Transport Strategy Implementation Plan

1. Background

Lambeth's Transport Strategy sets out our vision for mobility and accessibility in the borough. In order to deliver fairer, healthier, more efficient mobility options for our growing population and to meet our climate change objectives, we need to plan and deliver a raft of improvements across Lambeth.

The Transport Strategy includes five guiding principles and associated high level objectives, as well as providing examples of key projects to support these. The Transport Strategy Implementation Plan (TSIP) has been developed in order to provide more information on the projects and initiatives that the council expects to see delivered over the Strategy timeline – the next 20 years.

The TSIP represents the practical implementation of the Transport Strategy. As an example of this, the Strategy sets out the criteria by which the council will prioritise neighbourhood traffic reduction interventions: where there is evidence of 'rat running', where school pupils are affected, air quality is poor, collisions high and where a 'healthy route' is proposed. In response, the TSIP includes analysis identifying areas where those criteria apply and therefore where changes may be required. All of the projects and initiatives included in the TSIP support the objectives of the Strategy.

The TSIP is a process rather than a fixed point and will therefore be updated regularly. As set out in the Transport Strategy, new developments in the transport sector are coming thick and fast and the TSIP needs to keep up with this. It also needs to respond to our renewed emphasis and determination to tackle climate change and other challenges that may arise over the coming years. In this first iteration of the TSIP further information is provided in a number of key areas, such as our approach to Low Traffic Neighbourhoods. We have identified a wide range of other topic areas where further development work is required and the outputs from this work will be published in future iterations of the TSIP.

The TSIP will also provide a monitoring mechanism for the Transport Strategy to show how we are delivering against our objectives and the targets set in the Mayor's Transport Strategy[1].

2. Policy context

The TSIP will include a broad range of topics, covering many aspects of transport and travel in Lambeth and beyond, over the short, medium and longer term and is closely related to a number of other policy developments and initiatives.

The Transport Strategy has been developed alongside our review of the Lambeth Local Plan – the spatial strategy for development in the borough – which is currently being updated. As well as setting out all the policies that new development should comply with in order for us to deliver our strategic objectives, the updated Local Plan includes a list of projects that will be required in order to support expected development – this is known as the Infrastructure Delivery Plan (IDP). A subset of the IDP relates specifically to transport and public realm. Projects identified in the IDP are therefore a fundamental element of the TSIP. The updated Local Plan, including the revised IDP is scheduled for adoption in 2020.

[1] Mayor's Transport Strategy 2018

The IDP includes a range of strategically important projects that will support sustainable growth and some of these are long term initiatives, such as rail station upgrades. The TSIP focusses on how we start to deliver these, as well as shorter term projects that meet our objectives.

In terms of shorter term projects – the next 3 years – more detail on these is included in our Local Implementation Plan (LIP). The LIP is the borough's response to the Mayor's key transport objectives. It sets out how we will deliver the Mayor's Transport Strategy in Lambeth, including how we will spend the annual funding we receive from Transport for London (TfL) for smaller transport projects. TfL is a key partner and funder for boroughs and our recently adopted and approved LIP policy document[2] is an important part of our overall strategy as well as being a key delivery tool. Therefore Lambeth's LIP, together with the IDP, are key building blocks for the TSIP.

A key objective of the Transport Strategy is to address issues of air quality and many of the projects and programmes included in the TSIP will help to deliver this. The key policy document relating to this area is Lambeth's Air Quality Action Plan (AQAP)[3]. There is inevitably some overlap between the AQAP and the TSIP. In terms of monitoring activity and outputs in relation to air quality however, the AQAP is the primary document and the TSIP will be used to provide more information about delivery in certain topic areas, for example on how we intend to provide infrastructure for charging electric vehicles.

In putting together the TSIP we will also take into account the agreed recommendations of Lambeth's Equality Streets Scrutiny Commission. This cross-cutting investigation looked at a broad range of transport and related issues with a particular focus on making our streets accessible to everyone.

Since the Draft Transport Strategy was published the council has declared a climate emergency and committed to becoming carbon neutral as an organisation by 2030. We are also committed to working with the community to agree broader initiatives to reduce carbon emissions across the borough. Many of the projects and programmes contained within the Strategy already support this objective, but in some areas we will need to go further and faster with existing plans and consider other options. The TSIP will respond to the borough wide carbon reduction strategy as it emerges.

3. Spatial Approach

A Transport Strategy is by definition a spatial strategy, even if reducing the need to travel is a desirable objective, or where some of the infrastructure required may be invisible e.g. digital networks. Wherever possible therefore, we will publish our plans and programmes in the form of online maps and diagrams showing what we expect to be delivered, where and when.

[2] Lambeth 3rd Local Implementation Plan
[3] Lambeth Air Quality Action Plan

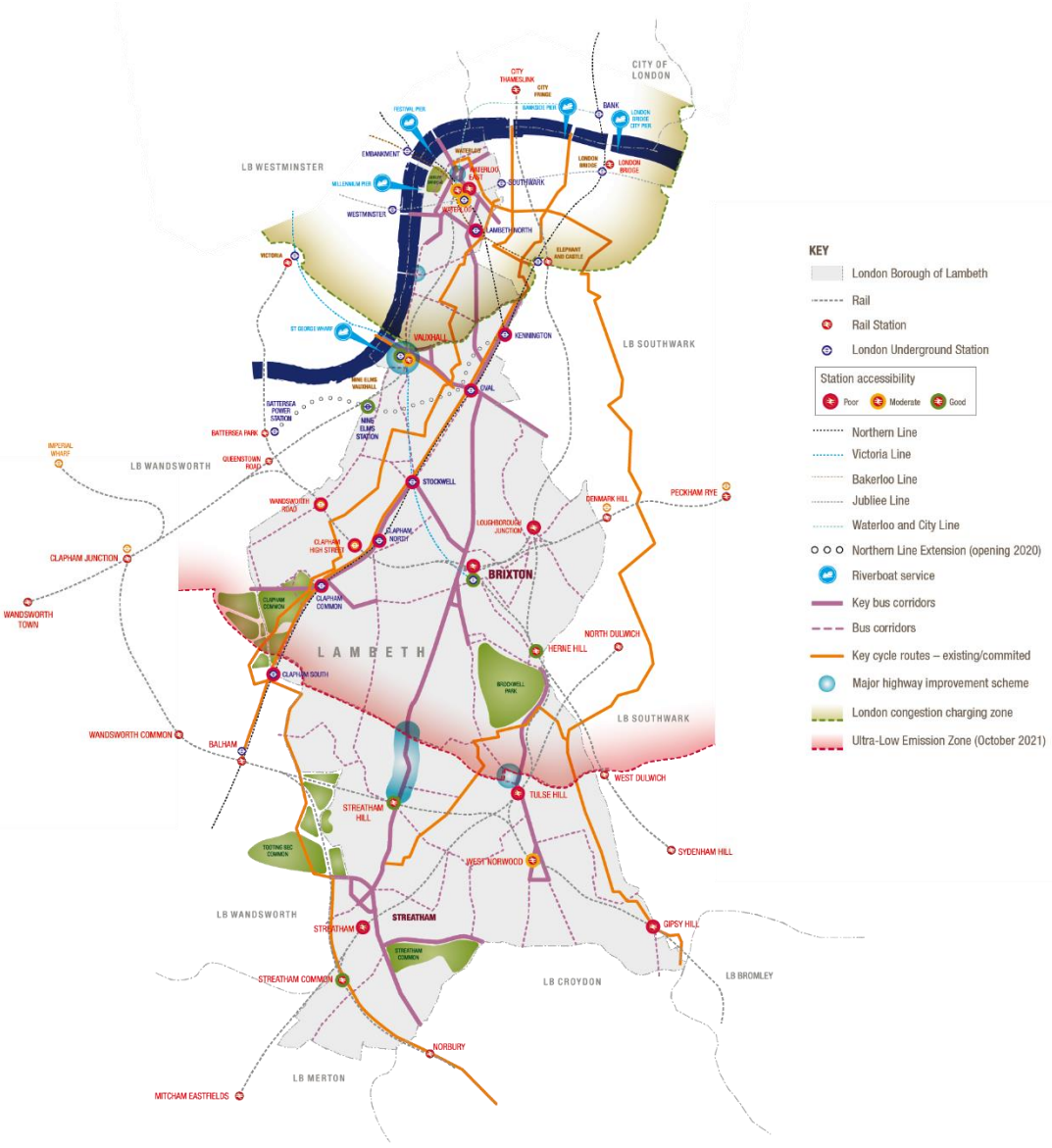


Figure 1: Strategic projects map

4. Scope

Table 1 below summarises the projects and programmes that are expected to be covered by the TSIP, including those that are contained within this first iteration. Topic areas are listed alongside the main relevant key principle from the Transport Strategy, although many of these projects cut across different themes.

The scope of the TSIP is broad, with many topics included, not all of which can be covered immediately. We will provide an update on the Brixton Liveable Neighbourhood project in early 2020. Information on further topics will be published as and when it becomes available, with the next tranche of project information expected to coincide with the publication of the borough wide carbon reduction strategy.

Guiding Principle	Programme	1st Iteration	Notes
Sustainable growth	Infrastructure Delivery Plan		Included in Local Plan consultation in early 2020.
	Rail Strategy		To cover key priorities for Lambeth, including local elements of Metroisation concept and access improvements
	Public Realm Intervention map		Interactive map showing all current, committed and planned projects
	Brixton Liveable Neighbourhood		Project summary, engagement strategy and programme
	Major highway schemes	✓	Update on major highway schemes in Lambeth
Efficient & connected	Bus network review		To set out key lobbying objectives, based on review of need
	Healthy Routes Plan	✓	Approach, quality criteria and draft programme for walking and cycling improvements
	Low Traffic Neighbourhoods	✓	Mapping showing how prioritisation criteria apply across the borough, identification of first tranche, engagement approach
	Kerbside policy (parking + enforcement)		To set out our approach to allocating and managing kerbside space
	Digital Strategy		Setting out the council's role and objectives in delivering improved digital connectivity across the borough
	Freight / servicing		Setting out approach to reducing freight trips, safer servicing and reducing emissions
	Car club strategy		How we will develop the car club network in the borough, including the procurement of new services
	Cycle Hire		How we will develop the cycle hire network in the borough, including the procurement of new services
Inclusive & accessible	Equality Streets		Update on any outstanding agreed actions from the Equality Streets Action Plan
	Public Realm design guide		Setting out our approach to designing, managing and maintaining streets and public spaces in the borough
	Crime and security		Working with stakeholders to identify actions to address crime and security issues relating to transport and travel

Active & safe	Road Danger Reduction		Further detail on priority measures to reduce the number of traffic collision related injuries, working towards 'vision zero'
	Cycle parking		Setting out our approach to meeting current and future need for cycle parking across the borough
	LIP annual spending submission	✓	How we plan to invest our annual grant from TfL in 2020/21
Clean air & carbon neutral	Network Development Plan		How we will plan the highway network to meet future needs
	Behaviour change		Setting out how we will enable people to choose healthy, sustainable travel options and rely less on private cars
	Cleaner vehicles	✓	Key principles of our approach to providing charging infrastructure for electric vehicles
	Borough wide traffic reduction		Scoping work to identify measures to reduce demand for motor traffic e.g. investigating workplace charging, freight consolidation

Table 1: TSIP scope

5. Topic areas

The current information available on the projects included in this iteration of the TSIP is set out in the appendices to this document.

Healthy Routes	Appendix A
Low Traffic Neighbourhoods	Appendix B
Electric Vehicles Charging	Appendix C
LIP Annual Spending Submission	Appendix D

6. Major Highway Schemes

The council is working with Transport for London on a number of major interventions to the highway network that TfL controls. Information on these projects is provided in Lambeth's adopted LIP[4], with a further update provided here. **Error! Reference source not found.** above shows the location of major highway schemes in the borough.

- Vauxhall Cross

Removal of Vauxhall gyratory to be replaced with two-way working and construction of a new bus station, canopy and public square. Critical enabling project to improve access to the VNEB growth area, reinforce the area as a District Centre and transform conditions for walking and cycling for both local and strategic trips. Reduces severance and improves the local environment, including air quality. TfL Business Plan funding of £40.5M. Delivery from 20/21 to 24/25.

- Waterloo City Hub (IMAX)

Reconfiguration of the Waterloo Road / York Road / Stamford Street / Waterloo Bridge junction to allow for new open space, bus station, direct links from Waterloo station to the South Bank. Critical enabling project to develop Waterloo as Business District and overcome historic issues of severance and poor public realm. TfL Business Plan funding of £20.6M. Delivery 20/21 – 21/2.

- Lambeth Bridge South

Conversion of roundabout to a four way junction with segregated cycle lanes and increased pedestrian space. Identified as a high priority junction for collision reduction and being developed in tandem with junction improvements in Westminster on the other side of the bridge. TfL Business Plan allocation for both junctions totalling £15.3M with delivery expected 21/22 – 22/23.

- Streatham Hill

Delivery of public realm, walking and cycling improvements on the A23 Streatham Hill between Streatham Hill station and the South Circular. Streatham Hill suffers from high traffic volumes and speeds, traffic collisions, severance, poor air quality and environment generally, with no suitable provision for cycling. The A23 is also identified by TfL as a key future cycle demand route. Public consultation expected in January 2020 with delivery by 21/22. Represents an investment of £5M+.

[4] Lambeth 3rd LIP

- Tulse Hill

Development work continues to deliver a transformative project to address the severance caused by the gyratory system where the South Circular Road meets Norwood Road. A proposal to introduce two-way working has been developed with local stakeholders and is currently being assessed by TfL. Funding to implement the scheme was not included in the most recent TfL Business Plan.

- Other schemes

In addition to the above projects the council continues to work with TfL to bring forward improvements at other locations on their road network, for example safety improvements at Clapham High Street and promoting improvements to the Durham Street one-way system and on Albert Embankment. Lambeth is also working with TfL towards the introduction of 20mph speed limits across their network.

7. Delivery models

We have identified four delivery models to help us take the right approach for each infrastructure project in the TSIP. The appropriate approach is linked to the scale and scope of a given project and the degree of control that the council can exert. Classifying projects in this way will help us with programming our workload / managing resources. These models are a guide and we will retain flexibility to respond as appropriate to deliver projects in a way that meets local need as it is identified.

