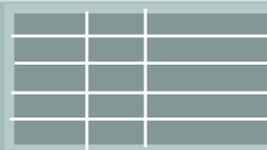
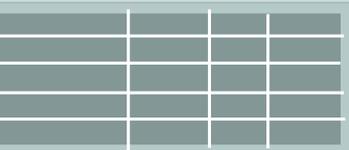
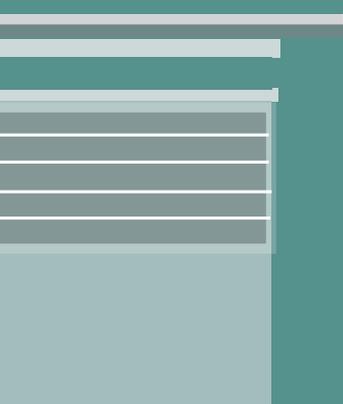


Station



10 Sustainable movement and transport

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What respondents said about accessibility and transport as part of the 2015 Consultation and Enfield Conversation

Intensification and growth in the borough is supported but needs to be supported by improvements to public transport

The need to change travel behaviour to reduce reliance on the private car

Crossrail 2 is welcome and provides opportunity for development

The most popular area for new homes was in the Lee Valley corridor followed by the Enfield's town centres and then transport nodes

The most popular investment for transport were improvements to the A406 and commuter rail line

The need to tackle road congestion

Enhancing public transport in particular to the West Anglia Main Line and improvements to the Piccadilly line were supported

Improvements to public transport supported

Improvements and enhancements to cycling lanes and pedestrian routes supported



10 Sustainable movement and transport

10.1 Introduction

10.1.1 Improving access and movement, particularly for sustainable modes, within the borough is a key issue, particularly if Enfield is to accommodate housing and employment growth. Improvements to transport infrastructure and promoting sustainable modes of transport also have implications for future growth, air quality, health and climate change. Therefore, transport policies have an important role to play in facilitating sustainable growth but also in contributing to wider sustainability and health objectives for the borough.

10.1.2 Optimising land use is dependent on directing growth to areas well connected by present and future public transport, cycling and walking networks. New and enhanced transport links will play a critical role in supporting a high density mix of land uses and co-location of different uses as the intensification of town centres and transport hubs, as well as redevelopment of brownfield sites is explored. Public infrastructure will also play a critical role in supporting associated investment in areas and ensuring that amenities are within cycling and walking distance which will not only promote healthy environments but also foster strong and vibrant communities.

10.1.3 Transport plays an important and supportive role by connecting the environment and providing the conditions to promote infrastructure in places that can positively affect the wellbeing of communities. Enfield is ranked the 12th most deprived borough in London, with deprivation showing a distinctive spatial pattern concentrated in the east and south of the borough where there is a stark difference in life expectancy compared to the west of the borough.

10.1.4 The growth that Enfield is expected to experience provides an opportunity to address and reduce health inequalities in the borough. A more immediate and direct impact on the wellbeing of residents can be achieved through the promotion of more sustainable modes of transport such as cycling and walking and reduction in the use of cars which will help to tackle poor air quality and climate change. Equally, as critical to health and wellbeing is the role that transport can play in improving access to sustainable and affordable high-quality housing, employment opportunities within and outside of Enfield, and amenities and services.

10.1.5 Enfield, along with other outer London boroughs, faces the difficult challenge of modal shift given the deficit position of current networks and more spacious and lower density land use. For example, the distance of travel within and through Enfield is higher than inner and central parts of London, which means car ownership is significantly higher than that of inner London boroughs. Consequently, this provides unique issues and challenges for the borough in not only promoting a longer-term vision of modal shift to more sustainable modes of transport but to also support the short term strategic infrastructural needs of a rising population and new development.

10.1.6 The built environment can help influence changes in lifestyle and help achieve positive health outcomes. The Council will seek to secure a local environment which promotes physical activity through new development by removing the burden of behaviour change being placed on the individual as a sole means to improve health.



