journey

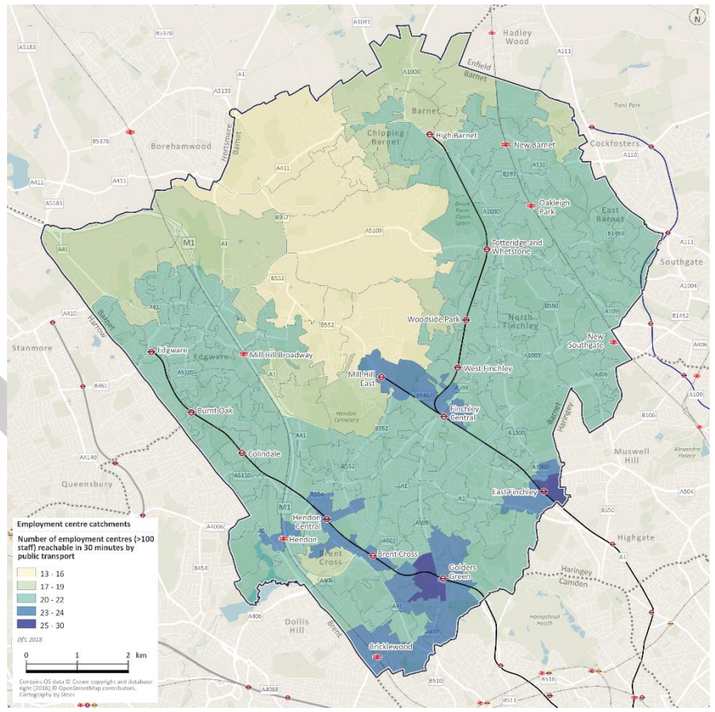
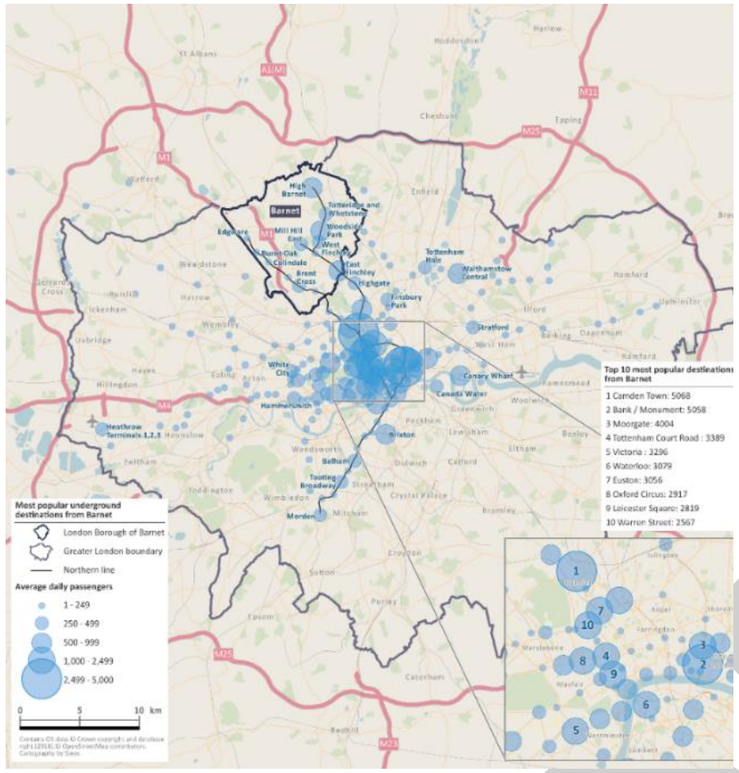


Figure 2.3: Most popular destinations of London Underground journeys originating in Barnet



Impacts of high car use

High car usage in Barnet has four key negative consequences: serious road traffic accidents, time lost due to road congestion, the impact on health in the borough and air quality. Moreover, these impacts are not equally distributed: the worst air quality in the borough is in the west, where levels of car ownership are lowest.

Road safety

Almost two people per week are killed or seriously injured on Barnet's roads every week: 71% of collisions in Barnet involve cars and 79% of people killed or seriously injured in London are walking, cycling or riding a motorcycle when they are hit.

Congestion

Cars are less space efficient than other modes. By taking more road space to transport the same number of people, they cause more congestion and slower journey times. The section of the A406 road that passes through Barnet (from Finchley Road to Colney Hatch Lane) is the fifth worst road in the UK for traffic congestion.

Health

Life expectancy in Barnet is 82.2 years for men and 85.5 years for women, significantly higher than the London and national averages. Achieving a minimum of 150 minutes of exercise per week can reduce the risk of chronic conditions which limit the number of years spent in good health.

Just under half of Barnet's residents are failing to achieve the recommended level of physical activity participation. This is particularly acute for people who commute: residents aged 35-44 years report the second lowest levels of physical activity participation compared to other age groups and levels are significantly lower than the national average. When asked to select what would help them maintain a healthy lifestyle, *more opportunities to walk and cycle as part of my daily routine* was the second most common response after *cheaper healthy food and drink*. Inactivity levels also contribute towards one in five 5 year olds, one in three 10 year olds and more than half of adults in Barnet being overweight or obese.

Social isolation leads to multiple ill health consequences: older adults are at particular risk of social isolation caused by poor transport infrastructure. In areas where public transport is insufficient, this can increase the risk of social isolation amongst older adults.

Air quality

Within Barnet, emissions from traffic have the most severe and pervasive impact on air quality justifying making the whole Borough an Air Quality Management Area (AQMA). Air quality in some areas of Barnet breaches legal limits, particularly at major junctions in the Borough where there is a higher traffic flow and a high number of stationary vehicles. Pollution levels are higher along arterial routes, particularly the North Circular, M1, A1 and A5; $PM_{2.5}$ concentrations are shown in Figure 2.4. Modelled data relating to 2016 (released by TfL in July 2019) shows that twelve schools in Barnet breached legal air quality limits.[8] Air Quality is a problem in Barnet, however progress has been made through a variety of initiatives, as noted in the Council's Air Quality Action Plan which was produced in 2017. Initiatives in 2018/19 include the introduction of electric vehicle charging points, the planting of trees in poor air quality areas and education and communications with school children[9]

Figure 2.4: PM2.5 concentration in Barnet

[8] 2016 London Atmospheric Emissions Inventory (2019) supplied by the GLA

[9] Barnet Council (2017) Air Quality Action Plan https://www.barnet.gov.uk/environmental-problems/air-quality/air-quality-action-plan

Major planned transport improvements

There are a series of major proposals planned in Barnet and across the wider region which will impact travel patterns in Barnet. Each of these proposals is in keeping with the Mayor of London's Transport Strategy. Some of the major proposals planned are noted below.

Brent Cross West

Creation of the new Brent Cross West station will link the Brent Cross Cricklewood development with St Pancras International in 15 minutes via Thameslink services, with an expected 2.5 million passengers per year. At present it is due to open in May 2022, the project will also deliver a drivers' accommodation centre, waste transfer station, rail freight facility and replace existing railway sidings, as well as two new bridges across the railway.

Status: committed and funded

Ultra Low Emission Zone

The Ultra Low Emission Zone (ULEZ) was introduced by TfL in Central London in April 2019. The proposal charges all vehicles entering the zone at any time which do not conform to Euro VI standards a daily fee of £12.50 (on top of the existing Congestion Charge during congestion charging hours). It will be extended to the North and South Circular in 2021.

In its first four months operating in central London, the ULEZ has accelerated the uptake of cleaner vehicles: compliant vehicles, which do not have to pay, increased as a proportion of all vehicles in the zone from 39% in February 2017 to 73% in the first four months of the charge being introduced. The number of older, more polluting vehicles decreased by a third.

Status: committed and funded

TfL Bus improvements

TfL are making various improvements to their bus services, including ensuring buses conform to the latest emissions standards and have better information for passengers. Of particular relevance to Barnet, they are extending and redirecting bus routes specifically to support housing growth in outer London, such as the 125 bus route which has been extended to serve Colindale.

Status: committed and funded

Northern Line capacity upgrade

The Northern Line is of vital importance to Barnet. There are several proposals to improve the running of the Northern Line: for example, Bank Station will have 40% greater capacity by 2022. TfL also have plans to increase the capacity at Camden Town. Both these improvements could facilitate more frequent services on the Northern Line: the Mayor of London's Transport Strategy suggests the Northern Line could carry 54,000 additional passengers a day if capacity was increased to 30-32 trains per hour

Status: part committed and funded

Underground Station Step free access

Of the 13 Underground stations in Barnet, 5 have step-free access from street to train and 2 from street to platform. Burnt Oak and Mill Hill East are scheduled for step-free access by 2020; Colindale by 2024.

Status: committed and funded

West London Orbital

The West London Orbital is a rail proposal aiming to improve orbital travel in the outer London boroughs. There are two branches to both the north and south of the core proposal, which links Neasden to South Acton. Both northern branches run through Barnet: one from West Hampstead to Neasden via Cricklewood; the other from Hendon to Neasden via Brent Cross. These would connect through to Hounslow and Kew Bridge in the south, as well as facilitating interchange with HS2 at Old Oak Common. The Council will lobby to ensure both branches in Barnet are included in the final scheme.

Status: planned

Crossrail 2

Crossrail 2 is a proposed railway linking south west and north east London which would increase London's rail capacity by 10%. The benefit to Barnet residents would be the relief that Crossrail 2 is expected to provide to the overcrowding on the Northern Line, although it will have a larger impact on the southern section of the line. The Council will support Crossrail 2 proposals, particularly if a New Southgate link is included.

Status: planned

Barnet in the future

Barnet is a growing borough. By 2030, approximately 50,000 more people will live in Barnet, an increase of 13%. The Draft London Plan envisages delivery of 23,490 homes over 10 years to 2026. However, high demand for housing means that additional capacity for new homes will need to be identified and delivered in the borough sooner. The exact target number of homes needs to be agreed, as the Mayor of London and Central Government have published different targets for Barnet. But it is known that know it will be at least 50% greater annually and could be as much as 45,000 homes by 2030. There are also estimated to be an additional 27,000 jobs in the borough.

This growth will not be evenly spread across the borough: it will largely happen by increasing the density of town centres and areas with planned transport improvements such as Brent Cross and Colindale, as shown in the Growth Strategy. Figure 2.5 shows the discrepancy in population density increases according to the Greater London Authority's population projections (which are different to those in the draft Growth Strategy). The distinct characteristics of the three different areas of the borough will become more pronounced: areas such as Colindale and Golders Green will exceed the current Inner London average population density by at least 30%; Burnt Oak, West Finchley, Childs Hill, Woodhouse, Hendon and East Finchley will all be at least 50% denser than existing outer London averages; whereas rural areas are unlikely to change significantly. This impacts on transport strategy development: the denser the area, the less space that is available for private vehicles and the greater the need for good public transport and the promotion of walking and cycling.

The number of people aged over 65 are projected to increase by 37% between 2018 and 2030, compared with a 2% decrease in young people (aged 0-19) and a 4% increase for working age adults (aged 16-64) over the same period, shown in Figure 2.6.

Figure 2.5: Population density change by 2041

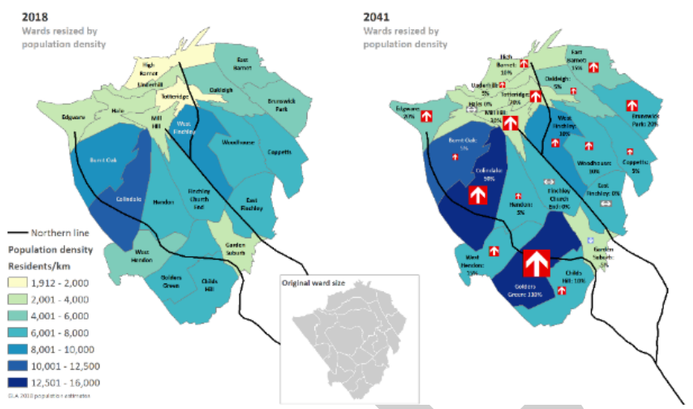
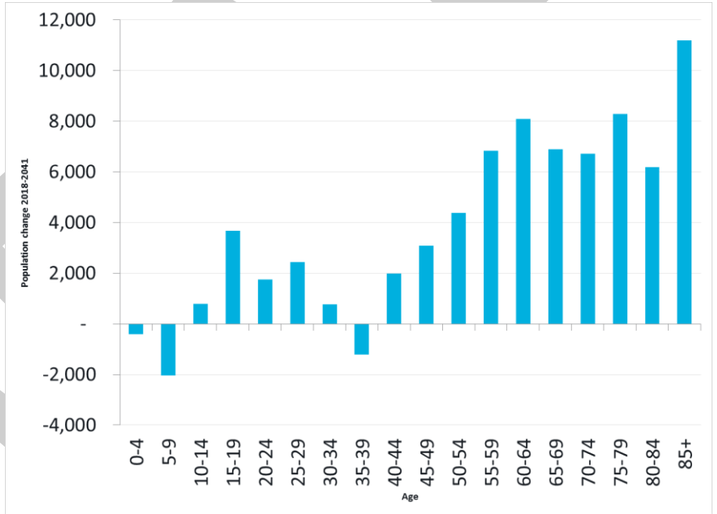


Figure 2.6: Expected population growth in Barnet to 2041



Role of transport in realising growth

If existing travel patterns continue

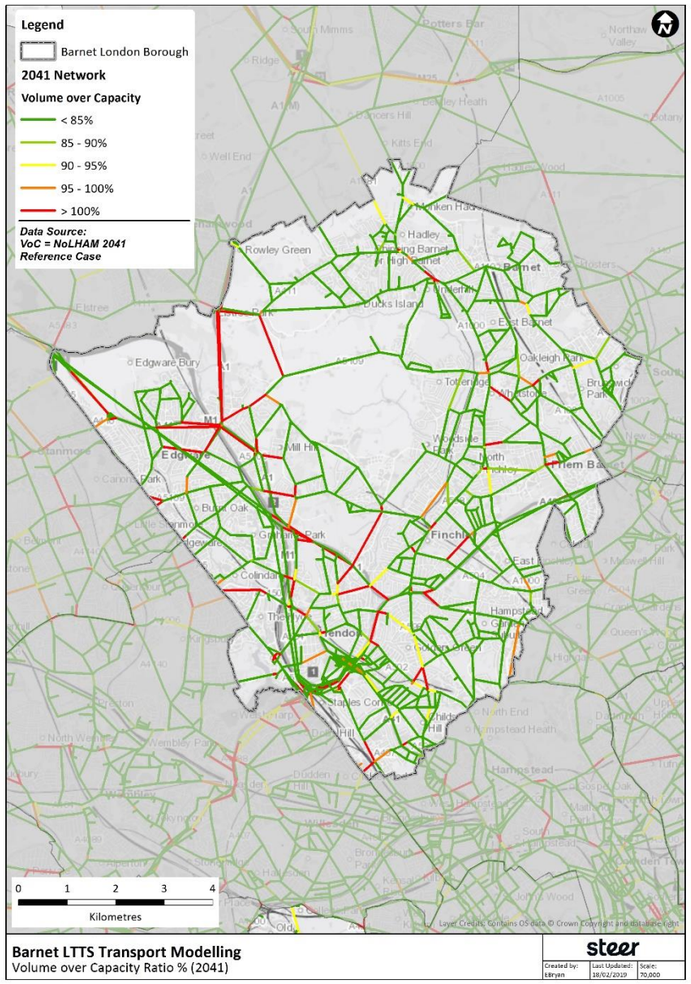
1.3 Transport will be vital to ensure this growth can be achieved without diminishing the quality of life in Barnet. Growth is focussed on transport centres because that is where the planning system allows the greatest densities.

1.4 If existing travel patterns continue and with a finite road space the increased vehicle trips will lead to increased congestion on Barnet's roads. This would worsen as shown in Figure 2.7.

Children and adults will continue to be affected by poor quality air, inactivity will still affect residents' health and collisions will continue on Barnet's roads.

In addition, with growth parts of the public transport network will also suffer. For example, crowding on the Northern Line is estimated to reach 5 people per square metre during the morning peak and buses will become increasingly congested.

Figure 2.7: Barnet roads expected % over capacity by 2041

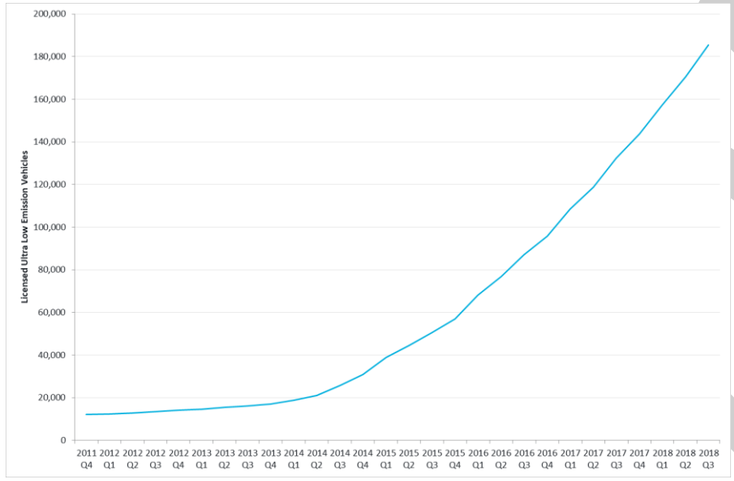


Is technology the answer?

Travel patterns are influenced by available technologies. There are a number of changes in transport technology likely to impact Barnet's travel patterns between now and 2041: electric engines improving air quality, sharing technologies improving efficiencies of space and ownership and personal mobility technologies (such as electric bikes and scooters) becoming increasingly attractive.

The improvement in engine efficiency has reduced fuel consumption and emissions over the past decades, improving air quality, except in the case of diesel. The take up of electric vehicles should accelerate this change by eliminating tailpipe NO_x and CO_2 emissions, though particulate matter emissions may increase due to more cars being on the road. Transport for London have committed to using only their most efficient buses in areas with the worst air quality; over the course of this strategy, the entire bus fleet is expected to shift to alternative technologies. In terms of private vehicles, take up is underway and likely to accelerate: Figure 2.8 shows the accelerating number of Ultra Low Emission Vehicles registered in the UK between 2011 and 2018. However, switching to electric vehicles does nothing to solve the congestion problems in Barnet.

Figure 2.8: Licensed Ultra Low Emission Vehicles in the UK 2011-2018



Autonomous, or self-driving, vehicles, may have a role to play in the future.

Technologies such as e-bikes, e-scooters and other forms of personal mobility are interesting. These forms of transport allow some of the benefits of cycling while reducing heavy physical exertion cited as a key barrier by Londoners; this is particularly pertinent in Barnet given its hilly topography. They have the potential to transform short and medium journeys, particularly if barriers to their adoption are reduced.

What is required

This strategy aims to facilitate the growth that Barnet is aiming for and for transport to have a positive impact on health and the environment. It was in this context that the Vision was developed with Council officers, Members and public stakeholders.

Keeping Barnet Moving

Barnet's population will increase from 394,000 residents to approximately 450,000, placing strain on the transport network.

The number of elderly people in the borough is expected to increase, placing greater emphasis on accessibility and safety.

Air quality in the borough must be improved. 6.5% of all deaths in Barnet are caused by poor air quality.

	Today		2041	
	55%		72%	Public and active transport mode share
28%		70%		People doing 20 mins active travel daily
0%		58%		People living within 400m cycle network
74		0		People killed and seriously injured on Barnet roads

3 Vision

What is the purpose of the vision statement?

By explicitly stating the desired outcomes of transport investment, proposals can be identified, prioritised and implemented according to how likely they are to realise this vision: this gives clearer direction and purpose than simply assessing whether a proposal is desirable. An agreed end goal also helps to coordinate proposals, rather than having piecemeal, potentially conflicting proposals.

Vision Statement

By 2041, Barnet will have an efficient, convenient and reliable transport network, which enables safe, healthy and inclusive travel, protects the natural environment and supports the borough's growth.

The network will have enabled improvements in the way people and goods travel. It will provide strong orbital and radial links which give everyone a choice of transport modes to complete their journey regardless of age, ability or income.

This statement translates into the following five objectives.

Objectives

Objective 1: Barnet's transport network contributes to the creation of better places to live, work and visit, allows local businesses to thrive sustainably, and is flexible, adapting to future opportunities presented by technology and change in travel patterns.

Transport should facilitate life in Barnet: both leisure and work, now and in the future. As well as enabling people to get where they need to, the transport network should contribute to the creation of pleasant environments to live and work, helped through the adoption of new technologies. Success in this objective encompasses a thriving local economy. It also includes the harnessing of new technologies in a positive manner.

Objective 2: Transport in Barnet keeps the borough moving, enabling people and goods to move within and through the borough efficiently using high quality orbital and radial links.

The primary objective of the transport network is to enable the movement of people, goods and services from one place to another. The capacity of the transport network will always be finite, as will the resources available to increase capacity. This means that available capacity will need to be used as efficiently as possible to minimise congestion.

Objective 3: The transport system is as accessible as possible regardless of age, ability and income, and the negative impacts of transport are minimised.

Everyone in Barnet, regardless of where they live, who they are or their level of income, should be able to get where they want to go, without disproportionately impacting others. Success will be an affordable and sustainable transport network that conforms to accessibility standards and minimises any environmental consequences.

Objective 4: Transport contributes positively to the health of the borough, by prioritising active travel and ensuring continued improvement in air quality.

Active travel is one way for people to incorporate the recommended amount of exercise into their daily routine to stay healthy. Wherever possible, active travel should be prioritised. Success will be higher active travel mode shares, a healthier population and lower airborne pollutant levels.

Objective 5: The road network and transport system in Barnet is safe and residents and visitors feel safe across all transport modes.
Resident or visitor to Barnet should feel safe when travelling. Improved road safety can be influenced by road design and education.
Poorly designed transport systems discourage people from walking and cycling. Success means improvements of the perceptions of safety and a reduction in the number of people killed and seriously injured on Barnet's roads.

What is required

To achieve these objectives two clear pathways are available. First, residents should be given a real choice of active, sustainable and efficient modes of travel. Second, car and other vehicle trips must be increasingly powered by more sustainable fuels. Both these pathways are described in more detail below.

Provide sustainable alternatives to private car

Car use will remain important to Barnet residents in the future. Cars offer comfortable door-to-door travel, independent from weather and are capable of supporting multiple passengers and moving of heavy goods. However, given the forecast growth in the borough without some reduction in car trips the objectives of this strategy will not be met:

- **Objective 1**. Barnet's highstreets and town centres will be improved by the transport network becoming more sustainable and an increased proportion of active travel particularly walking.
- **Objective 2**. If only carrying one or two people, cars are a less efficient use of road space and fuel than higher capacity modes of transport. 75% of congestion on London's roads is caused by the volume of traffic exceeding road capacity: this compares to 9% being caused by accidents and 7% by road works.[10] A bus rapid transit system, can carry up to ten times the number of people as mixed traffic in the same space; segregated cycle routes in London have been shown to carry up to five times as many people as the adjacent main carriageway lane at peak loading.[11] The average car is parked for 96% of its life.
- **Objective 3**. A third of Barnet residents do not own a car and the pattern of car ownership correlates with household income.[12] Focussing spending on active and sustainable modes of transport benefits all residents and will improve air quality.
- **Objective 4**. Active travel is a key pillar of Barnet's Joint Health and Wellbeing Strategy. Increased walking and cycling which additionally reduces vehicle journeys improves health and air quality.
- **Objective 5**. Reducing car conflicts with pedestrians is key to achieving Vision Zero. 71% of vehicles involved in collisions in Barnet are cars, and 61% of pedestrian casualties in London came from collisions with cars (11% with motorcycles, 8% with light goods vehicles).

The large expected increases in population and jobs, which will generate more demand on Barnet's transport network requires action. The additional trips which growth will generate cannot be accommodated on the existing road network: without significant mitigation. As a result of increased online shopping light goods vehicle trips are expected to increase by 50% by 2041. Significant stretches of the borough, particularly the key freight junctions around the A5, A1 (M) and M1, will exceed capacity.[13] To mitigate this and achieve the vision, a significant number of car trips will need to be converted into walking, cycling and public transport trips.

Why not boost road capacity?

- There is limited space in Barnet where new roads can be built or existing ones widened.
- Boosting road capacity rarely alleviates congestion in the long term. Increasing road capacity has been shown to increase car trips over time.[14]
- Increased road capacity would exacerbate current environmental issues particularly air quality.
- Investment in walking and cycling infrastructure will be needed to achieve the vision.[15]

Is this possible?

To change the amount of car use, Barnet residents, employees and visitors need to be given a real choice. For example, a journey from Mill Hill Broadway to Mill Hill East currently takes 10 minutes by car, but 15 minutes by bicycle. This is not perceived by most cyclists as a particularly safe or attractive journey and therefore does not represent a real choice: journey time, comfort and safety all encourage people to drive. This reality is widespread across the borough. Improving active travel infrastructure is necessary to give residents a real choice in how they travel.

There is potential for change. TfL's analysis indicates that Barnet has the highest number of trips currently driven which can be converted to walking or cycling: over 100,000 for walking trips alone. This strategy aims to convert these trips by removing barriers to active travel.

Improved signage and more favourable junction timings can provide immediate improvements to walking journeys. In the longer term crowded highstreets can be improved by increased pedestrianisation.

Active travel will also be helped by growing technologies giving more choice over how to complete journeys: personal mobility vehicles such as e-bikes and electric scooters can offer cheap, fast and low effort journeys.

What about disabled people?

- Disabled people are often disadvantaged by the current transport system. For example, bus use is a real challenge to many disabled people with mobility impairments.
- Improving journey times, accessibility, air quality, road safety and the local economy matters just as much to disabled people as others.
- Walking and cycling is not possible for all., Increased road capacity resulting from people choosing more efficient

[10] Transport for London (2017) Residential Car Parking: Part of the London Plan Evidence Base **https://www.london.gov.uk/sites/default/files/london_plan_evidence_base_-_residential_car_parking.pdf**

[11] Integrated Transport Planning Ltd. (2017) Understanding and managing congestion **http://content.tfl.gov.uk/understanding-and-managing-congestion-in-london.pdf;** Transport for London (undated) Segregated Cycling Infrastructure: Understanding cycling levels, traffic impacts, and public and business attitudes **http://content.tfl.gov.uk/segregated-cycling-infrastructure-evidence-pack.pdf**

[12] Census 2011

[13] Steer modelling (2019) based on TfL Strategic Models

[14] Department of Transport (1994) Trunk Roads and the Generation of Traffic **https://bettertransport.org.uk/sites/default/files/trunk-roads-traffic-report.pdf;** Highways England (2019) National Pinch Point Programme: One Year After Evaluation Meta-Analysis

[15] For more information see Transport for London (undated) Valuing the health benefits of transport proposals: Guidance for London **http://content.tfl.gov.uk/valuing-the-health-benefits-of-transport-proposals.pdf** **https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/791450/National_PP_Programme_Meta_Final_draft.pdf**

modes of transport such as cycling will benefit those who do need to drive.

– However, many disabled people can travel actively, if provided with the correct infrastructure. Because disabled people are more likely to be physically inactive designing safe and accessible active travel is key to them obtaining a benefit to a more active life. For example, cycling offers a non-weight bearing form of exercise that can improve physical fitness and strength. Whilst disabled people do already cycle (15% of disabled people cycle, compared to 18% of non-disabled people), the infrastructure needs to accommodate adapted cycles: inaccessible cycle infrastructure is the single biggest difficulty faced by disabled cyclists in the UK.[16]

What about the elderly?

– Elderly people have greater accessibility issues than their younger counterparts. This can lead to social isolation if they cannot use the transport network. The number of elderly people in Barnet is expected to increase far more than other demographics.
– Active travel measures, when properly implemented, can improve elderly people's experience of the borough. Higher levels of wellbeing and lower levels of loneliness are reported in neighbourhoods designed for walking and cycling rather than car travel; and buses can be a more important mode of transport than private cars for elderly people.[17] these measures can include such items as provision of benches and drinking fountains on popular pedestrian routes, enabling people to take a breather, and clear signage and placemaking, for example through differentiated pavement surfaces.
– Measures to help active travel, such as pedestrian priority lights, help the elderly feel comfortable negotiating street crossings, particularly where crossing distances are long.[18]

What about freight?

– Freight, servicing and logistics will remain largely road based in future. This strategy recognises that: reducing congestion by encouraging active travel and public transport use means freight, logistics and service vehicles will have faster and more reliable journey times.

What about retailers and the high street?

– Shop owners are often concerned that any removal of parking in town centres will mean customers cannot access their shops, reducing sales. The impact of reducing town centre parking has to consider that people arriving by car tend to spend more per visit but they visit town centres less often than people walking and cycling. Studies have shown that the higher frequency of visits can result in a higher spend per capita over a month by people walking and cycling than by people driving.[19]
– Reducing traffic can be good for high streets. Studies have shown examples where after high street and town centre improvements which reduce traffic, retail vacancy rates were lower, retail rental values were higher, retail sales were higher and more customers came more frequently.[20] These findings in London have been corroborated in Madrid, where areas closed to cars increased retail sales three times faster than areas where traffic did not change.[21]
– From a business perspective, physically active employees take fewer sick days, report higher job satisfaction and feel more energised at work. Business Improvement Districts and CEOs of over 180 major London employers see an increase in cycling infrastructure as helping their long-term success.

[16] Wheels for wellbeing (2017) A Guide to Inclusive Cycling. https://wheelsforwellbeing.org.uk/wp-content/uploads/2017/11/v2-Nov-2017.pdf

[17] Transport for London (2018) London Travel Demand Survey. https://tfl.gov.uk/corporate/about-tfl/how-we-work/planning-for-the-future/consultations-and-surveys/london-travel-demand-survey [Accessed 10.01.2019]

[18] Garin et al (2014) Built environment and elderly population health: A comprehensive Literature Review. Clinical Practice & Epidemiology in Mental Health, 10: 103-115; Kerr J, Rosenberg D & Frank L (2012) The Role of the Built Environment in Healthy Aging: Community Design, Physical Activity, and Health among Older Adults. Journal of the Planning Literature, 27(1): 43-60 both quoted in Public Health England (2016) Working Together to Promote Active Travel: A briefing for local authorities https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/523460/Working_Together_to_Promote_Active_Travel_A_briefing_for_local_authorities.pdf

[19] Transport for London (undated) Walking & Cycling: the economic benefits http://content.tfl.gov.uk/walking-cycling-economic-benefits-summary-pack.pdf; Living Streets (2018) The Pedestrian Pound: The business case for better streets and places https://www.livingstreets.org.uk/media/3890/pedestrian-pound-2018.pdf

[20] Transport for London (2018) Walking Action Plan: Making London the world's most walkable city http://content.tfl.gov.uk/mts-walking-action-plan.pdf?intcmp=54543

[21] Madrid Council (2018) Efectos gasto navidad 2018/19: Gran Via y Madrid central https://bbvaopen4u.com/en/actualidad/paystats-helps-assess-impact-low-emission-area-madrid-central

Change predominant fuel types for vehicles: freight, public transport and cars.

Motorised road transport will remain a part of the transport mix in Barnet. To reduce the air quality impacts of motorised traffic, a shift from petrol and diesel fuelled vehicles towards more sustainable fuels should be encouraged.

Electricity can power not only private cars, but also delivery vans and public transport vehicles, such as buses. By 2040, there would be a national ban on the sale of petrol and diesel vehicles.[22] Although no practical alternative fuel exists for heavy goods vehicles at present, the National Infrastructure Commission estimates that technology advances should enable electric and hydrogen powered HGVs to be commercially available at the beginning of the next decade.[23]

Changing fuel type will impact the strategic objectives by:

- **Objective 1.** Providing charging points for electric vehicles, if managed correctly, will cater for the new technologies
- **Objective 2.** Changing fuel type on its own will have little impact on congestion or available routes.
- **Objective 3.** Electric Vehicles (EVs) are cheaper to run and maintain than their liquid fuel counterparts.[24] Although they currently have a higher upfront cost, this is likely to decrease as technology advances. EVs make much less noise than petrol or diesel engines.
- **Objective 4.** Currently, approximately 50% on NO_x, PM_{10} and PM2.5 emissions are generated by road transport. EVs produce no tailpipe emissions: if all vehicles were electrically powered, air quality in the borough would significantly improve. However, the majority of particulate matter emissions are caused by brake and tyre wear which EVs would still produce.
- **Objective 5.** The proliferation of alternatively fuelled vehicles is not likely to improve road safety. EVs were deemed too silent to be noticed by other road users, particularly pedestrians and cyclists, which resulted in governmental regulation requiring the fitting of sound generators.[25]

What about the upstream emissions?

- Current UK power generation sources mean that EV CO_2 emissions are 25% lower than their petrol or diesel equivalents.[26] As the country's fuel mix progresses towards renewable sources, this will increase.[27]

What about the cost for Barnet's residents?

- 24% of British consumers are discouraged from purchasing an EV due to their high prices.[28] At present, most EV owners live in households containing two or more cars and the trend is expected to continue. Among existing car owners, high price was the most frequently (63%) stated barrier to switching to lower emission vehicles.[29]
- It is expected that the price of EVs will decline as the demand and supply for those types of cars rise, establishing itself as a more competitive market.

[22] Department for Transport (2018) The Road to Zero. Next steps towards cleaner road transport and delivering our Industrial Strategy. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/739460/road-to-zero.pdf

[23] Department for Transport (2018) The Road to Zero. Next steps towards cleaner road transport and delivering our Industrial Strategy. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/739460/road-to-zero.pdf

[24] British Gas (undated) Electric v Petrol https://www.britishgas.co.uk/the-source/our-world-of-energy/energys-grand-journey/Electric-v-Petrol

[25] Department for Transport (2019) New noise systems to stop silent electric cars and improve safety https://www.gov.uk/government/news/new-noise-systems-to-stop-silent-electric-cars-and-improve-safety

[26] Davis (2011) Your new electric car emits 75 gCO2/km (at the power station). https://ecometrica.com/assets/electric_car_emits_75_gCO2_per_km.pdf

[27] Department for Business, Energy & Industrial Strategies (2019) Energy Trends June 2019. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/812625/Energy_Trends_June_2019.pdf

[28] House of Commons, Science and technology Committee (2019) Clean Growth: Technologies for meeting the UK's emissions reduction targets https://publications.parliament.uk/pa/cm201719/cmselect/cmsctech/1454/1454.pdf

[29] Public Health England (2019) Review of interventions to improve outdoor air quality and public health. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/795185/Review_of_interventions_to_improve_air_quality.pdf

4 Proposals

Introduction

This section details the proposals recommended for achieving Barnet's transport vision and objectives. As stated in the introduction, these are high level proposals only: further work, such as data collection, detailed design and public consultation, will be required before they could be implemented. Moreover, not all proposals are intended to be introduced immediately. This strategy takes a long-term view to 2041, when travel patterns are likely to be very different from what they are today.

Proposals are presented by type of transport they address: each of these sub-sections has an introduction explaining what role that type of transport has to play in achieving the overall objectives. Each proposal is then broken down by:

- **Proposal description** – what the proposal is and potentially suitable locations;
- **Case study** – an example of where a similar proposal has been introduced elsewhere and how it has worked;
- **Fit for purpose** – the minimum application of the proposal needed to achieve its purpose;
- **Requirements** – what is required to introduce the proposal, such as space or cost; and
- **Alternatives / consequences of inaction** – an explanation of what will happen if this proposal is not introduced, as well as other potential variants of the proposal.

The following chapter also addresses potential funding for these proposals and a high-level delivery plan. The delivery plan shows indicative costs which are subject to feasibility studies being completed, council approval and the funding being available.

Figure 4.1 provides an overview of the Long Term Transport Strategy proposals. Non-location based proposals, such as cycling training and car clubs, are not displayed on the map but are listed on the list of proposals to the right. Each proposal will be explained in more detail within this chapter.

Figure 4.1: Proposals summary map

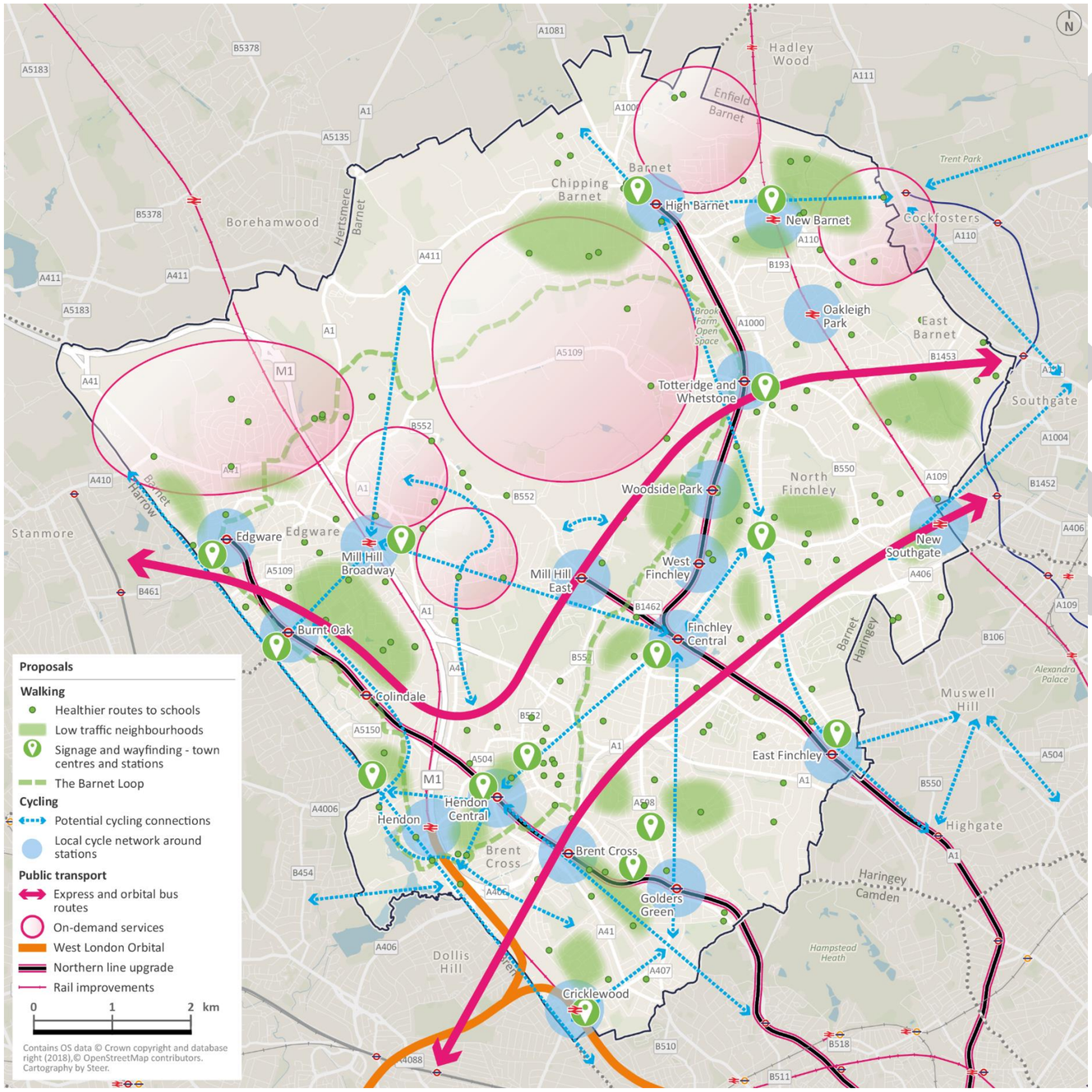


Table 4.1: Proposals

Reference	Proposal title	Page No.
W1	Healthier routes to schools	9
W2	Low traffic neighbourhoods	11
W3	Signage and wayfinding	13
W4	Active route – the Barnet Loop	14
W5	Investing to improve the footway network	15
C1	Cycle parking	18
C2	Cycle network	19
C3	Cycle provision	21
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PT1	Express and orbital bus routes	26
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Walking

Vision

Walking should be the natural mode for short journeys in Barnet, enabled by an attractive public realm, increased safety and air quality improvements, as well as clear and legible signage and wayfinding and well maintained footways.

Overview

Benefits

Walking is a cost-free, emission-free, healthy and space efficient way to travel. It is the easiest and most common way of incorporating the 150 minutes of weekly physical activity recommended by the Chief Medical Officer for England, which can bring the benefits shown in Figure 4.2.[30] Good walking environments can help to foster healthy ageing, making it possible for people to stay longer in their own homes and reduce the risk of social isolation.

Figure 4.2: Benefits of physical activity[31]

These benefits are particularly important in Barnet given its ageing population, air quality and congestion issues, all of which could be significantly improved by converting existing car trips to walking.

Improvements to the walking environment often benefit other modes of transport, as walking is required to access public transport, change between modes, access cycling or parking.

Given the underlying dependence on walking, pedestrian proposals tend to offer high value for money.

Objectives of the strategy	Rating	Explanation of rating
Barnet's transport network enables sustainable growth that creates better places to live and work, supports local businesses to thrive, and is flexible, adapting to future opportunities presented by technology and travel patterns.	★★★★☆	Better pedestrian environments have been consistently shown to improve retail sales. Reduction in air pollution and nicer environment / public realm.
Transport in Barnet keeps the borough moving, enabling people and goods to move within and beyond the borough efficiently using high quality orbital and radial links.	★★★☆☆	Walking is not always practical over large distances but is very space efficient over short distances.
All users can use the transport system regardless of age, ability and income, and the negative impacts of transport are limited.	★★★★★	Walking is free and good pedestrian environments are enjoyable by all.
Transport contributes positively to the health of the borough, by prioritising active travel and ensuring air quality is good.	★★★★★	Walking is emission-free and contributes to good health.
The road network and transport system in Barnet is safe and residents and visitors feel safe across all transport modes.	★★★★★	Pedestrians pose minimal threat to other transport users.

Potential

TfL's analysis has identified over 110,000 existing daily trips that could be walked in Barnet alone; 89% are currently driven and 40% are less than 1km. Chipping Barnet, New Barnet, Totteridge & Whetstone, Finchley Central and North Finchley are all highlighted as key centres of walking potential. [32]

Barriers

The main barrier to walking cited by Londoners is time. This can be partially addressed through the Growth Strategy, by ensuring that local services are easily accessible from housing centres.

Another barrier is personal security, particularly relating to crime and personal safety. This has also been raised in the stakeholder engagement for the production of this strategy. Although mainly reliant on education and broader societal changes, street design can make pedestrians feel safer, for instance by improving lighting.

Other key barriers cited by Londoners can all be addressed through better street design and maintenance:

- Over 1 in 5 people cited too much traffic moving too fast as a key barrier to walking. 66% would walk more if routes improved to give greater priority to people walking.
- 12% fear road collisions.
- 65% of disabled Londoners quote bad pavement condition as a barrier to walking with further 43% saying that obstacles are one of the main deterrents.

Strategy in Barnet

Walking in Barnet will focus on three types of trips: trips to school; shopping and leisure trips to town centres; and trips to transport hubs.

Trips to school will be targeted because air quality issues are particularly acute around some of Barnet's schools and there is potential to embed sustainable travel patterns in residents at a young age.

Shopping and leisure trips are also a key focus: over half of all potentially walkable trips are for shopping and leisure purposes. Hence, proposals should focus on improving the pedestrian environment of Barnet's town centres.

Commuting patterns in Barnet do not offer much whole journey potential for walking; however, the stage from home to station does. 62% of Barnet residents live within 1200m (approximate 15-minute walk at average speed) of an Underground station. Areas around Barnet's transport hubs will therefore be targeted with measures designed to increase walking.

[30] Department for Health and Social Care (2019) UK Chief Medical Officers' Physical Activity Guidelines https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/832868/uk-chief-medical-officers-physical-activity-guidelines.pdf

[31] Department for Health and Social Care (2019) Physical activity benefits for adults and older adults https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/541233/Physical_activity_infographic.PDF

[32] Transport for London (2018) Walking Action Plan. http://content.tfl.gov.uk/mts-walking-action-plan.pdf

Action plan

Table 4.2: Walking action plan

Reference	Proposal	Location	Estimated Cost (total excl. staff costs)	Timing	Potential Funding	Council Role	Key stakeholders
W1	Healthier routes to schools	Considered across the borough	£5,000 - £150,000 per school	2020-2025	TfL LIP allocation & Council	Design, consult and implement	Schools and parents
W2	Low traffic neighbourhoods	Densely populated areas between arterial routes	Dependent on scheme	2020-2025: identify and implement exemplar 2025 - 2041: monitor and expand	TfL LIP allocation, Liveable Neighbourhoods, Council resources, S106	Design, consult and implement. Assemble funding packages	Neighbourhood stakeholders; TfL
W3	Signage and wayfinding	Town centres	Dependent on scheme	2020-2025	TfL LIP allocation & Council, S106, Liveable Neighbourhoods	Design, consult and implement	Town centre stakeholders, TfL
W4	Active route – the Barnet Loop	Barnet Loop	£500,000 - £1m	2020-2025	TfL LIP allocation & Council	Full responsibility	
W5	Investing to improve the footway network	Consider across the whole borough	£2.5 – £4.5 million per year	2020-2041	TfL LIP allocation & Council	Full responsibility	TfL

Proposal W1: Healthier routes to schools

Proposal Description

Healthier routes to schools will prioritise walking routes around schools. By addressing three issues, schoolchildren can take advantage of all the benefits of an active commute. Over 92% of primary school children resident in Barnet attend schools within the borough, which increases the likelihood of the students living within a walkable or cyclable distance.

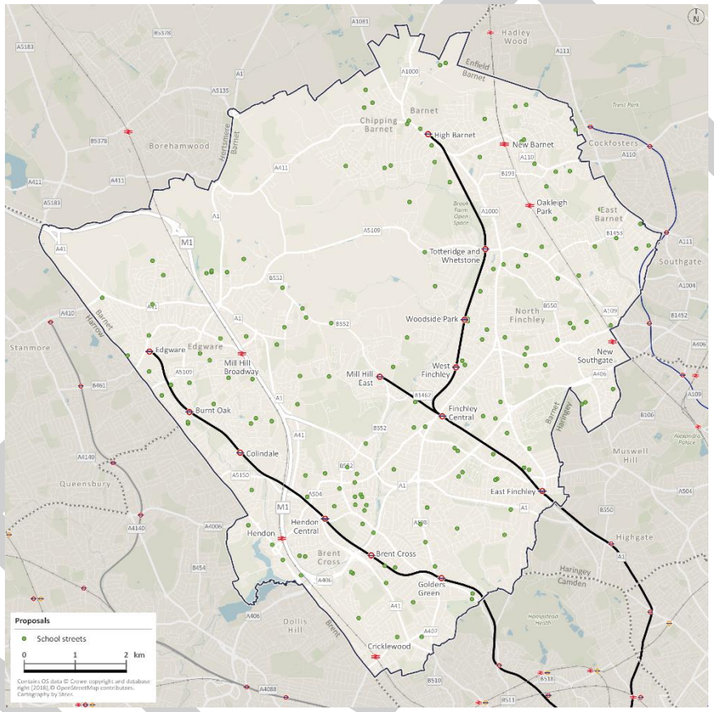
The key barriers to walking to school to remove are:

- Congestion. A third of vehicles on Barnet's roads in the morning peak are used for the school run.
- Air quality. Modelled data relating to 2016 (released by TfL in July 2019) shows that twelve schools in Barnet breached legal air quality limits.[33]
- Fear of collisions. Removing vehicles from school gates reduces the risk of children being involved in collisions.

One method of achieving healthier routes to schools is School Streets, which can complement the school travel planning work already being undertaken by The Council. School Streets projects involve closing residential streets adjacent to the schools to through-traffic during pick-up and drop-off times, which results in improved road safety around the schools and improved air quality. Residents needing to access their properties via affected streets can apply for exemption permits.

Residential streets without schools on them can also be closed temporarily under existing Council powers, to enable children to play on the streets where they live. Local parents and other residents can apply and act as marshals, allowing residents to drive in at walking pace and redirecting other traffic. This can increase the sense of community and encourage children to play in the streets where they live. The success of Play Streets in Hackney has encouraged boroughs such as Richmond-upon-Thames to introduce them.[34] The Council is exploring if either or both of these methods would be appropriate.

Figure 4.3: Barnet school locations



Case study

London Borough of Hackney introduced Schools Street pilot programmes in July 2017. Following positive feedback from both parents and students, 17 schools will have a programme by 2022. Traffic outside one school was reduced by 70%; the number of pupils cycling to class doubled[35].

Proposals have also worked in outer London. Croydon ran three School Streets pilots in 2017, which were then made permanent and extended to a further 7 schools.[36] These increased walking, scootering and cycling to school by 15% (worst case) and 62% (best case), with a 15% and 25% reduction in car use, winning awards from the British Parking Association and London Road Safety Awards in 2018.

Figure 4.4: Hackney Play Streets[37]

Fit for purpose

- The area affected by the measures should be wide enough to discourage dropping off school children within a walkable distance, while being small enough to limit impacts to residents and businesses.
- The proposal requires careful planning and consultation in terms of assessing the road network – the affected roads cannot be traffic sensitive, there must be suitable diversions and the surrounding streets must have enough capacity to cope with some displaced traffic.
- All school pupils should receive STARS training (many Barnet schools are already involved in the STARS proposal), TfL's accreditation proposal encouraging active travel to school,

[33] 2016 London Atmospheric Emissions Inventory (2019) supplied by the GLA

[34] Hackney Council (2015) Hackney Play Streets Evaluation Report https://drive.google.com/file/d/1-eVfUpOEzJtfJSTKL8bWnNX7yw89hQ7j/view; Richmond Council (2019) Play Streets https://www.richmond.gov.uk/play_streets

[35] East London Lines (2019) Hackney's safe school streets blueprint to be exported across the UK http://www.eastlondonlines.co.uk/2019/05/hackneys-safe-school-streets-blueprint-to-be-exported-across-the-uk/

[36] Croydon Council (2019) Outcome of formal consultation on school streets https://democracy.croydon.gov.uk/documents/s16846/TMAC_20190724_School%20Streets%20-%20final.pdf

[37] Gayhurst School, Hackney (2018) https://www.gayhurst.hackney.sch.uk/_files/images/news%20stories/school%20streets%20proposal/56F75EED118D77AE73D2217072DA8794.jpg

prior to implementation so that they are aware of their alternatives to driving to school.

Requirements

- School Streets proposal costs can be very low, with the set-up cost of a pilot estimated between £5,000 and £150,000, depending on the size of the project[38]. Croydon's School Street extension is proposed to be fully self-financing from parking penalty charge notices.
- Depending on the program, on-street parking might have to be restricted, with retractable bollards or ANPR cameras installed.

Alternatives / Consequences of Inaction

- The number of children arriving by car will not decrease. Traffic conditions and air quality around schools will not improve.
- Children in Barnet could be susceptible to physical and mental health issues; obesity rates will not improve.
- The Council can aim to increase the number of children walking and cycling to school through educational programmes. However, the degree of change that can be achieved by educational programs without improved infrastructure can be limited.

[38] Friends of the Earth (2018) Guide for local groups on School Streets https://cdn.friendsoftheearth.uk/sites/default/files/downloads/Guide%20for%20local%20groups%20on%20School%20Streets_1.pdf

Proposal W2: Low traffic neighbourhoods

Proposal Description

Too much traffic is reported as a barrier to walking by one in five Londoners. Restricting road access to specific types of vehicle at certain times of day can remove this barrier, improve road safety and increase active travel mode shares. Restricting road access in this way can build a series of Low Traffic Neighbourhoods.

Restrictions can be enforced either by physical infrastructure (bollards, raised kerbs, plants) or by automatic number plate recognition (ANPR) technology, often introduced in combination with a one-way street system. These are known as modal filters and can be adjusted on a case-by-case basis: residents, emergency services, buses, delivery and servicing vehicles and taxis can all be made exempt from these filters if enforced by ANPR.

Moveable barriers such as lockable bollards are particularly effective in implementing modal filtering that is adaptable to changes in traffic flow and access requirements. These filters can be placed on entrances to residential roads, allowing residents, emergency vehicles and registered delivery vehicles access, but blocking rat-running by forcing other traffic onto arterial roads.

Modal filtering could work in conjunction with Proposal PT5: Gateways and Proposal W3: Signage and wayfinding, to ensure a holistic approach and creation of spaces which prioritise pedestrian movement. This has the side-effect of improving the cycle environment, as shown in Figure 4.6.

The areas highlighted in Figure 4.5 have been chosen as areas of dense residential streets bounded by arterial roads which could make good areas to implement low traffic neighbourhoods.

Figure 4.5: Possible locations for Low Traffic Neighbourhoods

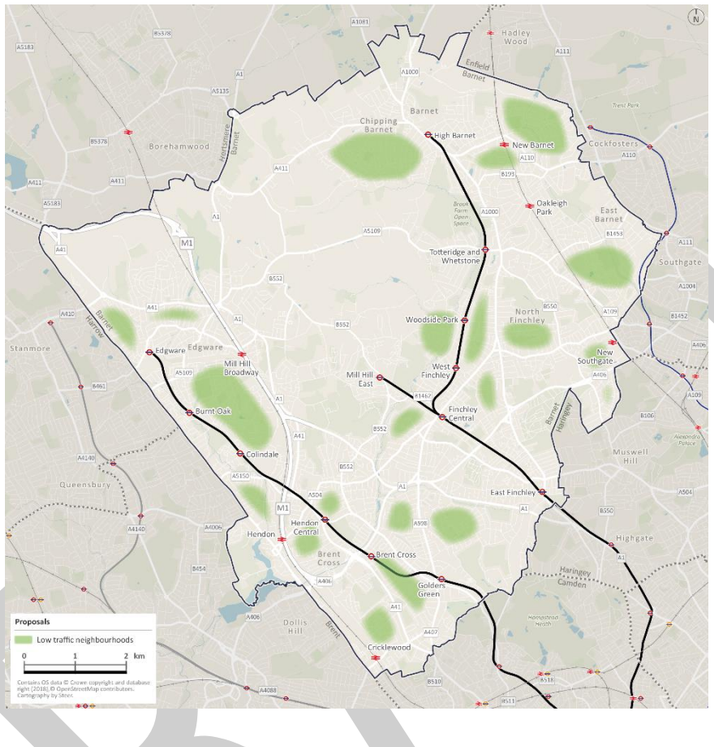


Figure 4.6: Example of modal filtering in Waltham Forest

Case study

43 modal filters were installed across the Walthamstow Village area as part of the borough's Mini-Holland proposal. These created a network of active travel zones, where walking and cycling was more pleasant and convenient than travelling by car.

The impacts of the proposal included an increase in active travel, a decline in congestion and in the number of cars, improved air quality and widespread support from residents and visitors.

- 19% and 28% increase in walking and cycling trips respectively. Whereas previously Waltham Forest had very low levels of walking and cycling, residents are now walking for an extra 32 minutes and cycling an extra 9 minutes per week than the outer London average.[39]
- A simultaneous decline in road traffic, which decreased by 44% on average for roads within the area. Around 15% of traffic evaporated entirely.[40]
- These impacts have resulted in improved air quality.

Despite initial controversy and resistance, only 1.7% of residents would scrap the proposal and go back to how it was before, whereas 55% of residents would not change anything. 100% of

[39] Waltham Forest Council (2018) Enjoy Waltham Forest Walking and Cycling Account 2017/18 **https://www.enjoywalthamforest.co.uk/wp-content/uploads/2019/01/Final-Walking-Cycling-Account-201718.pdf**

[40] Living Streets (undated) A Guide to Low Traffic Neighbourhoods **https://www.livingstreets.org.uk/media/3844/lcc021-low-traffic-neighbourhoods-detail-v9.pdf**

visitors to the area said the proposal was either good or very good.[41]

Fit for purpose

- Access for commercial vehicles, emergency services and buses must be considered and maintained where possible.
- Each neighbourhood should be walkable in approximately 10-15 minutes and then joined to other neighbourhoods across distributor roads and around key transport interchanges.
- The Council should collaborate with the police to ensure the enforcement of modal filtering.

Requirements

- The Waltham Forest proposal (inclusive of mini-Hollands projects) cost £27 million to plan and implement.
- A full study would be required to zone areas of the borough and recommend the types of filtering applied.
- Enforcement of flexible modal filtering would require the installation and monitoring of ANPR cameras.

Alternatives / Consequences of Inaction

- Residential roads will continue to be used as rat-runs which, in turn, may deter residents from choosing to walk and cycle for local trips.
- Residents and visitors in Barnet will continue to use private cars for short journeys, which will contribute to congestion, worsening air quality and can have adverse health impacts.

[41] Waltham Forest Council (2018) Enjoy Waltham Forest Walking and Cycling Account 2017/18 **https://www.enjoywalthamforest.co.uk/wp-content/uploads/2019/01/Final-Walking-Cycling-Account-201718.pdf**

Proposal W3: Signage and wayfinding

Proposal Description

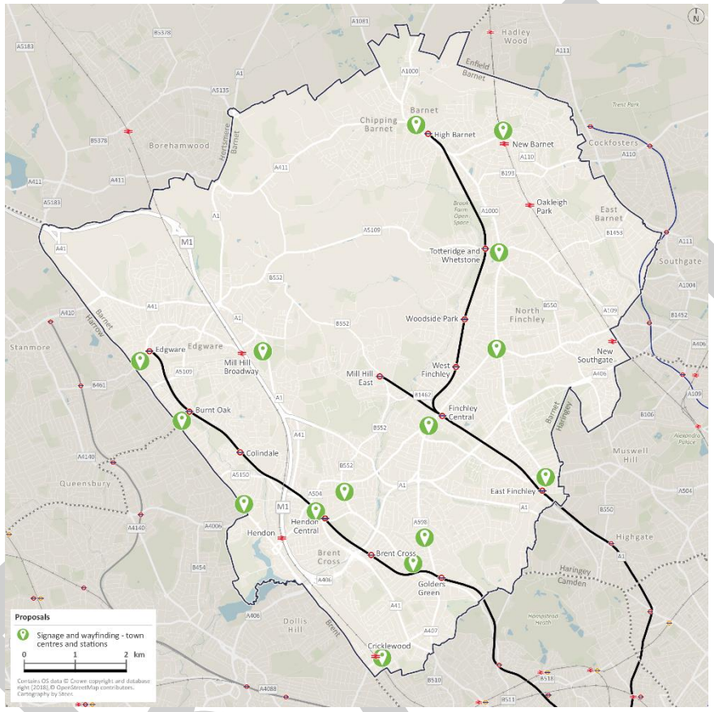
Signage and wayfinding can encourage walking by:

- Highlighting routes that avoid traffic
- Displaying journey time information
- Advertising points of interest, such as green spaces.

Highlighting walkable routes away from roads with traffic and displaying information on journey times can reveal aspects of the borough that people otherwise may not know about, or not know how close they are to walk.

Furthermore, the installation of maps creates the opportunity to build in accessibility features, including information in braille and / or drinking fountains.

Figure 4.7: Possible signage and wayfinding proposal locations – town centres and stations



Case Study

Production and installation of maps showing the local area within a walking distance has been completed across parts of London through TfL's "Legible London" scheme.

TfL's Legible London scheme was initially carried out in Richmond and Twickenham, which resulted in:

- 7,000 additional weekday pedestrian trips
- Increase in pedestrian confidence in exploring the local area from 49% to 76%.
- Over half of respondents agreeing that the maps encouraged them to walk more often and walk to places they would not walk to before[42].

Figure 4.8: Legible London map

Fit for purpose

- Easy to spot, read and understand by all.
- Not blocking other pedestrians or cyclists and are within a safe distance from motorised traffic.
- Accessibility features should be incorporated.

Requirements

- The cost would be dependent on the breadth of the proposal. The costs of providing a Legible London proposal for an Outer London town centre (Kingston Town Centre) were estimated at under £200,000 in 2013.[43]
- The Council will continue to work with TfL to increase the number of Legible London signs in the borough and support their introduction in Cricklewood.

Alternatives / Consequences of inaction

- An illegible environment might deter people from walking and cycling, but also from using public transport.
- As an alternative to Legible London maps, The Council could design and deliver a bespoke mapping proposal. However, it is likely that a proposal delivered in conjunction with TfL as an extension to the existing Legible London project will be more cost-effective and easier to understand and maintain consistency with the rest of London.

[42] Transport for London (2010) Legible London proposal evaluation in new areas. **http://content.tfl.gov.uk/legible-london-proposal-evaluation-new-areas-report.pdf**

[43] The Royal Borough of Kingston Upon Thames (2013) Introduce Legible London in Kingston Town Centre **https://moderngov.kingston.gov.uk/documents/s48208/Legible%20London%20for%20KT.html?CT=2**

Proposal W4: Active route – the Barnet Loop

Proposal description

The Council has already established active trails, The Mayor of Barnet's Golden Kilometre initiative and Healthy Heritage walks, encouraging people to walk, run and cycle for leisure.[44] This not only creates a pleasant borough, it also supports the Joint Health and Wellbeing Strategy by providing routes for exercise.

The existing Dollis Valley Greenwalk will be extended by the creation of additional routes through the borough's greenspaces and the Silk Stream Valley Greenwalk, creating a 17-mile loop around the borough for recreational walking, running and cycling. The Barnet Loop also has the ability to provide links to town centres, leisure facilities and transport hubs in the borough.

A pleasant recreational walking, running and cycling environment would also encourage active travel to destinations such as schools and shops by providing an environment where people can build confidence on foot, cycles and scooters away from roads. In addition, with the increase in properties in the borough without private gardens, this will support access to greenspaces. For example, the routes could be used by families to teach their children to ride a bike or are a safe space for children to use their scooters.

Fit for purpose

To create a welcoming environment for all, the Barnet Loop will need to be traffic-free where possible. When it is on quiet residential roads, these could be exemplars of Healthy Streets, with minimal traffic, plenty of space on pavements and amenities such as trees.

The Barnet Loop needs a distinctive and comprehensive signage and wayfinding strategy, both helping people find their way and to give the Loop a coherent and enjoyable character.

Where pedestrians and cyclists share the path, there should be clear pedestrian priority.

Requirements

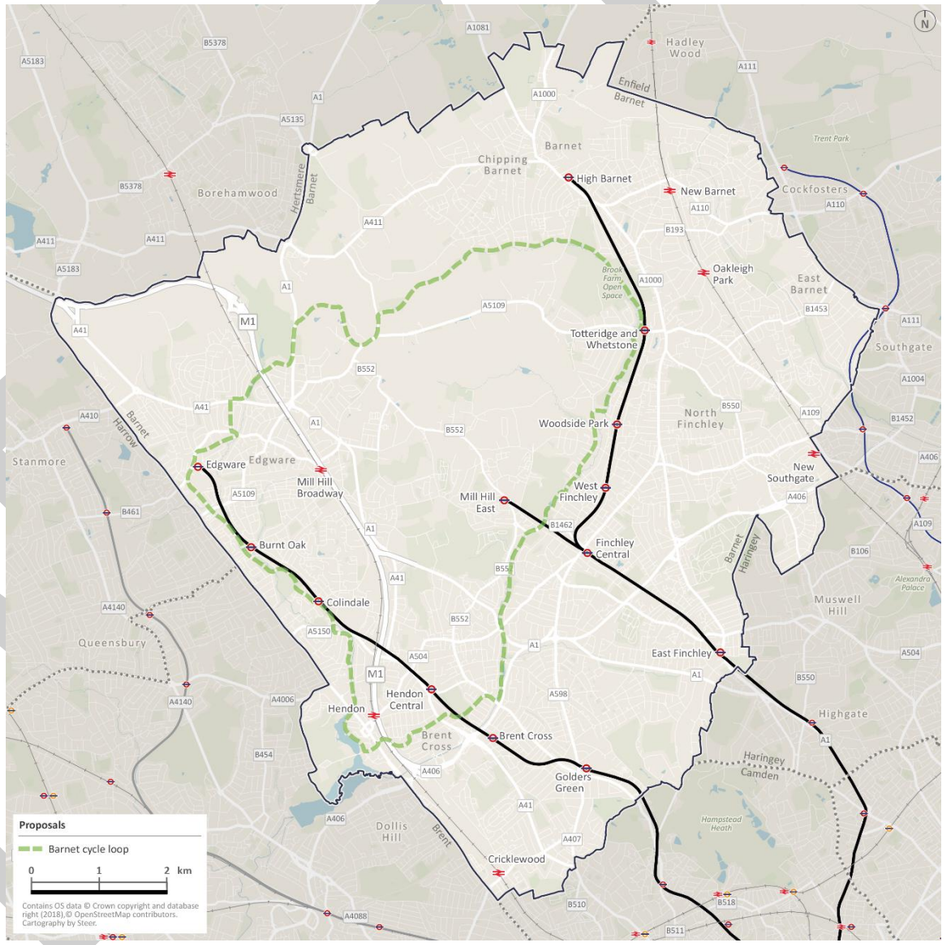
The Council must identify the precise routing for the Barnet loop.

