

London Borough of Lambeth: Ferndale LTN Monitoring Stage 2 Report

SYSTRA

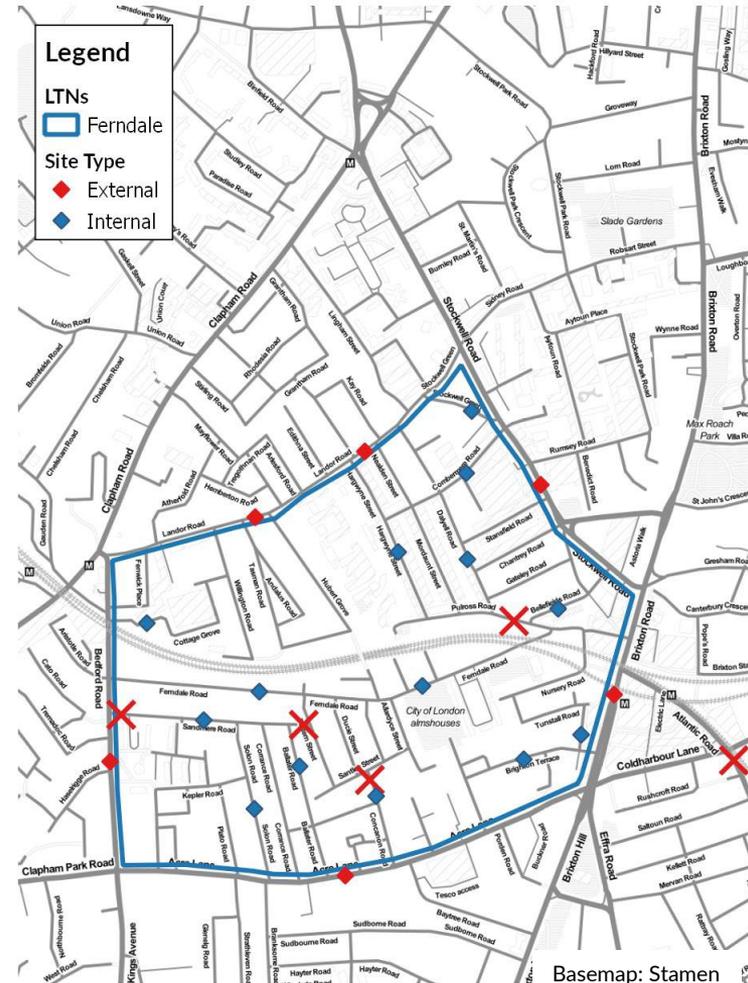




Executive Summary

Executive Summary (1)

- This monitoring report presents data reviewing the impact of the Ferndale Low Traffic Neighbourhood on local traffic flows, with count sites spread across the inside of the LTN as well as on its boundary roads.
- For analysis, count sites have been classed as “internal” or “external”, as represented on the map to the right. Of the 19 total sites, **13 sites were internal (blue)** and **6 were external (red)**.



Executive Summary (2)

- As pre-implementation data was sourced from studies taking place across several years, and post-implementation data was collected during 2020-2021 (a time of significant fluctuation in general traffic flows), a normalisation adjustment has been made to ensure a fairer comparison of pre- and post-implementation data.
- This adjustment is designed to account for any broad trends in traffic volumes, including any impacts from COVID or its variants and ensuing government guidance, as well as seasonality (i.e. lead up to Christmas/school holidays).
- For the Ferndale LTN, the **average** adjustment to pre-COVID vehicle flows is **-9%** (i.e. 91% of pre-COVID flows), which is more conservative than a direct comparison of pre- and post-implementation flows.
- The following impacts have been observed between normalised pre-COVID data and data from late November/early December 2021:
 - **The overall volume of motor traffic recorded across all streets has decreased by -6%, equating to around 6,000 fewer daily vehicles counted.**
 - **The volume of vehicles counted on internal streets has decreased by -47% but has increased by roughly +8% on external streets.**
 - **Cycle volumes on internal streets have increased by +58% and by +55% on external streets (not including Brixton Road and Stockwell Road).**
 - **On streets where it was possible to definitively count LGVs, HGVs and motorcycles (not including Brixton Road and Stockwell Road), volumes have changed by +12%, -42% and +73% respectively.**

Executive Summary (3)

- The total numbers of motor vehicles (cars, light goods vehicles, heavy goods vehicles and motorcycles) and cycles recorded on internal and external roads (for pre- and post-implementation) are provided below. Details of stage 1 data (collected in October 2020) are provided within the main report.
- Due to very limited pre-COVID data, there is some uncertainty relating to the monitoring results for Stockwell Road and Brixton Road – as such, a sensitivity test for the pre-implementation count using 2018 manual counts from the Department for Transport (DfT) is included below, in addition to the approach described on the “Data Collection” page:

	All Motor Vehicles				Cycles			
	Pre	Post – Nov/Dec 2021	Change	% Change Nov/Dec 2021	Pre	Post – Nov/Dec 2021	Change	% Change Nov/Dec 2021
Internal	26,189	13,792	-12,397	-47%	1,431	2,266	835	58%
External	76,888	83,290	6,401	8%	1,486	2,304	818	55%
All Counts	103,077	97,082	-5,995	-6%	2,918	4,570	1,652	57%
All Counts (DfT Sensitivity)	104,733	97,082	-7,652	-7%	2,918	4,570	1,652	57%

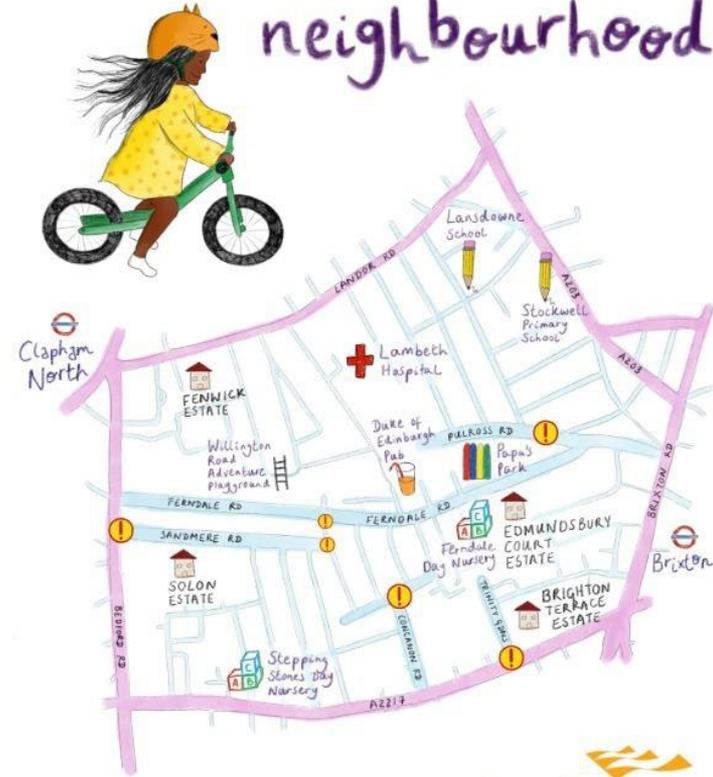


Scheme Introduction

Ferndale LTN Background

- The Ferndale Low Traffic Neighbourhood occupies an area between **Brixton** and **Clapham North**, and is bounded by Landor Road to the north, the A23/Brixton Road to the east, Acre Lane to the south and Bedford Road to the west.
- This LTN is centred around Ferndale Road, which links Brixton Road directly to Bedford Road, and can be used as a through route for drivers looking to avoid congestion at the junction of Brixton Road and Stockwell Road, amongst others.
- As shown on the right, six modal filters have been introduced in the Ferndale LTN.

