People-Friendly Streets
Better places for everyone

Amwell people-friendly streets trial

Results from the twelve month pre-consultation monitoring report

ISLINGTON

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Summary of key findings

This pre-consultation monitoring report shows that at this point in the Amwell people-friendly streets (PFS) trial, the project is having the intended impacts in the area of reducing motorised traffic across internal roads, increasing levels of cycling on internal roads, and reducing levels of speeding on internal roads.

Local streets within the neighbourhood are healthier, with traffic **falling overall by 48%.**

Traffic on Great Percy Street has **decreased by 80%, a difference of 709 vehicles a day**- the greatest decrease of any street.

Air quality data shows a **slight increase in levels of nitrogen dioxide** since the scheme started, with levels remaining **below the national annual objective and slightly better than borough trends,** suggesting the PFS trial has not had an adverse impact on air quality.

On local streets within the neighbourhood, the volume of vehicles speeding **fell by 70%.**

No significant impact on London Fire Brigade response times.

No significant impact on anti-social behaviour and crime rates.

Cycling has **increased by 65%** on the internal roads.

Cycling has increased by **196% on Margery Street (westbound)** from 261 to 771 cycling trips a day, the largest increase on any street.

Overall across boundary roads, total volumes of motorised traffic **have risen by a negligible amount (+5%) across three sites.** Traffic on **Farringdon Road** - one of the boundary roads surrounding the neighbourhood – **rose by 30%.** However **on Rosebery Avenue traffic was down 5% and on Pentonville Road traffic was up 3%,** so there may be other factors affecting traffic flow on these roads. On Amwell Street and Claremont Square traffic was down 56% and 30% respectively, however these results were likely affected by unexpected utilities works during surveys.

The above figures reflect before and after comparisons between September 2020 and October 2021. The traffic figures have been normalised to account for the impacts of Covid-19 lockdowns. More information on this process is available in the pre-consultational monitoring report. The council will continue to closely monitor all boundary roads and implement mitigating measures as appropriate.

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Why are we doing this?

Islington's streets belong to everyone. They are a place where life happens and where the community comes together, no matter what our individual circumstances or daily routines look like. But as technology has changed, we've seen more and more traffic taking short cuts through local streets.

Traffic in London is increasing at an alarming rate, making it increasingly difficult to walk, cycle and wheel around. 24.3 million more miles were driven through Islington in 2019 than 2013, an almost 10% increase, and traffic on London's local roads rose by 72% between 2009 and 2019. Without intervention this trend will create huge problems for our road network and our communities, and will further damage the environment, including higher levels of air pollution, which is already a serious issue for public health.

The council has always worked hard to make things better and has been planning initiatives to improve Islington's streets for some time but COVID-19 has had a big impact on the way we use our streets. During the first lockdown, they were quieter, felt safer and journeys were quicker. Residents told us they really benefited and were able to enjoy their neighbourhood more. But research shows that traffic volumes will continue to increase making our streets more unsafe, unhealthy, and worse than before the crisis began.

Nothing will ever be quite the same after the pandemic, which is why now is the time to make bold changes for a cleaner, greener and healthier Islington. So, we took this opportunity to look at how we can make our neighbourhoods better and safer, for living, working and playing, for everyone.

Through the people-friendly streets programme, we want to bring life back to Islington's streets. Taking the best of what we have learnt in the past year, to make our borough cleaner, greener, healthier and a more equal place for everyone. Amwell, like many neighbourhoods within the borough, has suffered from increased traffic volumes in recent years from the use of the area as a short cut.

Quantitative evidence from other areas shows that low traffic neighbourhoods (LTNs) are a successful way for us to achieve these objectives. The data in this pre-consultation monitoring report shows that they can also make a positive difference in Islington. People-friendly streets make it easier, safer and more pleasant for people to walk, cycle and use wheelchairs, buggies and scooters. Every local trip switched from a motor vehicle to another way of travelling means one fewer vehicle on the road, leaving the roads clearer for people who have no choice but to use cars.

The Amwell people-friendly streets trial began in November 2020, as one of the low traffic neighbourhoods under the people-friendly streets programme. As part of the council's urgent COVID-19 response, the trial was implemented swiftly to make walking and cycling easier and safer as alternatives to public transport and prevent a car-based recovery.

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Objectives

As the project was implemented as a trial under an experimental traffic order (ETO) it is very important to monitor it using key data points in order to understand its impact. It is also important to us to make this information publicly available so residents can find out about the impact in their area.

The PFS area trials are intended to contribute to the following three objectives from the Islington Transport Strategy:

Objective One: Healthy
To encourage and enable residents to walk and cycle as a first choice for local travel.

Objective Two: Safe
To work with the Mayor of London to achieve "Vision Zero" by 2041, by eliminating all deaths and serious injuries on Islington's streets and reducing the number of minor traffic collisions on our streets.

Objective Three: Cleaner and greener
To contribute to the council's commitment to Islington becoming net zero carbon by 2030, to improve air quality, and protect and improve the environment by reducing all forms of transport pollution.

This pre-consultation monitoring report reflects a before and after assessment of the trial using the following data: motorised traffic counts and speeds, cycling counts, air pollution data, London Fire Brigade response times, crime and anti-social behaviour (ASB) data, and bus journey times.

These will be monitored over time in the PFS trial area to measure the success of the trial against the previously mentioned objectives:

- Reduce motorised traffic and vehicle emissions across internal roads
- Reduce motorised traffic overall across internal and boundary roads
- Increase levels of cycling across internal roads
- Reduce levels of speeding on internal roads

In addition to this, the council is monitoring:

- Levels of motorised traffic and related air pollution on boundary roads
- Crime and ASB on internal roads
- Emergency service response times
- Levels of speeding on boundary roads
- Bus journey times

Future decisions to keep, remove or amend the Amwell people-friendly streets trial are not dependent on any single metric, but with feedback from the online survey and upcoming consultations with residents and stakeholders.

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Pre-consultation results

Motorised traffic on internal roads

- Motorised traffic has decreased on most internal roads in both observed and normalised results
- Overall, motorised traffic volumes on internal roads have decreased by an average of 48%. The greatest decrease has been on Great Percy Street, where there was an 80% decrease.
- Across internal roads, average speeds have decreased by 7% and the proportion of vehicles speeding has decreased by 6%. There has been a -70% difference in the volume of vehicles speeding.
- The above figures have been normalised to account for the impacts of COVID-19 on motorised traffic levels in September 2020 and in October 2021. More information on this process is available in the main report.

Motorised traffic on boundary roads

- Across three boundary roads, the total volumes of motorised traffic have increased by a negligible amount (+5%) which is a postive result.
- There is a mixed picture in terms of the change in motorised traffic volumes on boundary roads. On average, motorised traffic volumes have changed on:
  - Claremont Square by -30%
  - Amwell Street by -56%
  - Rosebery Avenue by -5%
  - Farringdon Road by +30%
  - Pentonville Road by +3%
- Traffic volumes on Amwell Street and Claremont Square were affected by utilities works during the period of the survey, so may be lower than usual. Conversely, traffic volumes on Farringdon Road may be higher as a result of the utilities works.
- Across three boundary roads, average speeds have seen no change (0%).

Cycling on internal roads

- Overall cycling has increased by 65% across the internal road locations.
- The greatest increase has been on Margery Street, which cycling has increased by 196%.

Air quality

- NO_2 levels have risen slightly since the scheme started. However, these changes are slightly better than borough trends and have all been below the annual objective level of 40µg/m^3. These results suggest the PFS trial has not had an adverse impact on air quality.

London Fire Brigade response times

- Comparing the 2019 average response time and the post-implementation period average, the response time increased for the Amwell Ward area. The response times remain within target times. Given the extent of variables that affect response times, these results are considered insignificant by the LFB and the council. As such, it is the view of the LFB and the council that the PFS area in Amwell has not impacted on the emergency service's attendance times.

Anti-social behaviour and crime

- Analysis shows anti-social behaviour and crime patterns in the area are in line with patterns across the borough overall, suggesting the PFS trial in Amwell has not had an impact on anti-social behaviour and crime patterns.

The public consultation for the PFS LTN at Amwell is taking place between Wednesday 15 December 2021 and Monday 31 January 2022.

More information is available at **www.islington.gov.uk/people-friendly-streets/amwell**

Contents

Glossary

Below are the meanings of some words used throughout this report that you may be unfamiliar with, or which may have a specific meaning in this context:

85th Percentile Speed – The 85th percentile is used in transport monitoring to gauge changes in speeds and speeding behaviour. It is the speed at which 85% of traffic will be travelling at, or below, along a street (15% of traffic will be travelling faster than this speed). For example, if the 85th percentile speed is 20mph, then 85% of vehicles will be travelling at 20mph or less.

AM peak – In this report "AM peak" refers to the hours between 07:00h and 10:00h.

Automatic Traffic Counters – "Automatic traffic counters" (ATCs) measure traffic volumes and speeds using two thin tubes that run across the street and are connected to a sensor. When wheels pass over the tubes, the pressure impact is interpreted by the sensor to identify the type of vehicle passing over, and the speed with which it passed. They are considered to be approximately 98% reliable. (See Appendix 6 for more details).

Boundary roads – For the purpose of this report, the "boundary roads" of the Amwell trial area are Claremont Square, Amwell Street to the east, Rosebery Avenue (A401) to the south, King's Cross Road/ Farringdon Road (A201) to the west and Pentonville Road (A501) to the north. Note, the data collection site referred to in the report as Rosebery Avenue (south site) is the site located on the cell boundary. Whilst Rosebery Avenue south forms the southern low traffic neighbourhood (LTN) boundary, it should be noted that the traffic filter in the one-way Margery Street to its north did not became operational until September 2021. These roads may have been affected by the redevelopment project at Old Street Roundabout, which may have impacted some of the results. These are explored in more detail in the results and insights sections throughout the report.

Experimental traffic order – An "Experimental Traffic Order" (ETO) is like a permanent Traffic Regulation Order in that it is a legal document that imposes traffic and parking restrictions. However, unlike a Traffic Regulation Order an Experimental Traffic Order can only stay in force for a maximum of 18 months while the effects are monitored and assessed. An Experimental Traffic Order is made under Sections 9 and 10 of the Road Traffic Regulation Act 1984.

Internal roads – These are roads which fall in between two or more boundary roads in low traffic neighbourhoods. For the purpose of this report, "internal roads" are local roads in the Amwell area where the project aims to reduce the amount of traffic through the introduction of traffic filters. These roads are generally narrower than boundary roads. We have collected traffic counts on some, but not

all, of the internal roads in the Amwell area. In addition to the original PFS traffic filters, the Margery Street traffic filter has become operational in September 2021.

Low traffic neighbourhood – A "low traffic neighbourhood" (LTN) is an area where a number of traffic filters are strategically placed to make it impossible or very difficult to cut through an area by motor vehicle. This stops drivers using local streets as shortcuts and makes it safer and easier to walk and cycle. In this report the Amwell people-friendly streets (PFS) trial refers to a low traffic neighbourhood implemented in Islington under an experimental traffic order. The position of the traffic filters means that drivers (including residents, deliveries and emergency services) are still able to reach any part of the neighbourhood.

Normalised – In this report "normalising" means to adjust traffic count figures to take into account the impact of COVID-19 on traffic patterns. This methodology is explained below in more detail, but in simple terms it means that the traffic count figures have been increased to project what the 2020 traffic counts may have looked like if traffic levels were at 2019 levels.

Observed – In this report "observed" means the data that was collected, which has not been adjusted to take into account the impact of COVID-19 on traffic patterns. This is the actual data that was supplied by the data collection company used.

Patched sites/data – When counting equipment is damaged, leading to a loss of data for certain time periods, this data is patched. This means that periods of missing data are backfilled using data from the same day either a week before or after when the counts were taking to ensure that the data is representative of that day. If this data is not available, another day of the same type, either weekday or weekend-day, is used.

PM peak – In this report "PM peak" refers to the hours between 16:00h and 19:00h.

Radar Traffic Counters – Radar counts monitor speeds and vehicle volumes to a less specific categorisation using a radar sensor. These radar counts classify pedal cycles and motorcycles in the same class (<5.6m). As such, for radar assessed sites, the motorised traffic volumes do not include motorcycles, and pedal cycle volumes are unavailable. Radars measure traffic volumes and speed using high frequency radar signals to measure one or two lanes of traffic. Manufacturers consider the method to be 98% accurate (with 95% Confidence) at measuring traffic volumes with speed considered to be around +/- 2mph or 3% whichever is greater with 95% confidence. Radars detect vehicle lengths (+/- 40cm or 5% whichever is greater with 95% confidence) so assumptions need to be made with regards to vehicle classes. Inaccuracies in the data can occur due to vehicles following closely resulting in larger lengths being detected. Radars are widely used for monitoring traffic schemes due to their unobtrusive nature and being less detectable by drivers meaning they are less likely to change speeding behaviours.

Traffic filters - "Traffic filters" are restrictions in the street to prevent motor vehicles passing through, either by presenting a physical barrier, such as bollards or planters, or by camera enforcement. Camera enforcement is used to enable buses and emergency vehicles to access the area. People are legally able to walk, cycle and wheel though the filter (and use non-motorised scooters).

Independent production of the report by Project Centre Ltd

This report has been produced by Project Centre Ltd in partnership with Islington Council. Project Centre is a multi-disciplinary design, engineering and landscaping architecture consultancy, whose highly talented people are passionate about creating places that are attractive, innovative, sustainable and safe. Project Centre's areas of expertise include air quality improvement schemes, neighbourhood traffic schemes, pedestrianisation, cycle design, road safety, traffic modelling and traffic data analysis.

The methodologies and analyses in this report are set out in greater detail in Appendix 5 and have been independently peer reviewed (more information on the peer review is available in the Amwell interim monitoring report).

Amwell PFS area in context

As part of Islington Council's PFS programme and the need for an urgent transport response to COVID-19, Amwell became the fourth PFS area trial in the borough. It has been created to allow more space for people to walk and cross the road safely, cycle as part of everyday life, and to use buggies or wheelchairs. Traffic filters have been installed to prevent motor vehicles from cutting through the local area.

Traffic Filter Locations –The traffic filters in the Amwell PFS area were planned for four locations: on Great Percy Street, Lloyd Square (northern and southern sides) and Margery Street. The traffic filters in the Amwell PFS area were introduced at three of the above locations when the scheme went live in November 2020; the filter on Margery Street was implemented on 27 September 2021.

In detail, the traffic filter locations are:

- On Great Percy Street, between the junctions with Cumberland Gardens, and Holford Street, maintaining access for emergency vehicles (camera-enforced);

- On Lloyd Square (southern side), with bollards to narrow the roadway, maintaining access for emergency services (camera-enforced);

- On Lloyd Square (northern side) with fixed and hinged bollards, maintaining access for fire emergency services; and

- On Margery Street, at the existing pedestrian zebra crossing on Margery Street with a forced left turn into Wilmington Street, maintaining access for local residents living or parking west of the traffic filter on Margery Street, visitors, taxis and deliveries and a through route for emergency services.

Other changes as part of the Amwell PFS trial include:

- Removal of existing width restriction on Great Percy Street to allow delivery vehicles access to service the area;

- Removal of existing width restriction on Lloyd Baker Street to allow delivery vehicles access to service the area; and

- Change to two-way traffic flow of the section of Lloyd Baker Street between Lloyd Square (western arm) and Amwell Street.

The locations of these filters and the boundary roads make Amwell one of the smaller PFS trial areas implemented by the council so far.

This monitoring report provides data and insights relating to the Amwell PFS trial specifically by comparing data from before the scheme became operational in November 2020 (referred to as "the baseline traffic counts") to data collected approximately twelve months after the scheme became operational in October 2021 (referred to as the "pre-consultation traffic counts"). As the traffic filter on Margery Street was activated for enforcement at a later date, the counts in the vicinity of this site use May 2021 traffic counts as their "baseline".

External Factors

It is important to consider all these results in the context of external factors which could be contributing towards the data. There are four main external factors which could be influencing results.

Nearby Low Traffic Neighbourhoods –The Amwell area is in close proximity to the Clerkenwell Green low traffic neighbourhood, and shares Rosebery Avenue as a boundary road. It is therefore not possible to separate out the impact that the Clerkenwell Green low traffic neighbourhood may also be having on Rosebery Avenue. Moreover, the areas to the east of Amwell Street and the south of Margery Street are historic low traffic neighbourhoods; Cycleway 27 also runs through the Amwell LTN area along Margery Street (see Map 1 for details).

Nearby major traffic projects – It transpired that during the period of the pre-consultation counts Thames Water was carrying out unexpected utilities works on Amwell Street, at the junction of Hardwick Street and Merlin Street, with temporary traffic lights in operation. The council had programmed the counts to take place following completion of planned utilities works on Amwell Street and

prior to planned utilities works on Margery Steet, however the Amwell Street works were subsequently extended into the count period at short notice following excavation at the location during the planned works. The impact of these works is discussed further in the "Traffic counts in the Amwell PFS area" section.

Construction work at Charles Simmons House at the corner of Margery Street and Lloyd Baker Street may have had a minor impact on traffic movements on streets within the Amwell PFS area and surrounding roads including King's Cross Road and Farringdon Road.

In close proximity to the Amwell PFS trial area, Transport for London (TfL) has implemented a major project at Old Street roundabout which took place during the trial period. It is not possible to separate out or control for the impact of the Old Street roundabout works on the boundary roads from the impact of the low traffic neighbourhood.

Euston Road had lane closures during the Amwell trial period due to TfL's Streetspace cycle lanes and HS2 works – the reduced capacity may have affected traffic patterns on roads in the vicinity of the Amwell PFS trial area, including King's Cross Road/ Farringdon Road, Gray's Inn Road and Pentonville Road which is a continuation of Euston Road and is a boundary of the Amwell PFS area.