Funding will be needed for ongoing maintenance of walkways and signs.

Alternatives / Consequences of inaction

- Few people encouraged to walk, run and cycle, so the mode share target unlikely to be met
- Health problems associated with lack of exercise

Figure 4.9: Proposed Barnet Loop route



[44] Barnet Council (2019) Healthy Heritage Walks https://www.barnet.gov.uk/health-and-wellbeing/healthy-heritage-walks;

Barnet Council (2019) Active Trails https://www.barnet.gov.uk/parks-sport-and-leisure/walks-and-trails/walking-running-and-cycling-trails

Proposal W5: Investing to improve the footway network

Proposal Description

Uneven and damaged footways can create barriers to walking, particularly for those who may be unsteady on their feet such as the elderly, those with mobility difficulties and sight impairments and who may use equipment to support their mobility such as walking aids, wheelchairs or those who are caring for children and my use pushchairs.

Improving footways can make walking more pleasurable and reduce fears of tripping / falling. The Council has been investing in the borough's highways and footways for the past four years and since 2014 has invested in excess of £40 million to improve our roads. Whilst the works take place action is also taken to tidy up associated infrastructure and generally reduce street clutter[45].

Highways and footways really do matter to Barnet's residents, businesses and visitors, and the Council's public opinion surveys continually highlight dissatisfaction with the condition of local roads. Public pressure can often result in short term fixes, rather than properly planned and implemented longer term solutions. The proposed programme aims to stop the requirement for short term repairs that provide poor value for money and often undermine the structural integrity of the asset.

Fit for purpose

The investment aims to create a safe and smooth surface enabling everyone, including wheelchair users and people with pushchairs to use the footways. Supporting amenities such as trees, innovative solutions to materials such as rubber crumb is used to deal with tree roots around / close to trees, which will enable the tree to continue to grow and provide a permeable material for drainage whilst also ensuring that damage to the footway caused by tree roots is minimised. This also support the Council's Tree Policy[46] and meets the Mayor of London's Transport Objective of providing alternative sustainable transport options and creating safe and enjoyable environment for walking. The Council is committed to proposals in Barnet's Local Implementation Plan to deliver walkable neighbourhoods and healthy streets improvements around town centres and transport hubs to complement the strategic network of routes, making walking more attractive for short journeys.

Requirements for delivery

- The Council will continue to identify and prioritise roads for footway renewal. Funding will be needed for ongoing maintenance.

Alternatives / Consequences of inaction

- Fewer people walking and so the mode share target unlikely to be met.
- If footways are left to deteriorate there is an increased chance of cracks and uneven surfaces forming and thus a greater risk of slips and trips and increased third party claims against the Council.
- Health problems associated with lack of exercise and not improving the health and wellbeing of Barnet residents.

[45] Barnet Council (January 2019) Environment Committee Report: Highways Planned Maintenance Programme 2018/19 https://barnet.moderngov.co.uk/documents/s44240/Highways%20Planned%20Maintenance%20Programme%20201819.pdf

[46] Barnet Council (2017) Barnet Tree Policy https://www.barnet.gov.uk/parks-sport-and-leisure/barnet-tree-policy

Cycling

Vision

Safe infrastructure and plentiful cycle parking will make cycling in Barnet pleasant and convenient. Routes should link town centres and transport hubs, as well as providing access to Barnet's leisure facilities and greenways.

Overview

Benefits

Cycling is used here as encompassing a variety of vehicles, more and more of which are becoming available as technology improves. Bicycles, electric bikes, scooters, electric scooters and other forms of micromobility are all included here under cycling.

Cycling has many of the same benefits as walking: it is relatively inexpensive, healthy and emission-free way to travel. It is also space efficient. One car parking space can provide parking for twelve bicycles.

Cycling can also be very convenient. The average cycling speed is three times higher than the average walking speed, meaning longer journeys can take less time and effort. Adapted bicycles can also be used as mobility aids.

Objectives of the strategy	Rating	Explanation of rating
Barnet's transport network enables sustainable growth that creates better places to live and work, supports local businesses to thrive, and is flexible, adapting to future opportunities presented by technology and travel patterns.	★★★★☆	Cycling improvements can encourage higher spending along the route by reducing air pollution and creating a more pleasant environment for shopping.
Transport in Barnet keeps the borough moving, enabling people and goods to move within and beyond the borough efficiently using high quality orbital and radial links.	★★★★☆	Cycling is a very space efficient and flexible mode of transport over medium distances.
All users can use the transport system regardless of age, ability and income, and the negative impacts of transport are limited.	★★★★☆	Cycling is low-cost. Although cycles can be mobility aids, not everyone is physically able to cycle. However, electrically assisted cycles are now enabling more people to cycle.
Transport contributes positively to the health of the borough, by prioritising active travel and ensuring air quality is good.	★★★★★	Cycling is emission-free and an easy way to achieve some of the 150 minutes a week of physical exercise recommended by the NHS.
The road network and transport system in Barnet is safe and residents and visitors feel safe across all transport modes.	★★★★☆	Cyclists pose less risks in case of collisions than other vehicles, although design of cycle routes must take account of possible conflict with pedestrians.

Potential

Only 2% of trips in Barnet are currently cycled, a number that is significantly lower than some neighbouring boroughs. For example, 8% of trips in Haringey are cycled.[47]

TfL estimate 390,000 daily trips currently undertaken by motorised transport which could be cycled. The majority – 345,000 – of these trips are currently driven, with the remainder using bus or rail.

The A1000, Ballard's Lane, Woodhouse Road, the A5, Devonshire Road B1462 and the B552 have all been identified as routes of key potential by TfL.

Barriers

Some of the most common reasons that prevent Londoners from cycling include:

- Cycling regarded as an activity 'not for people like me' – 49%;
- Fear of collisions – 46%
- No access to a cycle – 45%
- Fear of bicycle theft – 25%
- Being too old or unfit – 22%
- Poor cycling infrastructure – 16%[48].

The hilly topography of Barnet is also a barrier. Although offering scenic routes and panoramic vistas which can encourage leisure cycling, the hills can compound the feeling of being too unfit, especially for less experienced cyclists.

Strategy in Barnet

The strategy aims to encourage cycling by ensuring developments include cycle parking and shower and changing facilities; providing appropriate cycle routes and opportunities for people to cycle to or from another mode of transportation (bus, train, tube); and increasing residents' access to bicycles, particularly e-bikes. To complement these measures, cycle training and cycle events will be used to enable people of all ages and abilities to enjoy cycling.

[47] Transport for London (2018) London Travel Demand Survey

[48] Transport for London (undated) Cycling Action Plan: Making London the world's best city for cycling http://content.tfl.gov.uk/cycling-action-plan.pdf

Action plan

Table 4.3: Cycling action plan

Reference	Proposal	Location	Estimated Cost (total excl. staff costs)	Timing	Potential Funding	Council Role	Key stakeholders
C1	Cycle parking	Transport gateways, offices, schools and town centres and new residential areas	£100,000 per year	2020-2025: high cycle parking standards for new developments 2025-2030: town centre improvements	TfL LIP allocation, S106, Council resources	Install; support and encourage developers to install	Developers, TfL
C2	Cycle network	Whole borough, focussing on town centres, new developments and key destinations	£250,000 per km	2020-2025: provide safe routes to stations 2025-2030: town centres 2030-2035: arterial routes	TfL LIP allocation, Liveable Neighbourhoods	Full responsibility – although close work with TfL and developers would be required depending on the ownership of the road	Developers, TfL
C3	Cycle provision	Densely populated areas and new developments	-	2020-2025: identify private sector partner 2025: review partnership	Private sector	Support and encourage private companies	Private sector providers
C4	Cycle training	Consider across the whole borough and to everyone	£300,000 per year	2020-2041	TfL	Full responsibility	TfL

Proposal C1: Cycle Parking

Proposal Description

The lack of safe cycle parking stops people cycling: a third of victims of bike theft have stopped cycling and more than 50% of Londoners regard lack of cycle parking provision as a main obstacle to cycling. [49]

TfL estimates that in the long term, Barnet needs approximately 1,000 additional on-street cycle spaces.[50] Cycle parking should be provided at transport gateways, offices, schools and town centres in line with TfL's Cycle Parking Implementation Plan; residential areas should also be addressed because as many as 58% of Londoners do not have space to store a bicycle at home.[51] This is particularly pertinent in areas of dense new development such as Colindale and Brent Cross, where The Council may be able to extend schemes such as the installation of 30 bike hangars at Barnet Homes locations since 2016 providing 180 cycle parking spaces.

Standards for cycle parking provision in new development are set out in the London Plan; the quality is determined by the London Cycle Design Standards.

Types of cycle parking include:

- Bike hangars – enclosed and lockable hangars are suitable for residential areas and can typically accommodate 6 bicycles, replacing one car space. The cycle hangar offers a secure solution to long-term cycle parking. The first on-road cycle hangar on Somerton Road near Cricklewood was officially launched in June 2019. Residents can rent a space in a cycle hanger for an ongoing cost to the resident which is currently £72 per year.
- Sheffield stands – open stands that offer two bike/ cycle parking spaces are suitable for town centres. Typically placed on the side of a pavement or along building frontage, these are useful for short term parking.[52]
- Two-tier racks offer high capacity parking cycle parking, suitable for transport hubs and places with limited space.

Figure 4.10: Example of bike hangar on Somerton Road, near Cricklewood

Fit for purpose

- Cycle parking should conform to London Cycle Design Standards Chapter 8.
- Cycle parking should be provided in accessible locations which will not hinder pedestrian, bus or vehicle movements.
- Cyclists should feel safe to lock their bicycles in provided cycle spaces – the stands should be well-maintained, well-lit and where possible located in areas covered by CCTV.
- Cycle parking stands should enable all bicycles, including accessible and adapted cycles, to be locked including both wheels and frame.

Requirements for delivery

- The cost will depend on the type and number of cycle spaces. While cycle parking can be installed by The Council, especially in town centres and green spaces, The Council will need to work with TfL, developers and business owners to ensure sufficient provision of high-quality cycle parking on private land.
- Land would need to be identified around transport hubs and town centres to install cycle parking. In residential areas, where demand is identified, reallocation of space away from on-street car parking may be necessary. To achieve these, cycle parking standards are included in the Local Plan for new developments.

Alternatives / Consequences of Inaction

- Fewer people cycle because of inconvenience
- Increased bicycle theft
- Perception that cycling is not prioritised in the borough.

[49] Transport for London (2019) Cycle Parking Implementation Plan. content.tfl.gov.uk/cycle-parking-implementation-plan.pdf

[50] Transport for London (2019) Cycle Parking Implementation Plan. content.tfl.gov.uk/cycle-parking-implementation-plan.pdf

[51] Transport for London (2019) Cycle Parking Implementation Plan. content.tfl.gov.uk/cycle-parking-implementation-plan.pdf

[52] Transport for London (2006) Workplace Cycle Parking Guide http://content.tfl.gov.uk/Workplace-Cycle-Parking-Guide.pdf

Proposal C2: Cycle Network

Proposal Description

A cycle network could encourage people to cycle who are intimidated by fast flowing traffic and competition with cars. Fear of collisions is currently a barrier to cycling for 46% of Londoners; removing this barrier should increase the cycling mode share. , Designated cycle routes reduce the number of collisions by 50%; protected cycle lanes by 90%.

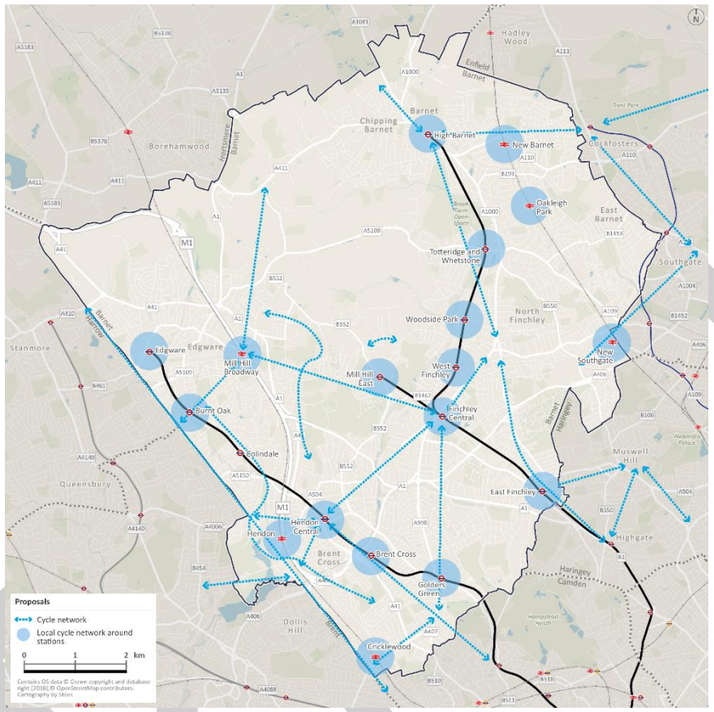
This cycle network should accommodate personal mobility needs and accessible cycles, boosting social equality by providing disabled people with greater choice of ways to travel.

Cycle lanes conforming to the London Cycling Design Standards could be implemented on key routes identified as potential cycling corridors. Cycle routes need to be direct, allowing for connections between residences and town centres as well as transport hubs. The Council's Local Implementation Plan includes the development of a cycle network; this strategy endorses those proposals.

The strategy should focus on corridors of high demand such as those identified by Transport for London, as well as local trips around town centres and stations as highlighted in Figure 4.11.

For leisure cycling, a Barnet loop could be created (see Proposal W4: Active route – the Barnet Loop). This would convert the Dollis Valley Greenwalk into a loop, by linking the existing start and end points at Moat Mount Open Space and Windsor Open Space via West Hendon and Edgware.

Figure 4.11: Potential focus for cycling network[53]



Case Study

The best examples of cycle lane introduction in outer London are the mini-Holland proposals introduced in Kingston, Enfield and Waltham Forest. Cycling increased by 18% in Waltham Forest after the introduction of interventions separating cycle routes from traffic.

Moreover, across all three proposals there was no evidence that more time was being spent in cars due to congestion or that perceptions of the walking environment had deteriorated, showing successful engagement with all transport users, including pedestrians.[54]

Fit for purpose

- In line with TfL's New Cycle Route Quality Criteria, cycle routes must provide protection for cyclists, either by avoiding roads with heavy traffic or by physically segregating areas for cycling.[55] Creating routes of this quality should mean that people who do not currently cycle are encouraged to do so.
- Cycle routes could be provided between areas which have the potential to attract cyclists. They would need to be direct. The following routes are among the highest priority connections according to TfL analysis:
    - North Finchley to Totteridge and Whetstone;
    - North Finchley to High Road and Ballard's Lane;
    - Finchley to Hornsey, which The Council are already working on;
    - North Finchley to Highgate; and
    - Hendon to Brent Cross.
- Cycle routes should begin and end in areas where cyclists can join them with ease, not for instance ending at busy junctions.
- The network should be clearly signed, enabling cyclists to find their way and easily assess the effort required to complete their journey. Signage also advertises the route to new and potential cyclists and makes other road users alert to the likely presence of cyclists.

Requirements for delivery

- If quiet back road routes cannot be found, road space on main roads would need to be reallocated to create room for segregated cycle routes. This might require removal of on-street parking. This would be assessed on a case-by-case basis. Traffic lights which will release cyclists before road traffic would be needed to be installed at key junctions. Some key junctions would need to be redesigned.
- According to TfL's Cycling Action Plan, boroughs will be able to access a cycling fund destined to deliver 450km of cycle routes. To access the fund, the routes must be in line with TfL's cycling potential analysis.
- The Council will engage with residents and cycling groups to ensure the public are informed of changes and to encourage the uptake of cycling.
- S106 and CIL money can be used from developers: cycle routes would be required to realise housing development densities.

[53] Based on Barnet Council's (2019) Local Implementation Plan

[54] Aldred, R. (et al.) (2019) Impacts of an active travel intervention with a cycling focus in a suburban context: One-year findings from an evaluation of London's in progress mini-Hollands programme in Transportation Research Part A: Policy and Practice
https://www.sciencedirect.com/science/article/pii/S0965856417314866

[55] Transport for London (2019) New Cycle Route Quality Criteria
http://content.tfl.gov.uk/cycle-route-quality-criteria-technical-note-v1.pdf

Alternatives / Consequences of Inaction

- Inaction would mean that congestion in Barnet significantly worsens, as the increasing population means increasing demand for trips with insufficient road capacity.
- If cycle routes are not provided then significant shift from private cars to cycling will not happen, regardless of alternative improvements such as cycle parking and educational programmes.

Proposal C3: Cycle Provision

Proposal Description

While the cost of cycling is significantly lower than the cost of owning a car, some people can be discouraged by the upfront cost. Cycle hire proposals provide access to bicycles without large upfront costs or responsibility for maintenance.

Such proposals are becoming increasingly popular are now available across London. While The Council is already collaborating with bike sharing companies such as Beryl, there may be scope to further expand the cycle hire provision in the borough. Traditional docked hire proposals, such as TfL's Santander Cycles, are less suitable for Barnet's development density as they are less flexible.

Case Study

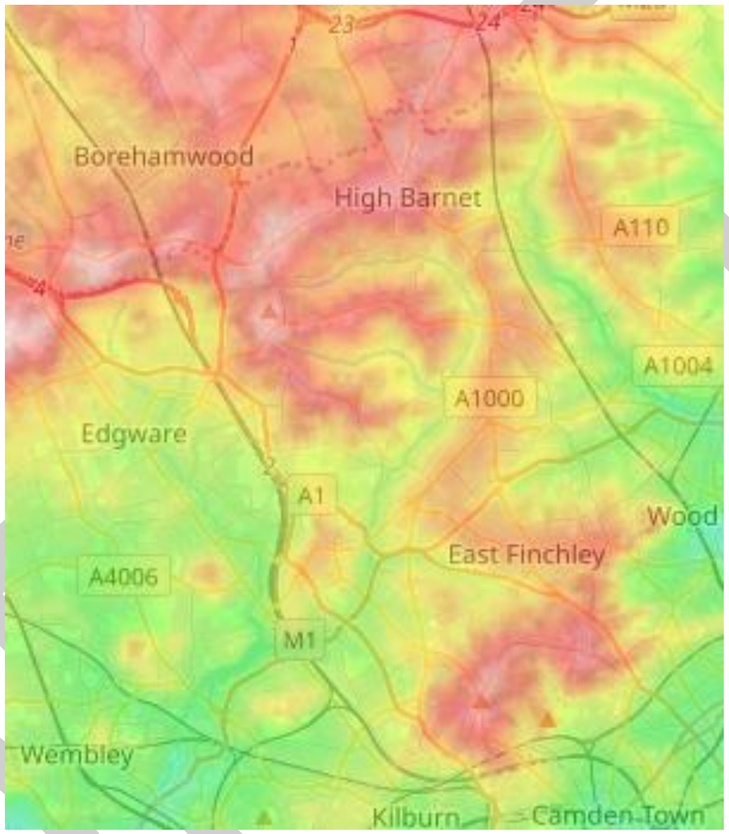
Brighton Electric Cycle Trial saw 80 employees being loaned e-bikes for a period of 6 to 8 weeks. Participants were chosen among those who were driving to work, were predominantly non-cyclists and had low levels of physical activity. Brighton was chosen as a trial city due to its hilliness and windiness – conditions shared by Barnet.

Three out of four participants used the bikes at least once, with 15 participants using them every day. In addition to 49 participants who noted a decrease in car travel to work (either as driver or passenger), a 20% reduction in car miles travelled was observed. Almost half of the trial group said that they would like to have an e-bike available to use in future.[56]

Fit for purpose

- Given Barnet's topography and demographics, electric bicycles are likely to be more effective than standard bicycles. Over one in five Londoners quotes being too old or unfit as a barrier to cycling; electric bicycles offer similar advantages to conventional bikes when compared with a car – improved air quality, reduced road congestion and improved road safety – but require less physical effort.
- The proposal would need to be launched in areas where there is a population with high cycling potential to ensure sufficient uptake.
- Existing training and infrastructure should be extended to ensure safe and frequent travels.

Figure 4.12: Topographic map of North London[57]



Requirements for delivery

- The introduction of a dockless bike sharing proposal would require partnership with a private company.
- The proposal will need to be managed to ensure the streetscape is not cluttered by dockless bike parking, creating accessibility problems.
- Spaces for dockless bike parking would need to be provided at designated areas and should be identified by The Council in collaboration with the provider. This would avoid negative perceptions associated with dockless cycles blocking pavements.

Alternatives / Consequences of Inaction

- If electric bicycles are not provided people may be discouraged from cycling in uneven, hilly terrain, despite other improvements to cycling infrastructure such as cycle lanes and cycle parking.

[56] Cairns *et al.* (2017) Electrically-assisted bikes: Potential impacts on travel behaviour. **https://doi.org/10.1016/j.tra.2017.03.007**

[57] Topographic-map.com (undated) **https://en-gb.topographic-map.com/maps/lpj5/London/**

Proposal C4: Cycle training

Proposal Description

People often feel unsafe when cycling. This perception of danger is one of the biggest barriers to more people cycling. As well as improving the Cycle Network, the council would also extend its training schemes to equip people with the necessary skills to navigate traffic with confidence.

The Council already run training schemes for all types of cyclists. These range from adapted cycle events supporting disabled people to training in schools and free Dr Bike sessions on the first Thursday of every month. Training is provided free-of- charge for anyone who lives, works or studies in Barnet for people of all skill levels: there are basic, urban, advanced and family courses.

These will be expanded as more people are encouraged to shift to active travel.

Fit for purpose

- Training must be adapted to the skill level of the participants.
- Training must be integrated with the creation of safe cycling routes, in line with the proposals above.

Requirements for delivery

- Council funding and partnership with schools and employers

Alternatives / Consequences of Inaction

- Fewer people cycling as barrier of perceived safety remains

Public Transport

Vision

Public transport will be the preferred mode for medium and long distance journeys in Barnet and across the borough boundary into other boroughs and counties such as Hertfordshire. Journeys will be pleasant, quick, reliable and convenient whether travelling into central London or across the borough.

Overview

Benefits

Not all journeys can be walked or cycled. Public transport, encompassing bus, rail and Underground, is a space efficient, safe way to travel. It is also increasingly environmentally friendly: London's first two double-deck all electric buses are planned to be introduced in 2020 on routes serving Barnet.

Good quality public transport is critical to unlocking employment and residential development opportunities and is critical to creating a better Barnet. If fast, cheap and reliable, it can be a viable alternative to car travel.

Using public transport often includes short active trips by foot or cycle to and from bus stops or stations at the beginning and end of a journey. In London, trips involving public transport contribute to 50% of walking trips[58]. Given the demographic of the borough's inactive population, encouraging walking or cycling for limited distances can be the first step in ensuring sufficient levels of physical activity.

Objectives of the strategy	Rating	Explanation of rating
Barnet's transport network enables sustainable growth that creates better places to live and work, supports local businesses to thrive, and is flexible, adapting to future opportunities presented by technology and travel patterns.	★★★★☆	Rail and bus routes are relatively inflexible compared to other modes of transport.
Transport in Barnet keeps the borough moving, enabling people and goods to move within and beyond the borough efficiently using high quality orbital and radial links.	★★★★★	Public transport is the highest capacity form of transport, ensuring limited space is used in the most efficient way.
All users can use the transport system regardless of age, ability and income, and the negative impacts of transport are limited.	★★★★☆	Public transport provides a cheap alternative to car journeys. Although not always accessible, this is improving.
Transport contributes positively to the health of the borough, by prioritising active travel and ensuring air quality is good.	★★★★☆	Emissions per passenger journey are lower when compared to cars. Likely to incorporate active transport as first/last mile.
The road network and transport system in Barnet is safe and residents and visitors feel safe across all transport modes.	★★★☆☆	Rail is a very safe mode of transport; buses are involved in fewer collisions than cars. However, personal safety on both modes is an issue.

Potential

The potential to shift from private to public transport is only limited by the extent and frequency of the public transport network. The Northern Line is very popular: it is the most crowded of all London Underground lines in the AM peak. Increasing capacity should result in an improved service and therefore more trips.

The bus network in Barnet may well increase: TfL has committed to redistributing bus capacity from overprovisioned Central London to underserved Middle and Outer London.[59] The Council should try to use this opportunity to provide its residents with more fast, reliable and direct services.

Although capacity may become an issue on the Northern Line, Great Northern and Thameslink services have spare capacity which can be used to access central London.

Barriers

People might be discouraged from using Public Transport due to poor quality services. Despite as many as 97% of Barnet's residents living within a five-minute walk of a bus stop, bus use only accounts for approximately 10% of trips in Barnet. The frequency, reliability and destinations served from each bus stop vary significantly. Despite this, routes that pass through Barnet have seen increased patronage since 2010.[60]

Four in five Londoners were not satisfied with the quality of information regarding the bus network. It is important to ensure that public transport links not only exist, but the information about them is easily accessible and understandable. Technology (including apps such as Citymapper) can help address this issue.

Strategy in Barnet

Although Barnet benefits from good radial routes into Central London on Thameslink services and the Northern Line, these will come under increasing pressure as the population of the borough increases. The Council will lobby both operators for upgrades to these services to cope with increased demand, as well as Great Northern to improve their frequencies.

Improving orbital connections across the borough and into neighbouring areas is vital so that residents have a choice of ways to travel.

The radial connections need to be upgraded to cope with increased demand. The Council will need to collaborate with Public Transport providers, such as TfL or Arriva to ensure these

[58] Greater London Authority (2015) Health Impacts of Cars in London https://www.london.gov.uk/sites/default/files/health_impact_of_cars_in_london-sept_2015_final.pdf

[59] Transport for London (2019) TfL proposes new outer London route as it confirms plans for central London's buses https://tfl.gov.uk/info-for/media/press-releases/2019/april/tfl-proposes-new-outer-london-route-as-it-confirms-plans-for-central-london-s-buses

[60] Transport for London (2017) Bus Network Report. https://www.london.gov.uk/sites/default/files/bus_network_report_final.pdf

upgrades are carried out, for example the Camden Town capacity upgrade.

Technology is creating opportunities for areas without sufficient demand to cater for traditional public transport operations: The Council will explore these to ensure residents can access the public transport network.

Action plan

Table 4.4: Public transport action plan

Reference	Proposal	Location	Estimated Cost (total excl. staff costs)	Timing	Potential Funding	Council Role	Key stakeholders
PT1	Express and orbital bus routes	Linking West London Orbital, both branches of the Northern Line, Great Northern, Piccadilly, Jubilee and potential Crossrail 2 lines	Up to £40m	2020-2022: improve orbital quick wins 2022-2025: continuous bus lanes 2025-2035: Possible segregation	Mayoral CIL, Borough CIL	Develop concepts and work with TfL on feasibility studies	TfL to fund and operate. Council to maintain
PT2	Improving the existing bus network	Whole borough	£200,000	2020-2025	LIP allocation, Liveable Neighbourhoods	Encourage and support	TfL
PT3	Improve the existing rail and Underground services	Great Northern, Thameslink and Northern Line	-	2020-2030	TfL, rail franchising	Lobby	Franchise holders, London Underground
PT4	On-demand services	Less densely populated areas	-	2025-2030	Liveable Neighbourhoods	Encourage and support	TfL to implement
PT5	Gateways	Key public transport hubs such as tube and train stations	Dependent on scheme	2020-2030	Liveable Neighbourhoods	Encourage and support, part fund, lobby, direct s106	Network Rail, S106, TfL

Proposal PT1: Express and Orbital Bus Routes

Proposal Description

Orbital journeys in Barnet by public transport are currently very difficult: although bus routes exist, they are often caught in congestion, reducing reliability and increasing journey times.

An efficient orbital service would not only join key destinations such as Hendon, Brent Cross, Finchley, New Southgate and Arnos Grove, but also provide resilience for radial routes such as Thameslink, Northern Line, Piccadilly Line, Jubilee Line and, in the future, Crossrail 2 and the West London Orbital by joining them together. This would involve close collaboration with neighbouring boroughs of Enfield and Brent.

Although a feasibility study would be required to determine the form this could take, a bus rapid transit could be a cost-effective option: rail is likely to be more expensive. A bus rapid transit differs from a normal bus service because it is segregated from traffic; such a service would replace other bus routes serving the same destinations.

Routes would also need to be determined by a future feasibility study, which would detail likely impacts on the local area. Initial ideas include routes along disused rail corridors such as Finchley to Finsbury Park, along either Ballard's Lane or the A406 as the highest priority corridor and routes further north as shown in Figure 4.13.

Case Study – Cambridgeshire Guided Busway

Cambridgeshire Guided Busway, opened in 2011, links Cambridge and neighbouring towns with 25 kilometres of segregated bus routes, making it the longest fully segregated busway in the world. The combination of segregation and a guided wheel system mean the Busway can accommodate bus speeds as high as 89 km/h. In the first year, a total of 2.5 million trips were made on the Busway, a figure 40% higher than the original estimates; this increased to 4.1m in the year to July 2018.[61]

Fit for purpose

- A route must be identified, linking key destinations and transport nodes and separated from traffic to ensure speed, reliability and frequency as much as possible.
- Local businesses and residents along the route must be able to load and unload.
- The Express Bus must be well-integrated to both the existing Oyster payment system, allowing interchange onto normal buses and the Underground and rail networks, and active travel networks in the borough.

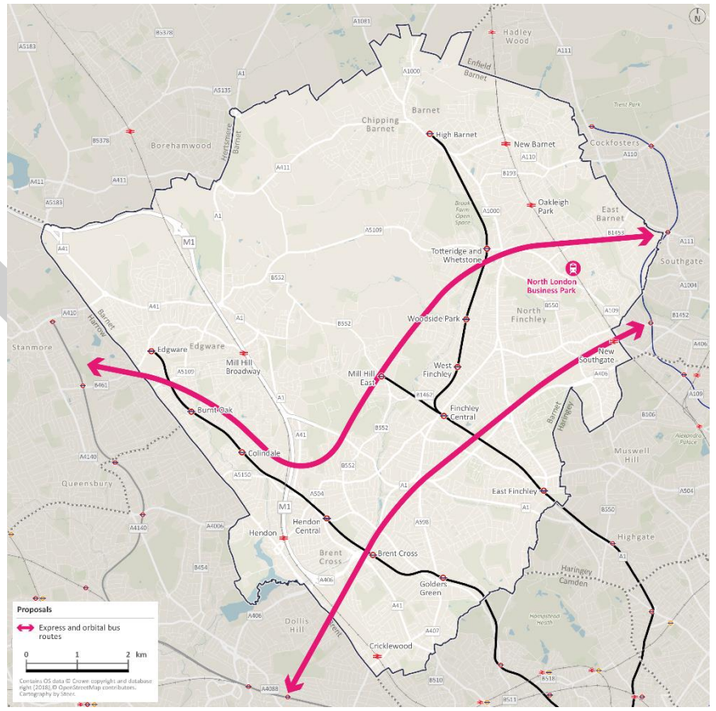
Requirements

- Feasibility and strategic outline business case studies would be required, which would include costings, demand forecasting and route suggestions and impact assessments.
- Segregation may need to take place on existing roads: a new corridor like the Cambridge example is unlikely to be feasible and tunnelling is likely to prove too expensive. This would require a phased approach: first replace parking with a bus lane, then introduce segregation.
- Lessons should be learned from attempts to implement the West London Tram, which was permanently postponed by TfL in 2007 after residents raised concerns about the displacement of traffic onto residential streets.
- Liaison with TfL and bus operators necessary to ensure the feasibility, implementation and funding of any proposals.

Alternatives / Consequences of Inaction

- Congestion
- Poor air quality
- Poor road safety
- Poor physical health
- Poor network resilience
- One alternative would be light rail, as has been successfully introduced in Nottingham, Sheffield and Croydon. Although busways are considered a more cost-effective option, any feasibility study should also include alternative modes such as light rail.

Figure 4.13: Express buses joining key destinations (exact routes to be determined through a feasibility study)



[61] Cambridgeshire County Council (2018) Economy and Environment Committee meeting Thursday 16 August 2018 https://cambridgeshire.cmis.uk.com/CCC_live/Document.ashx?czJKcaeAi5tUFL1DTL2UE4zNRBcoShgo=f7OS%2bLFI9JMErcKLDKTE9pN1D7NKsQdbsw1TaNs8lGglOHP1rBvDDQ%3d%3d&rUzwRPf%2bZ3zd4E7Ikn8Lyw%3d%3d=pwRE6AGJFLDNlh225F5QMaQWCtPHwdhUfCZ%2fLUQzgA2uL5jNRG4jdQ%3d%3d&mCTIbCubSFfXsDGW9IXnlg%3d%3d=hFflUdN3100%3d&kCx1AnS9%2fpWZQ40DXFvdEw%3d%3d=hFflUdN3100%3d&uJovDxwdjMPoYv%2bAJvYtyA%3d%3d=ctNJFf55vVA%3d&FgPlIEJYlotS%2bYGoBi5olA%3d%3d=NHdURQburHA%3d&d9Qjj0ag1Pd993jsyOJqFvmyB7X0CSQK=ctNJFf55vVA%3d&WGewmoAfeNR9xqBux0r1Q8Za60lavYmz=ctNJFf55vVA%3d&WGewmoAfeNQ16B2MHuCpMRKZMwaG1PaO=ctNJFf55vVA%3d

Proposal PT2: Improve the existing bus network

Proposal description

Buses are a vital and growing part of Barnet's transport network: passenger numbers on routes passing through Barnet have increased by 9% since 2010. However, passengers wait approximately 20% longer than intended on high-frequency routes and travelling within the borough by car is typically two to four times faster than taking the bus.

The Mayor of London's Transport Strategy has set Barnet a target of improving average bus speeds by 5 to 15%; in Barnet's case this would improve average bus speed from 10.7mph to between 11.3 and 12.4mph.[62] Other proposals within this strategy document will contribute to this by reducing congestion, particularly through encouraging more trips to be undertaken by walking, cycling and public transport. The Council can also contribute to improving bus services in the borough through a series of prioritisation measures.

One method of prioritising buses over other forms of travel is bus lanes: if road space allows, one lane reserved exclusively for buses at certain times of day allows them to bypass congestion. Another form is smart SCOOT systems, which prioritise buses at traffic lights. The Council could work with TfL to improve bus speeds, reliability and routing using a variety of methods. The remaining 9% of Barnet bus stops that are not currently fully accessible could be upgraded in collaboration with Transport for London.

Perceptions that buses are unsafe are also a barrier to use: this is particularly prevalent at night, when buses are often the only form of public transport available.

Fit for purpose

- To be a reasonable alternative to car, buses must run reliably, frequently and quickly to popular destinations.
- Passengers must feel safe on buses.

Requirements for delivery

- Liaison with TfL to identify and rectify underserved areas and junctions that cause delays, as well as personal safety measures.

Alternatives

- High car mode share, meaning greater congestion

[62] Transport for London (2018) LIP Information to Boroughs

Proposal PT3: Improve the existing rail and Underground services

Proposal description

Rail and Underground services are vital for Barnet residents wanting to access London: the ten areas that employ the most numbers of Barnet residents outside the borough are all served by stations on the Northern Line. The Northern Line will come under increasing pressure as the population of Barnet increases: it already operates at 130% of capacity between 8 and 9am on weekdays, the most crowded of all London Underground lines.[63]

There are two ways to relieve this pressure: increase the capacity of the line; and reduce demand on the line. Increasing the capacity of the Northern Line is dependent on Transport for London and London Underground. The Council will lobby to prioritise investment in the line, to increase frequencies and relieve congestion at Camden Town, where issues are caused by people changing branch.

The increase in people working from home will help to reduce demand on the line: this has already had an appreciable impact on Fridays.

The other key way to reduce demand on the Northern Line is to provide a similar service on Thameslink and Great Northern services: these rail lines also serve large areas of the borough and central London. Opening the new Thameslink station at Brent Cross West should help; other possibilities include a new Great Northern station at North London Business Park, to address the area between Oakleigh Park and New Southgate which is currently underserved.

The Council has recently written to the Department for Transport encouraging the transfer of responsibility for Great Northern services to Transport for London.

Fit for purpose

- London Underground should take all reasonable steps to increase capacity so that increasing frequencies are possible to cope with the additional demand expected from housing developments close to stations.
- Great Northern services should increase in frequency as much as capacity at Moorgate will allow.

Requirements for delivery

- Control of Great Northern should pass to Transport for London.
- Camden Town capacity upgrade.

Alternatives / consequences of inaction

- Overcrowding on the Northern Line will increase, putting people off using the Underground. This will make it harder to meet the Mayor of London's mode share targets.

[63] London Assembly (2019) Tube Capacity (1)
https://www.london.gov.uk/questions/2019/19838

Proposal PT4: On-Demand Services

Proposal Description

Some areas of Barnet are not densely populated enough to support rail links or frequent fixed bus links: not enough people would use the services to sustain high frequencies, and low frequency services are unattractive because they may not run at the time residents want or where they need to go. However, these areas should not be left without transport provision.

On-Demand bus services (also known as demand responsive transport, DRT) operate flexibly in response to local demand – they can adapt their routes and timings depending on the destinations of the passengers.

DRT typically allow passengers to book a ride via an app, website or through a telephone call, providing easy and quick access to the service. Where possible, On-Demand services stop in close proximity to the desired origin and destination of the passenger and provide a direct link between them, making DRT an inclusive choice for disabled people.

The areas highlighted in Figure 4.15 have low population densities, making them generally unsuitable for traditional, point-to-point bus routes. To ensure public transport coverage, on-demand services may be suitable in these areas.

Case study

In London, TfL are running two trials of On-Demand services in Sutton and Ealing.[64] No data has yet been published regarding their success, but the Council will monitor these proposals.

ArrivaClick is an On-Demand service operating in areas of Liverpool, New Lubbesthorpe and Sittingbourne. More than half of ArrivaClick users switched from using cars in Sittingbourne; 43% of customers were using the service as part of their daily commute.

The New Lubbesthorpe branch obtained funding through Section 106 agreements. [65]

Figure 4.14: ArrivaClick On-Demand bus in New Lubbesthorpe

Fit for Purpose

- The DRT service must be accessible to all, both physically and in terms of technology. All drivers must be fully trained and vehicles suitably equipped to help passengers with impaired mobility. Bookings should be able to be via telephone as well as online and via an app.

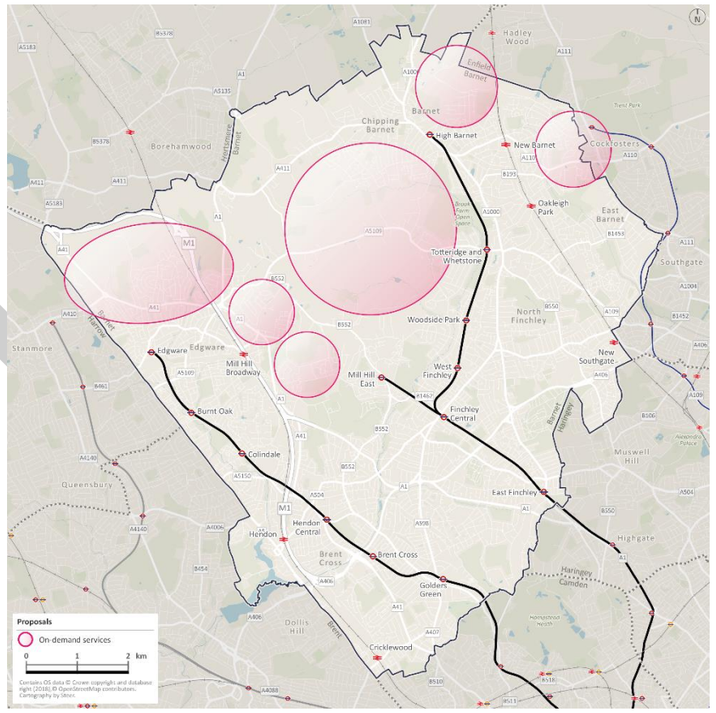
Requirements

- TfL Partnership with an On-Demand transport company will have to be established.
- Cost will depend on the area covered by the proposal and the availability of services.
- The Council (in conjunction with partners) would help to promote the services.

Alternatives / Consequences of Inaction

- Social isolation

Figure 4.15: Areas potentially suitable for demand responsive transit



[64] Transport for London (2019) Demand Responsive Bus Trial https://consultations.tfl.gov.uk/buses/demand-responsive-buses/

[65] Arrivabus (2019) Leicester to benefit from sustainable travel proposal https://www.arrivabus.co.uk/midlands/latest/leicester-to-benefit-from-sustainable-travel-proposal/

Proposal PT5: Gateways

Proposal Description

Public transport hubs such as tube and rail stations can be transformed into “gateways”, improving the public realm and interchange between active and public transport.

Each Gateway proposal should develop a comprehensive plan to integrate walking, cycling and public transport in line with the Healthy Streets programme, creating pleasant, informative, useful gateways to the public transport network by decluttering, providing information and facilities such as rest areas and cycle parking.

These proposals should increase active travel mode shares to public transport: currently as many as 21% of people reach an Underground station by a car, despite 62% of Barnet residents living within 1200m (approximately a 15 minute walk) of an Underground station and 100% within a 20 minute cycle. Improving the network required to reach the stations is part of the solution.

Gateway proposals should be designed on a case by case basis, depending on the unique issues present at each location.

The Council is working with the local community and development partner to re-design North Finchley and will look to align the scheme with this proposal and with the Healthy Streets principles.

Case Study

In 2015 the surroundings of Sutton Station, in the Outer London Borough of Sutton, were significantly upgraded. The public realm was decluttered, and traffic rerouted; improved cycling facilities and wider pavements were included, improving access to the station.

The Gateway is estimated to recover the costs in just 8 years, with the proposal bringing £223,000 in health benefits year on year.[66]

Fit for purpose

Gateways should be planned and built with the future in mind, to ensure that they can cope with future technologies and capacity requirements. Key features of the program should include:

- The layout of bus stops and stations should be easy to understand and navigate, with legibility issued addressed.
- Clutter-free public spaces – as many as 43% of disabled Londoners say that obstacles on pavements are a barrier to walking.[67]
- Accessibility– Only 7 out of 13 Northern Line stations in Barnet have step-free access.
- Cycling infrastructure – cycleways, cycle parking and additional facilities such as bike repair centres could be installed always in line with London Cycle Design Standards.

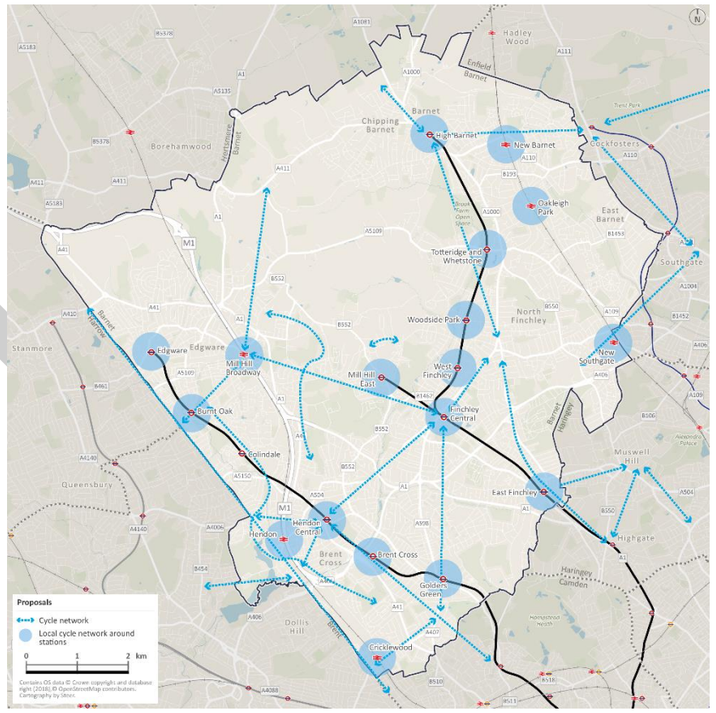
Requirements

- The cost would be dependent on the size of the proposal.
- The Council would need to liaise with station owners and operators to ensure the implementation and viability of the gateway proposals. For example, gateway improvements could be made at the same time as London Underground’s scheduled step-free improvements at Colindale (by 2024).

Alternatives / Consequences of inaction

- Poor public realm will mean public transport trips are unattractive
- Public transport users may continue to drive their first/last mile to and from public transport hubs

Figure 4.16: Tube and train stations in Barnet with proposed cycle network



[66] Transport for London (2017) Better Streets Delivered 2 **http://content.tfl.gov.uk/better-streets-delivered-2.pdf**

[67] Transport for London (undated) Walking Action Plan: Making London the world’s most walkable city **http://content.tfl.gov.uk/mts-walking-action-plan.pdf**

Car

Vision

Vehicles will run on cleaner fuels to reduce emissions and roads will be designed with safety as a paramount consideration. Congestion will be relieved by increased active and public transport modes as vehicles are mainly used for occasional or necessary journeys and with shared ownership models being more convenient and cost-effective for users.

Overview

Cars, whether privately owned, part of a car club or as taxi services, provide a flexible means of reaching a destination. They are often the most convenient mode of transport – they are independent from timetables or weather, they provide a door-to-door solution (dependent on the availability of parking) and space and convenience to carry heavy or sizeable luggage. Cars are often the mode of choice in sparsely populated areas, which offer limited access to public transport and where the distances are unsuitable for walking.

However, there are negative impacts associated with car use: cars contribute to pollution and can cause collisions, congestion and damage areas of public realm. Cars can also be a barrier to the uptake of other, more efficient, healthier modes of transport.

Objectives of the strategy	Rating	Explanation of rating
Barnet's transport network enables sustainable growth that creates better places to live and work, supports local businesses to thrive, and is flexible, adapting to future opportunities presented by technology and travel patterns.	★★☆☆☆	Efficient car flows are determined by existing capacity.
Transport in Barnet keeps the borough moving, enabling people and goods to move within and beyond the borough efficiently using high quality orbital and radial links.	★★★☆☆	Cars offer fast and direct travel but cause congestion and can be a barrier to more efficient modes.
All users can use the transport system regardless of age, ability and income, and the negative impacts of transport are limited.	★★★☆☆	Cars are generally more expensive than other transport modes.
Transport contributes positively to the health of the borough, by prioritising active travel and ensuring air quality is good.	★☆☆☆☆	Car journeys, even if made by low-emission vehicles do not encourage physical activity.
The road network and transport system in Barnet is safe and residents and visitors feel safe across all transport modes.	★☆☆☆☆	Car usage may discourage walking and cycling; cars also contribute to the majority of killed and seriously injured casualties on the transport network.

Limitations

The Council does not have control over the major roads in the borough, e.g. the A1, M1, A41 and A406. While the Council can influence the local roads, any changes to the key routes will have to be implemented by their respective highway authorities.

Strategy in Barnet

The strategy will focus on limiting the negative impacts through:

- Safer road design and education about other road users;
- Facilitating shared ownership models; and
- Facilitating the development of infrastructure which allows electric vehicles to be the default choice.

The transport implications of Barnet's projected population growth, and associated road congestion will require many changes to transport infrastructure and behavioural changes including reduced car usage.

Action plan

Table 4.5: Car action plan

Reference	Proposal	Location	Estimated Cost (total excl. staff costs)	Timing	Potential Funding	Council Role	Key stakeholders
R1	Car clubs	Whole borough, particularly new development	-	2020-2025	S106	Encourage and support	Developers, car club operators
R2	Electric vehicle charging provision	Whole borough, particularly new development	£4,000 - £40,000 per charger	2020-2025: 200 a year 2025-2030: 500 a year 2030-2040: 1,000 per year	S106, Council resources	Identify appropriate locations; assist with traffic orders; continue to mandate in development	Developers, charging point operators
R3	Road safety improvements	Key junctions	£20m	2020: produce Road Safety Strategy 2021-2041: monitor and implement Road Safety Strategy	TfL Liveable Neighbourhoods, Council resources, LIP	Develop Road Safety Strategy	TfL, police
R4	Workplace parking levy	Whole borough / London-wide	Revenue	2025-2030	-	Design, implement and operate. Advocate for London-wide with TfL and other boroughs	TfL, London boroughs
R5	Better management of parking	Whole borough, particularly town centres	Revenue	2020-2025: restrict new development parking and introduce CPZs 2025-2035: convert bays to car club only 2035-2041: restrict town centre parking	-	Total control	Residents and businesses
R6	Road user charging	London-wide	Revenue	2030-2035	-	Lobby / advocate so that design reflects Barnet's aspirations	TfL

Proposal R1: Car Clubs

Proposal Description

Car clubs are pay-as-you-drive systems providing access to cars to registered Members, who can book cars from a variety of locations using websites, mobile apps or over the phone. There are two models: round-trip, where users return the car to a specified car club space once they have finished using it; and flexible or "floating", where users can park the car in any legal parking space within a defined area once finished. Currently there are approximately twenty car club cars available to Barnet's residents.

Car clubs provide benefits for both users and society more generally. For the individual, they are cheaper and more convenient than private car ownership. Cars in the UK spend an average of 96.5% of their lives parked, doing nothing.[68] In Barnet, kilometres driven per person have decreased much faster than car ownership since 2008, meaning the time cars have spent idle will have increased.

For society, 99% of London's car club fleet already complies with Ultra Low Emission Zone standards and the average car club car emits 43% fewer tailpipe emissions than the average private car.[69]

The Council, in cooperation with private companies, can increase the number of car clubs available to residents. There are two key ways The Council can influence the number of car clubs available to residents: first, through the development planning process, offering the opportunity to replace some of the requirements for parking spaces with commitments from developers to provide car clubs for residents of their developments; second, by prioritising parking spaces for car club cars.

Case study

CoMo produce an annual survey of car clubs at both a nation- and London-wide level, which contains a wealth of evidence of their effectiveness. The latest survey on London revealed that 49% of respondents owned at least one car before joining a car club, falling to 23% afterwards; 34% would have bought a car if they had not joined a car club. For each car club car, approximately 10.5 private cars are removed from the road, freeing up public space that is currently used for car parking. Car club cars also tend to operate at a higher level of occupancy than private vehicles: 1.7 people per vehicle compared to 1.55.[70]

Fit for purpose

- *Critical mass*. Car Club vehicles must be provided in sufficient numbers that they are available when needed: if it is not convenient to use a car club car, they will not be used.
- *Desirable locations*. Dedicated spaces should be provided at desirable locations such as dense housing, key shopping centres and public transport nodes. When working with private operators, The Council could franchise bays in lots to ensure coverage is not limited to only the most desirable locations.

Requirements

- The Council will need to determine appropriate locations for new car club bays.
- Engagement with car club providers.

Alternatives / Consequences of Inaction

- High parking demand, leading to inefficient use of scarce road space
- High car ownership
- No improvement to congestion and air quality.

[68] Bates, J. and Leibling, D. (2012) Spaced Out: Perspectives on parking policy Spaced**https://www.racfoundation.org/wp-content/uploads/2017/11/spaced_out-bates_leibling-jul12.pdf**

[69] Carplus (2017) Annual Survey of Car Clubs 2016/17 **https://como.org.uk/wp-content/uploads/2018/06/Carplus-Annual-Survey-of-Car-Clubs-2016-17-London.pdf**; Comouk (2018) England & Wales Car Club Annual Survey 2017/18 **https://como.org.uk/wp-content/uploads/2019/06/EW-report-v4.0.pdf**

[70] Comouk (2018) England & Wales Car Club Annual Survey 2017/18 **https://como.org.uk/wp-content/uploads/2019/06/EW-report-v4.0.pdf**

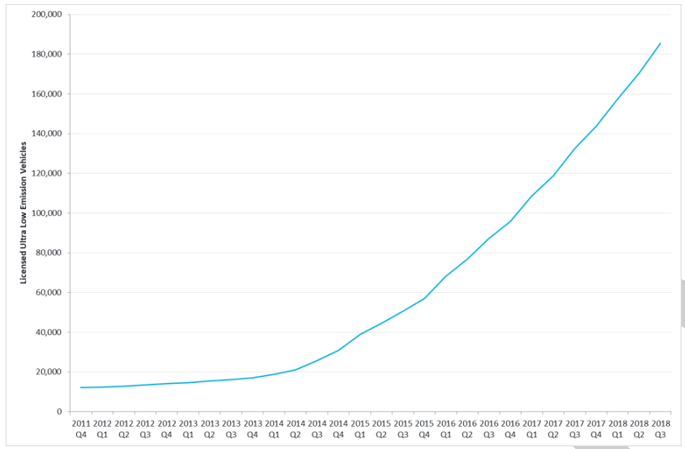
Proposal R2: Electric vehicle charging provision

Proposal Description

Electric vehicles are approximately three times more efficient than petrol cars and produce no tailpipe emissions. Although currently making up just 1.8% of all new vehicle registrations in the UK, electric vehicles are increasingly popular as shown in Figure 4.17.[71] Battery prices fell by 80% between 2010 and 2016, reducing overall vehicle costs, and some cars can now travel up to 300 miles on a single charge.[72]

Sales are likely to continue to grow: new technology adoption tends to accelerate once 5% of market share has been achieved; in Norway electric vehicles account for almost half of all sales. [73]

Figure 4.17: Licensed Ultra Low Emission Vehicles in the UK 2011-2018[74]



This strategy can encourage the accelerated take up of these vehicles by helping to remove barriers. Charging electric vehicles is the most significant factor preventing consumers buying an electric vehicle, followed by distance travelled in one charge. While improving technology will increase range, a network of chargers will be needed. The Council is already supporting the introduction of electric vehicle charging points across the borough and working with developers to ensure the installation of charging points in new developments. These policies will be expanded, as well as private homeowners supported to install charging points in private driveways.

Fit for purpose

- Home charge points should ideally use smart charging technology, charging when demand on the National Grid is lower. This lowers overall system costs, ultimately resulting in cheaper fuel for the consumer.
- Rapid charge points should be made publicly available across the borough.

Requirements

- Planning requirements can mandate the provision of electric vehicles in new developments, in line with the London Plan.
- Chargers suitable for public access, such as at retail / public car parks, urban centre streets and leisure centres as well as charge pillars and lamp posts, and charge a 120km range battery in approximately 3 hours.[75]
- Engagement with EV producers, TfL, National Infrastructure Commission, Ofgem, the Office for Low Emission Vehicles and London Councils' Go Ultra Low City Scheme

Alternatives / Consequences of inaction

- Lower take up of electric vehicles, meaning worse air quality

[71] National Infrastructure Commission (2018) National Infrastructure Assessment **https://www.nic.org.uk/wp-content/uploads/CCS001_CCS0618917350-001_NIC-NIA_Accessible.pdf#page=53**

[72] National Infrastructure Commission (2018) National Infrastructure Assessment **https://www.nic.org.uk/wp-content/uploads/CCS001_CCS0618917350-001_NIC-NIA_Accessible.pdf#page=53**

[73] Electrek (2019) Electric car sales grew by 40% in Norway this year **https://electrek.co/2019/01/02/electric-car-sales-norway-2018/**

[74] Department for Transport (2019) Table veh0132

[75] The Mayor's Electric Vehicle Infrastructure Taskforce (2019) London electric vehicle infrastructure delivery plan **http://lruc.content.tfl.gov.uk/london-electric-vehicle-infrastructure-taskforce-delivery-plan.pdf**

Proposal R3: Road safety improvements

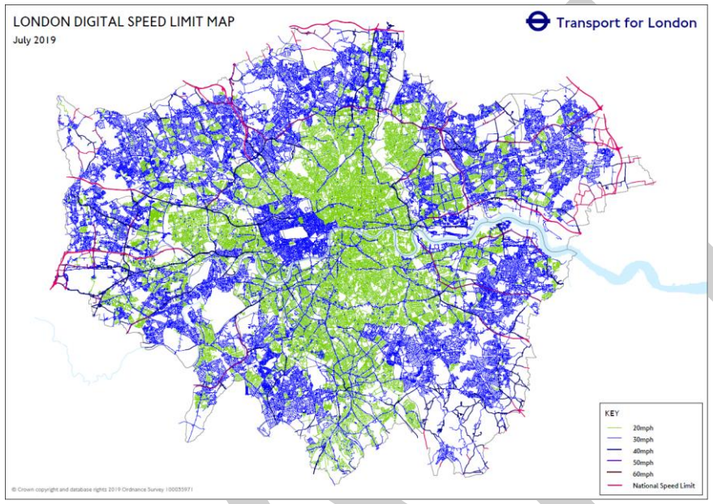
Proposal description

Improving road safety is critical in Barnet: approximately 100 people are killed or seriously injured on Barnet's roads every year, almost two every week. Although this is lower per kilometre driven than other boroughs and 20% of these KSIs occur on TfL's or Highways England's roads, there is much that The Council can do to help improve the safety of all people in Barnet.

To achieve the Mayor of London's Vision Zero, both the number and severity of collisions must be reduced. The best way to reduce severity of a collision is to limit the speed at which the collision takes place. A pedestrian is five times more likely to die if hit by a car travelling at 30mph than 20mph and stopping distances almost double between 20mph and 30mph. Lower speed can also improve traffic flow and reducing particulate emissions.[76]

There are two methods to limit speed: imposing a limit and penalising those who break it, and introducing speed limiting design features such as chicanes, street narrowings or speed cushions. There are already a number of 20mph zones in Barnet. Road designs can be amended either on a case-by-case basis or as part of Low Traffic Neighbourhoods proposals (see Proposal W2: Low traffic neighbourhoods). Reallocated road space in town centres can be used for pedestrian space, small parks, markets and other community uses.

Figure 4.18: Map of London speed limits



Case study

The Department for Transport published evidence for the effectiveness of 20mph road speed limits in November 2018; TfL's Achieving Lower Speeds toolkit does the same for speed limiting road designs.[77]

Fit for purpose

- *Speed limited by road design.* To be effective, engineering features should be introduced which limit speed on non-arterial routes, following advice in TfL's Achieving Lower Speeds Toolkit.
- *Enforcement.* To deter speeding, drivers breaking limits should be penalised.

Requirements

- The cost of the proposal will depend on the breadth and type of design feature chosen.
- To ensure that investment is appropriately prioritised and targeted in the most effective manner, the Council should further develop more detailed road safety plans. This should provide an evidence base (drawing on available data sources) that facilitates a proactive approach to be taken, building on the 2018 Road Safety in Barnet report.[78]

Alternatives / Consequences of inaction

- No reduction in those killed and seriously injured on Barnet's roads

[76] Transport for London (2019) Achieving Lower Speeds: The toolkit **http://content.tfl.gov.uk/achieving-lower-speeds-toolkit.pdf**

[77] Atkins et al. (2018) 20mph Research Study **https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/757307/20mph-headline-report.pdf;** Transport for London (2019) Achieving Lower Speeds: The toolkit **http://content.tfl.gov.uk/achieving-lower-speeds-toolkit.pdf**

[78] Barnet Council (2018) Road Safety in Barnet **https://barnet.moderngov.co.uk/documents/s45531/Road%20Safety%20in%20Barnet.pdf**

Proposal R4: Workplace Parking Levy

Proposal Description

A workplace parking levy (WPL) is a tool that can be introduced by a local authority, which charges businesses per parking space provided for employees. The money raised through a workplace parking levy has to be reinvested to achieve the aims of the transport strategy.

Workplace parking charges have long been established as an effective tool for reduction of car-use for travel to work internationally.[79] To date, their application in the UK has been limited to Nottingham, though the Mayor of London's Transport Strategy encourages their introduction in London boroughs and Hounslow Council have consulted on introducing a Workplace Parking Levy.[80]

Car travel is the most common method of going to work in Barnet (42%), including for short distance trips. 40% of journeys to work that are shorter than 2 kilometres are currently made by car; of all journeys to work that are driven, 30% are under 5km. These figures show there is potential for change.

Consequences of workplace parking levies include the reduction of available parking spaces and the encouragement of car-pooling spaces. Using differential pricing for vehicle types, a WPL can be used to encourage a shift to cleaner vehicles.

The Council will continue to review the introduction of Workplace Parking Levy in other locations.

Case study

Nottingham introduced a workplace parking levy in October 2011, with charging beginning in April 2012. Businesses can provide 10 staff spaces free of charge. For every space above that, they must pay £415 per year. About 50% of businesses choose to pass the charge onto their employees.

The revenue, estimated at £9 million per year, was invested into expanding Nottingham's tram system and refurbishing the main railway station.[81]

Since the introduction of the workplace parking levy, public transport use has risen by over 40% and carbon emissions have declined by 13%.[82]

The WPL also encouraged some of the businesses to convert their car parks into other uses, effectively unlocking space for development or green and leisure areas.

Fit for purpose

- Precautions need to be taken to avoid relocation of businesses to other areas. Local Businesses must be properly and effectively consulted with before any introduction of a Workplace Parking Levy.
- Any WPL must be introduced together with other parking, public transport and active travel proposals, to limit the displacement of cars from business car parks to surrounding streets.

Requirements

- Establishing and enforcing a Workplace Parking Levy would require collaboration with the local businesses.
- Schemes that the Workplace Parking Levy would fund would need to be identified.
- The Mayor of London's Transport Strategy identifies a Workplace Parking Levy as a low-cost proposal

Alternatives / Consequences of Inaction

- High car mode share
- Congestion
- Poor air quality
- As an alternative or in addition to a Workplace Parking Levy, The Council should ensure a low number of business parking spaces through the development planning process.

[79] Christiansen, P. (et al.) (2017) Parking Facilities and the built environment: Impacts on travel behaviour in Transportation Research Part A: Policy and Practice **https://www.sciencedirect.com/science/article/pii/S0965856416301525**

[80] Hounslow Council (2019) Workplace Parking Levy Consultation Results **https://haveyoursay.hounslow.gov.uk/traffic-and-transport/workplace-parking-levy/**

[81] Centre for Cities (2018) Why a workplace parking levy could help solve cities' transport and congestion problems **https://www.centreforcities.org/blog/workplace-parking-levy-answer-cities-transport-congestion-problems/**

[82] WWF Scotland (2016) International Case Studies for Scotland's Climate Plan: Workplace parking levy, Nottingham, UK **https://www.wwf.org.uk/sites/default/files/2016-12/nottingham%20case%20study%20-%20Workplace%20parking%20levy.pdf**

Proposal R5: Better management of parking

Proposal Description

Better management of on-street car parking is an effective way to encourage people to use healthier and more sustainable modes of transport. This is in recognition that kerbside space is a limited resource, and that on-street car parking has an opportunity cost.

Controlled Parking Zones (CPZs), areas where cars can only be parked in designated bays when displaying a valid permit, can be used to improve air quality: by charging electric vehicles less or exempting them from permit charges people are encouraged to swap more polluting vehicles for electric vehicles. The Council has been doing this since 2015. A similar approach can be taken with pay-and-display public parking. There are already 36 CPZs including sub zones in the borough, one of which applies only on event days. Funds obtained through the issue of permits have to be used to contribute towards improving transport infrastructure. These have mostly been introduced piecemeal in response to immediate pressures on parking: a strategic, borough-wide CPZ strategy could be more effective.

Case Study

A CPZ extension review in Edinburgh found that in areas of uncontrolled on-street parking, an average of 28% of cars parked during the daytime were left there between 8.30 a.m. and 6 p.m.

Surveys were undertaken to see how the employees would change their commuting habits if a CPZ was introduced. Depending on the proposed CPZ size (0.5 mile to 1.5-mile expansion), the number of trips was set to change by:

- Car – 2.8% to 7.9% decrease;
- Walk – 1.3% to 2.3% increase;
- Bus – 1.3 and 5% increase[83].