Ferndale low traffic neighbourhood



@charmuga designs



Monitoring Study

Scheme Background

- LB Lambeth implemented a number of measures as part of its emergency COVID-19 transport response. These included Low Traffic Neighbourhoods (LTNs), in accordance with national and regional guidance. In the short term, these measures were intended to:
 - Assist residents in **social distancing**
 - Enable **essential journeys** to be made safely
- Now, over the longer term, the introduction of the Lambeth LTNs aims to promote a wider change away from motor vehicle use towards active travel (walking and cycling) and public transport, improving air quality and safety, and reducing greenhouse gas emissions in line with the Lambeth Transport Strategy 2019.
- These measures have been implemented as trials under Experimental Traffic Orders (ETOs), with data collection and analysis completed to inform future decisions about their permanence.
- This data collection and analysis will form the basis of the **monitoring study**.

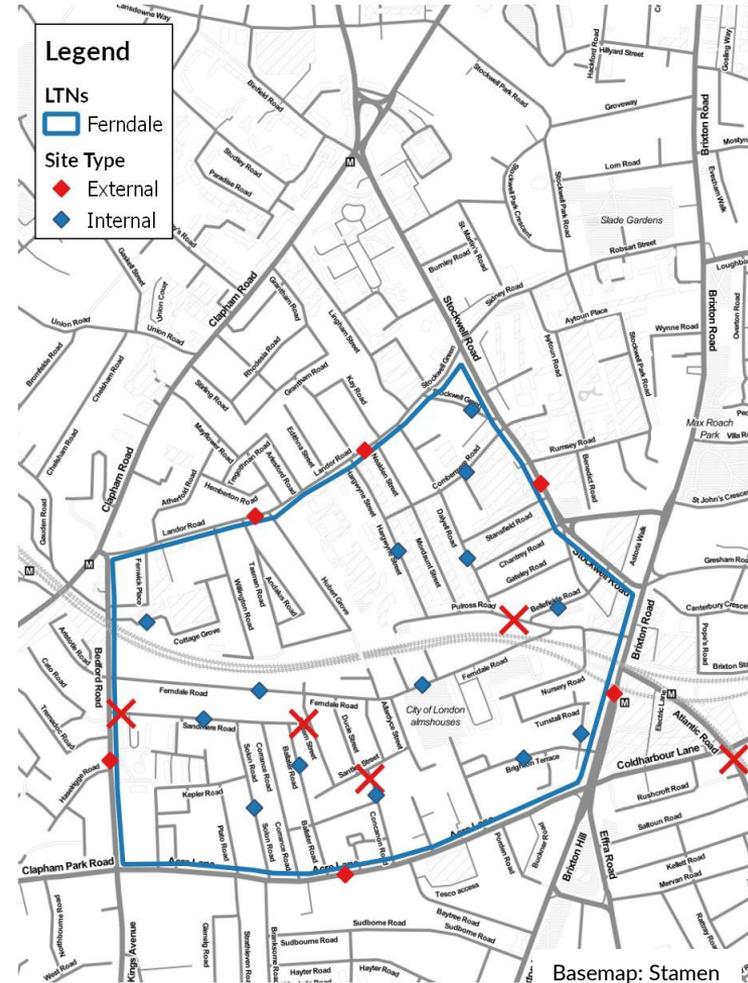


Monitoring Programme

- SYSTRA are leading the traffic monitoring programme for LB Lambeth's new Low Traffic Neighbourhoods to understand the effectiveness of the schemes at reducing vehicular traffic flows, with data collection completed by survey company MHTC (stage 1) and NDC (stage 2).
- Across the Borough, data has been collected at a large number of individual points using mostly Automatic Traffic Counters (ATCs) (and occasionally radar surveys) for a full seven-day week, providing flows and speeds by vehicle type. This has then been **compared to historic data** from those sites or a suitable proxy site to **understand the impact of the LTNs** on different modes during different time periods.
- Monitoring for the LTNs will be completed over three stages:
 - **Stage 1:** Initial adjustment (October 2020)
 - **Stage 2:** Settling down (Nov/Dec 2021) - *current stage*
 - **Stage 3:** Regular use (if scheme unsuccessful at stage 2)
- For qualitative feedback from residents, LB Lambeth is also running a separate Commonplace consultation.
- Further independent air quality modelling is also being conducted.

Data Collection

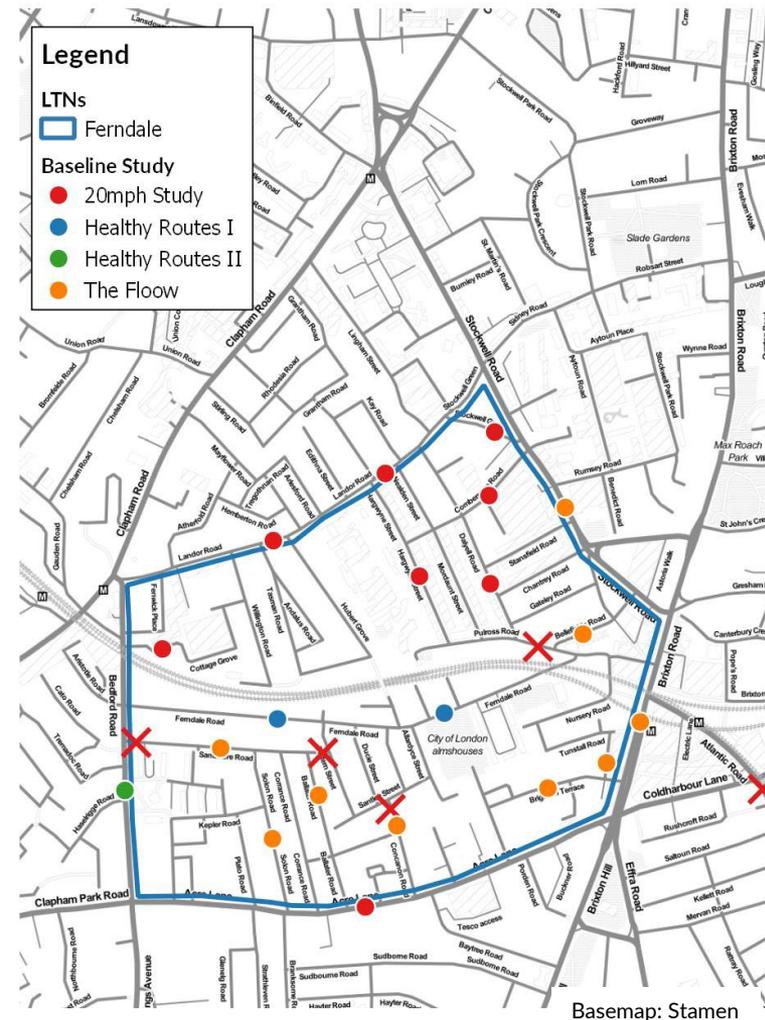
- For this Ferndale LTN Stage 2 report, data was collected at 19 sites, which have been classed as “internal” or “external”, as represented on the map to the right.
- Of the 19 total sites, **13 sites were internal (blue)** and **6 were external (red)**. Details for individual sites and their locations can be found in **Appendix C**.



Basemap: Stamen

Data Collection

- As the LTN was introduced as a response to COVID-19, no comprehensive dataset existed to represent pre-implementation data. Instead, data was drawn from the following studies commissioned by LB Lambeth since 2017:
 - Healthy Routes:** two rounds of data collection to support development of Healthy Cycling Routes (Nov 2019-Mar 2020)
 - 20mph Study:** data collected to underpin analysis on the 20mph Borough-wide speed limit (Jan 2017).
 - The Flow:** GPS telemetry data, providing detail on vehicle routing through neighbourhood cells; this data will be used alongside Healthy Routes data for roads where no historic data was collected to approximate vehicle flows.
 - Brixton Road and Stockwell Road flows utilised Flow data scaled per TfL ATC counters – more information is available in **Appendix C**.
- Of the 19 ATC sites, 3 sites use the Healthy Routes studies, 7 sites use the 20mph study and 7 utilise both The Flow data and Healthy Routes. A further 2 sites use TfL ATC-adjusted Flow data.