Opportunity

If there is an opportunity to deliver a project that is not complicated or contentious then we should get it done as swiftly as possible. We will establish an online request form to allow us to take recommendations from the public. These requests will be assessed and prioritised annually based on the feasibility of delivering within one year and on the benefit that the change would provide relative to the cost.

Characteristics: Only on land / highway managed by the council, minimal or no Traffic Orders required, no traffic or air quality modelling required, no traffic signal changes, cost is relatively low and project will not affect bus routes.

Example: Resurfacing and signage improvements, dropped kerbs

Neighbourhood

A neighbourhood project will have an impact on a wider local area and we will develop these projects together with local people. We will make the most of local expertise through a collaborative approach to design. Neighbourhood projects will be on mainly Lambeth managed streets and experimental trials / demonstrations may considered if there is support from the community and statutory stakeholders such as the emergency services. Neighbourhood projects might take 2-3 years to deliver.

Characteristics: Mainly on land / highway managed by Lambeth council, Traffic Order changes required, may require local traffic modelling for bus journey times and consultation.

Example: Healthy Route between Herne Hill and Brixton

Strategic

Large scale changes to busy main streets that affect bus services, traffic signals, emergency vehicle routes, air quality and many other factors that make the design process quite restricted by technical constraints. Due to this, collaborative design cannot work in the same

way as neighbourhood projects because a lot of the design requirements are beyond the council's control.

For strategic projects we will run open engagement online at an early stage so we can hear from a wider audience than with the other delivery approaches. This will help to get a broad range of views to inform the detailed development of the project. Strategic projects might take 3-5 years to deliver.

Characteristics: A mix of streets controlled by Lambeth and other authorities e.g. TfL, significant changes to motor traffic movements, strategic traffic and air quality modelling likely to be required, trade-offs between different modes, changes to travel patterns / behaviours involved.

Example: Healthy Route between Streatham and Oval

Partnership

If a project primarily uses a street that is not managed by Lambeth Council then we will lobby for investment and work collaboratively with the managing authority to influence the outcomes based on our key objectives.

The Partnership approach applies to public transport initiatives as well as highway schemes and we are committed to being pro-active with key stakeholders in order to promote improvements to the rail, bus and underground network in Lambeth. We cannot always set timeframes for these projects as they are not within our control to deliver.

Characteristics: Streets / services not controlled by Lambeth. Multiple external stakeholders involved. Business case requires development, need to build broad coalition of support and assemble implementation funding package.

Example: Tulse Hill gyratory, metroisation of rail services, station access improvements.

8. Transport Delivery Programme

We are committed to providing up-to-date information on projects and initiatives through the TSIP, including when we expect these to be delivered and their current status. This is best achieved by providing interactive content on the council's website, rather than through a static document such as this. Delivery timescales are affected by a wide range of factors including resources available, technical factors such as traffic modelling and the need for comprehensive community engagement on certain key projects. We will publish an interactive transport and public realm projects map in 2020 that will provide 'at a glance' information on all of the key projects covered by the Transport Strategy.

9. Targets and monitoring

The Transport Strategy and TSIP sit within the overall framework provided by the Mayor's Transport Strategy (MTS). As well as providing direction on transport policy for the capital, the MTS sets key measureable outcomes that enable progress in key areas to be tracked. Lambeth's Transport Strategy is closely aligned with the MTS and it therefore follows that the outcomes set by the Mayor are also the basis for the assessment of Lambeth's performance against key objectives of our own strategy. We supplement the MTS outcomes with specific local targets and objectives included in our Borough Plan and other items that the council has pledged to deliver.

The overarching objective of the MTS is that 4 out of 5 trips across London should be made by walking, cycling or by using public transport by 2041. Depending on local characteristics,

each borough is given an individual objective in this regard, with Lambeth's target mode share being 85% of trips by sustainable modes – higher than the London wide objective.

To complement the overarching objective the MTS identifies seven key outcomes that will be measured to track progress.

Outcome 1: London's streets will be healthy and more Londoners will travel actively

Outcome 2: London's streets will be safe and secure

Outcome 3: London's streets will be used more efficiently and have less traffic on them

Outcome 4: London's streets will be clean and green

Outcome 5: The public transport network will meet the needs of a growing London

Outcome 6: Public transport will be safe, affordable and accessible to all

Outcome 7: Journeys by public transport will be pleasant, fast and reliable

TfL provides regular updates to the boroughs on the objectives above to allow us to track our progress. The latest update we have, from July 2019, is included at Appendix E.

In addition, in our Local Implementation Plan we set three local Key Performance Indicators (KPIs) to complement the MTS outcomes, these are:

Objective	Metric	Borough target	Target year	Actual
Install over 200 new EV charging points	Number of charge points installed on the public highway within Lambeth available to the public	200	2022	133
Provide 1,000 additional cycle hangar spaces	Number of spaces in secure lockers available for hire in Lambeth	1000	2022	312
Create 10 miles of new cycle routes	10 miles of routes – inclusive of; new segregated cycle track, roads where traffic volume/speeds have been reduced to acceptable levels to enable cycling, off road paths where cycling has been permitted, new contraflow cycling schemes	10 miles	2022	1.96

Figure 2: LIP Table 19 (updated)

In addition to the objectives above, we also report on practical outputs / projects that we are delivering to achieve the MTS goals. We track progress against a range of criteria each year for TfL via what is known as 'Form C'. Form C includes information on the delivery of infrastructure for walking and cycling, environmental improvements, road danger reduction, behaviour change programmes and a range of other activities. We will publish this information, alongside updates on the KPIs above, on an annual basis.

Our updated Borough Plan has identified twenty goals[5] to deliver across key priorities. Under the theme *Making Lambeth a place where people want to live, work and invest* there is a commitment to improving neighbourhoods and enabling people to live healthier lives. A key part of this will be implementing the Transport Strategy and Air Quality Action Plan as well as the borough wide approach to carbon reduction. The Plan also underlines the importance of

[5] Borough Plan: Top 20 Goals

securing improvements to public transport, with a focus on equality of access to centres of growth. We will report on progress against these goals.

MTS Outcomes Borough Data Pack	Appendix E

In addition to the monitoring framework set out above, we will continue to develop, publish and report further performance indicators in future iterations of the TSIP. In particular, we will focus on ensuring that our monitoring framework tracks how our investment delivers fair and equitable outcomes across the borough, including for disadvantaged communities that are often most affected by transport inequalities.

10. Working with the community to deliver change

The Transport Strategy has been agreed following extensive consultation over an 18 month period. During that time hundreds of representations have been considered both from the public and from local stakeholder groups[6]. The principles set out in the Strategy have received broad support and the feedback we have received has been used to improve and refine the Strategy. In particular, the TSIP is a direct result of that consultation process, responding to the feedback we received that more detail on individual projects and programmes should be provided. The TSIP needs to be a 'live' document and this first iteration is the starting point for the publication of further information over the coming months and years.

Engagement with the community on the development of the Transport Strategy is a starting point. The projects and programmes we will now deliver as a result have community engagement at their heart. Key programmes, such as Healthy Routes and Low Traffic Neighbourhoods, can only proceed with the support of local people and we set out our approach to engagement in the relevant appendices of this document. We will build on Lambeth's 'Our Streets' engagement principles, for example in taking a co-design approach to changes to local streets.

Based on the responses we have received in preparing the Transport Strategy, we believe there is an appetite for change and that the community should be empowered to lead this change. The publication of this first iteration of the TSIP sets that process in motion. We know that in order to build and maintain support, we will need to keep people informed of projects as they progress and tell people about new projects and initiatives as they come forward. We will develop the TSIP further to make it more accessible, informative and interactive so that more people can engage with the delivery of Lambeth's Transport Strategy.

[6] Transport Strategy Consultation Report

TSIP Appendix A: Healthy Routes Plan

1. Introduction

Lambeth's proposed Healthy Route Network is a key element of our Transport Strategy. The network we have identified is the result of extensive engagement with stakeholders and the wider community, as well as evidence we have gathered about the most significant places for walking and cycling trips, now and in the future.

A healthy route is defined as follows.

A healthy route has the right conditions to enable more people to walk and cycle. A healthy route links people with places they need to get to, such as schools, workplaces, amenities and shops. A healthy route is convenient, attractive, feels safe and is accessible to all. A healthy route could be a residential street or a main road or a combination of both. <u>And critically motor traffic levels are low, or on busier roads there is dedicated space that is not shared with general traffic.</u>

Delivering the Network will help us to achieve our core objectives to prioritise the most efficient, healthy, accessible and environmentally friendly modes of travel – walking and cycling – as well as creating more 'liveable' places for everyone.

This Healthy Routes Plan sets out;

- Principles for developing and delivering Healthy Routes;
- Quality requirements that routes must meet;
- A three year delivery plan for streets controlled by the council; and,
- Priorities for other streets.

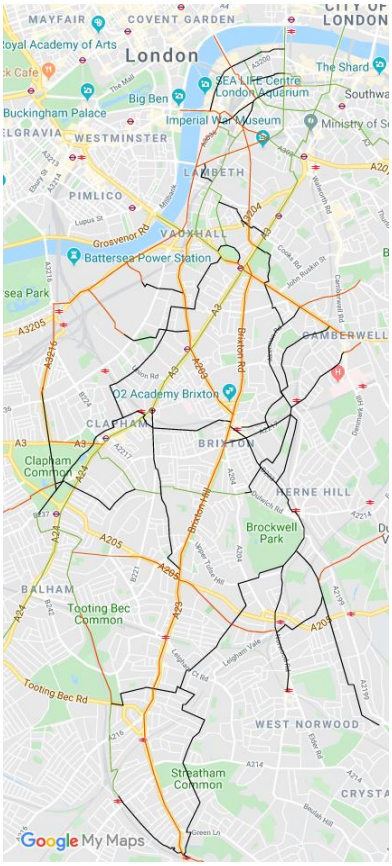


Figure 3: Healthy Route Network Map

The Healthy Routes Plan focuses solely on delivering physical interventions and does not cover other areas of our work such as behaviour change, cycle hire and other important programmes. These will be covered as part of a future iteration of the TSIP.

2. Principles

The principles described below will help us to deliver the best results for the whole community.

- Equality Streets

Lambeth will complete an audit of the borough to assess the effect that different street features have on the protected characteristics defined in the Equality Act (2010). This will inform design development from the start to ensure that Healthy Routes create more equal street environments. We will also ensure that our engagement and consultation methods provide equal opportunities for everyone to be involved.

- Consistent

All projects delivered on streets by Lambeth Council, TfL or any other third party will meet our required level of quality where the scope of the project allows, with the existing and proposed quality rating for proposals included in publicity materials. This includes temporary Traffic Management arrangements around street works. Any given route is only as good as its worst point. Consistent high standards are essential.

- Tactical

Whilst having a programme is important, we also need to be able to seize opportunities that come up. Street works, road closures, routine maintenance, changes to public transport and other unforeseen events can all provide great opportunities to deliver improvements for walking and cycling. We will seize opportunities to deliver more.

- Collaborative

We want to work together to create the best possible designs for local people, with local people. This approach also extends to working closely and collaboratively with TfL and neighbouring boroughs. No Journey ends at the borough boundary so neither should walking and cycling routes.

- Designed for the Future

Technological change and population growth make it challenging to know what will be required of our streets in the future. The routes in this plan take between one and 5 years to complete. Designing them on today's needs alone would make them out of date before they even hit the ground. We will make sure that routes provide capacity for future walking and cycling demand and consider future uses as a result of changing technology.

3. Quality Requirements

To get more people walking and cycling and to improve people's experience we need to provide space that is safe and feels safe. Vulnerable road users need protected space and greater priority than other modes. This is not generally reflected in our streets at the moment and we hope to change this in Lambeth through the Healthy Routes Plan and the broader Transport Strategy.

It is important to be clear about what the quality requirements set by this plan mean in practice: More space for walking and cycling means less space for motorised vehicles. This is essential to delivering the objectives set out in the Transport Strategy.

There are nearly 50 policy and guidance documents that we used to examine the best approach to defining quality requirements for walking and cycling. We have collated this guidance to specify Lambeth's quality requirements and will apply these in order to deliver Healthy Routes.

The table below summarises the requirements. Appendix 1 (TfL Technical Note) provides a detailed overview of the cycling related criteria. Appendix 3 collates the supporting material that informs the walking requirements.

Walking and Cycling Quality Requirements		
	Cycling Target	Walking Target
Vehicle Flows	People cycling only mix with traffic if two-way flows are fewer than 200 vehicles per hour (vph) per peak hour.	Above 200 vph priority crossings on pedestrian desire lines. Below 200vph an accessible crossing must be provided every 100m
Vehicle Speeds	Average speed must be 20mph or below	
Lane Widths	Segregated tracks, will be at least 1.5m for one way and 2.5m for two way.	Width will be consistent with the recommended widths within the pedestrian comfort guidance.
Turning Risk	Dedicated time, space or physical features to reduce conflict	Physical features reinforce pedestrian priority over turning vehicles. Green pedestrian phase on all arms of signal junctions.
Kerbside activity	See technical note (Appendix 1) for details	To be determined through design process and updated
HGVs	HGV's are less than 5% of traffic	To be determined through design process and updated

When designing cycle lanes and tracks, we will have regard to guidance[7] on requirements for inclusive cycling and promote and implement the concept of 'mobility lanes' as part of the Healthy Route Network.

Designers must apply the following points when starting to design both Healthy Routes and wider street projects:

1) All Healthy Routes must meet the target level of provision set out in the criteria;

2) All other street schemes must contribute to meeting the required level of provision set out in the criteria where the scope of scheme allows; and,
3) The design process must follow the table set out below in considering the most appropriate interventions to be used.