Fit for purpose

- To be effective, CPZs must be enforced, for example through civil enforcement officers.
- Introduction of a CPZ is likely to displace some of the current users to surrounding areas. This effect would need to be considered and mitigated within 18 months of a CPZ being introduced.
- The affected areas will have to have enough Public Transport capacity to accommodate those who switch from car to Public Transport travel.

Requirements

- Introducing a CPZ is a lengthy process that requires a series of stakeholder consultation and production of Traffic Management Orders before it can be enforced.
- The supply of parking and CPZ permits to residents of new developments should be limited.

Alternatives / Consequences of Inaction

- Congestion
- Residents unable to park
- High car ownership

[83] Rye (et al.) (2007) Expansion of a Controlled Parking Zone (CPZ) and its Influence on Modal Split: The Case of Edinburgh. https://doi.org/10.1080/03081060600585368

Proposal R6: Road User Charging

Proposal Description

Road user charging proposals require payment by certain types of vehicles for using certain parts of the road network. These charges can vary according to type of vehicle, time of day and day of week, as well as distance travelled. They can be used to reduce road trips at congested times, reduce rat running and improve air quality. For example, 25% of traffic on Barnet's roads at peak times is travelling through the borough. By charging non-resident vehicles for deviating from arterial routes, rat running could be reduced.

At the moment there are multiple road user charging proposals in London such as the Congestion Charge and the Ultra Low Emission Zone. The Ultra Low Emission Zone will extend to all areas of Barnet south of the A406 in 2021 for all vehicles, and for buses, coaches and lorries London-wide in 2020. The Council will monitor the impact carefully, particularly on areas just outside the zone. .[84]

Proposals to introduce pay-per-mile charging in London have recently been discussed: such a proposal would replace Vehicle Tax and existing road user charging, the objective of those proposing the scheme is to simplify the system and make it easier to understand and administer. The Council will monitor the progress of such proposals.

Case study

The Congestion Charge was introduced by TfL in the capital's core in 2003. The charge was established to reduce the number of cars passing through Central London. Since the introduction of the charge, traffic has reduced by 27% compared to the baseline conditions – a daily decrease of 80,000 cars.

The Ultra Low Emission Zone charge was introduced in April 2019. It has accelerated the uptake of cleaner vehicles: compliant vehicles, which do not have to pay, increased as a proportion of all vehicles in the zone from 39% in February 2017 to 73% in the first four months of the charge being introduced. The number of older, more polluting vehicles decreased by a third.

Fit for purpose

- Congestion charging should only be introduced in areas that are easily accessible by other modes of transport. If an increase in public transport ridership is expected, the public transport network must have enough spare capacity. It is not suitable for all areas of Barnet today because there are not enough high-quality alternatives to the car and so such a proposal would penalise people for going about their daily lives. If suitable alternatives are in place, such a proposal could significantly reduce road congestion.
- Careful consideration must be given to the road capacity in the surrounding areas. Measures must be taken to limit the negative impact on the displacement zones.
- Any introduction should be delivered in collaboration with TfL and neighbouring boroughs / counties.
- If such a scheme is introduced by TfL or nationally, Barnet must receive a proportion of any funds raised to contribute to transport improvements in the borough.

Requirements

- The set-up and operating costs of a road user charging proposal are likely to be covered by the levied income, though initial investment would be required to set the scheme up.

Alternatives / Consequences of Inaction

- Extending existing road user charging schemes, such as the Ultra Low Emission Zone, is an alternative.
- Poor air quality
- Congestion
- Rat running

[84] Transport for London (2019) Scrappage scheme for vans and minibuses **https://tfl.gov.uk/modes/driving/ultra-low-emission-zone/scrappage-scheme**

Freight and logistics

Vision

Freight will flow efficiently through the borough, enabling the goods and services that the borough and city require to reach their destinations. Negative impacts such as air pollution and collisions will be reduced through journey efficiencies in densely populated areas, fuel changes and road safety improvements, while congestion could be reduced through consolidation.

Overview

Freight and logistics are vital to the functioning of both the borough and, given Barnet's strategic location at the crossroads of the A1, the M1 and the A406, London and the wider region.

The Council have already started time-banded waste collection, with specific areas given specific times for bin collections. This enables optimised routes and timings. However, these waste vehicles form a small part of freight and logistics vehicles, which account for 20% of all traffic in the borough. This is expected to grow: 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 have contributed to the number of LGVs on Barnet's roads increasing by almost 40% since 2011 and are expected to increase further.

More stringent regulation of fuel types and better road design will also mitigate freight's adverse impacts. Because they are heavier, freight and logistics vehicles are often more polluting and more dangerous in collisions than private vehicles. Heavy goods vehicles are responsible for approximately a fifth of the UK's total transport emissions: government policy requires a change of fuel used for freight vehicles to ensure the country meets its climate targets.[85]

Rail freight reduces congestion, is safer and often more environmentally friendly than road freight. However, it is inflexible. Although the Council will continue to explore rail freight options for major sites as it has done at Brent Cross, rail lines are expected to become increasingly busy.

The key objectives for freight in Barnet are to improve journey times and reliability, minimise environmental impacts and ensure the safety of all road users.

Challenges

As freight on Barnet's roads is part of a wider national and international system and is carried largely on roads The Council does not control, The Council's ability to influence it is limited. For example, stringent restrictions on the types of vehicles that enter Barnet are unlikely to be enforceable as freight will need to travel to London and the counties regardless of restrictions. Similarly, even if Network Rail electrified all rail routes in Barnet, freight trains would still need to run on diesel unless the entire national network was electrified. As a result, a key part of The Council's freight policy will require coordination with neighbouring boroughs and national government to ensure fair and enforceable restrictions across the network.

[85] Department for Transport (2017) Transport Investment Strategy: Moving Britain Ahead https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/624993/transport-investment-strategy-print.pdf

Action plan

Table 4.6: Freight action plan

Reference	Proposal	Location	Estimated Cost (total excl. staff costs)	Timing	Potential Funding	Council Role	Key stakeholders
F1	Alternative fuels for freight	Consolidation centre; service stations	£50,000 per charger	2030-2041	OLEV funding, Council resources, private sector	Encourage installation	Service station operators, freight operators
F2	Consolidation	Town centres and areas of dense business and resident agglomeration	£1m - £10m	2020: identify drop and go locker sites 2025: introduce town centre consolidation centres 2030: examine opportunities for major consolidation centre	Private sector	Encourage private investment, potentially subsidise	Future BIDs, freight operators, businesses

Proposal F1: Alternative fuels for freight

Proposal description

The number of light goods vehicles on Barnet's roads is likely to increase. These vehicles benefit Barnet residents through providing the goods and services they require. The composition of the fleet is already changing since the introduction of EURO VI standards, with new vehicles polluting far less than previously.

Electric vans can already offer mileage of up to 80 miles (small vans) or 100 miles (large vans).[86] This is likely to increase as technology improves. Most UK vans drive fewer than 60 miles per day, meaning a conversion of the fleet should eventually be possible.

In combination with other proposals in this Strategy, The Council can help fleet operators to convert to electric vans by installing more rapid charging points and ensuring they are available to commercial vehicles, as well as working with TfL to ensure charging points are available on their roads in the borough.

Fit for purpose

- Charging points should be reasonably close to the Strategic Road Network, allowing vans to charge without deviating too far from their optimised routes.
- Advice should be sought on future-proofing electric charging points to avoid investing in technology that quickly becomes obsolete.

Requirements

- Land must be provided for the charging points
- Power connections must be installed
- Money must be set aside for maintenance and upgrading of electric charging points

Alternatives / Consequences of Inaction

- The switchover from diesel to electric vans will be slower, causing unnecessary air pollution in the borough

[86] LoCity (2018) Alternative Fuels: How to challenge common misconceptions https://fuelfacts.locity.org.uk/wp-content/uploads/2018/09/LoCITY-Alternative-Fuels.pdf

Proposal F2: Consolidation

Proposal Description

Consolidation naturally occurs within freight businesses to enable more efficient distribution and can reduce congestion and emissions in built up areas.

Urban consolidation centres combine multiple freight operators into one facility. Multiple suppliers drop goods at the centre, which are then delivered in mixed loads on vehicles whose routes are optimised. Barnet's location on London's boundary, on the edge of the Ultra Low Emission Zone and at the intersection of major freight routes means it is well located for an urban consolidation centre. The Council will work with TfL and the freight industry to identify opportunities.

Micro-consolidation is similar to an urban consolidation centre but on a smaller scale. For a small area such as a town centre, goods can be delivered and transferred to last mile solutions. This removes goods vehicles from the town centre. The Council could encourage initiatives of this nature in its town centres,

Through the planning process, The Council can mandate that major construction proposals operate construction consolidation centres. These have been shown to improve build times and reduce waste, losses and damages.

Case study

Gnewt Cargo delivered a micro-consolidation trial for the Greater London Authority in 2014-2015. Parcels from Hermes, TNT and DX were delivered to three micro-consolidation centres by diesel vans at off peak times; they were then transferred to Gnewt Cargo's clean vehicles, routes optimised and delivered to customers. The trial resulted in a 48% reduction in vehicle kilometres, helping reduce NO_x, PM and CO_2 by 19%, 19% and 12% respectively.[87] Ongoing financial sustainability is a challenge that needs to be addressed.

Fit for purpose

- Access to Strategic Road Network.
- Storage facilities for a variety of goods.
- Driver amenities such as toilets and rest facilities.
- Well secured.
- Fuelling station.

Requirements

- Land
- Coordination with freight and consolidation centre operators

Alternatives / Consequences of Inaction

- Congestion
- Road safety issues
- Poor air quality

[87] Greater London Authority (2017) Multi-carrier consolidation – Central London trial **https://www.london.gov.uk/sites/default/files/gla-agile1-finalreport-02.05.17.pdf**

Behaviour change

Supporting a change in behaviour will help to support long term changes in the way that people travel. Educating and informing people is key to empowering people to make changes to the way they travel.

Targeted campaigns, training, education, engagement and communications with the general public (and where appropriate specific groups such as children, the elderly or groups who are less likely to use certain types of transport) is key to supporting the successful adoption of new modes of travel and specifically supporting active travel.

There are a number of factors that influence behaviour and so often a package of measures is required to enable effective behaviour change. In addition, activities undertaken and supported by a variety of stakeholders are often most successful and enable a larger audience to be engaged.

The Council is already undertaking some behavioural change activities which are either aimed at everyone or for specific targeted groups. For example, the Council provides free cycle skills training to anyone who lives, works or studies in Barnet and free road safety story and rhyme time for toddlers in some libraries. Safe Drive Stay Alive events are held to inform young people - for new drivers, those about to learn and the passengers of cars driven by their peers[88].

As each proposal within this strategy is considered and progressed, a plan for behaviour change (including communications and engagement activity), including target groups, location (the whole borough or specific locations) and stakeholders who will support the change will be key to the successful rollout of each proposal.

Some example behaviour change campaigns are noted within this section, however specific behaviour change programmes / activities will need to be considered for each proposal.

[88] Safe Drive Stay Alive Event press release (28th November 2019) https://www.barnet.gov.uk/news/road-risks-brought-life-teenagers

Proposal BC1: Overarching behaviour change programme and specific behaviour change activities for each proposal

Proposal Description

In order for the proposals in the sections above to be as effective as possible in changing transport behaviours in the borough, an overarching short and long term comprehensive behaviour change programme will need to be in place.

In addition, each proposal will need a specific behaviour change programme / set of activities which will contribute to the overarching programme.

All behaviour change programmes should consist of:

- Consistent marketing/branding
- General and targeted messages
- Community engagement
- Research, innovation, monitoring, evaluation, review

Case study

As each behaviour change programme / activity will be bespoke, there are a number of examples of case studies which can be considered and learned from.

One example is the learning from the Department for Transport grants programme called the Local Sustainable Transport Fund. The *What works? Learning from the Local Sustainable Transport Fund 2011-2015* report[89] provides an overview of the projects and provides insight from Local Authority practitioners on the successes, challenges and lessons for delivery of future projects.

Requirements

- The cost for each programme and activity will need to be explored in further detail. Initial funding will be required to develop suitable branding, and to identify general and targeted messages. Continued funding would be used to monitor, evaluate, review and implement any further activities. Staffing will be required with suitable training / experience.
- The Council would need to liaise with other transport organisations such as TfL and National Rail, educational charities and local organisations to support the programme.

Alternatives / Consequences of Inaction

- Planned proposals will not be as effective without behaviour change activities and this would be a missed opportunity to raise the profile of transport choices.

[89] What works? Learning from the Local Sustainable Transport Fund 2011-2015 (2016) **http://www.transportforqualityoflife.com/u/files/LSTF-What-Works-Report.pdf**

Proposal BC2: Education, training and publicity - road, travel and personal safety

Proposal Description

In order for people to be able to make transport choices they not only need to be aware of the travel choices and impacts but need to have the skills and confidence to be able to choose from all possible options. Therefore, an extensive education, training and publicity programme for road, travel and personal safety looking at real and perceived issues is essential. This will include general and targeted initiatives.

Case study

Living Streets' Walk to School Campaign works with 750,000 children in 2,000 establishments across the UK, encouraging pupils to walk to school. An outreach program run between 2012 and 2015 in collaboration with over 1000 schools increased walking to school by 26%, with the increase sustained almost in full a year on. The percentage of children travelling to school by car dropped from 39% to 26%. The increase in walking helped make pupils fitter and more alert[90].

Fit for purpose

- Everyone should have the opportunity to gain and develop the skills and confidence to be able to utilise all transport mode options.

Requirements

- Analysis of real and perceived dangers/barriers and needs analysis will need to be undertaken to determine the education, training and publicity requirement.
- The cost for each activity will need to be explored in further detail and experienced road safety and sustainable travel officers will be required for ongoing training.
- The Council would need to liaise with other transport organisations such as TfL and National Rail, educational charities and local organisations to support the activities.

Alternatives / Consequences of Inaction

- Lack of confidence, knowledge and skills will prevent uptake of the proposals and new or alternative modes of travel, reducing their potential.

[90] Living Streets (undated) How to get more children walking to school: A best practice guide by Living Streets https://www.livingstreets.org.uk/media/1393/walk-to-school-outreach-best-practice-report-web.pdf

Proposal BC3: Travel Planning

Proposal Description

Through travel plan programmes the promotion of safer and more sustainable travel can be reach a far broader audience and have a more effective influence on transport behaviour and choices. For example, educational travel plans empower children and young people to not only change their own behaviour now and in the future, but also to influence their families and local communities.

Young people are a crucial target for modal shift/behavioural change campaigns, as attitudes to travel are more easily formed at an early age, increasing future active travel both by embedding active travel habits at a young age and encouraging parents to alter their habits. One in five parents has never considered walking their children to primary school, a number which can be improved by mobility programmes.[91]

Children are likely to travel more than adults – they take 5-6 daily trips, compared to their parents' 2-3 daily trips. They are also likely to travel less by car – access to cars is restricted by age and resources.

Encouraging children to go to school by walking, cycling or scooting instead of going by car could save over 2 million tonnes of CO_2 emissions in the UK, in addition to saving an average of £400 per family. The two contribute to a stronger economy and reduced costs, owing to improved public health.

In combination with Proposal W1: Healthier routes to schools and Proposal W2: Low traffic neighbourhoods, the Council will ensure all school children receive training on active travel possibilities around their schools.

Requiring development travel plans as part of the planning process ensures that not only the hard measures such as new transport links are funded and implemented, but also soft measures such as cycle maintenance sessions and resident welcome packs incorporating initiatives for first occupiers.

- Development travel plans – developments that meet the travel Plan thresholds
- Requirements through the planning process
- Educational and non-educational developments
- Implementation of hard and soft measures including behaviour change and education, publicity and training

Voluntary travel plans – for organisations with planning applications who fall below the travel plan thresholds, the Council should encourage the development and implementation of full travel plans or of travel plan initiatives

Educational voluntary travel plans – for educational establishments such as schools the STARS[92] (Sustainable Travel; Active, Responsible, Safe) initiative (or future equivalent) can be utilised.

Case study

The Whitefield School Youth Traveller Ambassador programme[93] supports participating schools to recruit a team of children from year 7 and 8 whose role it is to encourage more walking and cycling to school, share key road safety messages, promote responsible behaviour on the transport network and give young people the skills and confidence to travel safely and independently. This is supported by TfL and the local borough.

Fit for purpose

- All should enjoy living, working or visiting in an area that supports travel options and encourages active travel. Walking and cycling infrastructure should be plentiful and well maintained, urban realm should feel safe and secure, traffic should not pose a danger, green spaces should be easily accessible.

Requirements

- The cost for each activity will need to be explored in further detail – for example funding will be required for supporting initiatives, events, campaigns for all travel plans and incentives for voluntary travel plans. Funding for networking opportunities and research and training to respond to new innovations and transport changes should also be considered.
- Staffing will be required - Travel Plan Officers along with support from Legal, Transport Planning and Planning Officers to enable:
  - The updating of travel plan thresholds, procedures, guidance and standard documents
  - The monitoring and review of travel plans and linked measures
  - The promotion of required and voluntary travel plans
- The Council would need to liaise with other transport organisations such as TfL and National Rail, educational charities and local organisations to support the activities.

Alternatives / Consequences of Inaction

- Lack of education about active travel can lead to Barnet's residents developing unhealthy travel behaviours, overdependent on private cars.
- While there are few alternatives to educational campaigns, the mobility campaigns and outreach programs could be assisted by static aids – e.g. wayfinding including maps of local area highlighting safer and more sustainable routes to schools and other key locations.
  - Education – for all of the community (can be tailored for specific groups etc)
  - Communication and Campaigns - for all community

[91] Living Streets (undated) How to get more children walking to school: A best practice guide by Living Streets **https://www.livingstreets.org.uk/media/1393/walk-to-school-outreach-best-practice-report-web.pdf**

[92] Transport for London (undated) STARS **https://stars.tfl.gov.uk/**

[93] Whitefield School (undated) Youth Travel Ambassadors **http://www.whitefield.barnet.sch.uk/268/yta-youth-travel-ambassadors**

Table 4.7: Behaviour Change action plan

Reference	Proposal	Location	Estimated Cost (total excl. staff costs)	Timing	Potential Funding	Council Role	Key stakeholders
BC1	Overarching behaviour change programme and specific behaviour change activities for each proposal	Across borough and in specific locations depending on the proposal	£40,000 per year for an overarching programme. Specific proposal activities will vary in cost	2020-2041	Council resources/ TFL/ S106	To lead on the work and if required commission additional resources	Developers, Public Health, Transport providers, Educational establishments other LAs, charities/NCOs, TfL
BC2	Education, training and publicity - road, travel and personal safety	Across the borough, educational establishments	£100,000 per year	2020-2041	Council/ TFL	To lead on the work and if required commission additional resources	Public Health, Transport providers, Educational establishments, other LAs, charities/NCOs, TfL
BC3	Travel Planning	Across the borough – including development sites and schools	£400,000 per year	2020-2041	TFL, S106	To lead on the work and if required commission additional resources	Developers, Public Health, Transport providers, Educational establishments other LAs, charities/NCOs, TfL

Additional Actions

The following actions have also been identified as having potential to fulfil The Council's objectives.

Name	Description	Action	Timescale
Crossrail 2 route	Ensure Crossrail 2 reaches New Southgate, linking with express orbital link	Lobby TfL	2025-2041
West London Orbital	Support TfL's proposals for West London Orbital with two branches in Barnet	Lobby TfL	2020-2035
Reduce through traffic	Investigate potential for park and ride at Scratchwood services and/or additional parking at Hertfordshire Thameslink stations to reduce through traffic in borough	Council investigation and support Hertfordshire	2020-2041
Play Streets	Encourage residents to apply for Play Streets programmes	Council publicise opportunities	2020-2041
Air quality on main roads	Ensure relevant authorities prioritise air quality improvements on major roads	Lobby TfL and Highways England	2020-2041
Ultra Low Emission Zone (ULEZ) extension	To borough boundary	Lobby TfL	2021-2025

5 Delivery Plan

Introduction

This chapter is an overview of delivery practices, funding and financing options and estimated timescales required to deliver these proposals.

The delivery plan shows indicative costs which are subject to feasibility studies being completed, council approval and the funding being available.

Delivery practices

Monitoring, learning and engaging

This strategy is designed to look forward until 2041. There are many uncertainties in that time frame: the maturation and adoption rates of new technologies, the emergence of new technologies that do not yet exist and shifting governmental and public priorities are all factors that cannot be determined now. A key part of the successful implementation of this strategy therefore is a continuous monitoring, review and learning process.

Council evaluation

Targets should be set against transport objectives with proposals which describe what success will look like. Their value for money and effectiveness can then be evaluated using post-evaluation monitoring, which can also draw on statistics gathered by others (such as by TfL). The success of proposals in Barnet will need to be regularly reviewed.

Public engagement

Furthermore, there is scope for greater public involvement in the monitoring of success of proposals. As well as engaging with Councillors as residents' elected representatives, The Council will provide opportunities for residents to provide their feedback and insight on transport in the borough.

Engagement with other Local Authorities

Periodic reviews will not only focus on proposals in Barnet, but also proposals in other London boroughs and neighbouring counties. Cross-borough cooperation through bodies such as TfL and the West London Alliance will enable The Council to learn lessons from piloted proposals in other local authorities and implement cross-boundary schemes such as the Express Bus service.

Delivery timescales

Some proposals are already underway: the footway renewal programme, creation of a cycle network, the provision of cycle parking and amendments to parking standards in the borough have already begun.

Not all proposals are applicable to all areas of Barnet. By 2041, areas such as Colindale and Golders Green are expected to be more densely populated than the current Inner London average; areas such as the Hale and Underhill will remain semi-rural. New developments offer the opportunity to reimagine transport from the planning stage, as well as making money available through the planning system: new proposals are likely to be introduced in these areas first before less dense areas in the north of the borough.

Other proposals take a longer-term view. Road user charging, for example, is in this document as a potential policy but will be dependent on transport in Barnet being very different in the future to the way it is now.

Table 5.1: Overall high level proposal delivery plan

Reference	Proposal	Location	Estimated Cost (total excl. staff costs)	Timing	Potential Funding	Council Role	Key stakeholders
W1	Healthier routes to schools	Considered across the borough	£5,000 - £150,000 per school	2020-2025	TfL LIP allocation & Council	Design, consult and implement	Schools and parents
W2	Low traffic neighbourhoods	Densely populated areas between arterial routes	Dependent on scheme	2020-2025: identify and implement exemplar 2025 - 2041: monitor and expand	TfL LIP allocation, Liveable Neighbourhoods, Council resources, S106	Design, consult and implement. Assemble funding packages	Neighbourhood stakeholders; TfL
W3	Signage and wayfinding	Town centres	Dependent on scheme	2020-2025	TfL LIP allocation & Council, S106, Liveable Neighbourhoods	Design, consult and implement	Town centre stakeholders, TfL
W4	Active route – the Barnet Loop	Barnet Loop	£500,000 - £1m	2020-2025	TfL LIP allocation & Council	Full responsibility	
W5	Investing to improve the footway network	Consider across the whole borough	£2.5 – £4.5 million per year	2020-2041	TfL LIP allocation & Council	Full responsibility	TfL
C1	Cycle parking	Transport gateways, offices, schools and town centres and new residential areas	£100,000 per year	2020-2025: high cycle parking standards for new developments 2025-2030: town centre improvements	TfL LIP allocation, S106, Council resources	Install; support and encourage developers to install	Developers, TfL
C1	Cycle network	Stations, town centres and key destinations	£250,000 per km	2020-2025: provide safe routes to stations 2025-2030: town centres 2030-2035: arterial routes	TfL LIP allocation, Liveable Neighbourhoods	Full responsibility – although close work with TfL and developers would be required depending on the ownership of the road	Developers, TfL
C3	Cycle provision	Densely populated areas and new developments	-	2020-2025: identify private sector partner 2025: review partnership	Private sector	Support and encourage private companies	Private sector providers
C4	Cycle training	Whole borough	£300,000 per year	2020-2041	TfL	Full responsibility	TfL
PT1	Express and orbital bus routes	Linking West London Orbital, both branches of the Northern Line, Great Northern, Piccadilly, Jubilee and potential Crossrail 2 lines	Up to £40m	2020-2022: improve orbital quick wins 2022-2025: continuous bus lanes 2025-2035: Possible segregation	Mayoral CIL, Borough CIL	Develop concepts and work with TfL on feasibility studies	TfL to fund and operate. Council to maintain
PT2	Improving existing bus network	Whole borough	£200,000	2020-2025	LIP allocation, Liveable Neighbourhoods	Encourage and support	TfL
PT3	Improve existing rail and Underground services	Great Northern, Thameslink and Northern Line	-	2020-2030	TfL, rail franchising	Lobby	Franchise holders, London Underground
PT4	On-demand services	Less densely populated areas	-	2025-2030	Liveable Neighbourhoods	Encourage and support	TfL to implement
PT5	Gateways	Key public transport hubs such as tube and train stations	Dependent on scheme	2020-2030	Liveable Neighbourhoods	Encourage and support, part fund, lobby, direct s106	Network Rail, S106, TfL

Reference	Proposal	Location	Estimated Cost (total excl. staff costs)	Timing	Potential Funding	Council Role	Key stakeholders
R1	Car clubs	Whole borough, particularly new development	-	2020-2025	S106	Encourage and support	Developers, car club operators
R2	Electric vehicle charging provision	Whole borough, particularly new development	£4,000 - £40,000 per charger	2020-2025: 200 a year 2025-2030: 500 a year 2030-2040: 1,000 per year	S106, Council resources	Identify appropriate locations; assist with traffic orders; continue to mandate in development	Developers, charging point operators
R3	Road safety improvements	Key junctions	£20m	2020: produce Road Safety Strategy 2021-2041: monitor and implement Road Safety Strategy	TfL Liveable Neighbourhoods, Council resources, LIP	Develop Road Safety Strategy	TfL, police
R4	Workplace parking levy	Whole borough / London-wide	Revenue	2025-2030	-	Design, implement and operate. Advocate for London-wide with TfL and other boroughs	TfL, London boroughs
R5	Better management of parking	Whole borough, particularly town centres	Revenue	2020-2025: restrict new development parking and introduce CPZs 2025-2035: convert bays to car club only 2035-2041: restrict town centre parking	-	Total control	Residents and businesses
R6	Road user charging	London-wide	Revenue	2030-2035	-	Lobby / advocate so that design reflects Barnet's aspirations	TfL
F1	Alternative fuels for freight	Consolidation centre; service stations	£50,000 per charger	2030-2041	OLEV funding, Council resources, private sector	Encourage installation	Service station operators, freight operators
F2	Consolidation	Town centres and areas of dense business and resident agglomeration	£1m - £10m	2020: identify drop and go locker sites 2025: introduce town centre consolidation centres 2030: examine opportunities for major consolidation centre	Private sector	Encourage private investment, potentially subsidise	Future BIDs, freight operators, businesses
BC1	Overarching behaviour change programme and specific behaviour change activities for each proposal	Across borough and in specific locations depending on the proposal	£40,000 per year for an overarching programme. Specific proposal activities will vary in cost	2020-2041	Council resources/ TFL/ S106	To lead on the work and if required commission additional resources	Developers, Public Health, Transport providers, Educational establishments other LAs, charities/NCOs, TfL
BC2	Education, training and publicity - road, travel and personal safety	Across the borough, educational establishments	£100,000 per year	2020-2041	Council/ TFL	To lead on the work and if required commission additional resources	Public Health, Transport providers, Educational establishments, other LAs, charities/NCOs, TfL
BC3	Travel Planning	Across the borough – including development sites and schools	£400,000 per year	2020-2041	TFL, S106	To lead on the work and if required commission additional resources	Developers, Public Health, Transport providers, Educational establishments other LAs, charities/NCOs, TfL

Figure 5.1: Delivery timescales

Reference	Proposal Title	2020	2025	2030	2035	2040	2041
W1	Healthier routes to schools						
W2	Low traffic neighbourhoods						
W3	Signage and wayfinding						
W4	Active route - the Barnet Loop						
W5	Investing to improve the footway network						
C1	Cycle parking						
C2	Cycle network						
C3	Cycle provision						
C4	Cycle training						
PT1	Express and orbital bus routes						
PT2	Improving existing bus network						
PT3	Improve existing rail and Underground services						
PT4	On-demand services						
PT5	Gateways						
R1	Car clubs						
R2	Electric vehicle charging provision						
R3	Road safety improvements						
R4	Workplace parking levy						
R5	Better management of parking						
R6	Road user charging						
F1	Alternative fuels for freight						
F2	Consolidation						
BC1	Overarching behaviour change programme and specific behaviour change activities for each proposal						
BC2	Education, training and publicity - road, travel and personal safety						
BC3	Travel Planning						

Potential funding sources

The Council's budgets alone will not be enough to pay for these proposals. Other potential sources of funding are explained below. The delivery plan shows indicative costs which are subject to feasibility studies being completed, council approval and the funding being available.

TfL Liveable Neighbourhoods Programme[94]

TfL Liveable Neighbourhoods programme has a budget of £139m over the five financial years 2018/19-2022/23. The fund is for proposals between £1m and £10m which contribute to achieving the Mayor of London's target of 80% of all trips being made by walking, cycling or public transport by 2041, creating vibrant streets where local businesses thrive and places for the community to come together and interact.

Local Implementation Plan

Smaller proposals that align with the Local Implementation Plan can also be funded by TfL. To be eligible, proposals must demonstrate how they will help to achieve the targets set by the Mayor of London's Transport Strategy.

Mayoral Community Infrastructure Levy

The Mayor of London's Community Infrastructure Levy funds strategically important infrastructure. It is currently being used to fund Crossrail. To date, it has been assumed that on completion of Crossrail the Community Infrastructure Levy would be used to fund Crossrail 2. If Crossrail 2 does not go ahead, the Community Infrastructure Levy could be used to fund other strategically important transport infrastructure, including in Barnet.

Borough Community Infrastructure Levy

Borough CIL is a levy charged to developers. It is applied on a zonal basis, with different rates charged between and within Local Authority jurisdictions. The local authorities administering and sets the CIL rates. A proportion of Borough CIL could be allocated towards public realm improvements.

Planning Obligations and Developer Contributions (Section 106)

When granting planning permission, The Council can include legally binding commitments to fund improvements to the local area which will benefit the development. These are set by the borough, considering the viability of a proposal.

Tax Increment Funding

Tax increment financing seeks to isolate the uplift in specific tax revenues arising as a result of a transport project. It has been used extensively internationally and for the Northern Line Extension in London and is most applicable in areas with high levels of commercial development. Because it uses already-existing sources of taxation such as business rates or Council tax, neither tax rate increases nor any new taxes are required. However, a baseline business rate income must be established, estimating what business rate income would have been in the area if the proposal had not been built.

Housing Infrastructure Fund

Transport proposals can be funded through the Government's £5.5 billion Housing Infrastructure Fund, provided they unlock housing. The first investment round, providing £759 million to help deliver 200,000 homes across the country, closed in 2018 but Barnet's transport proposals could be eligible for future rounds of funding.

Voluntary Stakeholder Contributions

For proposals that benefit certain stakeholders directly, voluntary contributions can be requested. This method has been used to fund aspects of Crossrail: Canary Wharf Group contributed £150 million to develop the Isle of Dogs station and Berkeley Homes agreed to support the Crossrail station at Woolwich.

[94] Transport for London (2018) **http://content.tfl.gov.uk/tfl-liveable-neighbourhood-guidance.pdf**

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Steer project/proposal number

23369101

Date

December 2019

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Version control/issue number

6.0

Distribution

Barnet Council Steer: EWR, DVS

steer

QUALITY SYSTEM CERTIFICATION DNV·GL ISO 9001:2015

Evidence Base: Barnet Long Term Transport Strategy 2020 - 2041

November 2019

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1 Introduction

Purpose of the Long Term Transport Strategy

The Long Term Transport Strategy (LTTS) is part of Barnet Council's wider strategy to create a prosperous, inclusive and healthy future for the borough. It sets out a vision for transport in Barnet and a roadmap for achieving this vision, supporting other council policies such as the Draft Growth Strategy, the Joint Health and Wellbeing Strategy and the Local Plan.

The LTTS will:

- Articulates the vision for transport in Barnet to 2041;
- Proposes possible proposals to achieve the vision; and
- Provides an evidence base for this strategy.

It sets strategic goals and suggests high level actions, with associated timescales and delivery plans. Further work, such as data collection, detailed design and public consultation, will be required before recommended actions can be implemented.

Policy context

Barnet Council Priorities

The Council's priorities to 2024 are set out in the Council's Corporate Plan. The key priority relating to the LTTS is quoted below.

Keeping the borough moving

It states that delivering this will involve:

- Improving the condition of our roads and pavements
- Encouraging the use of public transport, walking and cycling through the 'healthy streets' approach
- Lobbying for improvements to public transport
- Developing a cycle network to major destinations in the borough without impeding busy and narrow traffic routes
- Promoting and continuing to roll out electric vehicle charging points and car clubs
- Using enforcement to increase compliance and support smooth and safe traffic movement.

The LTTS is aligned with these objectives and seeks to develop them across the longer time frame.

Mayor of London's Transport Strategy

The Mayor of London's Transport Strategy (MTS) (March 2018[1]) sets out the Mayor's vision for transport in London from now to 2041. It articulates how transport can help to achieve wider visions for London, such as the London Plan, the Mayor's Air Quality Strategy and Healthy Streets. The MTS, in combination with Transport for London's (TfL) guidance for boroughs' Local Implementation Plan's, sets specific targets for each borough to achieve the London-wide aims. Table 1.1 outlines Barnet's targets.

To make London a fairer, greener, healthier and more prosperous city, the MTS details how we aim to change the transport mix across London, providing viable and attractive alternatives that will allow Londoners to reduce their dependence on cars.

Mayor of London's Transport Strategy

The MTS's key aims for London that Barnet Council can influence are:

- to achieve an 80% public transport, cycling and walking mode share;
- Vision Zero, meaning no one will be killed or seriously injured (KSI) on London's roads;
- to ensure every Londoner has a healthy level of activity each day through travel, measured by 70% of Londoners doing at least 20 minutes of active travel each day; and
- to ensure that 70% of Londoners live within 400m of the strategic cycle network.

Table 1.1: MTS targets for Barnet

Aim	2016 in Barnet	2041 target for Barnet
Public Transport, cycling and walking mode share	55%	72%
Vision Zero	74 KSI	0 KSI
Proportion of residents doing 20 minutes of active travel	28%	70%
Proportion of residents living within 400m of a strategic cycle network	0%	58%

Achieving these four targets will help to realise the MTS's other objectives, which include improving air quality, reducing traffic, improving accessibility and creating better public realm.

Barnet Council's response

The Barnet Local Implementation Plan (LIP) sets out how the borough aims to address the vision and aims of the MTS. Recently submitted and approved, the LIP details both the long-term (to 2041) and short-term (three-year) transport interventions and priorities to deliver the MTS vision for Barnet.

Although agreeing with the overarching aims of the MTS, the current draft of the LIP outlines the Council's view that the MTS is written from an Inner London perspective and does not fully consider the unique challenges that Barnet faces in achieving the aims. The mode share target is challenging because:

- Barnet Council has no control over key routes through the borough, including the A1, M1, A41 and A406, which are administered by TfL and Highways England. Many cars use these roads to travel through the borough neither starting nor finishing in Barnet, and further limiting the Council's influence;
- Barnet is underserved by orbital public transport routes and there are no current proposals for orbital rail links or higher frequency bus routes through the borough, so car use will continue to be necessary. Car ownership and associated parking provision should not be made more difficult than they need to be.

Purpose and structure of the Evidence Base

A firm evidence base is required to formulate a transport strategy for Barnet looking forward to 2041. To be useful, this evidence base needs to assess the current transport situation in Barnet (Barnet to 2018) and expected changes between now and 2041. This document summarises

[1] GLA (2018) Mayor's Transport Strategy

where and how people travel, as well as who is travelling, before investigating how these are likely to change.

- Who
  - Age, ability, health, gender, level of education, ethnicity and socio-economic characteristics all affect how people use transport networks. Understanding who is using the transport network, both now and in the future, is important to ensure this transport strategy is inclusive and that the borough is accessible to all.
- When, where and why
  - Journey time and journey purpose are key aspects of planning a transport network. Whereas the tube may be very busy during the AM Peak, it can easily handle more trips during the early afternoon. Similarly, although trains travelling to London may be at capacity during the morning peak, those heading out of London are likely to have spare capacity. It is vital to understand where, when and why people travel so that the transport network can be designed to accommodate the trips that people want to make.
- How
  - The mode of transport that people use affects their impact on the transport network. For example, the same number of people cycling requires less space than the same number of people driving. The range of available modes will change between now and 2041, which needs to be considered.

People's travel choices impact the environment, e.g. the impact on air quality and therefore levels of deprivation experienced by residents. This transport strategy therefore considers the impacts within Barnet of travel choices.

2 Barnet to 2019

Who

Summary

The people of Barnet are:

- Numerous, Barnet is the most populous London borough.
- Socio-economically diverse, the borough, although generally wealthy has pockets of deprivation.
- Highly skilled, 50% of Barnet's residents have level 3 or higher qualifications.
- Inactive, Barnet is one of the 10 least active London boroughs, rates of coronary heart disease are 25% higher in Barnet than in London as a whole (2.5% compared to 2%) and just over one in five children in the borough is obese (21%), again higher than the national average (19.8%).

Implications for the LTTS

- Barnet's transport network needs to accommodate significant commuter traffic to employment centres (such as the City of London) and the needs of those whose activities take place substantially within the borough.
- The transport network must be accessible for all people. Good public transport accessibility is critical for ensuring social inclusion and equality of opportunity.
- The strategy should consider how it can improve the health and wellbeing of its residents by encouraging people to travel actively.

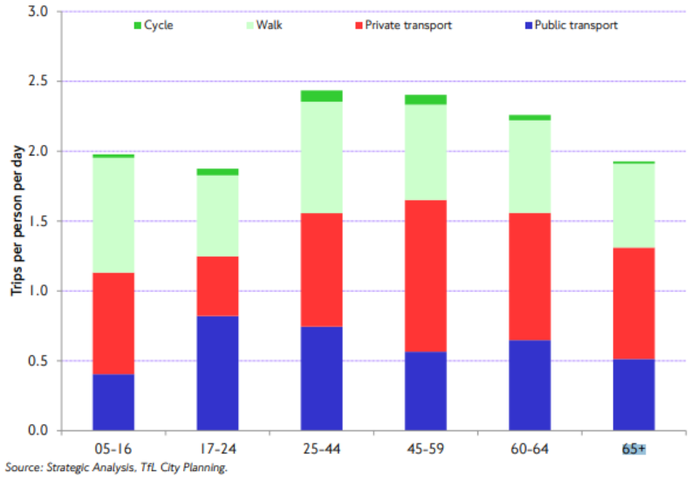
Population size

The larger the population, the greater the strain on the transport network. Barnet's population is 394,400, the largest of all the London boroughs.[2]

Age

People of different ages tend to travel for different purposes and by different modes, as shown in Figure 2.1 (taken from TfL's London Travel Demand Survey summary report). This is corroborated by the Department for Transport's National Travel Survey.

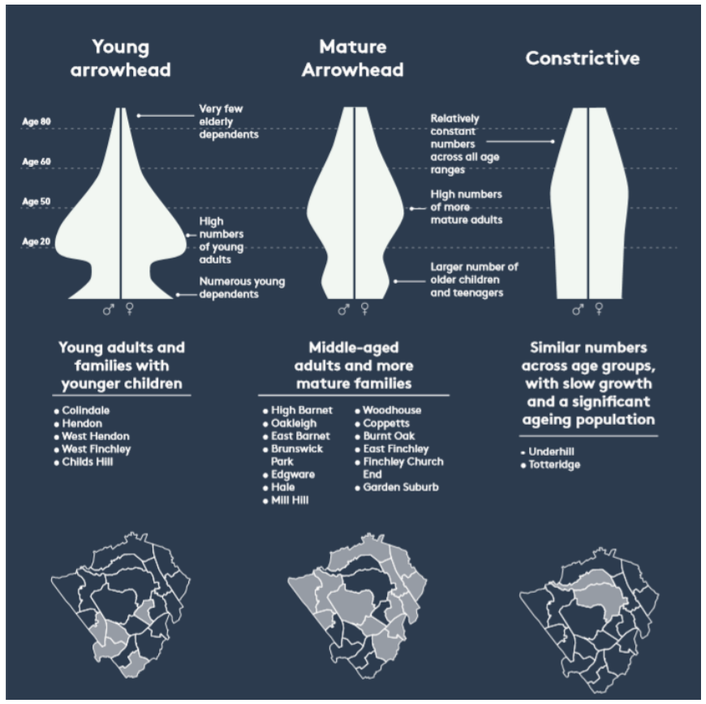
Figure 2.1: Trips by mode and age group, LTDS[3] 2016/2017



Source: Strategic Analysis, TfL City Planning.

Barnet has a higher proportion of residents under 16 (21%) and over 65 (14%) than the London average, meaning more dependants requiring a higher number of escorted trips and having greater accessibility needs[4]. These groups also typically make fewer trips per day than those of working age.

Figure 2.2: Ward population pyramids by age



As shown in Figure 2.2, the wards to the south and west of the borough have younger population profiles, with higher numbers of young adults and young children. Underhill and Totteridge to the north of the borough have a significant ageing population, whilst the remaining (and the majority of) wards are largely made up of middle-aged adults and more mature families.

Health

Transport can significantly impact physical and mental health[5]. It plays a critical role in the accessibility of services and amenities which promote health, the air people breathe, exposure to noise pollution and participation in physical activity.

[2] Barnet Council (undated), Joint Strategic Needs Assessment, Demography. https://www.barnet.gov.uk/jsna-home/demography.html [Accessed 08.11.2018]

[3] Transport for London (2018) London Travel Demand Survey. https://tfl.gov.uk/corporate/about-tfl/how-we-work/planning-for-the-future/consultations-and-surveys/london-travel-demand-survey [Accessed 10.01.2019]

[4] Greater London Authority (undated) http://data.london.gov.uk/demography/ [Accessed 08.11.2018]

[5] Public Health England (2017). Spatial Planning for Health: An Evidence Review https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/729727/spatial_planning_for_health.pdf

Incorporating exercise into daily travel patterns is the most effective way to ensure people achieve 150 minutes of physical activity a week. In the Active Lives Survey (May 2019), Barnet residents were significantly more active than statistical neighbours (Croydon, Ealing, Harrow, Enfield, Hillingdon, Redbridge), with 3 in 4 adults participating in at least 30 minutes of physical activity a week.[6] However, the Chief Medical Officer (CMO) recommends at least 150 minutes of physical activity per week to maximise positive health outcomes and prevent chronic conditions.[7] Just under half of Barnet's residents are failing to achieve this level of physical activity participation[6].

Physical inactivity disproportionately affects specific age cohorts. Although 65 -74 year olds have the lowest levels of participation out of any age group, levels are similar to London and England. Comparatively, the residents aged 35-44 years report the second lowest levels of physical activity participation compared to other age groups. Unlike the older age cohort, this was found to be significantly lower than the national average[6]. In the Healthy Weight survey conducted by Barnet Public Health[8], this age group was most likely to self-report not having enough time as the reason for being inactive. When asked to select what would help them maintain a healthy lifestyle, *more opportunities to walk and cycle as part of my daily routine* was the second most common response after *cheaper healthy food and drink*.

Just as physical inactivity disproportionately impacts particular cohorts of the population, associated health issues are not spread evenly across the population. Life expectancy in the most deprived areas is on average 7.8 years less for women and 7.4 years less for men than those in the least deprived areas, with more deprived areas reporting lower life satisfaction rates too. The average Borough's life expectancy is 85.5 years for women and 82.2 years for men, placing Barnet 6th amongst London boroughs.[9]

Although the direct impacts of different transport modes on mental health are not fully understood, the indirect impacts of physical amenity (caused by traffic, poor street scene, pavement quality), noise pollution (resulting from high volumes of motorised transport and residential areas close to trainlines) and physical activity (as a result of active travel) have all been found to affect mental wellbeing[10]. In addition, transport is a tool which enables people to access the services they need and to connect with the community around them. Therefore, it plays a wider role in neighbourhood cohesion and social capital, further impacting mental wellbeing. In Barnet, the prevalence of depression, intentional self-harm and mental health problems are significantly lower than the London average. Out of 33 London boroughs, Barnet is ranked 16th of 'life satisfaction' and 14th for 'well-being', although both indicators' performance has been declining since 2011.

Older adults are at particular risk of social isolation caused by poor transport infrastructure. Heavy traffic, poor road conditions and poorly positioned signage and lighting are major barriers to city driving for older people. In areas where public transport is insufficient, these barriers can increase the risk of social isolation amongst older adults. While it is important to recognise that driving is sometimes an essential transportation option for older people, older adults should feel safe walking in their neighbourhoods and comfortable navigating the public transport system with ease and in a timely manner[11].

Gender and ethnicity

Gender and ethnicity both have significant impacts on transport habits. Compared to the average male, the average female Londoner makes more trips, is more likely to use a bus or tram and is less likely to use a car[12], and the average Black person in London is almost twice as likely as their white counterpart to use the bus[13].

In 2018, 50.5% of Barnet's population was female, and 49.5% was male.[14] In the 2011 Census, the "White British" population made up the largest ethnic category in Barnet, accounting for 40% of the population. Four wards on the western side of the borough (Burnt Oak, Colindale, Hale and West Hendon) had a higher Black, Asian or Minority Ethnic (BAME) proportion of residents than the London average.[15]

According to the 2011 Census data, 23.4% of the population in Barnet have a main language which is not English. The wards with the highest proportion of people whose main language is not English are in the south and west of the borough (Childs Hill, Colindale, Hendon and West Hendon).

Disability

Having a disability can change a person's transport requirements. The MTS has ambitious targets for mode shift amongst disabled transport users; to facilitate this, TfL is aiming to reduce journey times on the step-free network compared to the full network journey times with the time reduction targets of 50% London-wide, and 64% in Barnet.[16] The LTTS will need to address this issue.

Active travel such as cycling and walking is also important for disabled people: disabled adults are half as likely as non-disabled adults to be physically active, contributing to shorter life expectancies.[17] The LTTS should support active travel for disabled people as much as possible.

The proportion of people who cycle is approximately the same for disabled and non-disabled people (15% compared to 18%) and

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[6] Sport England (May 2019). Active Lives Survey. Sport England data is now live and can be found here*: https://fingertips.phe.org.uk/profile/physical-activity/data#page/0/gid/1938132899/pat/6/par/E12000007/ati/102/are/E09000003*

[7] Department of Health and Social Care (2011). UK Physical Activity Guidelines. Retrieved from, **https://www.gov.uk/government/publications/uk-physical-activity-guidelines**

[8] Barnet Council (2018). Healthy Weight Survey. Retrieved from, **https://engage.barnet.gov.uk/healthy-weight-public-views**

[9] Barnet Council (2018) Joint Strategic Needs Assessment, Health **https://jsna.barnet.gov.uk/4-health** [Accessed on 11.12.2019]

[10] The Centre for Urban Design and Mental Health. (2018). Retrieved from, **https://www.urbandesignmentalhealth.com/how-urban-design-can-impact-mental-health.html**

[11] World Health Organisation (2017). Age-Friendly Cities Framework. Retrieved, **https://extranet.who.int/agefriendlyworld/age-friendly-practices/transportation/**

[12] Transport for London (2017) London Travel Demand Survey, Steer analysis

[13] Transport for London, Bus Users Survey. **http://content.tfl.gov.uk/tfl-bus-users-survey.pdf**

[14] Barnet Council (undated) Joint Strategic Needs Assessment **https://www.barnet.gov.uk/jsna-home/demography.html** [Accessed 08.11.2018]

[15] Greater London Authority (GLA, 2014). Ward Profiles and Atlas based on Census data for % BAME from the Office for National Statistics (2011). **https://data.london.gov.uk/dataset/ward-profiles-and-atlas**

[16] TfL LIP Information to Boroughs, 2018

[17] Sports England (2014) Active People Survey 8 (2013/14), quoted in Public Health England (2014), Everybody Active, Every day **https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/374914/Framework_13.pdf**

infrastructure is the most commonly cited barrier to cycling amongst disabled people.[18]

> There are many different types of cycles out there these days. Hand cycles, recumbent cycles, trikes, side by side bikes and tandems, so most people can get out there on two (or three or four) wheels.
>
> Transport for All[19]

As of 2018, there were an estimated 23,735 adults in Barnet with either a moderate or serious physical disability[20] (6% of the population) and 7,276 with a learning disability (2% of the population). 21% of London's adult population currently have a Disability Discrimination Act (DDA)-classified disability[21]. The definition of DDA disability includes both physical and mental impairment. The LTTS must ensure that transport is accessible and easy to navigate to support independent travel as much as possible.

Dementia

In Barnet, there are 4,266 people (aged 65+) living with dementia. As the population ages, this is set to increase to 7,407 by 2035, a 74% increase from current rates[22]. In the Mayor's Dementia Action Plan (*due to be published Summer 2019*) there are two objectives which pertain to transport:

- People affected by dementia will travel to where they want to go safely
- People affected by dementia will be able to feel confident to visit local high streets and town centres

In order to achieve this, the World Health Organisation recommends the following infrastructure elements for transport[23]:

- Public transportation is reliable and frequent, including at night and on weekends and holidays
- All city areas and services are easily accessible by public transport, with good connections and well-marked routes
- Transport stops and stations are conveniently located, accessible, safe, clean, well-lit and well-marked, with adequate seating and shelter
- Pedestrian crossings are sufficient and safe for people with different levels and types of disability, with non-slip markings, visual and audio cues and adequate crossing times
- Cycle paths are separate from pavements and other pedestrian walkways
- Drivers give way to pedestrians at intersections and pedestrian crossings
- Parking and drop-off spots for people with special needs are available and respected

[18] Wheels for wellbeing (2017) A Guide to Inclusive Cycling. **https://wheelsforwellbeing.org.uk/wp-content/uploads/2017/11/v2-Nov-2017.pdf**

[19] Transport for All (TfA) **http://www.transportforall.org.uk/personal/cycling/** [accessed 15.01.19]

[20] Barnet Council (undated) Joint Strategic Needs Assessment **https://www.barnet.gov.uk/jsna-home/demography.html**

[21] Office for National Statistics (2012) Disability and Mobility Data for London and the Rest of the UK **https://data.london.gov.uk/dataset/disability-and-mobility-london** [Accessed 15.01.19]

[22] Barnet Council (2019). Dementia Needs Assessment. Retrieved from, **https://www.barnet.gov.uk/health-and-wellbeing/health-and-wellbeing-key-documents/barnet-dementia-needs-assessment**

[23] World Health Organisation (2007). **https://www.who.int/ageing/publications/Age_friendly_cities_checklist.pdf**

When, where and why

Summary

- Some areas along the Edgware branch of the Northern Line have similar densities to Inner London; the High Barnet branch is suburban and the centre of the borough semi-rural.
- Barnet is an economically active borough, hosting 10% of all businesses in Outer London and 20% of its road traffic is freight, mostly concentrated on the A406 and A1. Most employees of businesses based in Barnet live within the borough.
- Central London is the most common employment location for Barnet residents.
- Barnet is rich in amenity, with high quality leisure facilities, greenspaces and heritage sites, though access to greenspaces varies across the borough. There are 7 main centres and 8 district centres; Brent Cross is the largest single trip attractor, generating over 12 million trips a year, 4 times higher than the next largest shopping centre in the borough, the Spires.

Implications for the LTTS

- Modal shift measures (encouraging people to use sustainable methods of transport) are more likely to be successful in the denser areas of the borough where good public transport exists.
- The transport network within the borough is vital for Barnet's employees, customers and residents. Radial links to central London are also vital for Barnet's residents.
- Transport should be sensitive to the region's amenity environment. It should enable residents and visitors to reach leisure facilities, greenspaces and historic sites of interest, whilst ensuring transport infrastructure does not damage or diminish them through noise or pollution.

Housing

Density

Housing and population density are key for transport planning: the denser an area, the more viable mass transit becomes. The average population density for Outer London is 4,291 people per square kilometre; for Inner London, this is 11,352 people per square kilometre. As shown in Figure 2.3, wards such as Colindale and Burnt Oak have similar population densities to the Inner London average, whereas wards such as Totteridge and High Barnet have low population densities, even in comparison to the Outer London average. This indicates that Inner London transport solutions, with far lower reliance on private transport, may be appropriate in many of Barnet's wards.

Figure 2.3: Cartogram of population density in Barnet by ward[24]

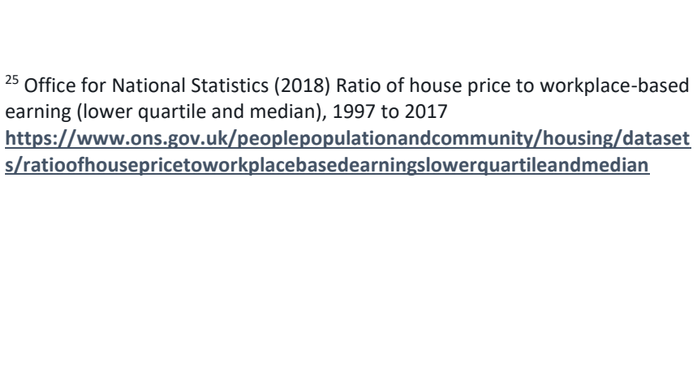
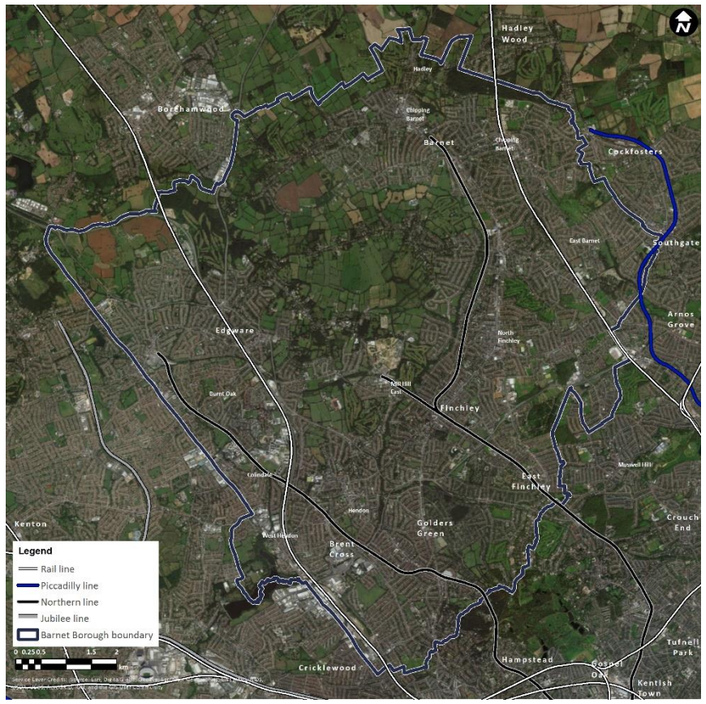


Figure 2.3 also demonstrates the importance of transport in attracting residents and unlocking land for development: the most populous wards are those with direct access to the Northern Line. Cockfosters, Arnos Grove and Southgate on the Piccadilly line also impact development in the east of the borough.

Figure 2.4 shows the green space in the centre of the borough, compared to the dense development along the Edgware branch and medium-dense development along the High Barnet branch of the Northern Line.

Figure 2.4: Aerial view of Barnet



Affordability

Good transport links enable denser development, increasing the housing supply Figure 2.5 shows the ratio of house price to the median wage in Barnet and neighbouring North London boroughs. The ratio has been steadily increasing, indicating house prices rising faster than wages are: the median house price in Barnet rose 8% in the year ending March 2018 and has risen 79% in the last decade[25]. Although we recognise that this may now be moderating with the median house prices in Barnet decreasing since March 2018.[26]

Of the comparable boroughs, Barnet is approximately level with Brent and Harrow, however it is far higher than London as a whole. The planning system permits denser levels of development, and therefore

[24] Office for National Statistics (2019) Median house prices for administrative geographies https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepricefornationalandsubnationalgeographiesquarterlyrollingyearhpssadataset09

[25] Office for National Statistics (2018) Ratio of house price to workplace-based earning (lower quartile and median), 1997 to 2017 **https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/ratioofhousepricetoworkplacebasedearningslowerquartileandmedian**

[26] Office for National Statistics (2019) Median house prices for administrative geographies https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepricefornationalandsubnationalgeographiesquarterlyrollingyearhpssadataset09

more housing supply, if development sites have higher public transport accessibility. This means improving transport links and therefore improving Public Transport Accessibility Levels (PTAL) are a key method of unlocking viable development sites, and potentially providing new, affordable homes.

Figure 2.6 shows median house prices in the borough by ward, with Garden Suburb having the highest median price and Burnt Oak the lowest.

Figure 2.5: House price to median wage ratio in Barnet and neighbouring boroughs

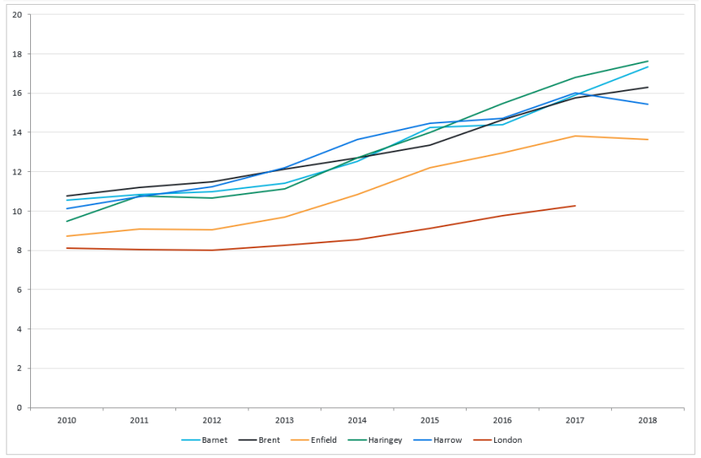
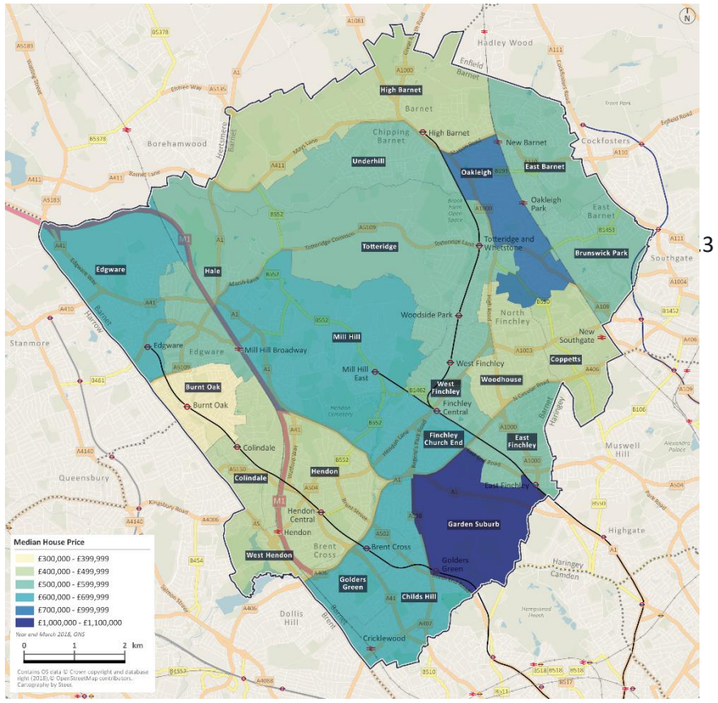


Figure 2.6: Median house prices in Barnet by ward (2018)



Economy and commuting

Sectors

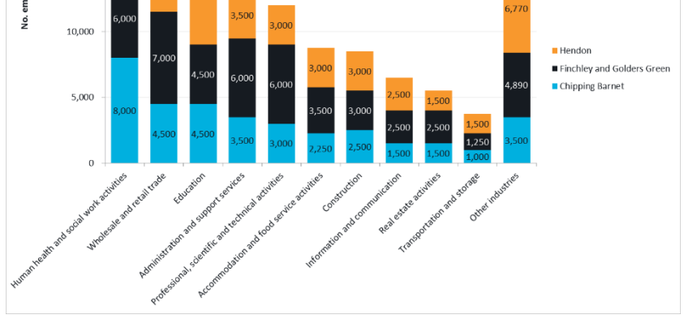
2.2 Transport plays a key role in the success of local businesses, providing access to employees, goods and markets. As of 2015, there were 26,190 active businesses operating in Barnet, 10% of all active businesses in Outer London and 5% across London as a whole.[27] Table 2.1 compares Barnet to its neighbours, showing more businesses per capita in Barnet.

Table 2.1: Comparison of active businesses with neighbouring boroughs

Borough	% of the population of London	% of active businesses of London
Barnet	4.4	4.8
Brent	3.8	2.9
Harrow	2.9	2.8
Haringey	3.1	2.3

The types of employment and businesses affect the transport requirements and strain placed on the network. As shown in Figure 2.7, health and social work, wholesale and retail trade and education are the largest employers across Barnet's three parliamentary constituencies, accounting for 45% of all jobs in the borough. None of these are transport intensive sectors, such as construction and transportation and storage.

Figure 2.7: Number of employees in each constituency by industry[28]



Education and skills

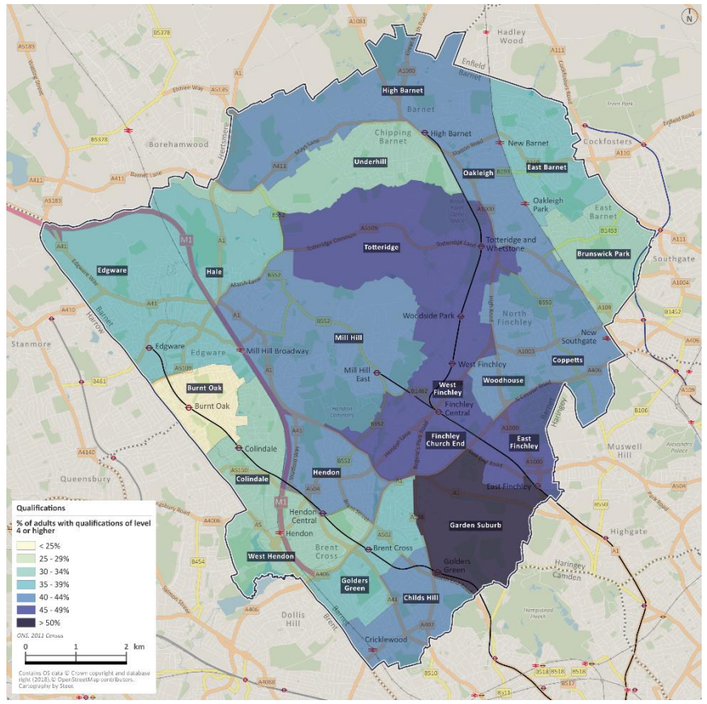
Education and skills indicate the types of jobs that people are qualified for. Where there is a discrepancy in the skill levels of the population and jobs available, people often commute to find jobs more suited to their level of education.

[27] Greater London Authority (2018) Borough Profiles
https://data.london.gov.uk/dataset/london-borough-profiles

[28] Office for National Statistics (2017) Business Register and Employment Survey, Steer Analysis

Figure 2.8 shows the qualifications and skills in the different wards of Barnet, whilst Figure 2.9 shows the qualifications and skills for the Northern London boroughs.

Figure 2.8: Qualification level by ward[29]



As shown in Figure 2.8 the qualification levels throughout the borough are varied, with Burnt Oak having the lowest percentage of adults with qualifications of Level 4 or higher, and Garden Suburb having the highest.