Camden Council has implemented cycle track improvements on Gray's Inn Road during the Amwell PFS trial period which may have impacted on traffic patterns in the area including on Farringdon Road and King's Cross Road which are parallel to Gray's Inn Road and which form the western boundary of the Amwell PFS area.

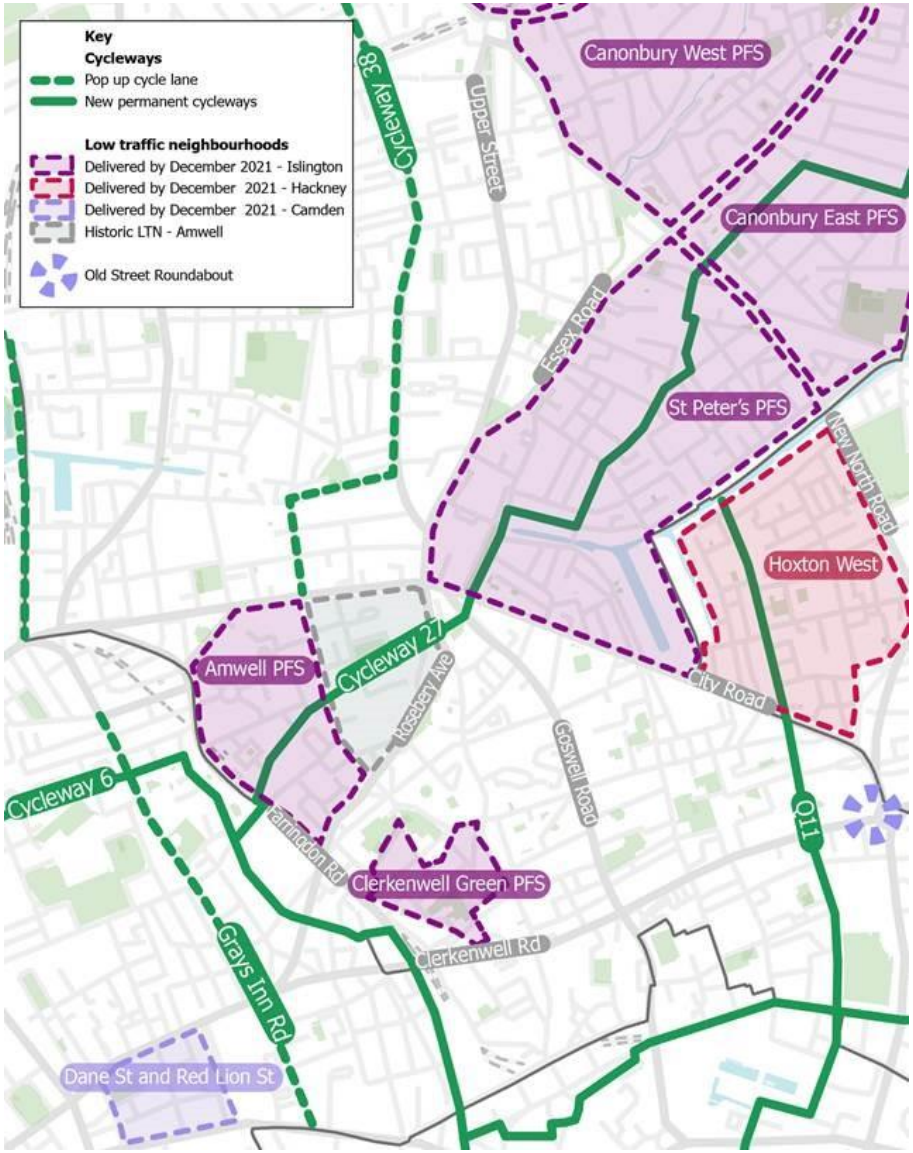
Unauthorised removal of bollards – the lockable bollard on Lloyd Square (north side) had been removed without the permission of the council and, due to a supply issue, was missing at the time of the pre-consultation traffic counts. This may have contributed to traffic levels on some internal roads including Wharton Street and Prideaux Place.

Weather – Weather can have a significant impact on travel choices, especially cycling, and air pollution. Data was not available on a regional or sub-regional level. During the week the baseline traffic counts were taken in September 2020 the minimum temperature was 11.3°C and the maximum was 18.8°C. England-wide weather data shows that September 2020 was a dry, sunny month, with 44.9mm of rain. In May 2021, baseline counts in two additional streets, namely Cruikshank north of Great Percy Street and Topham Street outside of the LTN to the west (related to measuring to the impact of the Margery Street filter) were taken. During this time the minimum temperature was 8.4°C and the maximum was 16.7°C. UK-wide data shows that May 2021 began unseasonably cold with frosts in many places and frequent rain which resulted in May 2021 being England's fifth wettest May on record with 111mm of rain. As such, the higher rainfall in May 2021, when the interim counts were taken, may have had a somewhat suppressing impact on cyclist volumes. During the week the pre-consultation traffic counts were taken in October 2021, the weather was unsettled and wet. Mean temperature was 12°C, reaching a high of 15°C and a low of 9°C, and rainfall was 60mm on average. The UK had 128% of average rainfall overall. (Note - Data

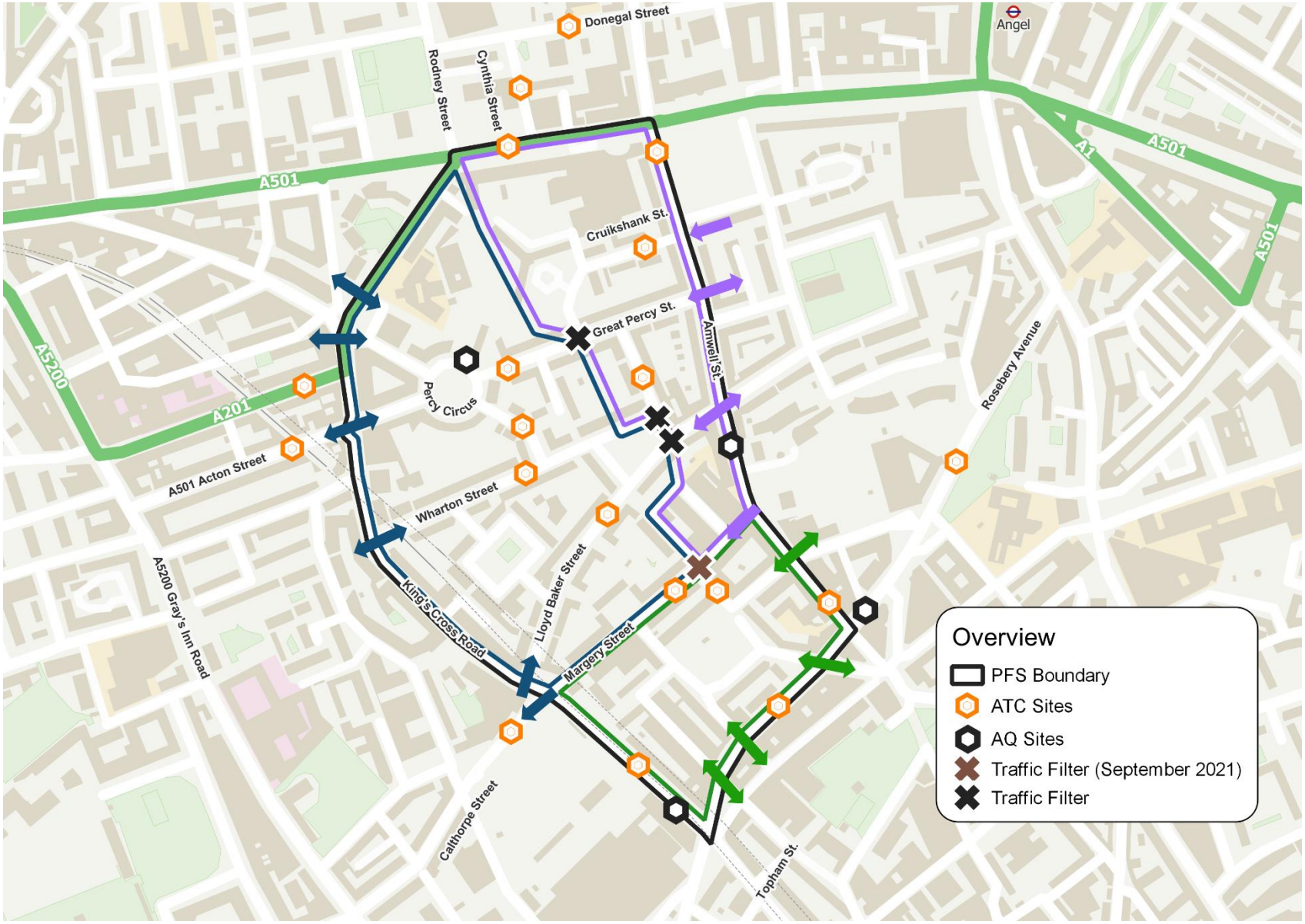
was not available on a regional or sub-regional level.)

National lockdowns - as England has been going in and out of national lockdowns as a result of COVID-19, it is worth noting that the baseline counts in September 2020 took place as new measures were introduced. The "rule of six", which allowed six people from different households to meet indoors and outdoors, came into force. Non-essential retail and hospitality venues remained open, while the government, at the beginning of September 2020, encouraged people to go back to work and schools re-opened. For the pre-consultation counts in October 2021, all COVID-19 restrictions had been lifted.

Map 1: Amwell PFS area in wider context of nearby LTN areas and cycle lanes



Map 2: Amwell PFS measures and monitoring sites



Traffic counts approach

Traffic counts in the Amwell PFS area

The count data presented in this report is not traffic modelling, but actual observed traffic, comparing traffic flow in September 2020 with October 2021, before the implementation of the Amwell PFS area and twelve months after the initial Experimental Traffic Order (ETO) went live. The exceptions to this are noted in the list "Completed dates of traffic counts"

Interim counts were carried out six months after implementation in May 2021. These can be found in the LB Islington report Amwell People-Friendly Streets Trial – Results from the six-month monitoring report.

Completed dates of traffic counts

Baseline ("before") counts: 14 – 21 September 2020

Amwell trial becomes operational: 23 November 2020

Interim counts: 4 – 10 May 2021

Margery Street Modal Filter activated: 27 September 2021

Pre-consultation ("after") counts: 2 – 8 October 2021, (with some sites patched with data from 9 – 10 October 2021).

The council is using various traffic counting methods to understand traffic volumes and speeds within and around the PFS area to assess if the scheme is having the desired impact and to respond with mitigating actions, if required.

Automatic Traffic Counts (ATCs) are used at all of the sites in the Amwell PFS area. ATCs measure motorised and cycle traffic volumes and motorised traffic speeds and classify the traffic by type. Transport for London (TfL) use radar counts on the Transport for London Road Network (TLRN), which measure motorised traffic volumes and speeds. More information about the different types of counts and which type was used at each site is detailed in Appendix 6.

Radar counts have been used at four sites on the Transport for London Road Network (Farringdon Road and Pentonville Road in Islington, and Acton Street and Swinton Street in Camden). Radar counts monitor speeds and vehicle volumes to a less specific categorisation than ATCs using a radar sensor. The radar counts supplied for this scheme classify pedal cycles and motorcycles in the same class. As such, for radar assessed sites, the motorised traffic volumes do not include motorcycles, and pedal cycle volumes are unavailable.

Traffic Count Baseline Notes

A new traffic filter came into enforcement on Margery Street in September 2021. In order to understand the impact of the new filter, traffic counts were obtained on Topham Street west of the Farringdon Road and the LTN area. In addition, a new count site was added in the north of the PFS area on Cruikshank Street. These locations were not included in the original baseline counts carried out in September 2020; instead, they use a baseline of the counts carried out in May 2021. As such, they are included in separate tables and are not included in the overall totals for internal roads or local roads beyond the PFS boundary.

Traffic Count Pre-Consultation Notes

At the start of October Thames Water were carrying out works on Amwell Street, to the south of the junction with Merlin Street and Hardwick Street. These works were carried out on an emergency basis, so were not accounted for when the traffic counts were being arranged. Traffic lights were in operation at the junction, which may have caused additional congestion in the area. It is likely that some traffic may have been taking alternative routes to avoid Amwell Street, resulting in reduced traffic volumes on this road. It may also have resulted in reduced traffic where Amwell Street joins Claremont Square to the north.

Analysis and normalisation methodology overview

All of these counts were undertaken in full awareness of the disruption caused by the COVID-19 travel restrictions, and the need for a process to interpret the results in a way that accounts for this disruption.

Daily volumes of motorised traffic have been drawn from a range of 12 permanent traffic counters managed by Transport for London across Islington and used to establish monthly averages in 2019 and 2020. The locations of these counters are detailed in Appendix 5. The percentage difference between the same month across the two different years has been used to adjust the counts to normalise for COVID-19 disruption between the months in which counts have been taken. The methodology is set out in greater detail in Appendix 6. Drafting the baseline from TfL count locations outside of Islington and from additional years was considered and tested but resulted in small differences and was therefore not taken forward as the chosen methodology.

For context, the difference was greatest in April, where 2020 motorised traffic was approximately 50% of what it had been in April 2019.

The Amwell PFS monitoring study recorded data in September 2020, May 2021 and October 2021. Traffic volume data collected in different months has been normalised against the appropriate figures from 2019 traffic count data. Motorised traffic across the permanent counters in Islington was approximately 7% lower in September 2020 than in September 2019; it was approximately 25% lower in May 2021 than in May 2019; and 4.9% lower in October 2021 than in October 2019.

Table 1: Normalisation factors for 2020 and 2021 traffic in Islington

Month	Recorded traffic volumes against 2019 equivalents (%)
March 2020	-27.97%
April 2020	-49.87%
May 2020	-38.34%
June 2020	-22.10%
July 2020	-13.46%
August 2020	-6.55%
September 2020	-6.90%
October 2020	-10.48%
November 2020	-22.13%
December 2020	-16.11%
January 2021	-25.69%
February 2021	-24.84%
March 2021	-31.28%
April 2021	-22.52%
May 2021	-18.68%
June 2021	-8.90%
July 2021	-6.16%
August 2021	-2.60%
September 2021	-4.20%
October 2021	-4.90%

Interpreting count results

Unless specified otherwise, the seven-day daily average has been used and discussed in traffic volume analysis in this report. Results for other time period parameters are available for each site in the Appendices.

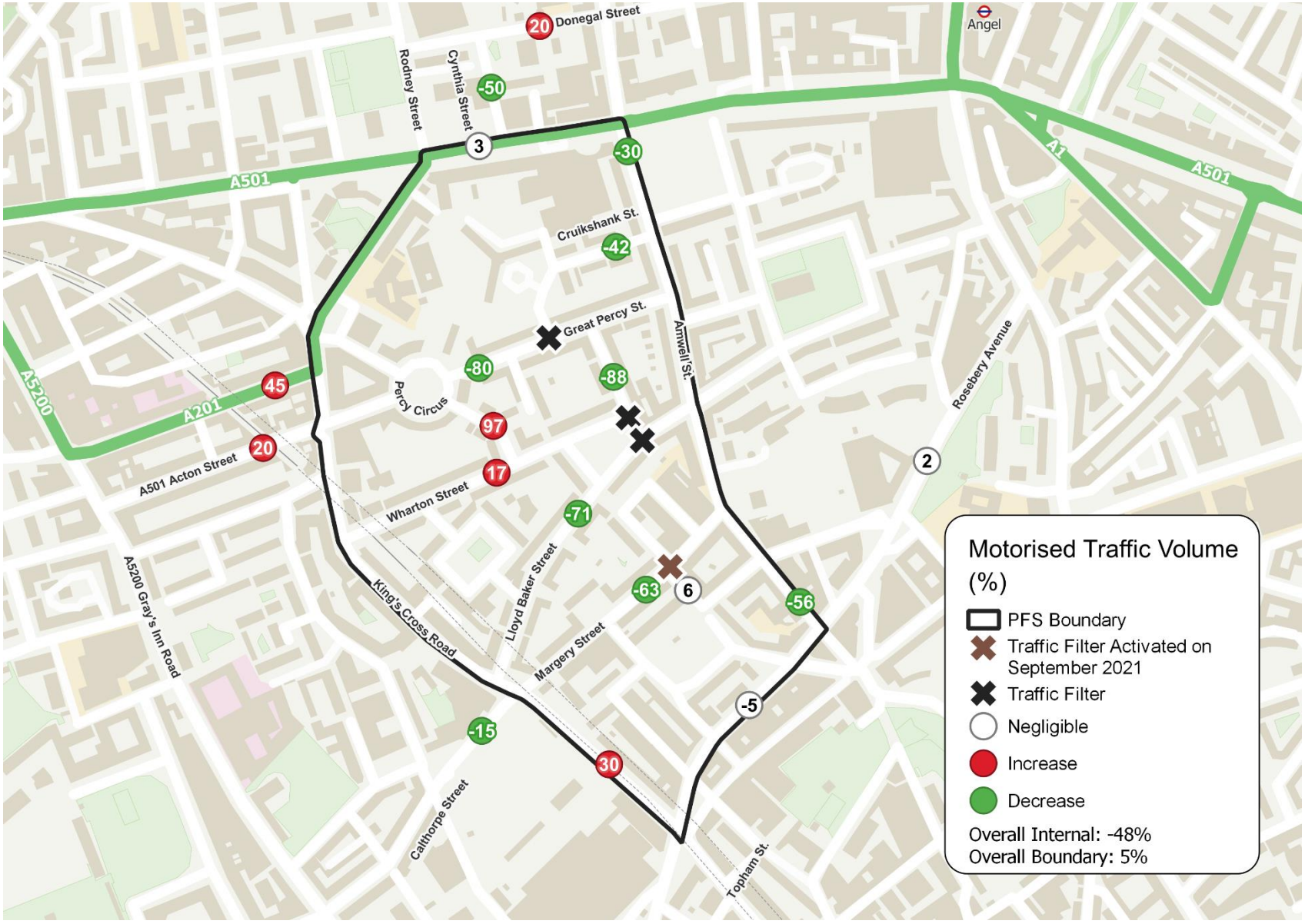
Raw data has been analysed and compared to give the observed results. The observed results have been through the normalisation process described in the previous section to give the normalised results. Both the normalised results and the observed results can be found in the results tables in this report and in the appendices. The figures given for changes in volumes of traffic in this report are normalised, and percentages have been drawn from the differences between normalised results.

