

Barking and Dagenham Borough-Wide Transport Priorities: 2021-2037



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1. Overarching Ambition and Foreword

We are determined to deliver thousands of badly needed new homes and jobs for our residents.

To do this we need to improve our transport network. Better connectivity will allow new development to take place and, at the same time, provide opportunities for existing residents. More than this, it can also power employment and housing growth in the whole of the London Riverside region and beyond.

This document sets out our strategy and aspirations in the short, medium and long term. It describes some of the improvements that are already underway, such as the overground and Clipper services to Barking Riverside which will open in 2022, alongside the Elizabeth Line in Chadwell Heath.

It explains our plans to improve the A13, to build new rail stations at Castle Green and Dagenham East, and to upgrade and make better use of the Thames jetties and wharfs as well as our existing rail freight connection to Europe, which is unique in the UK.

And, it suggests our longer term ideas for a new bridge over the River Roding connecting into Newham and the London City Airport, and the potential for a new High Speed 1 rail station.

These plans respond to the imminent arrival of new industries to our borough such as Thames Freeport, the Eastbrook film studios and the City of London wholesale markets, and the work we are doing with our partners including Fords and the rail and transport operators.

The strategy places equal importance on simpler interventions that will improve residents' quality of life by improving accessibility and encouraging active travel. We want to reduce our reliance on private cars and deliver environmental benefits such as improved air quality. We aim to reduce congestion and pressure on local parking and make it easier for people living and working in the borough to travel by public transport, or to walk or cycle, particularly on short trips. That means all new developments will either be car-free or car-lite, in accordance with London Plan standards, and that our streets and cycle routes need to be better and safer.

Recognising our strong heritage around the automotive industry at Ford and in Dagenham, we place particular emphasis on promoting electric vehicles by developing a modern charging network, and by attracting related industries and creating jobs.

The strategy also begins to explain how we will finance and deliver the schemes, identifying key delivery priorities. We expect funding to come from a variety of sources, including central Government (Barking and Dagenham are Priority 1 Levelling Up constituencies), the Mayor of London, developer contributions and also exploring our own funding mechanisms.

We hope you will find this strategy useful in understanding our vision and how we plan to deliver it.



Tim Thomas Head of Policy, Infrastructure and Transport Planning / Be First Planning



Cllr Cameron Geddes Cabinet Member for Regeneration and Housing



2. Introduction

Planning for Growth

The Local Plan for Barking and Dagenham is hugely ambitious. It provides the framework for building over 40,000 new homes, creating 20,000 new jobs and sets the ambition for the borough to become one of the greenest in London. In order to achieve this level of growth in a sustainable way, how we plan for the future of transport in the borough will be key.

The ambition for the borough is to deliver 'Good Growth' which delivers a more inclusive place for existing and future residents; a healthier environment to live; a more sustainable borough which is contributing to our decarbonisation targets and a more inviting place to live, work, visit and invest. In order to deliver 'Good Growth', we need to fully integrate our thinking on transport with wider policies on growth and development. A more integrated approach to planning will help reduce our reliance on private cars whilst providing attractive alternatives, that support health and wellbeing for all residents.

At the heart of this approach is developing the borough in a way that is more people-orientated. Giving people a choice of transport options and encouraging greater use of those modes that are more sustainable. Our approach has to be flexible, to reflect the changes in technology and lifestyles that are taking place and also respectful of the choices people make about how and why they travel.

This Transport Strategy seeks to bring together all of the different proposals for transport into a single integrated plan that aligns with the borough's ambitious growth targets. The Strategy contains a number of transport priorities for the borough covering the new Local Plan period. It combines evidence from supporting policy and transport planning documents and provides a clear, robust transport evidence base that will aid discussions with key stakeholders. The Strategy is consistent with the Greater London Authority (GLA) and Transport for London's (TfL) focus on delivering Good Growth and Healthy Streets.

Document Purpose

The Strategy has been prepared to support the Local Plan development process. This is in terms of the levels of growth outlined in the Local Plan but also the wider outcomes for the borough that the Local Plan is seeking to achieve, which relate to health, well being, inclusive growth and sustainability. Specifically, the Transport Strategy demonstrates how transport can contribute towards meeting ambitious housing targets, improvements in air quality, and changes in travel behaviour outlined in the Mayors Transport Strategy (MTS).



3. Scene Setting and Vision

This section will set out the current transport context and outline the future vision for the borough, including:

- the local plan vision and how transport will play a key role in delivering ambitious levels of growth;
- the existing context for transport across different modes of travel within Barking and Dagenham;
- the transport challenges that have been identified that the strategy will look to overcome;
- identified future transport priority areas;
- mapping of previous and current policy;
- strategic and local studies and strategies that have been completed to date; and
- future trends and changes to movement patterns that need to be considered.



3. Scene Setting and Vision

3.1 The Vision

50,000

High-quality new homes that meet the needs of our residents and working Londoners – in the plan period – in safe and 'liveable' neighbourhoods, which are well supported by optimum health, education and community facilities.



20,000

Jobs in diverse enterprises, from media to biotech to food-based industries; re-asserting our role as a key part of London's industrial engine and an important economic centre in our own right.



Hectares of beautiful parks and natural open spaces in combination with development of energy-efficient homes and a decarbonised energy system to make our borough the 'Green Capital of the Capital'.

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 Areas characterised by distinctive neighbourhoods that are well-connected to the opportunity development and growth brings.
 People left behind

Figure 1 - The Local Plan Vision

The draft Local Plan sets a vision for the borough up to 2037, aiming for "*inclusive growth, to harness the growth opportunity that arises from the people, and land location, while ensuring it is sustainable and improves prosperity, wellbeing and participation for all.*"

There are five overarching objectives (shown opposite) which outline the borough's targets.

The borough recognises the significant housing growth proposed over the plan period as a significant opportunity to work towards these goals.

Specifically the plan considers:

Stepping up housing delivery



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providing over 40,000 new homes for residents supported by infrastructure.

Unlocking growth though infrastructure

addressing connectivity and capacity issues at stations, on the Underground, on rail and the A13 as well as improving walking and cycling.



acknowledging the significant role transport will play in this.

Promoting sustainable transport

10% traffic reduction, 20% increase in public transport. Overall 75% of trips will be taken by sustainable modes, in line with MTS goals for Outer London.



3.2 Existing Transport Context

To achieve the Local Plan vision, it is important to consider the existing transport context in order to understand and appreciate the scale of change required. Barking and Dagenham's transport network is focused along key strategic corridors, linking east and west into central London and Essex. This reflects the important relationship the Borough has both in terms of its relationship with London but also the wider south east region. Important strategic transport routes pass through the borough including the A13 and the London to Southend Railway.

The development of the Borough has been influenced by these strategic routes with neighbourhoods planned around stations and industrial and commercial areas along the A13. Major centres such as Barking and Dagenham are important transport hubs and commercial centres where significant growth is planned. Investing in new transport connections and enhancing existing infrastructure will support the delivery of Good Growth in these locations.

The borough has been historically divided with the A13 forming a barrier between to the industrial areas to the south – fronting on to the River Thames and more mixed/residential areas to the north. This has led to more limited connectivity across the borough north to south, with gaps in the transport network exacerbated by dominant highway routes such as the A13 and A12.

The borough has historically been the home of major industrial and manufacturing areas which has generated a significant amount of commercial and freight traffic. Whilst some of this exists and new investment in modern manufacturing takes place, some former industrial areas are being transformed into new residential neighbourhoods. This means the transport network has to change to become more people focused supported by investment in new connections and transformation of existing infrastructure. This will create more positive conditions to support an increase in active travel – walking and cycling.

Barking and Dagenham has a unique relationship with the car – being the home of the Ford Dagenham Plant that manufactured over 10million cars over its life. Now the focus of engine manufacture, the plant is at the heart of a new industrial and commercial cluster focused on green energy, food industries and advanced manufacturing. We need to support the transition towards a fully electric vehicle future in the borough, whilst increasing choice for local people to use other modes of transport. New investment in projects such as the London Overground extension to Barking Riverside will support this.