	Pedestrians	Cyclists
Consider First	Traffic reduction	Traffic reduction
	Speed reduction	Speed reduction
↓	Reallocation of road space to pedestrians	Junction treatment, hazard site treatment, traffic management
	Provision of direct at-grade crossings	Redistribution of the carriageway bus lanes, widened nearside lanes etc,
	Improved pedestrian routes on existing desire lines	Cycle lanes, segregated cycle tracks constructed by reallocation of carriageway space, cycle tracks away from roads
Consider Last	New pedestrian alignment or grade separation	Conversion of footways/footpaths to unsegregated shared-use cycle tracks alongside the carriageway

Figure 4: Design order (DfT, (LTN2/08)

[7] https://wheelsforwellbeing.org.uk/wp-content/uploads/2019/06/FINAL.pdf

4. Delivery Priorities

We will focus the majority of our effort on delivering the routes specified here to the quality requirements set out in the previous chapter. Important points to note;

- Our Low Traffic Neighbourhood Programme will complement the Healthy Routes Plan to create a dense network of pleasant walking and cycling routes. Please see The Low Traffic Neighbourhood Plan for more information.

- Whilst we have highlighted the routes we will focus on, this does not mean that everywhere else is forgotten about. All projects delivered on Lambeth streets must contribute to the Healthy Route Network where the scope of the project allows, whether they are within a route on this map or not. The quality requirements will help us to achieve this.

5. Delivery Plan for Lambeth Streets

We have limited staff resource to develop projects and limited budgets to deliver them so we have to be realistic and strategic about what we can take on. This means focusing our resources on where we can make the biggest impact to reduce dependency on private motor vehicles by enabling more people to choose walking and cycling. We combined strategic analysis, community feedback and practical thinking to select and prioritise the most important routes to achieve this objective.

Figure 3 shows the routes that have been identified. We will deliver these routes to reach the council's commitment to deliver 10 miles of walking and cycling routes by 2022.

Taking the whole network map as a starting point we have broken up each route into smaller local alignments that join up important local places. We then prioritised each local alignment based on three main factors;

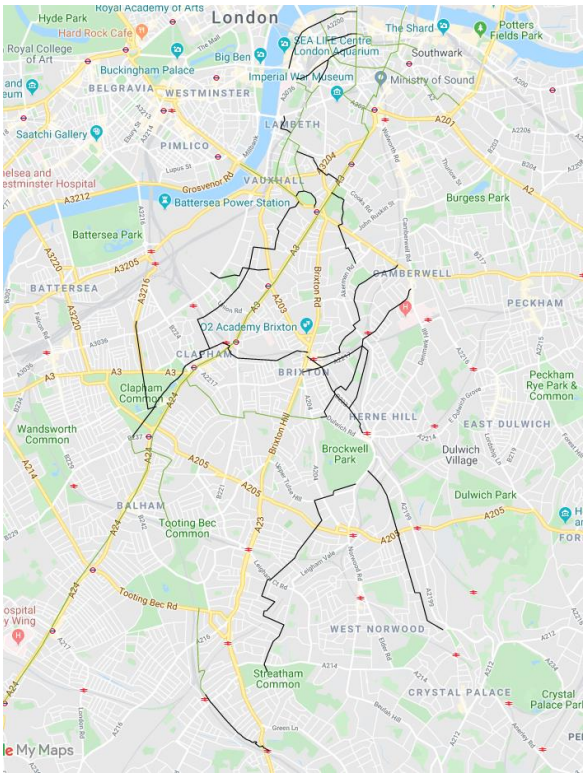


Figure 5: Existing routes and first round of delivery

1. Strategic case for the project

Will investment in this route get more people walking and cycling, more often? We used data from the London Travel Demand Survey to assess the amount of trips that could be switched from car to walking and cycling if this route were built (LTDS Switchable Trips).

2. Need for investment

What is the current situation on this route? We used collision and air quality data to assess the need for investment in each route based on the existing conditions.

3. Deliverability

How much staff resource is needed to complete this route and will we be able to get funding to build it? The Transport Strategy Implementation Plan sets out four delivery models (Opportunity, Neighbourhood, Strategic and Partnership). Based on the scale, impact, cost and other factors, we allocated a delivery model to each route and sequenced them so that we will be able to deliver a steady stream of projects each year.

Based on the outcome of this prioritisation we have developed our delivery plan for the coming three years. The table below show the expected order in which we will deliver the Healthy Route Network. We have selected more routes than we have budget to deliver each year. Over-programming like this means that if one project has issues that slow down or prevent delivery, then another project will be able to take its place.

10 Miles Delivered

Routes We Will Deliver

Financial year	Desire Line	Distance (Miles)	Delivery Model
19/20	Gipsy Hill - West Dulwich	1.05	Neighbourhood
20/21	Clapham High Street - Clapham Common	0.51	Neighbourhood
	Lambeth North - Vauxhall Pleasure Gardens	1.00	Neighbourhood
	Kennington Park – Myatt's Fields	0.79	Neighbourhood
	Kennington Park - Vauxhall	0.50	Neighbourhood
	Baylis Road: Lambeth North - Southwark	0.51	Neighbourhood
	Lambeth Bridge Spur	0.22	Neighbourhood
	Lower Marsh - Lambeth Palace Road	0.33	Opportunity
	West Dulwich - Brockwell Park	0.64	Neighbourhood
	Clapham High Street - Oval	2.01	Neighbourhood
21/22	Oval Spur	0.30	Neighbourhood
	Clapham Common - Clapham South	0.81	Neighbourhood
	Brixton - Clapham High Street	0.80	Neighbourhood
	Lansdowne Way to Thessaly Road	0.38	Neighbourhood
	Tulse Hill – Brockwell Park	0.70	Neighbourhood
	Herne Hill – Brixton	0.98	Neighbourhood
	Clapham Common	0.42	Neighbourhood
	Brixton – Myatt's Fields	0.60	Neighbourhood
	Loughborough Junction - Brockwell Park	0.85	Neighbourhood
	Shakespeare Road	0.62	Neighbourhood
22/23	Loughborough Junction - Camberwell	0.63	Strategic
	Streatham Common – Tulse Hill	1.72	
	Brixton - Loughborough Junction	0.66	Strategic
	The Cut: Lambeth North - Southwark	0.26	Strategic
	Norbury Station - Streatham Common Station	0.90	Neighbourhood
	Clapham Common - Battersea Park	1.12	Strategic

Priorities for Other Streets

Lambeth Council manages a lot of streets in the borough but not all of them. Many of the busiest streets are controlled by Transport for London (TfL) and a number of these are important for the Healthy Route Network. Alongside our priorities for delivery on Lambeth roads, we have therefore also completed an identical assessment on streets controlled by other highway authorities. Our priorities for other Highway Authorities are set out in the table below. We will use the 'Partnership' delivery model described in the Transport Strategy Implementation Plan to support fellow Highway Authorities to improve walking and cycling on their networks.

Our Priorities for TfL and Neighbouring Boroughs

Origin / Destination	Distance (Miles)	Who
Brixton - Stockwell	0.63	TfL
Oval - Camberwell	1.28	TfL
Westminster Bridge	0.28	TfL
Oval - Vauxhall Bridge	0.71	TfL
Long Road	0.42	TfL
Waterloo Bridge	0.64	TfL
Stockwell - Vauxhall	1.63	TfL
Oval - Brixton	1.43	TfL
Westminster Bridge RDBT - Elephant and Castle	0.47	TfL
Kennington Road	1.02	TfL
Brixton - Streatham High Street	1.53	TfL
Albert Embankment	0.55	TfL
Brixton Hill - Clapham Common	1.58	TfL
Lambeth Palace Road	0.47	TfL
Battersea Park - Vauxhall	1.28	TfL / LBW
Streatham High Street - Norbury	2.02	TfL
Clapham Common - Wandsworth Common	0.99	LB W
Lambeth Bridge - St George's Circus	0.74	TfL
Wyndham Road	0.54	LBS
Union Street	0.13	LBS
Pascal Street	0.38	LBW

Appendix 1 – TfL Cycleways Technical Note

http://content.tfl.gov.uk/cycle-route-quality-criteria-technical-note-v1.pdf

Appendix 2 – Timeline for Developing the Plan

When	What
2017	TfL Strategic Cycle Network Review
	Lambeth Cycle Network Review
2018	Healthy Routes Borough Wide Public engagement
	Public Comments inform indicative Healthy Route Network
	Interim Healthy Routes projects commissioned
2019	Prioritisation of key routes based on strategic objectives – a) switchable trips from private vehicle to walking and cycling b) need for investment (collisions and air quality)
	Sequencing of priorities based on deliverability (access to funding and complexity of delivery)
	Lambeth collision analysis to inform quality requirements
	Formal approval and publication of the Healthy Routes Plan.
2020	Potential update if needed, delivery starts on the ground

Appendix 3 – Reference List

Source	Org	Link
Accessible Bus Stop Design Guidance	TfL	https://tfl.gov.uk/cdn/static/cms/documents/bus-stop-design-guidance.pdf
Active Lambeth 2015-2020	Lambeth Council	https://www.lambeth.gov.uk/sites/default/files/lpl-active-lambeth-plan.pdf
Better Street Delivered 2	TfL	https://www.urbandesignlondon.com/library/sourcebooks/better-streets-delivered-2/
Brent Walking Strategy 2017-2022	Bent Council	https://www.brent.gov.uk/media/16407830/brent-walking-strategy-2017-2022.pdf
Camden Transport Strategy	Camden Council	https://www.camden.gov.uk/documents/20142/18708392/1925.7+Camden+Transport+Strategy_Main+Document_FV.pdf/d7b19f62-b88e-31d4-0606-5a78ea47ff30
City of London Transport Strategy	City of London	https://www.cityoflondon.gov.uk/services/transport-and-streets/Documents/city-of-london-transport-strategy-draft-vision.pdf
Cycleways Quality Criteria Assessment	TfL	https://tfl.gov.uk/cdn/static/cms/documents/cycle-route-quality-criteria-spreadsheet-tool-v1.xlsx
Cycling Action Plan	TfL	http://content.tfl.gov.uk/cycling-action-plan.pdf

Cycling Action Plan	Camden Council	https://www.camden.gov.uk/documents/20142/18708392/1925.7+Camden+Transport+Strategy_Cycling_FV.pdf/4df17299-7a77-60b9-99da-0a896cbbed89
Design Guide for Inclusive Cycling (2nd Edition)	Wheels for Wellbeing	https://wheelsforwellbeing.org.uk/wp-content/uploads/2019/06/FINAL.pdf
Design Manual for Bicycle traffic (CROW Manual)	NL CROW	https://www.crow.nl/publicaties/design-manual-for-bicycle-traffic
Design Manual for Urban Spaces and Parks	City of Copenhagen	Not available online
Design Policy for Urban Space in the City	City of Copenhagen	Not available online
Evidence Report: Camden Transport Strategy	Camden Council	https://www.camden.gov.uk/documents/20142/4470853/Appendix+G_CTS+Evidence+Report_Updated_FinalVersion_310119+%28002%29.pdf/3c191a6b-e1b4-9915-9a91-b3eb5ebf52e8
Guidance on the use of tactile paving surfaces	DfT/DETR	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/289245/tactile-paving-surfaces.pdf
Healthy Streets Toolkit	TfL	https://tfl.gov.uk/corporate/about-tfl/how-we-work/planning-for-the-future/healthy-streets
Inclusive Streets: Design Principles for blind and partially sighted people	Guide Dogs	https://www.visionuk.org.uk/download/archive_1/pdf/Inclusive%20Streets%20Design%20Principles%20booklet%20Guide%20Dogs%202010.pdf
Inclusive Mobility	DfT	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/3695/inclusive-mobility.pdf
Inclusive Transport Strategy	PJA	https://pja.co.uk/wp-content/uploads/2018/08/TopicNote-InclusiveTransport-Strategy.pdf
Kerbside Lpoading Guidance	TfL	https://tfl.gov.uk/corporate/publications-and-reports/streets-toolkit#on-this-page-5
Lambeth Transport Strategy	Lambeth Council	https://www.lambeth.gov.uk/sites/default/files/co-lambeth-transport-strategy-consultation-draft_0.pdf
Lambeth Transport Strategy Evidence Base	Lambeth Council	https://www.lambeth.gov.uk/consultations/have-your-say-on-lambeths-draft-transport-strategy
London Cycling Design Standards	TfL	https://tfl.gov.uk/corporate/publications-and-reports/streets-toolkit#on-this-page-2
LTN 1/11	DfT	https://www.gov.uk/government/publications/shared-space
LTN 1/12 Shared Use Routes for Pedestrians and Cyclists	DfT	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/9179/shared-use-routes-for-pedestrians-and-cyclists.pdf
LTN 1/95 review	Scottish Road Research Board	https://www.transport.gov.scot/media/41916/ltn-195-review-final-report.pdf
LTN 2/08 Cycle Infrastructure design	DfT	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/329150/ltn-2-08_Cycle_infrastructure_design.pdf
LTN2/95 Design of Pedestrian Crossings	DfT	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/330214/ltn-2-95_pedestrian-crossings.pdf
Manual for Streets (2007)	DfT	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/341513/pdfmanforstreets.pdf

Oxfordshire Walking Design Standards	Oxfordshire CC	https://www2.oxfordshire.gov.uk/cms/sites/default/files/folders/documents/roadsandtransport/transportpoliciesandplans/newdevelopments/WalkingStandards.pdf
Pedestrian Comfort Guidance	TfL	https://www.cycling-embassy.org.uk/sites/cycling-embassy.org.uk/files/documents/pedestrian-comfort-guidance-technical-guide.pdf
Pedestrian Crossing Specification and Guidance	National Roads Authority (Ire)	https://www.tiipublications.ie/downloads/SRM/15-NRA-Pedestrian-Crossing.pdf
Planning for Walking Toolkit	TfL	https://consultations.tfl.gov.uk/walking/toolkit/
Providing for Journeys on Foot	CIHT	http://www.hwa.uk.com/site/wp-content/uploads/2017/09/NR.4.3F-CIHT-Guidelines-for-Providing-Journeys-on-Foot-Chapter-3.pdf
Road Safety Action Plan	Camden Council	https://www.camden.gov.uk/documents/20142/18708392/1925.7+Camden+Transport+Strategy_Road+Safety_FV.pdf/1baa1e24-bd8c-af8b-349c-882c7bdba8bf
Shared use Operational review	DfT/Atkins	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/9181/atkins-shared-use-operational-review.pdf
Small Change Big Impact	TfL	https://www.urbandesignlondon.com/library/sourcebooks/small-change-big-impact/
Southwark Movement Plan	Southwark Council	https://consultations.southwark.gov.uk/environment-leisure/movement-plan/
Street Design For all	DfT/Civic Voice	http://www.civicvoice.org.uk/uploads/files/street_design_2014.pdf
Street Furniture	RNIB	https://www.rnib.org.uk/sites/default/files/WPTT%20Street%20Furniture%20%20%28Feb%202015%20version%201%29.doc
Street Review Guidance	Living Streets	https://www.livingstreets.org.uk/media/1434/street-review-guidance-for-web.pdf
Streetscape Guidance	TfL	https://tfl.gov.uk/corporate/publications-and-reports/streets-toolkit#on-this-page-0
Urban Bikeway Design Guide	NACTO	https://nacto.org/publication/urban-bikeway-design-guide/
Urban Street Design Guide	NACTO	https://nacto.org/publication/urban-street-design-guide/
Walking Action Plan	TfL	http://content.tfl.gov.uk/mts-walking-action-plan.pdf
Walking and Accessibility Action Plan	Camden Council	https://www.camden.gov.uk/documents/20142/18708392/1925.7+Camden+Transport+Strategy_Walking_FV.pdf/fac2cb35-83ac-be83-1dcd-636f76628b69
Walking and Cycling Technical Design Guidance	Royal Parks	https://www.royalparks.org.uk/__data/assets/pdf_file/0005/87197/Walking-and-Cycling-Technical-Design-Guidance-2016.pdf
Westminster Walking Strategy	Westminster Council	https://www.westminster.gov.uk/sites/default/files/walking_strategy_summary.pdf

TSIP Appendix B: Low Traffic Neighbourhood Plan

1. Introduction

Lambeth is a local authority with some of the lowest car ownership levels in the country. Households without access to a car or van are in the majority and in some areas over 70% of households are car free. But this fact isn't immediately evident with some local streets suffering from high levels of motor traffic. Problems related to 'rat running' on residential streets include poor air quality, an increased risk of collisions and a sense that making trips by cycle or on foot are not safe or pleasant options.