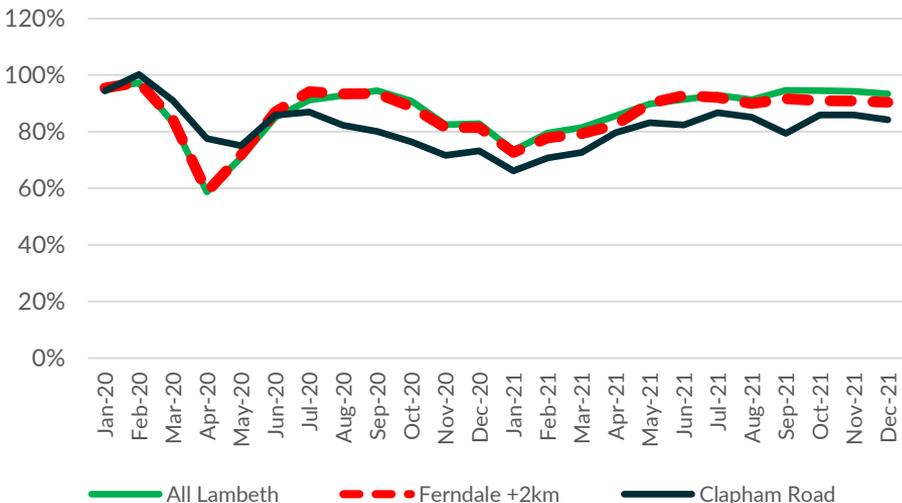


COVID-19 Impacts on traffic flows

Impact of COVID-19 on vehicular traffic

- Since the onset of the pandemic, people's travel behaviour has changed significantly, with the majority making far fewer trips, particularly during national lockdowns. This has led to reductions in vehicle traffic throughout the country. Therefore in analysing the data collected, it will be important to consider these impacts. The chart below compares traffic across Lambeth, within 2km of the Ferndale LTN and a nearby count site (Clapham Road), to volumes in January 2017, according to continuous Automated Traffic Counter (ATC) counts collected by TfL.

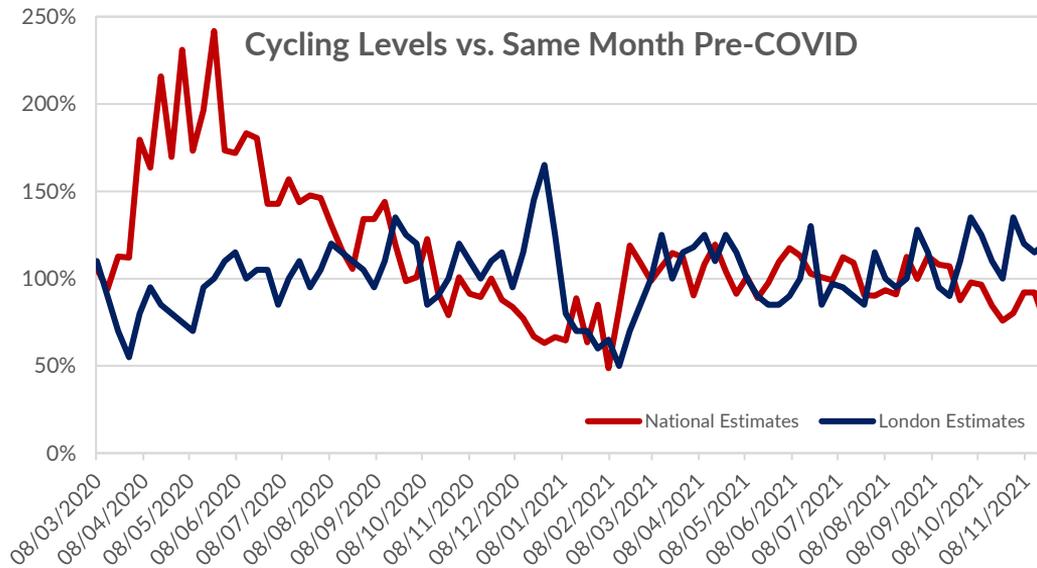
Difference in Traffic Volume vs. Jan-17



- Traffic has been consistently lower than pre-pandemic, with particularly pronounced drops during lockdowns. To account for this a process of normalisation has been applied to all data collected.
- The normalisation process adjusts the data collected to the month when the most recent data was recorded (i.e. Nov/Dec 2021), and can therefore represent “what would be expected without the LTN” so all data can be compared on a like-for-like basis.
- Further detail on the normalisation process is provided in **Appendix C**. All car, LGV and HGV volumes have been normalised in the same manner.

Impact of COVID-19 on cycle flows

- As with motor traffic volumes, the number of people cycling has also been significantly impacted by the pandemic. However, because cycling patterns are hyper-local and weather-dependent, and as continuous pre-COVID cycling data does not exist across Lambeth, it has not been possible to normalise cycle trips in a robust manner.
- Even so, it is useful to provide some context for changes in cycle volumes across the UK and in London. The chart below shows data from the DfT¹ and from TfL², showing the average weekly cycling volumes nationally and in London compared to the same month pre-COVID (i.e. December 2021 is compared to December 2019).



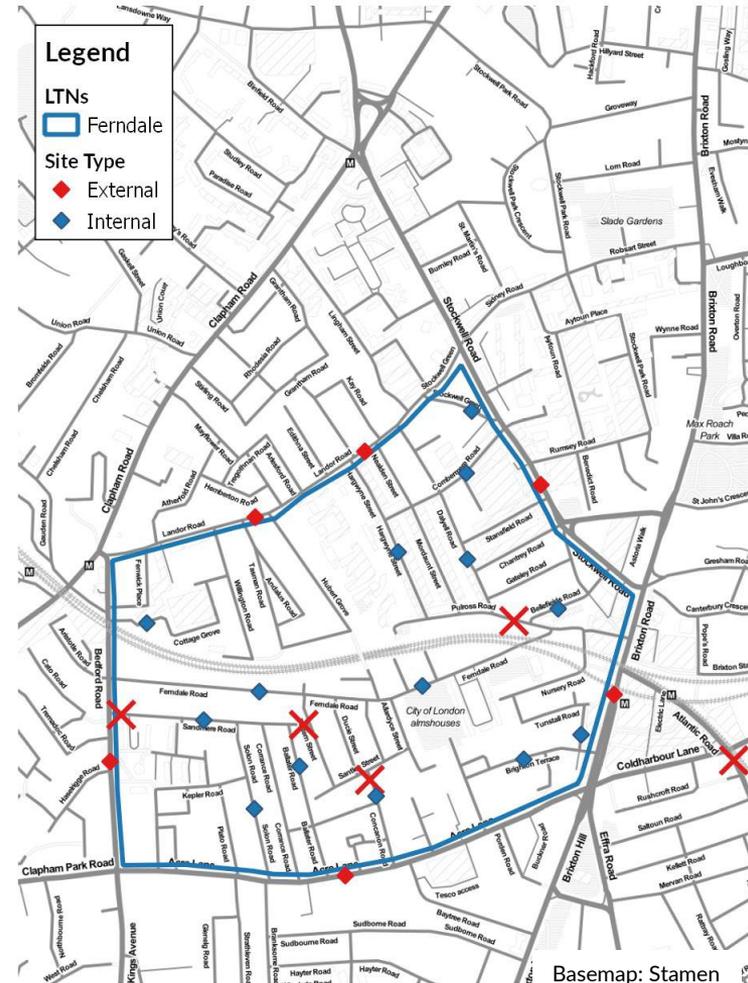
- It has been found that although nationwide cycling trips dramatically increased during the warmer months of 2020, the same average increase was not seen in London, as a large increase in leisure cycling was offset by a similarly sized decrease in cycle commuting, which is far less common in other areas of the country.
- However, in the last few months of 2021 (i.e. since September), there was some increase above pre-COVID levels of cycling. Although the magnitude of this change has varied week-by-week, it appears that across London, cycling levels in late 2021 were up to 30% higher than during the same period pre-COVID.