Figure 10.1: Enfield’s current road network

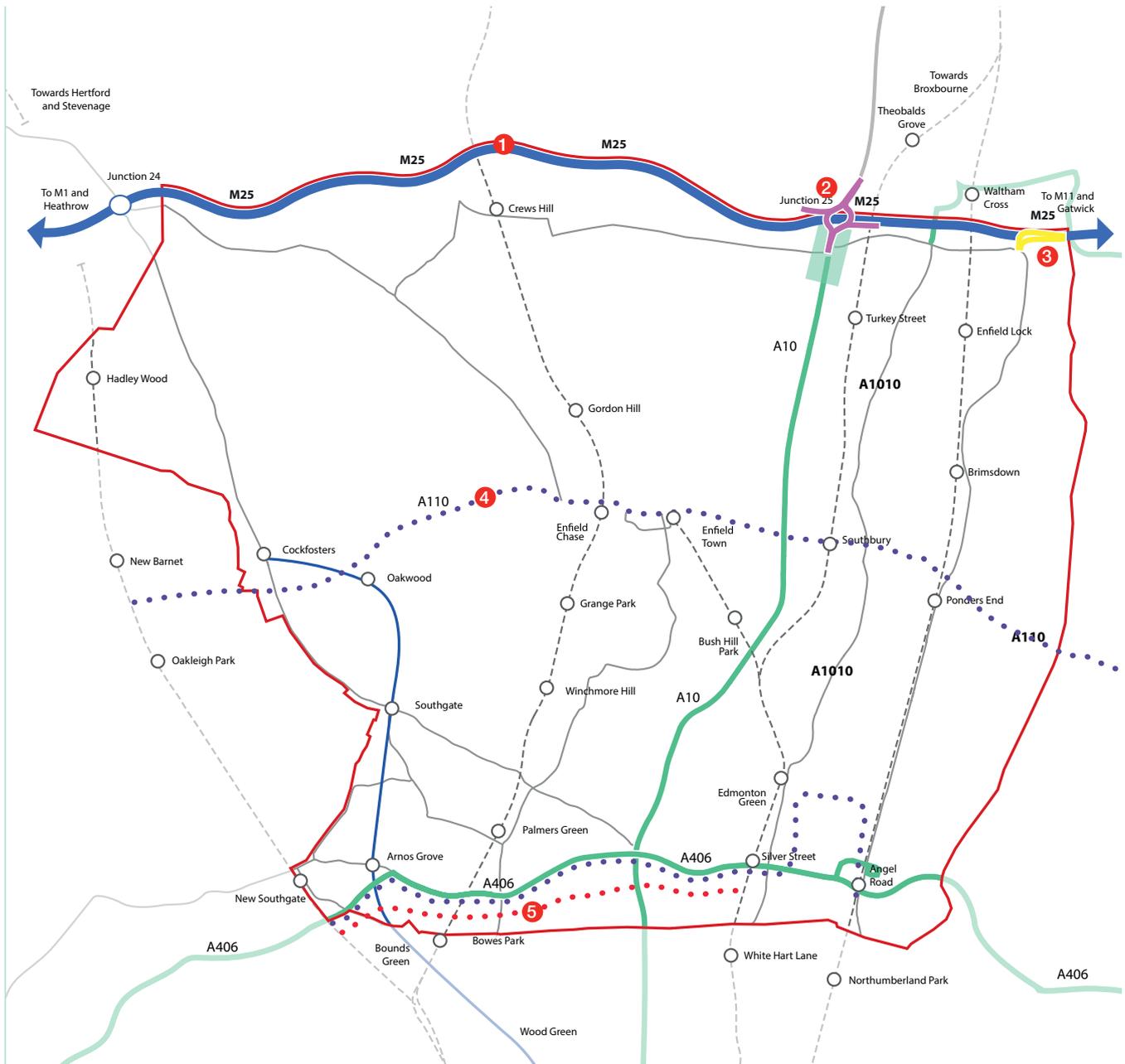


Figure 10.2: Strategic road network and potential improvement schemes

Key

- | | |
|----------------------------|---|
| Enfield borough boundary | Strategic road network |
| Railway | M25 Junction Improvement |
| Piccadilly line | Enfield road investment strategy 2 submission - east facing slips |
| Main routes | Rapid transit potential corridor |
| National Rail station | A406 tunnelling project |
| London Underground station | |

10.2 Making public transport more accessible

Public transport as the natural choice for longer trips

10.2.1 A key objective is to improve public transport and accessibility in the borough, whilst reducing the adverse impact of road traffic and traffic congestion. The level of population and employment growth proposed over the next 15 years will necessitate increased investment in public transport to improve transport accessibility for all users, and the Council will work with its partners, transport operators and developers to ensure that this takes place.