This plan takes the highway network as a whole and considers which roads are suitable for carrying non-local traffic and which are not. This is the basis for defining neighbourhood areas, with the default position being that streets within each neighbourhood should only carry motor traffic generated by the local residents and businesses within it. Often it is only a few streets in a neighbourhood that suffer from very high levels of rat running. But addressing these streets in isolation from neighbouring ones can merely displace traffic to other nearby local streets. A neighbourhood-wide approach can help address these issues.

Low Traffic Neighbourhoods are not a new concept, they have been a staple of planning in the Netherlands and elsewhere for decades. Recently they have been implemented more widely in cities seeking to improve the urban experience by prioritising people over motor traffic. An example in London is the 'Enjoy Waltham Forest' scheme. This demonstrated that changes to traffic management in an area can be controversial. However, post implementation assessment of that scheme found that it delivered the objective of decreasing traffic levels in the neighbourhood, and of increasing the number of residents making trips by walking and cycling. Only 1.7% of residents surveyed would scrap the scheme and revert back to the former layout. Further information on the concept of Low Traffic neighbourhoods[8] and how they can be created[9] is available in guidance notes written by Living Streets.

Our three-year spending plan for TfL funding allocated a budget of £655k (2019/20-2021/22) to create low traffic neighbourhoods. This document sets out where this budget should be directed and how residents can work with us to develop designs for their areas. It also establishes the framework for how we will assess which neighbourhood areas are most affected by rat running and where action will best address the objectives of our transport strategy.

2. Principles

The principles below will guide how we implement Low Traffic Neighbourhoods.

- **Responsive**

We will prioritise areas where major changes to the road network are proposed that are likely to impact on traffic levels using local roads. This will mean that while we will develop a programme of works we will maintain flexibility within it so that we can respond to opportunities as they arise.

- **Collaborative**

[8] Low Traffic Neighbourhoods: An Introduction For Policy Makers, Living Streets
[9] A guide to Low Traffic Neighbourhoods, Living Streets

The council will co-design neighbourhood schemes with local stakeholders, trialling ideas and adjusting as appropriate. We will work with relevant agencies and partners such as the emergency services, neighbouring boroughs and TfL as appropriate.

- **Strategic**

Low traffic neighbourhoods will need to meet the council's strategic transport objectives as set out in the Transport Strategy including the delivery of the Healthy Route Network

3. Defining Neighbourhood Areas

The concept of categorising roads based on their function is well established. Traditionally this has been done by defining roads as A roads, B roads or unclassified roads. This is entirely based on the roads importance for carrying motor traffic. In London a Street Types matrix has been developed which defines a road as one of nine types. This assesses how important a road is for the movement of motor traffic and its importance as a place for people to spend time, socialise and carry out business.

All roads in London have been assessed this way and it was the starting point for how we defined neighbourhood cells. All roads with the lowest movement function (M1) were considered part of a neighbourhood, with the boundaries formed by roads that had a movement function of M2 or M3. However this created some areas which were much too large to be defined as one neighbourhood so the classification of some roads was also re-assessed. Appendix 1 shows the neighbourhood areas produced from this process.

As part of our collaborative approach local stakeholders are invited to make the case that these neighbourhood boundaries should be adjusted to better reflect how their local area functions.

4. Delivery Priorities

The borough has been awarded funding to develop a Brixton Liveable Neighbourhood. This will comprise improvements to the public realm in the town centre focused on Atlantic Road and creation of low traffic neighbourhoods in surrounding areas. In addition to this programmed work there are significant changes to the main road network proposed in Lambeth which may have an impact on surrounding streets;

1, removal of the gyratory at Vauxhall Cross; and,
2, public realm, walking and cycling improvements on the A23 on Streatham Hill.

The neighbourhoods which are likely to be majorly impacted by these changes and the areas with the scope of Brixton's Liveable Neighbourhood are our first priorities for delivery

An assessment of neighbourhood areas across the whole borough has been carried out using five criteria, scored on a scale of 1-3, with the maximum overall score being 15;

- Air quality (NO2)
- Collision rate (per household in the neighbourhood)
- Number of school pupils living in the neighbourhood
- Length of Healthy Routes within the neighbourhood
- Evidence that rat-running is an issue

In Appendix A the output of this assessment is shown in map form. This map is a first iteration and will be refined using more comprehensive data on the level of traffic using every street in the borough. It currently relies on 2017 traffic count data which, while extensive, is not fully comprehensive. This map gives an indication of which neighbourhoods, if made low-traffic, would deliver the objectives of our Transport Strategy. This technical assessment is a tool for decision makers and does not necessarily dictate the order in which neighbourhoods will treated. This will be determined through working with our communities.

Delivery Plan – Responsive Schemes

Reducing traffic in and around Brixton is a key theme of the Brixton Liveable Neighbourhood project and we have already started community engagement around this. We will also now begin working with three areas affected by the proposed changes to the main road network.

1. Vauxhall Gyratory affected area

The area bounded by Harleyford Road, Clapham Road and South Lambeth Road in Oval. Fentiman Road, which runs parallel to Harleyford Road already carries significant levels of traffic. The proposed removal of the Vauxhall gyratory scheme is likely to exacerbate this. This makes it a priority area to begin discussions with the community on how this should be dealt with and identify potential solutions that reduce traffic levels across the whole neighbourhood.

1. A23 Streatham Hill affected area

The area bounded by the South Circular, Leigham Vale, Leigham Court Road and Streatham Hill. Traffic already uses local streets to travel between/avoid the south circular and A23. Changes to the A23 to improve the street environment have the potential to increase the use of these streets by non-local traffic. In addition, Hillside Road forms part of our Healthy Route network and reduced levels of traffic will be necessary for the route to meet the required quality criteria, and also to maintain bus access and reliability in the neighbourhood.

2. A23 Streatham Wells ward affected area

Also potentially affected by changes to the A23 is the area bounded by the Streatham Common North, The A23, and Leigham Court Road. Local streets such as Valley Road, which runs parallel to the A23 see very high levels of traffic using it.

Through workshops and community engagement, which bring together local people, councillors and traffic engineers, the issues will be examined and solutions developed. Further public engagement will then be held on the solution that has been developed.

Timelines for implementation in each area will need to be linked to the changes to the main road network that are planned.

Delivery Plan – Future Schemes

For areas of the borough with an identified issue that are not within the Brixton Liveable Neighbourhood area or discussed above, we will seek to work with local stakeholders to identify solutions as and when resources allow.

We will also seek to bring forward improvements to other areas as part of related programmes, such as Healthy Routes and road danger reduction interventions.

When considering future expressions of interest from neighbourhoods we will consider:

- The technical assessment at Appendix A (and refinements to this)

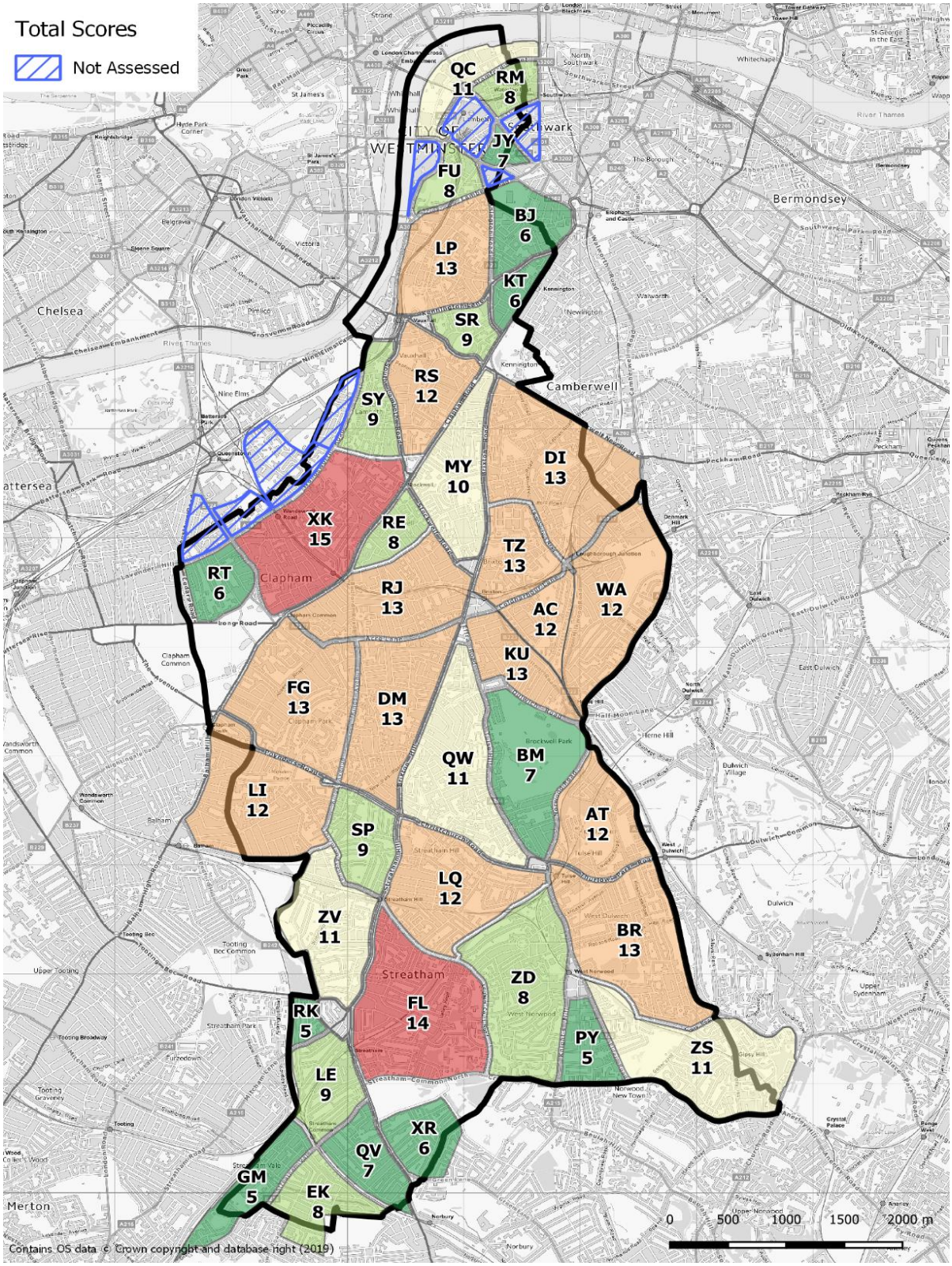
- An assessment of how deliverable network changes are
- Any related network changes that may exacerbate existing issues
- Support from local stakeholders

We will ensure that we reach out to communities furthest from the levers of power to help them develop proposals so that everyone has a voice.

Timescales

For the first tranche of Low Traffic Neighbourhoods some initial assessment work has already begun and this work will now accelerate. It is difficult to specify an exact timescale for projects such as these given the need to fully understand the impact of the interventions and the views of the community in each area to make sure we get it right. In some areas trials / demonstrations may be appropriate before proposals are finalised and in others traffic modelling will be necessary which can extend timescales. We will proceed as quickly as possible, working with the community, and expect the first three neighbourhood areas to be complete within the next 3 years. The sequencing of projects will be related to timescales for changes to the main road network where we need to prioritise between projects. During that period we will also begin working on further LTN areas so that they are ready to go when the first tranche has been completed.

Appendix A – Neighbourhood Assessment



Areas scored 0-15 with the higher the score the greater the identified issue.

TSIP Appendix C: Lambeth EV Chargepoint Delivery Plan

1. Introduction

By providing Electric Vehicle (EV) chargepoints we aim to reduce emissions that impair local air quality and cause climate change. In 2016 road transport in Lambeth was responsible for 30% of the borough's total carbon dioxide emissions (CO_2) and 60% of the boroughs total nitrogen oxide emissions (NO_x). NO_x is a tailpipe emission which is a priority for us to reduce because air in the borough is failing to meet legal limits for annual mean concentrations of it.