Figure 2 – Existing Transport Mode Share in Barking and Dagenham



Figure 3 – Existing Transport Network In Barking and Dagenham



Source: LBBD and OSM

3.3 Existing Transport Overview

Cycling

Cycling accounts for approximately 0.8% of trips in the borough (around 4,000 trips per day)₁ which is low compared to elsewhere in London (e.g. 6.9% in Hackney ₃). The existing cycling network focuses on strategic routes (as shown in the plan below) with highly-variable conditions beyond these main routes where the network is very poor or non-existent with limited segregation. Barking has a relatively young population, with the highest proportion of under 16s in London and the UK ₂, and the 10th lowest proportion of over 65s in London, which should help contribute towards higher levels of cycle use.



Bus

Approximately 13% of trips in the borough are made by bus_1 , and there is a good coverage of bus routes and stops across the borough. Bus routes serve existing town centres well and provide good connections with the rail network. In some parts of the borough where there is a concentration of bus services, such as Barking town centre, there can be competition for space with other users of the road network including pedestrians and cyclists. Whilst the bus fleet in London is becoming cleaner in terms of emissions, there is a need to accelerate the full electrification of the bus fleet. There are limited routes that cross the A13 serving the major growth areas and providing north-south connectivity across the borough.



Rail

Underground, Overground and rail account for 14% of all trips₁, with the majority of these associated with travelling in/out of Central London₁. The rail network includes seven stations, served by a combination of services which provide good access to the central part of the borough, leaving some areas to the north and south with poor access to rail stations. Barking station is a key hub for rail in the borough as it is served by the District and Hammersmith and City Line, Gospel Oak Overground and National Rail services to London Fenchurch Street. The London Overground is currently being extended to Barking Riverside which will radically improve rail access to the southern part of the borough

Road

Travel by car accounts for 40% of trips in the borough₁, which is relatively high compared to neighbouring boroughs such as Newham $(28\%_4)$ and Greenwich $(29\%_5)$. 13% of all car trips starting in the borough are under 1km (approximately 15 minutes walking time)₂, and 60% are under 5km (which is under 20-minutes cycling time). Vehicle miles travelled have increased 10% 2012-2016, compared to a 2% increase in Outer-London₂, along with increasing HGV and LGV trips. The borough accommodates significant through movements with both the A12 and A13 strategic routes connecting London to the east of England. These routes in particular carry a large proportion of commercial traffic (19% A12 and 30% A13)₆. High traffic volumes have resulted in many strategic routes recording high levels of personal injury accidents.



Source: OSM

3.4 Existing Transport Challenges

The previous section describes the existing transport conditions by different modes of transport in Barking and Dagenham. This section focuses on the main transport challenges that need to be addressed if 'Good Growth' is to be delivered.

Low Levels of Public Transport Accessibility

Taking TfL's PTAL measure of public transport accessibility, large parts of the borough have very low levels of public transport accessibility, illustrated in Figure 9 by the blue areas as anything at level 2 or below. This includes some areas of the borough that have no public transport accessibility at all. As part of the transition to more sustainable travel, public transport accessibility levels across the whole of the borough need to improve, including in existing neighbourhoods as well as new development areas.

Lack of Connectivity

There are a number of significant barriers in the borough that have created severance and limited the development of connections. This has created barriers and made it difficult for some journeys across the borough to be made efficiently. This is particularly apparent for north south connections across the A13 which are extremely limited by public transport and almost non existent on foot or cycle. As areas to the south of the A13 are developed for residential and a mixture of uses, this severance needs to be addressed through the introduction of new connections and the removal of physical barriers.

Air Quality and Health

The UK limit for NO2 emissions is an annual mean of 40 ug/m3 and the primary source of these emissions is diesel vehicles. Whilst the introduction of the ULEZ is helping to tackle this, there is a risk that emissions do not improve in boroughs such as Barking that falls outside of the ULEZ. A number of areas in the borough currently exceed legal limits, caused primarily by emissions on the A13. This is something that needs to be addressed to address the long-term health implications of residents living close to these areas.



Source: LondonAir, 2021

Road Safety

It is recognised through the evidence collected and collated by TfL through their Road Danger Reduction dashboard₁₁ that there has been a consistent level of rates of KSIs on the road network along strategic routes over the last 5 years. Figure 11 shows this through casualty harm rate data, which demonstrates the level of road risk for each segment in the road network, based on casualties weighted by injury severity, and vehicle flows, alongside total level of casualty harm shown as hexagons. This highlights that the greatest harm is caused on major roads and junctions within the borough. People using active modes of travel are particularly at risk of injury, in 2017, there were 136 pedestrian casualties, 90 two-wheeler and 42 people cycling₂. All of these figures have generally increased since 2008. This poses significant challenges, particularly as the borough is aiming to increase levels of walking and cycling. In order for the borough to reach Vision Zero (the aim for all deaths and serious injuries from road collisions to be eliminated by 2041), then significant changes to the highway network need to be pursued.

Community Cohesion and Deprivation

Barking and Dagenham is a diverse and mixed borough with a fast growing and a relatively young population. It is also a relatively poor borough, containing areas with some of the worst deprivation in the UK (within the lowest 10% when measured against the Government's IMD index). In some cases, the areas have poor public transport accessibility or are in areas where air quality is impacted negatively by roads such as the A13, impacting on health and well being. Transport has a role to play in helping to address deprivation by providing improved connectivity that connect people with opportunities. There is also a need to address the negative impacts of transport (noise and pollution) on more deprived communities.



3. Scene Setting and Vision

3.5 Transport Challenges and Priority Focus Areas

Based on the existing conditions and the transport challenges in the borough as set out on the previous pages a number of key transport challenges have been identified. Resolving these challenges should be the focus of the initiatives set out within this Transport Strategy.



Lack of internal connections north-south throughout the borough

The lack of north-south connectivity impacts on mobility within the borough, making it harder to access jobs and services and future opportunities easily.



Lack of accessibility to major development opportunities south of the A13

The area south of the A13 is where a significant amount of future growth is taking place and connections between these growth areas and the rest of the borough, need to be improved if the benefits of growth are to be fully realised across the borough.



A13 capacity constraints, associated congestion and environmental issues

The A13 is a major traffic corridor carrying large volumes of strategic traffic between London and the east of England, generating negative impacts on surrounding neighbourhoods. Addressing the severance effect of the A13 is essential if the borough is to develop in an integrated way where the benefits of growth are realised by all.







Low PTAL levels in areas with high development intensification aspirations

Low levels of public transport accessibility exist across the borough and if growth is to take place without adding to road traffic congestion, levels of public transport accessibility need to improve.



Poor air quality resulting from vehicle emissions and the impact of this on Net Zero targets

The A13 is a particular contributor to poor air quality in the borough, impacting on local areas in terms of health, well-being and guality of life. Reducing the impact of poor air guality from the A13 is a priority for the borough.



The lack of transport and connectivity in parts of the borough can contribute to a sense of isolation, which can mean the benefits of arowth do not benefit everyone.

Poor cycling infrastructure and lack of joined up network

Improving the cycling network across the borough will help increase the use of cycling as a mode of transport, increasing choice for local people and helping to contribute to health and well being.

3.6 Policy Context

The Local Plan provides the strategic framework for transport in the borough. Key policies in the Local Plan that are relevant to this Transport Strategy include

- Strategic Policy 1 Delivering growth in Barking and Dagenham
- Strategic Policy 3 Delivering homes that meet peoples needs
- Strategic Policy 5 Promoting inclusive economic growth
- Strategic Policy 6 Green and blue infrastructure
- Strategic Policy 7 Securing a clean, green, and sustainable borough
- Strategic Policy 8 Planning for integrated and sustainable transport

The development of the Local Plan has been informed by and supported by a number of other studies and policy documents. Delivery of the policies in the Local Plan will be through a combination of detailed projects and programmes and major planning applications.





3.7 Strategic Transport Studies

To support the Local Plan a number of strategic transport studies have been undertaken or commissioned by the borough. Earlier studies focussed on understanding the impact of housing growth on the transport network, while later work identifies and proposes measures to address potential negative effects of this growth through sustainable and low carbon travel improvements.