Figure 10.3: Cycle lane as seen in Winchmore Hill



10.2.2 The Council will also seek to ensure that major new development is located in areas with high levels of public transport accessibility, thereby reducing the need to travel by private car, minimise energy use and to increase opportunities for walking and cycling. Consequently, if there is not adequate capacity in the transport system, our strategy for promoting growth may be constrained or delayed.

10.2.3 The health and wellbeing of residents and visitors using the public highway and transport network is an essential consideration for the Council. Growing the awareness of air quality and vehicle emissions is key to improving the health of the public highway for all users. The Council will seek to develop initiatives that increase public awareness regarding air quality and work with stakeholders to drive modal shift towards lower emission modes of transport.

10.2.4 Improving accessibility of the public transport system is critical to delivering a better transport experience for all of our residents, including those with mobility and other difficulties, and growing numbers of older people. Public transport accounts for 20% of travel in Enfield and its coverage and accessibility varies significantly across the borough. Apart from the good public transport accessibility levels (PTAL) around our town centres, there is a spread of very low PTAL scores throughout the borough. Consequently, the borough's public transport system is not inducing a modal shift away from private motor vehicles.

10.2.5 Travelling by bus accounts for 14% journeys made by residents, which is the third highest method of travel in Enfield. The requirement for a reliable and efficient bus network in the borough is high. Bus wait times have risen over the previous two years due to congestion and therefore measures will need to be taken to reduce the impact of cars on our roads and to also work with Transport for London (TfL) to seek Bus Priority measures to reduce waiting times. New and improved bus services will be sought to improve east-west connectivity and improve connection between our town centres in the east and west of the borough.