A negative number or percentage indicates a decrease between the two counts, while a positive number or percentage indicates an increase.

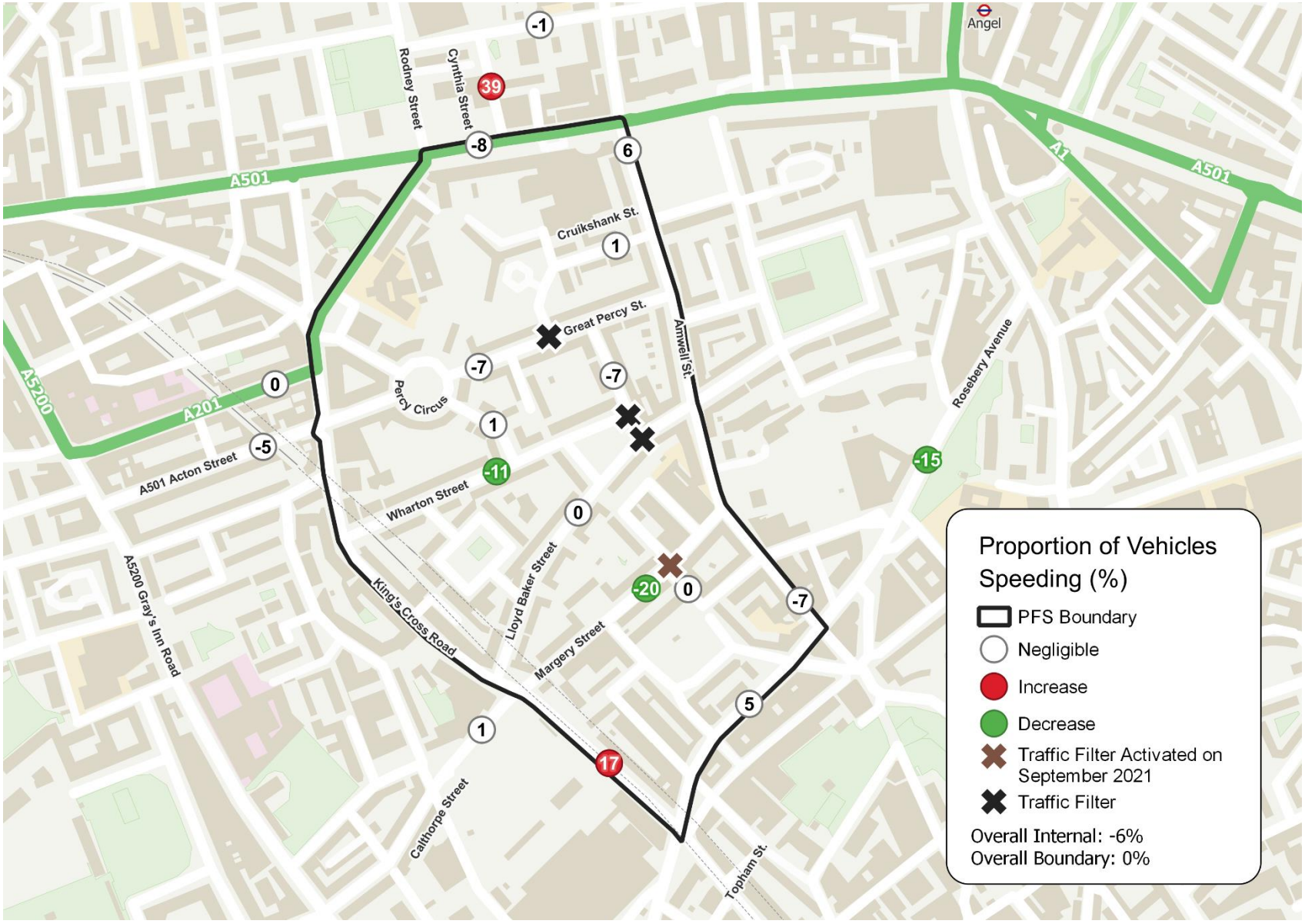
Please note: traffic flows fluctuate on a daily basis (generally up to 10%). As such, changes within -10% to +10% are considered insignificant (i.e. no or negligible change).

As vehicles travelling through the PFS area are likely to go through multiple counter sites, it is almost certain that the number of vehicles counted in the area is higher than the actual number of trips. Therefore, the number of vehicles counted should not be conflated with the number of trips or number of vehicles present within the area, as a vehicle could be counted multiple times.

Map 3: Percentage change in motorised traffic volumes (seven-day daily averages)



Map 4: Percentage change of proportion of motorised vehicles speeding (seven-day daily averages)



Motorised traffic on internal roads

Motorised traffic volumes on internal roads

Results (seven-day daily averages)

Table 2: Motorised traffic volumes on internal roads – September 2020 baseline

	Observed-September 2020	Normalised-September 2020	Observed – October 2021	Normalised – October 2021	Difference	Difference Normalised	Difference Normalised %
Great Percy Street	829	890	172	181	-656	-709	**-80%**
Prideaux Place	197	212	396	416	199	204	**97%**
Wharton Street	471	505	561	590	90	84	**17%**
Lloyd Baker Street	1,098	1,179	323	340	-774	-839	**-71%**
Wilmington Street	196	211	212	223	16	12	6%
Margery Street	1,136	1,220	426	447	-711	-773	**-63%**
Overall	3,927	4,218	2,090	2,197	-1,837	-2,021	**-48%**

Table 3: Motorised traffic volumes on internal roads – May 2021 baseline

	Observed-May 2021	Normalised-May 2021	Observed – October 2021	Normalised – October 2021	Difference	Difference Normalised	Difference Normalised %
Cruikshank Street*	205	252	138	145	-67	-106	**-42%**

*Cruikshank Street uses a May 2021 baseline as there were no September 2020 counts taken.

Table 4: Motorised traffic volumes on internal roads – Lloyd Street (five-day daily averages)

	Observed-September 2020	Normalised-September 2020	Observed – October 2021	Normalised – October 2021	Difference	Difference Normalised	Difference Normalised %
Lloyd Street**	1,046	1,124	131	138	-915	-986	**-88%**

**The count equipment at Lloyd Street was damaged and therefore data is unavailable for the weekend during the baseline period. As such, five-day averages have been used. These are presented in a separate table and are not included in the overall figures.

Goods Vehicle and Motorcycle volumes on internal roads

Results (5-day total volumes)

LGV stands for Light Goods Vehicle. This is defined as a goods vehicle or bus with two, three or four axles. HGV stands for Heavy Goods Vehicle. This is defined as any articulated vehicle with three or more axles. M/C refers to a motorcycle, or any kind of powered two-wheel vehicle such as a motor scooter.

The results shown are for 5-day total volumes, excluding weekends. This figure has been used because goods vehicle traffic is generally lower at weekends, so the weekday data gives a more realistic impression of the effects on goods vehicle traffic. The same approach was used for motorcycles for comparison purposes.

The percentages shown for each vehicle class (LGV, HGV etc.) show the proportion against overall traffic volumes (including cyclists). For example, in September 2020, LGVs made up 5% of the overall average weekday traffic.

Table 5: Goods vehicle volumes on Internal roads – September 2020 baseline

Weekly (5-day total) Volumes	LGV No. September 2020	LGV % September 2020	LGV No. October 2021	LGV % October 2021	LGV Change in Proportion	HGV No. September 2020	HGV % September 2020	HGV No. October 2021	HGV % October 2021	HGV Change in Proportion
Great Percy Street	260	5%	53	2%	-2%	13	0%	1	0%	0%
Prideaux Place	35	3%	52	2%	-1%	0	0%	6	0%	0%
Wharton Street	185	5%	198	4%	-1%	6	0%	7	0%	0%
Lloyd Baker Street	411	6%	139	5%	-1%	18	0%	7	0%	0%
Wilmington Street	12	1%	11	1%	-0%	0	0%	0	0%	0%
Margery Street	427	6%	274	4%	-2%	41	1%	23	0%	0%
Overall	1,330	5%	727	3%	-1%	78	0%	44	0%	0%

Table 6: Goods vehicle volumes on Internal roads – Lloyd Street

Weekly (5-day total) Volumes	LGV No. September 2020	LGV % September 2020	LGV No. October 2021	LGV % October 2021	LGV Change in Proportion	HGV No. Baseline	HGV % Baseline	HGV No. October 2021	HGV % October 2021	HGV Change in Proportion
Lloyd Street**	254	4%	36	3%	-1%	14	0%	0	0%	0%

**The count equipment at Lloyd Street was damaged and therefore data is unavailable for the weekend during the baseline period. As such, five-day averages for Lloyd Street have been used in other parts of this report where seven-day daily averages are normally used. The results for Lloyd Street are therefore presented in a separate table and are not included in the overall figures throughout this report.

Table 7: Goods vehicle volumes on Internal roads – May 2021 baseline

Weekly (5-day total) Volumes	LGV No. May 2021	LGV % May 2021	LGV No. October 2021	LGV % October 2021	LGV Change in Proportion	HGV No. Baseline	HGV % Baseline	HGV No. October 2021	HGV % October 2021	HGV Change in Proportion
Cruikshank Street*	91	7%	37	4%	-3%	0	0%	0	0%	0%

*Cruikshank Street uses a May 2021 baseline as there were no September 2020 counts taken

Table 8: Motorcycle (M/C) volumes on Internal Roads – September 2020 baseline

Weekly (5-day total) Volumes	M/C No. September 2020	M/C % September 2020	M/C No. October 2021	M/C % October 2021	M/C Change in Proportion
Great Percy Street	888	15%	215	10%	-6%
Prideaux Place	111	8%	234	9%	1%
Wharton Street	421	11%	434	9%	-2%
Lloyd Baker Street	514	7%	460	15%	8%
Wilmington Street	481	30%	270	14%	-16%
Margery Street	603	8%	1525	21%	13%
Overall	3018	11%	3138	14%	3%

Table 9: Motorcycle (M/C) volumes on Internal Roads – Lloyd Street

Weekly (5-day total) Volumes	M/C No. September 2020	M/C % September 2020	M/C No. October 2021	M/C % October 2021	M/C Change in Proportion
Lloyd Street**	531	9%	198	16%	7%

Table 10: Motorcycle (M/C) volumes on Internal Roads – May 2021 baseline

Weekly (5-day total) Volumes	M/C No. May 2021	M/C % May 2021	M/C No. October 2021	M/C % October 2021	M/C Change in Proportion
Cruikshank Street*	161	12%	120	13%	1%

*Cruikshank Street uses a May 2021 baseline as there were no September 2020 counts taken.

**The count equipment at Lloyd Street was damaged and therefore data is unavailable for the weekend during the baseline period. As such, five-day averages for Lloyd Street have been used in other parts of this report where seven-day daily averages are normally used. The results for Lloyd Street are therefore presented in a separate table and are not included in the overall figures throughout this report.

Insights: motorised traffic on internal roads

Motorised traffic has decreased on the majority of internal roads in both observed and normalised results, which is a positive outcome in line with the objectives of the scheme. Overall motorised traffic on internal roads has decreased by 48%.

The greatest decrease by volume has been on Lloyd Baker Street, with a drop of 839 in the daily normalised average from 1,179 to 340 vehicles per average day. The greatest proportional decrease was on Great Percy Street, where there was an 80% fall in the normalised volume of traffic vehicles.

There was a negligible increase in traffic on Wilmington Street, where motorised traffic volumes are low, at less than 250 per day. There

were more substantial increases by proportion on Prideaux Place and Wharton Street.

Prideaux Place and Wharton Street

Both Prideaux Place and Wharton Street saw an increase in motorised traffic volumes, by 97% and 17% respectively, against normalised figures. Traffic volumes on both roads are fairly low overall. The observed motor traffic on Prideaux Place increased from 197 to 396 vehicles per average weekday, which represents an increase of around 8 vehicles per hour. The increases may be related to the unauthorised removal of the bollard from the traffic filter on Lloyd Street, which may have led to some motor vehicle drivers using these roads as a cut-through.

As the numbers involved are low, no immediate mitigation is planned, however the council will continue to monitor the situation. An increase in traffic was observed on both these roads in the Interim Monitoring Report (June 2021) as well. This may suggest that traffic may have been unusually low when the baseline counts were taken, but it is not clear why this may have happened.

Missing bollard: The effectiveness of the PFS scheme was compromised at the time of the pre-consultation counts, due to the unauthorised removal of the lockable traffic bollard at the Lloyd Square (north side) traffic filter adjoining Wharton Street and its connection with Prideaux Place which have both experienced increases in traffic volume. This may have been exacerbated by unexpected utilities works taking place on Amwell Street leading to motorists using the streets on an unauthorised basis to avoid temporary traffic lights on Amwell Street. Although the filter signage remained in place, the fact that the bollard had been taken without the council's permission means that motorised traffic could physically pass through the filter in question, albeit illegally. Traffic volumes fell on Great Percy Street, Lloyd Baker Street which both have camera-enforced modal filters. This indicates that the use of camera-enforced filters may be a more effective strategy for enforcing the PFS scheme in the face of unauthorised removal of bollards.

It is known from liaison with the construction project management that there was a small volume of additional heavy and lights goods vehicle traffic leaving the construction site at Charles Simmons House (Lloyd Baker Street near the junction with Farringdon Road) via Lloyd Square (east side) and Wharton Street. While the construction had stalled due to lockdown at the time of the baseline counts, this has not resulted in adverse impacts in terms of proportions of these types of vehicles on these roads.

That a bollard was missing from one of the area's filters has impacted the understanding of the effectiveness of the low traffic neighbourhood in terms of the results for Prideaux Place and Wharton Street. The council has now replaced the missing bollard and may explore introducing additional traffic enforcement cameras and conduct further monitoring on the internal roads in Amwell.

Goods Vehicles and Motorcycle volumes

Generally, there was little change in the proportion of LGVs, HGVs and motorcycles on the internal roads. For internal roads, LGV volumes fell by 1% as a proportion of overall traffic, while there was a negligible change (less than 1%) in the proportion of HGVs.

On Margery Street there was a 13% increase in the number of motorcycles. There was also an increase in the overall number of motorcycles on Prideaux Place, but this was broadly proportionate to the overall increase in traffic. It is not clear why there should be such an increase in the numbers of motorcycles on Margery Street, especially considering that overall traffic volumes have fallen. The council will continue to monitor this situation.

Motorised traffic speeds and speeding on internal roads

Speeding is a major contributing factor to road danger, so reducing speeding is vital to making our roads safer for all.

Traffic counters measure motorised traffic speeds as well as volumes. Details about the dates and locations of the traffic volume and speed monitoring are set out above and the locations are provided in Map 2 above and Appendix 5. Full speed monitoring results are available in Appendix 4. The speed limit is 20mph on all of the internal roads.

Speed monitoring results have not been normalised as they are not considered to have been impacted by COVID-19 in the same way and to the same extent as traffic volumes, though speeds may settle into new patterns post-COVID-19. The results presented here are seven- day averages. The 85th percentile is used in transport monitoring to gauge changes in speeds and speeding behaviour. It is the speed at which 85% of traffic will be travelling at, or below, along a street (and therefore 15% of traffic will be travelling faster than this speed)

Results (seven-day averages, 'change in volumes' use seven-day daily averages)

Table 11: Changes in speeds on internal roads – September 2020 baseline

September 2020 vs October 2021	Difference in average speed (mph)	Difference in Average Speed (%)	Difference in 85th percentile (mph)	Difference in 85th percentile (%)	Difference in volume of vehicles speeding	Difference in volume of vehicles speeding (%)	Difference in proportion of vehicles speeding (%)
Great Percy Street	-2.52	-16%	-2.41	-13%	-12	**-94%**	-7%
Prideaux Place	-0.32	-3%	-0.01	0%	2	**218%**	1%
Wharton Street	-0.70	-4%	-1.90	-8%	-5	**-23%**	**-11%**
Lloyd Baker Street	-1.02	-6%	0.47	2%	-23	**-70%**	0%
Wilmington Street	0.03	0%	-0.37	-3%	0	**-10%**	0%
Margery Street	-2.05	-11%	-2.85	-13%	-45	**-85%**	**-20%**
Overall	-1.10	-7%	-1.18	-6%	-83	**-70%**	-6%

Table 12: Changes in speeds on internal roads – May 2021 baseline

May 2021 vs October 2021	Difference in average speed (mph)	Difference in Average Speed (%)	Difference in 85th percentile (mph)	Difference in 85th percentile (%)	Difference in volume of vehicles speeding	Difference in volume of vehicles speeding (%)	Difference in proportion of vehicles speeding (%)
Cruikshank Street*	0.60	4%	0.50	3%	-1	**-25%**	1%

*Cruikshank Street uses a May 2021 baseline as there were no September 2020 counts taken.

Table 13: Changes in speeds on internal roads – Lloyd Street (five-day daily averages)

September 2020 vs October 2021	Difference in average speed (mph)	Difference in Average Speed (%)	Difference in 85th percentile (mph)	Difference in 85th percentile (%)	Difference in volume of vehicles speeding	Difference in volume of vehicles speeding (%)	Difference in proportion of vehicles speeding (%)
Lloyd Street**	-1.40	-8%	-1.76	-8%	-28	**-92%**	-7%

**The count equipment at Lloyd Street was damaged and therefore data is unavailable for the weekend during the baseline period. As such, five-day averages have been used. These are presented in a separate table and are not included in the overall figures.