Local Plan Transport Evidence Base (Systra, 2020)

Systra's strategic transport modelling study identified that even without proposed Local Plan growth, by 2031 the borough's highway and public transport network will be experiencing significant congestion and delays, particularly along the A132. Conditions deteriorate further when the proposed level of growth is included. The following potential mitigation measures were identified for the current five year investment plan period:

Junction improvements at:

Capacity enhancements on public

- A13/Movers Lane/River Road
- A13/Renwick Road
- Lodge Avenue/Woodward Road
- Dagenham Heathway
- Martins Corner Valance Avenue
- North Street / A124

- transport corridors Walking and cycling improvements
- Parking demand management
- The study also identified the potential to increase use of public transport in the borough for internal movements, with analysis showing that in the AM peak some 29% of trips are made internally, shown in the adjacent figure. Whilst comprehensive, this study does not consider recent changes in travel trends related to Covid-19 or potential interventions which cover the full MTS period to 2041, in which there is significant potential for further upgrades and travel behaviour changes to improve mode share in the borough in favour of more sustainable modes.

A13 Strategic Regeneration Study (Arup, 2021)

This study summarises work undertaken to consider various options for upgrading the A13 and the relevant benefits and costs associated with different levels of intervention. The proposals considered range from essential maintenance works to tunnelling the A13 through Castle Green to unlock development potential. The tunnelling approach was evaluated as achieving significant benefits through reducing severance and enabling comprehensive redevelopment of the Castle Green area.

Barking Town Centre Transport Strategy (Arup, 2021)

This strategy identifies existing transport challenges in Barking Town Centre alongside recommendations to develop a more cohesive town centre. This includes identifying key streetscape improvements to improve connectivity and facilitate improved walking, cycling and bus connections between development sites and the town centre. The strategy focuses on the significant opportunities for growth and the requirement to facilitate and enable access for the existing and future population of Barking through more active travel and fewer vehicle trips.



Source: Barking Town Centre Strategy, 2021

London Riverside Opportunity Area Transport Strategy (Jacobs, 2020)

This study developed a 20-year transport action plan for the London Riverside Opportunity Area, which will house 44,000 new homes by 2040. The study identifies existing severance caused by the A13, several rivers and railway lines, highway congestion and ageing infrastructure as the key transport challenges to fully realising the aspirational levels of growth. The following key recommendations were made following detailed transport modelling analysis:

- A solution is required to replace the Lodge Avenue Flyover and improve access to the A13
- Upgrades required to Movers Lane/River Road, Goresbrook Interchange and Renwick Road junctions
- New high quality walking and cycling links to support new developments
- Stringent parking controls to manage supply and demand

Bus Priority Study (Be First, 2021)

This study has reviewed bus priority proposals across the borough to identify the level of benefit and the feasibility of introducing the proposals, which include bus lanes and / or improvements to junctions to minimise bus delays. The study takes account of existing levels of congestion to focus and complement the proposals as set out in the Walking and Cycling Strategy. The study outcomes highlight priority routes for intervention, details of design requirements and constraints and the next steps to implement the proposals.

Electric Vehicle Charging Strategy (Be First, 2021)

Feasibility work has been undertaken to understand the potential to expand Electric Vehicle (EV) charging across the borough, in alignment with their emission reduction targets. In particular, this includes identifying opportunities for public rapid charging points which will supplement provision within new development sites in adherence with local policy.

Barking Station Masterplan (c2c, Network Rail, 2019)

The masterplan outlines proposals devised by c2c and Network Rail to upgrade Barking station, with the aim of providing significant capacity increases to reduce existing congestion and cater for expected passenger growth in the borough. The upgrade proposals include:

- Redesign of the station concourse, including additional ticket gates increasing capacity by 100% to ease peak-time queues
- Increasing station entrance size to improve flow of people and integration with the high street
- Restoration of original architectural features, increased retail space, new station toilets and the renewal of the station's lift

A Walking and Cycling Strategy for Barking and Dagenham (Be First, 2021)

The strategy will contribute to the borough's 2030 carbon neutral aims by improving active travel connections to local centres and transport interchanges in the borough, enabling local and longer journeys to be made by sustainable modes.

The strategy sets out what needs to be done to achieve modal shift and how the quality of the network can be improved. Amongst others, the key schemes to be implemented as part of the strategy include: A118 corridor, Becontree, Baking Station to Chadwell Heath, CFR10 extension, Heathway, Ilford Link, Longbridge Road/Wood Lane and Ripple Greenway.



Walking & Cycling Strategy for Barking & Dag





3.8 Policy Compliance

Strategic transport studies and future plans outlined in this Transport Strategy have been developed to align with the London-wide policy and vision.

The London Plan 2021

The adopted London Plan 2021 is the Spatial Development Strategy for Greater London. It sets out the Mayor's vision to achieve Good Growth, with a framework for how development in London will be focused over the next 20-25 years. The policies in the Plan should inform planning decisions across the borough and form part of the statutory development plan for London. Each borough's Local Plan and policies must be in 'general conformity' with the London Plan 2021 to ensure that London grows together and is developed sustainably.

Key policy requirements for Transport include:

- Car and cycle parking standards that seek to promote sustainable development
- A target of 75% of all trips to be made by walking, cycling and public transport by 2041 (outer London)
- Healthy Streets approach to deliver patterns of land use that enable residents to make shorter sustainable trips
- New developments required to consider the current and expanding transport network
- Development should integrate and not cause capacity issues



Mayor's Transport Strategy 2018

The Mayor's Transport Strategy, sets out the Mayor's policies and proposals to reshape London's transport network. Focusing on the Healthy Streets approach to design, the Strategy aims to prioritise human health and restructure the transport hierarchy to the benefit of all who live, work and socialise in the Capital.

Key themes include:

- Healthy streets and healthy people to encourage walking, cycling and public transport - discouraging private car usage
- A good public transport experience to shift longer journeys from private cars to public transport as this is the most efficient travel mode for longer journeys in London
- New homes and jobs planning the city around sustainable transport links (existing and aspirational) to unlock growth in areas that do not have an adverse impact on the environment.

LBBD Contribution to Delivery

The borough will adopt the maximum London Plan car and cycle parking standards; deliver healthy streets schemes along key routes; plan development around the active and public transport network (new and aspirational), with development concentrated to the south of the borough in brownfield areas where regeneration should be targeted; and ensuring design reflects a master planning approach with each development linking and providing combined benefits greater than each individual component.

Figure 16 – Healthy Streets Principles

LBBD as a outer London borough has unique challenges...

Growth in the borough has been strategically planned to coincide with existing transport connectivity, with any gaps identified in the Local Plan and this Transport Strategy, and future schemes designed to resolve any potential shortfalls. The growth planned also provides the borough with the opportunity to enhance existing links, leaving no resident behind, and improving the streetscape for all – focusing on human centered growth and development, in line with 15-minute city principles.

3.9 Planning for Uncertainty

The COVID-19 pandemic has impacted all aspects of life, including mobility. Governmentenforced restrictions and the fear of contracting the virus have been key reasons for changes in behaviour. Transport has been particularly affected, as people were asked to work and stay at home where possible. The resultant reduction in demand for transport services led to a 95% reduction in London Underground journeys at its peak (Alfaro, 2020). These changes to travel patterns in London and across Great Britain are shown in Figure 17.

This data collected by the Department for Transport clearly illustrates the changes experienced in London through the COVID-19 pandemic. Although lockdown restrictions were lifted in June 2021, there is still significant uncertainty around how transport patterns may change in the long-term. Future increases in working from home could reduce the pressure on road and rail networks at peak times, as well as improving local town and district centre vitality due to a greater number of people staying local during the day.

TfL's 5 Post COVID-19 Scenarios

TfL has proposed five potential scenarios for future transport trends in London following a recovery from the COVID-19 pandemic, these include:

- 1) A return to business as usual similar story to pre COVID-19
- 2) London fends for itself lower London growth
- 3) Low carbon localism smaller, more localised, travel
- 4) Remote revolution technology changing how people travel and when
- 5) Agglomeration, agglomeration, agglomeration rising density and decreasing car use

Each of the scenarios will impact upon likely future travel demand. These are being regularly reviewed in line with emerging evidence, and refined, to ensure suitability for purpose and future planning.

This Transport Strategy and the Local Plan will need to consider the potential for long-term behavioural changes that may occur as a result of COVID-19, and should seek to capitalise on some of the positive transport behaviour changes that have occurred to help accommodate its Local Plan growth.