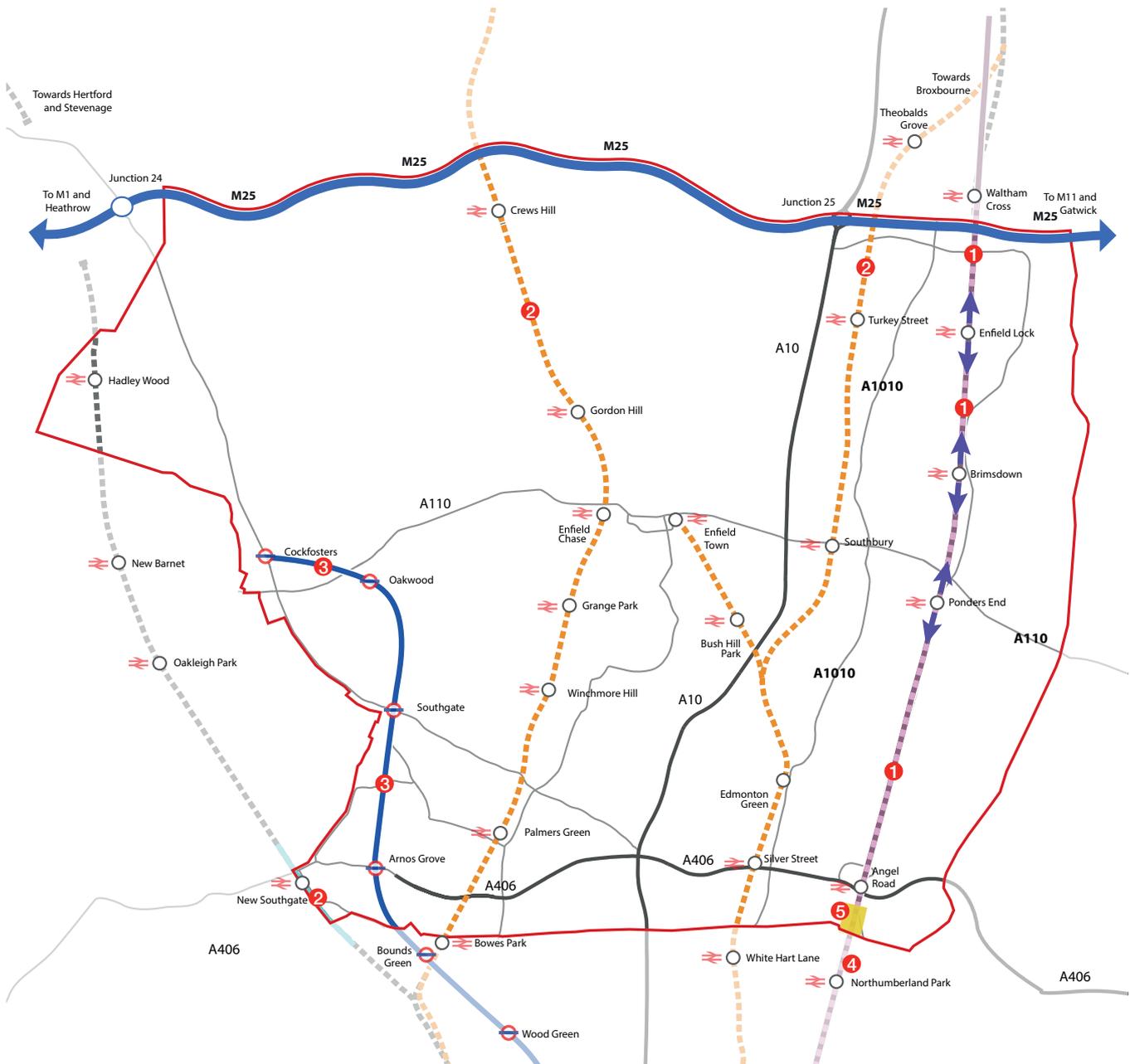


Figure 10.4: Phased Rail Infrastructure Improvement

Key

- | | | | |
|--|----------------------------|---|---|
|  | Enfield borough boundary |  | Crossrail2 - 2034 and Four-Tracking of the West Anglia Mainline |
|  | Railway |  | Rail and station improvements |
|  | Piccadilly line |  | Piccadilly Line upgrades |
|  | Main routes |  | Four-Track section of Meridian Water regeneration area |
|  | National Rail station |  | New Meridian Water station |
|  | London Underground station | | |

10.2.6 The underground network is concentrated in the west of the Borough. Whilst there are four underground stations serving the Piccadilly Line: Cockfosters, Oakwood, Southgate and Arnos Grove, usage of these stations has increased significantly over the last ten years. An increasing population will increase pressure on the network and therefore higher frequency and more action is needed to ensure there is sufficient capacity for the future to cater for this. In this respect, the Council will continue to work with TfL to ensure its 'Deep Tube' lines improvements provide new trains and signalling systems across the Piccadilly line to support the regeneration of the borough.

10.2.7 Whilst the east and west of the borough is served by a combination of over and underground rail links to and from central London, communities in the east of the borough are poorly served by public transport, with a low frequency rail service, slow journey times, frequent delays and poor-quality stations along the Lee Valley corridor. It is forecast that by 2043, demand for rail travel along this line will have increased by 39% and it is therefore critical to continue to make capacity improvements along this line.

10.2.8 The Council supports the routing of Crossrail 2 through the enhancement and Four-Tracking of the West Anglia Mainline which will allow an additional four trains per hour thereby increasing capacity and reducing congestion and journey times, whilst integrating the corridor and improving connectivity into and out of London. The delivery of this major strategic infrastructure project is an essential precursor for Crossrail 2 which would further enhance the Lee Valley corridor to provide 10-12 trains per hour along the line with new, more regular services to and from central London, connecting with existing Underground and National Rail services.