Pre- Implementation Flows



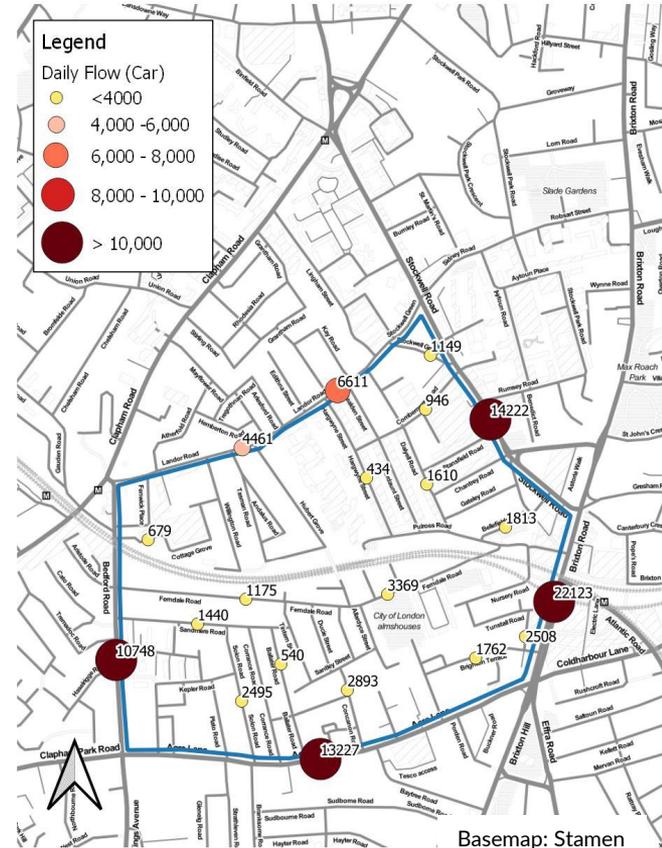
Pre-Implementation Flows

- Pre-implementation flow data for cars, HGVs and LGVs was drawn from a range of studies which took place mostly between 2017 and early 2020. These are presented to the right. All data has been normalised using background flow data from ATCs within 2km of the LTN – **this process has been outlined in detail in Appendix B.**
- Cycle flow data has not been normalised, reflecting the absence of an appropriate data set with which to perform this process. Similarly, motorcycle data has also not been normalised, as the impact of COVID-19 on motorcycles is likely to have been significantly different to that of general traffic, due to the changes in factors such as take-away food deliveries. However, a historic dataset for these alone is not available.



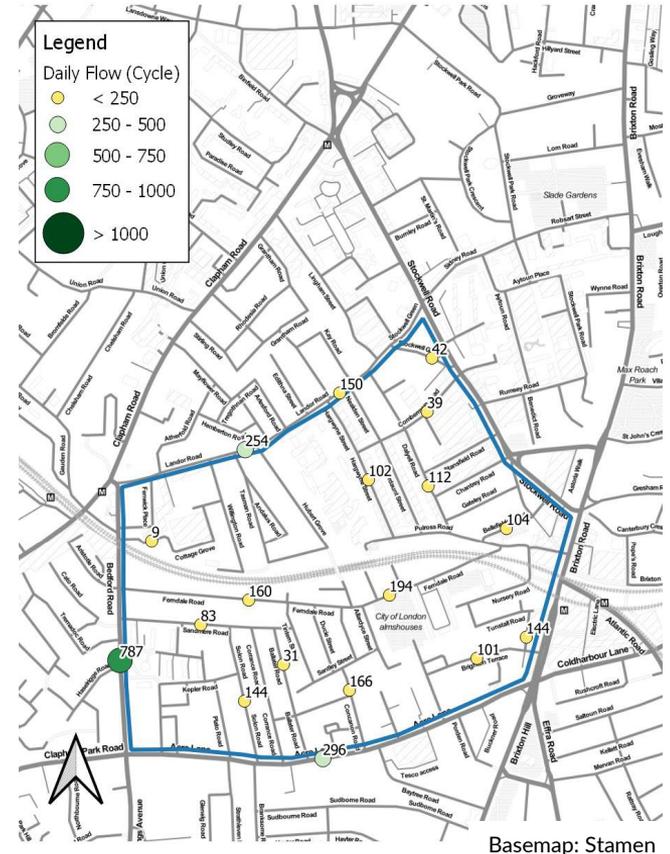
Pre-Implementation Flows – Cars

- As previously outlined, calculated pre-implementation flows are those that would be projected based on background TfL data.
- Daily pre-implementation flows are presented in the map to the right, showing the general trend of traffic within and surrounding the Ferndale LTN.
- In general, flows within the LTN are low to moderate, with the highest daily vehicle flows being on Ferndale Road East (3,369), Concanon Road (2,893) and Bernay's Grove (2,508).
- The highest flows are recorded on external roads Brixton Road (22,123), Stockwell Road (14,222), Acre Lane (13,227), Bedford Road (10,748) and Landor Road (6,611).
 - It should be noted that for the first two of these, data sources do not allow disaggregation between cars and motor vehicles, and thus these values are totals for **all motor vehicles**.



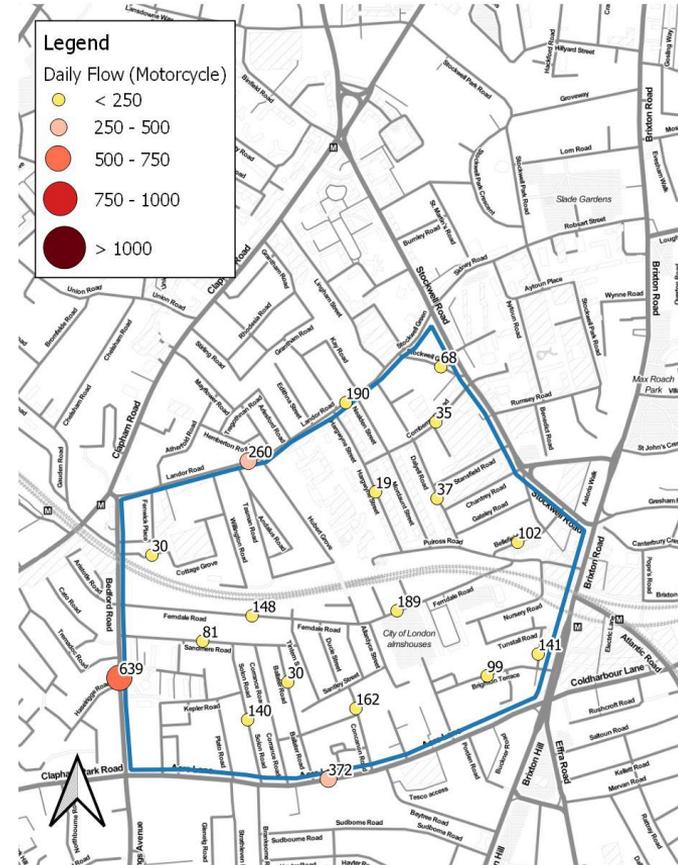
Pre-Implementation Flows – Cycles

- As cycle travel does not follow the same patterns as car usage and varies significantly based on local conditions, cycle flows have not been normalised. The map to the right shows daily flows.
- Cycle flows are generally moderate throughout the LTN, with the highest flows being along Ferndale Road (194 daily cycles).
- Cycle flows on external roads where cycles were counted were highest on Bedford Road (787 cycles), which links locations such as Streatham Hill with the cycleway on Clapham Road. Cycling rates were also moderate on Acre lane (296) and Landor Road (254).
- It should be noted that cycling data is not available for Brixton Road or Stockwell Road.



Pre-Implementation Flows – Motorcycle

- The map to the right plots pre-implementation motorcycle flows.
- These are generally low within the LTN, with all flows under 200. The highest external flow was recorded on Bedford Road (639).
- It should be noted that motorcycle movements cannot be split out for Brixton Road and Stockwell Road.