The UN Sustainable Development Goals and the Climate Emergency

The Council is committed to taking action in relation to the climate through their declaration of a Climate Emergency in January 2020, with the commitment for the borough to become carbon neutral by 2030. The United Nations (UN) Sustainable Development Goals (SDGs) can be used to guide principles of development at a local level and would help develop transport initiatives that support the climate declaration. The UN SDGs comprise 17 goals and 169 targets, which aim to guide policy and create a framework for sustainable development worldwide intended to "stimulate action over the next 15 years in areas of critical importance for humanity and planet" (UN, 2015).

This Transport Strategy sets out the planned initiatives which will improve consistency and quality of the active travel network, expand public transport through Overground and bus network improvements, and reduce freight dominance through the proposed Freeport. These initiatives have been collated into a cohesive strategy to ensure that they work together and complement each other, with the ultimate, overarching vision to achieve sustainable growth in alignment with the UN SDGs.



Figure 17 - % change in transport mode use in Great Britain and London through Covid-19, compared to equivalent day 7 day rolling average (Source: DfT)



4. Planned Transport Priorities

Reflecting the assessment of the current transport challenges in the borough; the outputs from the various strategic studies and the policy context in the London Plan, Mayors Transport Strategy and the Local Plan, a number of priority areas for transport have been identified. This includes a combination of geographically specific locations where transformation of the transport network is required; specific transport network proposals and wider policy areas relating to the whole of the borough.

Improving our Main Town Centres Barking and Dagenham

Barking town centre is the major centre for the borough, a strategic transport node and focal point for development. This offers significant opportunities to build on existing connectivity, inward investment and growth to deliver positive change. Dagenham Heathway is the boroughs second town centre and is a busy transport and shopping hub with significant potential for improvement to the streetscape and environment.

The A13

The A13 is a major barrier that severs the borough in half and impacts on surrounding local communities. Addressing this severance is a key priority for the borough and a fundamental part of the strategy for delivering inclusive and sustainable growth.

The Rail Networks and River

The River Thames and existing strategic rail corridors and network have shaped and defined the geography of the borough and will continue to play an enormous part in how the borough will grow in the future

Long Term Strategic Proposals

A number of longer term strategic transport proposals have been developed that are a central part of the transport strategy for the borough and underpin delivery of the Local Plan.

Electric Vehicles and Charging Strategy

Supporting the transition towards a fully electric vehicle fleet is a priority for the whole of the borough, working with TfL and adjoining boroughs as part of an integrated plan for London

Car Parking

Managing car parking that comes forward as part of new development is a critical component of the overall transport strategy for the borough as it contributes directly to future transport mode choice, travel demand and impacts on place making.











4.1 Improving our Main Town Centres Barking and Dagenham

Barking Town Centre

A Barking Town Centre Transport Strategy has been produced to support regeneration; it brings together a number of previous studies and proposals to work towards a delivery plan that prioritises transport measures to enhance the vibrancy and cohesiveness of the town centre. This strategy acknowledges that there are challenges for the town centre in relation to a lack of clear connections and severance for people walking, cycling and using public transport and focus areas have been identified that seek to develop connections, between the centre and proposed development sites.

These connections will be realised by delivering three key moves, connectivity, removing severance and low carbon. By using these as guiding principles, a cohesive and comprehensive future network has been developed as shown in Figure 19. This proposed network combines existing development proposals and builds on them to unlock the full potential of the town centre, whilst addressing identified severance and permeability issues. With a focus on connecting St Pauls Road, Broadway and Station Parade, the strategy seeks to establish a new movement framework that prioritises active and sustainable travel.

Proposed measures include widened footways, downgrading the highway network around the St Pauls gyratory, reconfiguration of Lidl gyratory, parking rationalisation, bus layby and highway realignment to discourage through traffic, improved surfacing and formalisation of pedestrian crossings.

This strategy aims to support the town centre in accommodating local and borough-wide growth aspirations set out in the Local Plan. It will also seek to enhance the town centre as a key destination for leisure, interchange and services and ensuring that the transport network is a key enabler for improvements in connectivity.

Dagenham Heathway

Dagenham Heathway is currently the borough's second town centre despite its modest size, serving the wider Becontree area. As retailing moved to supermarkets and retail parks in the late 20th century the centre weakened, a decline augmented by a shift in the retail industry to greater volumes of online shopping. Our plan is to reinvigorate Heathway and build on its gateway connection to the London Underground (LU) District line.

The Heathway is a busy transport and shopping hub with an average 28,000 daily pedestrian journeys and 12,000 vehicles. A 'Healthy Streets Check' scored 56/100, highlighting several areas for improvement including air quality, noise and accessibility. Interaction with large vehicles and people cycling, effective width for cycling and quality of cycling all scored zero. The borough plans to improve the streetscape and environment of the Heathway through pedestrian friendly design, improved permeability, and upgraded and accessible public realm.











Figure 19 – Dagenham Heathway consultation

(Source: Barking Town Centre Strategy, 2021)

4.2 The A13

The A13 is one of the busiest arterial routes into central London, connecting Essex with the capital, and passing through Barking and Dagenham to the south of the borough. The A13 is a significant barrier to movement, creating severance for north to south movements and isolating Barking Riverside from the rest of the borough. It also generates noise and contributes to poor air quality in the borough. Sites adjacent to the A13 have historically developed as industrial land use, with direct connections to the road and river, with some poorly connected and isolated residential areas south of the A13.

Some of the infrastructure associated with the A13 is ageing and in urgent need of replacement such as the Lodge Avenue Flyover.



Figure 20 – A13 and Castle Green Opportunities

To mitigate against these issues several studies, undertaken between 2020 and 2021, have considered alternative solutions. Focusing around Castle Green these improvements seek to address existing challenges whilst enabling regeneration, unlocking housing and economic growth. The short-list of options to invest in the A13 to unlock regeneration, include:

- 1. Replacing the flyover at Lodge Avenue.
- 2. Removing the flyover at Lodge Avenue and creating a new at-grade solution.
- 3. Removing the flyover at Lodge Avenue and building a new underpass.
- 4. Removing the flyover and constructing a short tunnel adjacent to the A13.
- 5. Removing the flyover and constructing a longer tunnel adjacent to the A13.
- 6. Removing the flyover and constructing a longer tunnel through the Castle Green site.

The options identified provide an indication of the different levels of intervention achievable, with the direct and indirect benefits increasing with respective levels of intervention.

Option 1, for example, represents the minimum intervention needed, whilst Option 6, the longest tunnel option, delivers significant transformation of Castle Green into a mixed-used development delivering a high number of homes and industrial intensification which could catalyse change in the area.

Each option seeks to bring benefits to the wider area: reducing severance, improving the local environment, social value, access to new opportunities through new transport links, all of which contribute to levelling up and supporting stronger community cohesion.

These options are still being considered alongside possible funding options to secure these improvements – ultimately a cost-benefit analysis of each option will determine viability.



Figure 21 - Beam Park Station Vision

4.3 The Vision for Rail and River

The Local Plan states '*The borough will continue to follow the Mayor's Transport Strategy through delivery of its Local Implementation Plan (LIP) and supporting programmes'*. This will be achieved by:

- Identifying and safeguarding new sites, space and route alignments, as well as supporting infrastructure and sites which allow for modal shift of freight from road to rail or river.
- Work with rail operators and TfL to improve Barking Station, which projections show will require increased capacity over the next decade (c2c have a programme of works planned for Barking Station over the next few years to release further capacity)

The Local plan also states that 'All developments should maximise the use of the river for freight, where appropriate, including for the transportation of construction materials to, and waste from a development site either directly to and from the site or through the supply chain and follow TfL guidance on Construction Logistics Plans and Delivery and Servicing Plans'.

Key projects set to achieve this rail and river vision for the borough are as follows:

- Barking Riverside (London Overground Extension) to support development of 10,800 homes.
- Thames Clipper service extension towards Barking Riverside (Winter 2021) aligning with the MTS
- Barking Station capacity improvements
- Freeport at Dagenham Dock to shift freight from road to river
- New Railway Station at Beam Park
- Dagenham East opening to c2c services subject to Levelling Up Fund bid



4.4 Longer Term Strategic Proposals

There are a number of longer term strategic proposals which the borough has planned, or is currently investigating. These would support growth and will be monitored and reviewed to ensure that relevant national and local policy is met, as well as ensuring all schemes support good and sustainable growth, whilst being flexible and adaptable to suit the borough's changing needs.