Figure 2.9: Qualifications by borough[30]

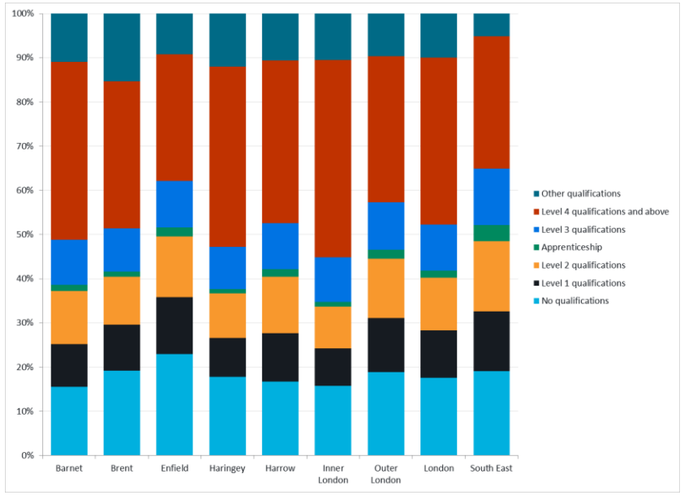


Figure 2.9 shows that Barnet is one of the most educationally qualified borough of its immediate outer London neighbours. 40% of Barnet residents have Level 4 qualifications or higher, compared to 33% in Brent, 29% in Enfield, 41% in Haringey and 37% in Harrow. Barnet also has the lowest proportion of people without any qualifications in all of London at 16%. This compares to 19%, 23%, 19% and 17% in Brent, Enfield, Haringey and Harrow respectively.

In 2018, 95.5% of pupils in Barnet attended a 'good' or 'outstanding' school according to Ofsted ratings[31] and 67% of children received 5 or more A*-C grades at GCSE.[32]

Commuting

40% of jobs in Barnet are performed by Barnet residents. The surrounding local authorities of Harrow, Brent, Enfield, Hertsmere and Haringey account for 4-8% of Barnet's employees each; no other local authority provides over 2.5%[33]. These figures highlight that orbital, local transport links within Barnet and to its neighbouring local authorities are vital for Barnet's workforce and therefore its economy, as shown in Figure 2.10. More information on travel time catchments is included in the appendix.

Figure 2.10: Place of residence of people who work in Barnet

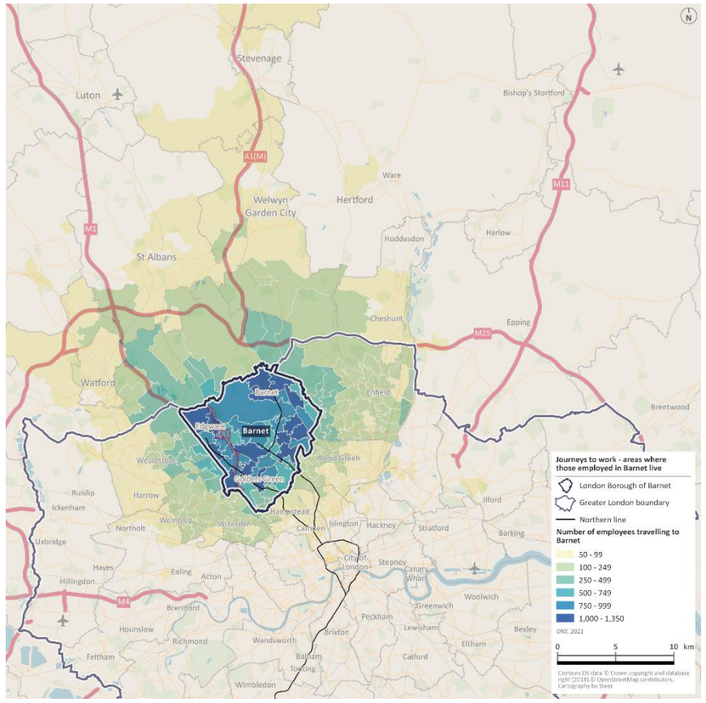


Figure 2.11 shows that radial connections into London are vital for Barnet's residents, as their centres of employment are largely in Central London: the 2011 Census showed more Barnet residents worked in Westminster, the City and Camden than in Barnet. The Northern Line, which runs through each of these three local authorities, is therefore extremely important for commuters, as well as the Thameslink and Great Northern services and the Piccadilly Line which runs close to the borough boundary.

[29] Office for National Statistics (2011) Census, Steer Analysis

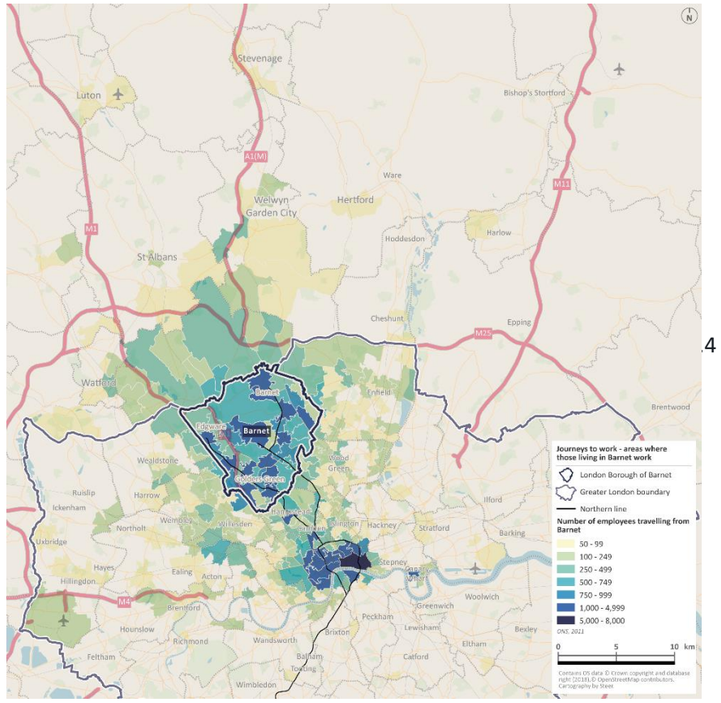
[30] Office for National Statistics (2011) Census, Steer Analysis

[31] Barnet Council (undated) **https://www.barnet.gov.uk/citizen-home/schools-and-education.html**

[32] Greater London Authority (2019) **https://data.london.gov.uk/dataset/gcse-results-by-borough**, Steer Analysis

[33] Office for National Statistics (2011) Census, Steer Analysis

Figure 2.11: Place of work of Barnet residents



Education

Over 92% of primary school children resident in Barnet attend schools within the borough, with only 8% of children travelling outside of the borough to attend primary school.[34] 76.6% of secondary school children in Barnet attend a school within the borough, and 21.7% of children attend schools within Barnet are resident in another London borough.[35] Travel to school, particularly for secondary school children is more dependent on orbital routes, rather than radial, to travel between neighbouring boroughs.

The Council promotes sustainable methods of travelling to school and encourages schools to develop a School Travel Plan (STP). The TfL Sustainable Travel: Active, Responsible, Safe (STARS) accreditation scheme aims to inspire school children and parents to travel sustainably. Of the 173 schools in Barnet, 63 are not engaged with the TfL STARS initiative in any way.[36]

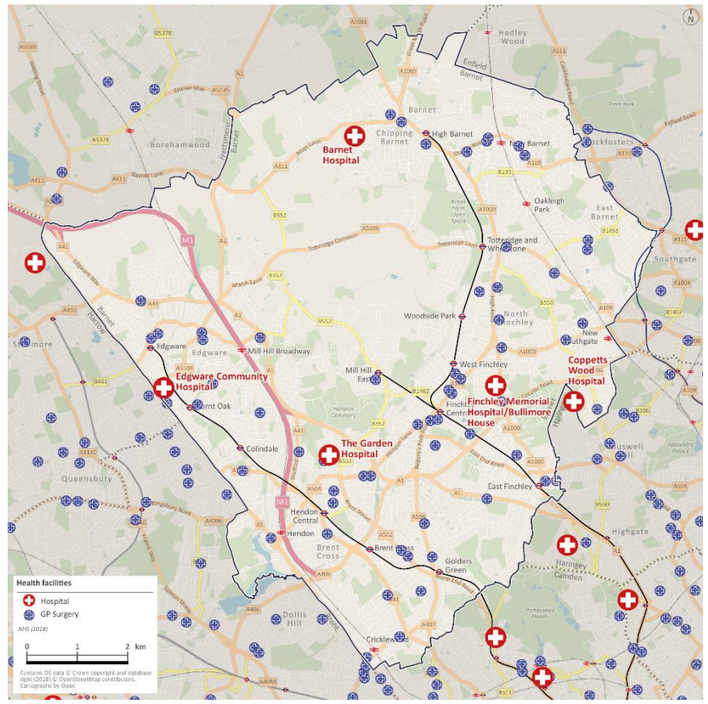
Barnet has two colleges for pupils aged 16-19, Woodhouse College in North Finchley and Barnet and Southgate College, one of the largest colleges in North London. Barnet and Southgate College has five campuses and over 13,000 students, with three campuses located in Barnet.

Middlesex University, with 18,000 students and close to 2,000 staff, is headquartered in Hendon.

Health

Figure 2.12 displays key health centres within Barnet and close to the borough's boundary. Barnet Hospital is the only district general hospital; the Garden Hospital is a private hospital and Edgware Community Hospital and Finchley Memorial Hospital are both Community hospitals, without Accident and Emergency Departments. The Royal Free Hospital located the London Borough of Camden, just beyond its border with Barnet is frequently used by Barnet's residents. There are limited parking facilities and staff, patients and visitors are recommended to use public transport instead of cars.

Figure 2.12: Key health centres in Barnet



2.5 .4

2.6 Barnet Hospital is part of the Royal Free London trust, which in 2015/16 received more than 1.6 million patients per year and employs 10,000 staff across three sites[37].

Journey Time Comparison

Table 2.2 compares maximum journey times from homes (the centre of Lower Super Output Areas[38]) to their nearest key services by the modes listed (at average speed). Public transport journey time includes walking. Maps are presented in Appendix A. The LTTS should seek to improve public transport journey times without unduly prejudicing car journey times. The short cycle journey times show that it is possible to cycle many of the journeys in Barnet and that it is not the distance or journey time that is preventing Barnet residents' cycling.

[34] Greater London Authority (2013) Cross Border mobility of primary school age children **https://data.london.gov.uk/dataset/cross-border-mobility-primary-school-age-children-london**

[35] Ibid.

[36] Transport for London (undated) STARS London Borough of Barnet Partner Page. **https://stars.tfl.gov.uk/Partner/16**

[37] NHS (2016) Annual Public Health Report 2015/16, Royal Free London NHS Foundation Trust **https://www.royalfree.nhs.uk/about-us/public-health/**

[38] Lower layer Super Output Areas (LSOAs) are geographical areas designated by the Office for National Statistics. They contain between 1,000 and 3,000 inhabitants and between 400 and 1200 households. Barnet is divided into 211 LSOAs.

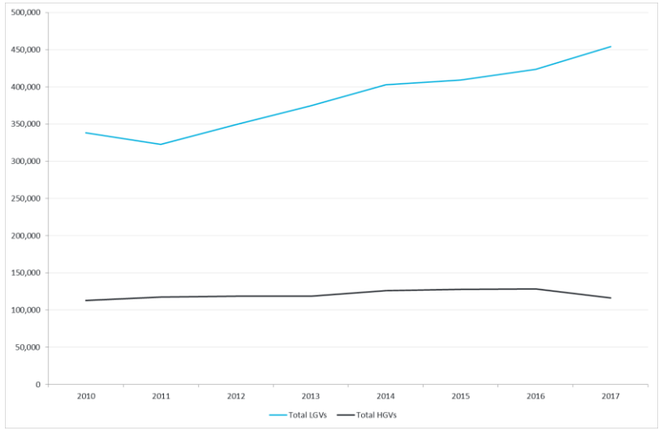
Table 2.2: Journey time comparison to key services[39]

Key destinations	Max. Public Transport Journey (mins)	Max. Cycle Journey (mins)	Max. Car Journey (mins)
Employment centre with over 100 jobs	21	12	10
Food store	20	13	11
GP surgery	19	14	13
Hospitals	42	34	25
Primary schools	20	12	10
Secondary schools	25	17	13
Town Centres	21	15	14

Freight

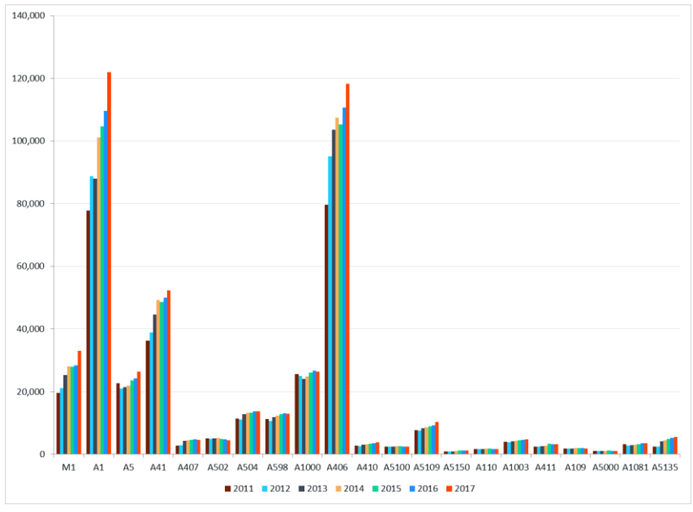
Freight accounts for a large proportion of traffic on London's roads; light goods vehicles (LGVs) and heavy goods vehicles (HGVs) account for approximately 20% of traffic on London's roads and 19% of traffic on Barnet's roads.[40] The number of freight trips has been growing since the 1970s and whilst HGV trips have stayed relatively constant, LGV trips have increased since 2011 with the advent of home deliveries. (As shown in Figure 2.13).

Figure 2.13: Average annual daily flow counts on Barnet's roads of HGVs and LGVs[41]



The vast majority of freight trips on Barnet's roads use the A406 and the A1, as shown on Figure 2.14.

Figure 2.14: Average annual daily flows of LGVs and HGVs on Barnet's roads[42]



Leisure

By far the largest leisure trip attraction in Barnet is the Brent Cross Shopping Centre. 12.5[43] million people a year visit its 120 shops. Built in 1976, the Centre has 8,000 free car parking spaces. The 2014 planning permitted application, which sought an extension of Brent Cross, planned for a shift in mode shares, stating that during phase one of the extension car mode shares would be 65% of all trips, but by the final phase, car mode shares would drop to 34% of all trips[44]. In this scenario bus and rail mode shares were expected to increase to compensate for the reduction in vehicle trips. The current Public Transport Accessibility Level (PTAL) for Brent Cross Shopping Centre and Brent Cross Station is 5/6a, indicating it is easy to access by public transport.[45]

In contrast, the Spires shopping centre in Chipping Barnet has a PTAL rating of 3. Despite being less accessible by public transport than Brent Cross, customers have to pay for parking: the vehicle trip rate is

[39] Department for Transport (2016) Table JTS0501-0508 https://www.gov.uk/government/statistical-data-sets/journey-time-statistics-data-tables-jts#journey-times-to-key-services-by-local-authority-jts05

[40] Transport for London (2018) Mayor's Transport Strategy p79; Department for Transport (2018) Average Annual Daily Flow, Steer Analysis

[41] Department for Transport (2018) Average Annual Daily Flow

[42] Department for Transport (2018) Barnet Traffic Profile for 2000 to 2017

[43] Hammerson (undated) Brent Cross profile https://www.hammerson.com/property/shopping-centres/brent-cross/

[44] Brent Cross Cricklewood (2014) Transport Matrix and Transport Report Schedule

[45] Public Transport Accessibility Level (PTAL) is a Transport for London metric which rates locations by their distance from frequent public transport services. Scores range from 0 to 6b, with 0 indicating very poor access to public transport, and 6b indicating excellent access to public transport. It is accessed via https://tfl.gov.uk/info-for/urban-planning-and-construction/planning-with-webcat/webcat

estimated at approximately 8% of the visitor trip rate, meaning the centre's 3.2 million annual visitors generate 25,000 car trips a year. [46] [47]

The borough has seven main town centres and eight district centres.[48] The majority of these retail centres align with the branches of the Northern Line or Thameslink. Eleven of the centres have a PTAL of 4 or above.

Transport in these locations are important. For example, in 2018, the Council published a supplementary planning document (SPD) focussed on the revitalisation of North Finchley town centre, one of the aims of which is to create a plan that maximises existing and future movement opportunities, including links to nearby stations, the bus network and pedestrian and cycle connections.

Table 2.3 shows the public transport stations and stops that are located within a 400m radius of the retail centres.

Table 2.3: Total number of stops/stations located within 400m from the retail centre

Retail Centre	Bus stops	Underground Stations	National Rail Stations	Public Transport Accessibility Level (PTAL)
Edgware	31	1	0	6a
Brent Street	19	0	0	3
Chipping Barnet	29	1	0	5
Church End, Finchley	26	2	0	4
East Finchley	20	1	0	4
Golders Green	30	1	0	6a
Hendon central	21	1	0	5
Mill Hill	25	0	1	4
New Barnet	12	0	1	4
North Finchley	27	0	0	4
Temple Fortune	16	0	0	2
Whetstone	22	1	0	4
Colindale/The Hyde	15	0	0	2
Cricklewood	37	0	1	5
Burnt Oak	33	1	0	4

According to the 2017 report on Town Centres Floorspace Needs, Barnet's town districts have an average vacancy rate of 6.8%[49], slightly higher than the Outer London average of 6%.[50] Ensuring customers can reach shops easily, reliably and conveniently can boost sales and improve the retail vacancy rate.

Saracens Rugby Club plays its home matches at Copthall Park in Barnet. Opened with a capacity of 10,000 following renovation in 2013, it was expanded in 2017 to 15,000. However, marquee home games are played outside the borough at Twickenham in south west London.

During home matches, a wide controlled parking zone is in operation and the club provides free shuttle buses from Mill Hill East and Edgware underground stations, as well as club coach services. Off-street parking is provided at a number of local schools. These measures, and the proximity of Copthall Park to the M1 and A1 mean the impact on the local area is minimised.

The Royal Air Force (RAF) Museum is located east of the M1 near the Colindale police station and receives 345,000 visitors a year.

Greenspaces

Defining features of Barnet are the semi-rural centre and prevalence of parks. Barnet has a great collection of parks and open spaces and these are an important part of what makes Barnet a green and family friendly borough. People who live and work in Barnet enjoy access to formal parks and gardens, wild landscapes, extensive areas of greenbelt and leafy river valleys. Barnet's parks are places where people can take part in formal sport, visit a park café, take the kids to the playground or just walk the dog.[51]

However, greenspaces are not evenly distributed and the LTTS should examine how access to these areas can be improved for all residents. Although almost 10% of the borough is public open space[52], only 34% of households in the borough are within a 400m walk of open space.

Policy 8 of the MTS aims to protect and enhance the natural environment, stating that any transport schemes should protect green infrastructure where possible, and re-create it if not possible. The Barnet Parks and Open Spaces Strategy[53] acknowledges the economic, social and environmental benefits of greenspaces, and states that a number of new policies will be developed, including:

- Establishing new green links to connect parks together
- Using parks to limit the impact of climate change
- Using parks to promote healthy lifestyles and wellbeing
- Making parks more accessible for schools

[46] The Spires (undated) About the Spires **https://www.thespiresbarnet.co.uk/about-us/**

[47] Campbell Reith (2016) The Spires Shopping Centre, Barnet: Proposed MSU and Restaurants

[49] London Borough of Barnet (2017) Town Centres Floorspace Needs Assessment https://www.barnet.gov.uk/sites/default/files/tcfna_report_dec_17.pdf

[50] Greater London Authority (2018) 2017 London Town Centre Health Check **https://data.london.gov.uk/dataset/2013-london-town-centre-health-check-analysis-report**

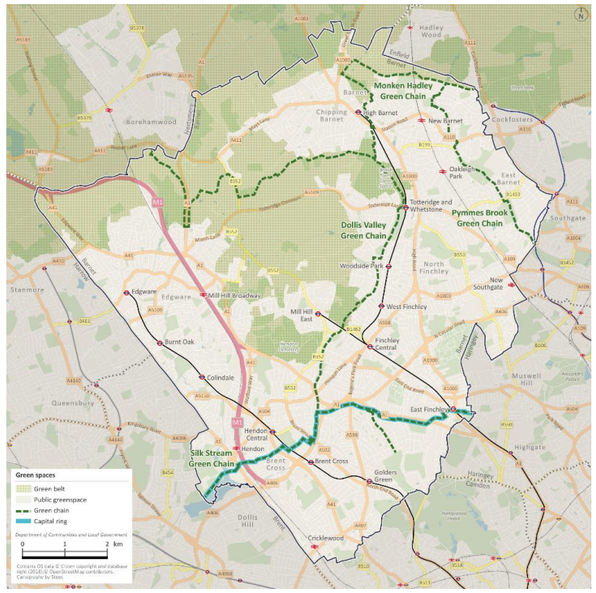
[51] Barnet Council (2016) Parks and Open Spaces: Our Strategy for Barnet 2016-2026

[52] "Greenspace" includes parks, playgrounds, sports sites, natural and semi-natural greenspaces and other miscellaneous sites but not schools, private sports clubs and cemeteries, SLOAP (sites left over after planning), verges, private gardens and private areas of Green Belt and Metropolitan Open Land.

[53] Barnet Council (undated) Parks and Open Spaces, Our Strategy for Barnet 2016-2026.

2.7 Figure 2.15 shows the location of the greenspaces in the borough.

Figure 2.15: Greenspaces in the borough



How

Summary

- Approximately a third of Barnet residents do not have access to a car; this figure is much higher in the West of the borough, peaking at over 40% in Childs Hill and Burnt Oak. Car ownership levels have fallen consistently since 2008. Despite this, of all London boroughs Barnet has the second highest car ownership levels per household and 42% of journeys to work made by Barnet residents use car as the main mode. In the northern and more rural wards over 50% of journeys to work are made by car. A quarter of peak hour trips on Barnet's roads are made by through traffic, contributing to the A406 from Finchley Road to Colney Hatch Lane being the fifth worst road in the UK for traffic congestion.
- Although decreasing, Barnet's roads still see more road traffic casualties than neighbouring boroughs. 20% of these casualties within the borough occur on roads not under the Council's authority, such as the M1, A1 and A406.
- Air quality is particularly bad in the densely populated west of the borough and along the North Circular. Modelled data relating to 2016 (released by TfL in July 2019) shows that twelve schools in Barnet breached legal air quality limits.[54] Barnet also has one of the largest carbon footprints per head of population in London.
- Of the 13 Underground stations in Barnet, 5 have step-free access from street to train and 2 from street to platform. The ten most popular destinations for Underground trips originating in Barnet are all in Central London, reflecting the Underground's primary function for Barnet residents as a method of commuting.
- Despite excellent Thameslink and Great Northern train services to central London, only in four wards do 10% residents use the rail network to get to work, with the highest uptake of rail travel around Mill Hill Broadway (Thameslink), New Southgate, Oakleigh Park and New Barnet (Great Northern).
- 62% of Barnet residents live within a 1200m (approx. 15 minute) walk of a rail or underground station.
- 97% of Barnet residents live within a five-minute walk of a bus stop and 91% of bus stops are accessible. Despite bus patronage falling across London, routes that serve Barnet have seen a 9% increase since 2010. Route 13, 112, 113 and 186 have seen patronage increase by over 40%. Buses average 10.7 miles an hour in the Borough, higher than the Outer London average of 10.4 and the Inner London average of 8.1 mph.[55]
- Although 66% of all journeys are less than five miles, cycling accounts for under 1% of all trips. Every resident of Barnet lives within a 20-minute cycle of a train or underground station.

Implications for the LTTS

- Road casualty figures, air quality and congestion in the borough can all benefit from modal shift.
- Northern Line access to central London is vital for commuting purposes. Barnet also has excellent yet used by few of Barnet's residents Great Northern and Thameslink services.
- Barriers to walking and cycling, which are not distance-related, need to be addressed.

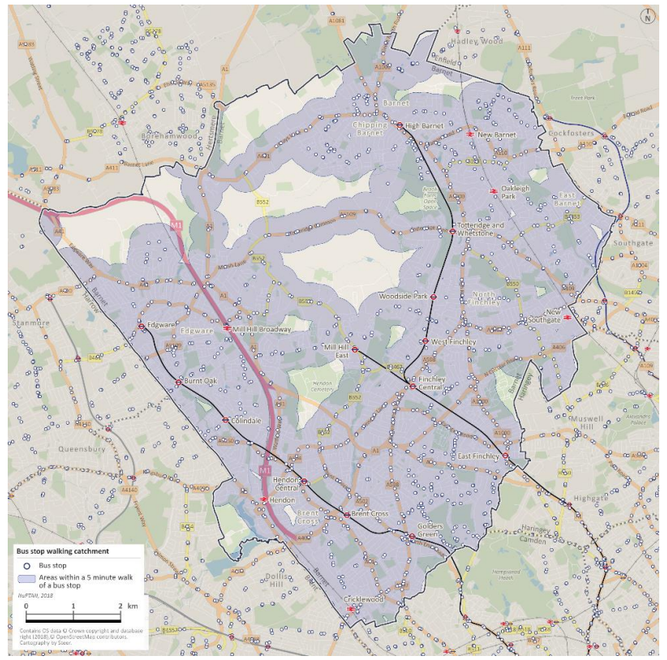
Multi-modal

Multi-modal travel refers to using two or more methods of transport for one trip, such as walking or cycling to a train station. Figure 2.16, Figure 2.17 and Figure 2.18 all convey information on the current opportunities for multi-modal transport in Barnet.

Figure 2.16 shows the areas in the borough which are within a 5-minute walk of a bus stop. This figure shows that the majority of areas in the borough (excluding greenspaces) are located within a five-minute walk of a bus stop, including 97% of residents' homes. However, this masks variation in the quality of the bus service at each bus stop, such as frequency, reliability and destinations served.

Figure 2.17 indicates the areas in the borough which are within walking distance of train and underground stations. Although covering far less of the geographic area of Barnet, 62% of Barnet's residents live within 1200m of a rail or underground station, which is approximately a 15-minute walk.

Figure 2.16: Areas within 5-minute walk of bus stops



[54] Greater London Authority (2019) 2016 London Atmospheric Emissions Inventory (supplied by the GLA)

[55] Transport for London (2019) Bus speeds reports https://tfl.gov.uk/cdn/static/cms/documents/borough-all-bus-speeds-to-p05-2019.xlsx

Figure 2.17: Areas within walking distance of train and underground stations

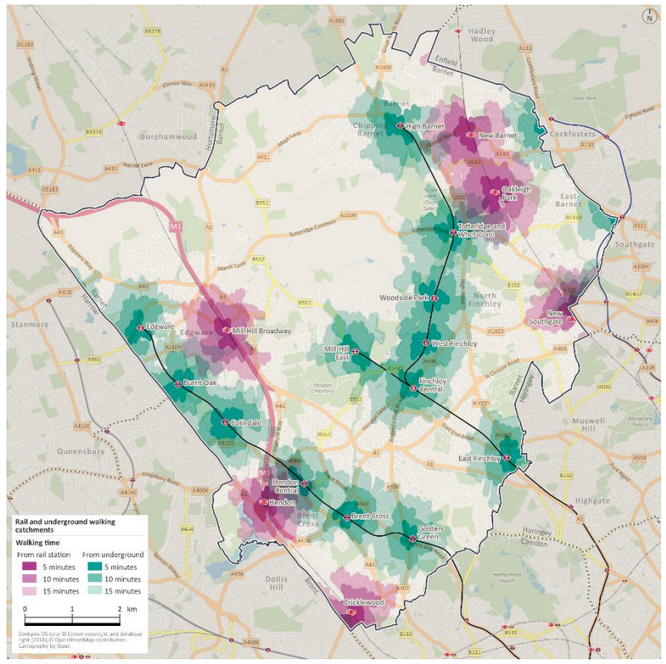
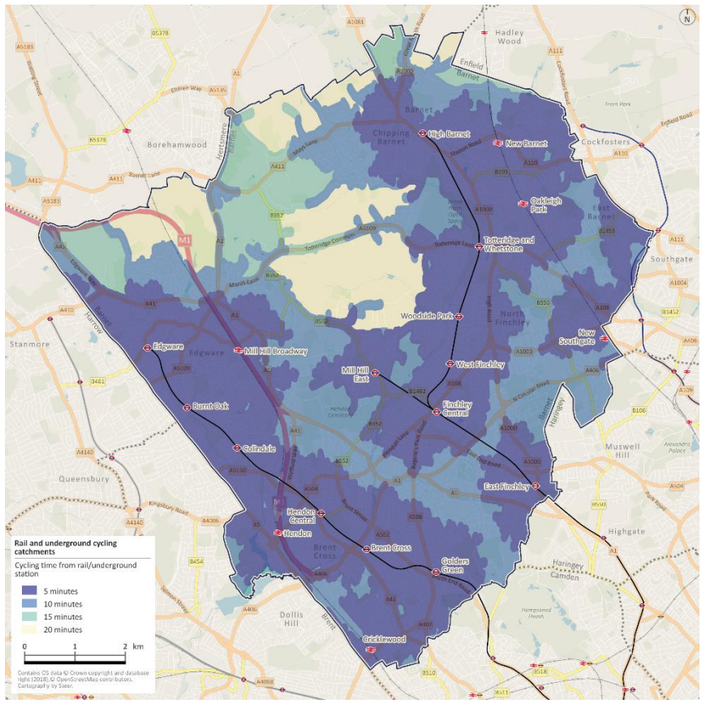


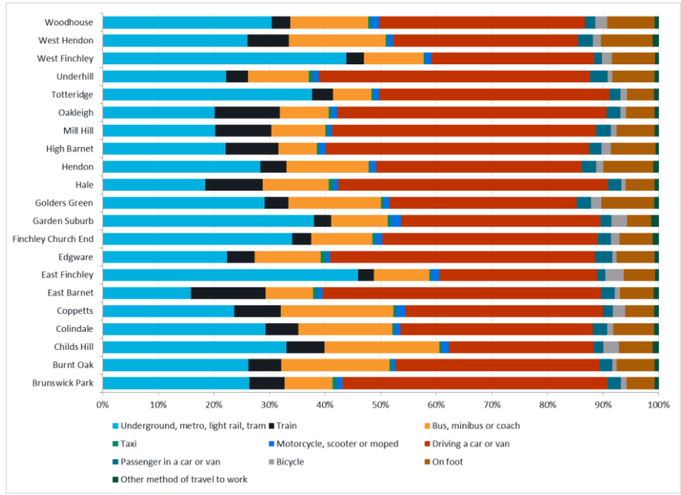
Figure 2.18: Areas within cycle catchments of underground and rail stations



2.8 The cycle catchments to underground and rail stations are shown in Figure 2.18. This shows that that every part of the borough is within a 20-minute cycle catchment of an underground and rail station. This provides an excellent opportunity for multi-modal transport via bicycle, but would be dependent on both cycle infrastructure on the roads and cycle facilities (such as secure parking) at the stations. More information on cycling in the borough is below.

2.9 As shown in Figure 2.19, the largest mode share for travel to work in Barnet is driving a car or van. In some wards, such as West Finchley and East Finchley, travel by underground, metro, light rail or tram is the most common method of travel to work.[56] There is also variation amongst the wards. For example, travel by bus in Child's Hill makes up approximately 20.7% of all travel to work journeys, and in High Barnet it only makes up 6.9%. The proportion of people cycling as a mode of travelling to work in Barnet is generally very low.

Figure 2.19: Travel to work mode share in Barnet wards (2011 Census)



The private vehicle mode share for all journeys in Barnet is 42%. This places Barnet in the middle of its neighbouring boroughs, as shown in Table 2.4.

Table 2.4: Vehicle mode share by borough[57]

Borough	Private vehicle Mode Share
Harrow	47%
Enfield	47%
Barnet	42%
Brent	31%
Haringey	21%

Bus mode shares are higher in Haringey and Brent when compared to Barnet, and cycle mode share is considerably higher in Haringey (8%) when compared with Barnet (2%[58]).

Walking

Sport England figures from 2014/15 indicate that only 16% of the population in Barnet walk for at least 30 minutes once a week, figure that has decreased since 2012/13. Boroughs such as Harrow and Brent have similar levels of walking activity[59].

[56] Underground, metro, light rail or tram is the Census classification. In this context, it means Underground.

[57] Office for National Statistics (2018) QS701EW - Method of travel to work https://www.nomisweb.co.uk/census/2011/qs701ew

[58] Ibid.

[59] Sport England (2018) Department for Transport Statistics, Walking and cycling Statistics. http://www.dft.gov.uk/statistics/series/walking-and-cycling/

TfL Walking Action Plan (2018) found that 21% of Londoners believed that too much vehicle traffic is a barrier to walking and 14% reported that the streets are not pedestrian-friendly because of the speed of traffic. 24% of respondents said they did not have time to walk. These barriers to walking can be addressed through urban planning: mixed-use developments ensure amenities are a short walk away, and improve the pedestrian environment through curbing the amount, speed and proximity of traffic.

Crime levels and the perception of safety can impact the number of people choosing to walk. In Barnet, 96% residents feel safe during day, 76% at night. These high percentages mean perceptions of safety are unlikely to be the reason for low walking rates amongst Barnet residents.[60]

Barnet provides 'Active trails' which are pre-plotted routes of 1k, 2.5k or 5k which can be walked, run or cycled at your own pace - all for free. Active trails supports the Mayor of Barnet's Golden Kilometre initiative which was launched in 2015. The Golden Kilometre aims to encourage primary school children to exercise and inspire young people to lead healthier and more active lifestyles[61]. An example of Oakhill Park walking route is shown in Figure 2.20.[62] Barnet currently offers daily instructor-led health walks, for a nominal fee of £2.80[63].

In the north of the Borough, the residents can enjoy the London Loop – a signposted walk encircling London. Section 16 of the walk, which mostly runs through the Barnet, linking Elstree and Cockfosters, is the longest part of the walk at over 16 kilometres long.[64]

Figure 2.20: Oak Hill Park, an example of Council information on walking routes

2.10 In addition, the Dollis Valley Greenwalk offers a 10 mile walk through the heart of the borough, providing a quiet environment and connecting to key greenspaces throughout Barnet.

Cycling

2.11 66% of all journeys in Barnet are less than five miles, but the cycle mode share in Barnet makes up only 1% of all trips.[65] This is significantly lower than London average of 2.7% journeys.[66] Cycling together with walking and public transport should comprise 70% of all Barnet's trips to meet MTS target of 70%. For journeys to work, 37.9% of journeys to work that are under 2km are driven and only 3.5% of journeys to work under 5km are cycled.[67] These distances indicate that there are a large proportion of trips that could be cycled that are currently driven. This is explored further in Chapter 3.

2.12 Within London, the most frequently cited deterrents to cycling include fear of collisions, not feeling confident as a cyclist, not identifying as a cyclist and a lack of cycling infrastructure.[68] These factors can be addressed through the LTTS, through a mix of behaviour change and infrastructure measures. Other factors, such as Barnet's topography, are harder to change but the advent of electric cycles may help to overcome this.

Traffic counts in the borough indicate that the number of cycles on the road is increasing gradually, albeit from a low base. Cycle infrastructure in Barnet is limited. Although there are some shared spaces for pedestrians and cyclists, and signage for cycle routes via quieter residential roads in a few areas and some cycle parking, there are no Cycleway routes that run through the borough.

There is some evidence that these Cycleway routes not only increase the number of cycle trips, but also improve general traffic. Only two weeks after opening, 5% more people per hour across all modes were moving along the Cycleway North-South (Elephant & Castle to Holborn) and East-West (Parliament Square to Tower Hill) corridors. In terms of boosting cycle numbers, as of May 2018 CS North South had seen a 30% increase in cycle trips. Cycleway East-West and former Quietway 1, running from Waterloo to Greenwich, had seen increases over 50%, a distance similar to a trip between Finchley Central and King's Cross.[69]

[60] Barnet Council (2012) The Local Plan (Core Strategy). p. 23. **https://www.barnet.gov.uk/citizen-home/planning-conservation-and-building-control/planning-policies-and-further-information/Adopted-Local-Plan---Core-Strategy-DPD.html**

[61] Ibid.

[62] Ibid.

[63] Barnet Council (undated) Activity on the Move. Available from: **https://www.barnet.gov.uk/citizen-home/parks-sport-and-leisure/parks-and-open-spaces/sport-and-fitness-in-barnet-parks/activity-on-the-move.html**

[64] Transport for London (Undated) London LOOP section 16

[65] Barnet Council (2016) Cycling in Barnet **https://barnet.moderngov.co.uk/documents/s46550/Appendix%20Five_Cycling%20in%20Barnet.pdf**

[66] Department for Transport (2018) Analyses from the National Travel Survey https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/674568/analysis-from-the-national-travel-survey.pdf

[67] Office for National Statistics (2018) QS701EW - Method of travel to work **https://www.nomisweb.co.uk/census/2011/qs701ew**

[68] Transport for London (2018) Cycling Action Plan. **http://content.tfl.gov.uk/cycling-action-plan.pdf**

[69] London Assembly (2018) London's Cycling Infrastructure. **https://www.london.gov.uk/sites/default/files/londons_cycling_infrastructure.pdf**

Waltham Forest is an example of an outer London borough that achieved a 28% increase in cycling following the provision of joined up, safe cycle infrastructure.[70]

Despite the lack of cycle infrastructure, Barnet has its own branch of the London Cycling Campaign (BLCC) which offer a variety of leisure cycle rides, as well as allowing members to join the cycling campaign.

The Council has several cycle initiatives:

- Bikeability – Between 2014 – 2019, 11,740 pupils and 2940 adults received cycle training.
- Bike It Plus – This scheme involves intensive work with schools for one to two years by a Sustrans Bike It officer. In 2015/16 this scheme was held in 29 schools, where cycling uptake increased by 12% to around 20% in some cases. Demand for training increased over 50% in 17/18 compared to 14/15.[71]
- In the borough, there are 301 cycle stands at 79 locations, most of which are located at transport hubs.

The Council is currently seeking a partner to trial a dockless bike hire scheme in the borough.

Bus

Figure 2.21: Map of bus routes

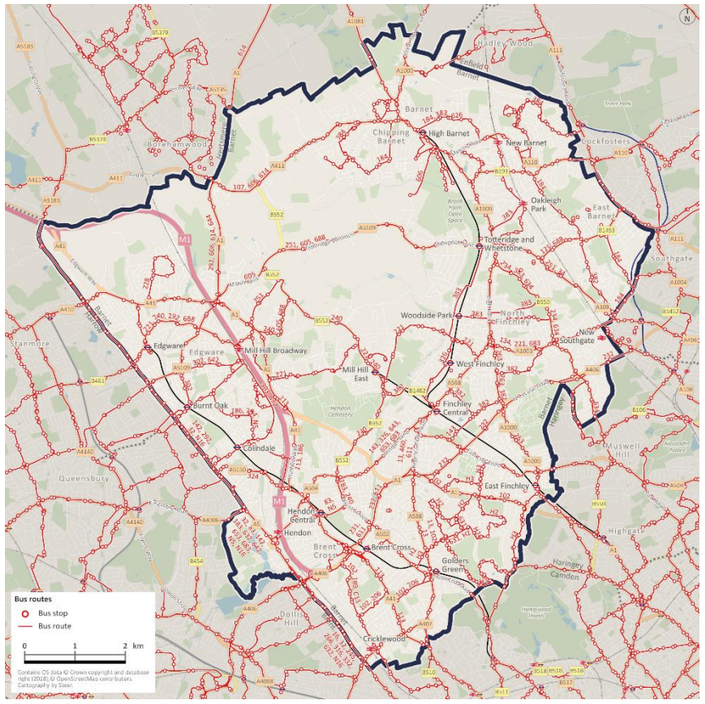


Figure 2.21 depicts the bus connections in Barnet. There are a high number of routes and connections in the south of the borough, whilst the northern half of the borough has fewer bus routes. There are many bus routes connecting to National Rail and Underground stations, representing opportunities for public transport interchange. According to the Council's LIP response, 91% of the bus stops in Barnet are accessible. 2.13

Passenger numbers on buses are falling across London, with traffic congestion being a major contributor to this trend.[72] However for routes that pass through Barnet, patronage has increased 9% since 2010. In particular, routes 13, 112, 113 and 186 have seen an increase in passenger levels of over 40%. Routes 13 and 113 run through the borough and into Central London via Finchley Road; routes 112 and 186 are orbital routes which run from Brent Cross, 112 west to Ealing Broadway via Hangar Lane and 186 to Harrow via Hendon and Edgware. TfL has recognised Outer London's bus usage, stating that more bus capacity is needed in outer London.[73] 2.14

TfL has reported the observed bus speeds in Barnet to be 10.8 miles per hour, this is roughly average for bus speeds in an Outer London borough, and above average for London as a whole (9.6mph). The highest bus speeds in Outer London were observed in Hillingdon (13mph) and the lowest in Brent (9mph). These low speeds in part explain why 9% of the bus routes that serve Barnet are between 5 to 15 minutes late on average, with passengers waiting approximately 20% longer than intended for high frequency routes.[74]

Buses are also the only form of public transport available at night, except at the weekend when the Night Tube is operational. This means the night bus network is particularly important for shift workers. However, there are very few night bus journeys made in outer London; even fewer since the introduction of the night tube.[75]

Currently, as buses are the only major mode for orbital journeys across the borough, the LTTS must consider how bus speeds, reliability and routes can be improved.

Underground

The key piece of transport infrastructure that shapes Barnet is the Northern Line. It determines the key settlement areas, places of work of Barnet residents and access to key services and runs 24 hours on Friday and Saturday nights. The Northern Line is under the authority of TfL, meaning the Council have little control over it. However, the LTTS must consider links to and from the Northern Line stations, and be aware of any planned changes to services, as these changes would affect Barnet residents significantly.

There are 13 London Underground stations in Barnet spread across the Edgware, Mill Hill East and High Barnet branches. Of the 13 stations in

[70] Waltham Forest Council (undated) Walthamstow Village Review **https://www.enjoywalthamforest.co.uk/wp-content/uploads/2016/09/2017-08-23-WV-report-FINAL.pdf**

[71] Barnet Council (2016) Cycling in Barnet **https://barnet.moderngov.co.uk/documents/s46550/Appendix%20Five_Cycling%20in%20Barnet.pdf**

[72] Transport for London (2017) Bus Network Report. **https://www.london.gov.uk/sites/default/files/bus_network_report_final.pdf**

[73] Ibid.

[74] Transport for London (undated) Bus Service Usage **https://tfl.gov.uk/cdn/static/cms/documents/bus-service-usage.xlsx**

[75] TfL (2018) Travel in London Report 11 **http://content.tfl.gov.uk/travel-in-london-report-11.pdf**

Barnet, five are step-free access from street to train, and two are step-free access from street to platform. Cockfosters and Southgate stations, on the Piccadilly line, also include small areas of Barnet within their catchments and the Jubilee Line is close to the West of the Borough. However, the number of Barnet residents in these catchments is small, so the LTTS will focus on the Northern Line.

As shown in Figure 2.22 and Figure 2.23 the majority of tube journeys are taken for commuting into and out of Central London, with the most popular destinations being the City of London and the West End. Leisure and tourist trips make up the remainder of tube journeys from the borough.

As shown in Figure 2.22 Golders Green and Hendon Central have the highest number of entries and exits, whilst Mill Hill East and West Finchley have the lowest.

Figure 2.22: Number of entries (blue) and exits (red) from Barnet underground stations per day

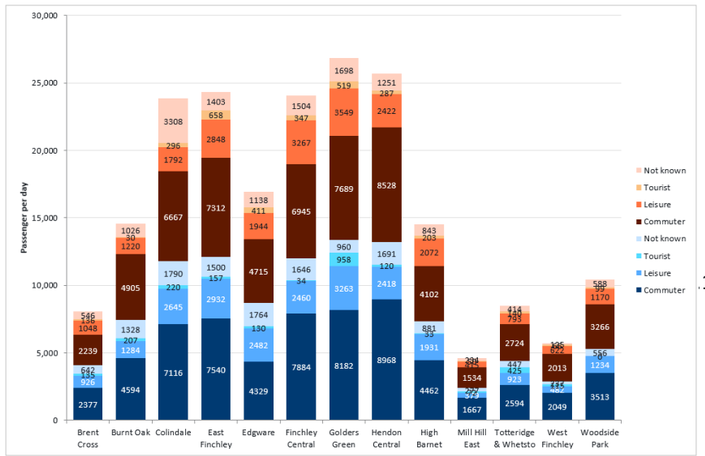
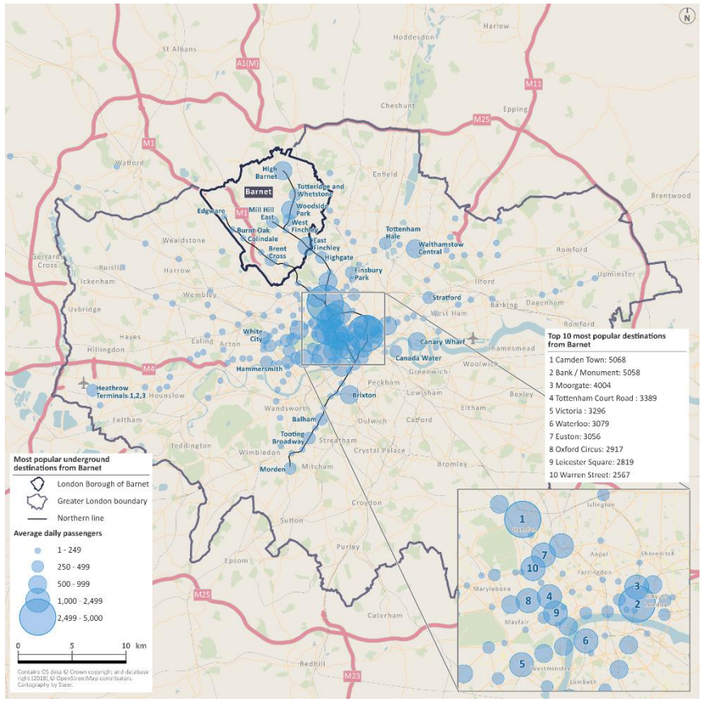


Figure 2.23: Destination of tube journeys originating in Barnet



Rail

2.15 Barnet has exceptional radial rail links into London, including the Thameslink and Great Northern services. Despite this, only in four wards do 10% residents use the rail network to get to work. Given these stations provide fast services to the areas of London where many Barnet residents work, their lack of use may indicate that access to these rail stations can be improved. Although the Council have no authority over the services or stations themselves, through the LTTS we can discuss issues and influence rail providers.

2.16 There are three Thameslink stations in Barnet: Cricklewood, Hendon and Mill Hill Broadway. Great Northern and Thameslink run services through New Southgate, New Barnet and Oakleigh Park. None of these stations provide step-free access. All these stations are shown in Figure 2.24.

2.17 As shown in Figure 2.25, passenger entries and exits are considerably higher at Mill Hill Broadway than other rail stations in the borough. In keeping with rail trends across the country, passenger numbers have been steadily increasing over the last five years. The exception to this is Mill Hill Broadway and Cricklewood, both of which saw large peaks in 2014/15 followed by sharp troughs during Thameslink timetable changes.

Figure 2.24: Rail and Underground connections in Barnet

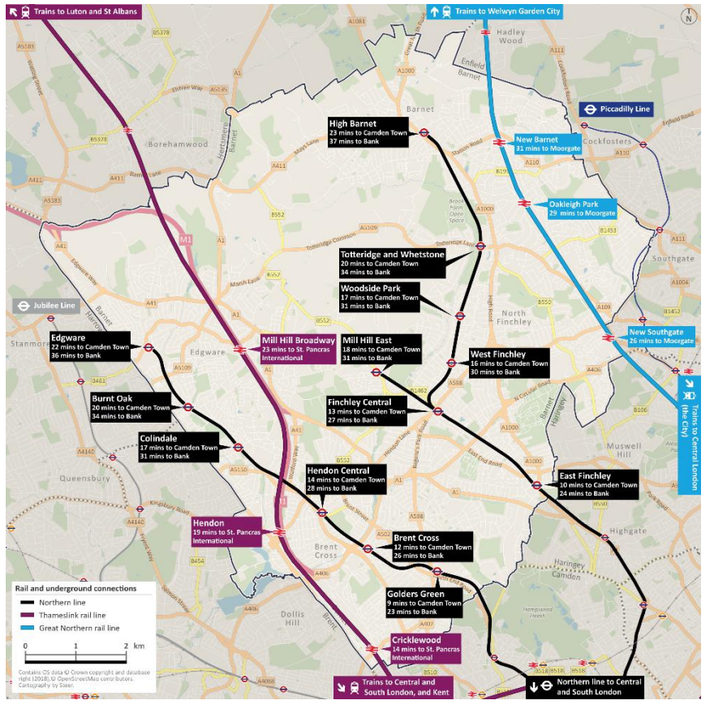
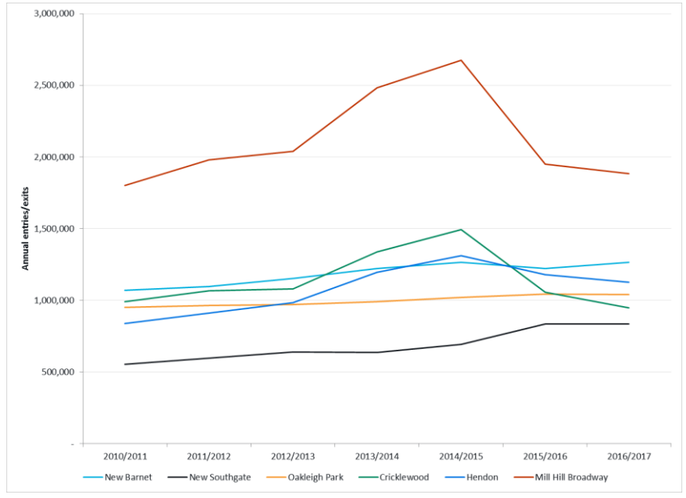


Figure 2.25: Annual entries and exits from Barnet mainline rail stations



Car

Access to cars

The most popular mode of transport in Barnet is the car. As of 2017, there were 142,300 licensed cars in Barnet[76], equating to 0.45 vehicles per capita[77], or 0.94 cars per household[78]. However, 32% of households in Barnet do not have access to a car, meaning households who do own cars own approximately 1.5 per household.[79]

Figure 2.26: Number of cars per household by borough

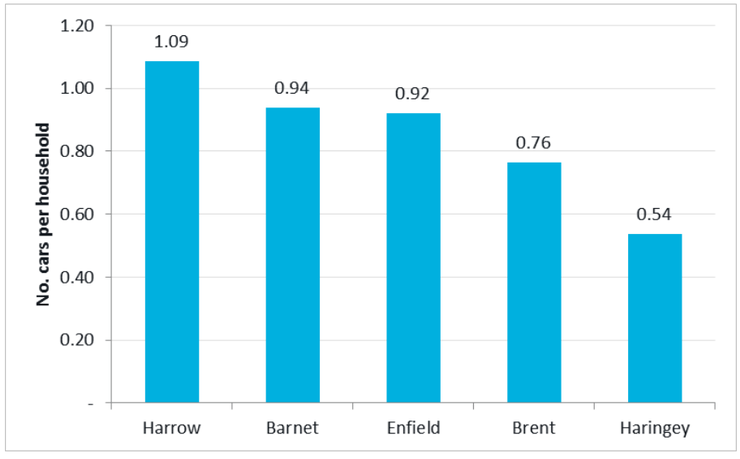
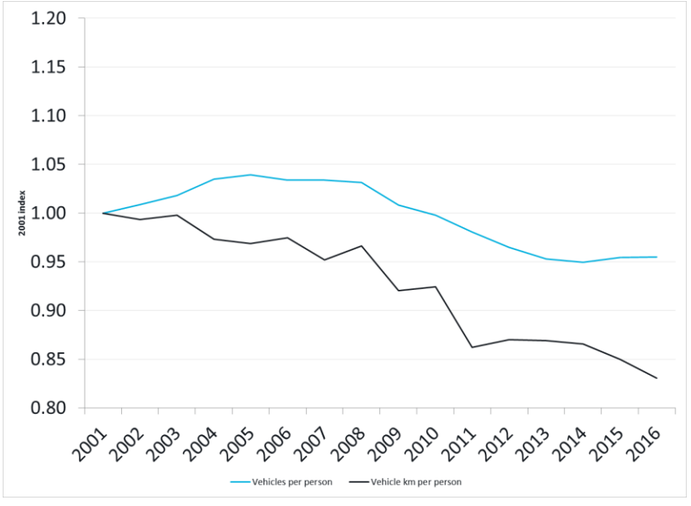


Figure 2.26 compares the level of car ownership in Barnet to other Outer North London boroughs. Barnet has the second highest ownership levels per household at 0.94, far higher than 0.54 cars per household in Haringey and 0.76 cars per household in Brent. Almost all of these vehicles are powered by diesel or petrol: in 2019 there were 2,125 electric cars in Barnet, or 1.5% of all licensed cars. [8081] This has increased from 145 electric cars in 2011. Barnet is second only to Westminster amongst London boroughs for the number of registered electric cars.

Figure 2.27 shows that per capita car ownership trends in Barnet have fallen since 2008[82]. Car club providers[83], who have researched why people choose not to own cars, frequently cite the capital outlay and operating costs of cars as the principal reasons, as well as availability of local services, parking, public transport and online shopping. This accords with this graph, with the drop in car ownership starting in 2008, the year of the financial crash. The black line in the graph shows that those of the cars that are owned, they are being used less frequently than before.[84]

Figure 2.27: Car ownership and usage in Barnet indexed to 2001



Although the number of cars is high, only 6% of households have 3 or more cars. 32% of Barnet's households do not have access to a car or van at all. For each ward along the Edgware branch of the Northern Line except Edgware, this figure is over 33% and above 40% in Burnt Oak and Childs Hill.[85] As such, the LTTS should consider the needs of those without access to a car.

The Council launched an e-car club in 2016 which allowed residents to hire an electric car by the hour; two cars are available. There are nine car club vehicles available in the borough from Zipcar and five available from Enterprise Car Club. A car sharing company, Drive Now, also operates in Barnet. Drive Now allows you to pick up and drop off your

[76] Department for Transport (2018) VEH0105: Licensed vehicles by body type and local authority, United Kingdom **https://www.gov.uk/government/statistical-data-sets/all-vehicles-veh01**

[77] Excluding population aged 16 or under

[78] Greater London Authority (2017) GLA Household Estimate, GLA Intelligence Borough Profiles **https://data.london.gov.uk/dataset/london-borough-profiles**

[79] Transport for London (2018) London Travel Demand Survey

[80] Department for Transport (2019) VEH0132 Ultra low emission vehicles (ULEVs) licensed by local authority, United Kingdom **https://www.gov.uk/government/statistical-data-sets/all-vehicles-veh0132**

[81] Department for Transport (2019) VEH0105: Licensed vehicles by body type and local authority: United Kingdom **https://www.gov.uk/government/statistical-data-sets/all-vehicles-veh0104**

[82] Office for National Statistics (2018) QS416EW - Car or van availability **https://www.nomisweb.co.uk/census/2011/qs416ew**

[83] Co-Wheels Car Club (undated) How it Works. **http://www.co-wheels.org.uk/faq**

[84] Another cause may be the rise of Uber in the borough, meaning people use their own cars less frequently. Unfortunately, we have not been able to obtain usage data from Uber.

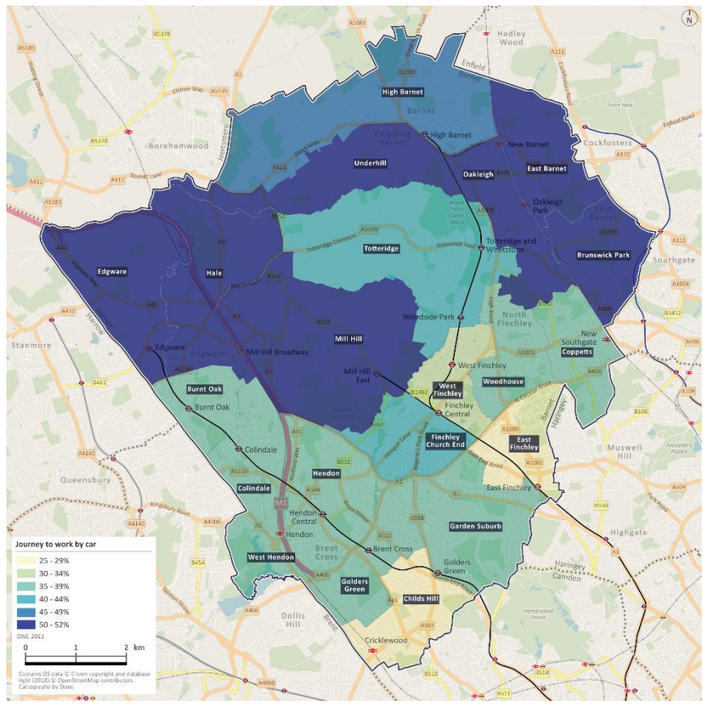
[85] Office for National Statistics (2018) QS416EW - Car or van availability **https://www.nomisweb.co.uk/census/2011/qs416ew**

car from any location within the Drive Now parking zone, which spans nine boroughs[86].

Use of cars

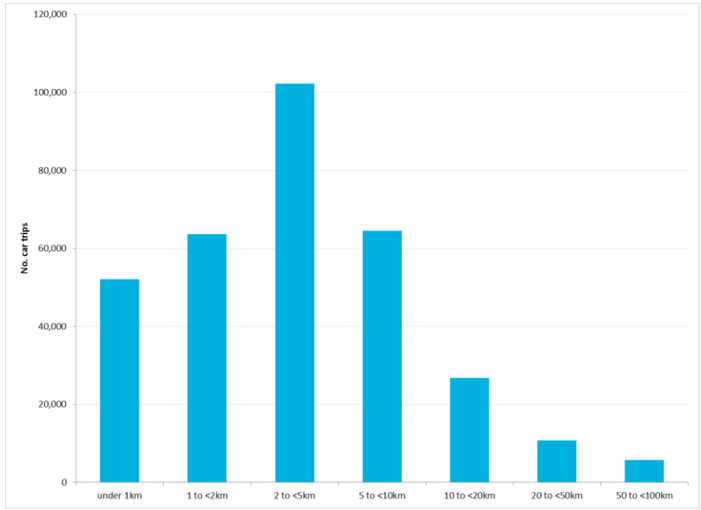
Cars are a popular mode of transport for travel to work. Figure 2.28 shows that this is particularly prevalent in the north of the borough, though high throughout. Even in the wards with the lowest percentage of travel to work by car, over a quarter of residents still drive to work as their main mode. The Barnet average, 42%, is the same as the Outer London average. It is higher than the London average of 32%.

Figure 2.28: Journeys to work by car



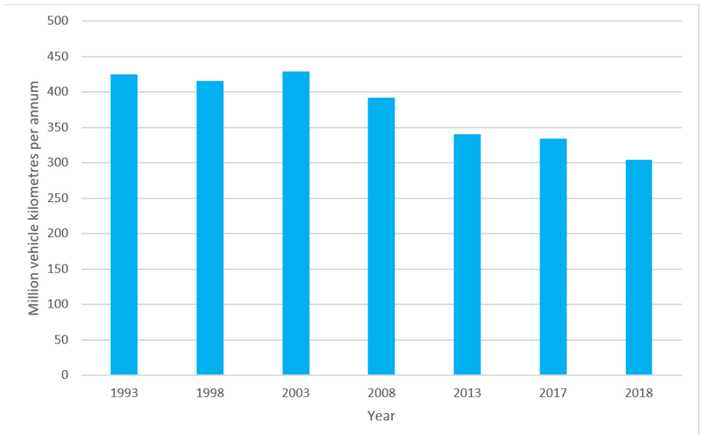
However, when this data is investigated further, it shows that 30% of journeys to work that are driven are under 5km, distances that are frequently cycled in other areas of London. Of all journeys to work that are under 2km, 40% are undertaken as a driver or passenger in a car. These patterns of high car use for short distances, derived from the 2011 Census, are corroborated by the London Travel Demand Survey, according to which two thirds of car journeys by Barnet residents in 2016/17 were under 5km, shown in Figure 2.29.

Figure 2.29: Barnet residents' car trips by distance



The number of vehicle kilometres travelled per annum in the borough reached a peak in the early 2000s and has been in decline since 2010 as shown in Figure 2.30.[87]

Figure 2.30: Car vehicle kilometres travelled in Barnet



Of the cars travelling in Barnet in the AM peak, there is almost an even split between trips within the borough's boundaries, trips originating in Barnet and finishing outside the borough, trips originating outside the borough and finishing in Barnet and trips that simply go through the borough. These figures are shown in Table 2.5.

Table 2.5: AM Peak car trips in Barnet by origin and destination

	2011	2041	% increase
Barnet internal	16,677 (27%)	15,920 (25%)	-5% (-2%)
Barnet to external (London)	12,962 (21%)	12,423 (19%)	-4% (-2%)
Barnet to Herts	3,317 (5%)	5,572 (9%)	68% (3%)
External (London) to Barnet	11,015 (18%)	10,470 (16%)	-5% (-2%)
Herts to Barnet	4,448 (7%)	4,325 (7%)	-3% (0%)
Through trips (not Herts)	7,858 (13%)	5,099 (8%)	-35% (-5%)
Through trips (Herts)	5,503 (9%)	10,471 (16%)	90% (7%)

Road safety

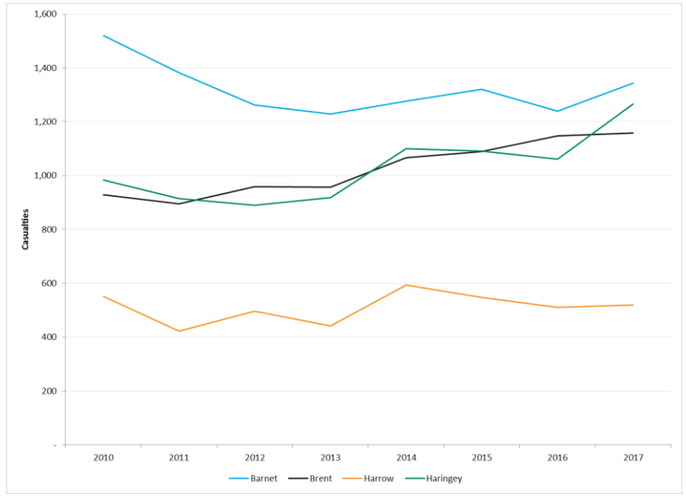
Compared to neighbouring boroughs, Barnet has the highest number of road traffic casualty figures, as shown in Figure 2.31. However, once

[86] Drive Now (undated) Guide to Barnet. https://www.drive-now.com/gb/en/blog/tripguides/guide-to-barnet

[87] Department for Transport (undated) Road Traffic https://roadtraffic.dft.gov.uk/local-authorities/57

the length of network is taken into account, Barnet has fewer accidents per km than most boroughs.[88]

Figure 2.31: Annual road traffic casualties in Barnet and comparable boroughs[89]



2.18 Although the number of road traffic casualties has been decreasing since 2010, as shown in Figure 2.32, this is driven by a reduction in car occupants as casualties. There has been a slight increase in the total number of casualties from vulnerable road users such as pedestrians, cyclists and powered two-wheelers, shown in Figure 2.33.