Insights: motorised traffic speeds and speeding on internal roads

General insights

On average across the internal road sites in Table 11, speeds have decreased by 7%. The proportion of vehicles speeding has decreased by a negligible amount (-6%), as has the 85th percentile speed (-6%). The number of vehicles speeding has decreased on average across internal roads by 70%, which is likely related to the overall decrease in the volume of motorised traffic. The volume of vehicles speeding decreased at every site except for Prideaux Place, which is a positive outcome in line with the objectives of the scheme at this stage.

These results demonstrate that a decrease in motorised traffic on internal roads does not necessarily increase speeding. In fact, when the speed and volume results are considered together, they suggest the opposite is true. The decrease in the volume of motorised traffic and in the volume of vehicles speeding may also suggest that through-traffic tends to go faster than local traffic.

Prideaux Place

The overall traffic volumes have increased on Prideaux Place, which has led to an increase in the number of vehicles exceeding the speed limit. Although the percentage figure seems high, this amounts to an average of two vehicles a day. However, by proportion, the volume of vehicles exceeding the speed limit increased by a negligible amount (1%).

Motorised traffic on boundary roads

The council's analysis of the impact of PFS area schemes on boundary roads (i.e., the roads that go around the PFS area) draws on monitoring results from traffic counts (volumes) and bus journey times.

This monitoring report provides data and insights relating to the Amwell PFS trial specifically by comparing data from September 2020 (before the scheme becoming operational in November 2020) to after implementation in October 2021.

It is important to consider all these results in the context of other external factors which could be contributing towards the results. For example, the Clerkenwell Green low traffic neighbourhood, delivered shortly before the Amwell low traffic neighbourhood, shares a boundary road with Amwell. Several transport projects have been implemented in the area as set out earlier in the report. It is not possible to separate out the impacts these may be having on traffic on this boundary road. A more detailed analysis is in the insights section on motorised traffic on boundary roads.

Motorised traffic volumes on boundary roads

Results (seven-day daily averages)

Table 14: Motorised traffic volumes on boundary roads (7-Day Daily Averages)

	Baseline Observed-September 2020	Baseline Normalised-September 2020	After Observed-October 2021	After Normalised-October2021	Difference Observed	Difference Normalised	Difference Normalised %
Rosebery Avenue (southern site)*	13,624	14,634	13,161	13,840	-462	-794	-5%
Farringdon Road**	7,755	8,330	10,289	10,819	2,534	2,490	**30%**
Pentonville Road**	24,372	26,179	25,759	27,087	1,387	908	3%
Overall	**45,750**	**49,142**	**49,210**	**51,745**	**3,459**	**2,604**	5%

* There was data loss from the ATC between 16:45 and 17:30 on Monday 4 October 2021. This data was patched with the average weekday traffic volumes for the corresponding times

** Data collected by Radar

Table 15: Motorised traffic volumes on boundary roads (7-Day Daily Averages)

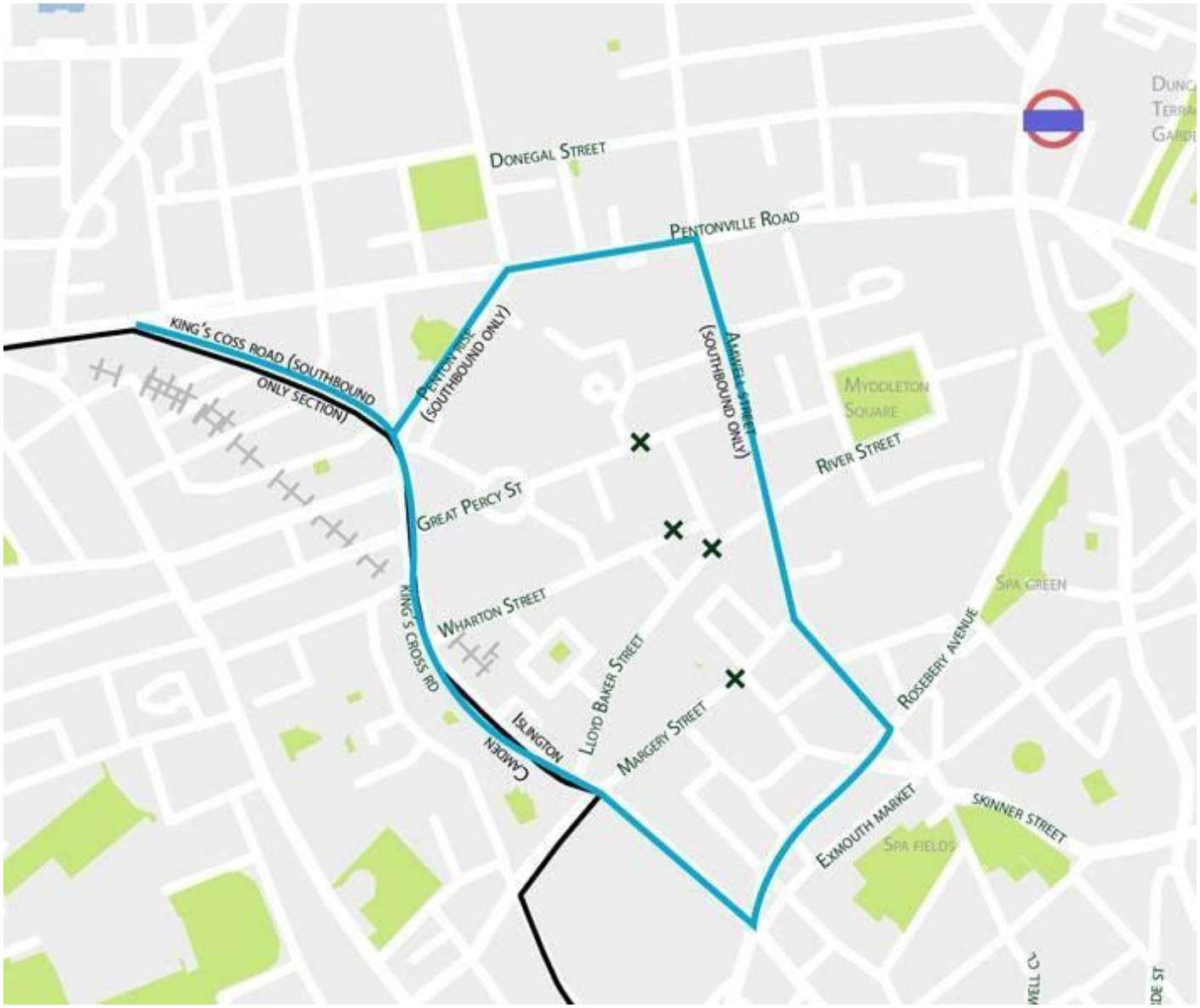
	Baseline Observed-September 2020	Baseline Normalised-September 2020	After Observed-October 2021	After Normalised-October2021	Difference Observed	Difference Normalised	Difference Normalised %
Claremont Square***	5,637	6,055	4,015	4,222	-1,622	-1,833	**-30%**
Amwell Street***	4,613	4,955	2,058	2,164	-2,555	-2,791	**-56%**
Overall	10,250	11,010	6,073	6,386	4,177	-4624	**-42%**

*** Roads affected by utilities works during survey hence shown in separate table

Motorised traffic travel times on boundary roads

Islington Council has procured a smart traffic analysis system called INRIX (refer to glossary for fuller definition) that provides more continuous monitoring of motorised traffic speed data to measure average travel times. These results have not been normalised as they are not considered to have been impacted by COVID-19 in the same way and to the same extent as traffic volumes, though speeds may settle into new patterns post-COVID-19. The INRIX capture areas for the roads that can be seen in Map 5. The results are presented in minutes and seconds (mm:ss).

Map 5: Area of roads included in INRIX analysis



Results

A note on interpreting the results: Table 16 shows that in September 2020 during the AM peak hours (07:00am – 10:00am), it took an average of 55 seconds to travel along Rosebery Avenue between the junction with Farringdon Road and the junction with Amwell Street. In October 2021, it took an average of 59 seconds to travel the same distance. That is, it took on average 4 seconds longer, representing a 7.3% increase. It must be noted that changes in travel times on boundary roads could be influenced by factors other than the Amwell PFS trial, explained in the insights section for motorised traffic on boundary roads. INRIX undertook development to expand the coverage of their network in 2020. In relation to this, there is no northbound data available on Amwell Street prior to September 29, 2020. As such, there is only comparison data available for southbound travel times on Amwell Street.

Table 16: Rosebery Avenue (both directions)

	Sept- 20 (mm:ss)	**October- 21 (mm:ss)**	**Sept 2020- October 2021 difference (mm:ss)**
Weekday AM peak average (0700-1000)	00:55	00:59	00:04
Weekday PM peak average (1600- 1900)	00:53	00:55	00:02
7 day 0700- 1900 average	00:50	00:52	00:02

Table 17: Rosebery Avenue (northbound)

	Sept- 20 (mm:ss)	**October- 21 (mm:ss)**	**Sept 2020- October 2021 difference (mm:ss)**
Weekday AM peak average (0700-1000)	00:58	00:55	-00:03
Weekday PM peak average (1600- 1900)	00:50	01:01	00:12
7 day 0700- 1900 average	00:51	00:53	00:02

Table 18: Rosebery Avenue (southbound)

	Sept- 20 (mm:ss)	October- 21 (mm:ss)	Sept 2020- October 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	00:52	01:02	00:10
Weekday PM peak average (1600- 1900)	00:56	00:50	-00:06
7 day 0700- 1900 average	00:50	00:51	00:01

Table 19: Amwell Street (southbound only)

	Sept- 20 (mm:ss)	October- 21 (mm:ss)	Sept 2020- October 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	02:06	01:52	-00:14
Weekday PM peak average (1600- 1900)	02:07	01:45	-00:22
7 day 0700- 1900 average	02:05	01:47	-00:17

Table 20: Pentonville Road (both directions)

	Sept- 20 (mm:ss)	October- 21 (mm:ss)	Sept 2020- October 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	00:41	00:48	00:07
Weekday PM peak average (1600- 1900)	00:42	00:44	00:02
7 day 0700- 1900 average	00:40	00:44	00:04

Table 21: Pentonville Road (eastbound)

	Sept- 20 (mm:ss)	October- 21 (mm:ss)	Sept 2020- October 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	00:35	00:37	00:02
Weekday PM peak average (1600- 1900)	00:41	00:42	00:01
7 day 0700- 1900 average	00:37	00:39	00:02

Table 22: Pentonville Road (westbound)

	Sept- 20 (mm:ss)	October- 21 (mm:ss)	Sept 2020- October 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	00:47	00:59	00:12
Weekday PM peak average (1600- 1900)	00:43	00:47	00:04
7 day 0700- 1900 average	00:44	00:50	00:06

Table 23: Kings Cross Road and Farringdon Road- Rosebery Avenue to Acton Street (both directions)

	Sept- 20 (mm:ss)	October- 21 (mm:ss)	Sept 2020- October 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	01:37	01:49	00:12
Weekday PM peak average (1600- 1900)	01:30	01:37	00:07
7 day 0700- 1900 average	01:32	01:39	00:07

Table 24: Kings Cross Road and Farringdon Road – Rosebery Avenue to Acton Street (northbound)

	Sept- 20 (mm:ss)	October- 21 (mm:ss)	Sept 2020- October 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	01:46	01:42	-00:04
Weekday PM peak average (1600- 1900)	01:37	01:31	-00:06
7 day 0700- 1900 average	01:36	01:34	-00:02

Table 25: Kings Cross Road and Farringdon Road – Rosebery Avenue to Acton Street (southbound)

	Sept- 20 (mm:ss)	October- 21 (mm:ss)	Sept 2020- October 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	01:27	01:57	00:30
Weekday PM peak average (1600- 1900)	01:24	01:43	00:19
7 day 0700- 1900 average	01:28	01:44	00:16

Table 26: Kings Cross Road between Pentonville Road and Acton Street (southbound only)

	Sept- 20 (mm:ss)	October- 21 (mm:ss)	Sept 2020- October 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	00:42	00:46	00:04
Weekday PM peak average (1600- 1900)	00:41	00:45	00:04
7 day 0700- 1900 average	00:42	00:45	00:03

Table 27: Penton Rise (southbound only)

	Sept- 20 (mm:ss)	October- 21 (mm:ss)	Sept 2020- October 2021 difference (mm:ss)
Weekday AM peak average (0700-1000)	00:53	00:52	-00:01
Weekday PM peak average (1600- 1900)	00:49	00:50	00:01
7 day 0700- 1900 average	00:51	00:51	00:00

Goods Vehicle and Motorcycle volumes on boundary roads

Results (5-day total weekday volumes)

LGV stands for Light Goods Vehicle. This is defined as a goods vehicle or bus with two, three or four axles. HGV stands for Heavy Goods Vehicle. This is defined as any articulated vehicle, with three or more axles.

The results shown are for 5-day average weekday volumes, excluding weekends. This is because goods vehicle traffic is generally less at the weekends, so the weekday data gives a better impression of the effects of goods vehicle traffic. The same approach was used for motorcycles for comparison purposes.

The percentages shown for each vehicle class (LGV, HGV etc.) show the proportion against overall traffic volumes (including cyclists).

The radar sites have been omitted from this analysis as the vehicle sizes recorded do not break down in the same way as for the ATC counts, so any comparison could be misleading.

Table 28: Goods vehicle volumes on boundary roads

Weekly (5-day total) Volumes	LGV No. September 2020	LGV % September 2020	LGV No. October 2021	LGV % October 2021	LGV Change in Proportion	HGV No. September 2020	HGV % September 2020	HGV No. October 2021	HGV % October 2021	HGV Change in Proportion
Rosebery Avenue (southern site)*	5,083	6%	4,668	6%	0%	2,603	3%	2,463	3%	0%

* There was data loss from the ATC on between 16:45 and 17:30 on Monday 4 October 2021. This data was patched with the average weekday traffic volumes for the corresponding times

Table 29: Goods vehicle volumes on boundary roads

Weekly (5-day total) Volumes	LGV No. September 2020	LGV % September 2020	LGV No. October 2021	LGV % October 2021	LGV Change in Proportion	HGV No. September 2020	HGV % September 2020	HGV No. October 2021	HGV % October 2021	HGV Change in Proportion
Claremont Square**	1,613	5%	1,246	4%	-1%	399	1%	438	1%	0%
Amwell Street**	1,446	5%	258	2%	-3%	261	1%	102	1%	0%

Table 30: Motorcycle volumes on boundary roads

Weekly (5-day total) Volumes	M/C No. September 2020	MC % September 2020	M/C No. October 2021	M/C % October 2021	M/C Change in Proportion
Rosebery Avenue (southern site)*	5725	7%	6750	9%	2%

* There was data loss from the ATC on between 16:45 and 17:30 on Monday 4 October 2021. This data was patched with the average weekday traffic volumes for the corresponding times

** Roads affected by utilities works during survey

Table 31: Motorcycle volumes on boundary roads

Weekly (5-day total) Volumes	M/C No. September 2020	MC % September 2020	M/C No. October 2021	M/C % October 2021	M/C Change in Proportion
Claremont Square* **	2935	8%	4051	13%	5%
Amwell Street* **	3114	10%	2309	16%	6%

*** Roads affected by utilities works during survey

Bus journey times on boundary roads

TfL monitors bus journey times across its network, which can add an additional layer of understanding about the impacts of transport schemes. Bus journey times around the Amwell PFS area have been monitored.