Refuelling an EV can take several hours so it is often done while the vehicle is parked. This refuelling time may reduce to just minutes in the future. Until it does, Lambeth has a role in providing chargepoints so that EVs are a viable option for people to use now. We manage a large number of parking spaces which are both on-street and on council managed estates. About a third of our residents live on estates we manage and much of the housing stock in the borough does not have off-street parking. In our Transport Strategy we have committed to install a minimum of 200 chargepoints by 2022. This plan sets out our approach to achieving that and how we will install EV chargepoints up to 2025.

2. Why Lambeth is investing in EV chargepoints

Air Quality and Climate Change

There is an urgent need to both improve air quality in Lambeth and reduce emissions that cause climate change. The borough has been designated an Air Quality Management Area and on 23 January 2019 Lambeth Council declared a climate emergency. In 2016 road transport in Lambeth was responsible for; 163,203 tonnes of CO_2 emissions, about 30% of the borough's total CO_2 emissions, and 558 tonnes of NO_x emissions, about 60% of the boroughs total NO_x emissions[10]. Figures 1 and 2 show emissions from each vehicle type.

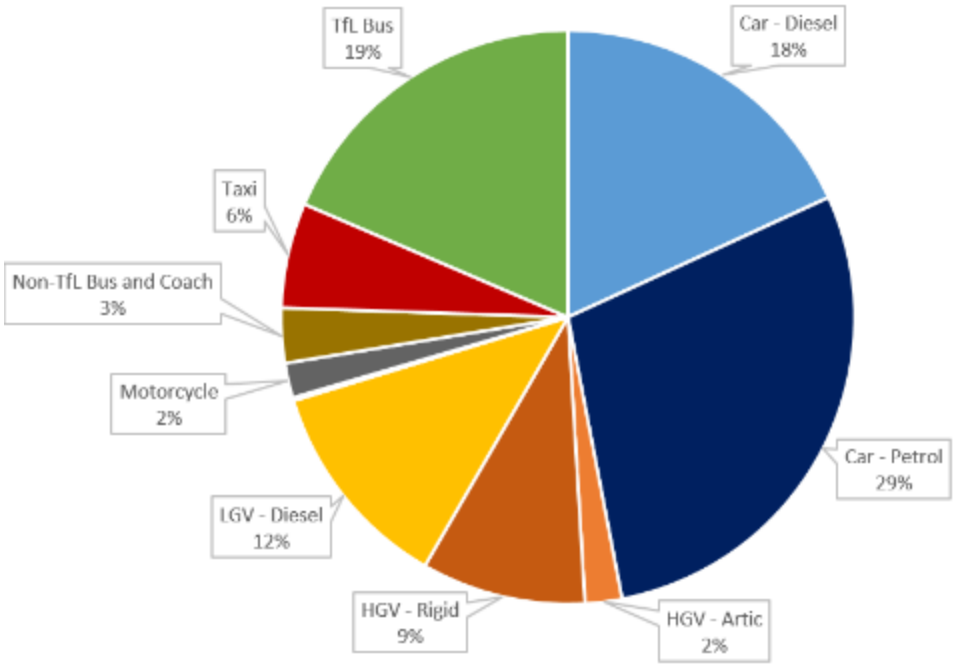


Figure 1. Lambeth Road Transport CO_2 Emissions 2016. Total of 163,203 tonnes

[10] London Atmospheric Emissions Database 2016

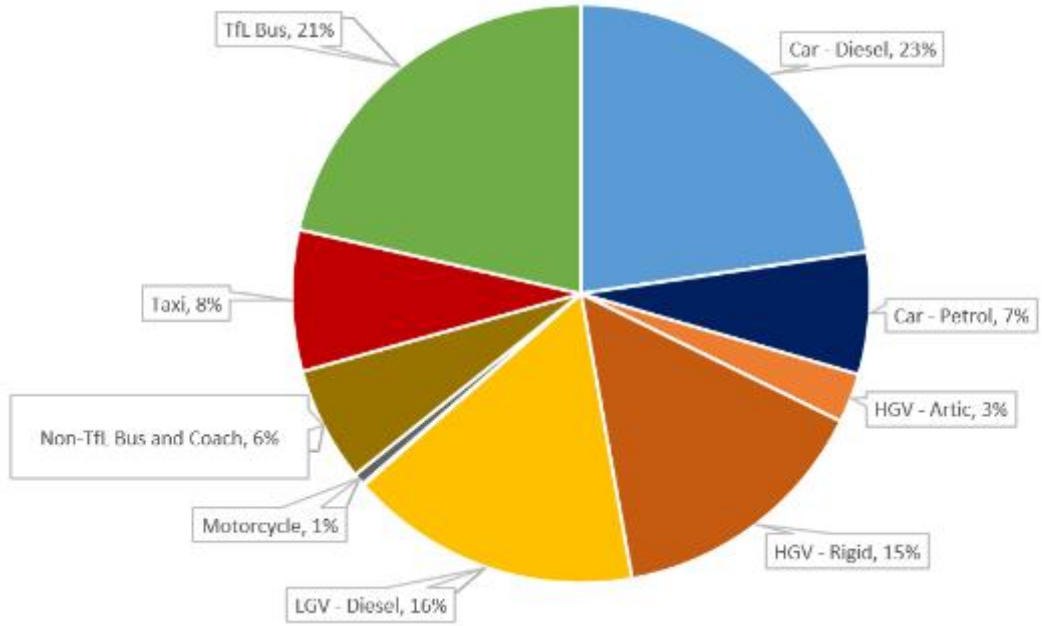


Figure 2. Lambeth Road Transport NO_x Emissions 2016. Total of 558 tonnes

Knowing which vehicle types are most responsible for CO_2 and NO_x emissions in Lambeth helps us understand what potential impact we can make by targeting different user groups. This needs to be combined with an understanding of the policy context and the current EV market, which is discussed below.

EVs produce about two thirds less carbon emissions per mile than petrol/diesel vehicles because the UK power generation sector has made good progress in switching away from fossil fuels. EVs do not produce any tailpipe emissions, such as NO_x which affect local air quality. The borough monitors a range of harmful pollutants but NO_x is a priority because our monitoring stations show that the borough is failing to meet the EU annual mean concentration limit for nitrogen dioxide (NO_2).

While far better for air quality than vehicles powered by petrol or diesel, EVs do still produce Particulate Matter (PM) emissions in the form of brake and tyre wear. They also do not deliver on other goals within our Transport Strategy, such as reducing the number of people killed or seriously injured on our roads or enabling people to live more active lives. Facilitating more people to make their short trips by bike or foot remains our priority.

E-bikes have great potential to broaden the appeal of cycling, particularly in the south of Lambeth where it is quite hilly, as well as for those people making longer trips for instance. E-bike batteries are generally below 1kw and typically batteries can be detached from the bike and recharged using a domestic plug. The need for public charging points is therefore uncertain, but we will monitor this carefully, consider installing e-bike chargepoints on-street where there is demand for this and target our interventions where needed. For example, we will work with companies operating e-cargo bikes. Charging for e-bikes will also be secured off-street in new developments.

Lambeth's Infrastructure Role

While the private sector has built some public chargepoints there is not a comprehensive network that consumers can rely on. As the market for refuelling EVs grows there will be greater interest and chargepoint provision by the private sector but to stimulate demand for

EVs Government has provided grants for local authorities to install on-street public chargepoints.

We are aware of the risk that chargepoints we install now could become redundant as private provision increases and refuelling technology advances. To guard against the risk of having redundant assets we will seek to provide chargepoints that meet users' needs and will have due regard to the cost of decommissioning them.

In order to ensure our approach is sustainable and fits with the objectives in our Transport Strategy, we have developed the following principles, listed in descending order of importance. These principles will be used to decide how our investment in EV chargepoints will be made.

As a Planning Authority we also determine what EV chargepoints should be provided in new developments. For more information on policies that apply to new developments refer to the London Plan[11] and our Local Plan[12].

	Principle
1	Chargepoint installations will have minimal impact on pavements and Healthy Routes.
2	Chargepoints will use 100% green electricity.
3	Resources will be targeted to deliver maximum air quality improvements and CO_2 reductions.
4	We will ensure all residents have a nearby chargepoint they can use.
5	Ensure consumers can access competitively priced electricity so EVs are affordable.
6	Develop a chargepoint network which generates revenue to cover maintenance and expansion costs to ensure the growth of the network is sustainable when dedicated EV grants end.

3. Understanding EVs and meeting user need

Current EV technology and infrastructure

By the end of 2018 there were over 200,000 Ultra Low Emission Vehicles[13], nearly all EV, licensed in the UK. They currently make up about 2% of all sales and Government has set an ambition[14] for between 50-70% of new car sales to be Ultra Low Emission by 2030. 93% of those 200,000 licensed EVs are cars. There is a good range of electric car and small van models available on the market and an increasing number of EV motorbikes.

Fully electric single decker buses are available although double decker buses still tend to be hybrid rather than fully electric. Bus refuelling generally takes place overnight within the depot. Lambeth will work with TfL and bus operators to install chargepoints at on-street bus stands if it is required. There are very limited EV options for heavy goods vehicles[15] and this is likely to remain the case in the short term. HGVs are not considered in this plan. It may be that HGVs convert to using low emission fuels rather than EVs[16]. We will monitor what progress is made in bringing ultra-low emission HGVs to market and what our role is in providing any infrastructure required to support their introduction

[11] The London Plan
[12] The Local Plan
[13] DfT vehicle statistics
[14] Road to Zero
[15] London EV Infrastructure Delivery Plan
[16] Cleaning the Air, 2019 Freight Transport Association Briefing Note

Figure 3, below, explains what kinds of EV are available. The distance that EV's can travel is generally much less than a petrol/diesel vehicle. The range of an EV is determined by the size of its battery, which is measured in kilowatt-hours (kWh). The time taken to recharge a battery is dependent on the power output of the chargepoint. Figure 4, below, explains the different kinds of chargepoints that are available.

Power outputs generally vary from 3kw to 50kw with some 120kw chargepoints also available. A 40kwh battery, the size found in the Nissan Leaf fully electric EV, would take over 13 hours to fully charge using a 3kw charge point but less than an hour using a 43kw charger. Where a vehicle can be re-charged while parked, often overnight, a long refuelling time is not an inconvenience. This is how households with access to a driveway or garage typically refuel. Low power chargepoints have the advantage that they do not require any upgrades to the power supply network and are cheaper to install.

Figure 3: What is an Electric Vehicle?

Electric vehicles use electric motors to drive their wheels. They derive some or all of their power from rechargeable batteries. The distance an EV can drive on a full battery is known as its range. Different categories of EV include:

• All-electric EVs, where the battery is the only power source. Most current (non-luxury) models have a quoted range of 80-120 miles (130-190 km). In practice, range varies according to driving style, terrain and the use of auxiliary equipment such as heating/air conditioning.

• Plug-in Hybrids (PHEVs) can switch between running on electricity or fossil fuels. They typically have a smaller battery, and therefore a lower battery powered range of between 10-40 miles (15-60 km). However their maximum range is equivalent to a petrol car. Both plug-in hybrid and all-electric EVs are recharged by plugging them in to an electric power supply.

• Hybrids (HEVs) which do not plug in, such as the Toyota Prius, have a much smaller battery which is recharged while driving. HEVs can drive in electric mode for a few miles.

• Fuel Cell Vehicles generate their own electricity on-board from a fuel such as hydrogen, and do not need to plug in to the electricity grid to recharge. Re-fuelling is similar to a petrol car.

Source: Taken from House of Commons Briefing Paper No. CBP07480, 28 June 2019

Chargers capable of delivering 350kw have been developed to cater for larger batteries and to deliver refuelling times of a few minutes but EVs on the market are not yet capable of receiving this amount of power. Building a network of chargepoints this powerful would be expensive, with upgrades required to increase the local electricity grid capacity.

Figure 4: Commonly available public chargepoints

There are over 15 operators of public chargepoint networks in the UK. They generally sell memberships, which provide access to their network, but pay-as-you-go access is becoming more common.

• 3-5kw low power chargepoints can make use of an existing connection to the power supply and be retrofitted into existing powered street furniture such as lamp-columns. This reduces the need to install a dedicated pole to host the charge point, minimising street clutter and not impacting on the street scene or quality of pavements for pedestrians.

• 7kw-22kw fast chargepoints will require a new connection to the power supply. When installed on street they tend to be mounted on a dedicated pole that hosts two chargepoints to serve two EVs.

• 43kw/50kw rapid chargepoints require a new connection to the power supply. The petrol pump sized unit can serve one vehicle at a time but has various cables to account for the different connector types (shape of plug and AC/DC output) used by different manufacturers.

User needs

Detailed analysis of user's experience and what type of EV chargepoints will meet their needs has been carried out by TfL[17]. Figure 5 below summarises the needs of various user groups and Lambeth's role in meeting them.

[17] London EV Infrastructure Delivery Plan, 2019 TfL

User category	Vehicle type	From or near home or at depot (Slow/standard charge)	While 'grazing' or at the workplace (Any charge speed)	'On-the go' or in-transit (Typically rapid charge)	Importance of Lambeth's role in providing EV charging infrastructure and of what type
Company fleet LGVs	BEV	Regularly to nightly (during working week)	Rarely to occasionally (depending on mileage and access to depot charging)	Occasionally to daily (depending on mileage)	**Medium.** No involvement where overnight parking is in depots but a role to play providing rapid charge points to fulfil 'on-the go' charging needs.
	PHEV		Rarely or never	Occasionally (where vehicle supports)	
Privately owned LGVs (including the 'gig economy')	BEV	Regularly to nightly (during working week)	Occasionally to regularly (depending on the nature and length of the stop and access to home charging)	Regularly (depending on daily mileage and ability to charge from or near home)	**High.** Role to play providing overnight and on-the-go rapid charging. Privately owned LGVs are more likely to be parked on-street or estates because many households in Lambeth lack off-street parking.
	PHEV			Occasionally (where vehicle supports)	
Taxi	Any	Nightly (during working week)	Rarely or never	Regularly to daily (depending on daily mileage and ability to charge from or near home)	**High.** Role to play in providing on-the-go rapid charging and overnight charging, where taxi owners do not have access to off-street parking.
Private hire	Any	Nightly (during working week)	Rarely or never	Regularly to daily (depending on daily mileage and ability to charge from or near home)	**High.** Role to play in providing on-the-go rapid charging and overnight charging, where taxi owners do not have access to off-street parking
Shared vehicles (eg. car clubs)	BEV	Regularly to daily	Occasionally to regularly (although dependent on business model)	Regularly (dependent on vehicle and business model)	**Medium.** State aid rules severely limit our role in overnight charging provision at car club bays. Our role is limited to providing 'on-the go' rapid charging.
	PHEV			Regularly (where vehicle supports)	
Private cars	BEV	Regularly	Occasionally (depending on use of vehicle and ability to charge from or near home)	Occasionally to regularly (depending on use of vehicle and ability to charge from or near home)	**High.** While the majority of households do not own a car, those households that do, generally park on-street or in estates overnight. Our role is to provide overnight charging options near homes and
	PHEV	Regularly	Occasionally to regularly (depending on use of vehicle and ability to charge from or near home)	Occasionally (where vehicle supports)	

Figure 5: Annotated table reproduced from TfL's London electric vehicle infrastructure delivery plan

The lower range of EVs compared with petrol/diesel vehicles may deter people from choosing an EV but this will depend greatly on their usage patterns.