Figure 2.32: Road traffic casualties in Barnet and comparable boroughs indexed to 2010[90]

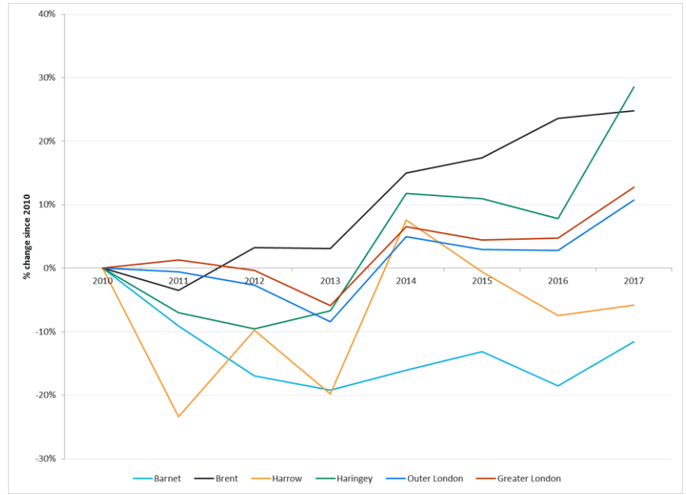
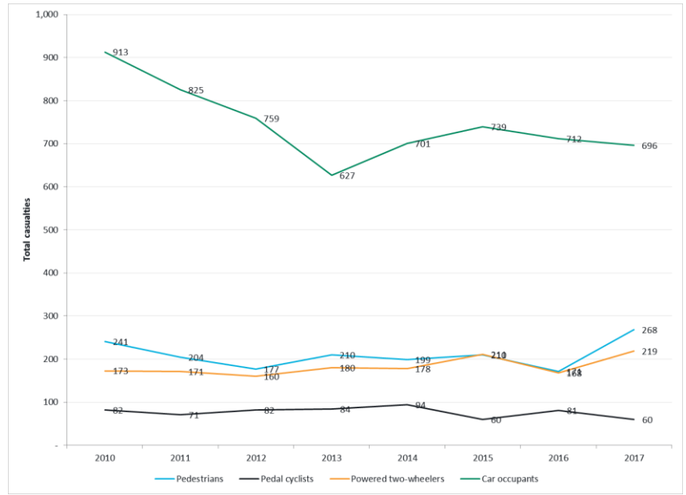


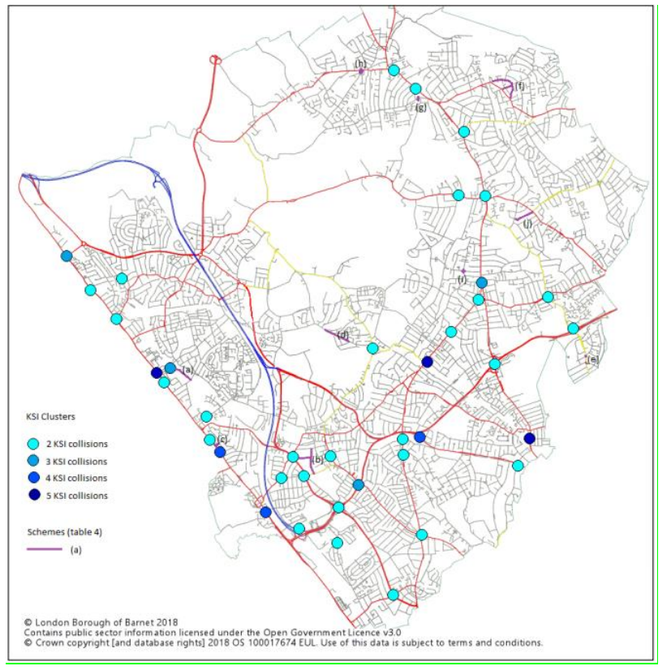
Figure 2.33: Barnet road casualties by mode [91]



Barnet's jurisdiction over the number of casualties is limited by location. Roads in Barnet are either controlled by the Council, TfL (A1, A41, A406) or by Highways England (M1). 20% of all Casualties Killed or Seriously Injured (KSIs) are injured on the A1, A41, A406 or M1. In particular, injury collisions and KSIs tend to occur where A roads pass through town centres. This pattern is clearly seen in Figure 2.34, which shows the locations in the borough where two or more KSI collisions occurred within a radius of 100m in three years from 2014-2016[92].

Where the Council does have authority, and therefore responsibility, over road safety, the LTTS must consider schemes to achieve 0 people killed and seriously injured on London's roads by 2041. One method currently used is 20mph limits. Evidence[93] shows that in areas with 20mph limits, children are more likely to play outdoors and there are health and wellbeing benefits associated with the increased uptake in active travel modes.

Figure 2.34: Location of KSI clusters 2014-2016



[88] Barnet Council (2018) Road Safety in Barnet https://barnet.moderngov.co.uk/documents/s45531/Road%20Safety%20in%20Barnet.pdf

[89] Transport for London (undated) Road Safety https://tfl.gov.uk/corporate/publications-and-reports/road-safety

[90] Ibid.

[91] Ibid.

[92] Barnet Council (2018) Road Safety in Barnet https://barnet.moderngov.co.uk/documents/s45531/Road%20Safety%20in%20Barnet.pdf

[93] Atkins, AECOM, Maher (2018) 20mph Research study

Some studies suggest that 20mph zones are effective in reducing accidents and injuries: a study of 20mph zones across London demonstrated a 42% reduction in all casualties.[94] It is noteworthy, however, that enforcing 20mph zones is difficult. Introducing physical traffic calming measures such as speed bumps or road tables, can help with enforcement of the zones however it will not deter all.

Additionally, analysis of 20mph zones throughout England suggests that they may increase walking and cycling by 5% and 2% respectively[95]. 20mph zones could therefore increase road safety by discouraging car use in general, with a potential resultant uplift in more sustainable, safer modes.

On-street parking

As of 2017, 16,472 Blue Badge permits were registered in Barnet, with 5,966 issued in 2016/17.[96] There are designated disabled parking bays in the borough; these are bays directly outside a resident's home where only the specified resident can park.

In 2016/17, 16,571 resident permits were issued for CPZs in the borough. Of the 24 car parks in Barnet, 15 are pay and display; three are permit holder only and six offer free parking.

Accessible Transport

There are a variety of accessible transport providers in the borough. Below are two examples.

Community Transport

Barnet Community Transport has a small fleet of fully accessible minibuses and cars which are available 'at cost' to voluntary organisations, self-help groups and families whose members have difficulties using public transport or standard vehicles.

Dial-a-Ride

Dial-a-Ride is a door-to-door multi-occupancy vehicle for disabled people and older people who cannot use buses, trains and tubes. North London Dial-a-Ride operates in Barnet, serving those with a permanent or long-term disability or health problem who are unable to use public transport.

[94] Transport for London (2012) Towards a Road Safety Action Plan for London: 2020

[95] British Academy (2014) If You Could Do One Thing: Nine Actions to Reduce Health Inequalities

[96] Barnet Council (2017) Parking Services: Annual Account Report 2016/17 **https://www.barnet.gov.uk/citizen-home/parking-roads-and-pavements/Parking/Parking-data-and-information0.html**

Impacts

Summary:

- Barnet has one of the largest carbon footprints per head of population in London; road transport is the largest emitter of greenhouse gases.
- Air quality is poor in the densely populated south and west of the borough; road transport is the main contributor to NOx, PM10 and PM2.5 emissions in London. Domestic heating and road transport are the largest source of CO_2 emissions in the borough.

Implications for the LTTS:

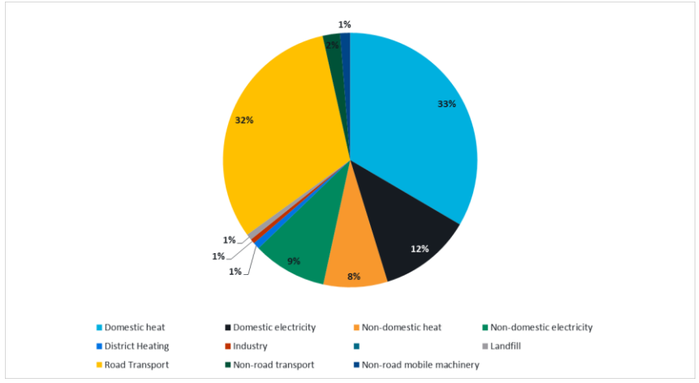
- The LTTS should seek to shrink Barnet's carbon emissions through encouraging modal shift and the use of alternative fuels.
- To improve air quality in the borough, the LTTS must encourage modal shift; 'clean' fuelled vehicles still contribute to poor air quality through wear and tear on brake pads.
- The LTTS must aim to develop intelligent solutions to congestion. Flexing transport network capacity, reducing travel/ vehicular demand and encouraging more active travel modes would help to ensure that the road system, a highly constrained space, is used in a more efficient manner.
- The impact of new and existing transport infrastructure on flood risk must be carefully considered. Building resilience into new infrastructure will be important and will ensure that if flooding occurs the transport network is still able to function effectively. Ensuring that the system is flexible and adaptable will allow future changes in flood risk to be effectively managed.

Environment

Energy consumption and greenhouse gases

2.19 Barnet has one of the largest carbon footprints per head of population in London, so the LTTS needs to look at methods of reduction.[97] 24% of greenhouse gas emissions in London come from transport – 19% road, 3% rail.[98] As shown in Figure 2.35 the main sources of CO_2 emissions in Barnet are domestic heating and road transport.

Figure 2.35: Emissions Sources in Barnet by levels of $ktCO_2$[99]



Air quality

Three types of harmful pollutant are associated with poor air quality: nitrous oxides (NOx), coarse particulate matter (PM10) and fine particulate matter (PM2.5). All three types are invisible to the naked eye and contribute to coronary heart disease, lung cancer, strokes, childhood asthma and respiratory problems such as bronchitis, lung infections, shortness of breath and coughing. The Department of Health ranks air quality as a major public health risk alongside cancer, disease and obesity. As shown below in **Error! Reference source not found.**, road transport consistently forms the highest proportion of emissions sources in London.

Table 2.6: Current emissions sources in London[100]

NOx	
Road transport	51%
Non-road transport	11%
Built environment	37%
Other	1%
PM10	
Road transport	50%
Non-road transport	3%
Built environment and industry	19%
Resuspension	23%
Other	4%
PM2.5	
Road transport	54%
Non-road transport	6%
Built environment and industry	30%
Resuspension	2%
Other	8%

In London, poor air quality disproportionately affects people in more deprived areas. 51 per cent of Lower Layer Super Output Areas (LSOAs) within the most deprived 10 per cent of London have concentrations above the NO2 EU limit value. This contrasts with 1 per cent above the NO2 EU limit value in the 10 per cent least deprived areas.[101]All of Barnet is an Air Quality Management Area (AQMA) for nitrogen dioxide, PM10 particulate and nitrogen dioxide. This means the Council is required to produce an Air Quality Action Plan describing how it intends to reduce these pollutants; transport plays a major role in those plans.[102] Moreover, 14 areas are designated Air Quality Focus Areas, requiring targeted action.

Air quality in Barnet repeatedly breaches legal limits, particularly at major junctions in the Borough where there is a higher traffic flow and a high number of stationary vehicles. Pollution levels are higher along arterial routes, particularly the North Circular, M1, A1 and A5; PM2.5

[97] Barnet Council (2010) One Barnet, a Sustainable Community Strategy for Barnet 2010-2020

[98] Mayor's Environment Strategy (May 2018) p.206, generated from GLA (2017) LEGGI. **https://data.london.gov.uk/dataset/leggi**

[99] Greater London Authority (undated) Zero Carbon Model

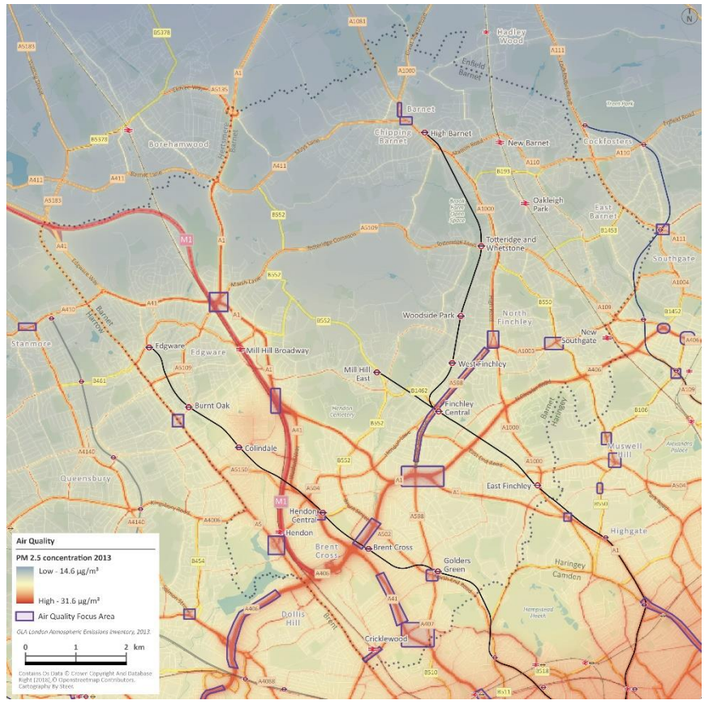
[100] GLA (2017) London Atmospheric Emissions inventory (LAEI) 2013 update **https://www.london.gov.uk/sites/default/files/london_environment_strategy_0.pdf**

[101] King, K. & Healy, S. (2013) Analysing Air Pollution Exposure in London. **https://www.london.gov.uk/sites/default/files/analysing_air_pollution_exposure_in_london_-_technical_report_-_2013.pdf**

[102] Barnet Council (2017) Air Quality Action Plan (2017-2022) **https://www.barnet.gov.uk/sites/default/files/assets/citizenportal/documents/EnvironmentalHealth/ScientificServices/AirQualityActionPlan2017consultationdocument.pdf**

concentrations are shown in Figure 2.36.[103] The air around 12 schools in Barnet are polluted above the legal EU limit of 40µg/m³.

Figure 2.36: PM2.5 concentration in Barnet



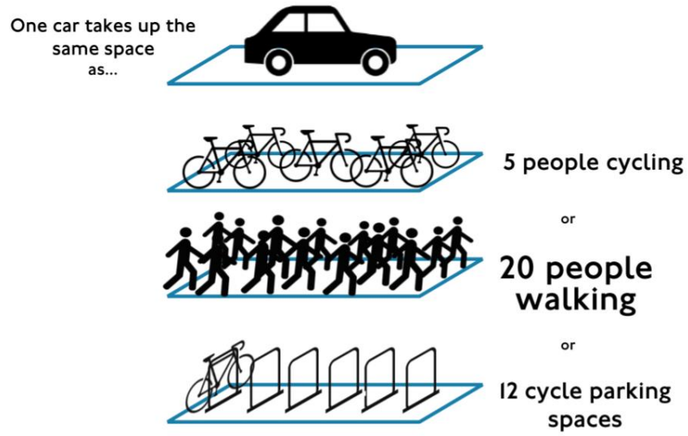
Economic benefits of walking and cycling

At a local level, both businesses and residents benefit from walking and cycling. Walking and cycling improvements can increase retail spend by up to 30%[104]: although spend per visit is lower when the visitor cycles or walks to the retail centre, those that walk and cycle tend to visit more often, resulting in higher spend over time. As seen in Figure 2.37, cycle parking uses existing space efficiently, and can increase the retail spend per square metre by 5% compared to the same area of car parking.

Beyond benefits to customers, employees who walk or cycle to work report greater job satisfaction, which in turn aids employee retention, and they take fewer sick days, both of which help to reduce business costs. Similarly, facilitating cycle freight deliveries can save businesses between 39 and 64% on delivery costs.

Barnet's residents would also gain from the affordability of walking and cycling. Running a car in London costs on average £7,300 per annum, whereas cycling provisions can be bought for £250[105]. Encouraging cycling and walking instead of using the car would be economically advantageous to low-income residents.

Figure 2.37: Use of space by mode



The average car in London carries 1.56 people. Consequently, as illustrated in Figure 2.37, when switching from driving, cycling and walking trips can significantly help to increase the carrying capacity of London's roads, providing a mechanism for reducing traffic in Barnet. Congestion costs London's economy £9.5bn per annum and impacts residents and businesses at a local level. As will be discussed, improving congestion will be important in ensuring the LTTS caters to needs of London and Barnet.[106][107][108]

Congestion

The LTTS needs to consider road congestion, as it is both a barrier to economic growth and causes other negative effects such as diminished air quality and poor public realm. As the car is very space inefficient, the key method to reducing congestion is to reduce car usage or increase car occupancy, for example through car sharing. Enacting this mode shift would leave more road space for essential road vehicles, including residents with no other option, freight and servicing.

However, approximately a quarter of peak hour trips in Barnet have neither their origin nor destination in the borough. Instead, they are using the road network to travel through the borough, often from the North to Central London using the A1 (M) and M1.[109]

The section of the A406 road that passes through Barnet (from Finchley Road to Colney Hatch Lane) is the fifth worst road in the UK for traffic congestion. The DfT's 'value of time' calculation, which looks at the economic cost to drivers due to time wasted, values economic cost of the congestion on the A406 road at £255 million.[110]

Figure 2.38 shows the key links within Barnet that are over capacity. The junction of the A1, A41 and A5109 is immediately identifiable as a problem area, with five of the six arms operating over 95% capacity.

[103] Ibid.

[104] Transport for London (2018) Economic Benefits of Walking and Cycling. https://tfl.gov.uk/corporate/publications-and-reports/economic-benefits-of-walking-and-cycling

[105] Ibid.

[106] Ibid.

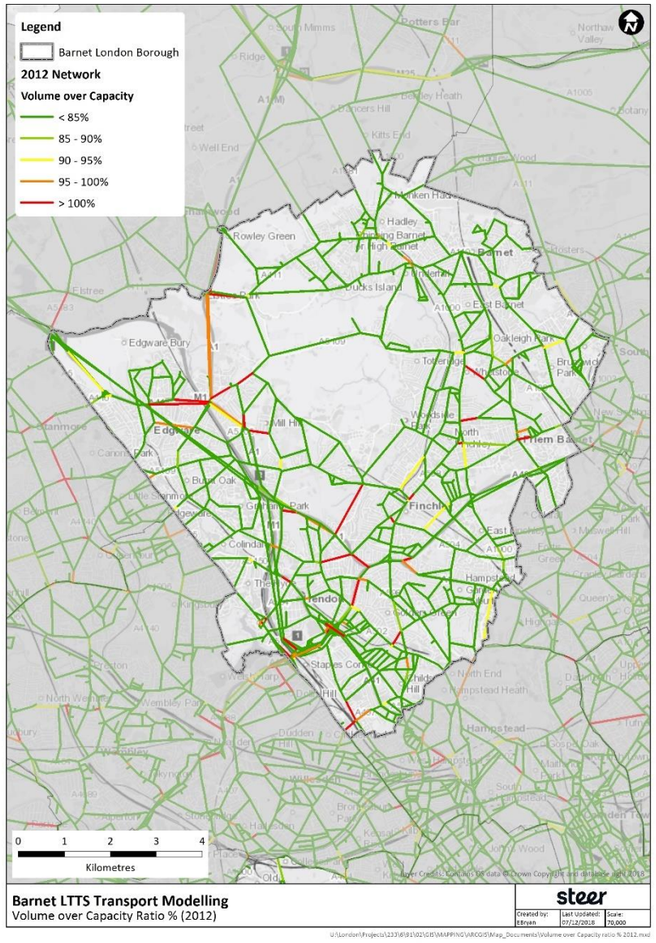
[107] Raje and Saffrey, 2016 cited in Transport for London (2018) Economic Benefits of Walking and Cycling http://content.tfl.gov.uk/walking-cycling-economic-benefits-summary-pack.pdf

[108] Transport for London (2018) Economic Benefits of Walking and Cycling https://tfl.gov.uk/corporate/publications-and-reports/economic-benefits-of-walking-and-cycling

[109] Steer modelling (2019) based on TfL Strategic Models

[110] INRIX (2016) Europe's Traffic Hotspots: Measuring the Impact of Congestion in Europe

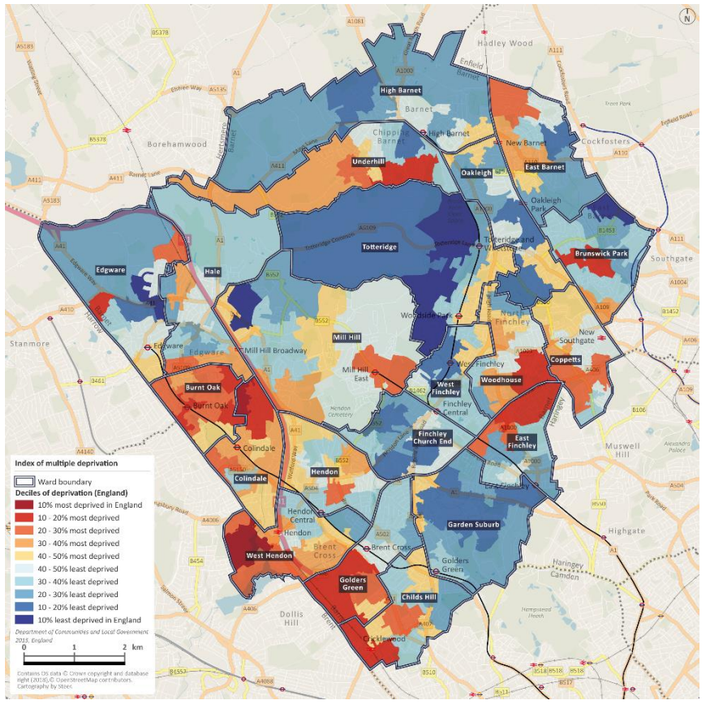
Figure 2.38: 2012 volume over capacity ratio



Unemployment and deprivation

The life expectancy of people living in the most deprived areas of the borough is on average 7.4 years less for men and 7.8 years less for women than those in the least deprived areas.[111] Figure 2.39 shows the Index of Multiple Deprivation profile of Barnet. Index of Multiple Deprivation is a government measure of deprivation in England. As shown in Figure 2.39, the areas of deprivation are focussed mainly in the west of the borough, along the Edgware branch of the Northern Line. The central and eastern areas of the borough experience much less deprivation.

Figure 2.39: Barnet IMD profile



[111] Barnet Council (undated) Joint Strategic Needs Assessment https://www.barnet.gov.uk/jsna-home/demography.html

3 Barnet to 2041

Who

Summary

- The population is projected to increase by approximately 25%, with the majority of growth in the west of the borough, which are also the least affluent wards.
- The number of children is expected to increase by 3% until 2025, with 2020 seeing Barnet as the Borough with the highest number of children.[112]
- Barnet's population is both ageing and living longer – the increase in population in Barnet will be mostly attributed to the increase in the share of elderly residents.
- The population is projected to become increasingly ethnically diverse.

What this means for LTTS

- The large increase in elderly people needs to be planned for and accommodated within the LTTS, ensuring transport is physically, visually and technologically accessible.
- Building on its foundations as a 'Family Friendly' borough, Barnet should seize the opportunity to encourage and educate about active travel early in life to help people sustain good health for longer.
- A larger population may mean more demand for travel in Barnet, which may need to be made in a more efficient way (compared to today) given finite transport capacity, especially on the road network.
- Population growth and regeneration within the borough presents the opportunity to engage with people as they move into their new homes and an opportunity to encourage behaviour change through the design of new buildings and areas.

Population size

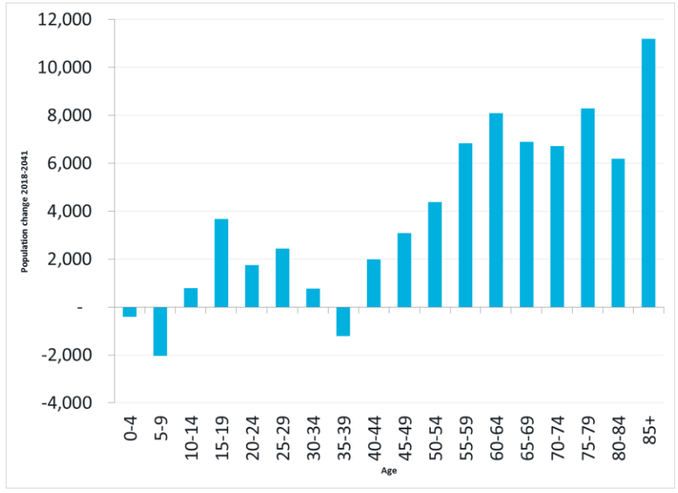
Population predictions are not an exact science: methodologies vary and produce different outcomes so population projections will vary and should be considered as a range of possibilities. Instead, for the purposes of this transport strategy the general pattern should be observed.

GLA data shows that Barnet is expected to accommodate an extra 90,000 residents by 2041, an almost 25% increase[113]. Other projections, such as the ward level housing projections and the Office for National Statistics subnational population projections[114], estimate 70,000 extra residents. As noted earlier population projections are a range, the LTTS must be fit for a significantly larger population than today's, accommodating between 450,000 and 500,000 residents.

Age

There will be significantly more elderly people in 2041 compared to today, both in absolute and relative terms. The number of people aged 65 and over is predicted to increase by 33% between 2018 and 2030, compared with a 2% decrease in young people (aged 0-19) and a 4% increase for working age adults (aged 16-64) over the same period.[115] Largest population increases will occur in wards in the west of the borough (Colindale 91%; West Hendon 37% and Burnt Oak 33%), which are also amongst the most deprived wards.[116] Figure 3.1 shows the projected population increase.

Figure 3.1: Population change 2018-2041 by age group[117]



Source: GLA (2018) Population Projection – Custom Age Tables

The increase in the elderly population in 2041 will have implications for the transport network. Research[118] into travel needs for an elderly population highlights the requirements for transport that is physically easy to navigate (e.g. low-floor buses, dropped kerbs), but also technologically accessible – catering to those that can't or don't want to use modern technologies for example booking a cab via phone call instead of a phone app. The studies also highlight the modal shift of those over the age of 65 who tend to walk more, drive less and use more public transport. This research states that the mobility of older people can be strongly dependent on public transport, especially buses. Shopping and leisure are the main motives for travel for those over the age of 60, though ease of access to healthcare facilities remains important.

Health

Although forecasting the health of the population in 2041 to a reasonable degree of accuracy is not possible, it can be assumed that

[112] Barnet Council (2019) Barnet Children and Young People's Plan 2019-2023 https://www.barnet.gov.uk/sites/default/files/2019-06/Barnet%20Children%20%26%20Young%20Peoples%20Plan%20Digital.pdf

[113] Greater London Authority (2018) Population Projection – Custom Age Tables https://data.london.gov.uk/dataset/gla-population-projections-custom-age-tables

[114] Office for National Statistics (2018) Population Projections https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/bulletins/subnationalpopulationprojectionsforengland/previousReleases

[115] Barnet Council (undated) Joint Strategic Needs Assessment https://www.barnet.gov.uk/jsna-home/demography.html

[116] Ibid.

[117] Greater London Authority (2018) Population Projection – Custom Age Tables https://data.london.gov.uk/dataset/gla-population-projections-custom-age-tables

[118] Hounsell et al (2017) Review of Public Transport Needs of Older People in European Context. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5656732/

because residents will on average be much older, their health will be worse. Designing a transport network to ensure active travel is a regular part of everyone's routine is an effective way to delay the impacts of an aging population on health and social care services; for these reasons the LTTS must consider how active travel can be boosted.

Gender and Ethnicity

The Barnet population is currently and is projected to become more increasingly diverse, with the proportion of Black, Asian and Minority Ethnic (BAME) people in the borough's population rising from 39.5% in 2018 to 42.3% in 2030.[119] Experience in other London boroughs has shown that changing the method of transport used in close-knit, minority communities is difficult to achieve without the championing of the benefits by people within the community.[120]

Disability

As shown in Table 3.1, the number of people with a physical disability in Barnet is expected to increase faster than population, with 22% more people with disabilities than currently. Although corresponding data for people aged 65+ is not available, the number of Barnet residents in this age group with dementia is expected to increase by 47%; with diabetes by 37%; with depression by 36%; with long term conditions associated with stroke by 40% and with long term illnesses affecting daily activity by 41%.

The number of people with a learning disability in Barnet is projected to increase by 20% by 2035.[121] As a result, it becomes more important for the transport network to be as easy to navigate and accessible as possible.

Table 3.1: Projection of people with a physical disability in Barnet[122].

Age Range	Moderate Physical disability		Serious physical disability	
	2018	**2035**	**2018**	**2035**
18-24	1,259	1,484	246	290
25-34	2,717	2,709	259	258
34-44	3,466	3,730	1,052	1,132
45-54	5,131	6,421	1,428	1,787
55-64	5,885	7,986	2,291	3,109
Total	18,459	22,331	5,276	6,576

[119] Barnet Council (undated) Joint Strategic Needs Assessment **https://www.barnet.gov.uk/jsna-home/demography.html**

[120] Transport for London (2011) What are barriers to cycling amongst ethnic minority groups and people from deprived backgrounds? **http://content.tfl.gov.uk/barriers-to-cycling-for-ethnic-minorities-and-deprived-groups-summary.pdf**

[121] Barnet Council (undated) Joint Strategic Needs Assessment **https://www.barnet.gov.uk/jsna-home/demography.html**

[122] Projecting Adult Needs and Service Information (PANSI), shown in Barnet Council (undated) Joint Strategic Needs Assessment **https://www.barnet.gov.uk/jsna-home/demography.html**

When, where and why

Summary

- The already dense areas around the Edgware branch of the Northern Line will become far denser, well surpassing current inner London average densities, as major new developments are built in Colindale and Brent Cross.
- There will be far more jobs within Barnet, which historically have employed residents of the borough.
- People's working and shopping will increasingly take place from their homes.
- Retail floorspace is predicted to decline.
- The Council plans to improve and enhance access to green space.

What this means for the LTTS

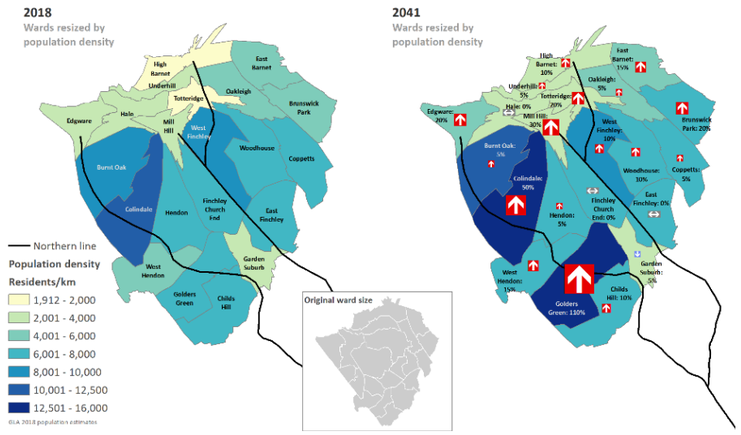
- There will be far greater pressure on the Northern Line for journeys to central London as developments close to stations are built.
- The new developments present a key opportunity to embed active travel in their design and enable a shift towards more sustainable modes.
- The LTTS should consider changing travel trends and look at how transport where possible can support local businesses. For example, if current trends of Barnet businesses tending to employ Barnet residents continue, orbital travel linking major residential and employment sites should be improved.
- New ways of attracting people back to the High Street need to be considered.
- Improved links to greenspaces should be included within the LTTS as an opportunity to create green routes for walking and cycling.

Housing

3.1 The Council's Draft Growth Strategy expects up to 45,000 new homes added before 2030: 10,000 new homes are envisaged to be constructed in Colindale, 7,500 in Brent Cross/Cricklewood and another 10,000 in Mill Hill East and through estate regeneration schemes[123]. The exact figures will be confirmed within the final Growth Strategy which will be published in 2020.

3.2 The Draft Growth Strategy concentrates growth along the Edgware branch of the Northern Line. To put these in context, the current average inner London density is approximately 11,000 residents per square kilometre: Colindale and Golders Green are expected to exceed 15,250 and 14,750 respectively. The density of Colindale and Golders Green wards will exceed the current Inner London average density by at least 30%: Burnt Oak, West Finchley, Childs Hill, Woodhouse, Hendon and East Finchley will all be at least 50% denser than existing outer London averages. However, areas that are currently semi-rural will largely remain so. Figure 3.2 displays wards resized by population density; the red arrows relate to the absolute growth in population in each ward.

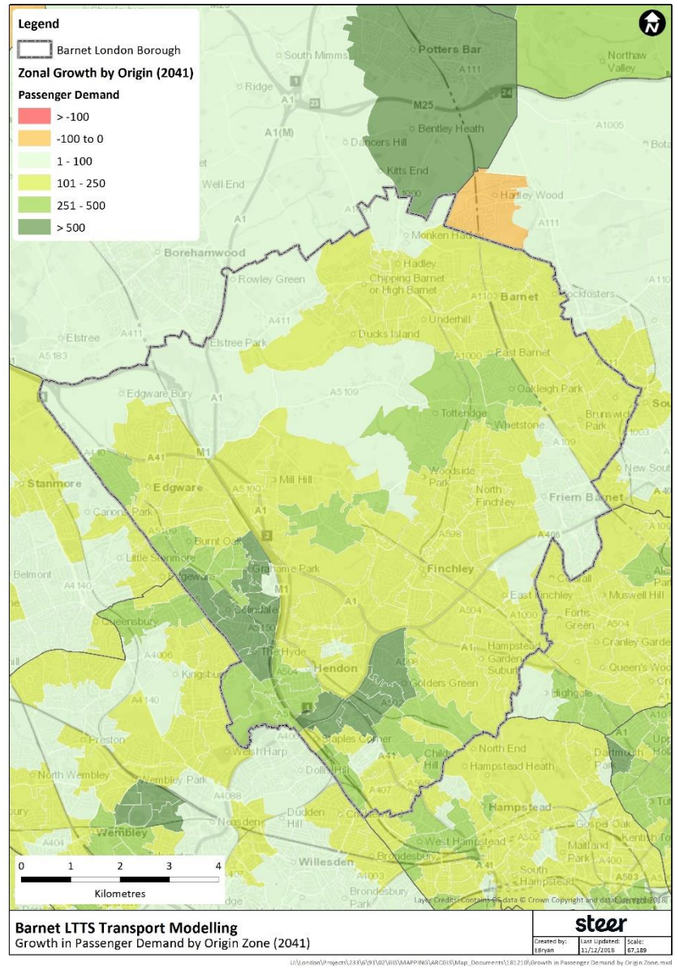
Figure 3.2: Population density changes between 2018 and 2041



3.3 The Draft Growth Strategy proposes that these developments are mixed use and provide local amenities within walking distance for residents, which will help to achieve the MTS mode share target by increasing the number of walking trips. However, these densities mean it is envisaged that there will be severe crowding on the Northern Line without capacity upgrades or mitigation measures.

3.4 The areas with concentrated regeneration schemes will generate far more trips than the network can currently accommodate. Figure 3.3 displays the absolute change between 2011 and 2041 in the number of AM peak trips starting in areas in and bordering the borough. The areas of highest growth are those with the greatest regeneration, mostly along the Edgware branch of the Northern Line.

Figure 3.3: Absolute growth in passenger demand by origin on all modes from 2011 to 2041 (AM Peak)



Economy and commuting

3.6 Barnet is expected to see large job increases. There are projected to be 142,000 jobs in Barnet by 2041, a total increase of 14,000 from 2016.[124] This puts Barnet ahead of inner London boroughs such as Kensington

[123] Barnet Council (2019) Draft Growth Strategy.2030 **https://engage.barnet.gov.uk/2349/documents/2590**

[124] Greater London Authority (2017) 2017 Borough Employees, SE and employed datastore

and Chelsea, Wandsworth and Lewisham in terms of employment numbers. However, this increase in jobs will put pressure on the internal road network, given that the 42% of journeys to work are currently completed by vehicle. To ensure that residents and commuters can reach these new jobs, the internal links between residential and employment areas in the borough must be considered.

The increase in online retailing has had negative impacts for the High Street and mixed impact for transport. There are a falling number of retail trips by bus and tube as fewer people are travelling to High Streets to shop[125], at the same time, the number of delivery vehicles on the road has increased. [126] The upward trend of online retailing is expected to continue.

Homeworking has grown significantly in the last decade due to enabling technology such as improved internet speeds and connectivity. According to research by the Urban Transport Group, the shift towards homeworking practices has contributed towards falling journey numbers on public transport networks.[127]

Freight

Whereas total traffic in Barnet is expected to increase by around 8% by 2041 compared to 2012 levels, the make up of this traffic will change markedly. Whereas car and taxi trips are expected to increase by 4% and 3% respectively, light goods vehicles are expected to increase by almost 50%. As a percentage of all vehicles on the road, light goods vehicles will be an increase from 11% to 14%; cars are still expected to be the main type of vehicle on the road, 82% compared to today's 85%.[128]

Leisure

Table 3.2 shows a comparison of the retail floorspace, number of units and retail vacancy rates data between 2008[129] and 2012[130] for the borough, showcasing a trend of decreasing retail floorspace and units and an increase in retail vacancy rates.

Table 3.2: Comparison of town centres between 2008 and 2012

Town Centre	Difference in amount of retail floorspace (sqm)	Difference in number of retail units	Difference in vacant Floorspace (sqm)	Difference in vacant floorspace (%)
Edgware	+1,250	+28	+,1220	+57%
Brent Street	+1,770	0	+1,110	+71%
Chipping Barnet	-660	-7	+3,510	+283%
Church End, Finchley	-3,690	-37	+300	+19%
East Finchley	-2,080	-22	+530	+37%
Golders Green	-2,890	-23	+20	+1%
Hendon Central	-1,430	-30	+2,100	+194%
Mill Hill	-1,800	-13	+360	+93%
New Barnet	+1,250	+10	+300	+32%
North Finchley	-1,260	-14	+1,400	+38%
Temple Fortune	+4,570	+5	+2,600	+590%
Whetstone	-15,680	-3	-320	-21%
Colindale/The Hyde	-5,660	-27	+250	+87%
Cricklewood	-34,740	-59	-2,510	-50%
Burnt Oak	-3,040	-42	1,950	+127%
Total	-64,090	-234	+12,820	-

Table 3.3: Barnet town centres vacancy rates in 2017[131]

Town Centre	Units	Floorspace (%)
Edgware	16	5.3
Brent Street	19	8.5
Chipping Barnet	21	4.9
Church End, Finchley	11	2.9
East Finchley	92	2.3
Golders Green	11	3.8
Hendon Central	3	1.9
Mill Hill	3	4.2
New Barnet	6	3.1
North Finchley	16	6.5
Temple Fortune	7	6.2
Whetstone	4	10
Colindale/The Hyde	21	4.9
Cricklewood	2	4
Burnt Oak	6	2.4
	Total 238	**Average 4.73**

The borough is experiencing a decrease in retail floorspace and increase in vacant floorspace overall. The data in Table 3.2 shows that Cricklewood and Whetstone have experienced the largest decrease in retail floorspace (34,740sqm and 15,680sqm respectively) and Chipping Barnet has had the highest increase in percentage vacancy rates at 283% increase in vacant floorspace. According to Table 3.3, Whetstone and Chipping Barnet have the highest ratio of vacant floorspace, with East Finchley having by far the highest number of vacant units.

A retail study conducted by the GLA in 2016[132] projected that retail consumers in London are becoming older and wealthier and more ethnically diverse. The report identifies an upward trend in 'experience retail' where consumers are more likely to make in-person shopping trips if they are provided with an enjoyable experience. Barnet has developed Town Centre Strategies for Edgware, New Barnet, Finchley Church End, North Finchley SPD and Chipping Barnet. The transport

[125]Greater London Authority (2017) High Streets for All https://www.london.gov.uk/sites/default/files/high_streets_for_all_report_web_final.pdf

[126] Greater London Authority (2018) Future Transport p37 https://www.london.gov.uk/sites/default/files/future_transport_report_-_final.pdf

[127] Urban Transport Group (2018) Number Crunch: Transport Trends in the City Regions

[128] Steer modelling (2019) based on TfL Strategic Models

[129] Experian GOAD (2008) https://goad.experian.co.uk/

[130] Experian (2012) GOAD https://goad.experian.co.uk/

[131] Experian (2017) GOAD https://goad.experian.co.uk/

[132] Greater London Authority (2015) Retail in London https://www.london.gov.uk/sites/default/files/gla_migrate_files_destination/Retail%20in%20London%20-%20Final%20Version.pdf

element of these strategies frequently identifies roads creating a barrier for pedestrians, the need for improved bus connections to the high street and the need to create a pedestrian connection to the train and/or tube station to enhance access to the high street[133].

Plans for the expansion of Brent Cross Shopping Centre are being reconsidered due to current market conditions in the retail market.

Greenspaces

3.7 New green space provision policies are described in the Parks and Open Spaces Strategy[134] document for Barnet, including:

- Create new parks to address deficits in provision
- Establish new green networks to link parks together
- Create new sports hubs with good quality facilities

3.8 Within the Strategy, a £20 million investment into new high-quality greenspaces across the seven regeneration areas is discussed, with the focus of expenditure in the south and west of the borough where population growth will be greatest.

3.9 As part of the evidence for the Parks and Open Spaces Strategy, the open spaces and parks in Barnet have been assessed on quality and value. The value aspect of this assessment considered health and deprivation indicators, recognising the relationship between greenspaces and wellbeing. However, the accessibility of the parks, in terms of proximity to cycle paths or public transport nodes, was not assessed. In line with the MTS goals, Barnet's LTTS should consider how transport can connect residents and visitors to greenspaces.

[133] Barnet Council (2013), Edgware Town Centre Framework,

Barnet Council (2010) New Barnet Town Centre Framework,
Barnet Council (2012) Finchley Church End Town Centre Strategy,

Barnet Council (2018) North Finchley Town Centre Framework,
Barnet Council (2013) Chipping Barnet Town Centre Strategy

[134] Barnet Council (undated) An Open Spaces Strategy for Barnet 2016-2026 **https://barnet.moderngov.co.uk/documents/s28481/Appendix%202%20Draft%20Parks%20and%20Open%20Spaces%20Startegy%20Summary.pdf**

How

Summary

- Barnet's Local Implementation Plan (LIP) sets out Barnet's goals for transport in the short and medium term.
- There are a range of technology and policy options which can be utilised by the borough to help achieve its long-term goals. Given the importance of cars in Barnet, electrifying existing road transport is likely to be particularly important.
- Barnet has the second highest potential for increase in walking and cycling trips out of all London boroughs.

Implications for the LTTS

- The LTTS should consider the goals and conclusions of the LIP within its own outcomes.
- Technology and policy options will be considered in the LTTS for their appropriateness in helping Barnet to achieve its long-term goals.
- The LTTS must set out how the potential for change can be best realised in Barnet.
- Where possible, the LTTS should seek to future proof the borough, allowing space for emerging clean technology to be incorporated into existing transport infrastructure and encouraging shifts to shared use vehicles.

Summary

Barnet's Local Implementation Plan (LIP)[135] sets out how the borough proposes to meet the aims of the MTS, taking into account the overall aim of the MTS for 72% of all trips in Barnet to be made on foot, by cycle or using public transport by 2041. 3.10

In order to meet this overall aim, the LIP sets out eight borough transport objectives, each with a number of associated outputs. These objectives all contribute to achieving a reduction in the private vehicle mode share, as well as delivering against MTS outcomes.

Barnet has set out in the LIP the projects needed to achieve its objectives in the short to medium term. The following projects are receiving the highest levels of funding between 2018-2021: 3.11

- Road safety (£4.5m)
- Road renewal (£7m) (plus additional council capital funding)
- Bus priority (£1.5m)
- Borough cycling programme (£1.5m)

This Transport Strategy will look at the long-term actions LBB can take to not only achieve the MTS aims, but also meet the needs of Barnet's residents. This section sets out the different kinds of technology that could affect transport choices in the borough, as well as the potential for change for each transport mode. 3.12

Technology

There are a number of new and emerging technologies and concepts that could be used to achieve the aims of the transport strategy. These technologies include: 3.13

- On demand services
- Mobility as a Service (MaaS)
- Autonomous vehicles
- Intelligent speed adaptation
- Drones for freight
- Workplace parking levy
- Shared mobility (Car clubs, bike sharing, ebike sharing)
- Electric vehicles/charging point infrastructure

In this section, each technology or concept will be explored, looking at how they may be implemented in Barnet. 3.14

On demand services 3.15

Encouraging users away from the private vehicle, but still allowing them a high degree of flexibility should be enhanced by the growth of on demand technology. A version of this is already employed by Uber and Citymapper. TfL is considering a trial of demand responsive buses with services for up to nine passengers.[136] This trial is being considered for areas of outer London where car dependency is high and fixed route buses are less able to serve patterns of demand.

Mobility as a Service (MaaS)

MaaS is a user-centric intelligent mobility management and distribution system which brings together multiple public and private mobility service providers and allows users to access them digitally, allowing a user to plan and pay for their journey through a single interface. For example, a single app could unlock a dockless bike and give access to the Underground and bus networks.

MaaS would likely be developed regionally for implementation across London as a whole. There is currently no MaaS system in London, though TfL Oyster cards and journey planner can be seen as a prototype of the benefits of MaaS. Namely, these benefits include a single payment system across different forms of transport and access to a single interface which could plan your journey from start to finish. This kind of system would be user-friendly and decrease barriers to accessing public transport.

Autonomous/Connected vehicles

Developing the usage of real-time information generated by and shared across the transport network will help to improve decision-making by individuals and vehicles about the most efficient route for a given journey. Companies such as WAZE provide data on traffic information and in turn take users' operations data and feed it back into their systems.

Whilst the technology for autonomous vehicles is developed by the private sector, there is current no clear policy or legislative framework that will guide its adoption. National and regional policy is in the early stages of development and will evolve as the technology moves out of the pilot phase and onto the streets[137].

Connected vehicles could reduce traffic congestion in Barnet by encouraging drivers to take alternative routes. There are also potential negative impacts if autonomous vehicles increase demand for car travel. If deployed, Connected and Autonomous Vehicles (CAVs) are desired not to be able to circulate without passengers on-board and it is expected that they will positively contribute to walking and cycling. CAVs are likely to travel closer together, unlocking road space to be converted for walking and cycling and Public Transport while maintaining the capacity. It is also assumed, that since 90% of accidents are attributable to human error, the introduction of CAVs could make the urban realm safer[138]. However, it is as yet unknown what the exact impact, disadvantages and advantages, of autonomous vehicles might be, as this is highly dependent on how these vehicles are regulated.

[135] Barnet Council (2018) Consultation Draft Local Implementation Plan. https://engage.barnet.gov.uk/1709/documents/1820

[136] Transport for London (2018) News: Exploring demand responsive buses https://tfl.gov.uk/info-for/media/press-releases/2018/march/tfl-exploring-whether-a-new-demand-responsive-tfl-bus-service-could-complement-existing-bus-network

[137] Department for Transport (2019) Future of Mobility: Urban Strategy https://www.gov.uk/government/publications/future-of-mobility-urban-strategy

[138] Transport for London (2019) Connected and Autonomous Vehicles. http://content.tfl.gov.uk/connected-and-autonomous-vehicle-statement.pdf

3.16 Another connected vehicle technology is Selective Vehicle Detection (SVD). SVD is a method of bus priority that allows buses to be progressed through traffic signals by prioritising their passage through junctions.

3.17 SVD is currently active in London including Barnet and is managed by TfL. By utilising SVD in key junctions around Barnet, and communicating the benefits of SVD to residents, it has the potential to increase bus ridership in the borough.

Drones for freight

3.18 Airborne and pavement-based drones are two potential methods of freeing up road capacity. Freight traffic in London has increased 11 per cent in the last four years;[139] it is possible that drone technology will be used for last-mile deliveries, thereby replacing vehicles on the road. It is expected that there will be particular use cases which will adopt this technology first, such as medical supplies.

Electric vehicles/charging point infrastructure

3.19 The adoption of electric vehicle technology is well underway, with electric and hybrid cars already active on Barnet's roads. The main limiting factors for this technology are currently affordability and limited driving range / battery life with a lack of chargers limiting possible journeys. While the short driving range is the most frequently cited barrier to EV uptake (26%), existing EVs are deemed suitable for short city-based journeys and the advances in technology are expected to address the problem in the future.[140]

3.20 The policy for providing electric vehicle charging point infrastructure is already available in the London Plan (2016), with new developments providing 20% active and 20% passive provision for electric vehicles. The Council are installing 80 lamp column chargers across the borough this year[141].

By encouraging the switch from fossil fuels to electric vehicles, the borough should see a marked improvement in air quality and a reduction in road noise on slower roads. However, electric vehicles will not tackle the lifestyle-related health issues in the borough, congestion, or have any impact on road traffic incidents. Air quality improvements arising from electric vehicles only reduce the tailpipe-emitted CO2 and NOx particles, not PM2.5 or PM10, which are largely caused by the weight and tear of vehicles and road surfaces – on average EVs are 24% heavier.[142]

3.21 Electricity can power and hydrogen fuel are being looked upon as alternatives to petrol and diesel. By 2040, a national ban is expected on the sale of petrol and diesel vehicles.[143] Although no practical alternative fuel exists for heavy goods vehicles at the moment, the National Infrastructure Commission estimates that technology advances should enable electric and hydrogen powered HGVs to be commercially available at the beginning of the next decade.[144]

Shared Mobility

3.22 Cutting down on the amount of time vehicles spend unoccupied or used below capacity helps to reduce inefficiency in transport networks, and is being developed by providers such as Beryl and Lime (a popular bike sharing service). Future developments may include options such as shared electric scooters, subject to regulatory changes.

An example already in use of shared cars in London is to provide car club spaces in lieu of private parking. Car clubs allow people the benefits of having a car without the responsibility of owning one.

3.23 Policy T6.1 of the draft London Plan[145] references the need for car club spaces within new developments as a method of reducing space for parking. For residents and workers who use a car occasionally, car clubs could be an effective method to reduce the levels of parking needed in the borough. Evidence also shows that car clubs reduce car ownership and hence car use, as people tend to use shared car less than personal vehicles.[146]

Potential for change and planned schemes within Barnet

Given the low current rates of walking and cycling in the borough, there is a huge potential for an increase in uptake of sustainable transport modes. This potential is further facilitated by the assets Barnet already possesses, such as large areas of green space and good public transport connections to central London. The potential for each transport mode is explored in the following sections.

Walking

According to analysis conducted by TfL[147] there is a huge potential for increasing walking trips. 89% of trips that could be walked are currently done by car; 40% of these trips are less than one kilometre. In this research, TfL states that the number of potential walk trips is highest in Barnet and Croydon, where the number of daily trips exceeds 100,000. **Figure 3.4** and **Figure 3.5** show the potential number of walking trips in Barnet in comparison with other boroughs by number and per capita.

The analysis of potential walking trips defined a trip as a one-way movement from one place to another to achieve a single main purpose, 'trip chaining' trips, where the walking trip is part of a wider chain of trips that cannot be walked in their entirety are included. The analysis looked at trips currently made by a motorised mode such as car or taxi. These trips were further filtered by a number of exclusionary criteria designed to reflect normal walking trip patterns. For example, these criteria exclude trips where the traveller is carrying heavy loads or is over 69/under 12 and the trip is longer than 1.5km.

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[139] Greater London Authority (2018) Future Transport p37 **https://www.london.gov.uk/sites/default/files/future_transport_report_-_final.pdf**

[140] House of Commons, Science and technology Committee (2019) Clean Growth: Technologies for meeting the UK's emissions reduction targets https://publications.parliament.uk/pa/cm201719/cmselect/cmsctech/1454/1454.pdf

[141] Barnet Council **https://www.barnet.gov.uk/citizen-home/parking-roads-and-pavements/Roads-and-Pavements/electric-vehicle-charging-points.html**

[142] Timmers, V & Achten P (2016) Non-exhaust PM emissions from electric vehicles. Atmospheric Environment. **https://doi.org/10.1016/j.atmosenv.2016.03.017**

[143] Department for Transport (2018) The Road to Zero. Next steps towards cleaner road transport and delivering our Industrial Strategy. **https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/739460/road-to-zero.pdf**

[144] Ibid.

[145] Greater London Authority (2018) Draft London Plan **https://www.london.gov.uk/sites/default/files/draft_london_plan_-showing_minor_suggested_changes_july_2018.pdf**

[146] CoMoUK London Annual Survey (2018) https://como.org.uk/wp-content/uploads/2018/06/Carplus-Infographics-2017-London-AW.pdf

[147] TfL (2017) Analysis of Walking Potential. **http://content.tfl.gov.uk/analysis-of-walking-potential-2016.pdf**

Figure 3.4: Potential walking trips by borough

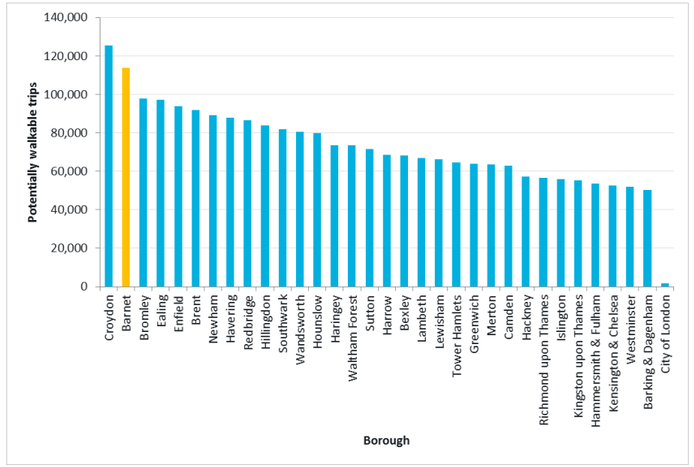
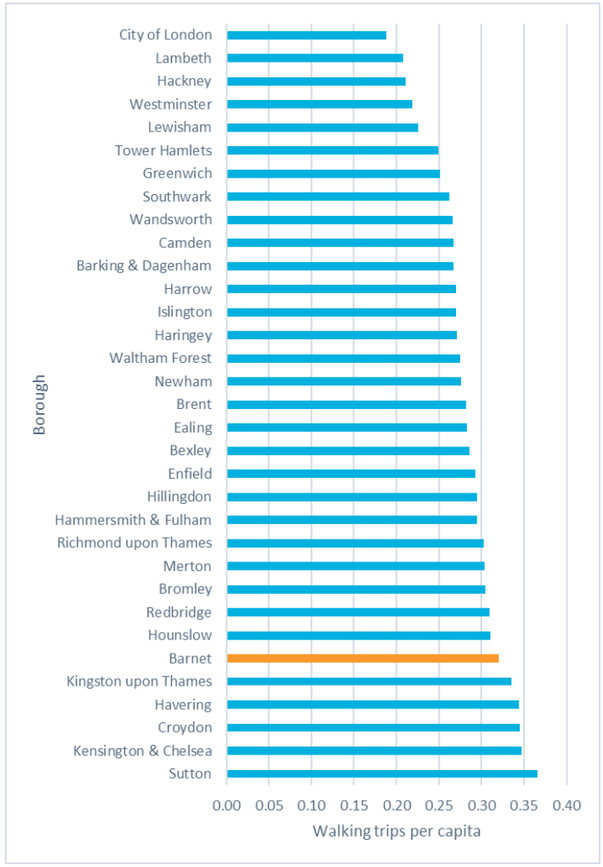


Figure 3.5: Potential walking trips by borough per capita



More than half of all potential walkable trips are for shopping and leisure purposes[148] and several of Barnet's town centre areas have been identified as having significant walking potential[149]. Centres identified include: Burnt Oak, Mill Hill, Edgware, Hendon, Garden Suburb, Golders Green, Finchley Central, East Finchley, Totteridge, New Barnet, Chipping Barnet and Southgate.

According to the TfL Walking Action Plan, 21% of Londoners said that too much traffic, or fast-moving traffic is their main barrier to walking. Reducing the levels of traffic, or reducing the speed of traffic could promote walking. Other concerns included streets not being pedestrian friendly and fear of road collisions. TfL suggests that for Outer London, the solutions will arise from significantly improving public transport and building denser, mixed-use developments that encourage active travel patterns.

Cycling

The potential for change in cycling in Barnet is two-fold: first, to convert trips that already exist to cycling; second, to ensure that new trips generated by the increase in housing, jobs and amenities in the borough, are cycled.

In terms of current trips, Barnet is second only to Croydon in number of potentially cyclable trips that currently use motorised transport (390,000 a day, approximately one per resident per day).[150] Currently only 8,700 trips are undertaken by bike per day despite 67%[151] of journeys in Barnet being less than five miles. Of these 390,000 potentially cyclable trips, 345,000 are currently made by car. Converting these trips to cycle would not only go a long way to meeting the MTS's active travel and air quality targets, but also would reduce congestion on Barnet's roads ensuring faster and more reliable journey times for traffic that does need to be on the road. This is true even with reduced road space, as demonstrated by 5% more people, using all modes, able to go through the Cycle Superhighway North-South and East-West corridors two weeks after the cycle superhighways were completed.[152]

The analysis of potential cycling trips defined a trip as a one-way movement from one place to another to achieve a single main purpose. The analysis looked at trips currently made by a motorised mode such as car or taxi. These trips were further filtered by a number of exclusionary criteria designed to reflect normal cycle trip patterns. For example, these criteria exclude trips where the traveller is carrying heavy loads or is over 64 or when the trip is longer than 8km. A similar method is applied to the walking potential trips, with relevant exclusionary criteria.

The Strategic Cycling Analysis undertaken by TfL identifies key potential cycle routes within Barnet, including the A1000, Ballards Lane, Woodhouse Road, Devonshire Road B1462, B552, as shown in Figure

[148] Transport for London (2017) Analysis of walking potential 2016 http://content.tfl.gov.uk/analysis-of-walking-potential-2016.pdf

[149] Ibid

[150] Ibid

[151] Ibid

[152] London Assembly (2018) London's Cycling Infrastructure https://www.london.gov.uk/sites/default/files/londons_cycling_infrastructure.pdf

3.6.[153] Although a Quietway between North Finchley to Hornsey is planned, there are no other concrete proposals for improved cycling infrastructure in the borough to realise this potential.

Delivering dense housing in the local area will provide an opportunity for cycling to be embedded in the design from the outset, rather than retro-fitted, boosting cycle potential further. The Area Action Plan for Colindale[154] already includes opportunities to link the area to West Hendon and Brent Cross avoiding the A5, M1 and A41.

The main barrier that stops people in London cycling more is a perception of danger. This stems from a fear of collisions with motor vehicles and the belief that traffic conditions are too busy to allow people to cycle[155]. The LTTS will need to consider how to address this on Barnet's key cycling routes: perceived danger and fear of too much traffic are not inevitabilities but the result of current travel behaviour and road design.

Figure 3.6: Key potential cycle routes

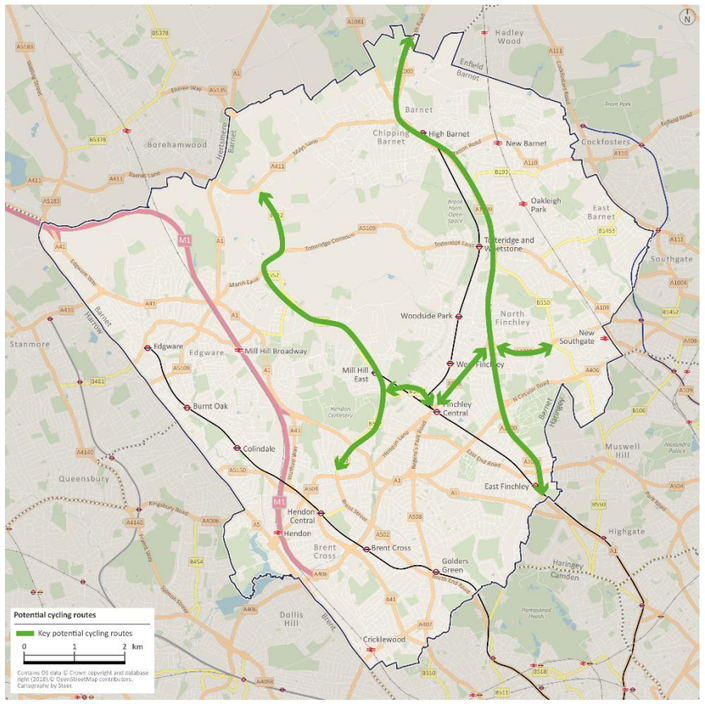
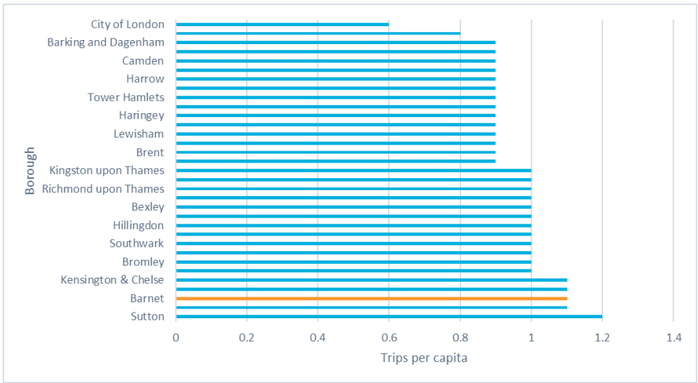


Figure 3.7: Potential cycling trips by borough

Figure 3.8: Potential cycling trips by borough per capita



Bus

The MTS seeks to improve bus journey and reliability by improving conditions for buses serving inner/ outer London and town centres and providing orbital links (MTS Proposal 59). This is particularly pertinent in Barnet, with its poor orbital links by modes other than car. The Mayor has set boroughs the target of increasing average bus speeds by 5 to 15%; in Barnet's case this would improve average bus speed from 10.7mph to between 11.3 and 12.4mph.[156] The best way to do this in outer London is to reduce congestion, by encouraging more trips to be undertaken by walking, cycling and public transport.

The same MTS proposal describes potential for an orbital express network that would see an express bus corridor encircling London. Extending from Ilford, through Barnet to Heathrow it would connect with already existing routes from Heathrow going towards Kingston and Croydon. The LTTS must consider these plans and how they fit with the wider aims of the borough.

The Borough has very few public transport links on the orbital routes. Those that do exist are suffering of low reliability and delays. The advantages of car travel are compounded by the door-to-door journey, reliability and independence the mode provides.

Table 3.4 compares the travel times between eastern and western town centres / Underground stations for public transport and cars. Car travel is typically two to four times faster. The advantages of car travel

[153] Transport for London (2017) Strategic Cycling Analysis http://content.tfl.gov.uk/strategic-cycling-analysis.pdf

[154] Barnet Council (2010) Colindale Area Action Plan.https://www.barnet.gov.uk/citizen-home/planning-conservation-and-building-control/planning-policies-and-further-information/local-plan/colindale-aap/colindale-area-action-plan.html

[155] Transport for London (2017) Attitudes to Cycling http://content.tfl.gov.uk/attitudes-to-cycling-2016.pdf

[156] TfL LIP Information to Boroughs, 2018

are compounded by the door-to-door journey, reliability and independence the mode provides.

Table 3.4: Orbital travel times using public transport vs private car[157]

		West							
		Edgware		Burnt Oak		Cricklewood		Golders Green	
		PT	Car	PT	Car	PT	Car	PT	Car
East	High Barnet	50	16+	40-50	16+	35-45	22+	35-45	18+
	North Finchley	40-50	18+	40	14+	35-40	12+	30-35	10+
	Finchley / Church End	30-35	14+	30-40	12+	25-35	10+	20	7+
	East Finchley	35-40	20+	35-40	18+	25-35	12+	20-30	7+

Underground

3.24 The key planned upgrade for Barnet's residents is the capacity upgrade at Camden Town. By creating more circulation space to change between trains underground at Camden Town, future capacity expansion on the Northern Line is facilitated. However, this plan has been put on hold until capital funding is available.

3.25 Mill Hill East is scheduled for step-free access improvements by the end of 2020. By 2022, 40% of the tube network will be step-free, including popular destinations for Barnet residents such as Bank.

3.26 However, it is expected that the increase in residents in Barnet will drive more crowding on both branches of the Northern Line. By 2041, with only the schemes already committed, the High Barnet branch in the morning rush hour is expected to exceed 5 people per square metre before leaving the borough and the Edgware branch shortly after[158]. Data from Massachusetts suggests 61% of men and 69% of women refuse to board public transport if there are more than 4 people per square metre already on board.[159] The LTTS must consider how the Council can alleviate this situation.

Rail

There are three key rail schemes that will affect Barnet's residents: a new Thameslink station at Brent Cross; Crossrail 2; and London Overground improvements such as the West London Orbital.

As part of the Brent Cross redevelopment, a new Thameslink station will be built at Brent Cross West, On the same line as Cricklewood, Hendon and Mill Hill Broadway, Brent Cross West will provide access to Kings Cross in under 15 minutes. The new station is scheduled to open in 2022. The LTTS should seek to capitalise on this opportunity to encourage modal shift, particularly by ensuring that residents living in the new developments in the area use this new station.