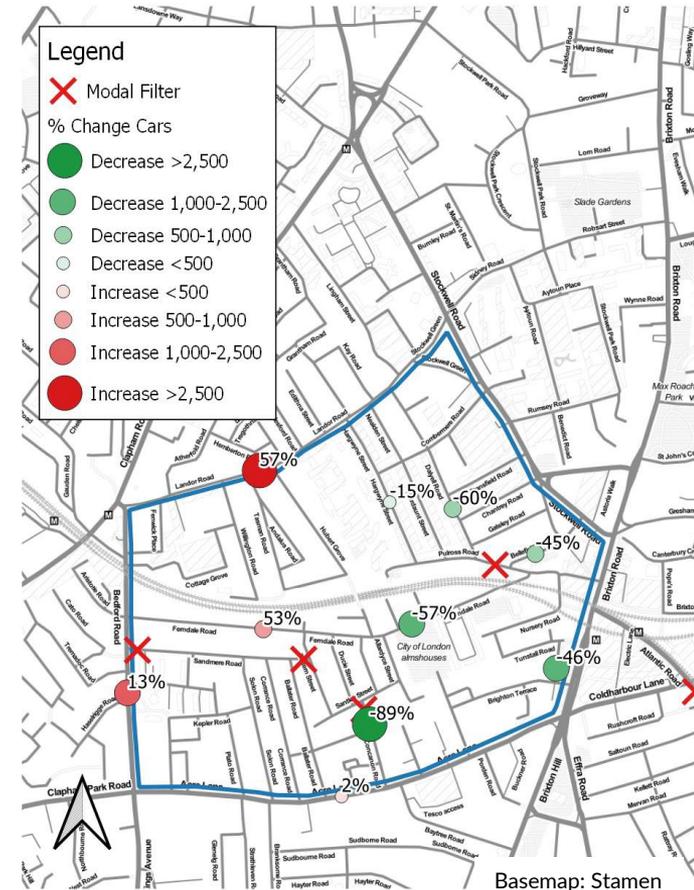
Post- Implementation Monitoring Stage 1/October 2020

Stage 1 Goals

- This first round of monitoring was conducted in October 2020 after modal filters were installed for several months and enforcement of the scheme had begun.
- The goal at this stage of monitoring was to understand initial impacts of the LTN on traffic, so as to identify any opportunities for improvement in the scheme design.
- It is noted that the process by which data was normalised in the stage 1 report, i.e. by using the nearest TfL ATC to the LTN, has been revised for this report to include a wider range of ATCs to conduct normalisation. This means that stage 1 outputs have slightly changed. Justification for this decision is outlined in **Appendix B**.

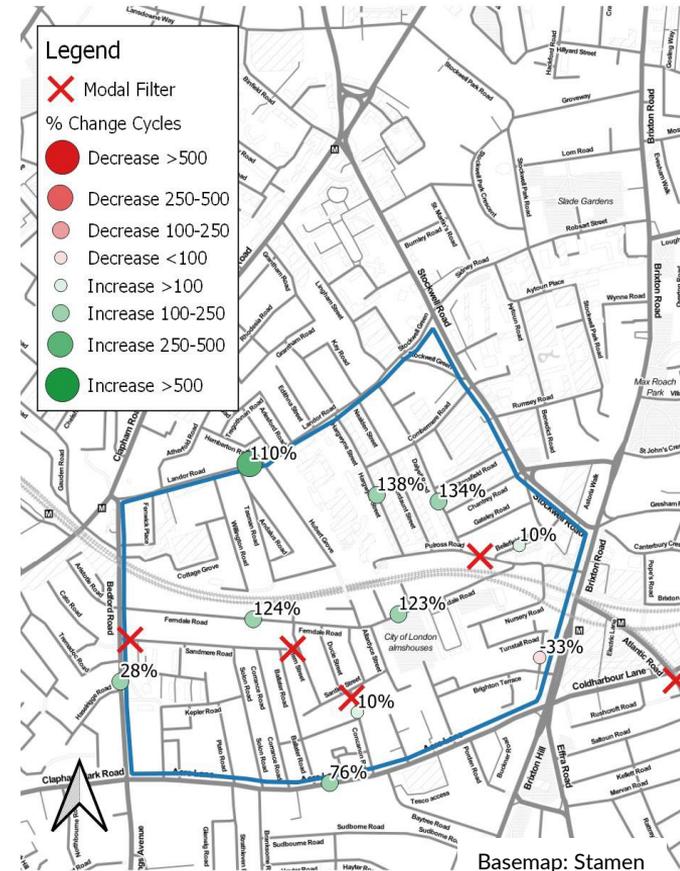
October 2020 Flow Change – Cars

- The map to the right outlines changes in counts of cars compared to those pre-implementation, at sites where data was collected in October 2020. This does not include several sites where data was of poor quality or not collected during this stage.
- In most internal locations, traffic was down, for example on Concanon Road (-89%, -2,566 vehicles), Ferndale Road East (-57%, -1,912) and Bernay's Grove (-46%, -1,142).
- Car volumes increased on Ferndale Road West by 53%, which equates to an additional 626 daily cars.
- Externally, increases were seen on all roads monitored at this stage, with a 57% increase on Landor Road (+2,522 cars), 13% increase on Bedford Road (+1,417 cars) and minimal 2% increase on Acre Lane (+283 cars).



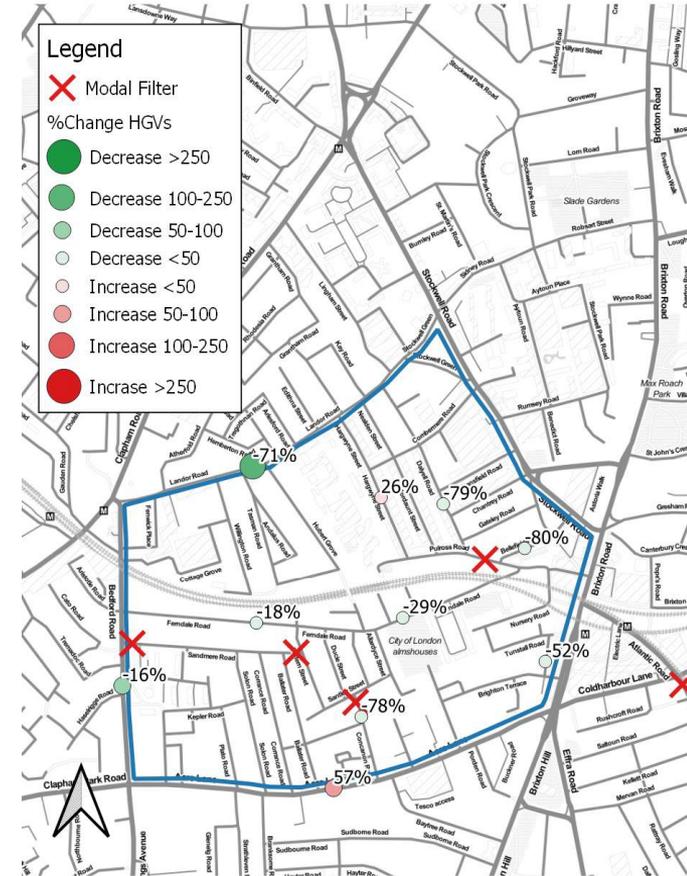
October 2020 Flow Change – Cycles

- The map to the right outlines changes in counts of cycles compared to pre-implementation, at sites where data was collected in October 2020. This does not include several sites where data was of poor quality or not collected during this stage.
- Cycling levels increased on all monitored roads except for Bernay's Grove, which showed a slight reduction in cycling. Landor Road saw the largest increase, with 280 additional daily cycles. Ferndale Road also saw a more-than-doubling of daily cycles to roughly 350 per day.