Barking Riverside Extension (0 to 5 years)

The Barking Riverside extension will add 4.5km of London Overground line extending to a new station at Barking Riverside – train services are expected to be operational in autumn 2022. The extension will support the delivery of homes, jobs, education and retail/leisure facilities, improving transport accessibility.

Barking Station Development Programme (0 to 5 years)

Proposed improvements to Barking station include: the construction of a second ticket gate-line to ease congestion at peak times; increasing the size of the station entrances to ease people flows; and improving accessibility through lift provision. These upgrade proposals will provide increased long term capacity in line with growth aspirations and deliver enhanced facilities for customers.

School Streets and Road Safety (0 to 5 years)

Increasing the number of schools participating in the school streets scheme will mean more temporary traffic restrictions at school drop-off and pick-up times. This will make it safer for more children to walk or cycle to and from school, reducing congestion and pollution whilst freeing up parking spaces for residents.

Cycling and Walking Network (0-5+ years)

As part of the Walking and Cycling Strategy, proposed cycle links will be planned, delivered and monitored and reviewed to ensure the type and scope of provision matches planned growth.

A13 Proposals (5-10+ years)

Tunnelling of the A13 between Lodge Avenue junction and the Goresbrook interchange would free up land above in the Castle Green transformation area, reduce severance and improve environmental quality. Tunnelling would also require a review of the need for the A13 junction improvements which are also being considered.



Figure 22 - Illustrative sketch of A13 Tunnel Scheme



Figure 23 – Illustrative visualisation of Barking Riverside Station (© TfL)



Figure 24 – Example of on-street EV Charging Column



Figure 25 – Example of on-street EV Parking Bay

4.5 Electric Vehicle and Charging Strategy

LBBD and Be First has made initial strides to adapt to meet the needs of future trends in car travel, including ensuring there is sufficient provision to charge the increasing number of electric vehicles on the borough's streets. As part of their Inclusive Growth Strategy they are focusing on the following:

- Ensuring residents have permission to trail Electric Vehicle (EV) cables from properties to cars on the public highway, providing they have the proper EV cabling mats.
- Allowing households to supply the electricity directly from their house into a feeder pillar on the kerbside by cabling under the highway, providing it is installed by borough-approved contractors and paid for by the owner.

These focus areas will ensure that everyone can have access to EV charging infrastructure and ensure that as many residents as possible have the ability to purchase and run an electric car.

Moving forward the LBBD and Be First will be progressing with specific, borough-wide, EV proposals as follows:

- Project Centre has been commissioned to forecast EV demand growth, and have currently identified 150 potential suitable sites for EV charge points, with a focus on residential areas.
- A tender specification is being developed for a preferred provider for EV charging on new-build developments with the identified provider also being promoted for use by third party developers.
- Designs are being drafted to equip Frizlands, Central Nursery and Creek Road depots for corporate estate EV charging infrastructure, which will support the borough's transition to an EV vehicle fleet. This is part of a wider programme of corporate retrofitting.
- Be First and LBBD has committed to making **25% of their fleet low emission by 2025** and **100% by 2030.**

4.6 Car Parking

In many parts of the borough, where there is a identified lack of walking and cycling infrastructure and limited access to public transport, there is a heavy reliance on private car use. This is recognised within the Local Plan and this Transport Strategy, however there is a need to support the transition to a more sustainable mix of transport choices so growth planned for the borough does not lead to unacceptable increases in traffic congestion.

Parking Management Strategy

There is a need for parking in the borough to be managed differently and this will be achieved through the following mechanisms, with consideration to the specific context of the area being considered and the existing PTAL.

Controlling car parking in new developments

The **London Plan 2021 car parking standards** will be adopted for use in the borough using planning controls to advocate for **car-free** and **car-lite** provision in new developments, where appropriate.

Any car parking provided by new developments will be expected to propose strategies to convert underutilised parking areas into public uses, including pocket gardens, parklets, public realm or cycle parking.

The management strategy will seek to control off-street parking, as well as removing the possibility of overspill, but will allow flexibility in the future, when less parking is anticipated to be required, and more liveable spaces can be created. There does need, however, to be recognition that in areas not as well connected or accessible, car parking will need to be provided where necessary, within maximum London Plan standards.

Establishing Controlled Parking Zones (CPZs)

Parking restrictions will be introduced in areas of the borough where there is high on-street parking demand. This will help to reduce the impact of overspill parking from new developments on local business and residents, also promoting sustainable travel and easing congestion. This will further enhance the London Plan 2021 car parking standards that are being adopted.

The Local Plan states that: 'Where existing residents' parking would be significantly impacted by the additional cars from a development, and this cannot be appropriately mitigated, developments will be expected to fund the costs of implementing a Controlled Parking Zone (CPZ), including permits for existing residents for the first year'.

Any revenue raised from CPZs will be expected to be used to fund future sustainable transport measures.

The map showing the borough's existing and proposed Controlled Parking Zones is shown in Appendix B.



Figure 26 - Example of Parklet (Fitzpark Parklet)



Figure 27 – On-street EV Charging Infrastructure

This Transport Strategy has identified a number of specific areas and neighbourhoods in the borough where there is a significant opportunity for transport initiatives to contribute towards the Local Plan vision.

By taking a place based approach there is an opportunity to develop a complementary package of measures for each area that supports delivery of the Local Plan. Areas have been selected because they are subject to major growth proposals or land use change; experience specific transport challenges or where there is an opportunity to build on existing plans to deliver a positive step change in sustainable transport-based connectivity.



5.1 Chadwell Heath and Marks Gate

Chadwell Heath and Marks Gate is severed by the A12, which restricts north-south movements whilst supporting strategic vehicular through-traffic. Areas to the north, in Mark's Gate, are isolated compared to proposed development sites and town centres to the south around Chadwell Heath, so improving connections between these areas is vital for facilitating sustainable travel and accommodating growth.

Focusing Improvements Away from the Strategic Road Network

The schemes proposed form a cohesive network by linking existing facilities, proposed street enhancements and active travel initiatives with new development and growth areas. This will ensure sustainable growth is delivered in the Chadwell Heath transformation area, integrating existing communities with new and ultimately improving the streetscape and urban environment for all those living, working or travelling through the area. The Chadwell Heath SPD, currently being developed, will formalise these changes, ambitions and visions.

By prioritising schemes which improve walking, cycling and bus connectivity to the south, and Chadwell Heath, the transport focus is shifted away from the A12. The schemes focus on High Road and Valance Avenue as key routes which will improve east to west and north to south links within the borough and to external destinations. These proposals also link with new Elizabeth Line stations and the Chadwell Heath Transformation Area, which seeks to create a liveable neighbourhood with good sustainable travel links to and from key destinations in the borough.

Table 1 – Chadwell Heath and Marks Gate Transport Improvements Summary

No	Scheme	Benefits							
1	High Road Cycle Scheme ₂	Provision of a new strategic cycling link along the A118 High Road. These corridor improvements aim to create better streets and places, with measures aimed at tackling congestion, addressing severance and creating 'healthy streets'. Key connections: Redbridge and Havering							
2	Valance Avenue Healthy Street ₂	The Council, together with local community and key partners are developing designs for an improved streetscape in line with TfL Healthy Street principles. The scheme will seek to help pedestrians feel safer, increase accessibility, improve the public realm and bring communities together. Key connections: Becontree, Parsloes Park, Crossrail							
3	Chadwell Heath Cycle Network Improvement ₇	The aim is to connect the borough across the A12, linking the north with new Crossrail services, the High Road and other neighbouring centres. Key connections: Crossrail, Bus Priority, Padnell Lake, Chadwell Heath, Mark's Gate,							
4	Bus Priority Measures ₈	 Provide a new bus lane contributing to a more efficient and reliable bus network and incentivising bus travel over car trips. Key connections: A118 High Road between Station Road and St Chads Road and junction signal modification at A118/Whalebone Lane 							



5.2 Becontree

The severance effects caused by the A13 and railway infrastructure influences movement patterns in Becontree and restricts north-south movements. Although the area was originally planned as a residential area, changing trends in growth and movement over the years have resulted in Becontree becoming isolated from the rest of the borough and those planned movements becoming harder to make, especially by sustainable modes of travel.