Crossrail 2 is proposed to open by 2031. Though the Crossrail 2 route alignment and stations have yet to be finalised, Proposal 61 in the MTS states that TfL will seek for construction to start in the early 2020s. The design published in the MTS includes New Southgate in Barnet as a proposed Crossrail 2 station, as shown in Figure 3.9. However, even without a station within the borough itself, Crossrail 2 will likely have an indirect impact on Barnet residents by alleviating crowding on both branches of the Northern Line through absorbing passenger loads for journeys from north east to central and south London who might otherwise interchange onto the Northern Line. For example, journeys from Seven Sisters to Tottenham Court Road could be completed on Crossrail 2, rather than an interchange with the Northern Line at Kings Cross.

Elizabeth Line (Crossrail 1), which is currently being built, aims to provide an east-west radial link, cutting travel times along the route. According to Transport for London, the line will have a relatively limited impact in areas away from the route and further intervention is required.[160]

Figure 3.9: Crossrail 2 route (consultation 2015)

Potential improvements to the London Overground – West London Orbital – are discussed in the MTS, as shown in Figure 3.10. The West London Orbital is a new planned connection that would help connect west of the Borough – the focus area for new housing in the Borough. According to the Transport for London's business case, the travel times between Brent Cross and Harlesden is the same as between Harlesden and Southfields, despite being 50% shorter.

[157] Travel times when using public transport and walking vs private car. Times estimated for a journey beginning during the morning peak.

[158] GLA (2018) Mayor's Transport Strategy

[159] Massachusetts Bay Transportation Authority (2016) At what level does crowding become unacceptable

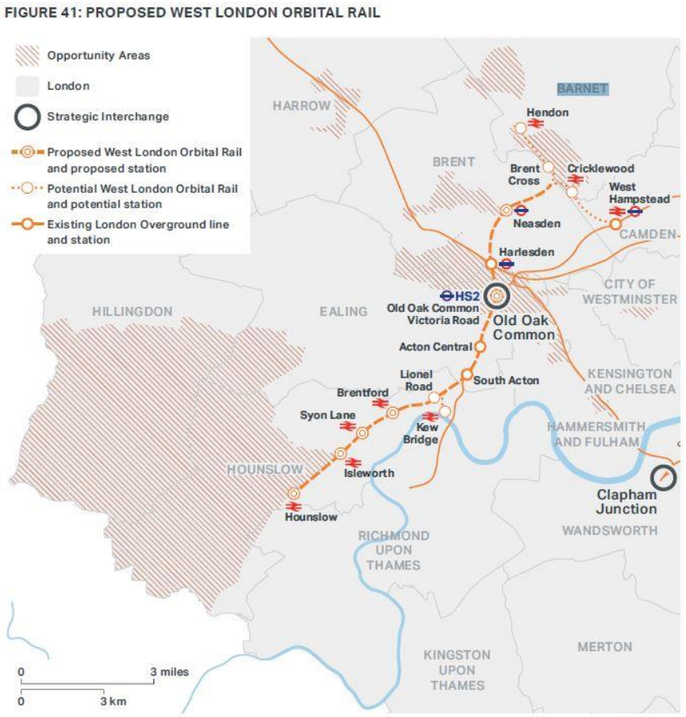
https://www.mbtabackontrack.com/blog/48-at-what-level-does-crowding-become-unacceptable

[160] Transport for London (2019) West London Orbital Strategic Business Case content.tfl.gov.uk/west-london-orbital-strategic-outline-business-case.pdf

Brent Cross and Cricklewood will see 7,500 built in the upcoming years and Old Oak and the Great West Corridor are forecast as future large-scale employment centres. An efficient public transport link is crucial to ensure a symbiotic growth of those areas, without a dependence on private cars.[161]

This proposal could significantly improve currently underserved orbital connections in North West London between Barnet, Brent and on to Hounslow.

Figure 3.10: Proposed West London orbital rail



The LTTS must consider these schemes and prioritise which should be lent the greatest support given the likely constrained funding landscape over the next decade.

Car

3.27 Without action from the LTTS, car trips are expected to increase by 8% by 2041. This will place greater strain on the already congested road network, as detailed in the next section. The LTTS must consider methods that reduce car mode share without compromising the quality of life of residents in the borough.

[161] Transport for London (2019) West London Orbital Strategic Business Case content.tfl.gov.uk/west-london-orbital-strategic-outline-business-case.pdf

Impacts

Summary:

- Barnet plans to improve and enhance access to green space
- Road transport emissions need to reduce significantly
- Air quality is predicted to improve in line with technological improvements

What this means for the LTTS:

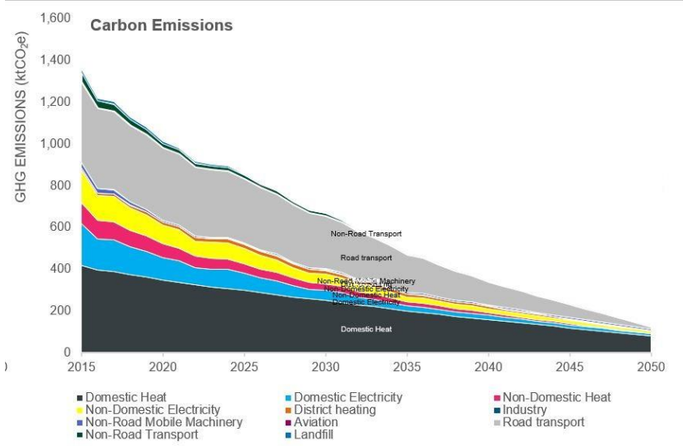
- Improved links to greenspaces should be included within the LTTS as an opportunity to create green routes for walking and cycling
- The LTTS should look at ways to offer residents and commuters more sustainable travel choices, to allow a natural shift away from vehicle use
- Where possible, the LTTS should seek to future proof the borough, allowing space for emerging clean technology to be incorporated into existing transport infrastructure.

Environment

Energy consumption and greenhouse gases

3.28 As part of the Mayor of London's 2018 Environment Strategy[162], the London Zero Carbon Pathways Tool was developed, which plotted the expected pathway for each borough to reduce Carbon emissions. The chart for Barnet is shown below in Figure 3.11.

Figure 3.11: Carbon Emissions pathway for Barnet to 2050



3.29 As can be seen in Figure 3.11, road transport carbon emissions are expected to reduce dramatically between 2015 and 2050. Between 2015 and 2040, CO_2 emissions from road transport are intended to be reduced from 383 units to 110, a 71% reduction. This reduction is broadly in-line with the neighbouring boroughs of Harrow and Enfield.

3.30 The carbon pathways tool was developed in line with the Mayor's Environment Strategy, and the reductions reflected in the tool can only be achieved if required investment is made. This includes, for example, installing hydrogen fuelling zones across London and a zero emission zone (ZEZ), banning all petrol and diesel vehicles, in Outer London by 2050. The LTTS will need to prepare for this.

Air quality

3.31 Long term data trends from the air quality monitoring stations are very positive, indicating a steady and consistent reduction in NO2 concentrations which will be further aided by cleaner fuels and technologies and future legislation. As shown in **Error! Reference source not found.**, approximately 50% of NOx, PM10 and PM2.5 is generated by road transport, therefore a reduction in road transport could be key to improving air quality.[163]

Congestion

3.32 Maps overleaf show the change in demand link flows – need for travel between fixed points in Barnet. The increase in population, expansion of Brent Cross and other regeneration schemes will mean an increase in traffic demand as shown in Figure 3.12. This figure shows the change in demand on link flows, in other words the demand along different stretches of road. The LTTS will need to reduce and mitigate this excess demand. Figure 3.13 shows that without reduction and mitigation measures, a large proportion of the Edgware area of the borough will have roads operating beyond capacity by 2041. Because the roads will be carrying more traffic and have little extra capacity, junction delays will increase, as shown in Figure 3.14.

Highways England plan to increase capacity on the A1(M) by providing an additional 14 lane miles to relieve congestion in Hertfordshire, including Stevenage and Welwyn Garden City, which may exacerbate these difficulties by delivering more traffic onto Barnet's roads.

[162] Greater London Authority (2018) Draft Mayor's Environment Strategy https://www.london.gov.uk/sites/default/files/london_environment_strategy-_draft_for_public_consultation.pdf

[163] Barnet Council (2017) Air Quality Action Plan (2017-2022) https://www.barnet.gov.uk/sites/default/files/assets/citizenportal/documents/EnvironmentalHealth/ScientificServices/AirQualityActionPlan2017consultationdocument.pdf

Figure 3.12: Changes in demand link flows to 2041[164]

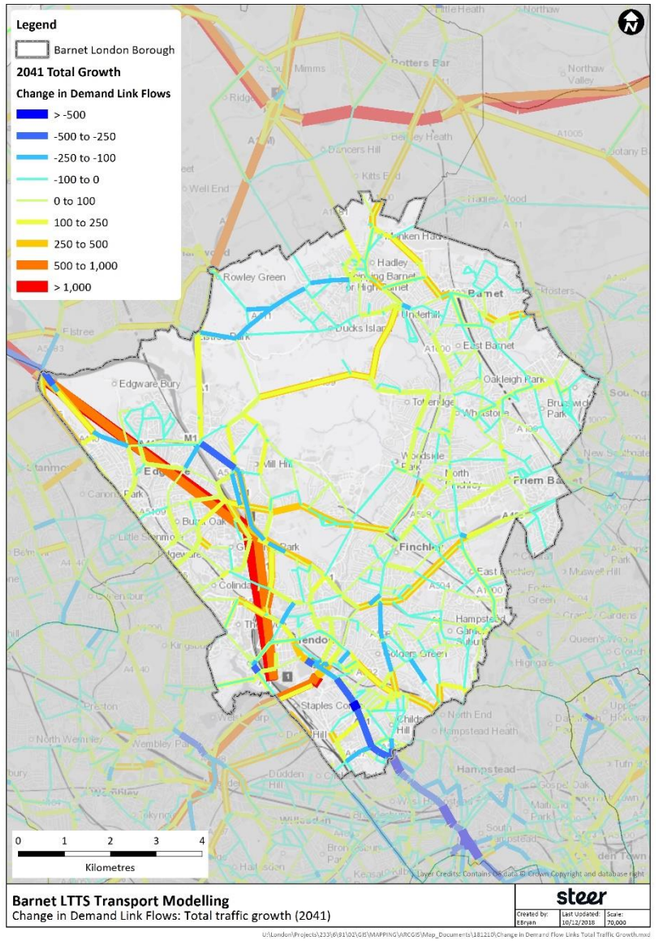


Figure 3.13: Volume over capacity ratio (2041)[165]

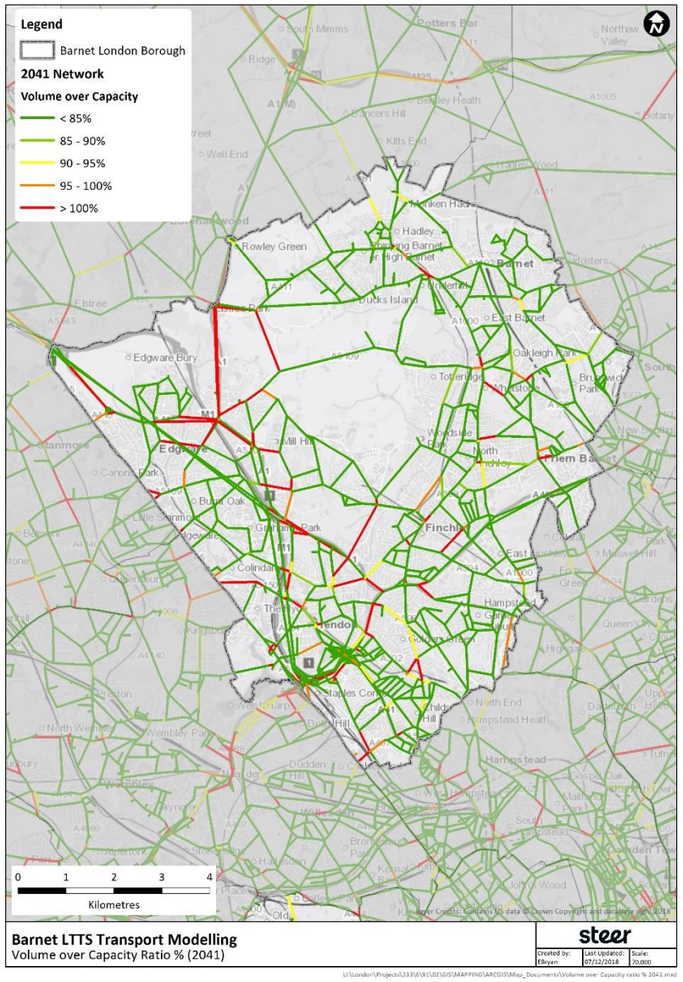
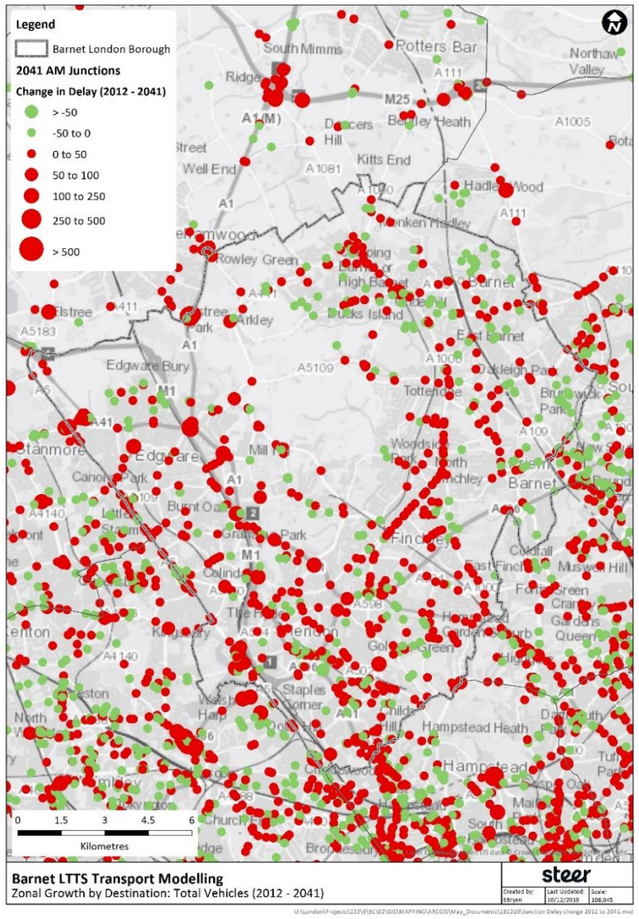


Figure 3.14: Junction delay changes by 2041[166]



[164] Steer modelling (2019) based on TfL Strategic Models

[165] Ibid.

[166] Ibid.

Evidence Base: Barnet Long Term Transport Strategy 2020 - 2041

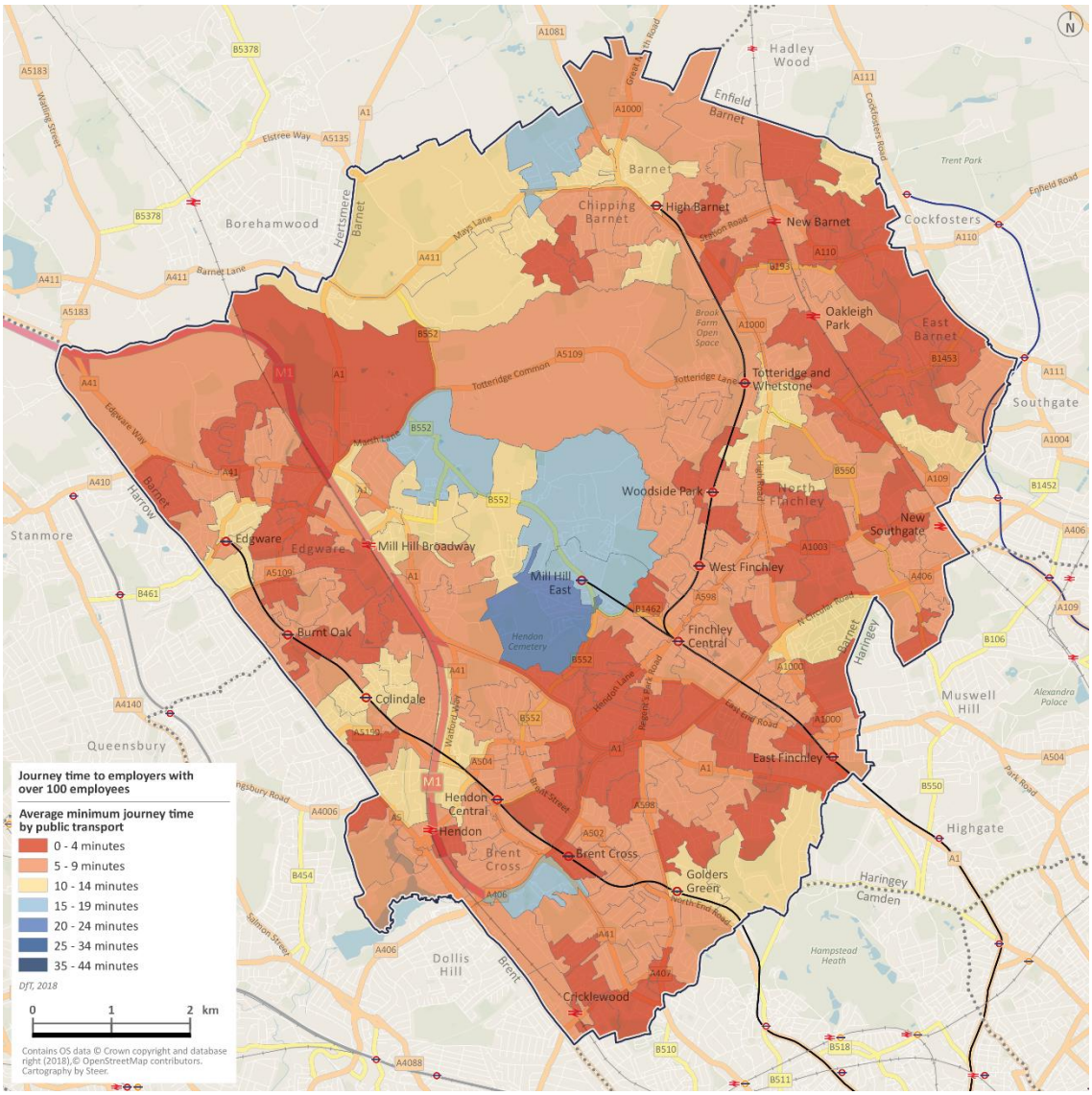
If you require Appendices with unnumbered pages please place them after this text.

A Journey Time Comparison Maps

The set of maps overleaf illustrates average minimum travel times by Public Transport to:

- Employment (employers with over 100 staff);
- Services – food stores, GPs and public hospitals;
- Education – both primary and secondary; and
- Barnet's town centres.

Dark shades of red indicate short travel times to those services, while dark shades of blue indicate long travel times. The travel times are based on services available within the Borough – for example, hospitals outside of Barnet were not considered, The maps not only explain travel patterns in well-accessible areas, but also highlight places which might need improvement to achieve the strategy objectives in the long term.


Journey time to employers with over 100 employees
Average minimum journey time by public transport
0 - 4 minutes
5 - 9 minutes
10 - 14 minutes
15 - 19 minutes
20 - 24 minutes
25 - 34 minutes
35 - 44 minutes
DfT, 2018
0
1
2 km
Contains OS data © Crown copyright and database right (2018), © OpenStreetMap contributors. Cartography by Steer.
Barnet
Chipping Barnet
High Barnet
New Barnet
Cockfosters
Hadley Wood
Enfield
Borehamwood
Oakleigh Park
East Barnet
Totteridge and Whetstone
Southgate
Woodside Park
North Finchley
New Southgate
Edgware
Mill Hill Broadway
Mill Hill East
West Finchley
Finchley Central
Burnt Oak
Colindale
Queensbury
Stanmore
Hendon Central
Hendon
Brent Cross
Golders Green
East Finchley
Muswell Hill
Highgate
Haringey
Camden
Dollis Hill
Cricklewood
Hampstead Heath
M1
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A406
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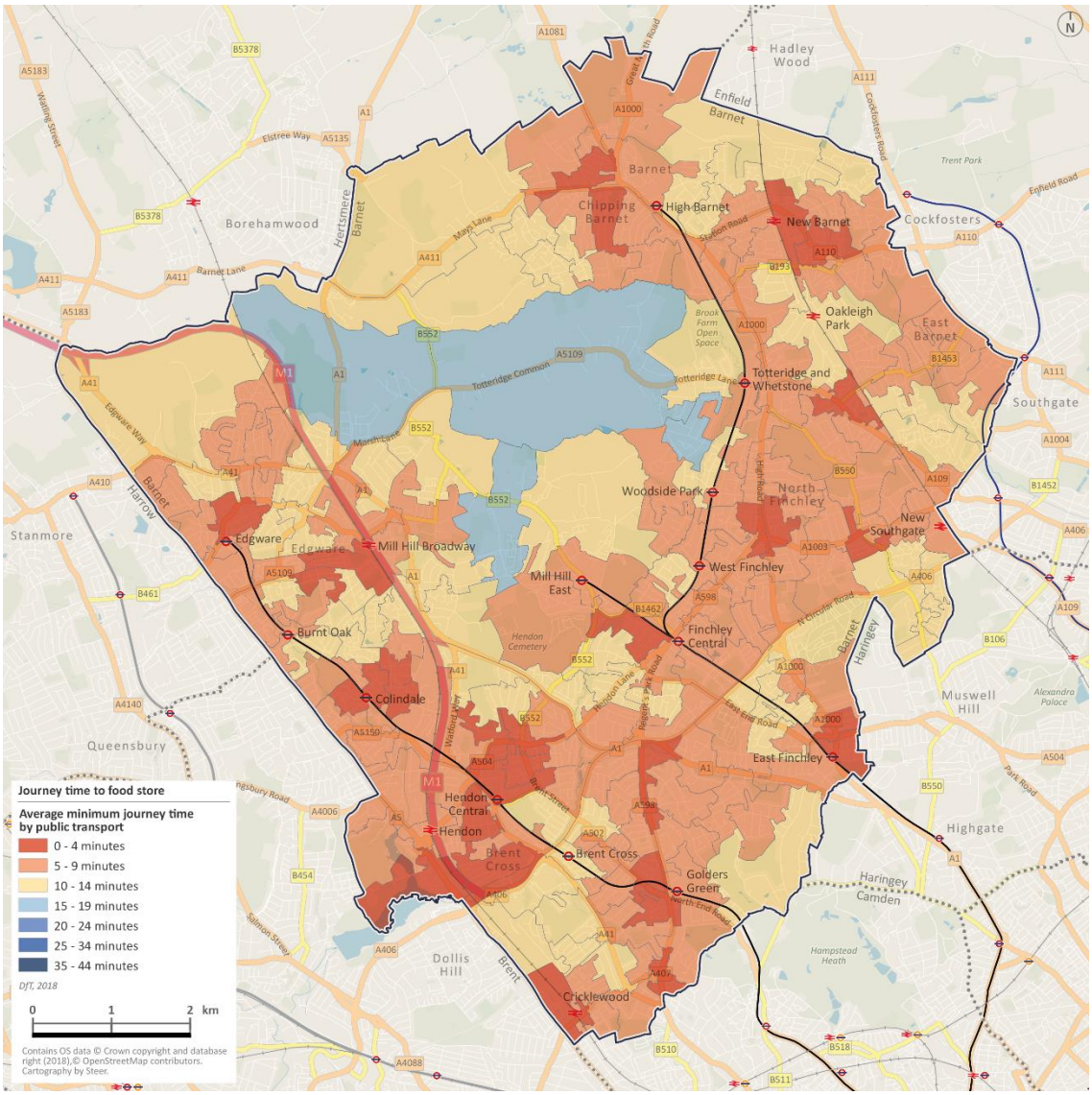
Journey time to food store
Average minimum journey time by public transport
0 - 4 minutes
5 - 9 minutes
10 - 14 minutes
15 - 19 minutes
20 - 24 minutes
25 - 34 minutes
35 - 44 minutes
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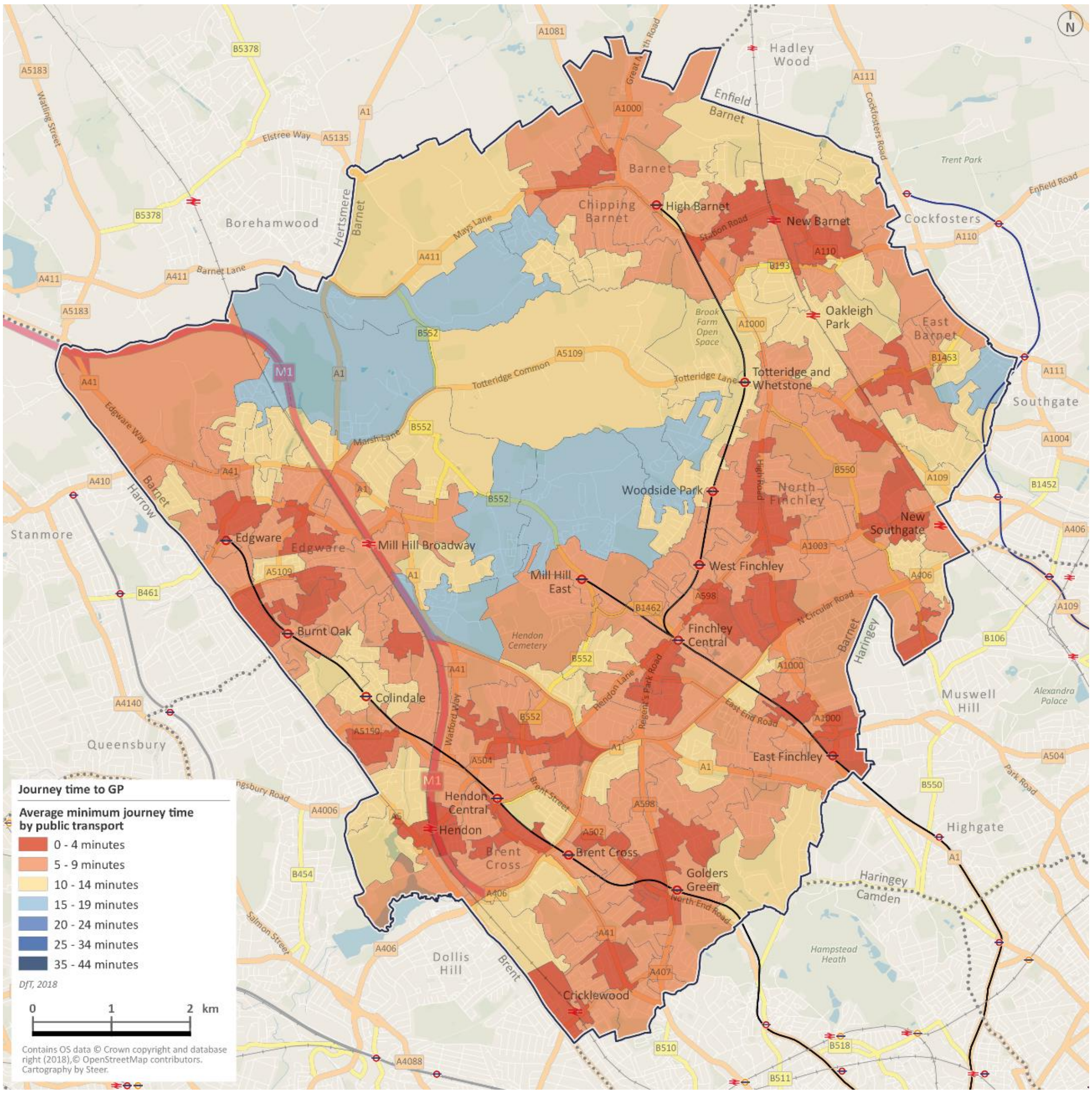
Oakleigh Park
East Barnet
Totteridge and Whetstone
Southgate
Woodside Park
North Finchley
New Southgate
Edgware
Mill Hill Broadway
West Finchley
Stanmore
Mill Hill East
Finchley Central
Burnt Oak
Colindale
Queensbury
Muswell Hill
East Finchley
Hendon Central
Hendon
Brent Cross
Golders Green
Highgate
Haringey
Camden
Dollis Hill
Cricklewood


Journey time to GP
Average minimum journey time by public transport
0 - 4 minutes
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10 - 14 minutes
15 - 19 minutes
20 - 24 minutes
25 - 34 minutes
35 - 44 minutes
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Barnet
Chipping Barnet
High Barnet
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Oakleigh Park
East Barnet
Totteridge and Whetstone
Southgate
Woodside Park
North Finchley
New Southgate
Edgware
Mill Hill Broadway
Mill Hill East
West Finchley
Finchley Central
Burnt Oak
Colindale
East Finchley
Muswell Hill
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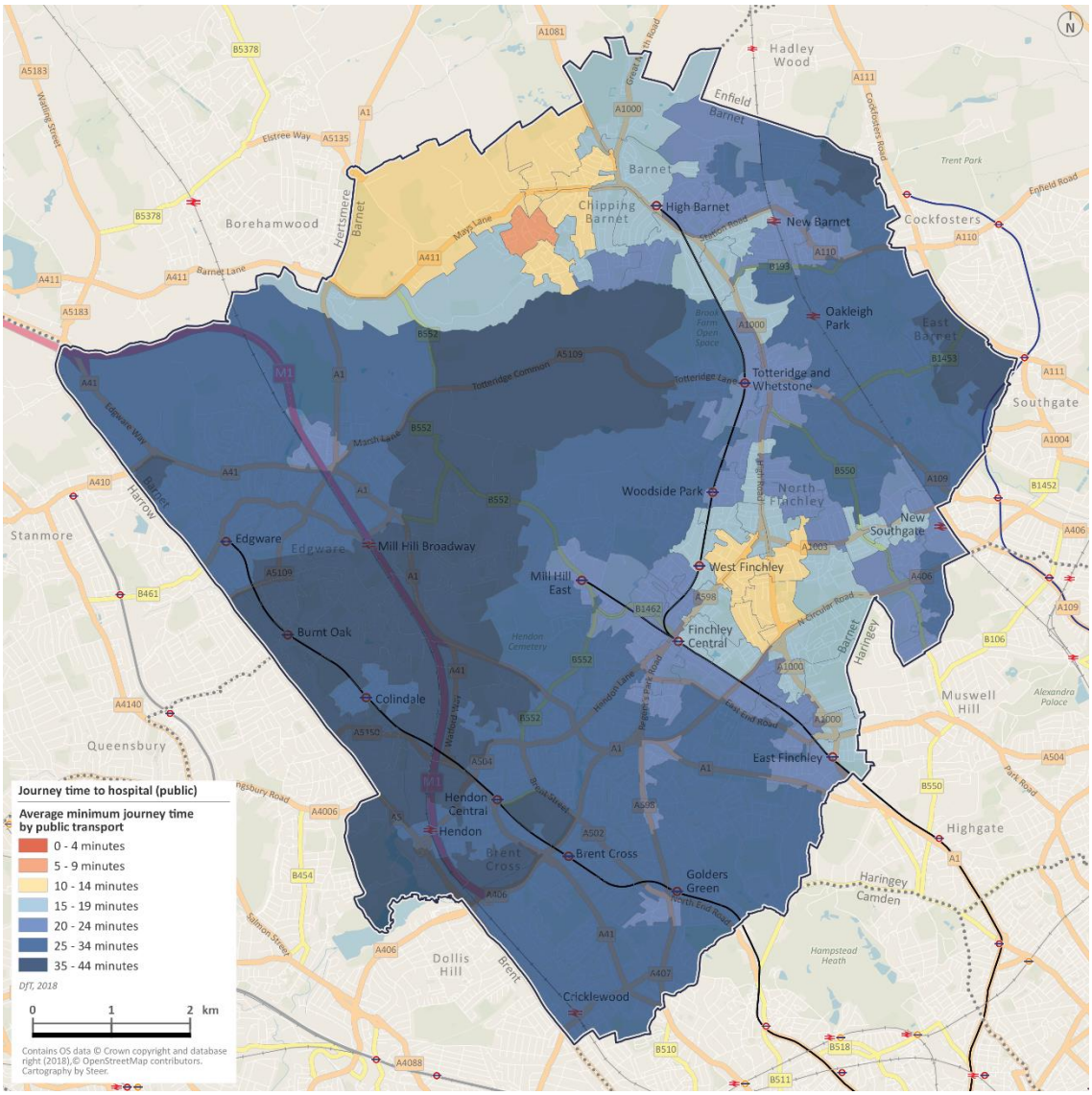
Golders Green
Highgate
Cricklewood
Dollis Hill
Queensbury
Stanmore
Borehamwood
Hadley Wood


Journey time to hospital (public)
Average minimum journey time by public transport
0 - 4 minutes
5 - 9 minutes
10 - 14 minutes
15 - 19 minutes
20 - 24 minutes
25 - 34 minutes
35 - 44 minutes
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Totteridge and Whetstone
Southgate
Woodside Park
North Finchley
New Southgate
Edgware
Mill Hill Broadway
Mill Hill East
West Finchley
Finchley Central
Burnt Oak
Colindale
Queensbury
Stanmore
Hendon Central
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Brent Cross
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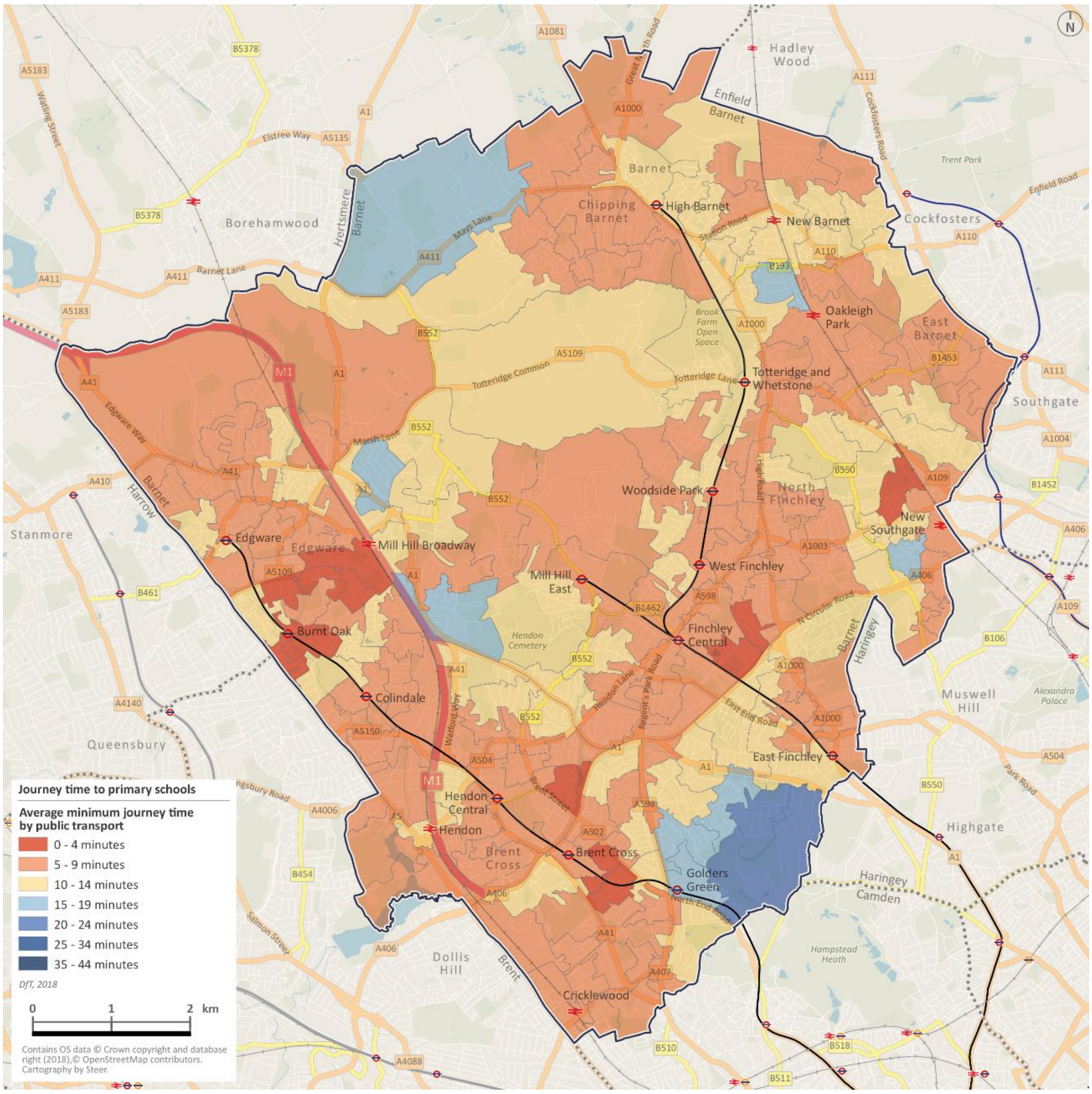
Muswell Hill
Highgate
Haringey
Camden
Dollis Hill
Cricklewood
Hampstead Heath


Journey time to primary schools
Average minimum journey time by public transport
0 - 4 minutes
5 - 9 minutes
10 - 14 minutes
15 - 19 minutes
20 - 24 minutes
25 - 34 minutes
35 - 44 minutes
DfT, 2018
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Contains OS data © Crown copyright and database right (2018), © OpenStreetMap contributors. Cartography by Steer.
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Borehamwood
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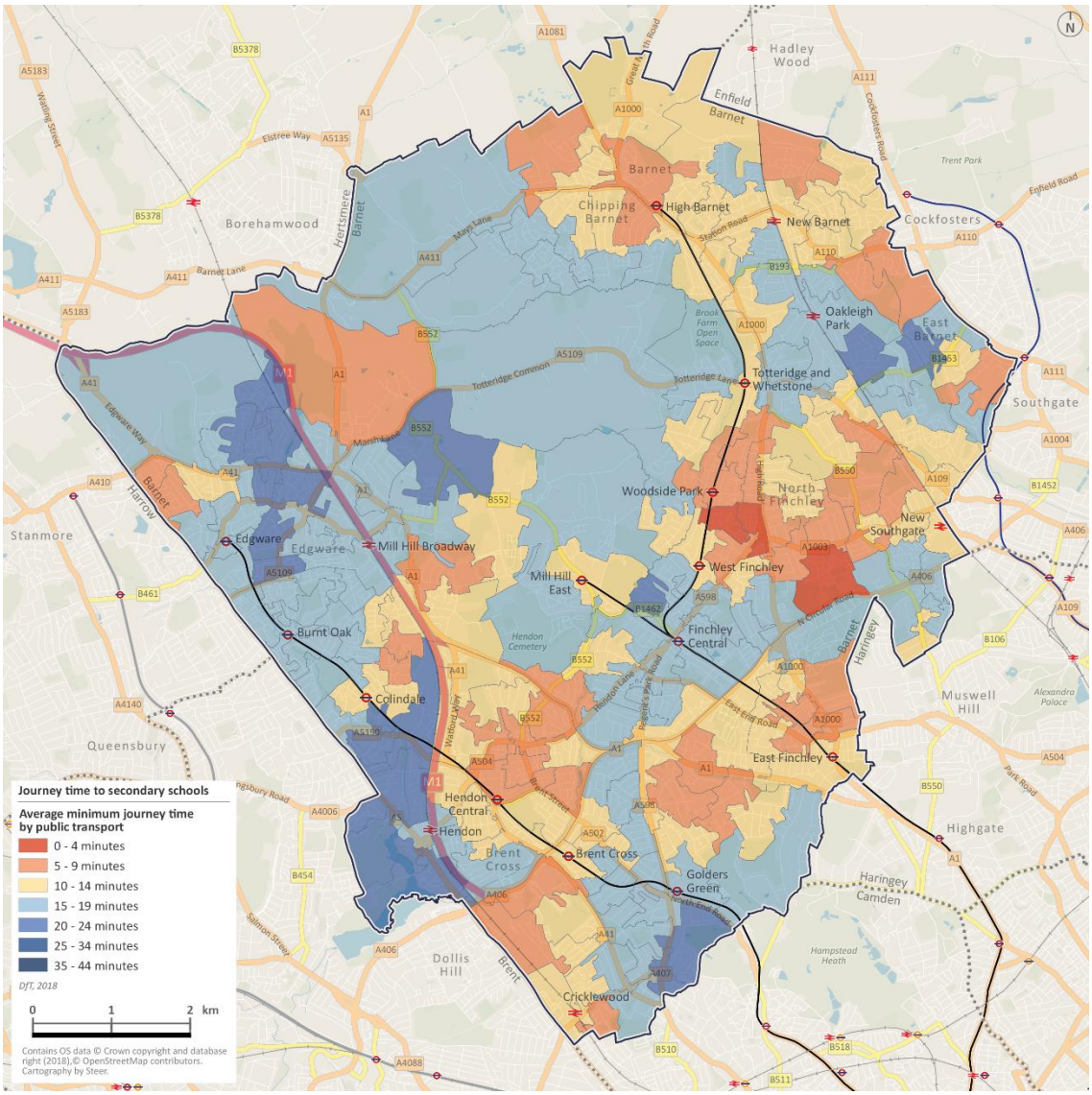
Oakleigh Park
East Barnet
Totteridge and Whetstone
Southgate
Woodside Park
North Finchley
New Southgate
Stanmore
Edgware
Mill Hill Broadway
West Finchley
Mill Hill East
Finchley Central
Burnt Oak
Colindale
Muswell Hill
Queensbury
East Finchley
Hendon Central
Hendon
Brent Cross
Highgate
Golders Green
Haringey
Camden
Dollis Hill
Cricklewood
Hampstead Heath
Hendon Cemetery
Brook Farm Open Space
Trent Park
Alexandra Palace
M1


Journey time to secondary schools
Average minimum journey time by public transport
0 - 4 minutes
5 - 9 minutes
10 - 14 minutes
15 - 19 minutes
20 - 24 minutes
25 - 34 minutes
35 - 44 minutes
DfT, 2018
0
1
2 km
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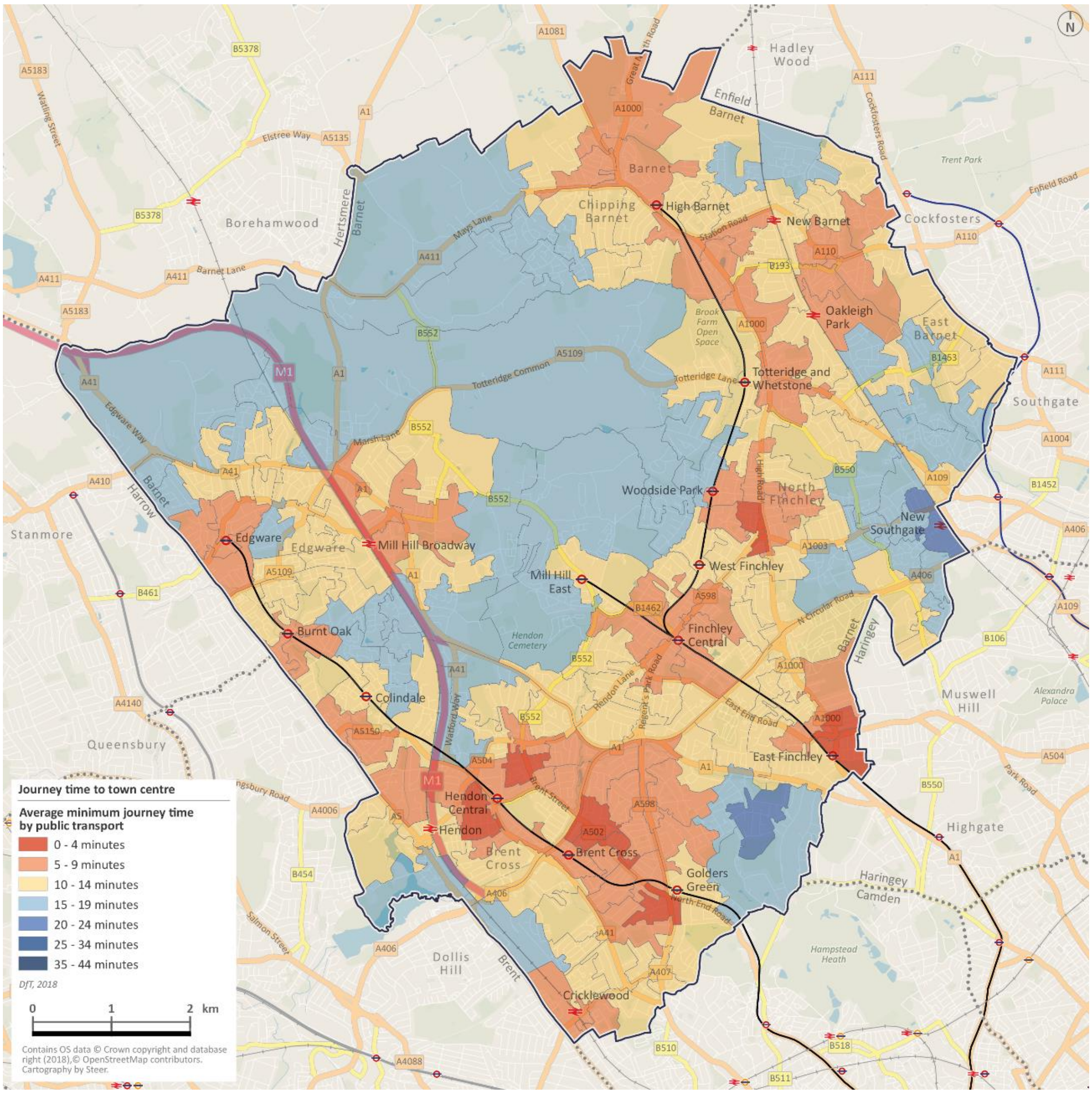
Barnet
Chipping Barnet
High Barnet
New Barnet
Cockfosters
Hadley Wood
Enfield
Borehamwood
Oakleigh Park
East Barnet
Totteridge and Whetstone
Southgate
Woodside Park
North Finchley
New Southgate
Edgware
Mill Hill Broadway
Mill Hill East
West Finchley
Finchley Central
Burnt Oak
Colindale
Queensbury
Stanmore
Hendon Central
Hendon
Brent Cross
Golders Green
East Finchley
Muswell Hill
Highgate
Haringey
Camden
Dollis Hill
Cricklewood
Hampstead Heath


Journey time to town centre
Average minimum journey time by public transport
0 - 4 minutes
5 - 9 minutes
10 - 14 minutes
15 - 19 minutes
20 - 24 minutes
25 - 34 minutes
35 - 44 minutes
DfT, 2018
0
1
2 km
Contains OS data © Crown copyright and database right (2018),© OpenStreetMap contributors. Cartography by Steer.
Barnet
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Brent Cross
Golders Green
Cricklewood
Borehamwood
Stanmore
Queensbury
Cockfosters
Southgate
Muswell Hill
Highgate
Hadley Wood
Dollis Hill

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Version control/issue number

V1.0
V5.0

Date

18 January 2019
19 December 2020

Initial Equality Analysis (EIA)
Resident/Service User

1. Details of function, policy, procedure or service:	
Title of what is being assessed: Barnet Long Term Transport Strategy	
Is it a new or revised function, policy, procedure or service? New policy The aim of the project is to develop a long term transport strategy for Barnet to 2041 for Barnet. The Strategy will set out our vision for mobility in the borough over the next 20 years and map out a process showing how we will deliver that vision. The Strategy is aimed at a general audience, as well as key stakeholders. Taken together, the Strategy and the Local Implementation Plan (LIP) will define the scope, and prioritise our interventions to improve transport in the borough and support the expected growth of the borough as noted in the councils new Draft Growth Strategy. The expected outcome of the Strategy is to shape the way the transport network develops in order to support growth, make the best use of available resources, and to improve public health and air quality. The Strategy and the LIP complements the Mayor of London's Transport Strategy for which an Integrated Impact Assessment has been carried out[1].	
Department and Section: Environment – Transport & Highways	
Date assessment completed: December 2019	
2. Names and roles of people completing this assessment:	
Lead officer	Robert Poole, Cara Elkins
Other groups	
3. Employee Profile of the Project	**Will the proposal affect employees?** Employees who travel across Barnet carrying out their roles will face the same impacts as noted within this Resident EIA. Therefore, a specific Employee EIA has not been produced. **If no please explain why.** **If yes, please seek assistance from HR to complete the employee EIA.**

How are the following equality strands affected? *Please detail the effect on each equality strand, and any mitigating action you have taken / required. Please include any relevant data. If you do not have relevant data please explain why / plans to capture data*			
Equality Strand	**Affected?**	**Explain how affected**	**Indicate what action has been taken / or**

[1] http://content.tfl.gov.uk/integrated-impact-assessment-report.pdf

			is planned to mitigate impact?
1. Age	Yes ☒ / No ☐	Between 2018 and 2030, the Barnet population aged 65+ is projected to increase by 33%. Young people (0-19) projected to decrease by 2%.[2] **Positive** The implementation of the strategy is expected to improve air quality, transport service connectivity and accessibility and safety/ security. Improvements to air quality are expected to be particularly beneficial to children and older people's health, who are impacted disproportionately by poor air quality. Any measures to improve transport connectivity, accessibility and security will enable more active/ sustainable travel among these groups and combat social isolation. Additionally, the strategy includes targeted schemes to increase participation in sustainable travel, particularly for younger people. For example, there is a focus on enabling more children to travel actively on the journey to school **Negative** Incentivising car-free living, though intending to improve air quality, reduce car dependency and encourage active travel, could negatively impact older people who are more likely to own a car. Car-free measures would also affect other groups who could have difficulty travelling on public transport. However, this negative impact is expected to be outweighed by the broad health and accessibility benefits delivered by the Strategy.	Mitigation measures could include prioritising car parking for blue badge holders, increasing the availability of car club services and improving the quality of public transport services.
2. Disability	Yes ☒ / No ☐	In the 2011 Census, 14.0% of Barnet respondents reported a long-term health problem or disability that limited their daily activities.[3] This is expected to rise as the population grows and ages. Disability is often	

[2] Barnet Council (2018) JSNA – Demography

[3] Office for National Statistics (2011) Long-term health problem or disability.

		associated with other health conditions, lower life expectancy, higher rates of risky behaviour (such as smoking, poor diet, physical inactivity).[4] **Positive** With improved transport accessibility and connectivity, journey times for those who rely on step-free access to rail and underground services should improve.[5] Measures to increase participation in active and sustainable travel, including bus ridership and inclusive cycling initiatives could help improve disabled people's health, as they are more likely to experience higher mortality rates than the general population.[6] Disabled people are twice as likely to be inactive when compared to non-disabled people,[7] and generally research has highlighted the relatively poor health (shorter life expectancy; respiratory disease and coronary heart disease incidence) of people with learning disabilities in numerous aspects of health.[8] **Negative** If transport service accessibility and connectivity is not improved, this could deter travelling and narrow opportunities for economic and social activity, with potential negative consequences for physical and mental well-being. The impact of this could be similar for older people and parents with young children. Incentivising car-free living, though intending to improve air quality, reducing car dependency and encourage sustainable travel, could negatively impact people with	Mitigation measures could include prioritising car parking for blue badge holders, increasing the availability of car club services and improving the quality of public transport services.

[4] Barnet Council (2018) JSNA – Demography.
[5] Lambeth Council (2018) Lambeth Transport Strategy & Local Implementation Plan.
[6] Messent, P.R., Cooke, C.B. and Long, J. (1999) Primary and secondary barriers to physically active healthy lifestyles for adults with learning disabilities. Disabil Rehabil, 21(9), 409-419.
[7] Public Health England (2018) Physical activity for general health benefits in disabled adults.
[8] Emerson, E. and Baines, S. (2011) Health inequalities and people with learning disabilities in the UK. Tizard Learning Disability Review, 16(1), 42-48.

		disabilities who rely on cars. Car-free measures would also affect other groups who could have difficulty travelling on public transport.	
3. Gender reassignment	Yes ☒ / No ☐	Though figures are not available at borough level, the Government Equalities Office estimates that there are approximately 200,000 – 500,000 trans people in the UK.[9] A 2011 survey undertaken by the Equalities Office reported respondents most feared for their safety on the streets and on public transport.[10] **Positive** Measures to improve transport safety and security will be beneficial to this group. Other policy approaches are likely to be neutral in terms of equalities considerations with other groups.	
4. Pregnancy and maternity	Yes ☒ / No ☐	Issues that impact on women, are relevant here, such as transport security and transport accessibility. **Positive** Measures promoting ease of accessibility and movement will have a positive impact on (expectant) mothers, as well as the general population. Improvements such as dropped kerbs, reduced gradients and the installation of Equality Act 2010 – compliant infrastructure at bus stops and rail stations will improve accessibility for adults travelling with young children in push chairs. Measures to improve air quality will be beneficial to pregnant women, who have found to be vulnerable to air pollution, as unborn children's exposure has been associated with low birth weight.[11] **Negative** Incentivising car-free living, though intending to improve air quality, reduce car dependency and encourage active travel, could negatively impact those people who rely on cars. Car-free measures could	Mitigation measures could include increasing the availability of car club services and improving the quality of and physical

[9] Government Equalities Office (2018) Trans People in the UK.
[10] Government Equalities Office (2011) Headline findings from our transgender online survey.
[11] Smith *et al.* 2017. Impact of London's road traffic air and noise pollution on birth weight: retrospective population based cohort study. BMJ, 359.

		negatively impact adults with young children and prams.	access to public transport services.
5. Race / Ethnicity	Yes ☒ / No ☐	Between 2018 and 2030, Barnet's population is projected to become more ethnically diverse. In 2018, the White ethnic group comprised 60.5% of the borough's population, but by 2030, this is predicted to reduce to 57.7%. The proportion of Black, Asian and Minority Ethnic (BAME) people in the borough is projected to rise from 39.5% in 2018 to 42.3% in 2030.[12] In Barnet, the highest proportions of BAME are found in the most deprived wards.[13] **Positive** The implementation of the Strategy is expected to increase participation among underrepresented groups. BAME groups are overrepresented in indices of deprivation, and are more likely to be exposed to transport related harmful impacts, such as traffic collisions[14] and poor air quality[15] which the Strategy seeks to address. Measures to address Anti Social Behaviour (ASB) on public transport will positively affect people who fear racial discrimination.	
6. Religion or belief	Yes ☒ / No ☐	As of 2017, 38.6% of respondents to the Annual Population Survey are Christian, 22.6% are Jewish, 20.5% have no religion, 8.1% are Muslim, 4.8% are Hindu, 3.2% are other, 1.2% are Sikh and 1.1% are Buddhist.[16] **Positive** Anti-social behaviour on public transport can relate to signs of religion. The policies of the Strategy, particularly around security and safety, are likely to impact all faith groups equally, as well as the other protected groups.	

[12] Barnet Council (2018) JSNA – Demography.
[13] Barnet Council (2018) JSNA – Demography.
[14] Steinbach R, Edwards P, Green J, and Grundy C (2007) Road Safety of London's Black and Asian Minority Ethnic Groups: A report to the London Road Safety Unit.
[15] Air quality and social deprivation in the UK: an environmental inequalities analysis, 2006.
[16] Barnet Council (2018) JSNA – Demography.

		Negative Traffic conditions, public transport, parking and other factors influence residents' ability to travel to places of worship and meet religious obligations. If any of the transport policies change service availability, this could prohibit residents from travelling to places of worship or meeting religious obligations.	Mitigation measures could ensure that a range of options for travel are available which in turn should enable people to make the best choice for themselves.
7. Gender / sex	Yes ☒ / No ☐	A 2013 TfL survey found that 15% of women had experienced unwanted sexual behaviour while travelling on public transport in London over the previous twelve months, and that 90% had not reported it to the police. **Positive** Measures to address anti social behaviour and safety on public transport will positively affect women, as well as all other groups, who do not feel safe while using public transport.	
8. Sexual orientation	Yes ☒ / No ☐	In 2015, London had the largest percentage (2.6%) of the British population who identified as gay, lesbian or bisexual.[17] TfL research on LGB perspectives of public transport indicates that key priorities should include: safety, reliability, customer service and information, and personal safety. It is difficult to accurately estimate the number of LGBTQI+ in London as this category is not included in the Census.[18] **Positive** Measures to address anti social behaviour and safety on public transport will positively affect LGBTQIA+ people who fear discrimination because of their sexuality.	
9. Marital Status	Yes ☐ / No ☒	None	
10. Other key groups?	Yes ☒ / No ☐	Policies relating to: transport service security, accessibility and connectivity; active/car free travel and air quality are expected to impact	

[17] Office for National Statistics (2015) Sexual identity, UK: 2015
[18] Assessment of the GGLA's impact on lesbian, gay and bisexual equality

		these groups to the same degree as the other groups above.	
Carers	Yes ☒ / No ☐	The implementation of the Strategy is expected to improve physical access to the public transport network for parents/carers, for whom step-free access may be particularly important	
People with mental health issues	Yes ☒ / No ☐		
Some families and lone parents	Yes ☒ / No ☐		
People with a low income	Yes ☒ / No ☐	There is a correlation between income and health; lower income groups are more likely to experience poor health.[19] Many of the negative external impacts of the transport network are experienced disproportionately by groups with fewer economic resources and those in relative deprivation. For example, poor air quality exposure is correlated to proximity to main roads where housing may be more accessible to these groups. Further, these groups are over-represented in road traffic collisions.[20] Measures to improve air quality and road safety will be beneficial to this group. If new technologies are trialled by and marketed toward those with more resources, low-income groups could be negatively affected as they are likely to have less access.	
Unemployed people	Yes ☒ / No ☐		
Young people not in employment education or training	Yes ☒ / No ☐		

5. Please outline what data sources, measures and methods could be designed to monitor the impact of the new policy or service, the achievement of intended outcomes and the identification of any unintended or adverse impact? *Include how frequently monitoring could be conducted and who will be made aware of the analysis and outcomes*
Monitoring the impact of the Strategy will be dependent upon the actions which are generated as part of Strategy. At this time in the Strategy development we are unsure of the actions, however suggestions of possible monitoring has been noted below.

[19] Public Health England (2017) Chapter 6: social determinants of health.
[20] Edwards et al. (2006) Deprivation and road safety in London.

- Air quality monitoring – Locations of monitors in most polluted and congested areas (Source: Re); the number of EV chargers and usage (Source: LBB/ Provider)
- Car type ownership via resident permit applications (Source: LBB)
- Transport mode choice – London Travel Demand Survey (Source: TfL); Car Club usage, (Source: LBB/ Provider)
- Active travel rates – annual surveys or TfL initiatives (Source: TfL)
- User surveys / consultations – Incremental throughout strategy time period (Source: LBB)
- Safety – KSIs (Source: TfL, Re) and Transport-related crime statistics (Source: TfL)

6. Initial Assessment of Overall Impact		
Positive Impact ☒	Negative Impact or Impact Not Known[21] ☒	No Impact ☐
7. Scale of Impact		
Positive impact: Minimal ☐ Significant ☒	Negative Impact or Impact Not Known Minimal ☐ Significant ☒	

8. Outcome			
No change to decision ☐	Adjustment needed to decision ☐	Continue with decision *(despite adverse impact / missed opportunity)* ☒	If significant negative impact - Stop / rethink ☐

[21] 'Impact Not Known' – tick this box if there is no up-to-date data or information to show the effects or outcomes of the function, policy, procedure or service on all of the equality strands.

9. Please give a full explanation for how the initial assessment and outcome was decided. .

November 2019

The equalities impact of the Strategy has been considered throughout its creation; including through a number of workshops with external stakeholders, Council officers, and elected members. The impacts will continue to be considered in light of any potential future changes, and throughout the public consultation process, with residents and service users. As a result, this Equalities Impact Assessment will be updated and revised at appropriate points throughout the development of the Strategy. In addition, specific proposals within the Strategy are likely to require further development, consultation and, where appropriate, their own Equalities Impact Assessments.

Due to the overarching nature of a Transport Strategy, almost every protected group could be impacted. The majority of these (outlined above) are positive and would benefit all groups. Some potential negative impacts relate to the availability of parking, or service alteration, which would impact those who are most reliant on car use to move around the borough, such as those with limited mobility (e.g. older people, people with disabilities, parents with young children, and carers).

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Environment Committee

20 January 2020

Title	**Fees and Charges – 2020/21**
Report of	Chairman of Environment Committee
Wards	All
Urgent	No
Status	Public
Key	Yes
Enclosures	Appendix A – Proposed Fees and Charges 2020/21
Officer Contact Details	Geoff Mee, Interim Executive Director for Environment Geoff.Mee@Barnet.gov.uk

Summary

This report seeks to obtain approval for the proposed new, and above inflation by 2% or more, fees and charges for 2020/21 to support the Environment Business Plan, and delivery of front line services within the Environment Directorate.

Recommendations

1. **That the Environment Committee consider and approve the proposed fees and charges for 2020/21 as set out in Appendix A.**

1. WHY THIS REPORT IS NEEDED

1.1 Fees and charges are reviewed on an annual basis to ensure that the costs of chargeable services are covered and the Council is achieving value for money. This report sets out the proposed increases above inflation (the Council uses the CPI figure of 1.8%) plus 2% (3.8% and above), as well as new fees and charges for services within the Environment Directorate. Any fees and charges which are being increased by less than 3.8% are not included in this report as their approval is delegated to Chief Officers.

2. REASONS FOR RECOMMENDATIONS

2.1 **Recommendation** – It is recommended that the Environment Committee consider and approve the proposed fees and charges for 2020/21, as it is considered good practice to review fees and charges annually to ensure that the costs of providing the services are recouped.

2.2 In addition, a number of new fees and charges are proposed which require approval from Environment Committee. For example, within the Streetscene services there is a new cost recovery option for bin supply and maintenance, as an alternative to the existing bin supply and repair charges; and within Environmental Health there are several new charges for online training. Additionally, within the Cemeteries and Crematoriums service there are several new fees and charges for extending the length of existing leases.

2.3 All fees and charges currently charged at Hendon Cemetery & Crematorium will be replicated at Milespit New Cemetery (when it opens) as applicable. This will give parity across the LBB owned cemetery service.

3. ALTERNATIVE OPTIONS CONSIDERED AND NOT RECOMMENDED

3.1 The alternative approach is to not review the fees and charges, or adjust the current fees and charges, or to not add new ones where appropriate. This, however, is not considered good practice and will potentially expose the Council to the risk of not recovering the costs of the provision of the service, or potentially, over recovery, where the charge is set at a cost recovery level.

3.2 Given the financial pressures currently faced by the Council the only viable option for continuing to provide services is to levy an appropriate fee or charge.

4. POST DECISION IMPLEMENTATION

4.1 If the Committee is minded to approve the Recommendation then the fees and charges will be noted by the Policy and Resources Committee as part of the Council wide budget setting. Once the budget is approved by full Council the fees and charges will be posted on the Council's website and, where a statutory duty requires it, advertised in the approved publication and appropriate location. The new fees and charges will be implemented from April 2020.

5. IMPLICATIONS OF DECISION

5.1 Corporate Priorities and Performance

5.1.1 The Corporate Plan, Barnet 2024, is focused on three main outcomes:

- A pleasant, well maintained borough that we protect and invest in.
- Our residents live happy, healthy, independent lives with the most vulnerable protected.
- Safe and strong communities where people get along well.

5.1.2 The Council's key areas of focus include:

- Delivering quality services – improving the overall approach to planning and enforcement, including taking action against enviro crime such as littering and fly tipping
- Delivering services that our residents value most to a high standard, including keeping our neighbourhoods and town centres clean, safe and health, maintaining our parks and open spaces, ensuring that our roads and pavements are well looked after.

5.1.3 Fees and charges need to be reviewed to ensure value for money and cost recovery.

5.1.4 There are no implications relating to the Health and Wellbeing Strategy and its stated priorities, or the future health and wellbeing needs of the local population as identified in Barnet's Joint Strategic Needs Assessment.

5.2 **Resources (Finance & Value for Money, Procurement, Staffing, IT, Property, Sustainability)**

5.2.1 **Finance & Value for Money**: With public and Member expectations increasing, the review of fees and charges ensures that sufficient resources are made available to manage and prioritise those expectations.