10.2.9 There would also be significant improvement works at each station along the line to accommodate the longer trains, as well as the installation of new lifts or ramps at all stations to provide step-free access, and removal of existing level crossings to increase safety and improve local road connectivity. Four-Tracking and Crossrail 2 will contribute to the ongoing economic redevelopment of Angel Road, Ponders End, Brimsdown, Enfield Lock and the wider Lee Valley, helping to unlock new development sites. This approach aligns with the aims of the Council's Corporate Plan to drive investment in rail, road and cycling infrastructure to improve connectivity and support economic development.

Angel Road > Meridian Water station

Angel Road is currently going through the DfT decommissioning process and the station is being relocated within the Meridian Water Development site south of Angel Road, with the station renamed as Meridian Water and due to be operational in May 2019.

Strategic and Major Roads Network

- 10.2.10 Accommodating future growth in the borough through intensification and densification will require not only phased rail infrastructure investment but also new road infrastructure, both strategic and local network.
- 10.2.11 The Council has been progressing with the Northern Gateway Access Package (NGAP) project that will coordinate strategic and major road network connectivity comprehensively through detailed technical assessment to overcome long-term congestion and air quality management issues for residents and businesses that live and operate close to existing networks.
- 10.2.12 The Council supports the Mayor's A406 Tunnelling project proposals in the south-west of the borough in New Southgate, which have the potential to improve long-term air-quality and congestion issues for residents and business not just within Enfield, but also our adjoining boroughs of Barnet and Haringey.



Crossrail 2 in Enfield could:

- Support potential to support the delivery of a significant number of new homes to meet a strong and increasing housing demand;
- Enable the transformation of predominantly low-density employment areas into higher density mixed-use multi-layered communities with new stations. Therefore, continued coordination between the Council, Greater London Authority (GLA), Transport for London (TfL) and Network Rail is paramount to ensure that planning policy is coordinated to maximise Crossrail 2 growth potential to assist with the regeneration in the borough;
- Provide a huge uplift in public transport accessibility, improve access to employment by reducing journey times to key destinations into London and in the London-Stansted-Cambridge Innovation Corridor; and
- Enable early Four-Tracking of the West Anglia Mainline as a stage of Crossrail 2 to increase capacity, frequency and unlock early growth around future Crossrail 2 stations.



T1 Draft policy approach: Making the public transport more accessible and the natural choice for longer trips

The Council will work with strategic partners to secure investments to make the public transport network more accessible and the natural choice for longer trips including rail and bus operators, cycle and highway services. These enhancements will maximise the borough's regeneration potential and support growth whilst also helping achieve our environmental objectives.

We will achieve this by:

- a) Supporting planned infrastructure projects to promote sustainable growth in Enfield, including increased capacity and reliability of the Piccadilly Line, Crossrail 2, Four-Tracking of the West Anglia Mainline as a stage of Crossrail 2 including associated infrastructure to improve east-west connectivity;
- b) Promoting strategic and major road network enhancements;
- c) Promoting East-West Rapid Transit;
- d) Seeking localised improvements to the highway network to reduce congestion on the east-west routes in the borough; and
- e) Promoting cycling and walking networks.

We will expect development proposals to:

- Ensure that access to existing and future infrastructure projects is safeguarded and considered where appropriate through appropriate design. Proposals which are contrary to the safeguarding of strategic infrastructure improvement projects will be refused;
- Contribute financially towards bus network infrastructure improvements, including new and improved bus services promoting east – west routes and frequency upgrades to existing routes;

- Ensure that access and interchange improvements to local rail and tube stations is considered where appropriate, including through appropriate design; and
- Provide and where appropriate contribute financially towards creating well connected, high quality, convenient and safe cycle routes, walking routes and associated infrastructure.