Resolving the North South Divide

Whilst there are no specific transformation areas located in Becontree, it still forms the core of the borough, linking east-west and north-south, with a wealth of green space for existing and new residents. The area is well served at the periphery by public transport, with Becontree and Dagenham Heathway stations to the south. Enhanced cycling and walking facilities will link into transport hubs, with the Becontree Low Emission Neighbourhood₁₂'and Greening the Fiddlers' also seeking to complement these interventions through reduced vehicle traffic flows, congestion and supporting public realm improvements, with the aim of creating safer streets for sustainable travel.

Walking and cycling improvements, in addition to bus priority schemes, aim to shift the focus of movement away from the A13. The introduction of new Schools Streets and the Valence Heathy Streets scheme will promote active travel and promote sustainable movement internally and externally to the area. The proposals seek to promote this area as a destination rather than a thoroughfare, offering quiet routes for active travel that are as direct as the road network.

Table 2 – Becontree Transport Improvements Summary

	Table 2 – Becontree Transport Improvements Summary								
No	Scheme		Benefits						
		1.1 Becontree Primary	Programmed delivery of walking/cycling only streets between 8am-9:15am and 2:45pm-4pm to improve safety and encourage						
	School	1.2 Dorothy Barley Junior Academy	active travel at a young age. Roads affected: Stevens Road (1.1), Harrold Road/ Ivinghoe Road (1.2), Stanhope Road (1.3)						
1	Streets	1.3 Grafton Primary							
		1.4 – 1.8 Proposed Autumn 2021	Proposed schools: Southwood Primary (1.4), Valence Primary (1.5), St Joseph's RC Primary (1.6), Sydney Russell Primary (1.7), Parsloes Primary (1.8)						
2	Valance Avenue Healthy Street ₂		The borough, together with the local community and key partners are developing designs for an improved streetscape in line with TfL Healthy Street principles. The southern section of the street scheme falls within this character area, with the northern section in Chadwell Heath.						
			Key connections: Becontree, Parsloes Park, Crossrail						
	Proposed Cycle Links		Connecting the borough across the A12, linking the north with Elizabeth Line stations and the High Road.						
3	110		Key connections: Becontree, Chadwell Heath, Parsloes Park, Barking, Dagenham, Mayesbrook Park						
	Dur		Provision of a new bus lane contributing to a more efficient bus network and incentivising bus travel over car.						
4	Bus	s Priority Measures ₈	Key connections: Green Lane between Grafton Road and Hitherfield Road						



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5.3 Becontree Heath and Rush Green

Becontree Heath and Rush Green currently have poor connectivity and permeability with the rest of the borough. This has led to the area becoming isolated over time, with a resultant lack of transport accessibility and lower socioeconomic performance. It also directly adjoins Havering and so any associated infrastructure improvements will require co-ordination with LB Havering.

Access to the Green Capital of the Capital

On the eastern edge of the borough, Becontree Heath & Rush Green is characterised by extensive green and open spaces, country parks and nature reserves. Connecting people to these areas is important for health and wellbeing, creating destinations that are within walking and cycling distance of new and existing residential and employment areas in the borough. Bordering Havering to the east, key connections can be made from Heathway to the west and Dagenham Village to the south.

This area is also a focus for education provision, and the movement networks to and from naturally facilitates sustainable and active travel. The Heathway Healthy Streets scheme links the area to the south of the borough and additional bus priority schemes connecting to parks and open spaces. This will aim to shift people away using private vehicles, and enable them to travel by foot, cycle and on public transport. This will be complemented by improved and upgraded cycling infrastructure.

Table 3 – Becontree Heath and Rush Green Transport Improvements Summary

No	Scheme	Benefits						
1	Upgrade existing cycle lanes ₁₀	Cycle links to be upgraded Key connections: Dagenham Dock Station to the Fiddlers						
2	Heathway Healthy Streets ₂	The local community and key partners are developing designs for improved streetscapes inline with TfL Healthy Streets. They aim to help pedestrians feel safer, increase accessibility, improve the public realm and bring people together. Key connections: Dagenham Heathway, Becontree Heath						
3	Bus Priority ₈	 Provide a new bus lane and junction improvements contributing to a more efficient bus network and incentivising bus travel over car trips. Key connections: Wood Lane between Rainham Road North and Gosfield Road, and Whalebone Lane / Wood Lane / Green Lane junction 						







Figure 31– Becontree Heath and Rush Green Area Transport Improvements Plan

ORTI

5.4 Dagenham East and Dagenham Village

Dagenham East and Dagenham Village have a distinct heritage and character. The village is a designated conservation area and any development within them will be required to protect and enhance these unique characteristics. Despite this distinct character, Dagenham Heathway's District Centre is currently lacking cohesion as well as the facilities, vibrancy and vitality to meet local needs. There are also pockets of poorly planned development around the station and a lack of continuous, legible routes for walking and cycling.

Connecting transport hubs

Characterised by two key masterplan developments, the Dagenham East and Village area will need to balance the needs of local residents and workers with proposals that will need to complement strategic schemes. It is vital that new links ensure sustainable connections to the wider area, to stations, as well as Havering directly to the east. A levelling up bid has been submitted seeking funding to improve transport connectivity in this area.

CHALLENGES

The Heathway runs along the western border of this character area, connecting to Dagenham station to the south and Becontree Heath to the north. Proposed bus priority schemes along the Heathway corridor, as well as a significant streetscape transformation, will aim to shift people from the A13 and road network onto high-quality, frequent sustainable transport links, which efficiently transport people to key locations. Connecting the new film studios with key residential areas and employment areas is a key ambition. The focus of the levelling up bid is at Dagenham East station and the surrounding approaches. This seeks to improve transport connectivity, accessibility at the station and enhance the public realm to further encourage sustainable transport to and from the station.

The access improvement scheme at Dagenham East Station, as well as the potential to reopen the station to c2c rail services, would provide a wider public transport catchment and relieve congestion at other key stations on the network, such as at Barking.

Table 4 – Dagenham East and Dagenham Village Transport Improvements Summary

No	Scheme	Benefits						
1	School Streets Proposed Autumn 2021 ₉	Programme of walking and cycling only streets between 8am-9:15am and 2:45pm-4pm to improve safety and encourage active travel at a young age. Schools proposed: Richard Alibon (1.1), Hunters Hall (1.2)						
2	Heathway Healthy Street Scheme ₂ The local community and key partners are developing designs for an improve streetscape in line with TfL Healthy Streets. The aim is to improve safety, increase accessibility, improve public realm and bring people together. Key connections: Dagenham Heathway, Becontree Heath							
3	Bus Priority Measures ₈	Provide a new bus lane south of Dagenham Heathway to resolve north-south connectivity issues, contributing to a more efficient and reliable bus network Key connections: Heathway between Holgate Road and Petits Road, and Downing Road and Ron Todd Close, including Hedgemans Road junction						
4	Dagenham East Station	Station access improvements planned at Dagenham East as part of the LIP3 and Levelling Up Fund. Crossrail 2 plans could enhance station accessibility. Key connections: Film Studios, Dagenham Village						



5.5 Barking Town Centre and the River Roding

Barking Town Centre is currently an area undefined in specific character. It has poor internal connectivity and integration between the station, the River Roading and Abbey Green, creating an incoherent centre that currently struggles to sustain a resilient and sustainable economy. The highway network is also congested, with levels of through-traffic limiting opportunities for improving the environment for walking and cycling trips.

Improving Journey Time Reliability and Promoting Active Travel

Barking town centre has several cultural destinations including Roding Riverside, Abbey Green and East Street Market. It is also the major transport hub in the borough, linking to Underground, Overground, National Rail and bus services, as well as the key cycle routes to development sites at Barking Riverside. The town centre is currently undergoing a significant transformation through five different masterplan areas. These proposals are supported by a Town Centre Transport Strategy to reduce through-traffic and associated severance, and improve accessibility from both the river, station, regeneration areas and the wider borough.

As a key trip attractor and interchange point in the borough, new bus lanes and bus priority schemes will improve accessibility and enhance sustainable travel opportunities towards Barking station. Cycle routes will also aim to improve access to the town centre facilities and transport links, with a focus on connections towards Chadwell Heath station and new developments in Barking Riverside. This will bring benefits for both the town centre vitality and the wider borough.