Bus journey time monitoring focused on three main roads, described as bi-directional corridors, which include journey times for multiple routes. The main roads and bus route numbers are listed below:

- Farringdon Road (63, 341)
- Pentonville Road (30, 73, 214, 205, 476)
- Rosebery Avenue (19, 38, 341)

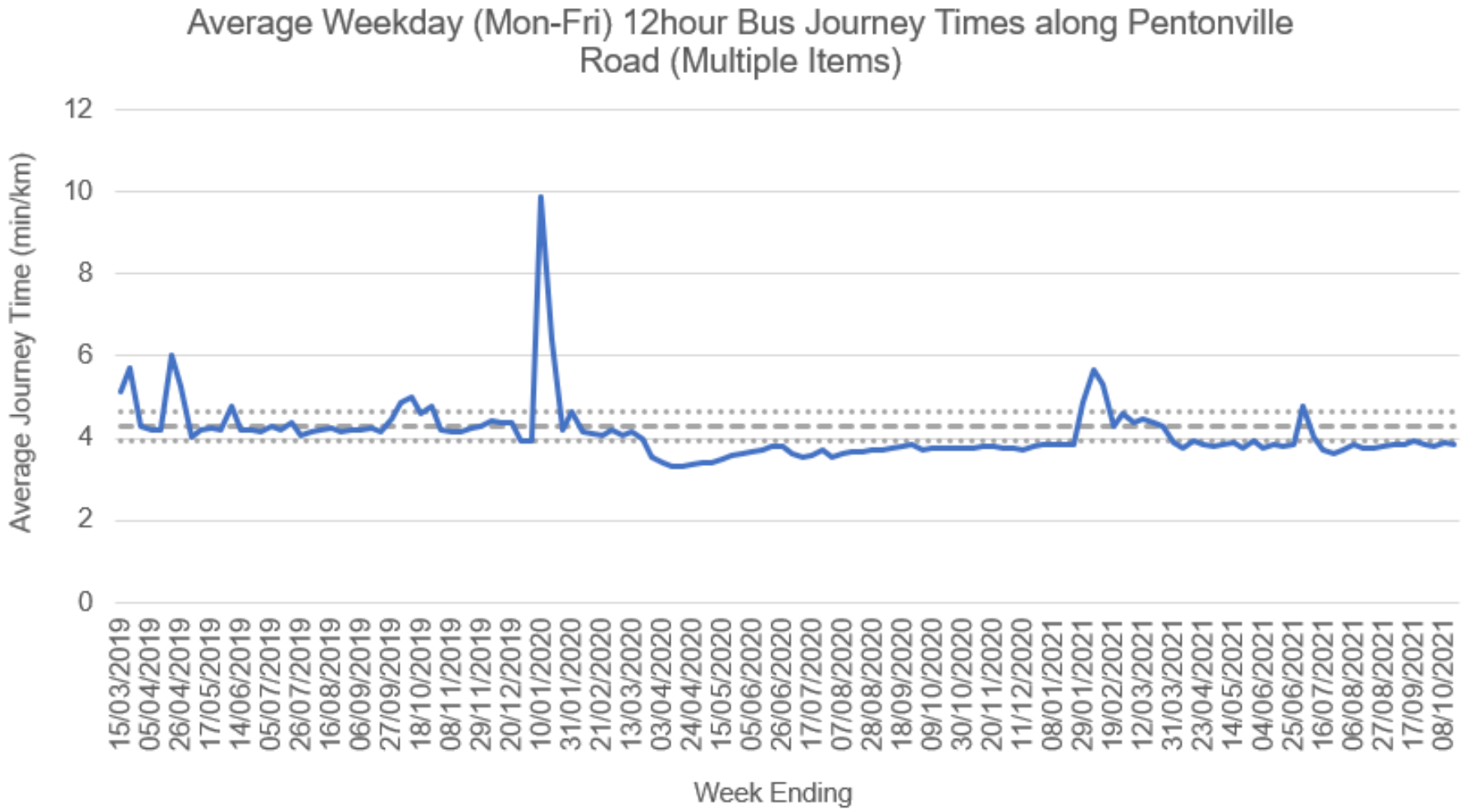
The main bus routes in the vicinity of the Amwell PFS use the boundary roads: Farringdon Road, Pentonville Road and Rosebery Avenue.

Weekly iBus data has been used for this analysis. This gives weekday (Monday to Friday, excluding bank holidays) average journey times by route, stop-to-stop link and peak periods. The AM peak is 7am-10am, Inter-peak 10am-4pm and PM peak 4pm-7pm. The data also provides 12-hour 7am-7pm timings. These journey times exclude dwell times at stops.

TfL's methodology has been used to analyse the results of the iBus data. Journey time results have first been summarised by route, by taking the total journey time across stop-to-stop links along the corridor and dividing by the length of these links, to give a minutes per kilometre figure. Corridor level figures have been found by taking a weighted average across the route level figures, weighted by the route frequency. The data shows the corridor averages each week but also shows thresholds ('Baseline Upper' & 'Baseline Lower'). These thresholds have been found by taking the mean journey time plus or minus one standard deviation during the pre-COVID-19 baseline period (11 March 2019 – 13 March 2020). This allows for a reasonable amount of week-to-week variation but gives a threshold above which minutes per km figures would be deemed above "normal".

The results are shown in Graph 1 to Graph 3 below. The dashed grey lines indicate the baseline threshold, and the blue line indicates the average journey times, recorded on a weekly basis.

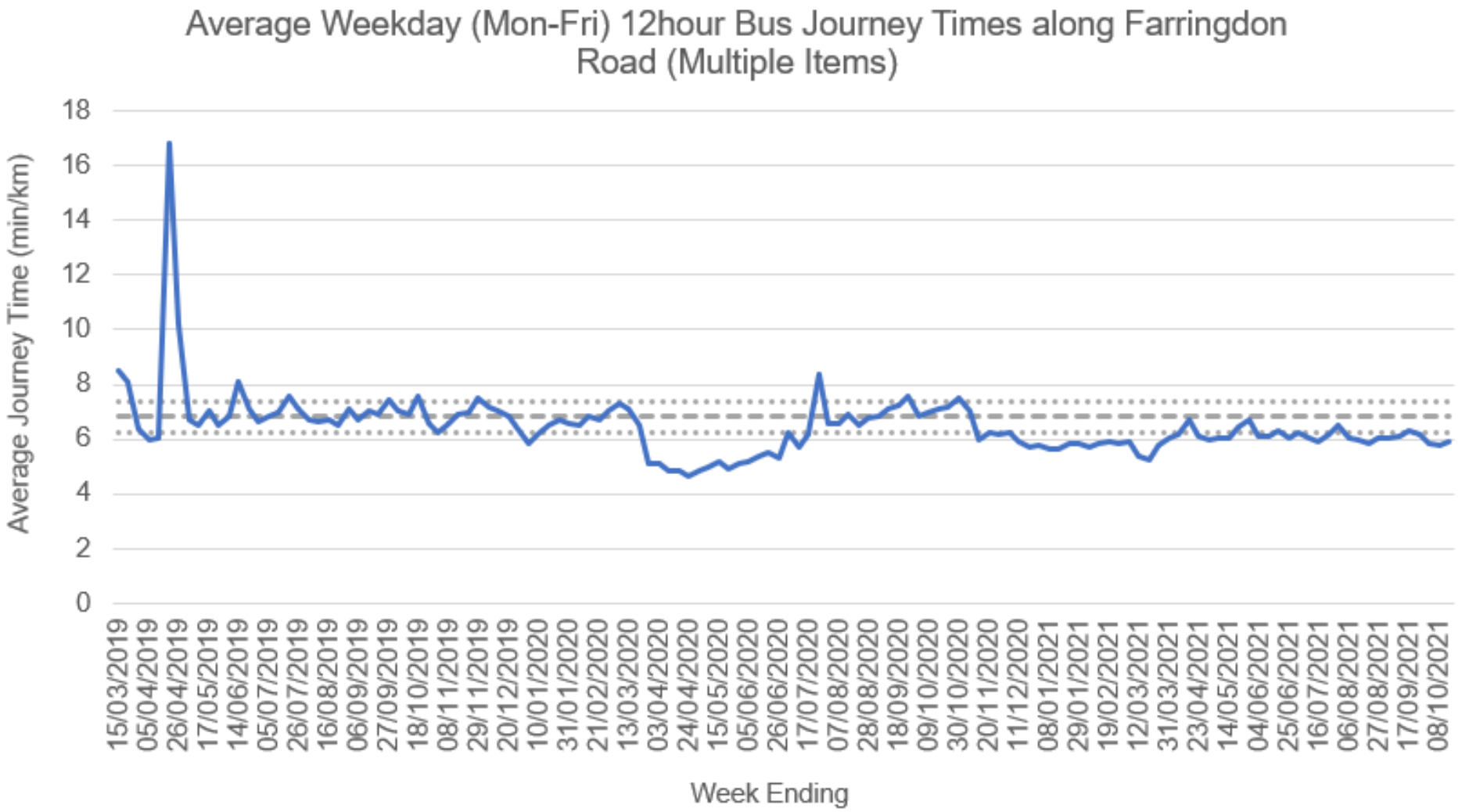
Graph 1: Pentonville Road



Blue line – average bus journey time.

Dashed lines – baseline upper and lower thresholds.

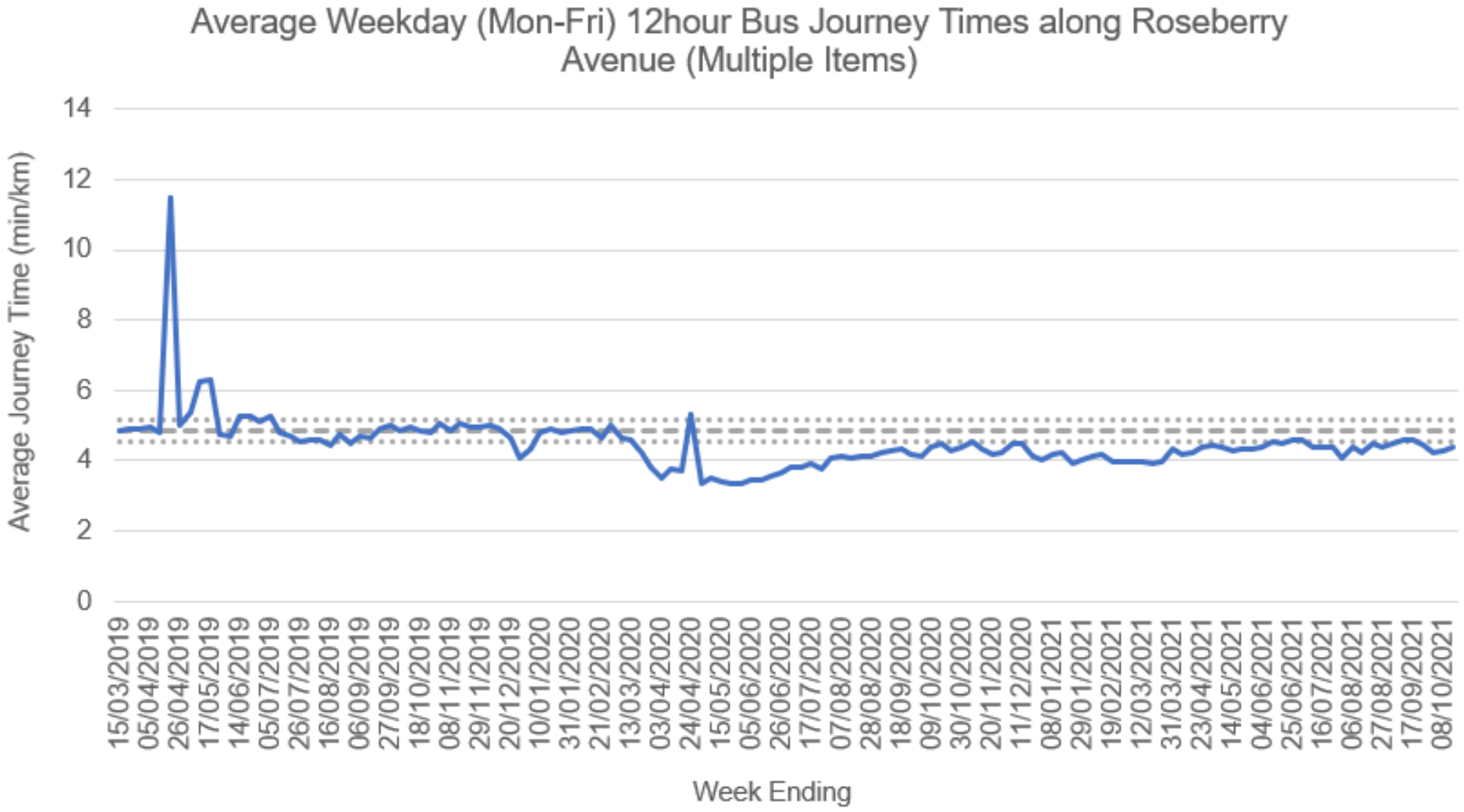
Graph 2: Farringdon Road



Blue line – average bus journey time.

Dashed lines – baseline upper and lower thresholds.

Graph 3: Rosebery Avenue



Blue line – average bus journey time.

Dashed lines – baseline upper and lower thresholds.

Pentonville Road – Bus Journey Times

Between September 2020 and October 2021, bus times fluctuated just below the average of almost 4 minutes. After February 2020, bus journey times fell slightly to between 3 and 4 minutes. Aside from a few fluctuations, the bus journey times have stayed at this level through to October 2021. As the PFS scheme was implemented in November 2020, it does not appear to have had any effect on the bus journey times on Pentonville Road.

Looking at the directional flow, most of the fluctuations were in the eastbound direction rather than the westbound direction, where average journey times were more even. Journey time variations were more pronounced in the PM peak than the AM peak.

Farringdon Road – Bus Journey Times

Journey times fluctuated greatly prior to implementation in November 2020, however they have been consistently between 5 and 6 minutes from December 2020. There is no clear link between bus journey times on Farringdon Road and the implementation of the Amwell PFS.

Rosebery Avenue – Bus Journey Times

Average journey times dipped in March 2020 from an average of between 4 and 5 minutes to below 4 minutes. After the Amwell PFS scheme came into operation in November 2020, bus journey times have been fairly consistent at between 4 and 5 minutes. There have been no obvious changes in bus journey times related to the implementation of the PFS.

Overall, bus journey time on the boundary roads of the PFS fell by up to a minute over the periods of lockdown. The journey times do not appear to have risen to pre-lockdown levels after the lockdowns were lifted. This indicates that bus journey times on the boundary roads have not been negatively affected by the introduction of the Amwell PFS.

Insights: motorised traffic on boundary roads (combined monitoring)

General insights

Overall, across boundary roads, the total changes in volumes of traffic show a negligible change of -3% (combined tables). There has been an increase in motorised traffic on Farringdon Road of 30%, however this is balanced against falls of 30% and 56% on Claremont Square and Amwell Street respectively. Journey times (as can be seen in the INRIX data) have generally shown minor changes. Looking at daily average figures, on Amwell Street there was a fall of 17 seconds in the journey time from 2:05 to 01:47, while on Kings Cross Road and Farringdon Road – Rosebery Avenue to Acton Street, journey times increased by 16 seconds southbound, from 01:28 to 01:44. This suggests the increase in traffic volumes is not leading to a substantial increase in traffic congestion in the area. The council will continue to monitor these sites and propose mitigating measures if necessary.

The most heavily trafficked road is Pentonville Road, with around 24,000 – 26,000 motor vehicles per average day. This site saw a negligible increase of 3%, representing an increase of 908 motor vehicles (normalised figures).

Farringdon Road

Farringdon Road has seen an increase of 30% in motorised traffic volumes. The increase on Farringdon Road could be caused by factors other than the Amwell PFS trial. The observed seven day daily average increase of 2,534 vehicles per day exceeds the total decrease of about 1,900 in traffic volumes on internal roads from the Amwell PFS area (excluding Lloyd Street, which used different data due to damaged count equipment on the count site). The external Factors section above details nearby major traffic projects which may have had an impact on traffic levels on Farringdon Road. For example, the works to remove the Old Street roundabout were a major transport infrastructure project that may have impacted traffic flows, as drivers seek alternative north-south routes to avoid the works area (works to remove the roundabout took place from spring 2019, with the switch to make the traffic flow two-way and reduce congestion made in January 2021). In the six-month interim monitoring report, the traffic volumes on Farringdon Road were observed to have increased by 36% from the same baseline of September 2020.

In addition, this increase in traffic on Farringdon Road has been balanced by falls in traffic on Claremont Square and Amwell Street as set out in the next paragraph which were affected by unexpected utilities works. This potentially points to a redistribution of traffic on the north-south boundary road of the PFS area while the works were happening, suggesting that there may have been a bigger drop between the interim results and these pre-consultation results on Farringdon Road without the works taking place. Notwithstanding that the numbers were affected by utilities works, motorised traffic fell by 3% on all of the boundary roads combined.

The council will continue to monitor this situation.

Claremont Square and Amwell Street

Both of these locations appear to have been affected by the unexpected utilities works carried out on Amwell Street during the October 2021 pre-consultation survey counts. Traffic volumes fell by 30% on Claremont Square and 56% on Amwell Street. Comparing this with the data from the six-month interim monitoring report, this identified that in May 2021, traffic volumes on Claremont Square and Amwell Street had both changed by negligible amounts (+4% and -2% respectively) from the same September 2020 baseline. Given that the traffic volumes on the other boundary roads are similar to those recorded in the six-month monitoring report, it could be reasonably inferred that there has been no increase in traffic on either Claremont Square or Amwell Street due to the impact of the PFS.

Goods Vehicles and Motorcycle volumes

The changes in proportions of goods vehicles were negligible, less than 0.5%. The volumes of goods vehicles rose or fell broadly in line with the rise or fall of general traffic. HGV volumes increased on Claremont Square by 39 vehicles (0.28%), but this is a negligible amount and may be due to random fluctuations.

The change in proportions of motorcycle vehicles was 2% on Rosebery Avenue, 5% on Claremont Square and 6% on Amwell Street. This indicates that there has been an increase in motorcycle use throughout the boundary roads, though on all the change in proportion was less than 10%.

Motorised traffic speeds and speeding on boundary roads

The traffic counts carried out in Amwell also measure motorised traffic speeds. These are the same counts that have been analysed for their volume results. The details about the dates and locations of these counts are in Appendix 4

The results presented here are seven-day averages. The 85th percentile is used in transport monitoring to gauge changes in speeds and speeding behaviour. It is the speed at which 85% of traffic will be travelling at, or below, along a street (15% of traffic will be travelling faster than this speed, therefore).

Results (seven-day averages, 'change in speeds' use seven-day daily averages)

Table 32: Changes in speeds on boundary roads

September 2020 vs October 2021	Difference in average speed (mph)	Difference in Average Speed (%)	Difference in 85th percentile (mph)	Difference in 85th percentile (%)	Difference in volume of vehicles speeding	Difference in volume of vehicles speeding (%)	Difference in proportion of vehicles speeding (%)
Rosebery Avenue (southern site)*	0.59	3%	0.53	2%	76	9%	5%
Farringdon Road**	-4.48	-16%	-4.86	-14%	448	**76%**	**17%**
Pentonville Road**	-1.60	-8%	-4.43	-15%	-269	**-73%**	-8%
Overall	-1.83	-8%	-2.92	-10%	254	**14%**	0%

* There was data loss from the ATC between 16:45 and 17:30 on Monday 4 October 2021. This data was patched with the average weekday traffic volumes for the corresponding times

** Data collected by radar

Table 33: Changes in speeds on boundary roads

September 2020 vs October 2021	Difference in average speed (mph)	Difference in Average Speed (%)	Difference in 85th percentile (mph)	Difference in 85th percentile (%)	Difference in volume of vehicles speeding	Difference in volume of vehicles speeding (%)	Difference in proportion of vehicles speeding (%)
Claremont Square***	1.26	8%	1.27	7%	11	**11%**	6%
Amwell Street***	-3.38	-22%	-3.82	-20%	-58	**-87%**	-7%

*** Roads affected by utilities works during October 2021 pre-consultation survey

Insights: motorised traffic speeds and speeding on boundary roads

General insights

On average across the boundary road sites, average speeds and 85th percentile speeds have fallen or shown a negligible increase. The percentage change of the proportion of vehicles speeding has been negligible overall. There has been an increase in both the volume and the proportion of vehicles exceeding the speed limit on Farringdon Road of 76% and 17% respectively.