10.3 Reducing the impact of private vehicles on our streets

- 10.3.1 The Mayor has set an ambitious aim to reduce dependency on car-based transport in favour of increased walking, cycling and public transport use and sets a target of 80% of all trips in London to be made by foot, cycle or public transport by 2041.
- 10.3.2 As an outer London borough, Enfield has a unique challenge in reducing the number of journeys made by private motor vehicles. With distance of travel higher within and through Enfield compared to inner London boroughs, car ownership is significantly higher when compared with inner London and London as a whole. In Enfield, only 32.5% of households do not own one or more cars. This compares to a London average of 41.6% and an inner London average of 56.7% thereby indicating the deficit position of current transport networks within the borough.
- 10.3.3 The environmental impacts of motorised transport have significant implications on the health and wellbeing of people.
- 10.3.4 In 2016, motorised traffic grew by 1.6% across London and in Enfield, 843,357.02 motor vehicle miles were travelled in 2015, higher than each of the preceding 14 years and 38,927.12 miles greater than travelled in 2014 and with trend of steady growth since 2013, indicating a need to tackle this rising trend. Of the 13 biggest causes of illness and early death, seven have links with the way people travel, including obesity, high blood pressure, type 2 diabetes, high cholesterol, kidney disease, low physical activity and poor air quality.
- 10.3.5 With 30% of the number of trips made by car in Enfield less than 2km and 60% less than 5km, there is substantial scope to reduce the number of journeys made by private motor vehicle and to promote more sustainable modes of transport that will help to manage and reduce the outlined health risks of motorised transport.
- 10.3.6 The Council wants to apply the healthy streets approach by putting people, and their health, at the heart of decision making. This results in a healthier, more inclusive city where people choose to walk, cycle and use public transport. The best way to get more people out walking, cycling and using public transport is to improve the quality of the experience of being on streets. The Healthy Streets Approach focuses on creating streets that are pleasant, safe and attractive, where noise, air pollution, accessibility and lack of seating and shelter are not barriers that prevent people - particularly our most vulnerable people - from getting out and about.

What is the 'Healthy Streets' approach?

The Healthy Streets Approach is an evidence-based approach to improve health and reduce health inequalities, which will help Londoners use cars less, and walk, cycle and use public transport more. It supports the delivery of the Mayor's aim that by 2041 all Londoners will be able to undertake at least the 20 minutes of active travel each day needed to stay healthy. It also requires better management of freight so the impact of moving goods, carrying out servicing and supporting construction on London's streets is lessened. To apply the Healthy Streets Approach, changes are required at strategic, network and street level.



T2 Draft policy approach: Reducing the impact of private vehicles on our streets

The Council will secure a more sustainable local travel network that maximises opportunities for walking, cycling and using public transport, reduces congestion, improves public realm and improves health and well-being.

We will achieve this by:

- a) Using the Healthy Streets approach to improve poor air quality and tackle climate change by reducing the reliance of private motor vehicles, easing levels of traffic and congestion and providing infrastructure to support alternative sustainable modes of transport to provide access to employment, schools and services;
- b) Ensuring quality public realm, safe road crossings, signage and greening to create healthy and attractive environments that support and encourage people to choose to cycle and walk;
- c) Promoting road safety and safer cycling and pedestrian movement around town centres and transport nodes;
- d) Supporting behavioural change by providing opportunity for car club development, establishing car clubs and promoting car sharing, where appropriate; and
- e) Adopting maximum car parking standards and car-lite housing wherever feasible.

We will expect development proposals to:

- Incorporate electric vehicle charging points for electric vehicles, when providing for car parking. As a guide, at least a fifth of off-street parking places must be equipped with electric vehicle charging infrastructure. Contributions will also be sought for on-street electric vehicle charging infrastructure;
- Include appropriate provision for car club vehicles;

- Be sensitively designed by considering design and public realm measures to reduce impact of expected changes in climate, including permeable surfaces; and
- Seek to mitigate the impact of road-based freight and promote alternatives.



Figure 10.5: Electric charging points



10.4 Making active travel the natural choice

Trips less than 2km in length

- 10.4.1 Transport choices have a significant impact on people’s health. Increasing the number of journeys made by cycling or walking, particularly for trips under 2km, is a key priority for Enfield. The borough has one of the lowest cycle rates in London. The 2011 Census states that cycling represented only 1% of the method of travel to work in Enfield, with walking representing 7%, both lower than the London average. By contrast, driving a car/van or passenger travel represented 47% of the method of travel to work compared to a London average of 31%. Whilst various factors will contribute to the clear differences of methods of transport between Enfield and London as a whole, Enfield nevertheless has a disproportionately high percentage of people travelling to work by less sustainable modes of transport when compared with the rest of London.
- 10.4.2 Enfield is one of five outer London boroughs identified as having the greatest number of potentially cycle-able trips. Nearly 80% of car trips in Enfield are of cycle-able length, but less than 1% of journeys are made by bicycle. In 2014, Enfield was awarded £30 million funding from the Mayor’s Mini-Holland fund to deliver the Council’s Cycle Enfield programme. A further £12 million in other funding sources have made to facilitate the scheme providing a significant opportunity to increasing the number of people cycling in the borough, whilst creating high quality public realm and encouraging more people to choose to walk.