5.2.2 The fees and charges proposals will contribute to the cost recovery/savings target of £8.430m included in the Business Plan 2019/20 – 2020/21 submitted to the 28 November 2018 Environment Committee, which was approved at Policy and Resources Committee on 11 December 2018.

5.2.3 Adjusting fees and charges will ensure effective cost recovery for delivering the service; prices listed do not include VAT, which will only be charged where indicated.

5.2.4 The Constitution requires that all new charges, and charges that are proposed to be increased by more than inflation plus 2%, are agreed by the relevant Theme Committee, and also reported to Policy and Resources Committee for noting.

5.2.5 **Procurement**: At this time there are no implications.

5.2.6 **Staffing:** At this time there are no implications.

5.2.7 **Property**: At this time there are no implications.

5.2.8 **IT:** At this time there are no implications.

5.2.9 **Sustainability:** At this time there are no implications.

5.3 **Social Value**

5.3.1 The Public Services (Social Value) Act 2012 requires people who commission public services to think about how they can also secure wider social, economic and environmental benefits. This will be done as part of any contract procurement. No contract procurement is currently planned as a result of the recommendation in this report.

5.4 Legal and Constitutional References

5.4.1 Local authorities have a variety of powers to charge for specific statutory services set out in statute. The Local Government Act 2003 also provides a power to trade and a power to charge for discretionary services, the latter on a cost recovery basis. Discretionary services are those that a local authority is permitted to provide under statute but is not obliged to do so. The power to charge for discretionary services is not available to local authorities if there is a statutory duty to provide the service or if there is a specific power to charge for it or if there is a prohibition on charging.

5.4.2 Additionally, the Localism Act 2011 provides local authorities with a general power of competence that confers on them the power to charge for services but again these are subject to conditions/limitations similar to those noted above.

5.4.3 Where a local authority has a duty to provide a statutory service free of charge to a certain standard, no charge can be made for delivery to that standard. Should a request be made, however, for delivery above and beyond that standard, this may constitute a discretionary service for which a charge could be made.

5.4.4 There is a variety of legislation permitting charging for different services, some of which set prescribed fees and charges (or the range of charges for a given service), and others which allow discretion based on costs of providing the service.

5.4.5 The Council's Constitution sets out the terms of reference of the Environment Committee. This includes

- *(1) Responsibility for all borough-wide or cross-constituency matters relating to the street scene including, parking, road safety, lighting, street cleaning, transport, waste, waterways, refuse, recycling, allotments, parks, trees, crematoria and mortuary, trading standards and environmental health.*
- *(2) To submit to the Policy and Resources Committee proposals relating to the Committee's budget for the following year in accordance with the budget timetable.*
- *(5) To recommend for approval fees and charges for those areas under the remit of the Committee*

5.4.6 In addition, the Council's Constitution (Clause 17, Financial Regulations) also states:

> *2.3.7 For the fees and charges within their remit, theme Committees, Planning Committee and Licensing Committee must approve changes to fees and charges that are above CPI inflation by 2% or more, the*

introduction of new fees and charges, and changes to fees and charges outside the normal annual cycle.

2.3.8 Changes to fees and charges approved by theme Committees, Planning Committee and Licensing Committee must be reported to Policy and Resources Committee for noting.

5.5 **Risk Management**

5.5.1 The fees and charges proposed within this report are based on recovery of costs incurred by the Council. Efforts have been made to limit the charge increases and consideration has been given to the charges adversely affecting demand for the services as well as the need to recoup the cost of providing the service. There will nonetheless remain an element of reputational risk and challenge.

5.6 **Equalities and Diversity**

5.6.1 Section 149 of the Equality Act 2010 sets out the Public Sector Equality Duty which requires public bodies to have due regard to the need to

- eliminate discrimination, harassment and victimisation and other conduct prohibited by the Act
- advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not
- foster good relations between persons who share a relevant protected characteristic and persons who do not.

5.6.2 The relevant protected characteristics are: age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex, and sexual orientation.

5.6.3 The proposed fees and charges have been reviewed against the requirements above and the protected characteristics, and it is considered that there would not be any specific adverse impact on any of the protected groups.

5.7 **Corporate Parenting**

5.7.1 Not applicable.

5.8 **Consultation and Engagement**

5.8.1 There was no specific consultation on the fees and charges in this report.

5.9 **Insight**

5.9.1 Research on legislation and guidance has been undertaken along with discussions with key stakeholders. This has been used to inform the fees and charges and this report.

6. BACKGROUND PAPERS

6.1 Environment Committee November 2018 Fees and Charges 2019/20 Papers

6.2 Environment Committee November 2018 Business Planning 2019-2024 Papers

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Fees and Charges 2020/21

Service: Highways

Reference/ Area	Fee/Charge Title	Area	Description	Unit of Measure	Charges 2019/20	Charges 2020/21	Change from prior year (actual)	Change from prior year (%)	Comments	Additional detail for new charges / above inflation	Statutory Basis for Charging (i.e the legislation that permits you to charge for this service / product)	Basis of charging (Statutory prescribed, Statutory discretionary, statutory costs recovery or Discretionary)
Re	HW 1 Highways	Highways	Unlicensed Skip found on the highway	Each	£309.55	£321.31	£11.76	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980 - Section 139	Discretionary or statutory recovery - legal to advise
Re	HW 2 Highways	Highways	Traffic sensitive site inspection charge Skips	Each	£61.50	£63.84	£2.34	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980	Legal to advise
Re	HW 3 Highways	Highways	Licence to erect or retain on or over a highway any scaffolding or other structure	Each	£185.53	£192.57	£7.05	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980 - Section 138	Discretionary or statutory recovery - legal to advise
Re	HW 4 Highways	Highways	Licence to erect a hoarding or fence and site inspections to monitor compliance	Each	£185.53	£192.57	£7.05	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980 - Section 138	Discretionary or statutory recovery - legal to advise
Re	HW 5 Highways	Highways	Licence to construct works, cellars, cranes, portacabins, temporary crossovers, vaults or pavement lights under or on a street	Each	£185.53	£192.57	£7.05	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980 - various	Discretionary or statutory recovery - legal to advise
Re	HW 6 Highways	Highways	Licence to temporarily deposit materials in a street or to make an excavation in it and the undertaking of site inspections to monitor compliance	Each	£185.53	£192.57	£7.05	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980 - S171	Discretionary or statutory recovery - legal to advise
Re	HW 7 Highways	Highways	Vehicle Crossover - Processing and monitoring of Crossover applications and works under possible alternative arrangements where works are arranged by residents rather than the Authority.	Each	£427.43	£443.67	£16.24	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980 - S184 - Vehicle crossings over footways and verges.	Statutory costs recovery
Re	HW 8 Highways	Highways	Vehicle Crossover - On occasions where it is necessary for obstructions to be considered for removal in order for a crossover to be constructed such as a tree or lighting column, thereby necessitating a site visit by a tree officer/lighting engineer.	Each	£147.60	£153.21	£5.61	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980 - S184 - Vehicle crossings over footways and verges.	Legal to advise

Reference/ Area	Fee/Charge Title	Area	Description	Unit of Measure	Charges 2019/20	Charges 2020/21	Change from prior year (actual)	Change from prior year (%)	Comments	Additional detail for new charges / above inflation	Statutory Basis for Charging (i.e the legislation that permits you to charge for this service / product)	Basis of charging (Statutory prescribed, Statutory discretionary, statutory costs recovery or Discretionary)
Re	HW 9 Highways	Highways	Rechargeable construction Works - Vehicle Crossovers, Street Lighting, Highway Construction, Sign supply and installation etc.	Each	£248.05	£257.48	£9.43	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980	Legal to advise
Re	HW 10 Highways	Highways	Vehicle Crossover White Line Re-marking existing faded lines	Each	£121.98	£126.61	£4.64	3.80%	This increase is in line with inflation + 2%		Not Statutory	Not Statutory
Re	HW 11 Highways	Highways	Section 50 Street works licence	Per licence	£534.03	£554.32	£20.29	3.80%	This increase is in line with inflation + 2%		The New Roads & Street Works Act - S50	Statutory discretionary
Re	HW 12 Highways	Highways	Section 50 Street works licence - additional phases of works on previously excavated sites	per applicatio n	£237.80	£246.84	£9.04	3.80%	This increase is in line with inflation + 2%		The New Roads & Street Works Act - S50	Statutory discretionary
Re	HW 14 Highways	Highways	Type 1 Bronze Plaque	Each	£191.68	£198.96	£7.28	3.80%	This increase is in line		Not Statutory	Discretionary
Re	HW 15 Highways	Highways	Type 2 Bronze Plaque	Each	£191.68	£198.96	£7.28	3.80%	This increase is in line		Not Statutory	Discretionary
Re	HW 16 Highways	Highways	Works directed under the Highways Act 1980 and the Town & Country Planning Act 1990: Pre-application initial meeting to discuss proposed developments.	Each	£620.13	£643.69	£23.56	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980 - and the Town & Country Planning Act 1990	Statutory Discretionary
Re	HW 17 Highways	Highways	Works directed under the Highways Act 1980 and the Town & Country Planning Act 1990: Pre-approval meeting to discuss the scope of adoptable highway works in connection with new roads within proposed developments	Hourly Rate up to Snr Eng.	£133.25	£138.31	£5.06	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980 - and the Town & Country Planning Act 1990	Statutory Discretionary
Re	HW 18 Highways	Highways	Works directed under the Highways Act 1980 and the Town & Country Planning Act 1990: Pre-approval meeting to discuss the scope of adoptable highway works in connection with new roads within proposed developments	Hourly Rate above Snr Eng.	£207.05	£214.92	£7.87	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980 - and the Town & Country Planning Act 1990	Statutory Discretionary
Re	HW 19 Highways	Highways	The alteration of parking layout through Traffic Management Order (TMO) processes. Charge covers the public consultation, advertising and one TMO alteration	Each	£2,072.55	£2,151.31	£78.76	3.80%	This increase is in line with inflation + 2%		The Road Traffic Regulation Act - S6	Statutory Discretionary

Reference/ Area	Fee/Charge Title	Area	Description	Unit of Measure	Charges 2019/20	Charges 2020/21	Change from prior year (actual)	Change from prior year (%)	Comments	Additional detail for new charges / above inflation	Statutory Basis for Charging (i.e the legislation that permits you to charge for this service / product)	Basis of charging (Statutory prescribed, Statutory discretionary, statutory costs recovery or Discretionary)
Re	HW 20 Highways	Highways	Enquiries on Highway matters requiring an official response. To cover all enquiries including GIS, Traffic Management Order, traffic schemes, accident data, rights of way and similar	Each	£223.45	£231.94	£8.49	3.80%	This increase is in line with inflation + 2%		Not Statutory	Discretionary
Re	HW 21 Highways	Highways	Works directed under the Highways Act 1980 and the Town & Country Planning Act 1990: Pre-application advice following initial meeting to discuss proposed developments.	Hourly Rate up to Snr Eng.	£133.25	£138.31	£5.06	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980 - and the Town & Country Planning Act 1990	Statutory Decretionary
Re	HW 22 Highways	Highways	Works directed under the Highways Act 1980 and the Town & Country Planning Act 1990: Pre-application advice following initial meeting to discuss proposed developments.	Hourly Rate above Snr Eng.	£207.05	£214.92	£7.87	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980 - and the Town & Country Planning Act 1990	Statutory Decretionary
Re	HW 24 Highways	Highways	Minor Offsite Highways Work : Technical approval of highway layout & construction details and the supervision of highway works on the public highway for minor offsite highways work necessitated by the new development	Each	£3,102.68	£3,220.58	£117.90	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980 - S184	Statutory discretionary
Re	HW 25 Highways	Highways	Highway Licences : Processing of Licences under the Highways Act 1980 on new developments (i.e. under Sections 142;177;179;181 etc.)	Each	£3,886.80	£4,034.50	£147.70	3.80%	This increase is in line with inflation + 2%		Highways Act 1980 - Sections 142; 177; 179; 181	Statutory discretionary
Re	HW 26 Highways	Highways	Processing of Stopping Up Order Under Section 247 of Town & Country Planning Act 1990	Each	£5,073.75	£5,266.55	£192.80	3.80%	This increase is in line with inflation + 2%		Section 247 & 257 of the Town & Country Planning Act 1990	Statutory discretionary
Re	HW 27 Highways	Highways	Processing of Stopping Up Order Under the Highways Act 1980	Each	£7,974.50	£8,277.53	£303.03	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980	Statutory discretionary
Re	HW 28 Highways	Highways	Processing of Notification for Transport for London approval under TMA 2004	Each	£3,886.80	£4,034.50	£147.70	3.80%	This increase is in line with inflation + 2%		The Traffic Management Act 2004	Statutory discretionary
Re	HW 29 Highways	Highways	Consideration of a request to construct a vehicle crossover, where works are arranged by the authority via the highways term contractor	Each	£182.45	£189.38	£6.93	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980 - S184 - Vehicle crossings over footways and verges. Section 184 of Highways Act 1980 Approval for the provision of a vehicle crossing facility.	Statutory costs recovery

Reference/ Area	Fee/Charge Title	Area	Description	Unit of Measure	Charges 2019/20	Charges 2020/21	Change from prior year (actual)	Change from prior year (%)	Comments	Additional detail for new charges / above inflation	Statutory Basis for Charging (i.e the legislation that permits you to charge for this service / product)	Basis of charging (Statutory prescribed, Statutory discretionary, statutory costs recovery or Discretionary)
Re	HW 30 Highways	Highways	Deposit related to an application for a licence to erect or retain on or over a highway any scaffolding or other structure	Each	£564.78	£586.24	£21.46	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980 - Section 138	Legal to advise
Re	HW 31 Highways	Highways	Deposit related to an application to erect a hoarding or fence and site inspections to monitor compliance	Each	£564.78	£586.24	£21.46	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980 - S171, 172	Legal to advise
Re	HW 32 Highways	Highways	Deposit in relation to a request to construct works, cellars, cranes, portacabins, temporary crossovers, vaults or pavement lights under or on a street	Each	£564.78	£586.24	£21.46	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980	Legal to advise
Re	HW 33 Highways	Highways	Deposit in relation to an application to temporarily deposit materials in a street or to make an excavation in it and the undertaking of site inspections to monitor compliance	Each	£248.00	£257.42	£9.42	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980 - S171	Legal to advise
Re	HW 34 Highways	Highways	Vehicle Crossover Legal Agreement	Each	£197.83	£205.34	£7.52	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980 - 184	Statutory Discretionary
Re	HW 35 Highways	Highways	Vehicle Crossover White Line - Process Application	Each	£157.85	£163.85	£6.00	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980 - 184	Statutory Discretionary
Re	HW 36 Highways	Highways	Vehicle Crossover White Line Installation	Each	£174.25	£180.87	£6.62	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980 - 184	Statutory Discretionary
Re	HW 37 Highways	Highways	Private Street Name Plate - Supply and Installation	Each	£296.23	£307.48	£11.26	3.80%	This increase is in line with inflation + 2%		Not Statutory	Discretionary
Re	HW 38 Highways	Highways	Licence to place skip on the highway	Each	£27.68	£28.73	£1.05	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980 - 139	Legal to advise
Re	HW 39 Highways	Highways	Renewal for expired skip licence	Each	£27.68	£28.73	£1.05	3.80%	This increase is in line with inflation + 2%		The Highways Act 1980 - 140	Legal to advise
Re	HW 40 Highways	Highways	Watercourse Consent	Each	£50.00	£51.90	£1.90	3.80%	This increase is in line with inflation + 2%		Land Drainage Act	Fixed fee
Re	HW 41 Highways	Highways	Private Street Name Plate - Quote and Specification Fee	Each	£296.23	£307.48	£11.26	3.80%	This increase is in line with inflation + 2%		Not Statutory	Discretionary
Re	HW 42 Highways	Highways	Temporary Traffic Regulation Order - 14.1 Road Traffic Regulation Act- Extension per month - The additional fee is applied each month between months 4 and 18 of an order period to enable further co-ordination, permitting and network management functions	Each	£0.00	£200.00	£200.00	New Charge		New charge	The Road Traffic Regulation Act - S14	Statutory Discretionary

Reference/ Area	Fee/Charge Title	Area	Description	Unit of Measure	Charges 2019/20	Charges 2020/21	Change from prior year (actual)	Change from prior year (%)	Comments	Additional detail for new charges / above inflation	Statutory Basis for Charging (i.e the legislation that permits you to charge for this service / product)	Basis of charging (Statutory prescribed, Statutory discretionary, statutory costs recovery or Discretionary)
Re	HW 43 Highways	Highways	Damage to Highways - Recharges Recharge cost of repairs to damage caused to the public highway by building works. S133 Highways Act 1980	Per incident	£0.00	Cost + 40%	N/A	New Charge		New charge	The Highways Act 1980 - S133	Statutory Discretionary
Re	HW 44 Highways	Highways	Failure to secure lighting or safety markings on a skip. Penalty for no lighting of safety markings on a builders skip deposited on the highway. S139 (4) (a) Highways Act 1980	Per incident	£0.00	£100.00	£100.00	New Charge	FPN provision by Schedule 4 of the London Local Authorities and Transport for London Act 2003	New charge	Schedule 4 of the London Local Authorities and Transport for London Act 2013 S.9(3)(b)(i)	Statutory prescribed
Re	HW 45 Highways	Highways	Failure to clearly mark owners details on a skip. Penalty for not clearly marking the owner of a skip on the public highway. S139 (4) (b) Highways Act 1980	Per incident	£0.00	£100.00	£100.00	New Charge	FPN provision by Schedule 4 of the London Local Authorities and Transport for London Act 2003	New charge	Schedule 4 of the London Local Authorities and Transport for London Act 2013 S.9(3)(b)(ii)	Statutory prescribed
Re	HW 46 Highways	Highways	Depositing or storing building materials on the public highway without a licence. Penalty for depositing or storing building materials on the public highway without a licence. S148 (a) & (c) Highways Act 1980	Per incident	£0.00	£100.00	£100.00	New Charge	FPN provision by Schedule 4 of the London Local Authorities and Transport for London Act 2003	New charge	Highways Act (1980) S.148(b) , FPN provision by Schedule 4 of the London Local Authorities and Transport for London Act 2003	Statutory prescribed
Re	HW 47 Highways	Highways	Erection of a scaffold or any other structure on the public highway without a licence. Penalty for the erection of a scaffold or any other structure on the public highway without a licence. S169 (5) Highways Act 1980	Per incident	£0.00	£100.00	£100.00	New Charge	FPN provision by Schedule 4 of the London Local Authorities and Transport for London Act 2003	New charge	Highways Act (1980) S169(5) , FPN provision by Schedule 4 of the London Local Authorities and Transport for London Act 2003	Statutory prescribed
Re	HW 48 Highways	Highways	Affixing a sign or banner upon the public highway without authorisation. Penalty for erecting or fixing a sign on the public highway, tree or highway structure without authorisation. S132 (1) Highways Act 1980	Per incident	£0.00	£100.00	£100.00	New Charge	FPN provision by Schedule 4 of the London Local Authorities and Transport for London Act 2003	New charge	Highways Act (1980) S169(5) , FPN provision by Schedule 4 of the London Local Authorities and Transport for London Act 2003The Highways Act 1980 - S132 (1)	Statutory prescribed

Reference/ Area	Fee/Charge Title	Area	Description	Unit of Measure	Charges 2019/20	Charges 2020/21	Change from prior year (actual)	Change from prior year (%)	Comments	Additional detail for new charges / above inflation	Statutory Basis for Charging (i.e the legislation that permits you to charge for this service / product)	Basis of charging (Statutory prescribed, Statutory discretionary, statutory costs recovery or Discretionary)
Re	HW 49 Highways	Highways	Crane oversailing licence. The minimum licence period is 3 months and each individal licence costs £1,352.57. Any extension is calculated in weeks after the 3 month period and is charged at an additional cost of £55 per week.	Per incident	£0.00	£1,352.57	£1,352.57	New Charge	Breakdown provided of legal and licence fees, together with admin and inspection charges.	New charge	Highways Act (1980) S178	Legal to check and advise
Re	HW 50 Rechargable Works	Rechargeable Works	Provide and place new salt bin, inc salt	Item	£377.20	£391.53	£14.33	3.80%	This increase is in line with inflation + 2%		Not Statutory	Discretionary
Re	HW 51 Rechargable Works	Rechargeable Works	Replace damaged salt bin, inc salt refill	Item	£377.20	£391.53	£14.33	3.80%	This increase is in line with inflation + 2%		Not Statutory	Discretionary
Re	HW 52 Rechargable Works	Rechargeable Works	Salt refill of bin	Item	£150.68	£156.40	£5.73	3.80%	This increase is in line with inflation + 2%		Not Statutory	Discretionary
Re	HW 53 Rechargable Works	Rechargeable Works	Recover keys from road gulley	Item	£298.28	£309.61	£11.33	3.80%	This increase is in line with inflation + 2%		Not Statutory	Discretionary
Re	HW 54 Rechargable Works	Rechargable Works	Anything done to temporarily restrict or prohibit traffic in order to facilitate a Special Event or similar, whether on or off-street. Includes site meetings, making and advertising temporary traffic orders and erecting street notice. Excludes signs/road	Per order	£212.18	£220.24	£8.06	3.80%	This increase is in line with inflation + 2%		The Road Traffic Regulation Act - S16	Statutory Discretionary
Re	HW 55 Rechargable Works	Rechargable Works	Approval to carry out a traffic count on borough roads	Each	£333.13	£345.78	£12.66	3.80%	This increase is in line with inflation + 2%		Not Statutory	Discretionary
Re	HW 56 Rechargable Works	Rechargable Works	Anything done to restrict or prohibit traffic on a road in order to carry out works on or near the road. Includes making temporary traffic orders, advertising, providing notification of the restrictions and making, erecting, maintaining diversion signs	Per order	£4,103.08	£4,258.99	£155.92	3.80%	This increase is in line with inflation + 2%		The Road Traffic Regulation Act - S14	Statutory Discretionary
Re	HW 57 Rechargable Works	Rechargable Works	Anything done to temporarily restrict or prohibit traffic in order to carry out works on or near the road. Includes site meetings, making and advertising temporary traffic orders and erecting street notice. Excludes signs/road markings	Per order	£2,094.08	£2,173.65	£79.57	3.80%	This increase is in line with inflation + 2%		The Road Traffic Regulation Act - S14	Statutory Discretionary

Reference/ Area	Fee/Charge Title	Area	Description	Unit of Measure	Charges 2019/20	Charges 2020/21	Change from prior year (actual)	Change from prior year (%)	Comments	Additional detail for new charges / above inflation	Statutory Basis for Charging (i.e the legislation that permits you to charge for this service / product)	Basis of charging (Statutory prescribed, Statutory discretionary, statutory costs recovery or Discretionary)
Re	HW 58 Rechargable Works	Rechargable Works	Anything done to temporarily restrict or prohibit traffic in order to carry out works on or near the road when restriction is required without delay. Includes site meetings, making temporary traffic notices and erecting street notices. Excludes signs/road markings	Per order	£1,717.90	£1,783.18	£65.28	3.80%	This increase is in line with inflation + 2%		The Road Traffic Regulation Act - S14	Statutory Discretionary
Re	HW 59 Rechargable Works	Rechargable Works	Consideration of a request to place a traffic sign to indicate the route to specified land or premises and the placing of such a sign	Per Sign	£355.68	£369.19	£13.52	3.80%	This increase is in line with inflation + 2%		Not Statutory	Discretionary
Re	HW 60 Rechargable Works	Rechargable Works	Provide traffic flow data from automatic traffic counters or previously conducted manual counts	Each	£435.63	£452.18	£16.55	3.80%	This increase is in line with inflation + 2%		Not Statutory	Discretionary
Re	TBC - New	Highways	Consideration of a request to construct a vehicle crossover, where works are arranged by the authority via the highways term contractor where the contractor is already onsite undertaking a footway relay.	Each	£0.00	£139.45	£139.45	New Charge	This charge has been introduced at a lower rate than for HW 29 Highways to reflect the lack of an inspection cost not required in this process.	New charge - includes processing the application taking payment, calculating costs preparing and posting quotation for the works , also includes recording all details on the data base.	The Local Authorities (Transport Charges) Regulations 1998, table 1, item 9. The Highways Act 1980 - S184 - Vehicle crossings over footways and verges. Section 184 of Highways Act 1980 Approval for the provision of a vehicle crossing facility.	Statutory costs recovery

Basis for Charging Column Key:

Statutory prescribed – legislation provides that the local authority charge for providing a service and either (a) the charge is prescribed (i.e. set eg. £100) or (b) the range is prescribed.

Statutory discretionary (or statutory costs recovery) - legislation provides that you may charge for providing a service but the amount of the charge is discretionary, within the remit of the legislation – the charge may be limited to cost recovery, reasonable cost or based on consideration of prescr

Discretionary – here the authority is not obliged to provide the service but if it does so then the charges must be based on costs recovery, based on the statutory power to charge in Local Government Act 2003/Localism Act 2011

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ibed matters eg. consideration of rental value of land for allotments.

Fees and Charges 2020/21

Service: Greenspaces

Reference/ Area	Fee/Charge Title	Area	Description	Unit of Measure	Charges 2019/20	Charges 2020/21	Change from prior year (actual)	Change from prior year (%)	Comments	Additional detail for new charges / above inflation	Statutory Basis for Charging (i.e the legislation that permits you to charge for this service / product)	Basis of charging (Statutory prescribed, Statutory discretionary, statutory costs recovery or Discretionary)
GT65	Events	Greenspaces	Application Fee (Commercial)	Per Event	£0.00	£ 75.00	£ 75.00	New charge		New charge for 2020-21	s19 Local Government (Miscellaneous Provisions) Act 1976.	Statutory discretionary.
GT66	Events	Greenspaces	Application Fee (Charity/Not for Profit)	Per Event	£0.00	£ 30.00	£ 30.00	New charge		New charge for 2020-21	s19 Local Government (Miscellaneous Provisions) Act 1976.	Statutory discretionary.
GT68	Events	Greenspaces	Small Fun Fair (Up to 5 rides)	Per Day	£0.00	£ 391.51	£ 391.51	New charge	There will be a 25% discount for non-trading days, and an 80% discount for charitable events	New charge for 2020-21	s19 Local Government (Miscellaneous Provisions) Act 1976.	Statutory discretionary.
GT70	Events	Greenspaces	Large Fun Fair (13-19 rides)	Per Day	£0.00	£ 1,252.82	£ 1,252.82	New charge	There will be a 25% discount for non-trading days, and an 80% discount for charitable events	New charge for 2020-21	s19 Local Government (Miscellaneous Provisions) Act 1976.	Statutory discretionary.
GT72	Events	Greenspaces	Small -medium event with less than 4 weeks notice	Per Event	£0.00	£ 55.00	£ 55.00	New charge	This charge is in place to deter people from making bookings with less than the required 4 week notice	New charge for 2020-21	s19 Local Government (Miscellaneous Provisions) Act 1976.	Statutory discretionary.
GT73	Events	Greenspaces	Medium-large event with less than 12 weeks notice	Per Event	£0.00	£ 125.00	£ 125.00	New charge	This charge is in place to deter people from making bookings with less than the required 12 week notice	New charge for 2020-21	s19 Local Government (Miscellaneous Provisions) Act 1976.	Statutory discretionary.
GT98	Other Bookings	Greenspaces	Site Hire (non sporting/non event use)	Hour	£0.00	£ 75.00	£ 75.00	New charge		NEW CHARGE - Charge rounded up to the nearest hour	s19 Local Government (Miscellaneous Provisions) Act 1976.	Statutory discretionary.
GT99	Other Bookings	Greenspaces	Administration Fee	Hour	£0.00	£ 25.00	£ 25.00	New charge		NEW CHARGE - Charge rounded up to the nearest hour	s19 Local Government (Miscellaneous Provisions) Act 1976.	Discretionary – here the authority is not obliged to provide the service but if it does so then the charges must be based on costs recovery, based on the statutory power to charge in Local Government Act 2003/Localism Act 2011
GT100	Other Bookings	Greenspaces	Officer Fee	Hour	£0.00	£ 30.00	£ 30.00	New charge		NEW CHARGE - Charge rounded up to the nearest hour	s19 Local Government (Miscellaneous Provisions) Act 1976.	Discretionary – here the authority is not obliged to provide the service but if it does so then the charges must be based on costs recovery, based on the statutory power to charge in Local Government Act 2003/Localism Act 2011

Reference/ Area	Fee/Charge Title	Area	Description	Unit of Measure	Charges 2019/20	Charges 2020/21	Change from prior year (actual)	Change from prior year (%)	Comments	Additional detail for new charges / above inflation	Statutory Basis for Charging (i.e the legislation that permits you to charge for this service / product)	Basis of charging (Statutory prescribed, Statutory discretionary, statutory costs recovery or Discretionary)

Basis for Charging Column Key:

Statutory prescribed – legislation provides that the local authority charge for providing a service and either (a) the charge is prescribed (i.e. set eg. £100) or (b) the range is prescribed.

Statutory discretionary (or statutory costs recovery) - legislation provides that you may charge for providing a service but the amount of the charge is discretionary, within the remit of the legislation – the charge may be limited to cost recovery, reasonable cost or based on consideration of prescr

Discretionary – here the authority is not obliged to provide the service but if it does so then the charges must be based on costs recovery, based on the statutory power to charge in Local Government Act 2003/Localism Act 2011

ibed matters eg. consideration of rental value of land for allotments.

Fees and Charges 2020/21

Service: Cemetries and Cremtorium

Reference/ Area	Fee/Charge Title	Area	Description	Unit of Measure	Charges 2019/20	Charges 2020/21	Change from prior year (actual)	Change from prior year (%)	Comments	Additional detail for new charges / above inflation	Statutory Basis for Charging (i.e the legislation that permits you to charge for this service / product)	Basis of charging (Statutory prescribed, Statutory discretionary, statutory costs recovery or Discretionary)
H. Annual Planting etc. and General Attention of Private Graves (per single grave space)												
Re	C&C 62 Cemetery and Crematorium	Cemetery and Crematorium	1 Yr full grave maintenance to include seasonal bedding and 1 washing of full size kerb and landing.	Each	£395.00	£410.00	£15.00	3.80%			93 Local Government Act 2003/Localism Act 2011	Discretionary fee
R. New Memorials												
Re	C&C 120 Cemetery and Crematorium	Cemetery and Crematorium	Sanctum Panorama Niche (75 year lease) (includes 1st standard inscription)	Each	£0.00	£5,000.00	£5,000.00	New Charge		New	Article 15 Local Authorities' Cemeteries Order 1977	Statutory discretioary
Re	C&C 122 Cemetery and Crematorium	Cemetery and Crematorium	Additional inscription	per letter	£2.35	£2.80	£0.45	19.15%			Article 15 Local Authorities' Cemeteries Order 1977	Statutory discretioary
Re	C&C 132 Cemetery and Crematorium	Cemetery and Crematorium	Sanctum 2000 (75 year lease) (includes 1st standard inscription)	Each	£0.00	£5,000.00	£5,000.00	New Charge		New charge	Article 15 Local Authorities' Cemeteries Order 1977	Statutory discretioary
Re	C&C 138 Cemetery and Crematorium	Cemetery and Crematorium	Single vase block (15 Year lease) (includes 1 standard inscription)	Each	£0.00	£520.00	£520.00	New Charge		New Fee for additional lease length	Article 15 Local Authorities' Cemeteries Order 1977	Statutory discretioary
Re	C&C 139 Cemetery and Crematorium	Cemetery and Crematorium	Single vase block (20 Year lease) (includes 1 standard inscription)	Each	£0.00	£625.00	£625.00	New Charge		New Fee for additional lease length	Article 15 Local Authorities' Cemeteries Order 1977	Statutory discretioary
Re	C&C 140 Cemetery and Crematorium	Cemetery and Crematorium	Single vase block (30 Year lease) (includes 1 standard inscription)	Each	£0.00	£830.00	£830.00	New Charge		New Fee for additional lease length	Article 15 Local Authorities' Cemeteries Order 1977	Statutory discretioary
Re	C&C 141 Cemetery and Crematorium	Cemetery and Crematorium	Single vase block (50 Year lease) (includes 1 standard inscription)	Each	£0.00	£1,210.00	£1,210.00	New Charge		New Fee for additional lease length	Article 15 Local Authorities' Cemeteries Order 1977	Statutory discretioary
Re	C&C 142 Cemetery and Crematorium	Cemetery and Crematorium	Single vase block (75 Year lease) (includes 1 standard inscription)	Each	£0.00	£1,730.00	£1,730.00	New Charge		New Fee for additional lease length	Article 15 Local Authorities' Cemeteries Order 1977	Statutory discretioary
Re	C&C 143 Cemetery and Crematorium	Cemetery and Crematorium	Photo inscription	Each	£75.00	£150.00	£75.00	100.00%			Article 15 Local Authorities' Cemeteries Order 1977	Statutory discretioary
Re	C&C 144 Cemetery and Crematorium	Cemetery and Crematorium	Additional inscription	per letter	£2.35	£2.80	£0.45	19.15%			Article 15 Local Authorities' Cemeteries Order 1977	Statutory discretioary
Re	C&C 146 Cemetery and Crematorium	Cemetery and Crematorium	Memorial barbican plaque (15 Year lease) (includes 1 standard inscription)	Each	£0.00	£465.00	£465.00	New Charge		New Fee for additional lease length	Article 15 Local Authorities' Cemeteries Order 1977	Statutory discretioary
Re	C&C 147 Cemetery and Crematorium	Cemetery and Crematorium	Memorial barbican plaque (20 Year lease) (includes 1 standard inscription)	Each	£0.00	£555.00	£555.00	New Charge		New Fee for additional lease length	Article 15 Local Authorities' Cemeteries Order 1977	Statutory discretioary
Re	C&C 148 Cemetery and Crematorium	Cemetery and Crematorium	Memorial barbican plaque (30 Year lease) (includes 1 standard inscription)	Each	£0.00	£740.00	£740.00	New Charge		New Fee for additional lease length	Article 15 Local Authorities' Cemeteries Order 1977	Statutory discretioary
Re	C&C 149 Cemetery and Crematorium	Cemetery and Crematorium	Memorial barbican plaque (50 Year lease) (includes 1 standard inscription)	Each	£0.00	£1,075.00	£1,075.00	New Charge		New Fee for additional lease length	Article 15 Local Authorities' Cemeteries Order 1977	Statutory discretioary
Re	C&C 150 Cemetery and Crematorium	Cemetery and Crematorium	Memorial barbican plaque (75 Year lease) (includes 1 standard inscription)	Each	£0.00	£1,540.00	£1,540.00	New Charge		New Fee for additional lease length	Article 15 Local Authorities' Cemeteries Order 1977	Statutory discretioary
Re	C&C 153 Cemetery and Crematorium	Cemetery and Crematorium	Sanctum 4 (5 year lease) (includes 1st standard inscription)	Each	£0.00	£1,750.00	£1,750.00	New Charge		New Product	Article 15 Local Authorities' Cemeteries Order 1977	Statutory discretioary
Re	C&C 154 Cemetery and Crematorium	Cemetery and Crematorium	Sanctum 4 (10 year lease) (includes 1st standard inscription)	Each	£0.00	£2,275.00	£2,275.00	New Charge		New Product	Article 15 Local Authorities' Cemeteries Order 1977	Statutory discretioary
Re	C&C 155 Cemetery and Crematorium	Cemetery and Crematorium	Sanctum 4 (15 year lease) (includes 1st standard inscription)	Each	£0.00	£2,625.00	£2,625.00	New Charge		New Product	Article 15 Local Authorities' Cemeteries Order 1977	Statutory discretioary
Re	C&C 156 Cemetery and	Cemetery and	Sanctum 4 (20 year lease)	Each	£0.00	£3,150.00	£3,150.00	New Charge		New Product	Article 15 Local Authorities'	Statutory discretioary

Fees and Charges 2020/21

Service: DLO and Street Lighting

Reference/ Area	Fee/Charge Title	Area	Description	Unit of Measure	Charges 2019/20	Charges 2020/21	Change from prior year (actual)	Change from prior year (%)	Comments	Additional detail for new charges / above inflation	Statutory Basis for Charging (i.e the legislation that permits you to charge for this service / product)	Basis of charging (Statutory prescribed, Statutory discretionary, statutory costs recovery or Discretionary)
Street Lighting	Install a Banner on a Street Light Column, including design and printing	Street Lighting	Charge applicable to designing, printing and attaching a banner with dual bracket arm to a lighting column	Each	£0.00	£350 to £500	New Charge	New Charge	Cost will vary based on the size of the order. It is not possible at this stage to give a more specific pricing structure due to the nature of the contract		Highway Act 1980 Section 115E & s115F in respect to imposing charges. 115E (1) (b) (i), (ii) and (iii) and where it is necessary to obtain consent of frontages this will be sort in accordance with 115E (2) (b) - This is a charge to carry out the work	Discretionary
Street Lighting	Rent of an approved Advertising Banner placed on Street Furniture	Street Lighting	Weekly Charge applicable to a banner being displayed on street furniture	Weekly Charge	£0.00	£250.00	New Charge	New Charge	Would also require the one off rate of installing as above. Discounts of up to 25% would apply for quantities at the same location		Highway Act 1980 section 115F (i) in respect to imposing charges	Discretionary

Basis for Charging Column Key:

Statutory prescribed – legislation provides that the local authority charge for providing a service and either (a) the charge is prescribed (i.e. set eg. £100) or (b) the range is prescribed.

Statutory discretionary (or statutory costs recovery) - legislation provides that you may charge for providing a service but the amount of the charge is discretionary, within the remit of the legislation – the charge may be limited to cost recovery, reasonable cost or based on consideration of prescril

Discretionary – here the authority is not obliged to provide the service but if it does so then the charges must be based on costs recovery, based on the statutory power to charge in Local Government Act 2003/Localism Act 2011

bed matters eg. consideration of rental value of land for allotments.

Fees and Charges 2020/21

Service: Streetscene

Reference/ Area	Fee/Charge Title	Area	Description	Unit of Measure	Charges 2019/20	Charges 2020/21	Change from prior year (actual)	Change from prior year (%)	Comments	Additional detail for new charges / above inflation	Statutory Basis for Charging (i.e the legislation that permits you to charge for this service / product)	Basis of charging (Statutory prescribed, Statutory discretionary, statutory costs recovery or Discretionary)
Street Scene	Recycling and Waste - 2 Wheeled Bins	Street Scene Service Delivery	Lid for 2 Wheeled bin	Per Lid	£0.00	£15.00	£15.00	New Charge	New - to recover costs. Charge to start following approval. Offers an alternative to bin replacement.	Currently have a price for a 4 wheeled bin lid and introducing the new prices enables repairs across all bins if appropriate	s46 of the Environmental Protection Act 1990	Statutory discretionary
Street Scene	Recycling and Waste - 4 Wheeled Bins	Street Scene Service Delivery	Wheel for 4 Wheeled bin	Per Wheel	£0.00	£15.00	£15.00	New Charge	New - to recover costs. Charge to start following approval. Offers an alternative to bin replacement.	Currently have a price for a 4 wheeled bin lid and introducing the new prices enables repairs across all bins if appropriate	s46 of the Environmental Protection Act 1990	Statutory discretionary
Street Scene	Recycling and Waste - 2 Wheeled Bins	Street Scene Service Delivery	Wheel for 2 Wheeled bin	Per Wheel	£0.00	£15.00	£15.00	New Charge	New - to recover costs. Charge to start following approval. Offers an alternative to bin replacement.	Currently have a price for a 4 wheeled bin lid and introducing the new prices enables repairs across all bins if appropriate	s46 of the Environmental Protection Act 1990	Statutory discretionary
Street Scene	Bin Maintenance - developers/managing agents (Household Recycling & Waste)	Street Scene Service Delivery	Bin supply, delivery, rental and maintenance - 4 wheeled bins (5 year contract with bin - year 1)	Per annum	£0.00	£295.65	£295.65	New Charge	New - Cost recovery option for bin supply and maintenance. Offers an alternative to the existing bin supply and repair charges. For household waste on multi-occupancy sites.	Receiving numerous requests for alternative to current one-off bin prices. This voluntary option enables funding of a repair service for bins across the borough and includes supply of bins.	s46 of the Environmental Protection Act 1991	Statutory discretionary
Street Scene	Bin Maintenance - developers/managing agents (Household Recycling & Waste)	Street Scene Service Delivery	Ongoing bin rental and maintenance - 4 wheeled bins (5 year new bin contract - years 2 -5)	Per annum	£0.00	£98.55	£98.55	New Charge	New - Cost recovery option for bin supply and maintenance. Offers an alternative to the existing bin supply and repair charges. For household waste on multi-occupancy sites.	Receiving numerous requests for alternative to current one-off bin prices. This voluntary option enables funding of a repair service for bins across the borough and includes supply of bins.	s46 of the Environmental Protection Act 1992	Statutory discretionary
Street Scene	Bin Maintenance - developers/managing agents (Household Recycling & Waste)	Street Scene Service Delivery	Ongoing bin rental and maintenance - 4 wheeled bins (5 year contract - bins previously supplied)	Per annum	£0.00	£73.00	£73.00	New Charge	New - Cost recovery option for bin supply and maintenance. Offers an alternative to the existing bin supply and repair charges. For household waste on multi-occupancy sites.	Receiving numerous requests for alternative to current one-off bin prices. This voluntary option enables funding of a repair service for bins across the borough and includes supply of bins.	s46 of the Environmental Protection Act 1992	Statutory discretionary

Reference/ Area	Fee/Charge Title	Area	Description	Unit of Measure	Charges 2019/20	Charges 2020/21	Change from prior year (actual)	Change from prior year (%)	Comments	Additional detail for new charges / above inflation	Statutory Basis for Charging (i.e the legislation that permits you to charge for this service / product)	Basis of charging (Statutory prescribed, Statutory discretionary, statutory costs recovery or Discretionary)
Street Scene	Bin Maintenance - developers/managing agents (Household Recycling & Waste)	Street Scene Service Delivery	Bin supply, delivery, rental and maintenance - 2 wheeled bins (5 year contract with bin - year 1)	Per annum	£0.00	£54.75	£54.75	New Charge	New - Cost recovery option for bin supply and maintenance. Offers an alternative to the existing bin supply and repair charges. For household waste on multi-occupancy sites.	Receiving numerous requests for alternative to current one-off bin prices. This voluntary option enables funding of a repair service for bins across the borough and includes supply of bins.	s46 of the Environmental Protection Act 1993	Statutory discretionary
Street Scene	Bin Maintenance - developers/managing agents (Household Recycling & Waste)	Street Scene Service Delivery	Ongoing bin rental and maintenance - 2 wheeled bins (5 year contract with bin - years 2 -5)	Per annum	£0.00	£21.90	£21.90	New Charge	New - Cost recovery option for bin supply and maintenance. Offers an alternative to the existing bin supply and repair charges. For household waste on multi-occupancy sites.	Receiving numerous requests for alternative to current one-off bin prices. This voluntary option enables funding of a repair service for bins across the borough and includes supply of bins.	s46 of the Environmental Protection Act 1994	Statutory discretionary
Street Scene	Bin Maintenance - developers/managing agents (Household Recycling & Waste)	Street Scene Service Delivery	Ongoing bin rental and maintenance - 2 wheeled bins (5 year contract - bins previously supplied)	Per annum	£0.00	£18.25	£18.25	New Charge	New - Cost recovery option for bin supply and maintenance. Offers an alternative to the existing bin supply and repair charges. For household waste on multi-occupancy sites.	Receiving numerous requests for alternative to current one-off bin prices. This voluntary option enables funding of a repair service for bins across the borough and includes supply of bins.	s46 of the Environmental Protection Act 1994	Statutory discretionary
Street Scene	Commercial Refuse	Street Scene Service Delivery	Premium Sacks	Per 52	£128.70	£137.80	£9.10	7.07%	Charge adjusted to level appropriate to current service costs. Charge to start following approval.	Larger stronger sacks being provided so costs were re-evaluated	s47 of the Environmental Protection Act 1990	Statutory discretionary
Street Scene	Commercial Refuse	Street Scene Service Delivery	Premium Sacks	Per 104	£245.70	£268.32	£22.62	9.21%	Charge adjusted to level appropriate to current service costs. Charge to start following approval.	Larger stronger sacks being provided so costs were re-evaluated	s47 of the Environmental Protection Act 1990	Statutory discretionary
Street Scene	Commercial Refuse	Street Scene Service Delivery	Premium Sacks	Per 208	£468.00	£520.00	£52.00	11.11%	Charge adjusted to level appropriate to current service costs. Charge to start following approval.	Larger stronger sacks being provided so costs were re-evaluated	s47 of the Environmental Protection Act 1990	Statutory discretionary
Street Scene	16 Yard Skip Charges - External clients	Street Scene Service Delivery	Single collection - medium/heavy weights up to 1.5 tonnes	Per skip	£0.00	£350.00	£350.00	New Charge	New - required to ensure full cost recovery. From January 2020	Plan is to expand on existing skip provision to provide a cost effective alternative for residents	s45(4) of the Environmental Protection Act 1990	Statutory discretionary
Street Scene	6 Yard Skip Charges - External clients	Street Scene Service Delivery	Single collection - light/medium materials up to 0.75 tonnes	Per skip	£0.00	£200.00	£200.00	New Charge	New - required to ensure full cost recovery. From January 2020	Plan is to expand on existing skip provision to provide a cost effective alternative for residents	s45(4) of the Environmental Protection Act 1990	Statutory discretionary

Reference/ Area	Fee/Charge Title	Area	Description	Unit of Measure	Charges 2019/20	Charges 2020/21	Change from prior year (actual)	Change from prior year (%)	Comments	Additional detail for new charges / above inflation	Statutory Basis for Charging (i.e the legislation that permits you to charge for this service / product)	Basis of charging (Statutory prescribed, Statutory discretionary, statutory costs recovery or Discretionary)
Street Scene	Commercial Services Administration (Commercial Waste Collection Contracts)	Street Scene Service Delivery	Additional charges - Copy of WTN provided	Per Record	£0.00	£10.00	£10.00	New Charge	New - required to ensure full cost recovery. From January 2020 WTN fee is for commercial customers who have lost their Duty of Care Waste Transfer Notice. The fee is to issue a replacement WTN	Regularly supply additional paperwork to customers when they lose it. Private companies charge £80.	Local Government Act 2003	Discretionary
Street Scene	Commercial Services Administration	Street Scene Service Delivery	Delivery of commercial refuse sacks (Commercial Waste Collections)	Per Delivery	£0.00	£5.00	£5.00	New Charge	New - required to ensure full cost recovery. From January 2020	Cost recovery to fund the sack delivery service. Delivery levels now too high to provide service without funding.	s47 of the Environmental Protection Act 1990	Statutory discretionary

Basis for Charging Column Key:

Statutory prescribed – legislation provides that the local authority charge for providing a service and either (a) the charge is prescribed (i.e. set eg. £100) or (b) the range is prescribed.

Statutory discretionary (or statutory costs recovery) - legislation provides that you may charge for providing a service but the amount of the charge is discretionary, within the remit of the legislation – the charge may be limited to cost recovery, reasonable cost or based on consideration of prescribed m

Discretionary – here the authority is not obliged to provide the service but if it does so then the charges must be based on costs recovery, based on the statutory power to charge in Local Government Act 2003/Localism Act 2011

atters eg. consideration of rental value of land for allotments.

Fees and Charges 2020/21

Service: Environmental Health

Reference/ Area	Fee/Charge Title	Area	Description	Unit of Measure	Charges 2019/20	Charges 2020/21	Change from prior year (actual)	Change from prior year (%)	Comments	Additional detail for new charges / above inflation	Statutory Basis for Charging (i.e the legislation that permits you to charge for this service / product)	Basis of charging (Statutory prescribed, Statutory discretionary, statutory costs recovery or Discretionary)
Food, Health & Safety												
Re	EH 75 Miscellaneous Food Business Charges	Food, Health and Safety	Safer Food Better Business diary	Each	£0.00	£10.00	£10.00	New Charge		New fee for an item there is demand for by LBB businesses	Local Government Act 2003 Localism Act 2011	Discretionary
Re	EH 76 Miscellaneous Food Business Charges	Food, Health and Safety	Requested Food Hygiene Rating Scheme Re-rating Inspection	Per inspection	£185.00	£240.00	£55.00	29.73%		increase in fee to ensure full cost recoveryt	Local Government Act 2003 Localism Act 2011	Discretionary
Environmental Health Licensing Fees												
Re	EH 152 Home Improvement Agency	Care and Repair	Full Home Improvement Agency service		Up to 17.5% of the cost of the building works, or up to 15% of the cost of the building works if the cost of the work is above £75k and up to 10% if the cost of the work is over £100k. Minimum fee £160	Fees based on sliding percentage rate of cost of works (excluding extended warranties), with splits at; less than £10k - 20% less than £15k - 19% less than £20k - 17% less than £75k - 15% more than £75k - 12.5% Minimum fee £250 (ex VAT)	£90.00	56.25%	Full service would include obtaining planning permission, building control approval, seeking tenders for work, design of the scheme and supervision of the building work	Cost recovery (aim to provide services in order to assist vulnerable adults) To be provided by Re New fee structure not just adjustment of min fee	The Housing Renewal Grants (Services and Charges) Order 1996	Statutory Discretionary
Re	EH 153 Home Improvement Agency	Care and Repair	Assisted grant process	Each	Up to 12.5% of the cost of the building work. Minimum fee £162.90	Fees based on sliding percentage rate of cost of works (excluding extended warranties), with splits at; less than £10k - 15% less than £15k - 14% less than £20k - 12% more than £20k - 10% Minimum fee £250 (ex VAT)	£87.50	53.85%	Assisted grant process would include obtaining estimates for work, arranging for contractors to complete the work, inspection of work on completion, snagging if necessary	Cost recovery (aim to provide services in order to assist vulnerable adults) To be provided by Re New fee structure not just adjustment of min fee	The Housing Renewal Grants (Services and Charges) Order 1996	Statutory Discretionary
Online Training												
Re	EH 154 Online Training	Environmental Health	Food Safety Level 1		£0.00	£20.00	£20.00	New Charge		New fee based on cost recover to provide these services which are being requested by traders within LBB	Local Government Act 2003 Localism Act 2011	Discretionary
Re	EH 155 Online Training	Environmental Health	Food Safety Level 2		£0.00	£25.00	£25.00	New Charge		New fee based on cost recover to provide these services which are being requested by traders within LBB	Local Government Act 2003 Localism Act 2011	Discretionary
Re	EH 156 Online Training	Environmental Health	Food Safety Level 3		£0.00	£175.00	£175.00	New Charge		New fee based on cost recover to provide these services which are being requested by traders within LBB	Local Government Act 2003 Localism Act 2011	Discretionary
Re	EH 157 Online Training	Environmental Health	Food Safety Level 2 Manufacturing		£0.00	£25.00	£25.00	New Charge		New fee based on cost recover to provide these services which are being requested by traders within LBB	Local Government Act 2003 Localism Act 2011	Discretionary
Re	EH 158 Online Training	Environmental Health	Introduction to Allergens		£0.00	£20.00	£20.00	New Charge		New fee based on cost recover to provide these services which are being requested by traders within LBB	Local Government Act 2003 Localism Act 2011	Discretionary
Re	EH 159 Online Training	Environmental Health	Health and Safety Level 1		£0.00	£20.00	£20.00	New Charge		New fee based on cost recover to provide these services which are being requested by traders within LBB	Local Government Act 2003 Localism Act 2011	Discretionary
Re	EH 160 Online Training	Environmental Health	Health and Safety Level 2		£0.00	£25.00	£25.00	New Charge		New fee based on cost recover to provide these services which are being requested by traders within LBB	Local Government Act 2003 Localism Act 2011	Discretionary

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Environment Committee

20 January 2020

Title	**Highway Network Recovery Programme 2020/21**
Report of	Chairman of the Environment Committee
Wards	All
Status	Public
Urgent	No
Key	No
Enclosures	Appendix A: Proposed Carriageway and Footway Works by Wards for Year 6 of the Network Recovery Programme during 2020/21
Officer Contact Details	Geoff Mee, Interim Executive Director, Environment Goeff.Mee@barnet.gov.uk

Summary

This report seeks the Committee's approval for the delivery of the 2020/21 Highway Network Recovery Plan (NRP) Work Programme ("the Work Programme") listed in Appendix A, totalling £4.633 million to be funded from the agreed NRP Capital allocation of £6 million for 2020/21.

The Work Programme has been primarily developed based on condition assessment survey data and deterioration modelling. The proposed schemes have been identified and prioritised to give a spread of schemes across the borough, using whole life costing and good asset management principles to ensure that investment is targeted where it is most needed.

The investment split for 2020/21 will be as follows: 40% footway, 50% carriageway and 10% structures, drainage, road markings and other highway assets.

Officer's Recommendations
1. That the Committee approves the capital expenditure of £6 million for the delivery of the 2020/21 Highway Network Recovery Plan (NRP) Work Programme consisting of carriageway and footway renewal works as listed in Appendix A of this report, carriageway patching and associated works.
2. That the Committee agrees the proposed investment proportions detailed in paragraph 5.2.3 of this report.
3. That the Interim Executive Director, Environment is authorised to alter the programme of carriageway and footway renewal works.
4. That subject to the overall costs being contained within agreed budgets, the Interim Executive Director, Environment is authorised to instruct Re to implement the schemes proposed in Appendix A by placing orders with the Council's term maintenance contractors or specialist contractors appointed in accordance with the public procurement rules and or the Council's Contract Procedure Rules as appropriate.

1. WHY THIS REPORT IS NEEDED

1.1 This report is needed to provide the appropriate Council authority to instruct Re, approve the Work Programme for 2020/21 and agree the proposed investment proportions for the Work Programme for 2020/21.

2. REASONS FOR RECOMMENDATIONS

2.1 This report is needed to provide the appropriate Council authority to instruct Re, approve the Work Programme for 2020/21 and agree the proposed investment proportions for the Work Programme for 2020/21.

2.2 The Highways Act 1980 (HA 1980) sets out the main duties of highway authorities in England and Wales. Highway maintenance policy is set within a legal framework. Section 41 of the HA 1980 imposes a duty to maintain highways which are maintainable at public expense and almost all claims against authorities relating to highway functions arise from an alleged breach of this section. The HA 1980 sits within a much broader legislative framework specifying powers, duties and standards for highway maintenance.

2.3 The Council has a duty to ensure that the statutory functions and responsibilities in relation to those highways for which the local authority is responsible are discharged. The Authority also has a duty to ensure a safe passage for the highway user through the effective implementation of the legislation available to it, principally the HA 1980, and in particular Section 41, of the Act.

2.4 Planned highway maintenance is generally funded by Capital Funding. Capital allocations are also made by Central Government through the Local Implementation Plan ("LIP") process taking into account factors such as road lengths, classification, traffic figures and road condition data derived from the

condition indicators, UK Pavement Management System (UKPMS), National Road Maintenance Condition Survey (NRMCS) and condition surveys. Revenue allocations funding, which covers mostly reactive maintenance, is generally provided from a combination of local council tax and other Government Revenue Support Grants. Funding is further sought from Private Developers, secured as planning obligations under S106 of the Town and Country Planning Act 1990. It is important to ensure that realistic benefit is obtained for highway maintenance from contributions in respect of new developments.

2.5 The programme proposed in this report was developed using an independent condition assessment survey company, Xais, who undertook a survey of every footway and carriageway in the borough and recorded the data to a defined national standard of all footways and carriageways within the borough. This data was added to that of the defects scores, scoring to indicate the relative position on the operational network hierarchy and location in relation to places of education. In the case of footways, the surveys also considered where footway deterioration was evident due to tree root protrusion. Guidance was applied on Network Recovery Plan whole life cost principles and all of the above resulted in the list of those footways and carriageways to be in the worst condition, as set out in Appendix A.

2.6 Schemes have been prioritised based on their known condition. In order to achieve best value for the investment, the proposed carriageway treatments include resurfacing as well as patching as required (both Infrared Rhino patching and machine patching). All ward councillors will be consulted over the proposed schemes and as such the proposed year 6 schemes lists may be subject to review and possible change, to incorporate their comments where appropriate. The final programme will also be subject to review and possible change to ensure that future developments and statutory undertaker works within the borough do not conflict with that proposed and result in abortive works. Any schemes which are unable to be progressed or delayed due to the above will be replaced in the programme with those next on the priority list.

2.7 Under Section 58 of the New Roads and Street Works Act 1991, the Highway Authority is required to issue a statutory three-month Notice to Utility companies of its intention to carry out substantial road works on the public highway. This requirement is aimed at preventing or restricting streets being dug up soon after they have been resurfaced for major works. This is a legal notice which is served on all the statutory undertakers who carry out work in the Borough. The Highways Authority is required to commence the works within one month of the date specified in the notice. The restriction on statutory undertakers carrying out street work applies for a period of 36 months after the works have been implemented. However, Utility companies can still carry out emergency and service connection works by just notifying the Highway Authority. The Notice will be published in the London Gazette and sent to all the utility companies for co-ordination.

2.8 The Traffic Management Act 2004 introduced a new hierarchy of Strategic Roads for London where the London Boroughs retain highway and traffic

authority responsibilities, but for which Transport for London (TfL) has oversight. This requires the Council to notify TfL, or both TfL and neighbouring boroughs, if the proposed works are likely to affect traffic operations on a strategic road in its own area. The Council aims to implement all the schemes safely, with minimum traffic congestion and TfL will be provided with the necessary information within the stipulated timescales. The contractor will have in place a Health and Safety Plan for implementing these schemes safely.

2.9 Appendix A lists all the proposed carriageway resurfacing, large scale carriageway patching treatments and footway relay schemes in each ward to be proposed undertaken in 2020/21. Where appropriate, the tables show the section of the street that will be treated. Relevant information about the work in each location will be provided in advance to residents by letter along with advanced signing. In order to maximise improvement to the street scene, action will be taken to tidy up associated infrastructure and generally reduce street clutter. Local ward councillors will be given ward packs of the proposed footway and carriageway schemes in their ward. Post ward Member consultation local ward councillors will be provided with a finalised ward pack setting out the carriageway treatments and footway relay schemes in each ward. Local ward councillors will be notified in advance of residents of the proposed extent of works for each scheme.

2.10 **Network Recovery Programme progress to date**

2.10.1 A total of 621 schemes have been completed to date across the five years of Phase 1 of the Network Recovery Programme, as set out in the table below. For the Year 5 programme to date we have completed 80% of the combined carriageway resurfacing and footway relay schemes.

Programme	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Carriageway resurfacing	51	42	12	17	23
Carriageway micro asphalt	43	23	44	33	-
Carriageway surface dressing	125	-	-	-	-
Footway relay	83	64	17	33	21

3. ALTERNATIVE OPTIONS CONSIDERED AND NOT RECOMMENDED

3.1 The alternative option of maintaining and improving the network has been considered and rejected in favour of an asset management approach. Previous network management was unsustainable and resulted in expensive short term reactive repairs.

4. POST DECISION IMPLEMENTATION

4.1 Once the Committee approves the recommendations, officers will consult with local ward councillors to finalise the proposed carriageway treatments and

footway relay schemes in each ward, and then plan and implement the approved schemes by raising relevant orders with the Council's term contractor or specialist contractors if there are financial benefits in doing so. As part of year 6 of the Network Recovery Programme a further independent condition assessment will be commissioned towards the latter part of the year to assist in preparations to develop year 7 of the Network Recovery Programme.

4.2 Following the completion of local ward councillor consultation, the Environment Committee will approve the finalised Year 6 programme at the March 2020 Committee meeting. This finalised programme will be taken forward to implementation, and if an instance arises where the community objects to a scheme being implemented, the Interim Executive Director, Environment can take a decision to alter the programme under delegated powers.

5. IMPLICATIONS OF DECISION

5.1 Corporate Priorities and Performance

5.1.1 The Council's Corporate Plan – Barnet 2024, states in its strategic objectives that it will work with partners to achieve a pleasant, well maintained borough that we protect and invest in.

5.1.2 In particular, the Network Recovery Programme will improve the highway network, which in turn will contribute to improving the local environment and the quality of life for the residents and help create conditions for a vibrant economy.

5.1.3 The proposed Work Programme will also contribute to the Council's Health and Wellbeing Strategy by making Barnet a great place to live and enable the residents to keep well and independent.

5.1.4 The Highway network is the Council's most valuable asset and is vital to the economic, social and environmental wellbeing of the Borough as well as the general image perception. The Highways provide access for business and communities, as well as contribute to the area's local character and the resident's quality of life. Highways really do matter to people and often public opinion surveys continually highlight dissatisfaction with the condition of local roads and the way they are managed. Public pressure can often result in short term fixes such as potholes for example, rather than properly planned and implemented longer term solutions. The proposed 2020/21 programme aims to stop short term repairs that provide poor value for money and often undermine the structural integrity of the asset.

5.2 Resources (Finance & Value for Money, Procurement, Staffing, IT, Property, Sustainability)

5.2.1 At full Council in March 19 it was agreed to extend the Network Recovery Plan by £12 million over a further 2 years. This is mainly funded from

Community Infrastructure Levy (CIL). The budget has been split evenly with £6 million being allocated against 2020/21 and 2021/22 for the Highway Asset Management/Network Recovery Plan (NRP) Phase 2.

5.2.2 The total capital budget for 2020/21 will be £6.139million, subject to the Policy and Resources Committee approving the £0.139m slippage to 2020/21, as reported at month 9.

5.2.3 The total proposed allocation for the Network Recovery Programme works in 2020/21 is £4.633 million, the breakdown is shown in the table below:

Programme	**Allocation**
Carriageway resurfacing	£2.054 million
Footway relay	£1.909 million
Carriageway patching	£0.670 million
Total works budget	£4.633 million

5.2.4 The remaining budget will be allocated to capital improvements for structures, drainage, and other highway assets, as well as fees associated with programme delivery.

5.2.5

The amount of available funding will determine the number of schemes that can be delivered in the financial year. Where the number of schemes exceed the budget, then the identified schemes will be prioritised,. The proposed percentage split of the budget between footways, carriageways and others (structures, drainage, signs, road markings) is 40%, 50% and 10% respectively.

5.2.6 The following three main treatment types are included in the Appendix A:

Footway Relay: The Environment Committee on 15th March 2017 agreed two main footway treatment types with Type 3 being the standard treatment and Type 1 being used for town centres and conservation areas. Type 3 treatment is a mixture of a flexible asphalt footway behind a grey block margin by the kerb line. Type 1 is Artificial Stone Paving (ASP), with flexibility for a grey block margin by the kerb line.

It is acknowledged that there may be exceptional circumstances where the treatment type should be changed - for example in cul-de-sacs which lead off town centres, which would be paved and these may be better completed in paving as a treatment Type 1 or where sections of footway are only partially in a conservation area or town centre and the treatment type may require extending to the nearest junction to separate the treatments.

Carriageway Resurfacing: This requires the removal and replacement of the surface layer with hot rolled asphalt, dense bitumen macadam or stone mastic asphalt, and the specific treatment will be decided by the highway officers. The treatment depth is between 30 and 40 mm, but it can be more if the underlying layer also needs replacing. A typical life expectancy is 15-20 years.

Carriageway patching: This is the remedial patching of the surface layer, using two techniques. The first of these is to continue the Infrared Rhino patching programme and the second is to use machine laid patching for larger areas of surface deterioration.

Other treatments may also be proposed such as carriageway patching, joint sealing and use of reflective membranes where considered necessary by experienced highway officers.

5.2.7 The carriageway and footway estimates given in Appendix A are provisional and may be subject to change following local ward councillor consultation and completion of the individual scheme designs. The carriageway and footway estimates given in Appendix A are based on the contract rates of the London Highways Alliance Contract (LoHAC), which the Council adopted to use as a means to deliver all the highway maintenance works. A cost comparison exercise has confirmed that the LoHAC rates offer a saving of some 15% compared to the previous highways term contracts.

5.2.8 Some of the proposed schemes may not be delivered due to future utility or development works as previously stated. Updates of any changes or variations to the highway schemes scheduled in Appendix A will be reported to the Interim Executive Director, Environment for his authorisation to alter the programme of carriageway and footway renewal works, as and when required.