The significant decrease in the volume of vehicles speeding on Amwell Street is likely to reflect the impact of the unexpected utilities works that were taking place at the time of the pre-consultation counts.

Motorised traffic on local roads beyond the PFS boundary

Motorised traffic volumes

Cynthia Street, Donegal Street and Topham Street are three local roads in Islington that are beyond the Amwell PFS boundary. Traffic counts, speed data and cycling volumes were collected at these sites because they were identified as locations where traffic may be displaced as a result of the PFS scheme. Similarly, traffic volume data, speed data and cycling volumes were collected on Calthorpe Street in Camden beyond the Amwell PFS area. Camden Council requested this street was monitored to ensure that the Amwell PFS scheme was not having an adverse impact here.

Results (seven-day daily averages)

Table 34: Motorised traffic volumes on local roads beyond the Amwell PFS boundary

	Baseline Observed-September 2020	Baseline Normalised-September 2020	After Observed-October 2021	After Normalised-October2021	Difference Observed	Difference Normalised	Difference Normalised %
Cynthia Street*	1,963	2,109	996	1048	-967	-1061	**-50%**
Donegal Street	2,975	3,195	3,645	3,884	670	637	**20%**
Calthorpe Street*	3,583	3,849	3,128	3,289	-456	-560	**-15%**

*Patched data in the October 2021 pre-consultation counts – used traffic count data from week commencing 9 October to fill in missing data sets.
** Calthorpe Street is located in London Borough of Camden

Table 35: Motorised traffic volumes on local roads beyond the Amwell PFS boundary – May 2021 baseline

	Baseline Observed – May 2021	Baseline Normalised- May 2021	After Observed- October 2021	After Normalised- October 2021	Difference Observed	Difference Normalised	Difference Normalised %
Topham Street* **	364	447	407	428	43	-20	-4%

***Topham Street uses a May 2021 baseline as there were no September 2020 counts taken. There was data loss from the Topham Street ATC at 11:45 on Wednesday 6 October 2021. This data was patched with the average weekday traffic volumes for the corresponding times.

Insights: Motorised traffic volumes on local roads beyond the PFS boundary

The volume of motorised traffic has decreased on both Cynthia Street and Calthorpe Street, although there has been an increase on Donegal Street. On Cynthia Street the motorised traffic volume has fallen by 50%, from 2,109 to 1,048 vehicles per day. Calthorpe Street saw a fall of 15% in motorised traffic.

Donegal Street

Motorised traffic volumes increased by 20% on Donegal Street. This is likely to be due to a combination of factors. The Amwell PFS measures prevent through traffic between Amwell Street and King's Cross Road and existing banned turns may lead traffic to cut through local streets to the north of the Amwell LTN via Donegal Street.

The council is exploring the feasibility of implementing a people-friendly streets scheme in the area north of Pentonville Road and west of the A1, which would aim to prevent vehicles cutting through side streets including Cynthia Street and Donegal Street, while maintaining vehicle access to all properties. It is expected to be challenging to implement a PFS scheme in this area due to the large size of the area of local streets. The council will be engaging with the public in due course to give residents and businesses the chance to have a say in how we can best achieve this.

Motorised traffic speeds and speeding on local roads beyond the PFS boundary

Results (seven-day averages, 'change in speeds' use seven-day daily averages)

Table 36: Motorised traffic speeds on local roads beyond the Amwell PFS boundary – September 2020 baseline

September 2020 vs October 2021	Difference in average speed (mph)	Difference in Average Speed (%)	Difference in 85th percentile (mph)	Difference in 85th percentile (%)	Difference in volume of vehicles speeding	Difference in volume of vehicles speeding (%)	Difference in proportion of vehicles speeding (%)
Cynthia Street*	6.24	50%	8.52	58%	380	**4,196%**	**39%**
Donegal Street	0.06	0%	-0.08	0%	11	**18%**	-1%
Calthorpe Street**	0.31	2%	0.21	1%	-15	-8%	1%

Table 37: Motorised traffic speeds on local roads beyond the Amwell PFS boundary – May 2021 baseline

May 2021 vs October 2021	Difference in average speed (mph)	Difference in Average Speed (%)	Difference in 85th percentile (mph)	Difference in 85th percentile (%)	Difference in volume of vehicles speeding	Difference in volume of vehicles speeding (%)	Difference in proportion of vehicles speeding (%)
Topham Street***	0.00	0%	0.0	0%	0	**n/a**	**0%**

*Patched data in the October 2021 pre-consultation counts – used traffic count data from week commencing 9 October to fill in missing data sets.

** Calthorpe Street is located in the London Borough of Camden

***Topham Street uses a May 2021 baseline as there were no September 2020 counts taken. There was data loss from the Topham Street ATC at 11:45 on Wednesday, 6 October 2021. This data was patched with the average weekday traffic volumes from the corresponding times. Topham Street showed no vehicles travelling over the speed limit in either count.

Insights: Motorised traffic speeds and speeding on local roads beyond the PFS boundary

There was a negligible change in vehicle speeds on both Donegal Street and Calthorpe Street. The volume of vehicles speeding increased by 18% on Donegal Street; there were proportionately less (by -1%) vehicles speeding.

Cynthia Street

There was an increase in vehicle speeds on Cynthia Street. Average speeds increased from around 12.5mph to around 19mph. There was also a very large increase in the volume of vehicles speeding, from 9 in the baseline counts to 389 in the pre-consultation counts resulting in a difference of 380, while there was a 39% increase in the proportion of vehicles speeding (with overall traffic volume having fallen while the volume of vehicles speeding rose). These are anomalous results; it is not clear why this may have happened.

A school street scheme has been introduced on Cynthia Street in late 2020. Monitoring for the school street scheme has recorded 85th percentile vehicle speeds of 18-20 mph in July 2021, although these speeds are lower than the 23mph 85th percentile vehicle speeds recorded for the Amwell pre-consultation in October 2021. The council will keep monitoring this situation and consider what mitigation measures may be necessary.

Topham Street

The recorded speeds on Topham Street were almost all within the posted speed limit. The average speed on the road in both the baseline and pre-consultation counts was around 10mph. This is why there is a 0% change in the proportion of vehicles exceeding the speed limit.

Motorised traffic on main roads beyond the PFS boundary

Rosebery Avenue (north site) in Islington is beyond the Amwell PFS boundary. Traffic counts, speed data and cycling volumes were collected at this site because it was identified as a location where traffic may increase as a result of the Amwell PFS scheme. Traffic volume data, speed data and cycling volumes were collected on Acton Street and Swinton Street which are main roads located in Camden beyond the Amwell PFS area at the request of Camden Council.

Motorised traffic volumes on main roads beyond the PFS boundary

Results (seven-day daily averages)

Table 38: Motorised traffic volumes on main roads beyond the Amwell PFS boundary

	Baseline Observed-September 2020	Baseline Normalised-September 2020	After Observed-October 2021	After Normalised-October 2021	Difference Observed	Difference Normalised	Difference Normalised %
Rosebery Avenue (north site)	8,903	9,562	9,263	9,740	361	178	2%
Acton Street*	6,780	7,282	8,323	8,752	1,543	1,469	**20%**
Swinton Street*	7,438	7,990	10,987	11,553	3,548	3,563	**45%**
Overall	23,120	24,834	28,572	30,045	5,452	5,210	**21%**

* Acton Street and Swinton Street are located in the London Borough of Camden

Insights: Motorised traffic volumes on main roads beyond the PFS boundary

There has been a negligible change in traffic volumes on Rosebery Avenue (north site). Motorised traffic volumes have increased by 20% on Acton Street and by 45% on Swinton Street.

Swinton Street and Acton Street

On Swinton Street, the normalised daily volume of motor traffic has increased from 7,990 to 11,553; on Acton Street it has increased from 7,282 to 8,752.

There is a combination of factors that may have resulted in this increase. The Amwell PFS prevents northbound motorists from cutting through Lloyd Baker Street from King's Cross Road to avoid the area around King's Cross Station. This traffic is likely to use the King's Cross gyratory, mostly via Swinton Street, instead, which may have contributed to the results. Residents of the western side of the Amwell PFS who previously accessed areas via Amwell Street are also likely to be a small contributory factor to increases on Swinton Street and Acton Street, for example the area to the south-east would be accessed via the King's Cross gyratory and Pentonville Road as there is a banned left turn from Farringdon Road. However, the increase in traffic on Swinton Street and Acton Street is far higher than the fall in traffic on the internal roads, suggesting that some of the increase on Swinton Street originates from sources other than the Amwell PFS measures. The observed seven day daily increase on Swinton Street is 3,548 vehicles per day, whereas the equivalent decrease on Lloyd Baker Street, the road within the PFS most likely to displace vehicles to Swinton Street is –774 vehicles per day. Moreover, the increase on Swinton Street alone is greater than the overall decrease in traffic volumes on all internal roads surveyed (about -1,900 vehicles) (excluding Lloyd Street , which uses different data due to damaged count equipment at the site).

Motorised traffic speeds and speeding on main roads beyond the PFS boundary

Results (seven-day averages, 'change in speeds' use seven-day daily averages)

Table 39: Motorised traffic speeds on main roads beyond the Amwell PFS boundary

	Difference in average speed (mph)	Difference in average speed (%)	Difference in 85th percentile (mph)	Difference in 85th percentile (%)	Difference in volume of vehicles speeding	Difference in volume of vehicles speeding (%)	Difference in proportion of vehicles speeding (%)
Rosebery Avenue (north)	-1.87	-8%	-0.85	-3%	-167	**-19%**	**-15%**
Acton Street	-2.13	-9%	-2.14	-8%	-47	**-76%**	-5%
Swinton Street	-2.15	**-11%**	-2.00	-9%	-11	**-85%**	0%
Overall	-2.05	-9%	-1.66	-7%	-225	**-24%**	-7%

Insights: Motorised traffic speeds on main roads beyond the PFS boundary

Motorised traffic speeds have fallen by a negligible amount on Acton Street (9%) and by 11% on Swinton Street. Unlike the other roads in the study, both of these roads have a 30mph speed limit. The average and 85th percentile speeds have fallen negligibly on both roads, which may be related to the increase in traffic volumes (despite which volumes of vehicles speeding have significantly fallen by 76% on Acton Street and 85% on Swinton Street). On Rosebery Avenue (north site), both the volume and proportion of vehicles speeding fell by 19% and 15% respectively.

Goods Vehicle and Motorcycle volumes on local and main roads beyond the PFS

Results (5- day total weekday volumes)

LGV stands for Light Goods Vehicle. This is defined as a goods vehicle or bus with two, three or four axles. HGV stands for Heavy Goods Vehicle. This is defined as any articulated vehicle, with three or more axles.

The results shown are for 5-day average weekday volumes, excluding weekends. This is because goods vehicle traffic is generally less at the weekends, so the weekday data gives a better impression of the effects of goods vehicle traffic. The same approach was used for Motorcycles for comparison purposes.

The percentages shown for each vehicle class (LGV, HGV etc.) show the proportion against overall traffic volumes (including cyclists).

The radar sites have been omitted from this analysis as the vehicle sizes recorded do not break down in the same way as for the ATC counts, so any comparison could be misleading.

Table 40: Goods vehicle volumes on local roads beyond the Amwell PFS boundary – September 2020 baseline

Weekly (5-day total) Volumes	LGV No. September 2020	LGV % September 2020	LGV No. October 2021	LGV % October 2021	LGV Change in Proportion	HGV No. September 2020	HGV % September 2020	HGV No. October 2021	HGV % October 2021	HGV Change in Proportion
Cynthia Street*	412	4%	217	5%	1%	52	1%	9	0%	0%
Donegal Street	857	5%	806	4%	-1%	87	1%	123	1%	0%
Calthorpe Street**	1,040	4%	1,140	5%	1%	192	1%	123	1%	0%

*Patched data in the October 2021 pre-consultation counts – used traffic count data from week commencing 9 October to fill in missing data sets.
** Calthorpe Street is located in the London Borough of Camden

Table 41: Goods vehicle volumes on local roads beyond the Amwell PFS boundary – May 2021 baseline

Weekly (5-day total) Volumes	LGV No. May 2021	LGV % May 2021	LGV No. October 2021	LGV % October 2021	LGV Change in Proportion	HGV no. Baseline	HGV % Baseline	HGV No. October 2021	HGV % October 2021	HGV Change in Proportion
Topham Street* **	50	2%	82	4%	1%	3	0%	2	0%	0%

*** Topham Street uses a May 2021 baseline as there were no September 2020 counts taken. There was data loss from the Topham Street ATC at 11:45 on Wednesday 6 October 2021. This data was patched with the average weekday traffic volumes for the corresponding times

Table 42: Goods vehicle volumes on main roads beyond the Amwell PFS boundary

Weekly (5-day total) Volumes	LGV No. September 2020	LGV % September 2020	LGV No. October 2021	LGV % October 2021	LGV Change in Proportion	HGV No. September 2020	HGV % September 2020	HGV No. October 2021	HGV % October 2021	HGV Change in Proportion
Rosebery Avenue (north)	5,665	11%	4,482	8%	-3%	2,215	4%	2,869	5%	1%

Table 43: Motorcycle volumes on local roads beyond the Amwell PFS boundary – September 2020 baseline

Weekly (5 day) Volumes	M/C No. September 2020	MC % September 2020	M/C No. October 2021	M/C % October 2021	M/C Change in Proportion
Cynthia Street*	678	6%	413	9%	3%
Donegal Street	1907	11%	2587	12%	2%
Calthorpe Street**	2007	8%	2257	9%	2%

*Patched data in the October 2021 pre-consultation counts – used traffic count data from week commencing 9 October to fill in missing data sets.

** Calthorpe Street is located in the London Borough of Camden

Table 44: Motorcycle volumes on local roads beyond the Amwell PFS boundary – May 2021 baseline

Weekly (5 day) Volumes	M/C No. May 2021	MC % May 2021	M/C No. October 2021	M/C % October 2021	M/C Change in Proportion
Topham Street***	316	14%	332	15%	0%

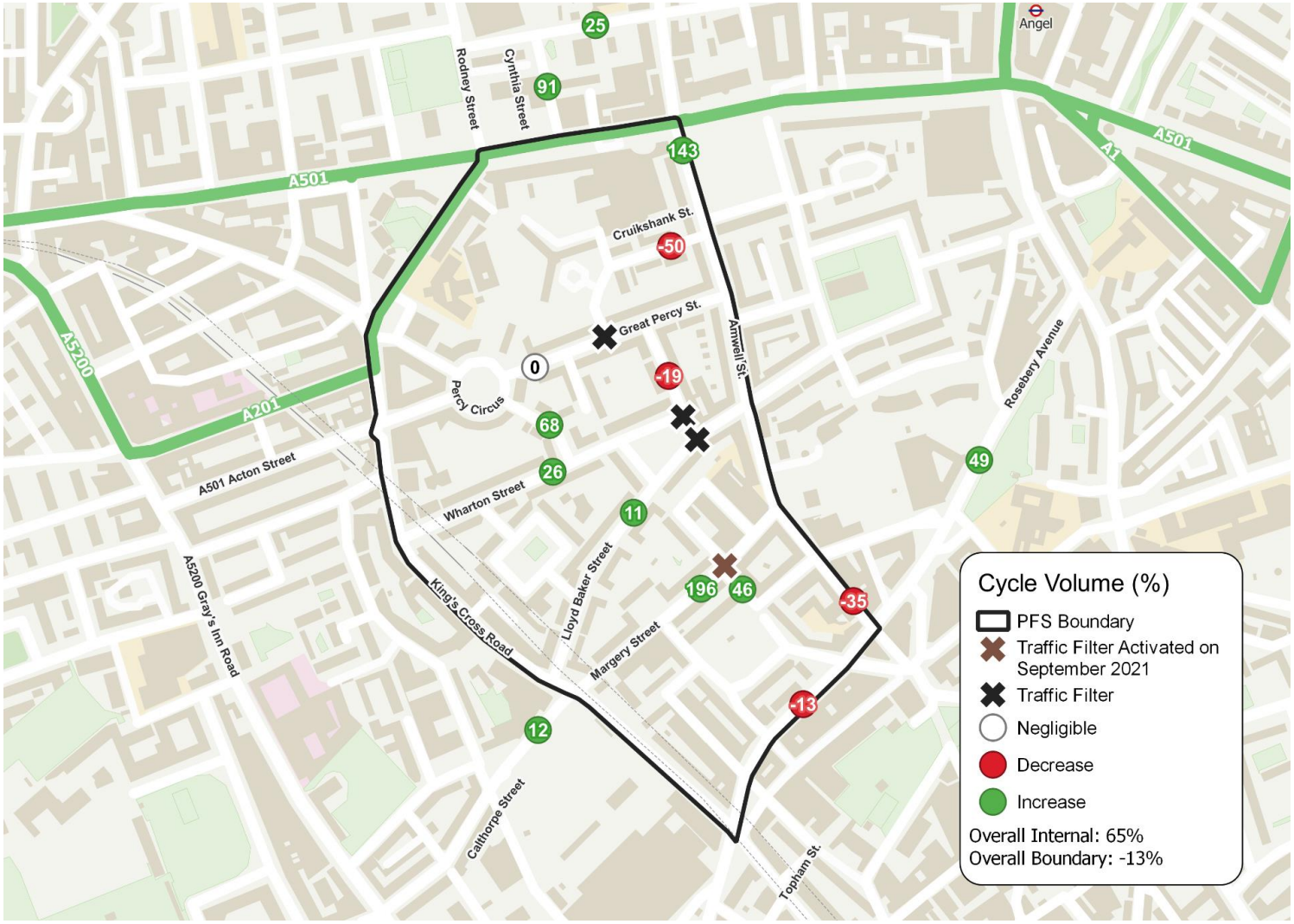
***Topham Street uses a May 2021 baseline as there were no September 2020 counts taken. There was data loss from the Topham Street ATC at 11:45 on Wednesday 6 October 2021. This data was patched with the average weekday traffic volumes for the corresponding times.