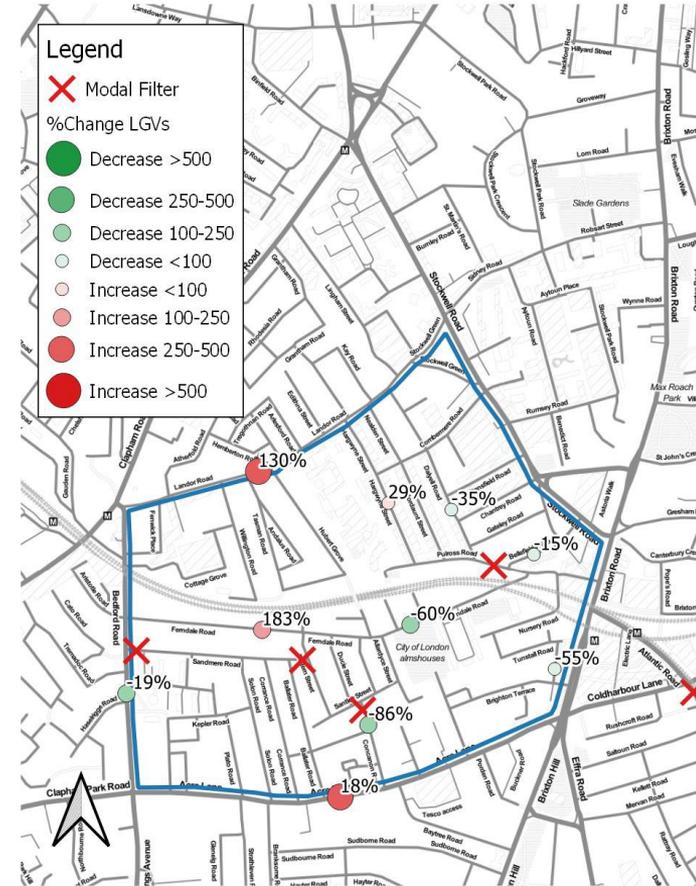
October 2020 Flow Change- HGVs

- The map to the right outlines changes in counts of HGVs compared to pre-implementation, at sites where data was collected in October 2020. This does not include several sites where data was of poor quality or not collected during this stage.
- The impact of the LTN on HGV flows was quite mixed, generally with limited nominal change given low baseline flows, and no change of over 50 daily vehicles.
- On external roads, HGVs decreased most on Landor Road (-71%, -177 daily vehicles), less so on Bedford Road (-16%, -68 vehicles) and increased on Acre Lane (+57%, +90 vehicles).



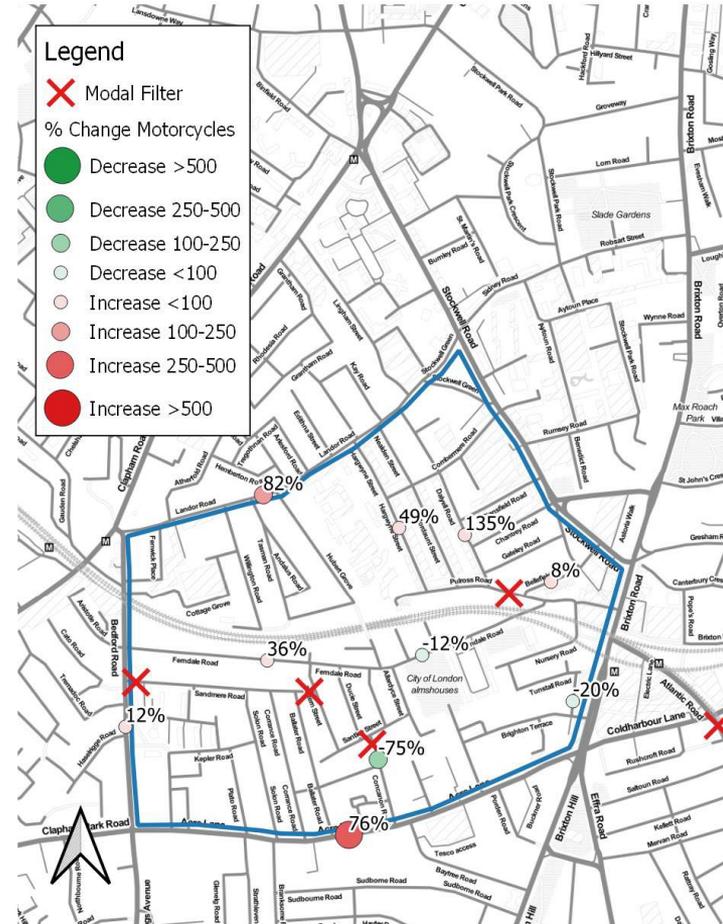
October 2020 Flow Change- LGVs

- The map to the right outlines changes in counts of LGVs compared to pre-implementation, at sites where data was collected in October 2020. This does not include several sites where data was of poor quality or not collected during this stage.
- The impact of the LTN on LGV flows was mixed, as it was for HGVs, generally with limited nominal change given low baseline flows. Changes were large on Ferndale Road, where the eastern side saw a 60% decrease (-119 vehicles) as compared to a 183% increase on the western side (+120 vehicles). Concanon Road also saw a 86% drop in LGV flows (-145 vehicles).
- On external roads, the largest change was on Landor Road, which was a 130% increase in LGVs (+418 vehicles). Acre Lane also saw an increase of LGVs (+18%, +260 vehicles), whilst Bedford Road saw a decrease (-19%, -181 vehicles).



October 2020 Flow Change- Motorcycles

- The map to the right outlines changes in counts of motorcycles compared to pre-implementation, at sites where data was collected in December 2020. This does not include several sites where data was of poor quality or not collected during this stage.
- Changes in motorcycle flows are somewhat mixed, although most locations see limited change in actual flows vs. the baseline.
- Motorcycle changes on internal roads were largest on Concanon Road (-75%, -122 daily vehicles), and on Acre Lane (+76%, +283 vehicles) for external roads.