No	Scheme		Benefits						
	School	1.1 Eastbury	Walking and cycling only between 8am-9:15am and 2:45pm-4pm to improve safety and encourage active travel.						
1	Streets ₉								
2	New Borough-Wide Cycle Network ₁₀								
			Key connections: Ilford, Barking Riverside, Chadwell Heath						
3	Bus Priority Measures ₈		' network and incentivising hijs travel over car trins						
			Key connections: London Road, Becontree						
4		on Capacity	Reducing congestion for cars and buses through infrastructure improvements, reducing journey times and improving air quality.						
	Impre	Wernents ₁₂	Key locations: Movers Lane/A13						
5		Town Centre ort Strategy ₁₃	Extensive streetscape improvements have been proposed to reduce car dominance, improve public realm and encourage walking and cycling. Key locations: St Pauls Road, Broadway, London Road, Station Parade						





5.6 Thames Road, Barking Riverside and Castle Green

This area suffers from 'island-like' properties, with barriers to movement along each edge. The River Thames and River Roding both block movement from the south and west, whilst the A13 and railway sit along the northern edge. This has limited transport improvements in the past. With an industrial heritage, previously there has been a lack of district centre development and an environment that could far better prioritise people walking and cycling.

A New Neighbourhood in East London

This character area includes three transformation areas: Thames Road_{12r} Barking Riverside and Castle Green, which will contribute to significant residential growth and industrial intensification in the borough. There is a huge amount of potential to harness the opportunities from this concentration of development to improve socio-economic opportunities, expand existing transport links and enable sustainable development, all whilst creating new places for residents and local workers.

Several transport proposals, complemented by ambitious masterplans, are being developed, which aim to address severance caused by the A13 and improve sustainable travel between the Transformation Areas and existing communities north of the A13. This includes schemes aiming to both reduce the dominance of the A13, improve cycle connections and the provision of two new Overground stations at Castle Green and Barking Riverside (currently under construction). These interventions will provide reliable sustainable travel options and access to Barking town centre and interchange facilities, as well as integrating the character area with the north of the borough.

Table 6 – Thames Road, Barking Riverside and Castle Green Transport Improvements Summary

No	Scheme	Benefits						
1	London Overground extension ₁₄	Confirmed (Barking Riverside) and proposed (Castle Green) Overground stations, these would provide four services per hour towards Barking town centre.						
	6.ten.6i0.r ₁₄	Key connections: Barking town centre, District and Hammersmith and City Underground and c2c rail services						
2	Proposed Cycle Links ₁₀	Connect the borough across the A13, linking Barking town centre to new neighbourhood centres at Barking Riverside and Castle Green.						
2		Key connections: Barking Town Centre, Becontree						
3	A13 Improvements ₁₅	Junction upgrades and potential tunnelling of A13 to reduce congestion for cars and buses reducing journey times and improving air quality.						
		Key connections: Lodge Avenue Flyover, Renwick Road						
4	Thames Road Public Realm Improvements ₁₈	Public realm enhancements along Thames Road to improve development interconnectivity and prioritise sustainable travel, creating active frontages and integrated car parking through a new Healthy Street.						
		Key connections: Barking Riverside, River Thames Path, Castle Green						
5	Cycle Hub	Barking riverside cycle hub to be provided						
	-,	Key connections: Barking town centre, Dagenham Dock						
6	River Roding Crossing ₁₆	A proposed new walking, cycling and public transport connection across the River Roding, to improve east-west permeability – the exact location is still being considered.						

Key connections: Thames Road, Barking Riverside, Redbridge







5.7 Dagenham Dock, Beam Park and Stamping Plant

This area falls to the east of Thames Road and Barking Riverside. It is characterised by its lack of connectivity to other areas, and despite good highway connections, it feels disconnected from the rest of the borough. The Thames prohibits movements to the south whilst the A13 and railway sit to the north and east. The A13 runs through the centre of the area, acting as a barrier to movement and limiting active travel options to Dagenham Dock. Active travel and sustainable connections are therefore currently limited, with large swathes of underutilised and vacant land.

Unlocking New Connections To Employment Growth Areas

Whilst this area is currently dominated by industrial land uses, there are significant regeneration plans, including the development of a Freeport at Dagenham Dock, mixed-use development at Beam Park and the recently permitted City Markets development scheme. Due to the existing and proposed industrial uses, considering how to accommodate logistics and freight movements will be a priority to ensure an efficient and sustainable transport network can be delivered in this location.

LENGES

There are significant opportunities to provide improved transport links between the planned employment development and residential developments at Barking Riverside. In addition, there is the potential to reduce freight and logistics vehicular travel by developing a strategic rail freight hub. In the longer term and to further reduce the impact of vehicular freight travel, a deep water dock could be developed, which would enable goods to reach the area without relying on the local and strategic road networks. The new station at Beam Park will also improve connectivity, as will the delivery of a new high-quality sustainable public transport link, which will accommodate buses, and people walking and cycling via Kent Avenue and Chequers Lane.

Table 7 – Dagenham Dock, Beam Park and Stamping Plant Transport Improvements Summary

No	Scheme	cheme Benefits					
1	North-south walking, bus and cycle link $_{10}$	A new public transport, walking and cycling link across the A13 from Kent Avenue to Chequers Lane will be created - as well as improving connectivity, this will also draw movements away from Goresbrook Interchange. Key connections: Beam Park to Dagenham Dock					
2	Junction improvements ₁₂	Reduce congestion for cars and buses through infrastructure improvements, reducing journey times and improving air quality. Key connections: Goresbrook Interchange					
3	Freeport and rail terminal ₁₁	Developing a Freeport would allow boats and rail arriving internationally directly into Barking without using the road network, reducing congestion. Key connections: National and international freight					
4	Beam Park Station	Opening in May 2022, the new station at Beam Park will enhance transport connectivity for the planned employment intensification. Key connections: National rail linkages					





6. Delivering the Vision

The delivery of the Local Plan vision and growth is dependent upon a sustainable, efficient and effective transport network. This Transport Strategy has set out how the vision and identified transport challenges have lead to the development of identified transport priorities, that in turn will be achieved through the delivery of a number of borough-wide and areaspecific transport initiatives. The approach to the delivery of the vision is demonstrated in Figure 36 on the adjacent page.

The initiatives will contribute positively towards several, if not all, of the goals set out in the borough vision and together they are likely to have an even greater cumulative impact. The initiatives all seek to enable the majority of journeys from existing and future developments to be made by sustainable travel modes.

This will be achieved through targeting both active travel and public transport improvements which support each other. Proposed Healthy Streets schemes will improve conditions for walking and cycling, which link into borough-wide proposals to improve the consistency of the cycle network. These proposals will also improve access towards bus stops and routes. Bus priority measures will improve journey times and the Overground extension will unlock development in Barking Riverside and provide access to retail and services in Barking Town Centre.

An underlying focus of the proposals is to reduce the dominance of the A13 and improve connectivity to the growth areas in Barking Riverside, which will be achieved through improved cycle routes, the Overground extension and bus priority measures, as well as increased mixed-use and employment uses in this location, which will reduce the need to travel.

The electric vehicle strategy will enable essential vehicle trips to be made in less polluting vehicles, whilst applying the parking standards set out in the London Plan will support lower car ownerships in new developments, in turn supported by policies in favour of implementing CPZs in areas where parking overspill may occur.



Figure 36 – Delivery of the Transport Strategy Vision

6. Delivering the Vision

6.1 Assessment against the Vision

The previous page sets out the interrelationship between the vision, challenges, priorities and initiatives that underpin this Transport Strategy. This section details an assessment of how the identified priority areas and initiatives address the transport challenges and contribute to the delivery of aims and aspirations of the Local Plan vision.