Table 45: Motorcycle volumes on main roads beyond the boundary

Weekly (5 day) Volumes	M/C No. September 2020	MC % September 2020	M/C No. October 2021	M/C % October 2021	M/C Change in Proportion
Rosebery Avenue (north)	4101	8%	4906	8%	1%

Cycling volumes on internal and boundary roads

Map 6: Percentage change in cycling volumes (seven-day daily averages)

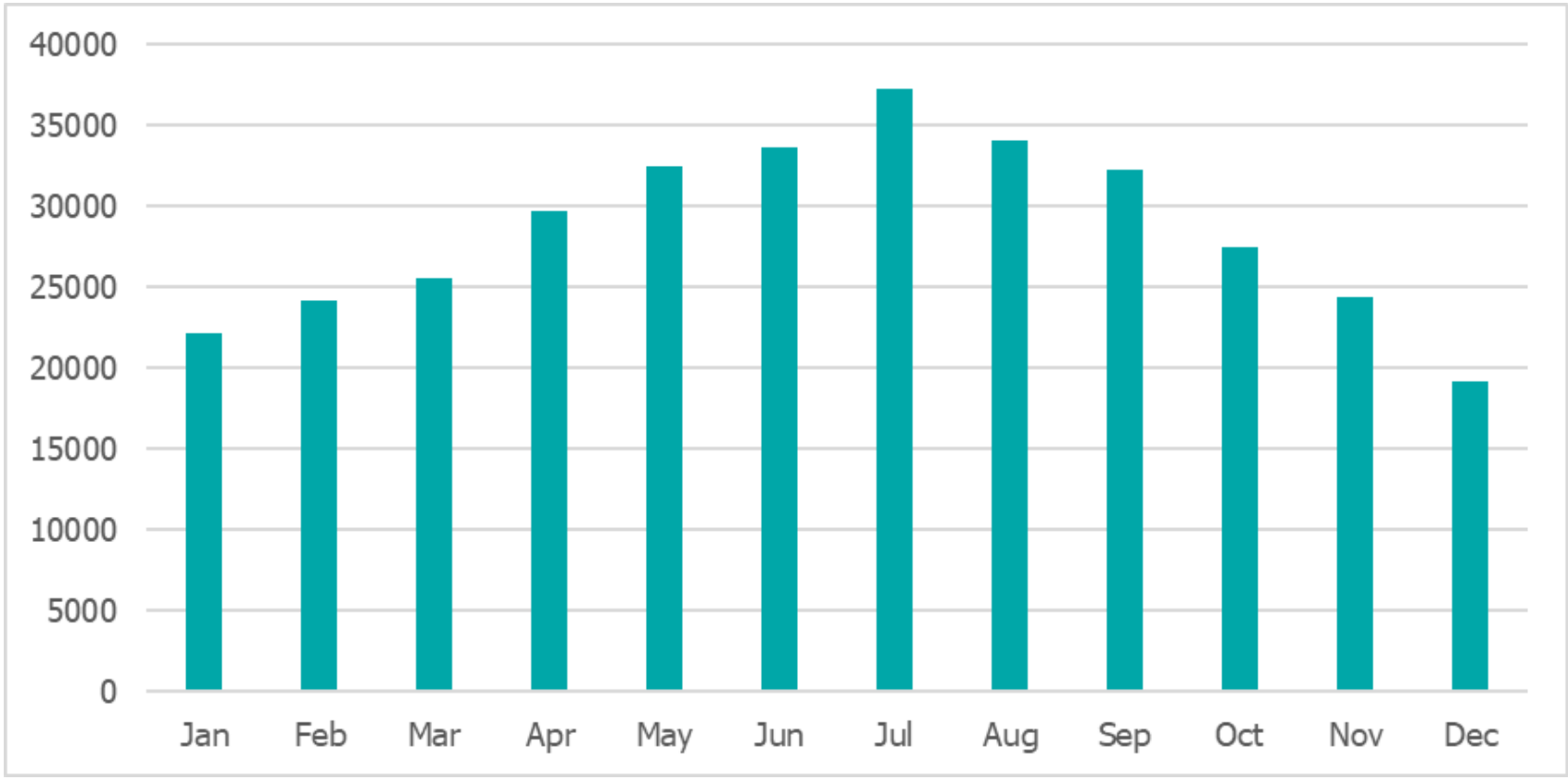


We have not normalised cycling figures for COVID-19 due to the lack of an available source that encompasses all cycle users, and because there are likely at least two key variables impacting these results: COVID-19 disruption, and seasonal variation.

Cycling levels are impacted by seasonal weather change including temperature and rainfall; for example, there is normally much more cycling participation in June than in November. There are several factors that interplay with each other when it comes to the impact seasonal weather variation has on cycling levels, while weather can still vary within a season. As an indication of the impact weather can have, one 2011 study found a doubling in temperature (on the Celsius scale) could lead a 43% – 50% increase in cycling levels, before having a negative impact if too high (Miranda-Moreno and Nosal, 2011).

Graph 4 shows the hire trends for the London-based Santander cycle hire scheme in 2019, to demonstrate the seasonal difference in cycling levels. For example, in 2019 the levels of Santander Cycle hires in November were on average 28% lower than in June. This pre-consultation report compares results from the same season, so seasonal weather variation is likely to be minimal.

Graph 4: Monthly average Santander hire trend in 2019 showing seasonal difference in cycling levels



Cycling volumes on internal roads

Results (seven-day daily averages)

Table 46: Pedal cycles volumes on internal roads – September 2020 baseline

Internal Road Location	7-day Daily Averages - September 2020	7-day Daily Averages - October 2021	Difference (%)
Great Percy Street	216	217	0%
Prideaux Place	39	66	**68%**
Wharton Street	222	281	**26%**
Lloyd Baker Street	186	207	**11%**
Wilmington Street	94	137	**46%**
Margery Street	261	771	**196%**
Overall	1,018	1,678	**65%**

Table 47: Pedal cycles volumes on internal roads – May 2021 baseline

Internal Road Location	7-day Daily Averages - May 2021	7-day Daily Averages - October 2021	Difference (%)
Cruikshank Street*	59	30	**-50%**

*Cruikshank Street uses a May 2021 baseline as there were no September 2020 counts taken.

Table 48: Pedal cycles volumes on internal roads – Lloyd Street (five-day daily averages)

Internal Road Location	5-day Daily Averages - September 2020	5-day Daily Averages - October 2021	Difference (%)
Lloyd Street**	138	111	**-19%**

**The count equipment at Lloyd Street was damaged and therefore data is unavailable for the weekend during the interim period. As such, five-day averages have been used in this case, and are presented in a separate table and not included in the overall figures.

Cycling volumes on boundary roads

Results (seven-day daily averages)

Table 49: Pedal cycles volumes on boundary roads

Boundary Road Location	7-day Daily Averages - September 2020	7-day Daily Averages - October 2021	Difference (%)
Rosebery Avenue	1,752	1,527	**-13%**

Pedal cycle volumes on Pentonville Road and King's Cross Road are not available due to radar counts being used on the TLRN.

Table 50: Pedal cycles volumes on boundary roads

Boundary Road Location	7-day Daily Averages - September 2020	7-day Daily Averages - October 2021	Difference (%)
Claremont Square***	634	1,538	**143%**
Amwell Street***	927	607	**-35%**

***Roads affected by utilities works during survey

Cycling volumes on local roads outside the PFS

Table 51: Pedal cycles volumes on local roads outside the Amwell PFS boundary – September 2020 baseline

Local Road Location outside the PFS	7-day Daily Averages - September 2020	7-day Daily Averages- October 2021	Difference (%)
Cynthia Street*	20	39	**91%**
Donegal Street	263	328	**25%**
Calthorpe Street**	1,126	1,256	**12%**

Table 52: Pedal cycles volumes on local roads outside the Amwell PFS boundary – May 2021 baseline

Local Road Location outside the PFS	7-day Daily Averages - September 2020	7-day Daily Averages - October 2021	Difference (%)
Topham Street***	21	15	**-26%**

*Patched data in the October 2021 pre-consultation counts – used traffic count data from week commencing 9 October to fill in missing data sets.

** Calthorpe Street is located in the London Borough of Camden

***Topham street uses May 2021 counts as a baseline as there were no September 2021 counts

Cycling volumes on main roads outside the PFS

Table 53: Pedal cycles volumes on main roads outside the Amwell PFS boundary

Main Road Location outside the PFS	7-day Daily Averages - September 2020	7-day Daily Averages - October 2021	Difference (%)
Rosebery Avenue (north site)	1,189	1,774	**49%**

Insights: cycling volumes on internal and boundary roads (combined)

Overall, across the internal roads, cycling volumes have increased by 65%, which is a positive result in line with the aims of the scheme. The greatest increase occurred on Margery Street (with flow – westbound) which is part of Cycleway 27, where volumes rose from 261 cyclists per average day to 771 (an increase of 196%).

Cycle volumes decreased on Lloyd Street and Cruikshank Street. However, these locations all experience relatively low numbers of cyclists, with Cruikshank Street below 100 cyclists per day, so these may be more susceptible to general fluctuations in cyclist numbers. On Lloyd Street, cycle volumes fell from 138 to 111 per average day, a fall of 27 cyclists. It may be the case that cyclists are more attracted to the other routes through the PFS, such as Great Percy Street and Lloyd Baker Street, both of which provide direct east / west routes through Amwell.

On the boundary roads for which counts were available, the overall cycling volumes have risen by 11% (combined tables). While cycle volumes have increased by 143% on Claremont Square, it has fallen by 35% on Amwell Street and 13% on Rosebery Avenue. It may be the case that cyclists are travelling through the Amwell PFS rather than using Rosebery Avenue and Amwell Street. In addition, unexpected utilities works were taking place on Amwell Street at the junction of Hardwick Street and Merlin Street, with temporary traffic lights in operation, during the pre-consultation counts, which may have affected the results there. Claremont Square provides a link across Pentonville Road which is why it may be attracting more cycle traffic.

Insights: cycling volumes on local and main roads outside the PFS (combined)

Cycle volumes increased on all of the local roads outside of the PFS with the exception of Topham Street, which may indicate that the introduction of the Amwell PFS has encouraged more cycling on the surrounding local roads.

Cycle volumes have also increased by 49% on Rosebery Avenue (north site), even though they fell by 13% on the Rosebery Avenue boundary site. Cycling volumes on both Rosebery Avenue sites are between 1,100 and 1,800. It may be the case that some cyclists are using the PFS to avoid parts of Rosebery Avenue, specifically between Amwell Street and Farringdon Road.

Air Quality

Air quality refers to the air around us, how clean it is and how many pollutants (harmful chemicals or substances) it contains. The more pollutants the air contains the more air pollution there is and the worse the air quality is. Poor air quality is a concern as air pollution can impact health. The two main pollutants of concern that we monitor are:

Particulate matter of 10µm or less in size (PM_{10}) – tiny bits of solid material made of a range of substances suspended in the air.

Nitrogen dioxide (NO_2) – one of a group of gases called nitrogen oxides.

There are three types of monitors in use, which will give slightly different data:

Automatic monitors: monitor NO_2 and PM_{10}24 hours a day at two locations in the borough. These are our most accurate monitors.

Diffusion tubes: provide monthly readings of NO_2. While not as accurate as the automatic monitors they can be more widely deployed to provide trends over a larger area and time period and are a nationally approved monitoring technique.

Sensors: these sensors can monitor a range of pollutants in a continuous manner like the automatic monitors, however they can have more uncertainty with regard to accuracy and these monitors have not gone through the same quality control process as our other monitors.

Islington's air quality sites are classified based on their location using Defra guidance but are referred to in these PFS monitoring reports using PFS terminology. This has required the addition of a further category, as will now be explained. According to Defra, "Roadside sites" are those within one to five metres of a busy road. In the PFS monitoring reports, roadside monitoring equates to boundary road sites. According to Defra, "Urban background sites" are those in an urban location but more distanced from traffic sources. For the PFS monitoring we have further split the urban background results into sites on internal roadsides and sites away from roads. These categorisations apply to the PFS area and borough wide. We are looking to make monthly results for individual sites available on the council website as soon as possible.

The long-term sites in Islington consist of nine roadside diffusion tubes, ten background urban diffusion tubes, one automatic main road site and one automatic background urban site. One of the main road diffusion tubes has been moved in 2019 and is therefore not being included in PFS monitoring using this time period. One of the long-term boundary road sites is a boundary road just outside Amwell and

one of the long-term urban background sites is located within Amwell, so these monitors have not been included as part of wider borough sites for this area, but instead looked at as part of Amwell averages. Four of these sites are non-street sites away from roads, using the PFS classifications explained above. They have therefore not been included in the wider borough averages as there are no sites of the same classification in the Amwell area.

The air quality monitoring sites in the Amwell area are listed in Appendix 7, with details about type and date of installation (if they have been added as part of the PFS programme or were pre-existing).

Methodology

Time period of study

Air quality varies over time due to a variety of factors, including weather. It is therefore important to look at trends over a longer period of time to identify real changes in air quality due to this scheme. It is preferable to compare a year's worth of data to account for seasonal variation.

However, at some sites we do not have a full year of "before" scheme data. The newer monitoring sites are therefore less reliable to provide comparison data, as the pre-scheme monitoring period is too short. However, the ultimate goal of our air quality strategy is to reduce air pollution as much as possible, and certainly to within legal limits. As such, the newer sites will be used to monitor if air quality is at legal levels in and of itself.

Results: air quality diffusion tubes

The results shown in this section use NO_2 data from diffusion tubes only, as the sensors in Amwell do not have any before-scheme monitoring. It was therefore not possible to provide results for PM_{10} for Amwell.

Data has been collected since the people-friendly streets scheme has been in place from December 2020 to September 2021 (Post Scheme) and compared to the same period before the scheme December 2019 to September 2020 (Pre-Scheme). The pollution levels in these periods, particularly Pre-Scheme, are likely to have been impacted by Covid-19. Studies into the impacts of lockdown on air pollution, by Defra, for example, show lower than average levels of the pollutant NO_2 with the first lockdown.

The values in this section show the average results for all monitors in each category where the data is available, with figures rounded to

the nearest whole number. Because of the coarse nature of the data, the measured differences may not correspond precisely to the observed NO_2 values.

To improve accuracy levels of diffusion tubes it is necessary to bias correct the results based upon local or national collocation studies with the more accurate reference monitors. It is also necessary to calculate the data capture, and if this is less than 75%, the results should be annualised. More information on this process can be found in the council's annual air quality report. The results from 2021 have yet to be published as they require a full years' data, so the 2021 data presented here is in "raw" format and may change once the bias adjustment values are made available.

Table 54: (Boundary roads) NO_2 levels in Amwell and borough long-term diffusion tube sites

	Pre Scheme Year NO_2 (µg/m^3)	**Post Scheme Year NO_2 (µg/m^3)**	**Pre Scheme compared to Post Scheme Year (µg/m^3)**	**Pre Scheme compared to Post Scheme Year (% change)**
Amwell	28	29	1	5%
Whole borough long-term sites	29	32	3	10%

This includes seven monitoring locations for the whole borough long-term sites for each time period. In Amwell, we have only included data for one site as the three remaining sites have no pre scheme data.

Table 55: (Internal roads) NO_2 levels in Amwell and borough long-term diffusion tube sites

	Pre Scheme Year NO_2 (µg/m^3)	Post Scheme Year NO_2 (µg/m^3)	Pre Scheme compared to Post Scheme Year (µg/m^3)	Pre Scheme compared to Post Scheme Year (% change)
Amwell	22	23	1	5%
Whole borough long-term sites	19	21	2	12%

This includes two monitoring sites for Pre and Post Scheme in Amwell. There are six monitoring locations for the whole borough long-term sites for each time period.