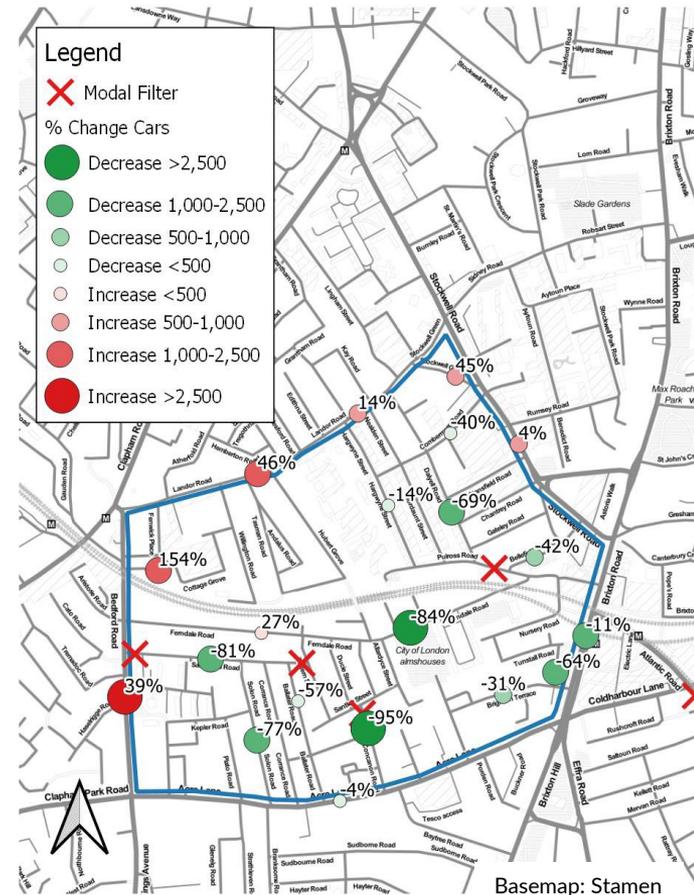


Post- Implementation Monitoring Stage 2/April 2021



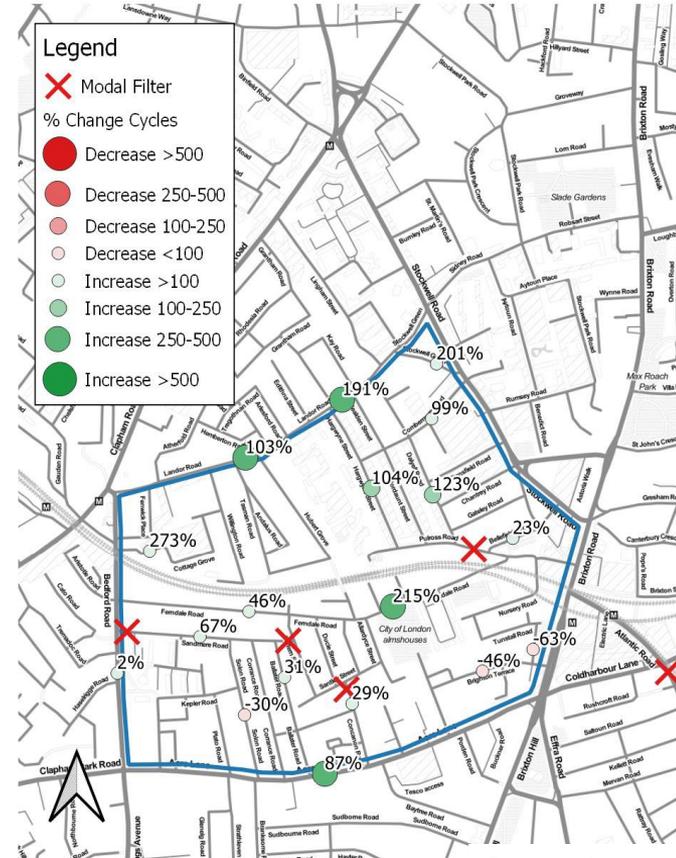
December 2021 Flow Change – Cars

- The map to the right outlines changes in counts of cars compared to pre-implementation, at sites where data was collected in Nov/Dec 2021.
- In most internal LTN sites, car numbers was down, notably on Ferndale Road East (-84%, -2,840 cars) and Concanon Road (-95%, -2,737 cars), with more moderate reductions in locations such as Solon Road, Bernay's Grove, Ballater Road and Dalyell Road.
- Traffic was up on Ferndale Road West by 27% (+313 cars), likely as most traffic entering the southern half of the LTN used this link. Flows on Cottage Grove also increased by 154%, representing an increase of 1,044 daily vehicles).
- On external roads, results were mixed. On Bedford Road, car flows increased 39% (+4,238 vehicles), whilst on Landor Road East they increased 46% (+2,049 vehicles). Flows on Landor Road West increased by a smaller 14% and flows on Acre Lane remained similar to baseline levels (-4%).
- Data on Brixton Road and Stockwell Road, aggregated for all motorised vehicles, was collected during this stage, noting an 11% drop in flows (-2,413 vehicles) on the former and 4% increase (+507 vehicles) on the latter. Due to some uncertainty in these results, sensitivity tests using DfT manual counts have been performed, indicating a larger decrease on Brixton Road but larger increase on Stockwell Road. Details of this test are included in **Appendix C**.



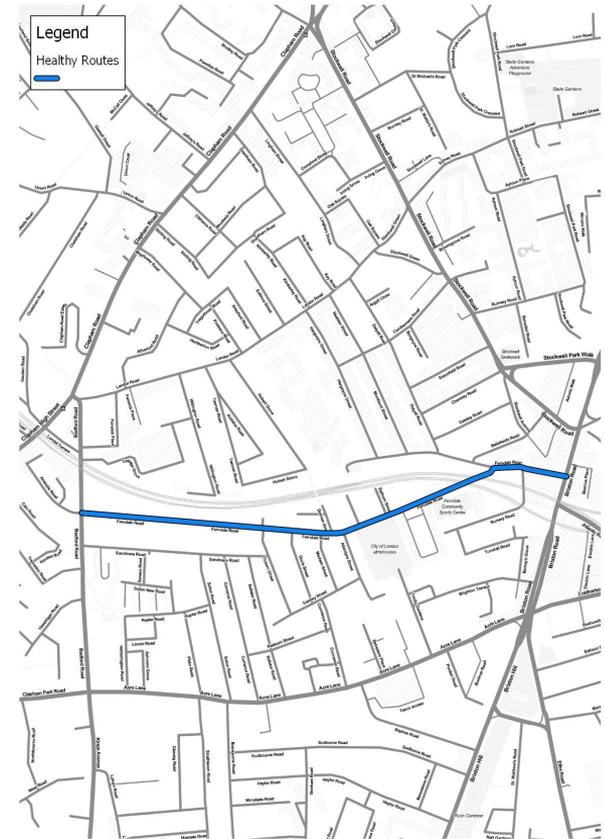
December 2021 Flow Change – Cycles

- The map to the right outlines changes in cycle counts compared to pre-implementation, at sites where data was collected in Nov/Dec 2021.
- In general, cycling levels were up quite significantly in most places throughout the LTN, although it is acknowledged that high % increases generally corresponded to low nominal increases in flows.
- The largest changes in cycling flows were recorded on Ferndale Road East (+215%, +416 daily cycles), Landor Road East (+191%, +286 cycles), Landor Road West (+103%, +261 cycles) and Acre Lane (+87%, +258 cycles).



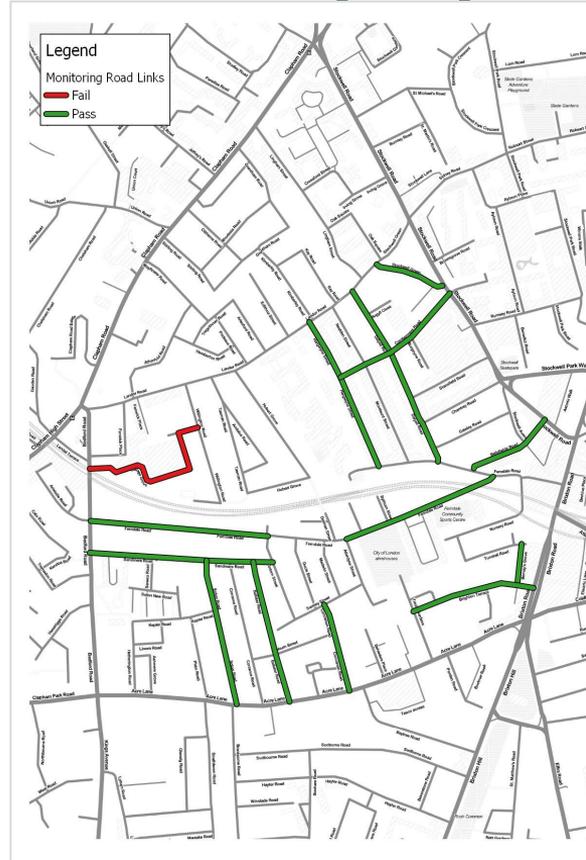
December 2021– Healthy Cycle Routes

- Healthy Routes are those which have the right conditions to enable more people to walk and cycle. They link people with key destinations, and are convenient, attractive and safe for all.
- For a Healthy Route to be designated as such in Lambeth, it must have certain key characteristics:
 - Fewer than 200 vehicles per hour in the average weekday peak hour.
 - Under 5% of vehicles using the route can be classified as HGVs.
 - Average vehicle speeds must be <20mph.
- The map to the right outlines LB Lambeth’s designated Healthy Route, which runs the length of Ferndale Road between Brixton Road and Bedford Road.