Priority area		Initiatives	Contribution to delivery of Local Plan Vision (p6)				Transport challenges addressed (p8)						
18	Improving Barking town centre	Barking Town Centre Transport Strategy		\mathbf{Q}_{0}^{0}	4	ঔ				4	5	6	7
A	The A13	A13 junction capacity improvements		φ^a_o				2			5	6	7
	THE ALS	A13 sustainable travel crossing		\mathbf{Q}_{0}^{0}	4	উঠি	1	2	3		5	6	7
<u>-</u> +_		Overground extension Barking Riverside and Castle Green stations		\mathbf{Q}_{0}^{0}	4	ঔত	1	2		4	5	6	7
A I	The rail and river network	Beam Park Station		$\pmb{\varphi}^o_0$	4	উ		2		4	5	6	7
8		Freeport and rail terminal		\bm{Q}_0^0	4	ক্র			3			6	
	Long term strategic proposals	Healthy Streets		\mathbf{Q}_{0}^{0}	Ğ	ক্ত	1				5	6	7
tt.		School streets			Ğ	ক্র					5	6	7
		Bus priority measures (borough-wide)		\boldsymbol{Q}_{0}^{0}	4	উঠ	1	2	3	4	5	6	7
		Connected and upgraded cycle network (borough-wide)		$\mathbf{Q}_{\mathrm{o}}^{\mathrm{o}}$	4	ঔ	1	2		4	5	6	7
	Electric vehicles and charging	Masterplan schemes and EV strategy (under development)			ÿ				3		5		
2	Car parking	CPZ expansion and low car developments			ÿ				3		5		

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6.2 Monitoring and Evaluation

Due to uncertainty caused by market factors and unforeseen circumstances, such as the COVID-19 pandemic, the borough recognise that monitoring and evaluation is an integral element in understanding how well they are delivering services and investing in public finances, especially in relation to the Local Plan and this Transport Strategy. In the context of this Strategy, there will be a need to demonstrate how the delivery of the schemes identified will support and drive planned development and economic growth, whilst seeking to achieve net-zero targets and decarbonisation across the transport network.

By understanding which schemes are the most effective in achieving these objectives whilst responding to and resolving local transport issues, it will be possible to build the evidence base, share best practice and support future decision making.

Monitoring and evaluation is important for this Strategy and Local Plan to remain fit for purpose across its lifecycle, however it is crucial that that it is cost effective and proportionate. The monitoring framework will balance approaches that are most effective at improving the evidence base with the resource burden this would place on the borough.

A sound and robust monitoring and evaluation strategy will be crucial in enabling future spending to be predicated on demonstration of delivery against key outcomes, objectives and vision.

A programme will be set up to follow accepted best practice and consist of three components:

- Annual outputs reporting This would include what investment has been spent on, and what deliverables have resulted from this investment on an annual basis, by recording and reporting on inputs and delivery of outputs.
- Outcomes monitoring For larger strategic schemes, such as the Overground extension and the scheme to mitigate the impact of the A13, the development and delivery of bespoke monitoring programmes will be undertaken. These monitoring programmes will track changes in key outcome metrics and benefits in delivery and build on plans submitted in business cases. For these projects, a post implementation report will be delivered.
- Case studies These will consist of detailed research on a few key priority projects where the evidence base is relatively weak and/or important (e.g. the impact of the cycling and walking strategy on the economy). These case studies will provide a detailed account of how specific sustainable travel measures work, and how the outcomes and impacts observed vary in different contexts; and, where feasible, assess the value for money of the investment.

6.3 Development Timeline

This section provides a summary timeline of the transport initiatives, vision and priorities to be completed in the borough as part of this Transport Strategy. The timeline (shown in Figure 38) provides a breakdown of the capacity increases from identified masterplan developments, as well as wider strategic improvements to connectivity and how the borough's character will be improved and complimented by future planned initiatives.



Figure 38 - Initiative Development Timeline

6.4 Funding

Funding for the schemes and initiatives set out in the Transport Strategy will come from a wide range of sources. This will be dependent on the location, operator, delivery partner and ownership and the outcomes each project or initiative will deliver. For instance large-scale, strategic rail and road schemes will require input from TfL and Central Government, whilst more localised streetscape schemes will be funded through CIL, S106 contributions and revenue generated from PCNs and CPZs. Some of the larger transport projects in the Strategy impact directly on Housing Delivery so the potential for funding from Homes England and MHCLG is also a consideration. Barking and Dagenham is also a Priority 1 local authority for Levelling Up funding. The borough's CIL and S106 contribution policy is currently being reviewed to include more stringent measures for developers to meet policy aspirations and expectations.

LIP Investment	• TfL, Local Transport Fund, CIL, Levelling Up Fund
Principal Road Network and Bridges	• TfL (TBC)
Long Term – Rail Network	• TfL, Network Rail, Developers, Central Government, BRL, C2C, LBBD, RBG, LBB, CIL, Levelling Up Fund
Long Term – Bus Network	• TfL, LBBD, Central Government, Developers, BRL, CIL, , Levelling Up Fund
Long Term - River	GLA, TfL, PLA, Service Operators, Pier Owners, BRL, Developers, CIL, , Levelling Up Fund
Long Term – Highway Network	• TfL, LBBD, BRL, Developers, CIL, , Levelling Up Fund
Long Term – Walking and Cycling	• TfL, LBBD, BRL, Developers, CIL, , Levelling Up Fund
Local Sustainable Transport Measures	Parking Penalty Charge Notices (PCNs) and charges from Controlled Parking Zones (CPZs)

Figure 39 – Potential Funding Sources

7. Summary

This Transport Strategy reinforces and strengthens the transport chapter of the Local Plan (Chapter 10). It provides an evidence base to assist in agreeing a statement of common ground with key stakeholders prior to submitting the Local Plan for examination in late 2021.

It has identified and addressed key transport challenges in the borough, providing a summary of schemes and initiatives targeted at reducing severance and improving sustainable travel.

Since the publication of the Local Plan Transport Evidence Base and Riverside Opportunity Area strategic transport studies, the borough has been working to sharpen pre-existing strategies and ensure a cohesive approach to intervention and design that connects, controls and coordinates people movements within and through the borough; co-locating employment and housing to reduce the need to travel, with new transport links supporting self-sustaining communities.

Improvements in Barking town centre, as well as the Barking Riverside and the Freeport will aim to remove freight trips from the strategic road network, focus and enhance development in the area to the south of the borough, with new walking and cycling infrastructure and bus priority enhancements promoting sustainable growth borough-wide.

The proposed growth will be further managed through parking controls, physically restricting and prohibiting car parking in high-impact areas, aligned with the newly adopted London Plan 2021 and emerging national policy.

In summary, this Strategy outlines the extensive policy planning undertaken to build upon comprehensive, previously produced, strategic studies. It showcases the borough's commitment to sustainable, balanced and cohesive transport development, setting out the vision for the borough over the next 15 years. All areas have been considered with initiatives and schemes in development that will unite communities, remove severance and ensure that no person (new or existing) is left behind.



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Front Cover Picture - https://allevents.in/dagenham/becontree-bike-club/10000123689371239 1 Barking and Dagenham LIP map pack – not for public release 2 LIPS/ATP Programme -https://www.lbbd.gov.uk/sites/default/files/attachments/LBBD-third-Local-Implementation-Plan-2019.pdf 3 Hackney LIP 2019 – 2022 https://consultation.hackney.gov.uk/streetscene/lip/results/lbh-thirdlocalimplementationplan2019-2022.pdf 4 Newham cycling strategy 2018 https://www.newham.gov.uk/downloads/file/168/london-borough-of-newham-cycling-strategy-2017-18-2024-25 5 Census 2011 travel to work https://www.nomisweb.co.uk/census/2011/wu03ew 6 DfT traffic count points 71004 and 99902 (2020) https://roadtraffic.dft.gov.uk/#15/51.5795/0.1383/basemap-countpoints 7 Chadwell Heath SPD – under development 8 Bus Priority – not for public release 9 School Streets - https://oneboroughvoice.lbbd.gov.uk/school-streets 10 Walking and Cycling Strategy – under development 11 TfL's Road Danger Reduction Dashboard - https://tfl.gov.uk/corporate/publications-and-reports/road-safety 12 Junction Capacity Assessments – Systra and Jacobs studies 13 Barking Town Centre Strategy – under development 14 London Overground Extension - https://tfl.gov.uk/travel-information/improvements-and-projects/barking-riverside-extension 15 A13 Improvements - https://www.lbbd.gov.uk/sites/default/files/attachments/A13-Riverside-Tunnel-Road-to-Regeneration-booklet.pdf 16 River Roding Crossing – under development 17 Becontree LEN - https://tfl.gov.uk/info-for/Boroughs-and-communities/low-emission-neighbourhoods

18 Thames Road SPD – under development