For commercial fleets the main consideration will be the impact lower ranges will have on their competitiveness and commercial viability. The LoCity (Lowering Emissions from Commercial Vehicles) project provides a tool on their website which allows operators to search for low emission models which meet their operational needs.

For taxis, PHV and other high mileage vehicles there will be a need for them to re-fuel during work hours and in order to do this quickly they will need rapid chargers (50kw+). Rapid chargers require a dedicated new connection to the power supply and this can be expensive to install if there is not capacity available on the grid. Because of their size, rapid chargers are not suitable for areas where footways are narrow or that are primarily residential. The borough will endeavour to install rapid chargers, especially in areas that serve taxi, PHV and commercial vehicles, but only at suitable sites and when it represents good value to do so. Taxi, PHV and van drivers may not have off-street parking, and may also need low-powered chargepoints conveniently located for home based charging between shifts.

Car club operators, which provide hire cars for short term rental, will need dedicated chargepoints if the car has a designated parking pay. Legal advice precludes the borough from providing dedicated chargepoints for the car club sector on a large scale because of the risk of breaking state aid rules. The borough will investigate ways of encouraging and facilitating the car club sector to invest in the infrastructure required to electrify cars in dedicated bays.

London and Lambeth context

The borough provides a discount on the price of a parking permit for an EV and there is a surcharge for diesel vehicles, which produce higher NO_X emissions. Measures to encourage the uptake of EVs are largely put in place at the London-wide level. Since January 2018 all new London taxis presented for licensing for the first time have needed to be zero emission capable. This is currently defined as having a zero emission range of at least 20 miles and producing less than 75g/km CO_2. From January 2020 all vehicles, less than 18 months old, which are licensed as private hire vehicles for the first time will also have to be zero emission capable. These requirements on taxi and private hire drivers mean that they are likely to be early adopters of EVs.

Two other London-wide measures which incentivise the uptake of EVs are the Ultra Low Emission Zone (ULEZ) and LEZ (Low Emission Zone). The ULEZ came into force on 8 April 2019 and applied to the same area as the central London congestion charging zone. The ULEZ boundary will expand to encompass all roads within the north/south circular roads in October 2021. The LEZ is set at the Greater London boundary and applies to heavy vehicles only; buses, trucks and coaches. Both the LEZ and ULEZ apply charges to older, higher polluting vehicles to enter. While vehicles do not have to be EVs to avoid charges, the current ULEZ/LEZ could be a stimulus for people to switch to using EVs when they purchase a new vehicle.

In 2016 it was estimated that there were a total of 67,000 vehicles owned in Lambeth. Just under 300 of them were EVs. By the end of 2018 just over 600 EVs had been registered in the borough. From the available data it is not possible to estimate how many of these are parked on-street, nor where in the borough they are parked.

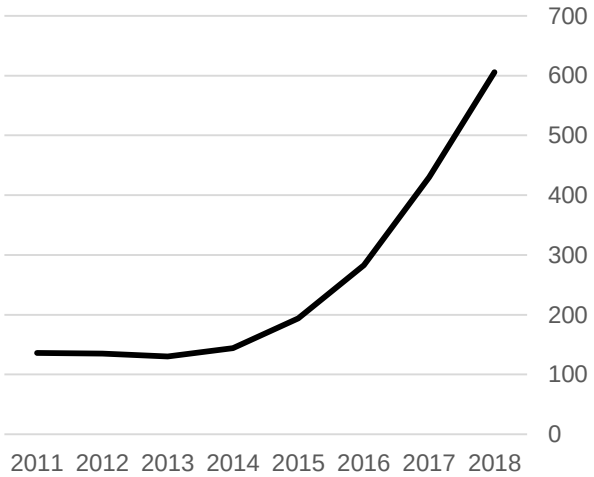


Figure 6: EVs registered in Lambeth

By the end of the 2018/19 financial year Lambeth Council had installed 107 low power on-street charge points, mounted in lamp-columns in residential areas, and 23 7kw charge points. Five of these 7kw charge points were dedicated to serve car club bays while the remaining 18 were open to all users. TfL had also installed 6 rapid charge points on red routes within the borough.

The map below shows where existing chargepoints have been installed by Lambeth or TfL along with households that are within a 5 minute walk of each chargepoint. Typical walking speed is 80m per minute, meaning that a 5 minute walk is about 400m. A radius of 300m around each charge point is shown on the map to give an indication of areas within a 5 minute walk of a chargepoint.

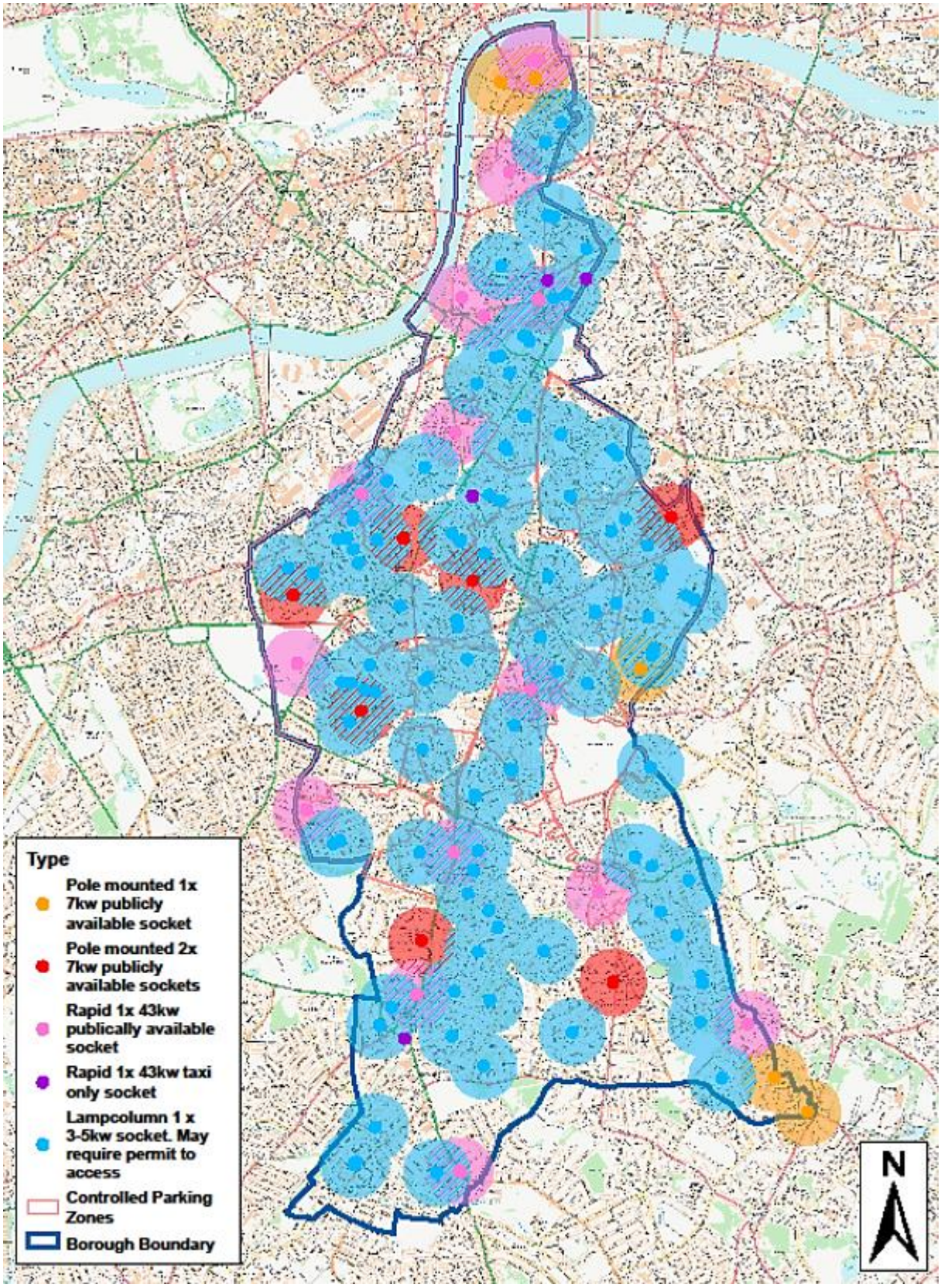


Figure 7: Current public charge points with 300m catchment area shown

Best Practice Guidance

TfL have produced chargepoint location guidance[18] for boroughs and published various reports based on research into EV infrastructure demand. The guidance has four themes which, alongside the principles set out above, will be used to decide on the type and placement of chargepoints:

- Identify current demand;
- Provide for future uptake;
- A good geographical spread of chargepoints; and,
- The right charge point in the right place.

Current demand in Lambeth: Since 2017 the borough has been inviting people to register their interest in having an EV chargepoint provided nearby, via a form on our website. There has been a fairly even distribution of requests from across the borough and nearly all requests come from private car owners.

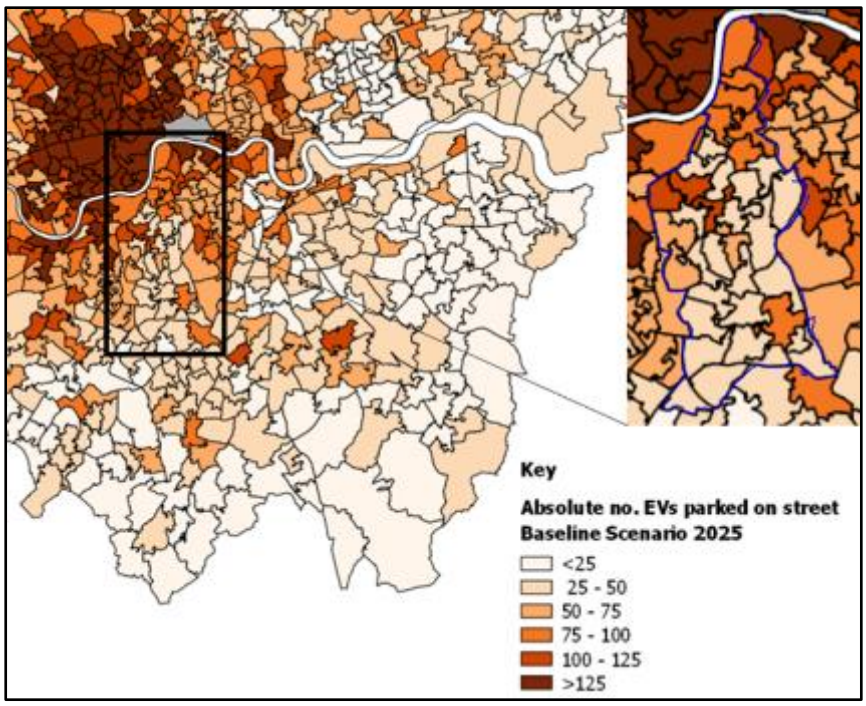
Future demand in Lambeth: A major challenge in anticipating future demand is the significant uncertainty regarding future refuelling behaviour, in part because the chargepoint and battery technology is still evolving. In the coming five years demand is likely to come chiefly from vans and cars.

London's EV infrastructure delivery plan, published in June 2019, models two different scenarios to estimate likely demand for EV charge points. In the low EV sales scenario, EVs are projected to make up 6% of sales by 2025. Under the high sales scenario EVs are projected to make up 30% of sales by 2025. The estimates are London wide and have not been broken down to give a figure for each borough. However if this demand were spread evenly across all 32 London boroughs and the City of London it would have the following implications for the number of chargepoints needed in Lambeth.

	Low Uptake scenario – 2025		High Uptake scenario – 2025	
	Rapid	low power & 7kw	Rapid	low power & 7kw
London	300	4,000	2,300 -4,100	33,700 - 47,500
Lambeth	9	121	69 – 121	1,021 – 1,439

Modelling demand for on-street EV chargepoints from different areas of London has also been undertaken, as shown in Figure 8 below. This modelling used a scenario where EV sales reached 13% by 2025. Under this scenario Lambeth will need to meet demand for between 975 and 1,760 EV's parked on street overnight by 2025. A high proportion (25-30%) of Lambeth households with a car do not have access to off-street parking. This is a major factor which will drive demand for on-street EV infrastructure. Demand will be greatest in Waterloo, with a high proportion of taxi/private hire journeys made there. This strategy does not set targets on the number of chargepoints the borough aims to install each year. Instead we will aim to create a network across the borough which means all households with no off-street parking will be within a 5 minute walk of their nearest chargepoints by the end of 2020. We will then add to our residential chargepoint network in response to observed demand.

[18] Electric vehicle charging infrastructure: Location guidance for London, TfL



The image to the left shows the estimated number of EVs parked on-street in different areas of Lambeth by 2025. This is based on data showing that 80% of households in Lambeth do not have access to off street parking and an assumption that in 2020 3% of vehicle sales in London will be EVs, rising to 13% by 2025. In 2018 2.81% of new vehicle registrations in London were ULEVs suggesting that this scenario is achievable.