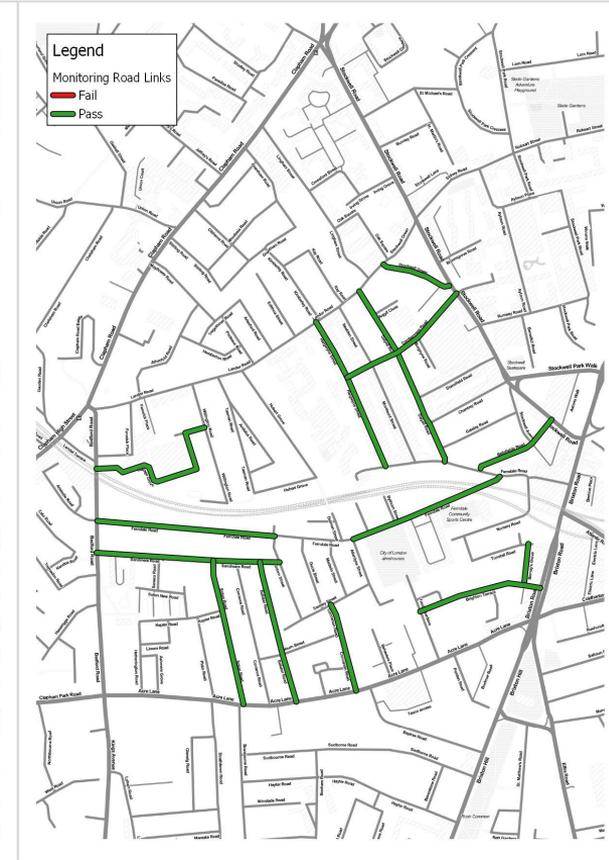


December 2021 – Healthy Cycle Routes

- Whilst technically compliant, Ferndale Road's peak hour vehicle flows in the baseline were close to the permitted limit.
- Evidence from December 2021 now suggests that all monitored streets within the LTN are expected to be safe for cycling under Healthy Routes criteria.
- Gaps in the map indicate areas where no definitive data on peak hour vehicle flows was available.



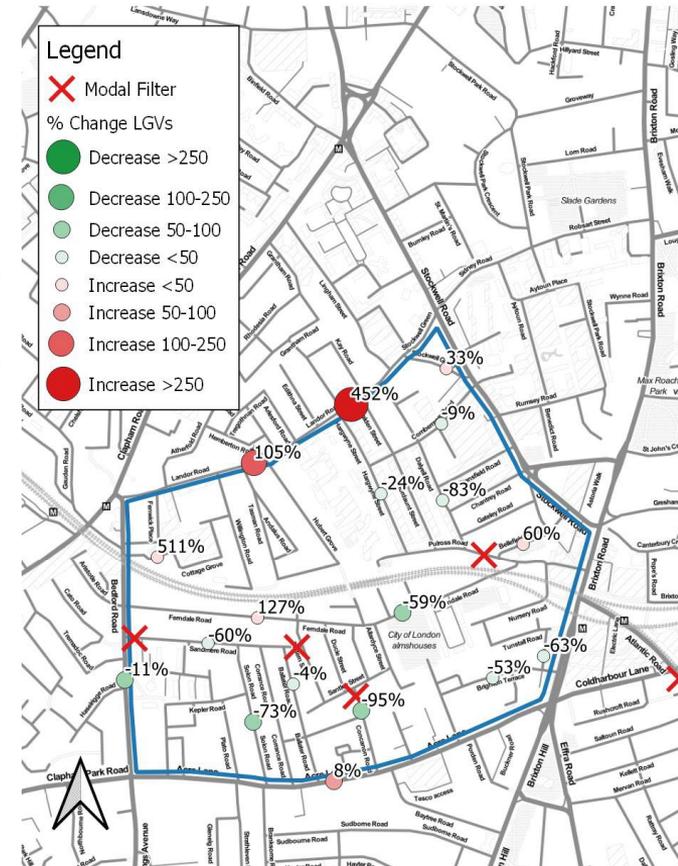
Pre-LTN



Post-LTN

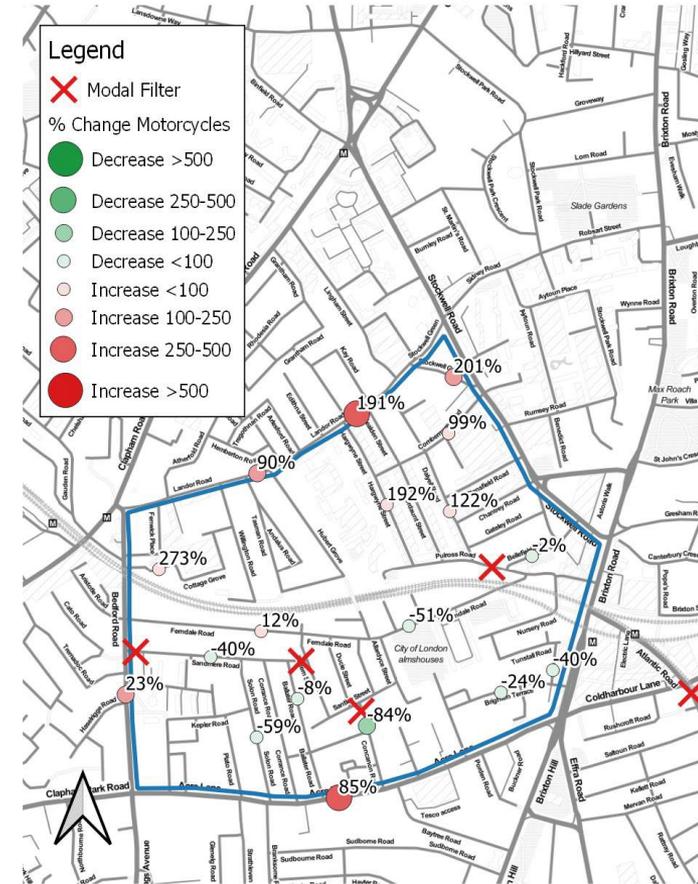
December 2021 Flow Change- LGVs

- The map to the right outlines changes in LGV counts compared to pre-implementation, at sites where data was collected in Nov/Dec 2021.
- Similarly to HGVs, LGV flows generally saw small to moderate changes across the LTN, with the largest changes on Ferndale Road East (-59%, -116 daily vehicles) and Concanon Road (-95%, -160 vehicles). Large percentage changes at locations such as Cottage Grove and Ferndale Road West represent increases of less than 100 LGVs per day, the former of which may relate to construction work at Fenwick South.
- Externally, Landor Road saw a significant increase in LGVs, particularly at the eastern site where there were 569 additional daily LGVs – this coincides with a decrease of 225 HGVs at the same site.
- These numbers have been increased in line with overall traffic flows. However, on a national basis, whilst car traffic was at 92% of pre-COVID levels during study period, LGV traffic was 113%* of such levels, suggesting normalised volumes may overestimate any increases.



December 2021 Flow Change- Motorcycles

- The map to the right outlines changes in cycle counts compared to pre-implementation, at sites where data was collected in Nov/Dec 2021.
- Changes in motorcycle flows are somewhat mixed, although are generally minimal in magnitude within the LTN (only Concanon Road saw a change of more than 100 daily vehicles).
- Increases were seen on external roads where motorcycles were monitored, for example on Landor Road East (+191%, +362 daily vehicles), Acre Lane (+85%, +315 vehicles) and Bedford Road (+23%, +150 vehicles).
- It is considered that the increase in motorcycles is significantly related to food delivery, the economy for which more than doubled across the UK between January 2020 and January 2021*.





About SYSTRA

Introducing SYSTRA

- SYSTRA is a **global leader in mass transportation and mobility**, employing over 7,000 global employees across 80 countries.
- SYSTRA has the unique advantage of being not only a Transport Consultancy, but also Social and Market Research Consultancy. Our team members have an in-depth understanding of both the transport sector and of social and market research techniques, providing expert support in monitoring and evaluation both direct to clients and also in a peer review capacity.
- We provide a wealth of experience in conducting both qualitative and quantitative transport research with stakeholders to help understand their priorities and to inform options for future investment and policy development.

The SYSTRA logo is rendered in a bold, orange-red, sans-serif typeface. The letters are thick and blocky, with a slight shadow effect that gives them a three-dimensional appearance. The 'S' and 'Y' are particularly prominent due to their size and the way they connect to the following letters.



Contact Us



Contact details:

For enquiries about this report* – info_uk@systra.com

For Lambeth Council media enquiries – communications@Lambeth.gov.uk

To provide feedback on the Ferndale Low Traffic Neighbourhood,
please contact the Lambeth Transport Team via the following channels:

Commonplace engagement site – <https://fdstreets.commonplace.is/>

Email – LowTrafficNeighbourhoods@Lambeth.gov.uk

*Please note that due to the volume of questions we are unable to respond to individual queries;
however, we are working with LB Lambeth to create an FAQ document in relation to this reporting.