5.2.9 There are no staffing ICT or property implications.

5.3 Social Value

5.3.1 The Public Services (Social Value) Act 2012 requires people who commission public services to think about how they can also secure wider social, economic and environmental benefits. This report does not relate to procurement of services contracts.

5.4 Legal and Constitutional References

5.4.1 The Council's Constitution Article 7 – Committees, Forums, Working Groups and Partnerships (Responsibility for Functions, 7.5) gives the Environment Committee responsibility for all borough-wide or cross-constituency matters related to the street scene.

5.4.2 Full Council approved on 5 March 2019 the extension of the Network Recovery Programme by £12 million over a further 2 financial years (2020/21 and 2021/22). The 2020/21 apportioned allocation will be included in the coming year's final capital programme, to be agreed by full council at its forthcoming annual budget setting meeting.

5.4.3 Highway Maintenance is a statutory duty under the Highways and Traffic

Management Acts.

5.4.4 The Traffic Management Act 2004 places obligations on authorities to ensure the expeditious movement of traffic on their road network. Authorities are required to make arrangements as they consider appropriate for planning and carrying out the action to be taken in performing the duty.

5.5 **Risk Management**

5.5.1 The extreme winter weather has resulted in a rapid deterioration of the core fabric of many patched and heavily deteriorated carriageways. The whole life condition of these carriageways is susceptible to further reduction by increased frequency of future extremes of weather unless timely intervention is carried out by a planned programmed of appropriate highway maintenance treatments. The reactive attention to defects or filling of pot-holes has been technically proven to be only a short-term and a superficial remedy to highway damage. To address this, the Council has committed to the ongoing use of the Infra-red patching process to address small scale areas of deterioration. This process has been successfully used in the 2018/19 financial year.

5.6 **Equalities and Diversity**

5.6.1 Good roads and pavements have benefits to all sectors of the community in removing barriers and assisting quick, efficient and safe movement to schools, work and leisure. This is particularly important for older people, people caring for children and pushing buggies, those with mobility difficulties and sight impairments. The state of roads and pavements are amongst the top resident concerns and the Council is listening and responding to those concerns by the proposed planned highways maintenance programme.

5.6.2 The physical appearance and the condition of the roads and pavements have a significant impact on people's quality of life. A poor quality street environment will give a negative impression of an area, impact on people's perceptions and attitudes as well as increasing feelings of insecurity. The Council's policy is focused on improving the overall street scene across the borough to a higher level and is consistent with creating an outcome where all communities are thriving and harmonious places where people are happy to live.

5.6.3 There are on-going assessments carried out on the conditions of the roads and pavements in the borough, which incorporates roads on which there were requests by letter, email, and phone-calls from users, Members and issues raised at meetings such as Forums, Leader listens and Chief Executive Walkabouts, etc. The improvements and repairs aim to ensure that all users have equal and safe access across the borough regardless of the method of travel. Surface defects considered dangerous are remedied to benefit general health and safety issues for all.

5.6.4 The Equality Act 2010 outlines the provisions of the Public Sector Equalities Duty which requires Public Bodies to have due regard to the need to:
a) Eliminate discrimination, harassment and victimisation and other contact prohibited by the Equality Act 2010.
b) Advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it.
c) Foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

The broad purpose of this duty is to integrate considerations of equality into day to day business and keep them under review in decision making, the design policies and the delivery of services. There is an on-going process of regularisation and de-clutter of street furniture and an updating of highway features to meet the latest statutory or technical expectations.

5.6.5 **Corporate Parenting**

5.7.1 This section of the report does not apply to this report.

5.7 **Consultation and Engagement**

5.7.1 Consultation with local ward councillors will be undertaken in January and February 2020 to finalise the proposed carriageway treatments and footway relay schemes in each ward. All requests for highways maintenance received in the last year are logged and have been considered in preparing the lists of Appendix A.

5.7.2 Residents will receive notification in advance informing them of any forthcoming works. The Council's Communications Team will be engaged to communicate with the residents via the press, the Council's Barnet First magazine and other media and highlight the Council's investment in highway maintenance.

5.8 **Insight**

5.8.1 This section of the report does not apply to this report.

6. BACKGROUND PAPERS

6.1 Environment Committee approval of 15th of March 2017 of the footway treatment types (Type 1 and Type 3)
http://barnet.moderngov.co.uk/documents/g8593/Public%20reports%20pack%2015th-Mar-2017%2018.30%20Environment%20Committee.pdf?T=10

6.2 Environment Committee approval 24 July 2014 of Draft Network Recovery Plan
https://barnet.moderngov.co.uk/documents/g7879/Public%20reports%20pack%2024th-Jul-2014%2019.00%20Environment%20Committee.pdf?T=10

6.3 Environment Committee approval 18 November 2014 of the five-year Commissioning Plan
https://barnet.moderngov.co.uk/documents/g7880/Public%20reports%20pack%2018th-Nov-2014%2019.00%20Environment%20Committee.pdf?T=10

6.4 Council approval 16 December 2014 of the five-year capital allocation of £50.365m for Phase 1 Network Recovery Programme
https://barnet.moderngov.co.uk/documents/g7816/Public%20reports%20pack%2016th-Dec-2014%2019.00%20Council.pdf?T=10

Appendix A: Proposed Carriageway and Footway Works by Wards for Year 6 of the Network Recovery Programme – 2020/2021

Footway Relay Priority List

Road name	Post code	Section	Ward	Estimated cost
Osidge Lane	N14	OSIDGE LANE - OSIDGE LANE ACCESS ROAD TO OSIDGE LANE RBOUT	Brunswick Park	£53,053
Braemar Gardens	NW9	BRAEMAR GARDENS - FROM BOOTH ROAD TO END	Burnt Oak	£66,928
The Ridgeway	NW11	THE RIDGEWAY - THE RIDGEWAY BASING HILL TO GRESHAM GARDENS	Childs Hill	£93,047
Rushgrove Avenue	NW9	RUSHGROVE AVENUE - FROM HILLFIELD AVENUE TO HYDE HOUSE	Colindale	£77,042
Colney Hatch Lane	N10	COLNEY HATCH LANE - COLNEY HATCH LANE ASHER LOFTUS WAY HILLSIDE AVENUE	Coppetts	£58,203
Lancaster Road	EN4	LANCASTER ROAD - B193 TO MARGARET ROAD	East Barnet	£246,901
Oakview Gardens	N2	OAKVIEW GARDENS - PROSPECT PLACE TO OAKVIEW GARDENS	East Finchley	£44,483
Brockley Avenue	HA7	BROCKLEY AVENUE - FROM NORTH EAST TO NORTH WEST	Edgware	£184,869
Haslemere Gardens	N3	HASLEMERE GARDENS - A406 TO CHESSINGTON AVENUE	Finchley Church End	£53,889
Meadway Gate	NW11	MEADWAY GATE - MEADWAY GATE RBT FROM TEMPLE FORTUNE LANE TO TEMPLE FORTUNE LANE	Garden Suburb	£55,170
Oakfields Road	NW11	OAKFIELDS ROAD - LEESIDE CRESCENT TO CRANBOURNE GARDENS	Golders Green	£88,541
Aldridge Avenue	HA8	ALDRIDGE AVENUE - ALDRIDGE AVENUE FROM WARD BOUNDARY TO END OF ROAD	Hale	£55,910
Sydney Grove	NW4	SYDNEY GROVE - HERIOT ROAD TO END	Hendon	£66,928
Wentworth Road	EN5	WENTWORTH ROAD - FROM THE AVENUE TO BYNG ROAD	High Barnet	£171,810
The Rise	NW7	THE RISE - RISE THE FROM PARKSIDE TO WATFORD WAY	Mill Hill	£55,119
Russell Gardens	N20	RUSSELL GARDENS - RUSSELL GARDENS FROM RUSSELL ROAD TO RUSSELL GARDENS	Oakleigh	£47,456
The Pastures	N20	THE PASTURES - BARNET LANE TO END	Totteridge	£94,271
Ryecroft Crescent	EN5	RYECROFT CRESCENT - QUINTA DRIVE S TO QUINTA DRIVE	Underhill	£162,424
Sellers Hall Close	N3	SELLERS HALL CLOSE - S END TO END	West Finchley	£48,972
Woodward Avenue	NW4	WOODWARD AVENUE - WOODWARD AVENUE FROM TALBOT CRESCENT TO A504	West Hendon	£44,418
Grove Road	N3	GROVE ROAD - GROVE ROAD FROM WOODHOUSE ROAD TO CASTLE ROAD	Woodhouse	£139,891
TOTAL FOOTWAY RELAY SCHEME VALUE				**£1,909,324**

Footway Relay Reserve List

Road name	Post code	Section	Ward	Estimated cost
Osidge Lane	EN4	OSIDGE LANE - WEST WALK TO WOODFIELD DRIVE	Brunswick Park	£62,847
Connaught Avenue	EN4	CONNAUGHT AVENUE - CHURCH HILL ROAD TO DERWENT AVENUE	Brunswick Park	£56,552
Oakdale	N14	OAKDALE - COWPER ROAD TO END	Brunswick Park	£30,735
The Woodlands	N14	THE WOODLANDS - CECIL ROAD TO COWPER ROAD	Brunswick Park	£45,078
Osidge Lane	N14	OSIDGE LANE - WOODFIELD DRIVE WO BRUNSWICK PARK ROAD	Brunswick Park	£26,972
Portman Gardens	NW9	PORTMAN GARDENS - GREENWAY THE TO END	Burnt Oak	£37,953
Southbourne Avenue	NW9	SOUTHBOURNE AVENUE - GREENWAY THE TO END	Burnt Oak	£111,819
North Road	HA8	NORTH ROAD - EAST ROAD TO BURNT **OAK** BROADWAY	Burnt Oak	£43,259
East Road	HA8	EAST ROAD - NORTH ROAD TO END	Burnt Oak	£53,274

Road name	Post code	Section	Ward	Estimated cost
Cranfield Drive	NW9	CRANFIELD DRIVE - CRANFIELD DRIVE FROM HEYWOOD AVENUE TO END	Burnt Oak	£45,707
Lanacre Avenue	NW9	LANACRE AVENUE - LANACRE AVENUE FROM VALIANT PATH TO MONTROSE AVENUE	Burnt Oak	£27,547
Rodborough Road	NW11	RODBOROUGH ROAD - FROM R/O No867 FINCHLEY ROAD TO THE RIDGEWAY	Childs Hill	£20,490
Llanelly Road	NW2	LLANELLY ROAD - CREWYS ROAD TO END	Childs Hill	£42,851
The Ridgeway	NW11	THE RIDGEWAY - THE RIDGEWAY FROM HODFORD RD TO BASING HILL	Childs Hill	£81,620
Gainsborough Gardens	NW11	GAINSBOROUGH GARDENS - GAINSBOROUGH GARDENS FROM A502 TO END	Childs Hill	£98,352
Templars Avenue	NW11	TEMPLARS AVENUE - TEMPLARS AVENUE FROM WENTWORTH ROAD TO RAVENSCROFT AVENUE	Childs Hill	£44,483
Purley Avenue	NW2	PURLEY AVENUE - PURLEY AVENUE FROM THE VALE TO SANDERSTEAD AVENUE	Childs Hill	£131,408
North End Road	NW11	NORTH END ROAD - WEST HEATH DRIVE TO BOROUGH BOUNDARY	Childs Hill/Garden Suburb	£211,069
North End Road	NW11	NORTH END ROAD - WEST HEATH DRIVE TO BOROUGH BOUNDARY	Childs Hill/Garden Suburb	£43,029
Colin Crescent	NW9	COLIN CRESCENT - COLIN CRESCENT FROM COLIN GARDENS TO A5150	Colindale	£304,851
Clovelly Avenue	NW9	CLOVELLY AVENUE - CLOVELLY AVENUE FROM A5150 TO END	Colindale	£65,296
Woodfield Avenue	NW9	WOODFIELD AVENUE - No1-2 VARLEY LODGE TO NEW WAY ROAD	Colindale	£72,642
Rookery Close	NW9	ROOKERY CLOSE - ROOKERY CLOSE FROM RUSHGROVE AVENUE TO ROOKERY CLOSE AROUND LOOP	Colindale	£12,294
Sheaveshill Avenue	NW9	SHEAVESHILL AVENUE - COLIN CLOSE TO COLINDEEP LANE (A5150)	Colindale	£159,567
Colin Gardens	NW9	COLIN GARDENS - COLIN GARDENS FROM START OF SPLITTER ISLAND TO COLIN DRIVE	Colindale	£221,190
Gresham Avenue	N20	GRESHAM AVENUE - PARK WAY TO MANOR DRIVE	Coppetts	£24,486
George Crescent	N10	GEORGE CRESCENT - GEORGE CRESCENT FROM COLNEY HATCH LANE TO COLNEY HATCH LANE	Coppetts	£189,563
Wilton Road	N10	WILTON ROAD - FROM COLNEY HATCH LANE TO END	Coppetts	£37,189
Hemington Avenue	N11	HEMINGTON AVENUE - B550 TO END	Coppetts	£23,564
Firs Avenue	N11	FIRS AVENUE - COLNEY HATCH LANE TO FIRST AVENUE	Coppetts	£30,223
Bellevue Road	N11	BELLEVUE ROAD - FRIERN BARNET ROAD TO CRESCENT THE	Coppetts	£15,368
Pembroke Road	N10	PEMBROKE ROAD - PEMBROKE ROAD FROM COLNEY HATCH LANE TO HAMPDEN ROAD	Coppetts	£43,234
Lyndhurst Avenue	N12	LYNDHURST AVENUE - FROM HALLIWICK COURT PARADE TO HOLLICKWOOD AVENUE	Coppetts	£18,851
Colney Hatch Lane	N11	COLNEY HATCH LANE - COLNEY HATCH LANE HILLSIDE AVENUE TO QUEENS PARADE CLOSE	Coppetts	£48,156
Friern Barnet Lane	N20	FRIERN BARNET LANE - FRIERN BARNET LANE PARK WAY TO MANOR DRIVE	Coppetts	£49,380
Friern Barnet Lane	N20	FRIERN BARNET LANE - FRIERN BARNET LANE MANOR DRIVE TO FRIARY ROAD	Coppetts/Oakleigh	£72,234
Friary Road	N20	FRIARY ROAD - FRIARY ROAD FROM FRIERN BARNET LANE TO WARD BOUNDARY	Coppetts/Oakleigh/Woodhouse	£41,902
Kingston Road	EN4	KINGSTON ROAD - PYM CLOSE TO A110	East Barnet	£64,072
Bourn Avenue	EN4	BOURN AVENUE - A110 TO BERKELEY CRESCENT	East Barnet	£32,648
Berkeley Crescent	EN4	BERKELEY CRESCENT - BEESTON ROAD TO PYM CLOSE/BOURN AVENUE TO BEESTON ROAD/ PYM CLOSE TO BOURN AVENUE	East Barnet	£184,869
Brookhill Close	EN4	BROOKHILL CLOSE - A110 TO END	East Barnet	£29,301
Hertford Road	EN4	HERTFORD ROAD - WESTBROOK CRESCENT TO END	East Barnet	£52,864
Lawton Road	EN4	LAWTON ROAD - BARING ROAD TO WESTBROOK CRESCENT	East Barnet	£82,755

Road name	Post code	Section	Ward	Estimated cost
Park Road	N2	PARK ROAD - HIGH ROAD TO EAGANS CLOSE	East Finchley	£61,215
Ashburnham Close	N2	ASHBURNHAM CLOSE - STANLEY ROAD TO END	East Finchley	£34,689
Trinity Road	N2	TRINITY ROAD - LONG LANE TO CHURCH LANE	East Finchley	£29,380
Oak Lane	N2	OAK LANE - A1000 TO NEW TRINITY ROAD	East Finchley	£49,530
Pulham Avenue	N2	PULHAM AVENUE - PULHAM AVENUE E TO PULHAM AVENUE	East Finchley	£12,396
Elmshurst Crescent	N2	ELMSHURST CRESCENT - EAST END ROAD TO PULHAM AVENUE	East Finchley	£41,492
Long Lane	N2	LONG LANE - END OF SLIP TO A406	East Finchley	£83,968
Hale Lane	HA8	HALE LANE - LIBRARY TO FARM ROAD	Edgware/Hale	£121,940
Old Rectory Gardens	HA8	OLD RECTORY GARDENS - OLD RECTORY GARDENS FROM MANOR PARK CRESCENT TO OLD RECTORY GARDENS	Edgware	£77,230
Hartland Drive	HA8	HARTLAND DRIVE - BROADFIELDS AVE TO EDGEWAREBURY LANE	Edgware	£215,069
Green Lane	HA8	GREEN LANE - GREEN LANE FROM MANOR PARK CRESCENT TO PARK GROVE	Edgware	£260,041
Broadfields Avenue	HA8	BROADFIELDS AVENUE - HALE LANE TO EDGWARE ROAD	Edgware	£198,826
Bullescroft Road	HA8	BULLESCROFT ROAD - BROADFIELDS AVENUE S TO BROADFIELDS AVENUE	Edgware	£132,224
Glengall Road	HA8	GLENGALL ROAD - FROM MARLBOROUGH AVENUE TO CRAMER ROAD	Edgware/Hale	£11,065
Claremont Park	N3	CLAREMONT PARK - HENDON AVENUE TO LYNDHURST GARDENS	Finchley Church End	£74,584
Holders Hill Road	NW7	HOLDERS HILL ROAD - HAWTHORN MEWS NORTH TO THORNFIELD AVENUE	Finchley Church End	£21,515
Broughton Avenue	N3	BROUGHTON AVENUE - HENDON LANE TO WAVERLY GROVE	Finchley Church End	£54,585
Wickliffe Avenue	N3	WICKLIFFE AVENUE - HENDON LANE TO END	Finchley Church End	£53,479
Broughton Avenue	N3	BROUGHTON AVENUE - WAVERLY GROVE TO END	Finchley Church End	£34,013
Hendon Lane	N3	HENDON LANE -A1 GREAT NORTH WAY TO GRAVEL HILL	Finchley Church End	£132,633
Hoop Lane	NW11	HOOP LANE - MEADWAY GATE TO FINCHLEY ROAD	Garden Suburb	£88,025
Hampstead Way	NW11	HAMPSTEAD WAY - WILLIFIELD WAY TO No166	Garden Suburb	£165,000
Middleton Road	NW11	MIDDLETON ROAD - MIDDLETON ROAD FROM FINCHLEY ROAD TO ROTHERWICK ROAD	Garden Suburb	£45,488
Rotherwick Road	NW11	ROTHERWICK ROAD - ROTHERWICK ROAD FROM CORRINGHAM ROAD TO FINCHLEY ROAD	Garden Suburb	£71,715
Winnington Close	N2	WINNINGTON CLOSE - WINNINGTON ROAD TO END	Garden Suburb	£19,261
Kenwood Close	NW3	KENWOOD CLOSE - WINNINGTON ROAD TO END	Garden Suburb	£11,167
Brunner Close	NW11	BRUNNER CLOSE - LITCHFIELD WAY TO END	Garden Suburb	£12,294
Russell Gardens	NW11	RUSSELL GARDENS - FROM GOLDERS GREEN ROAD TO BROOKSIDE ROAD	Golders Green	£96,312
Purbeck Drive	NW2	PURBECK DRIVE - PURBECK DRIVE FROM CLEVELAND GARDENS TO COTSWOLD GARDENS	Golders Green	£34,909
Quantock Gardens	NW2	QUANTOCK GARDENS - QUANTOCK GARDENS FROM COTSWOLD GARDENS TO CLAREMONT ROAD	Golders Green	£69,377
Wentworth Road	NW11	WENTWORTH ROAD - FROM ST GEORGES CLOSE TO RAVENSCROFT AVENUE	Golders Green	£186,910
Sneath Avenue	NW11	SNEATH AVENUE - SNEATH AVENUE FROM A502 TO BROOKSIDE ROAD	Golders Green	£98,352
Chiltern Gardens	NW2	CHILTERN GARDENS - CHILTERN GARDENS FROM CLAREMONT ROAD TO CHEVIOT GARDENS	Golders Green	£66,928
Claremont Road	NW2	CLAREMONT ROAD - CLAREMONT ROAD FROM BRENT TERRACE TO CLITTERHOUSE ROAD	Golders Green	£109,500
Clitterhouse Crescent	NW2	CLITTERHOUSE CRESCENT - CLITTERHOUSE CRESENT FROM CLITTERHOUSE ROAD N TO CLITTERHOUSE ROAD	Golders Green	£77,657
Upcroft Avenue	HA8	UPCROFT AVENUE - UPCROFT AVENUE FROM FARM ROAD TO END	Hale	£117,125

Road name	Post code	Section	Ward	Estimated cost
Kenilworth Road	HA8	KENILWORTH ROAD - BUSHFIELD CRESCENT TO GLENGALL ROAD	Hale	£81,550
Deans Lane	HA8	DEANS LANE - END OF SPLITTER TO HALE LANE ROUNDABOUT	Hale	£88,558
Derwent Avenue	NW9	DERWENT AVENUE - DERWENT AVENUE FROM HALE DRIVE TO DOWNHURST AVENUE	Hale	£62,031
Cloister Gardens	HA8	CLOISTER GARDENS - CLOISTER GARDENS FROM A5100 E TO A5100	Hale	£99,168
Warwick Avenue	HA8	WARWICK AVENUE - GLENGALL ROAD TO LYNFORD GARDENS	Hale	£236,698
Chatsworth Close		CHATSWORTH CLOSE - CHATSWORTH AVENUE TO END	Hendon	£12,651
Wykeham Road	NW4	WYKEHAM ROAD - BRAMPTON GROVE TO No5	Hendon	£186,502
Newark Way	NW4	NEWARK WAY - GREYHOUND HILL TO NEWARK WAY	Hendon	£48,482
Johns Avenue	NW4	JOHNS AVENUE - SOMERSET ROAD TO END	Hendon	£63,664
Heriot Road	NW4	HERIOT ROAD - CHRIST CHURCH TO SYDNEY GROVE	Hendon	£70,601
Sunny Hill	NW4	SUNNY HILL - HENDALE AVENUE TO END	Hendon	£75,499
Chatsworth Avenue	NW4	CHATSWORTH AVENUE - A1 TO MEADOW DRIVE	Hendon	£79,171
Rowsley Avenue	NW4	ROWSLEY AVENUE - MEADOW DRIVE TO SUNNY GARDENS ROAD	Hendon	£132,633
Hall Lane	NW4	HALL LANE - A41 TO END	Hendon/Mill Hill	£146,916
Cecil Court	EN5	CECIL COURT - WENTWORTH ROAD TO END	High Barnet	£22,854
Cavendish Road	EN5	CAVENDISH ROAD - KINGS ROAD TO END	High Barnet	£51,840
Hadley Grove	EN5	HADLEY GROVE - GLADSMUIR ROAD TO END	High Barnet	£26,637
Salisbury Road	EN5	SALISBURY ROAD - STAPYLTON ROAD TO ALSTON ROAD	High Barnet	£39,956
Field End	EN5	FIELD END - A411 TO END	High Barnet	£26,227
Kingsmead	EN5	KINGSMEAD - KING EDWARD ROAD TO END	High Barnet	£55,118
Brockenhurst Gardens	NW7	BROCKENHURST GARDENS - STATION ROAD TO BROADWAY HOUSE	Mill Hill	£55,094
Vineyard Avenue	NW7	VINEYARD AVENUE - B552 TO END	Mill Hill	£54,277
Tavistock Avenue	NW7	TAVISTOCK AVENUE - SANDERS LANE TO TIVERTON WAY	Mill Hill	£40,810
Copthall Gardens	NW7	COPTHALL GARDENS - BUNNS LANE TO END	Mill Hill	£48,564
Woodland Way	NW7	WOODLAND WAY - FLOWER LANE TO SYLVAN AVENUE	Mill Hill	£61,675
Uphill Road	NW7	UPHILL ROAD - TRETAWN PARK TO A5109	Mill Hill	£89,541
Uphill Grove	NW7	UPHILL GROVE - LAWRENCE STREET TO END	Mill Hill	£89,746
Simmons Way	N20	SIMMONS WAY - RUSSELL ROAD E TO RUSSELL ROAD	Oakleigh	£73,250
Oakleigh Park North	N20	OAKLEIGH PARK NORTH - CHANDOS AVENUE TO OAKLEIGH PARK NORTH RBT	Oakleigh	£34,218
Richmond Road	EN5	RICHMOND ROAD - RICHMOND ROAD FROM LYONSDOWN ROAD TO GLOUCESTER ROAD	Oakleigh	£39,910.00
Netherlands Road	EN5	NETHERLANDS ROAD - CHANDOS AVENUE TO NORTHUMBERLAND ROAD	Oakleigh	£62,088.00
Lyonsdown Avenue	EN5	LYONSDOWN AVENUE - B193 TO NORTHUMBERLAND ROAD & LYONSDOWN RD SOUTH TO LONGMORE AVENUE	Oakleigh	£55,669.60
Lyonsdown Road	EN5	LYONSDOWN ROAD - FROM STATION ROAD TO EAST BARNET ROAD (NBTC) & RICHMOND ROAD TO LYTTON ROAD	Oakleigh	£84,310.65
York Way	N20	YORK WAY - YORK WAY FROM A109 TO MANOR DRIVE	Oakleigh	£26,022.30
Wykeham Rise	N20	WYKEHAM RISE - END TO END	Totteridge	£33,668
Badgers Croft	N20	BADGERS CROFT - TOTTERIDGE VILLAGE TO END	Totteridge	£64,480
Blakeney Close	N20	BLAKENEY CLOSE - MANUS WAY TO END	Totteridge	£15,712
Northiam	N12	NORTHIAM - LAUREL WAY TO SOUTHOVER	Totteridge	£87,779
Southover	N12	SOUTHOVER - NORTHIAM TO END	Totteridge	£6,147

Road name	Post code	Section	Ward	Estimated cost
St Margarets Avenue	N20	ST MARGARETS AVENUE - No66 TO A5109	Totteridge	£70,691
Manus Way	N20	MANUS WAY - STMARGARETS AVENUE TO END	Totteridge	£25,353
Oaklands Road	N20	OAKLANDS ROAD - BARNET LANE TO END	Totteridge	£37,050
St Andrews Close	N12	ST ANDREWS CLOSE - WOODSIDE AVENUE TO STANDREWS CLOSE INC LOOP	Totteridge	£16,597
Farm Close	EN5	FARM CLOSE - RYECROFT CRESCENT TO END	Underhill	£27,343
Ryecroft Crescent	EN5	RYECROFT CRESCENT - QUINTA DRIVE S TO QUINTA DRIVE	Underhill	£162,424
Meadow Close	EN5	MEADOW CLOSE - MEADOW CLOSE TO E END	Underhill	£44,891
Denton Close	EN5	DENTON CLOSE - AITKEN ROAD TO END	Underhill	£53,053
Mayhill Road	EN5	MAYHILL ROAD - MAYS LANE TO END AT BLDG NO 47	Underhill	£62,085
Grasvenor Avenue	EN5	GRASVENOR AVENUE - WESTERN WAY TO FAIRFIELD WAY	Underhill	£137,201
Stanhope Road	EN5	STANHOPE ROAD - STANHOPE ROAD FROM CHESTERFIELD ROAD TO NUPTON DRIVE	Underhill	£35,140
Normandy Avenue	EN5	NORMANDY AVENUE - NEWLYN ROAD TO MAYS LANE	Underhill	£70,281
Elm Park Road	N3	ELM PARK ROAD - NETHER STREET TO GORDON ROAD	West Finchley	£128,143
Lansdowne Road	N3	LANSDOWNE ROAD - NETHER STREET TO GORDON ROAD	West Finchley	£107,330
Grosvenor Road	N3	GROSVENOR ROAD - SELLERS HALL CLOSE TO GORDON ROAD	West Finchley	£114,676
Seymour Road	N3	SEYMOUR ROAD - A598 TO ETCHINGHAM PARK ROAD	West Finchley	£50,610
Parkside	N3	PARKSIDE - LONG LANE TO THE RIDGEWAY	West Finchley	£30,735
Grove Avenue	N3	GROVE AVENUE - CORNWALL AVENUE TO GROVE THE	West Finchley	£32,989
Woodward Avenue	NW4	WOODWARD AVENUE - WOODWARD AVENUE FROM TALBOT CRESCENT TO A504	West Hendon	£35,505
Talbot Crescent	NW4	TALBOT CRESCENT - TALBOT CRESCENT FROM EDGEWORTH CRESCENT TO A504	West Hendon	£193,031
Vaughan Avenue	NW4	VAUGHAN AVENUE - VAUGHAN AVENUE FROM TALBOT CRESCENT TO A504	West Hendon	£95,495
Goldsmith Avenue	NW9	GOLDSMITH AVENUE - ROMAN ROAD TO KINGSBURY ROAD	West Hendon	£124,062
Endersleigh Gardens	NW4	ENDERSLEIGH GARDENS - RICHMOND GARDENS TO END	West Hendon	£76,315
Edgeworth Close	NW4	EDGEWORTH CLOSE - EDGEWORTH CLOSE FROM END TO EDGEWORTH CLOSE	West Hendon	£75,247
CALDICOTE GREEN	NW9	CALDICOTE GREEN - FOOTPATH GOLDSMITH AVENUE SNOWDON DRIVE TO BDLG NO40 NAMED 25	West Hendon	£34,476
Queens Avenue	N3	QUEENS AVENUE - SQUIRES LANE TO PARK CRESCENT	Woodhouse	£150,589
Lewes Road	N3	LEWES ROAD - LEWES ROAD FROM WOODHOUSE ROAD TO TORRINGTON GROVE	Woodhouse	£152,629
Summers Lane	N12	SUMMERS LANE - SUMMERS LANE FROM WOODHOUSE ROAD TO SUNNY WAY	Woodhouse	£66,204
Squires Lane	N3	SQUIRES LANE - ETCHINGHAM PARK ROAD TO HIGH ROAD	Woodhouse	£218,905
Bow Lane	N12	BOW LANE - GRANVILLE ROAD TO SQUIRES LANE	Woodhouse	£330,071
Torrington Grove	N12	TORRINGTON GROVE - TORRINGTON GROVE FROM LEWES ROAD TO FRIERN PARK	Woodhouse	£51,421
Friern Watch Avenue	N12	FRIERN WATCH AVENUE - No1 TO FRIARY ROAD	Woodhouse	£180,788

Carriageway Resurfacing – Year 5 (still to be completed)

Road name	Post code	Section	Ward	Estimated cost
Hampden Way	N14	SUMMIT WAY TO WATERFALL ROAD	Brunswick Park	£139,159

Carriageway Resurfacing Priority List

Road name	Post code	Section	Ward	Estimated cost
Hampden Way	N14	HAMPDEN WAY	Brunswick Park	£39,397
Southbourne Avenue	NW9	SOUTHBOURNE AVENUE - GREENWAY THE TO END	Burnt Oak	£71,966
Hocroft Avenue	NW2	HOCROFT AVENUE - HOCROFT AVENUE FROM A41(T) TO FARM AVENUE	Childs Hill	£58,571
Lanacre Avenue	NW9	LANACRE AVENUE - FROM BRISTOL AVENUE TO QUAKERS COURSE	Colindale	£42,024
Colney Hatch Lane	N10	COLNEY HATCH LANE - COLNEY HATCH LANE HILLSIDE AVENUE TO QUEENS PARADE CLOSE_ASHER LOFTUS WAY HILLSIDE AVENUE	Coppetts	£50,292
East Barnet Road	EN4	EAST BARNET ROAD - BROOKHILL ROAD - EAST BARNET ROAD (EBTC)	East Barnet	£93,240
Leopold Road	N2	LEOPOLD ROAD - A1000 TO LESLIE ROAD	East Finchley	£80,370
Edgwarebury Lane	HA8	EDGWAREBURY LANE - CEMETERY TO EDGWAREBURY FARM	Edgware	£55,156
Ashley Lane	NW4	ASHLEY LANE - A1 TO ASHLEY CLOSE	Finchley Church End	£37,559
Hill Top	N2	HILL TOP - OSSULTON WAY TO BROOKLAND RISE	Garden Suburb	£108,474
Limes Avenue	NW11	LIMES AVENUE - LIMES AVENUE FROM GOLDERS GREEN ROAD TO THE DRIVE	Golders Green	£53,055
Church Close	HA8	CHURCH CLOSE - CHURCH CLOSE FROM A5109 TO CHURCH CLOSE	Hale	£39,135
Rowsley Avenue	NW4	ROWSLEY AVENUE - MEADOW DRIVE TO SUNNY GARDENS ROAD	Hendon	£27,578
Cromer Road	EN5	CROMER ROAD - POTTERS ROAD TO BOLEYN WAY	High Barnet	£26,265
Bittacy Park Avenue	NW7	BITTACY PARK AVENUE - ENGEL PARK TO END	Mill Hill	£35,983
Lyonsdown Road	EN5	LYONSDOWN ROAD - RICHMOND ROAD TO LYTTON ROAD & LYONSDOWN RD SOUTH TO LONGMORE AVENUE	Oakleigh	£159,691
St Margarets Avenue	N20	ST MARGARETS AVENUE - No66 TO A5109	Totteridge	£90,614
Well Road	EN5	WELL ROAD - TRINDER ROAD TO ELMBANK AVENUE	Underhill	£118,455
Long Lane	N3	LONG LANE - SQUIRES LANE TO ST PAULS WAY	West Finchley	£73,542
Station Road	NW4	STATION ROAD NW4 - WILBERFORCE ROAD TO TALBOT CRESCENT	West Hendon	£122,544
Torrington Grove	N12	TORRINGTON GROVE - TORRINGTON GROVE FROM LEWES ROAD TO FRIERN PARK	Woodhouse	£33,094
Wildwood Road	NW11	WILDWOOD ROAD - HAMPSTEAD WAY TO TURNERS WOOD	Garden Suburb	£134,739
Endersby Road	EN5	ENDERSBY ROAD - AITKEN ROAD TO GARTHLAND DRIVE	Underhill	£52,267
Temple Fortune Hill	NW11	TEMPLE FORTUNE HILL - HAMPSTEAD WAY TO WILLIFIELD WAY	Garden Suburb	£58,308
Dollis Avenue	N3	DOLLIS AVENUE - HENDON AVENUE TO DOLLIS PARK	Finchley Church End	£152,862
Thornton Way	NW11	THORNTON WAY - MEADWAY TO NORTHWAY	Garden Suburb	£99,544
TOTAL YEAR 6 CARRIAGEWAY RESURFACING SCHEME VALUE				**£1,914,725**
TOTAL CARRIAGEWAY RESURFACING SCHEME VALUE (INCLUDES YEAR 5 SCHEME)				**£2,053,884**

Road name	Post code	Section	Ward	Estimated cost

Carriageway Patching Programme – Total budget £499,313

Road name	Post code	Section	Ward
Garthland Drive	EN5	GARTHLAND DRIVE - ELMBANK AVENUE TO QUINTA DRIVE	Underhill
Hampden Square	N14	HAMPDEN SQUARE - OSIDGE LANE ROUNDABOUT EAST ENTRANCE TO EAST ENTRANCE	Brunswick Park
Russell Lane	N20	RUSSELL LANE - HEREFORD AVENUE TO 1ST VEHICLE CROSSING OF SPLITTER	Brunswick Park
Booth Road	NW9	BOOTH ROAD - BOOTH ROAD CONNECTS AEROVILLE	Burnt Oak
Gaskarth Road	HA8	GASKARTH ROAD - PLAYFIELD ROAD TO WATLING AVENUE	Burnt Oak
WOLSEY GROVE F/P	HA8	U46925 - FOOTPATH NO.78 - WOLSEY GROVE TO WOODCROFT JMI SCHOOL	Burnt Oak
Barnfield Road	HA8	BARNFIELD ROAD - SILKSTREAM ROAD TO WATLING AVENUE (BOTC)	Burnt Oak
Hermitage Lane	NW2	HERMITAGE LANE - ELM TERRACE TO BOROUGH BOUNDARY	Childs Hill
Beechworth Close	NW3	BEECHWORTH CLOSE - BEECHWORTH CLOSE FROM WEST HEATH ROAD TO END AT BLDG NO 3	Childs Hill
Hoop Lane	NW11	HOOP LANE - RAVENSCROFT AVENUE TO GOLDERS GREEN ROAD (GGTC)	Childs Hill
Dunstan Road	NW11	DUNSTAN ROAD - FROM JUNCTION WITH THE VALE	Childs Hill
The Hyde	NW9	THE HYDE - OPPOSITE THE HYDE SERVICE ROAD EXIT TO SHEAVESHILL AVENUE (COTC)	Colindale
Colindale Avenue	NW9	COLINDALE AVENUE - TUBE STATION TO A5 (CATC)	Colindale
Colney Hatch Lane	NW9	COLNEY HATCH LANE - COLNEY HATCH LANE ATLAS ROAD TO NORTH CIRCULAR	Coppetts
Friern Barnet Road	N11	FRIERN BARNET ROAD - COLNEY HATCH LANE TO HARTLAND ROAD (FBTC)	Coppetts
Beeston Road	EN4	BEESTON ROAD - B193 TO BERKELEY CRESCENT	East Barnet
Alverstone Avenue	EN4	ALVERSTONE AVENUE - ALBEMARLE ROAD TO SHURLAND AVENUE	East Barnet
Margaret Road	EN4	MARGARET ROAD - CRESCENT ROAD TO VICTORIA ROAD	East Barnet
Mowbray Road	HA8	MOWBRAY ROAD - EDGWAREBURY LANE N TO EDGEWARE WAY (A41)	Edgware
Rectory Lane	HA8	RECTORY LANE - RECTORY LANE TO STATION ROAD	Edgware
Old Rectory Gardens	HA8	OLD RECTORY GARDENS - OLD RECTORY GARDENS FROM NW END TO END	Edgware
Kinloss Gardens	N3	KINLOSS GARDENS - START OF SPLITTER ISLAND TO CHESSINGTON AVENUE	Finchley Church End
Foreland Court	NW4	FORELAND COURT - B552 TO END	Finchley Church End
North Crescent	N3	NORTH CRESCENT - NORTH CRESCENT TO NORTH CRESCENT LINE	Finchley Church End
Greenlands Lane	NW4	GREENLANDS LANE - THE GATES BY HENDON RUGBY FOOTBALL CLUB TO GREAT NORTH WAY	Finchley Church End
Brookland Rise	NW11	BROOKLAND RISE - BROOKLAND RISE RBT N TO FALLODEN WAY	Garden Suburb
Forres Gardens	NW11	FORRES GARDENS - FINCHLEY ROAD TO No12 (TFTC)	Garden Suburb
Gloucester Drive	NW11	GLOUCESTER DRIVE - GLOUCESTER DRIVE FROM BEAUFORT DRIVE TO CONNAUGHT DRIVE	Garden Suburb

Road name	Post code	Section	Ward
Highfield Avenue	NW11	HIGHFIELD AVENUE - HIGHFIELD AVENUE FROM A502 TO A41(T)	Golders Green
Bridge Lane	NW11	BRIDGE LANE - LEESIDE CRESCENT TO START OF SPLITTER ISLAND (A406)	Golders Green
Harmony Close	NW11	HARMONY CLOSE - HARMONY CLOSE S SECTION FROM END TO END	Golders Green
Cranbourne Gardens	NW11	CRANBOURNE GARDENS - CRANBOURNE GARDENS FROM LEESIDE CRESCENT TO BRIDGE LANE	Golders Green
Ashbourne Avenue	NW11	ASHBOURNE AVENUE - ASHBOURNE WAY TO BRIDGE LANE	Golders Green
Edgware Road Slip 2	NW2	SLIP ROAD - A5/A406 - STAPLES CORNER	Golders Green
Clitterhouse Crescent	NW2	CLITTERHOUSE CRESCENT - CLITTERHOUSE CRESENT FROM CLITTERHOUSE CRESENT TO END	Golders Green
Deansbrook Road (A 5109)	HA8	Deansbrook Road - Wenlock Road to End Nos51 to 69	Hale
Maxwelton Close	NW7	MAXWELTON CLOSE - CUL DE SAC MAXWELTON AVENUE TO END	Hale
Glenwood Road	NW7	GLENWOOD ROAD - GLENWOOD ROAD TO WORCESTER CRESCENT	Hale
Hendale Avenue	NW4	HENDALE AVENUE - STMARYS CRESCENT TO A41T	Hendon
St Marys Crescent	NW4	ST MARYS CRESCENT - GREYHOUND HILL TO SUNNY HILL	Hendon
Finchley Lane	NW4	FINCHLEY LANE - LINFIELD CLOSE TO TO A1(T) GREAT NORTH WAY	Hendon
Cedars Close		CEDARS CLOSE - END OF SPLITTER ISLAND TO B552	Hendon
Greyhound Hill	NW4	GREYHOUND HILL - START OF SPLITTER ISLAND TO CHURCH END	Hendon
Parson Street	NW4	PARSON STREET - DOWNAGE TO CORRIGAN CLOSE	Hendon
Queens Road	EN5	QUEENS ROAD - QUEENS ROAD FROM WOOD STREET TO REGINA CLOSE	High Barnet
Barnet Hill	EN5	BARNET HILL - OPPOSITE A110 STATION ROAD TO OPPOSITE POTTER'S LANE	High Barnet
Galley Lane	EN5	GALLEY LANE - GALLEY LANE LINK FROM A411 TO GALLEY LANE	High Barnet
Warwick Road	EN5	WARWICK ROAD - STATION ROAD TO LEICESTER ROAD	High Barnet
Leicester Road	EN5	LEICESTER ROAD - PLANTAGENET ROAD TO STATION ROAD	High Barnet
Hammers Lane	NW7	HAMMERS LANE - MILTON ROAD TO TENNYSON ROAD	Mill Hill
Grants Close	NW7	GRANTS CLOSE - SANDERS LANE TO GRANTS CLOSE	Mill Hill
Brockenhurst Gardens	NW7	BROCKENHURST GARDENS - STATION ROAD TO BROADWAY HOUSE	Mill Hill
Parkside	NW7	PARKSIDE - HILLSIDE GROVE TO HILLSIDE GROVE	Mill Hill
Pank Avenue	EN5	PANK AVENUE - B193 TO GLOUCESTER ROAD	Oakleigh
Dalmeny Road	EN5	DALMENY ROAD - MONKS AVENUE TO NETHERLANDS ROAD	Oakleigh
Great North Road	N20	GREAT NORTH ROAD - FROM WALFIELD AVE TO LYONSDOWN ROAD	Oakleigh
Walfield Avenue	N20	WALFIELD AVENUE - A1000 S TO A1000	Oakleigh

Road name	Post code	Section	Ward
Wykeham Rise	N20	WYKEHAM RISE - END TO END	Totteridge
Blakeney Close	N20	BLAKENEY CLOSE - MANUS WAY TO END	Totteridge
Barnet Lane	EN5	BARNET LANE - START OF SPLITTER ISLAND TO TOTTERIDGE VILLAGE	Totteridge
Garthland Drive	EN5	GARTHLAND DRIVE - ELMBANK AVENUE TO QUINTA DRIVE	Underhill
Orchard Road	EN5	ORCHARD ROAD - FITZJOHN AVENUE TO END	Underhill
Normandy Avenue	EN5	NORMANDY AVENUE - HIGH STREET TO No3 (HBTC)	Underhill
Vale Drive	EN5	VALE DRIVE - MAYS LANE TO MILTON AVENUE	Underhill
West Close	EN5	WEST CLOSE - RYECROFT CRESCENT TO END	Underhill
Denton Close		DENTON CLOSE - AITKEN ROAD TO END	Underhill
Hervey Close	EN5	HERVEY CLOSE - A598 TO No1 (FCETC)	West Finchley
Herbert Road	NW9	WILBERFORCE ROAD - HERBERT TO STATION ROAD	West Hendon
West Hendon Broadway	NW9	WEST HENDON BROADWAY - HERBERT ROAD TO PERRYFIELD WAY HEADING SOUTH (WHTC)	West Hendon
Northgate Drive	NW9	NORTHGATE DRIVE - NORTHGATE DRIVE FROM SNOWDEN DRIVE TO END AT BLDG NO 12	West Hendon
Stanley Road	NW9	STANLEY ROAD - STANLEY ROAD FROM WEST HENDON BROADWAY TO END (WHTC)	West Hendon
Ravensdale Avenue	N12	RAVENSDALE AVENUE - FROM LIBRARY (No3) TO A1000	Woodhouse
Ingleway	N12	INGLEWAY - CRESCENT WAY TO SCHOOLWAY	Woodhouse
Avenue Road	N12	AVENUE ROAD - A1000 TO No2 (NFTC)	Woodhouse
Stanhope Road	N12	STANHOPE ROAD - FROM A1000 TO COLLEGE (NFTC)	Woodhouse
TOTAL CARRIAGEWAY PATCHING SCHEME VALUE £669,770			

Carriageway Resurfacing Reserve List

Road name	Post code	Section	Ward	Estimated cost
Burlington Rise	EN4	BURLINGTON RISE - AVONDALE AVENUE TO GALLANTS FARM ROAD	Brunswick Park	£101,046.60
Brunswick Park Road	N11	BRUNSWICK PARK ROAD - BRUNSWICK AVENUE TO DARWIN CLOSE	Brunswick Park	£34,258.95
Monkfrith Way	N14	MONKFRITH WAY - END TO FRIARS WALK	Brunswick Park	£102,300.00
Osidge Lane	N14	OSIDGE LANE - FROM THE WOODLANDS TO BOROUGH BOUNDARY	Brunswick Park	£120,435.00
Cowper Road	N14	COWPER ROAD - CHASE WAY TO WOODLANDS THE	Brunswick Park	£21,900.00
Gaskarth Road	HA8	GASKARTH ROAD - PLAYFIELD ROAD TO WATLING AVENUE	Burnt Oak	£52,530.00
The Greenway	NW9	THE GREENWAY - MONTROSE AVENUE TO END	Burnt Oak	£148,134.61
Heywood Avenue	NW9	HEYWOOD AVENUE - LANACRE AVENUE TO DISHFORTH LANE	Burnt Oak	£44,650.50
Arundel Gardens	HA8	ARUNDEL GARDENS - FROM HORSECROFT ROAD TO CRESSINGHAM ROAD	Burnt Oak	£25,214.40
Playfield Road	HA8	PLAYFIELD ROAD - MONTROSE AVENUE TO MILLFIELD ROAD	Burnt Oak	£89,563.65

Road name	Post code	Section	Ward	Estimated cost
Playfield Road	HA8	PLAYFIELD ROAD - MONTROSE AVENUE TO MILLFIELD ROAD	Burnt Oak	£32,568.60
Beechworth Close	NW3	BEECHWORTH CLOSE - BEECHWORTH CLOSE FROM WEST HEATH ROAD TO END AT BLDG NO 3	Childs Hill	£38,872.20
West Heath Close	NW3	WEST HEATH CLOSE - WEST HEATH CLOSE FROM PLATTS LANE TO END	Childs Hill	£60,672.15
Farm Avenue	NW2	FARM AVENUE - FARM AVENUE FROM HOCROFT ROAD TO A407	Childs Hill	£97,705.80
Prospect Road	NW2	PROSPECT ROAD - FROM No22 TO PROSPECT PLACE	Childs Hill	£23,638.50
Campion Terrace	NW2	CAMPION TERRACE - KARA WAY TO END AT BLDG NO 14	Childs Hill	£25,214.40
Garth Road	NW2	GARTH ROAD - GARTH ROAD FROM CLOISTER ROAD TO A41(T)	Childs Hill	£49,139.10
North End Road	NW11	NORTH END ROAD - WEST HEATH DRIVE TO BOROUGH BOUNDARY	Childs Hill/Garden Suburb	£150,936.20
Aerodrome Road	NW9	AERODROME ROAD - WARD BOUNDARY TO START OF SPLITTER ISLAND GRAHAME PARK WAY RBOUT	Colindale	£156,014.11
Grahame Park Way	NW9	GRAHAME PARK WAY - CORNER MEAD TO GREAT STRAND	Colindale	£49,903.50
Colin Close	NW9	COLIN CLOSE - COLIN CLOSE FROM SHEAVESHILL AVENUE TO END	Colindale	£29,416.80
Grahame Park Way	NW9	GRAHAME PARK WAY - GRAHAME PARK WAY TO GRAHAME PARK WAY	Colindale	£32,759.40
Rookery Way	NW9	ROOKERY WAY - ROOKERY WAY FROM RUSHGROVE AVENUE TO END	Colindale	£57,520.35
Aerodrome Road	NW9	AERODROME ROAD - WARD BOUNDARY TO START OF SPLITTER ISLAND GRAHAME PARK WAY RBOUT	Colindale	£39,397.50
The Ridgeway	N11	THE RIDGEWAY - FRIERN BARNET LANE TO BETHUNE AVENUE	Coppetts	£31,773.75
Alexandra Road	N10	ALEXANDRA ROAD N10- ALEXANDRA ROAD FROM PERT CLOSE TO DOOR NO 216	Coppetts	£34,350.00
Hemington Avenue	N11	HEMINGTON AVENUE - B550 TO END	Coppetts	£19,751.25
Wilton Road	N10	WILTON ROAD - FROM COLNEY HATCH LANE TO END	Coppetts	£27,987.30
Wetherill Road	N10	WETHERILL ROAD - WETHERILL ROAD FROM ALEXANDRA ROAD TO COLNEY HATCH LANE	Coppetts	£21,726.38
Albert Road	EN4	ALBERT ROAD - VICTORIA ROAD TO END	East Barnet	£30,913.80
Oakhurst Avenue	EN4	OAKHURST AVENUE - ROSSLYN AVENUE TO ALVERSTONE AVENUE	East Barnet	£52,830.30
Northfield Road	EN4	NORTHFIELD ROAD - GROVE ROAD TO CASTLEWOOD ROAD	East Barnet	£106,488.00
Hertford Road	EN4	HERTFORD ROAD - WESTBROOK CRESCENT TO END	East Barnet	£55,728.00
Approach Road	EN4	APPROACH ROAD - MARGARET ROAD TO A110 (NBTC)	East Barnet	£47,520.00
High Road	N2	HIGH ROAD - FAIRLAWN AVENUE TO FORTIS GREEN (EFTC)	East Finchley	£17,348.64
Lincoln Road	N2	LINCOLN ROAD - No1 TO HIGH ROAD (EFTC)	East Finchley	£11,819.25
Sylvester Road	N2	SYLVESTER ROAD - A1000 TO TARLING ROAD	East Finchley	£53,522.40
Lincoln Road	N2	LINCOLN ROAD - DURHAM ROAD TO No1	East Finchley	£63,823.95
Huntingdon Road	N2	HUNTINGDON ROAD - DURHAM ROAD TO S/O 156 HIGH ROAD	East Finchley	£85,886.55
Mowbray Road	HA8	MOWBRAY ROAD - EDGWAREBURY LANE N TO EDGEWARE WAY (A41)	Edgware	£90,876.90
High Street	HA8	HIGH STREET - STATION ROAD TO END OF SPLITTER NEAR GARRATT ROAD (EDTC)	Edgware	£97,390.63

Road name	Post code	Section	Ward	Estimated cost
Mowbray Road	HA8	MOWBRAY ROAD - EDGEWARE LANE TO MOWBRAY ROAD	Edgware	£41,236.05
Shelley Close	HA8	SHELLEY CLOSE - SHELLY CLOSE FROM PURCELLS AVENUE TO END	Edgware	£31,518.00
St Margarets Road	N20	ST MARGARETS ROAD - ST.MARGARETS ROAD FROM PENSHURST GARDENS TO START OF SPLITTER ISLAND	Edgware	£120,031.05
Brook Avenue	HA8	BROOK AVENUE - STMARGARETS ROAD TO PENSHURST GARDENS	Edgware	£37,033.65
Kinloss Gardens	N3	KINLOSS GARDENS - START OF SPLITTER ISLAND TO CHESSINGTON AVENUE	Finchley Church End	£45,963.75
Holders Hill Gardens	NW4	HOLDERS HILL GARDENS - B552 TO HOLDERS HILL DRIVE	Finchley Church End	£52,530.00
Highview Gardens	N3	HIGHVIEW GARDENS TO NORTH CIRCULAR	Finchley Church End	£35,125.06
Foreland Court	NW4	FORELAND COURT - B552 TO END	Finchley Church End	£16,021.65
North Crescent	N3	NORTH CRESCENT - NORTH CRESCENT TO NORTH CRESCENT LINE	Finchley Church End	£19,173.45
Winnington Road	NW11	WINNINGTON ROAD - WINNINGTON ROAD RBT TO B519	Garden Suburb	£217,736.86
Wildwood Road	NW11	WILDWOOD ROAD - TURNERS WOOD TO GREEN CLOSE	Garden Suburb	£78,795.00
Chandos Way	NW11	CHANDOS WAY - WELLGARTH ROAD TO END	Garden Suburb	£87,199.80
Hampstead Gardens	NW11	HAMPSTEAD GARDENS - FINCHLEY ROAD TO No12 (TFTC)	Garden Suburb	£21,012.00
Church Mount	NW11	CHURCH MOUNT - NORRICE LEA TO NORRICE LEA	Garden Suburb	£26,265.00
Creswick Walk	NW11	CRESWICK WALK - ADDISON WAY TO END	Garden Suburb	£30,467.40
Woodstock Avenue	NW11	WOODSTOCK AVENUE - WOODSTOCK AVENUE FROM A502 TO HAMILTON ROAD	Golders Green	£57,783.00
Bridge Lane	NW11	BRIDGE LANE - LEESIDE CRESCENT TO START OF SPLITTER ISLAND (A406)	Golders Green	£78,795.00
Ashbourne Avenue	NW11	ASHBOURNE AVENUE - ASHBOURNE WAY TO BRIDGE LANE	Golders Green	£81,684.15
Clitterhouse Road	NW2	CLITTERHOUSE ROAD - CLITTERHOUSE ROAD FROM CLAREMONT ROAD S TO CLAREMONT ROAD	Golders Green	£125,962.20
Tilling Road	NW2	TILLING ROAD - A41 TO END	Golders Green	£40,185.45
Fairmead Crescent	HA8	FAIRMEAD CRESCENT - KENILWORTH ROAD TO PARNELL CLOSE	Hale	£98,231.10
Sunnydale Gardens	NW7	SUNNYDALE GARDENS - SUNNYDALE GARDENS FROM LIMES AVENUE TO END	Hale	£13,657.80
Lyndhurst Avenue	NW7	LYNDHURST AVENUE - EVERSFIELD GARDENS TO DEANSBROOK ROAD	Hale	£18,910.80
Fairmead Crescent	HA8	FAIRMEAD CRESCENT - KENILWORTH ROAD TO PARNELL CLOSE	Hale	£42,024.00
Oldberry Road	HA8	OLDBERRY ROAD - OLDBERRY ROAD FROM GOLD HILL TO GOLDBEATERS GROVE	Hale	£53,580.60
Ellesmere Avenue	NW7	ELLESMERE AVENUE - A1 TO FAIRWAY THE	Hale	£151,286.41
West Way	HA8	WEST WAY - WEST WAY FROM FARM ROAD TO DEANS LANE	Hale	£88,513.05
Brent Street	NW4	BRENT STREET - END OF SPLITTER TO NORTH END ROAD A504 (BSTC)	Hendon	£37,366.34
Church Terrace	NW4	CHURCH TERRACE - PRINCE OF WALES CLOSE TO END	Hendon	£24,426.45
Ravenshurst Avenue	NW4	RAVENSHURST AVENUE - CHURCH ROAD TO SOMERSET ROAD	Hendon	£10,506.00
Sherwood Road	NW4	SHERWOOD ROAD - ASHLEY LANE TO DOWNAGE	Hendon	£115,828.65
Johns Avenue	NW4	JOHNS AVENUE - SOMERSET ROAD TO END	Hendon	£40,973.40

Road name	Post code	Section	Ward	Estimated cost
Greyhound Hill (access road)	NW4	GREYHOUND HILL ACCESS ROAD - FROM HENDALE AVENUE TO GREYHOUND HILL	Hendon	£28,891.50
St Marys Crescent	NW4	ST MARYS CRESCENT - GREYHOUND HILL TO SUNNY HILL	Hendon	£36,771.00
Queens Road	NW4	QUEENS ROAD - No 4 TO QUEENS WAY	Hendon/West Hendon	£97,075.44
Byng Road	EN5	BYNG ROAD - WENTWORTH ROAD TO END	High Barnet	£110,313.00
Meadway	EN5	MEADWAY - MEADWAY FROM HIGH STREET TO POTTERS ROAD	High Barnet	£86,149.20
Stapylton Road	EN5	STAPYLTON ROAD - A1081 TO UNION STREET	High Barnet	£52,530.00
Barnet Road	EN5	BARNET ROAD - FROM 30MPH BEFORE B552 HENDON WOOD LANE TO 100M PAST KERRI CLOSE	High Barnet	£94,554.00
St Albans Road	EN5	ST ALBANS ROAD - A1000 TO STAPYLTON ROAD (HBTC)	High Barnet	£9,570.68
Wood Street	EN5	WOOD STREET - FROM BARNET ROAD END OF ISLAND TO CHURCH PASSAGE	High Barnet/Underhill	£167,909.68
Barnet Hill	EN5	BARNET HILL - OPPOSITE A110 STATION ROAD TO OPPOSITE POTTER'S LANE	High Barnet	£19,148.10
Highwood Hill	NW9	HIGHWOOD HILL - HIGHWOOD HILL TO MARSH LANE	Mill Hill	£17,159.80
The Broadway	NW7	THE BROADWAY - FLOWER LANE TO SPLITTER (MHTC)	Mill Hill	£20,836.90
Bittacy Hill	NW7	BITTACY HILL - SANDERS LANE TO BITTACY ROAD	Mill Hill	£47,066.88
Milespit Hill	NW7	MILESPIT HILL - WISE LANE TO HIGH STREET	Mill Hill	£65,662.50
Woodland Way	NW7	WOODLAND WAY - FLOWER LANE TO SYLVAN AVENUE	Mill Hill	£79,057.65
Uphill Road	NW7	UPHILL ROAD - LAWRENCE STREET TO TRETAWN PARK	Mill Hill	£137,365.95
The Broadway	NW7	THE BROADWAY - MILLWAY TO FLOWER LANE (MHTC)	Mill Hill	£78,584.88
The Ridgeway	NW7	THE RIDGEWAY - HIGH STREET S LOOP TO ENGEL PARK	Mill Hill	£112,064.00
The Ridgeway	NW7	THE RIDGEWAY - HOLCOMBE HILL TO HIGH STREET S LOOP	Mill Hill	£80,405.92
Hammers Lane	NW7	HAMMERS LANE - SHAKESPEARE ROAD TO BUCKLAND CLOSE	Mill Hill	£17,994.60
Russell Gardens	NW11	RUSSELL GARDENS - RUSSELL GARDENS FROM RUSSELL ROAD TO RUSSELL GARDENS	Oakleigh	£18,385.50
Church Way	N20	CHURCH WAY - CHURCH WAY FROM ST.JAMES AVENUE TO MYDDELTON PARK	Oakleigh	£103,484.10
Simmons Close	N20	SIMMONS CLOSE - SIMMONS WAY TO END	Oakleigh	£32,305.95
St James Avenue	N20	ST JAMES AVENUE - RALEIGH DRIVE TO B550	Oakleigh	£31,859.63
Oakleigh Avenue	N20	OAKLEIGH AVENUE - OAKLEIGH PARK SOUTH TO A109	Oakleigh	£47,145.38
High Road	N20	HIGH ROAD - A5109 TOTTERIDGE LANE TO BUCKINGHAM AVENUE (WTC)	Oakleigh/Totteridge	£56,265.30
High Road	N20	HIGH ROAD - A5109 BUCKINGHAM AVENUE TO WALFIELD AVENUE	Oakleigh/Totteridge	£81,390.96
Naylor Road	N20	NAYLOR ROAD - A5109 TO RIDGEVIEW ROAD	Totteridge	£34,143.60
Totteridge Village	N20	TOTTERIDGE VILLAGE - TOTTERIDGE VILLAGE TO END OF SPLITTER ISLAND	Totteridge	£14,303.40
St Margarets Avenue	N20	ST MARGARETS AVENUE - A1000 TO No66 (WTC)	Totteridge	£5,536.80
Southway	N20	SOUTHWAY - GREENWAY TO COPPICE WALK	Totteridge	£43,833.00
Laurel Way	N20	LAUREL WAY - NORTHIAM TO END	Totteridge	£25,953.75

Road name	Post code	Section	Ward	Estimated cost
Whitings Road	EN5	WHITINGS ROAD - QUINTA DRIVE TO TRINDER ROAD	Underhill	£44,913.15
Normandy Avenue	EN5	NORMANDY AVENUE - No3 TO NEWLYN ROAD	Underhill	£76,956.45
Hervey Close	N3	HERVEY CLOSE - A598 TO END	West Finchley	£78,795.00
Albert Place	N3	ALBERT PLACE - NETHER STREET TO POPES DRIVE (FCETC)	West Finchley	£23,901.15
Kingsway	N12	KINGSWAY - OPPOSITE A1003 WOODHOUSE ROAD TO A598 BALLARDS LANE (NFTC)	West Finchley	£65,137.20
The Ridgeway	N3	THE RIDGEWAY - No1 TO END	West Finchley	£61,722.75
Nether Street	N12	NETHER STREET - NETHER STREET FROM MOSS HALL GROVE TO NETHER CLOSE	West Finchley	£39,397.50
Mayfield Gardens	NW4	MAYFIELD GARDENS - SHIREHALL PARK TO SHIREHALL LANE	West Hendon	£59,096.25
Woodberry Gardens	N12	WOODBERRY GARDENS - A598 TO WOODBERRY WAY	Woodhouse	£26,790.30
Hilton Avenue	N12	HILTON AVENUE - HILTON AVENUE FROM WOODHOUSE ROAD TO END	Woodhouse	£71,440.80
Crescent Way	N12	CRESCENT WAY - CRESCENT WAY FROM WOODHOUSE ROAD TO INGLEWAY	Woodhouse	£28,891.50
Summers Lane	N12	SUMMERS LANE - SUMMERS LANE FROM WOODHOUSE ROAD TO SUNNY WAY	Woodhouse	£47,277.00
Squires Lane	N3	SQUIRES LANE - ETCHINGHAM PARK ROAD TO HIGH ROAD	Woodhouse	£119,885.40
Garthway	N12	GARTHWAY - GARTHWAY FROM CRESCENT WAY W TO CRESCENT WAY	Woodhouse	£25,477.05
Connaught Road	EN5	CONNAUGHT ROAD - MAYS LANE TO CONNAUGHT ROAD	Underhill	£19,407.75
Whitings Road	EN5	WHITINGS ROAD - QUINTA DRIVE TO TRINDER ROAD	Underhill	£44,913.15
Sutherland Close	EN5	SUTHERLAND CLOSE - MANOR ROAD TO END	Underhill	£23,638.50
Fitzjohn Avenue	EN5	FITZJOHN AVENUE - PUB CAR PARK TO MAYS LANE	Underhill	£66,037.88

London Borough of Barnet

Environment Committee Work Programme

January 2020 – March 2020

Title of Report	Overview of decision	Report Of *(officer)*	Issue Type (Non key/Key/Urgent)
12 March 2020			
Quarter 3 Performance Report	Committee to comment on the 2019/20 Quarter 3 service performance	Chair of the Environment Committee	Non-key
Local Implementation Plan (LIP)	Committee to approve LIP submission to Transport for London	Chair of the Environment Committee	Non-key
Ceasing of Parks Locking: Phase 2	Committee to consider and approve the identified list Phase 2 sites.	Chair of the Environment Committee	Non-key
Time Banding Annual Report	Committee to consider the Time Banding Annual Report	Chair of the Environment Committee	Non-key
CPZ review	Committee to comment on the process to review Control Parking Zones	Chair of the Environment Committee	Non-key
Electric Vehicle	Committee to approve electric vehicle up-date	Chair of the Environment Committee	Non-key
Parks - Car Park Charging	Committee to comment and agree on proposals to introduce car parking charges to named parks car parks	Chair of the Environment Committee	Non-key