Figure 8: Overnight charging demand in 2025. Source: EV uptake and infrastructure impacts study, 2016

A good geographical spread of chargepoints: This theme is based on research[19] which found that proximity to final destination is the most important factor for public charge point users. 73% of people are likely to use a public charge point if it is a 10 minute walk from their destination and 93% if it is 5 minutes. Consequently one of the principles in this strategy is that we will ensure that our residents are within a 5 minute walk of their nearest chargepoint. This principle guided where the 130 chargepoints installed in 2018/19 were placed. The majority of residents already have a chargepoint within a short walk of their house.

The right charge point in the right place: Figure 9 below, reproduced from London's EV Infrastructure Taskforce provides a useful guide as to the types of chargepoints which are needed for each user group. In order to target resources to deliver air quality improvements and reduction in CO_2 emissions we will need to prioritise the needs of user groups which can deliver the biggest reductions in emissions. The table below, reproduced from the infrastructure taskforce, shows the average annual distance for each user group. It shows that taxi, private hire and commercial fleet drivers drive significantly further than other user groups.

So that resources are targeted to deliver the maximum reductions in emissions we shall prioritise the infrastructure needs of high mileage user groups. The council does not have the resources to assess mileage on a case by case basis and will implement simple systems that allow high-mileage users, including taxis, private hire vehicles and vans to be identified. Requests for residential chargepoints from these user groups, if they do not have access to off-street parking will be given priority.

[19] Understanding Electric Vehicles – Research Findings, TfL

Segment	Distance travelled	Comment
Cars	7,500	Calculated by dividing total London fleet vehicle kilometres travelled from Emissions Factor Toolkit (LAQM) by total London fleet (DfT)
Motorcycles	5,000	Calculated by dividing total London fleet vehicle kilometres travelled from Emissions Factor Toolkit (LAQM) by total London fleet (DfT)
Vans	15,000	Calculated by dividing total London fleet vehicle kilometres travelled from Emissions Factor Toolkit (LAQM) by total London fleet (DfT)
Taxis	45,000	Based on taxi survey data that drivers travel an average 70 miles per day (~110km) for an estimated 300 days per year
PHV	60,000	Provided by large PHV operator, includes personal distance travelled for an average full-time driver

Figure 9: Distance travelled, km per year, by user group.

4. Implementation of new EV charging infrastructure

Lambeth has an important role to play in providing EV infrastructure for anyone who does not have off-street parking, or who lives on an estate managed by the council. The standard offer we will seek to deliver is that all residents with no off-street parking will be within a five minute walk of their nearest chargepoint.

Available Funding

An important practical consideration in the preparation of this strategy is the resources which will be available to implement it. Funding specifically for EV chargepoints has been available in the recent past. London was awarded £13M from the Office for Low Emission Vehicles as part of the Go Ultra Low City Scheme (GULCS). In 2018/19 Lambeth was awarded £247,000 of this GULCS funding and also successfully bid for £93,000 from the On-Street Residential Chargepoint Scheme administered by the Office for Low Emission Vehicles.

A total of £4M is available for London boroughs from a second round of GULCS funding. This will be awarded in January 2020 and must be used by December 2020. The borough will be bidding for this funding, but beyond 2020 it is not certain whether Lambeth will be able to rely upon continued dedicated funding for EV chargepoints. The borough has dedicated some of the LIP funding it receives from TfL each year for emissions reduction measures up until 2021/22, but if this is the only source of funding available the number of chargepoints we can install each year will be less than the 130 achieved in 2018/19.

Ensuring access to EV chargepoints

EV drivers need to be confident they will be able to access chargepoints. Chargepoints which are 7kw or higher will have a dedicated EV bay provided that is time limited.

Low power chargepoints will be installed in residential streets. Where no controlled parking zone (CPZ) is in operation our policy will be to mark out a dedicated EV bay. Where low power chargepoints are installed in areas with a CPZ we will seek to preserve preferential access for local people, rather than all EV drivers. To achieve this is likely to require a re-organisation of the boroughs parking permit system to introduce locally based EV permits. The aim is to have this in operation by the end of 2020.

On council managed housing estates parking is for the exclusive use of the estate's residents and these residents cannot apply for an on-street parking permit if they live in an area where a CPZ is in operation. The council will invest in the provision of EV charge points on estates we own and investigate the possibility of local EV permits allowing people to use both estate and on-street EV bays.

Applying our principles – Our Delivery Plan

Ensuring that chargepoints will use 100% green electricity, provide access to competitively priced electricity and will generate revenue to cover maintenance and future expansion will be achieved through contractual terms the council negotiates with suppliers. The other three priorities will be applied as below

- Chargepoints installations will have minimal impact on pavements and Healthy Routes
    - We do not support residents running cables across the footway as this is a potential hazard
    - We will retrofit low power chargepoints into lamp-columns to minimise additional street furniture
    - Where EV chargepoints cannot be installed into lamp-columns our first choice will be to install them on the carriageway rather than footway
    - Installations on footways will only take place where they are very wide and pedestrian comfort will not be compromised

- Resources will be targeted to deliver maximum air quality improvements and CO_2 reductions
    - We will work with partners to build a network of rapid chargers. By the end of 2020 there will be a minimum of 15 on-street public rapid chargers
    - Requests for residential low power chargepoints from taxi, private hire drivers and van owners, with no off-street parking, will be prioritised and we will aim to install a low-power chargepoint as conveniently as is possible to their property once all properties have a chargepoint within 300m. We will market this offer to relevant user groups
    - We will work to amend our parking permit system so that EV bays are dedicated to local EV users

- We will ensure all residents have a nearby chargepoint they can use
    - All areas of the borough with no off-street parking will be within 300m, as the crow flies, of a chargepoint by the end of 2020
    - We will invest in our housing estates to install charging points to meet demand

- We will monitor usage of chargepoints and use this, along with requests for them, to gauge demand for new chargepoints and grow the council owned network in response to this demand from 2020 onwards

5. Summary of Key Actions

1. We will aim to have every household, with no access to off-street parking, within a 5 minute walk of a low-power residential chargepoint by the end of 2020.

2. We will provide associated parking bays at residential chargepoints giving access to local permit holders by the end of 2020.

3. We will market an offer to drivers of taxis and private hire vehicles with no off-street parking to provide a low-powered on-street chargepoint as conveniently as possible to their property.

4. We will invest in our housing estates so that residents have access to EV chargepoints.

5. We will work with partners to build a network of rapid chargers. By the end of 2020 there will be a minimum of 15 on-street public rapid chargers.

6. Rapid chargepoints will be located to serve the needs of early adopters such as taxi and private hire vehicles but they will be available to all EVs.

7. We will monitor usage of chargepoints and use this, along with requests for them, to gauge demand for new chargepoints and grow the council owned network in response to this demand from 2020 onwards.

8. We will monitor demand for chargepoints for e-bikes and provide for this as required.

TSIP Appendix D: LIP Annual Spending Submission

1. Introduction

Lambeth adopted a new Local Implementation Plan (LIP) in May 2019[20]. The LIP sets out how the Mayor's Transport Strategy will be delivered by individual London boroughs and is a statutory requirement under the 1999 Greater London Authority Act. Transport for London (TfL) provide an annual LIP grant to boroughs, the value of which is confirmed each year once TfL's business plan is approved. This sets the overall level of funding London local authorities will receive and it is distributed between each authority using an agreed formula.

The third section of the borough's LIP contains a three year indicative Programme of Investment for period 2019/20 to 2021/22. In addition to this boroughs are required to submit an Annual Spending Submission (ASS) to TfL each year to confirm how the LIP grant will be spent in the next financial year. Each year Lambeth prepares a programme that will best deliver both the Mayor's and our local objectives, taking into account a range of factors including impact and deliverability. The ASS must be approved by TfL and this normally happens in December each year.

2. Annual Spending Submission

The table below shows the LIP programme ASS for 2020/21 and an indicative level of funding for 2021/22.

The programmes in the ASS are unchanged from those in the adopted LIP, with the exception of a dedicated budget for School Streets being added. Some changes in the level of funding across programmes has been made from those given in the adopted LIP. The largest change being £100k transferred from the Collisions Reduction budget to Voltaire Road. Design work this year on both the Acre Lane collision reduction and Voltaire Road schemes has given greater confidence on what budgets are needed to deliver these projects.

The Voltaire Road scheme is being developed in tandem with a TfL scheme which aims to reduce collisions on Clapham High Street. Changes to the layout of Voltaire Road facilitate the re-location of a crossing on Clapham High Street so that it aligns better with where pedestrians want to cross, making the road safer.

Minor reductions, of £25k and £50k, have been made to the Road Danger Reduction and 20mph Compliance budgets to allow for increases in the Low Traffic Neighbourhoods budget. School Streets activity was funded from the Walk Lambeth project in 2019/20, but the roll-out to more schools means that creating a dedicated programme is justified. While the Walk Lambeth budget has been reduced, the overall spend on measures targeted at improving conditions for pedestrians has increased.

Lambeth's LIP ASS for 20/21 is shown in the table below.

[20] Lambeth 3rd Local Implementation Plan

LIP Annual Spending Submission 2020/21		£ - thousands	
Programme Name	**Description**	**2020/21**	**2021/22**
Our Streets: Infrastructure		**1,451**	1,451
Healthy Routes	Delivery of high quality walking and cycling routes across the borough.	331	331
Collision Reduction	Changes to road layouts to address collision hotspots and high risk areas.	250	£425
Low Traffic Neighbourhoods	Co-designing, trialling and implementing measures that remove or reduce through traffic using local streets.	250	300
Cycle Parking	Providing residential on-street cycle parking spaces in cycle hangars and additional cycle stands on-street.	170	170
Voltaire Road	Improving the public realm around, and interchange between, Clapham High St and Clapham North stations	200	100
20mph compliance	Measures to ensure compliance with and enforce the boroughs 20mph speed limit	200	150
Walk Lambeth	Improving pedestrians experience by reducing street clutter, better licensing of items on the footway and providing better crossing facilities.	50	50
Our Streets: Behaviour change		**825**	825
Road Danger Reduction	Education, training and publicity measures to tackle key safety issues	200	200
Emission Reduction	Funding split between Electric Vehicle charging points and projects to mitigate the impacts of poor air quality such as providing green screens at schools.	275	200
Cycle Training	Providing cycle training for all primary schools in the borough and a programme of training for adults.	150	150
Sustainable Travel	Education, training and publicity measures to enable more people to walk and cycle more.	125	125
School Streets	Improving journeys to school by creating traffic free streets around school entrances at opening and closing times.	75	75
Miscellaneous		**100**	825
Local Transport Fund	Transport funding the borough has complete control over – typically used to supplement existing budgets or look at feasibility / research for future projects. Decision on use made within the financial year rather than at the beginning.	100	100

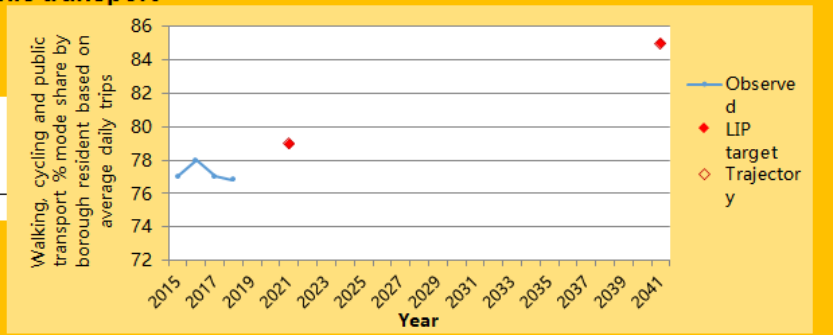
TSIP Appendix E: MTS Outcome Tracking (July 2019)

Overall aim: 80% walking, cycling and public transport

Active, efficient and sustainable mode share

Walking, cycling and public transport % mode share by borough resident based on average daily trips

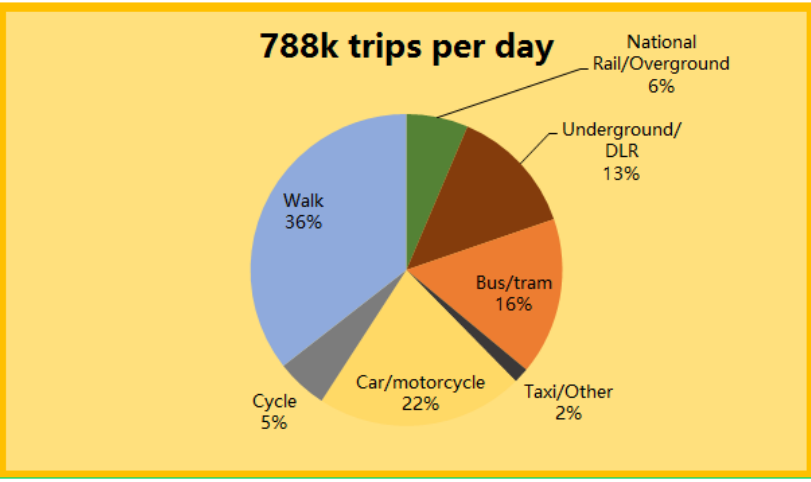
Observed				LIP target	
2012/13 to 2014/15	2013/14 to 2015/16	2014/15 to 2016/17	2015/16 to 2017/18	2021	2041
77	78	77	77	79	85



Supplementary mode share data

Borough residents' trips % mode share (main mode) based on average daily trips 2015/16 to 2017/18

Trips per day	National Rail/Overground	Underground/ DLR	Bus/tram	Taxi/Other	Car/motorcycle	Cycle	Walk
788	6.4	13.3	16.3	1.6	21.5	5.3	35.5

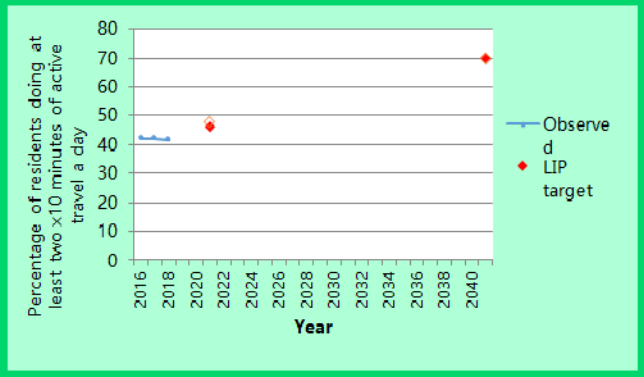


Outcome 1: London's streets will be healthy and more Londoners will travel actively