- 10.4.3 The health benefits from increased physical activity in the form of cycling and walking will promote significant long-term health improvements in the borough, whilst at the same time help to prevent and manage various health conditions, including coronary heart disease and stroke, diabetes and obesity. Similarly, an increase in active travel brings further health benefits beyond physical activity for residents. High quality public realm improvements will create and foster environments that promote cleaner air, less noise, safer streets and less road traffic injuries. The interconnection of all these issues is intrinsically linked to cycling and walking and in order to maximise all health benefits we must encourage people to cycle and walk wherever possible. This is in line with the Council’s Corporate Plan to build measures into policies and strategies to improve public health and wellbeing.

Figure 10.8: (left) Cycle lane on A105 as part of guided rides (below) Cycle Hub, as part of Cycle Enfield opening outside Edmonton Green station





T3 Draft policy approach: Making active travel the natural choice

The Council will ensure active travel is the natural choice, particularly for those trips less than 2km in length.

We will achieve this by:

- Encouraging and supporting the increasing use of bicycles; and
- Facilitate walking.

For cycling:

The Council will encourage and support the increase use of bicycles by requiring new developments to contribute towards the following measures:

- a) To include the provision and maintenance of convenient accessible and safe secure cycle parking within the boundary of the site;
- b) To include the provision of changing and showering facilities;

Developer contribution for improvements to cycling infrastructure, including contributions to the extensions of the Cycle Enfield initiative or other cycle hire scheme to mitigate their impact on the existing network.

For walking:

The Council will facilitate walking by requiring major developments to:

- c) Protect and enhance existing footpaths. Proposals that negatively affect existing footpaths, walkways and public realm will be required to demonstrate that alternative provisions adequately outweigh losses such routes;
- d) Provide new walkways which are accessible, inclusive and safe, within and through their site;
- e) Provide walkways that are wide enough to support cycle and pedestrian uses; and
- f) Provide links between existing footpaths and walkways and to town centres, public transport infrastructure and green spaces, where appropriate.



10.5 Making more school trips safe, sustainable and healthy

- 10.5.1 A major risk factor for long term health of local children in Enfield is the continuing trend of unhealthy weight. There are 94 schools in the borough and these generate a significant number of car-based journeys at the start and end of the day. National trends indicate that children’s independent travel to school is decreasing, playing a contributing factor in their ability to maintain a healthy weight.
- 10.5.2 Childhood obesity is a concern in Enfield. Around 23% of Reception age children and 41% of Year 6 children are either overweight or obese. These percentages are higher than both the London average and national average, with Enfield’s prevalence of overweight or obesity representing the sixth highest of London boroughs.
- 10.5.3 A holistic approach of further intervention is required to support more healthy lifestyles amongst children in Enfield. Creating the environments for and encouraging children to cycle or walk, or use public transport, as a mode of travel to school will play a significant role in improving children’s health.

T4 Draft policy approach: Making more school trips safe, sustainable and healthy

New residential development proposals must demonstrate methods to make school trips safe, sustainable and healthy, reducing car use through the promotion of alternative sustainable transport options and initiatives.

We will expect development proposals to contribute to this through the following measures:

- a) Provide and where appropriate requiring developer contributions towards creating well connected, high quality, convenient and safe cycle and walking routes to local schools to mitigate their impact on the existing network;
- b) Contribute to infrastructure, including secure cycle storage at local schools; and
- c) Contribute to training and road safety education programmes at local schools.

Figure 10.9: Making streets safer, as seen outside Edmonton Clinic