Outcome 1a: Londoners to do at least the 20 minutes of active travel they need to stay healthy each day

Percentage of residents doing at least two x10 minutes of active travel a day by borough

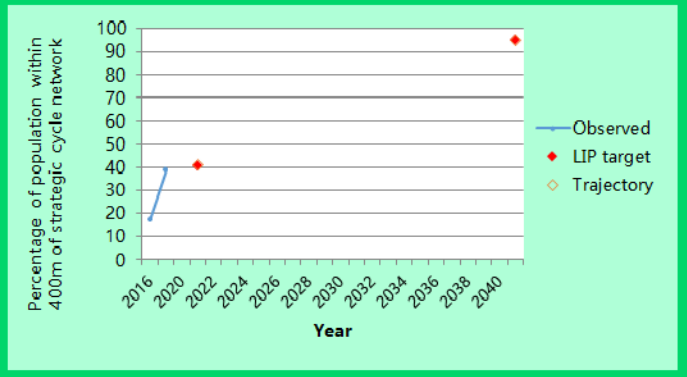
Observed			LIP target	
2013/14 to 2015/16	2014/15 to 2016/17	2015/16 to 2017/18	2021	2041
42	42	42	46	70



Outcome 1b: Londoners have access to a safe and pleasant cycle network

Percentage of population within 400m of strategic cycle network by borough

Observed		LIP target	
2016	2018	2021	2041
17	39	41	95

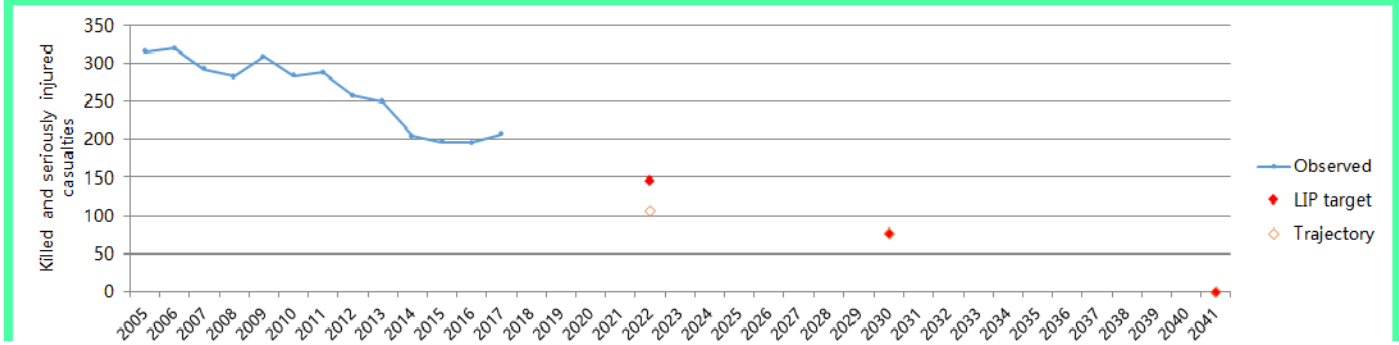


Outcome 2: London's streets will be safe and secure

Outcome 2: Vision Zero - Deaths and serious injuries from all road collisions to be eliminated from our streets

Killed and seriously injured casualties

Observed with back casting applied				Observed	LIP target		
2005-09 baseline	2010-14 baseline	2015	2016	2017	2022	2030	2041
304	256	197	195	207	146	77	0

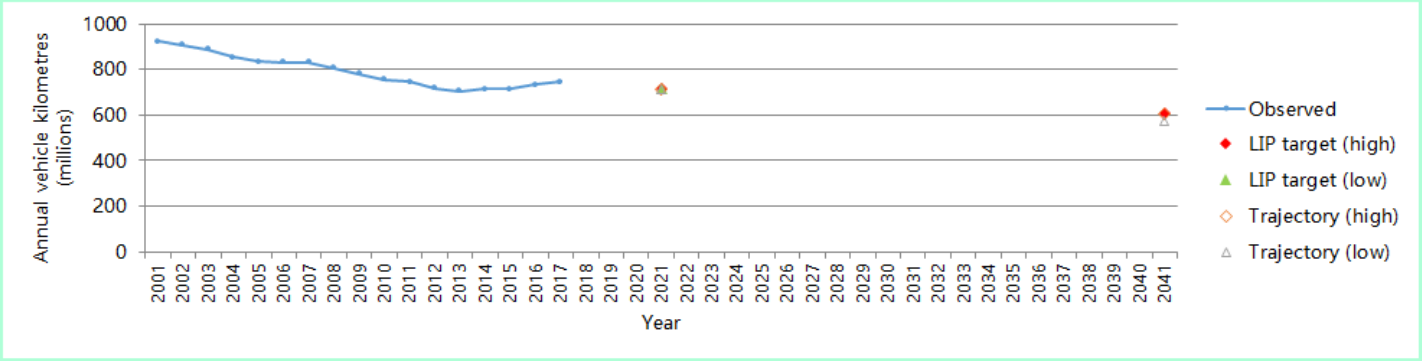


Outcome 3: London's streets will be used more efficiently and have less traffic on them

Outcome 3a: Reduce the volume of traffic in London

Annual vehicle kilometres (millions)

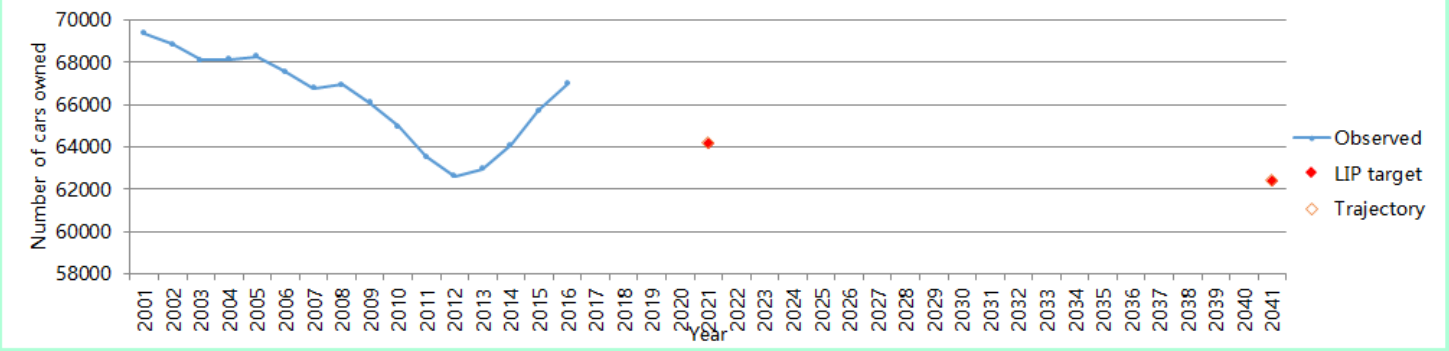
Observed				LIP target				
2014	2015	2016	2017	Percentage change by 2021	Percentage change by 2041	2021	2041	
716	715	734	745	0%	-15%	715	608	(high)
716	715	734	745	0%	#VALUE!	715	Not set	(low)



Outcome 3c: Reduce car ownership in London

Number of cars owned

Observed				LIP target	
2014	2015	2016	2017	2021	2041
64,086	65,743	66,980	66,943	64,200	62,400



Outcome 4: London's streets will be clean and green

Outcome 4a: Reduced CO2 emissions

CO2 emissions (in tonnes) from road transport

Observed		LIP target	
2013	2016	2021	2041
161,800	163,200	138,600	35,200

Outcome 4b: Reduced NOx emissions

NOx emissions (in tonnes) from road transport

Observed		LIP target	
2013	2016	2021	2041
690	540	210	30

Outcome 4c: Reduced particulate emissions (PM10)

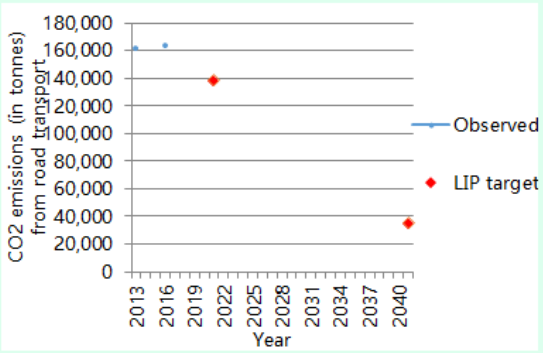
PM10 emissions (in tonnes) from road transport

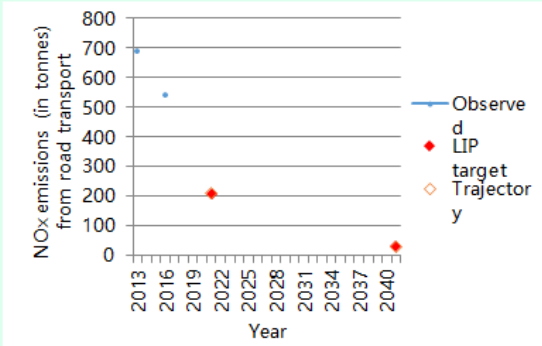
Observed		LIP target	
2013	2016	2021	2041
56	51	43	24

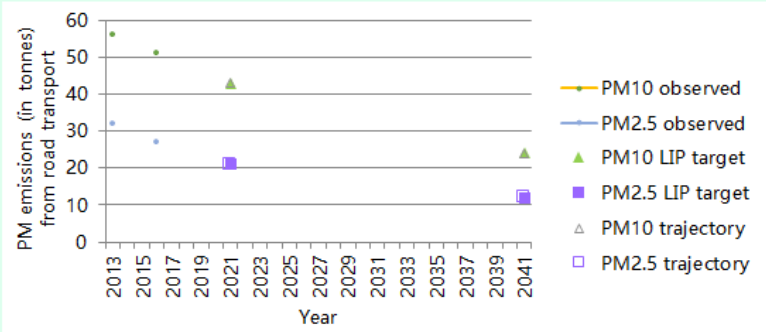
Outcome 4d: Reduced particulate emissions (PM2.5)

PM2.5 emissions (in tonnes) from road transport

Observed		LIP target	
2013	2016	2021	2041
32	27	21	12





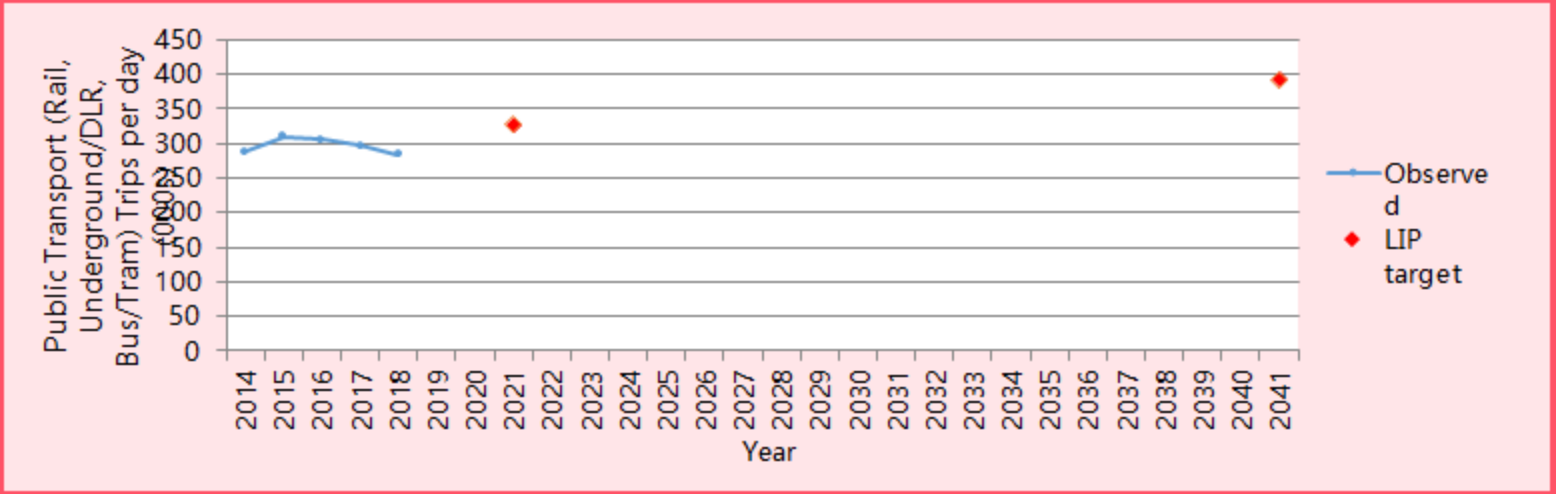


Outcome 5: The public transport network will meet the needs of a growing London

Outcome 5: Increase public transport use

Public Transport (Rail, Underground/DLR, Bus/Tram) Trips per day (000s)

Observed					LIP target	
2011/12 to 2013/14	2012/13 to 2014/15	2013/14 to 2015/16	2014/15 to 2016/17	2015/16 to 2017/18	2021	2041
288	310	306	296	284	328	393



Outcome 6: Public transport will be safe, affordable and accessible to all

Outcome 6: Everyone will be able to travel spontaneously and independently

Observed 2015 Average journey time using full network (minutes)	Observed 2015 Average journey time using step-free network (minutes)	Observed 2015 Time difference (minutes)	Observed 2018 Average journey time using full network (minutes)	Observed 2018 Average journey time using step-free network (minutes)	Observed 2018 Time difference (minutes)	Trajectory 2041 Average journey time using full network (minutes)	Trajectory 2041 Average journey time using step-free network (minutes)	Trajectory 2041 Time difference (minutes)	% change in travel time difference between 2015 and 2041	LIP target for 2041 Time difference (minutes)
65	80	14	65	75	9	59	65	6	-55%	6

Outcome 7: Journeys by public transport will be pleasant, fast and reliable

Outcome 7: Bus journeys will be quick and reliable, an attractive alternative to the car

Bus speeds (mph)

Observed			Percentage change by 2041	LIP target		
2015/16	2016/17	2017/18		2021	2041	
8.3	8.3	8.2	12%	8.5	9.3	(high)
				Not set	Not set	(low)