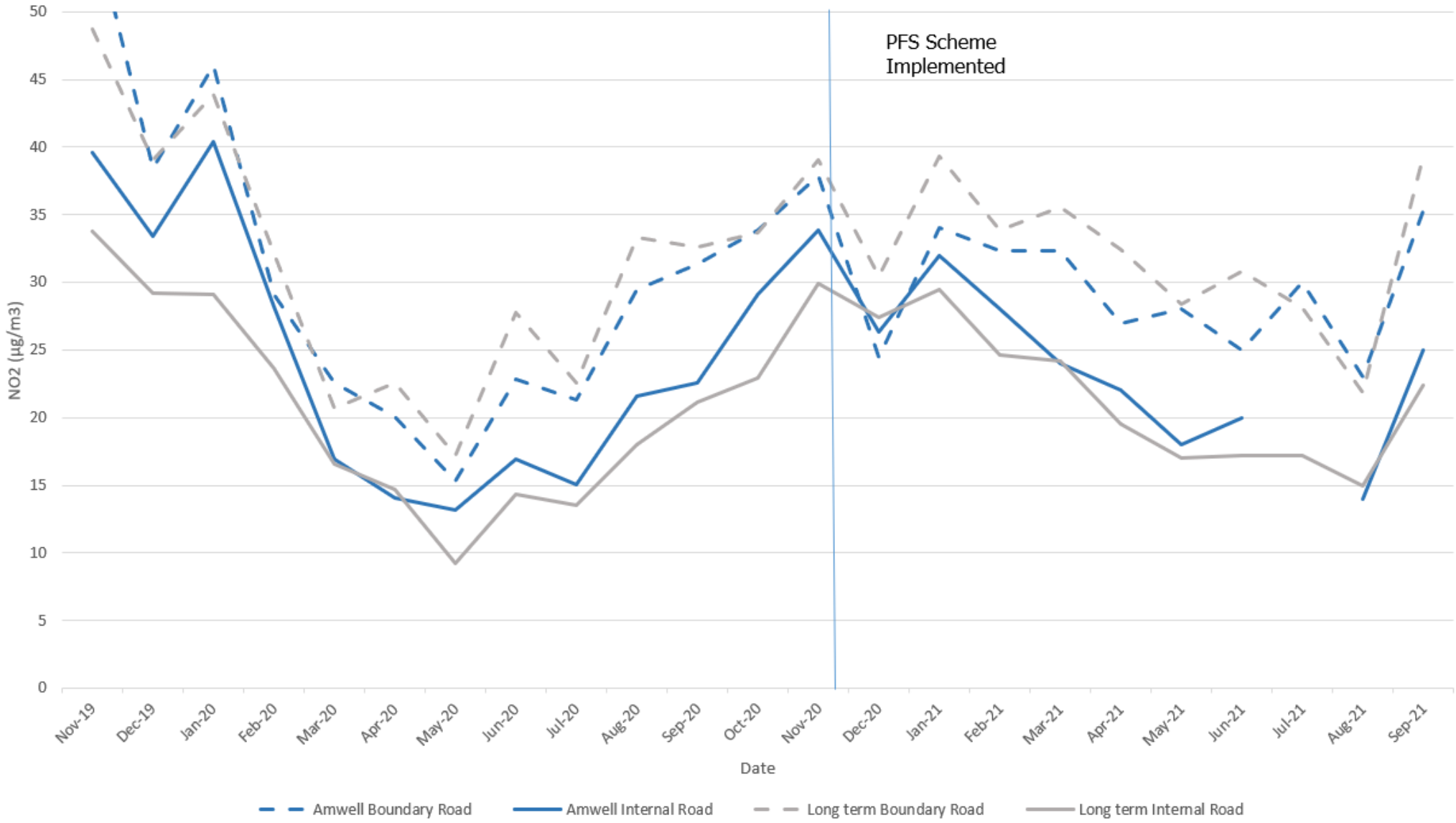
Table 56: (Overall) NO_2 levels in Amwell and borough long-term diffusion tube sites

	Pre Scheme Year NO_2 (µg/m^3)	Post Scheme Year NO_2 (µg/m^3)	Pre Scheme compared to Post Scheme Year (µg/m^3)	Pre Scheme compared to Post Scheme Year (% change)
Amwell	26	28	1	5%
Whole borough long-term sites	25	28	3	11%

In Amwell there are four monitoring locations, and seventeen monitoring locations for the whole borough long-term sites.

Graph 5 compares the trends in NO_2 levels in Amwell and across Boundary, Interior and Non-Street roads from July 2019 through to June 2021. There are some breaks in the lines on the graph due to missing data on certain months.

Graph 5: Average NO_2 levels in Amwell compared to long-term borough-wide sites from diffusion tubes



Insights: air quality

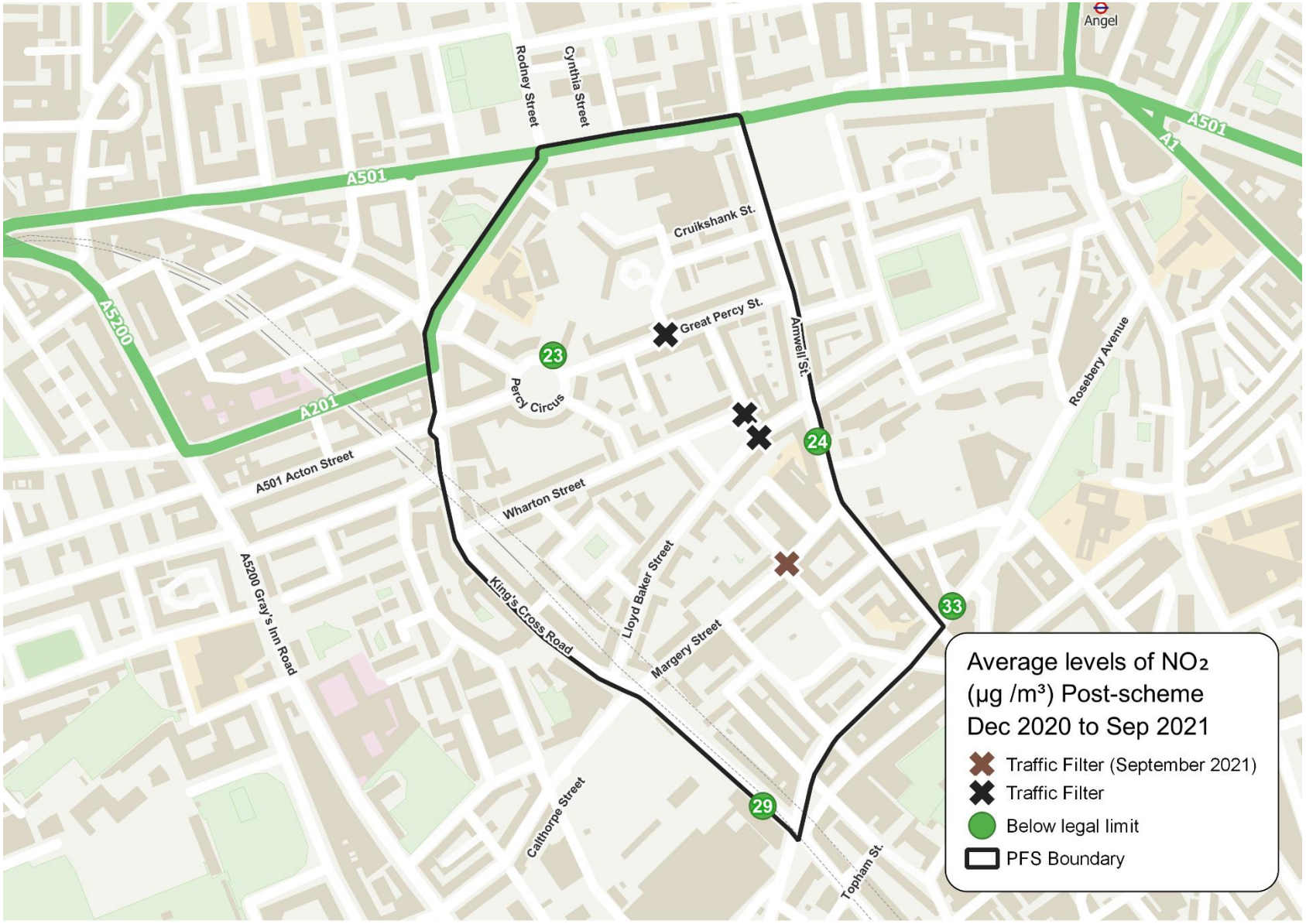
As Graph 5 shows, the borough-wide and Amwell monitoring site averages saw a substantial peak in November 2019 to January 2020 and then all dropped to a low in May 2020 before generally rising. This low in May can likely be ascribed to the national lockdown measures, which started in March 2020 and were eased by July 2020, as well as seasonal changes in pollution. The Amwell PFS was implemented in November 2020. As such, while NO_2 levels in the trial area have increased since it was implemented, this is in line with borough wide trends and can therefore be viewed as related to the impact of lockdown measures, and seasonal variation.

The NO_2 levels at all sites remained below 40µg/m^3 from the scheme implementation in November 2020 onwards. Monitoring will continue at the Amwell sites to establish if the increases in NO_2 are part of a long-term trend for this and other boundary road sites, or if they were due to specific circumstances in those months.

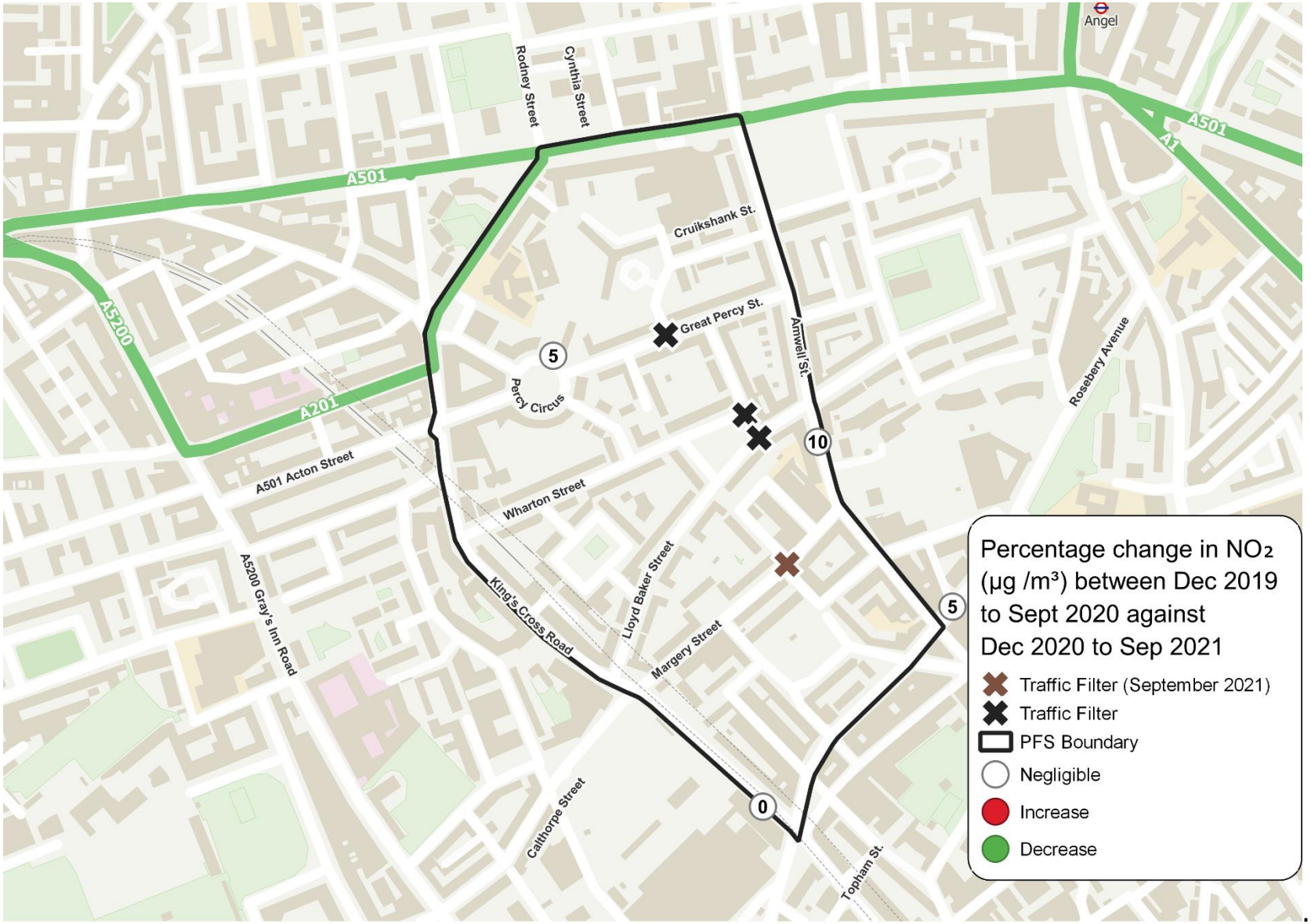
In summary these results show:

- Overall levels of NO_2 in Amwell have risen slightly, but these changes are slightly better than borough trends.
- Average annual NO_2 levels in Amwell have been within the annual objective level of 40µg/m^3 for the year before and after the LTN was implemented, including on boundary roads.
- Annual average levels of NO_2 in Amwell since people-friendly streets started (November 2020) are lower than the increases for borough averages.
- These results are based on a limited number of data points and over a relatively short time period, and so will need longer term analysis and comparison to wider borough trends. This is especially the case for the Amwell's internal roads where there were only two monitoring sites with seven months of data before the low traffic neighbourhood was introduced and Amwell's boundary road sites where there is only one site with full pre-scheme data.
- The figures presented are an annual average and do not describe fluctuations within this time period that might have influenced the average results. For example, there were a number of roadwork projects on the boundary roads in the post implementation period that may have impacted average results for the year. It can be very difficult to pick out the reasons for specific spikes and this would require a much more in-depth investigation, not possible within the scope of this analysis.

Map 7: Average levels of NO_2 (µg/m^3) December 2019-September 2020



Map 8: percentage change in NO_2 (µg/m^3) between December 2019-September 2020 and December 2020-September 2021



Emergency vehicles access

London Ambulance Service

The Council is in conversation with the London Ambulance Service (LAS) about where it may be able to feed into future reports regarding traffic schemes within the Borough and continues to monitor schemes and provide feedback to the council traffic officers should any delays occur to emergency responses.

As of 26 October 2021, there have not been any reported delays in LAS response times as a result of the People Friendly Street area being implemented in Amwell. We will continue to monitor this closely in the future.

Metropolitan Police Service

The council continues to engage and consult with the Metropolitan Police Service (MPS) as part of the implementation of its PFS programme.

The following statement has been provided by the MPS:

Analysis of call data for the past 12 months, up to the end of July 2021, shows there has been no difference in average response times across the London Borough of Islington when compared to the previous 12 months (2019/2020) for both immediate and standard graded calls. There is no specific data available for low traffic neighbourhoods. Over the past 12 months there has been a considerable reduction in call demand due to the effects of the coronavirus pandemic, c.2,800 fewer calls than the 12 months between August 2019 to the end of July 2020 and a 19% reduction in offences. As we come out of the pandemic restrictions, we will continue to monitor call data to see if changes in road layouts across the borough affect our response times.

London Fire Brigade

The London Fire Brigade (LFB) monitors the time it takes their vehicles to attend emergencies (attendance times). They are sharing data with the council to enable us to understand if the PFS schemes have adversely impacted attendance times.

The LFB use average attendance times to monitor attendance times. This is because there are a significant number of variables that can impact attendance times – for example, responding vehicles are not always setting off from the same place.

As detailed in the London Safety Plan, "London Fire Brigade's intention is always to get to an emergency incident as quickly as possible on each and every occasion. But the Brigade also sets itself targets for the time it should take to arrive at an incident. The Brigade's London-wide attendance targets are:

- To get the first fire engine to an incident within an average of six minutes.
- To get the second fire engine to an incident within an average of eight minutes.
- To get a fire engine anywhere in London within twelve minutes on 95 per cent of occasions."

PFS monitoring analysis methodology

As advised by the LFB, the 2019 averages for Islington and Amwell are used as the baseline against which to compare the post-implementation averages for each area.

The averages for Clerkenwell are used because the Amwell area is within this ward, therefore considered together with averages for the whole borough, to ascertain to what degree the scheme has impacted the post-implementation attendance times in the PFS area compared to the borough overall, thus accounting for any potential COVID-19 disruption.

The results cover response times to incidents attended by the Brigade to an address in the specified area. They do not include the times of response vehicles that passed through the area to attend an incident in a different area.

Table 57: Average attendance times of the London Fire Brigade – Islington-Wide Data

Period	No. of mobilisations	Average Attendance 1st Appliance (mm:ss)	Average Attendance 2nd Appliance (mm:ss)
Islingtn 2019 (baseline)	2,076	04:36	06:17
Islingtn 2020	2,046	04:29	06:02
Islingt n (November 2020 to Octobe 2021)	2,031	04:52	06:19
Change inst 2019 data	n/a	+00:16	+00:02

Table 58: Average attendance times of the London Fire Brigade – Clerkenwell Ward Data

Period	No. of mobilisations	Average Attendance 1st Appliance (mm:ss)	Average Attendance 2nd Appliance (mm:ss)
Clerkenwell Ward 2019 (baseline)	165	04:30	05:42
Clerkenwell Ward 2020	149	04:14	05:14
Clerkenwell Ward (November 2020 to October 2021)	131	04:49	05:28
Change against 2019 data	n/a	+00:19	-00:14

Insights: London Fire Brigade response time

There are many variables that affect response times. The results above show the volume of response times for the Clerkenwell ward overall, rather than the Amwell PFS area.

The average attendance time for the first appliance remains within the target time of six minutes, and the average attendance time for the second appliance remains well within the target time of eight minutes. Given the extent of variables that affect response times, the differences between the 2019 baseline and the post-implementation period are considered insignificant by the LFB and the Council. As such, it is the view of the LFB and the council that the PFS area in Amwell has not impacted this emergency service's attendance times.

We will continue to monitor this indicator.

Anti-Social Behaviour and Crime patterns

Data about Anti-Social Behaviour (ASB) calls, including the location that is being referred to, is gathered in the council's Community Safety team. This data has been analysed to monitor for changes in the volume of calls within PFS areas, especially around the traffic filters. The nature of the issue being reported has also been taken into consideration.

Data has been drawn from the whole Amwell PFS area and the whole of Islington, and results from the two areas compared month by month to monitor for COVID-19 disruption.

ASB and Crime Pattern Results

Table 59: Calls and crimes in Amwell and Islington (proportion as a percentage of September 2019 – September 2021)

Month	ASB Calls to the Council-Amwell	ASB Calls to the Council-Islington	ASB Calls to the Police-Amwell	ASB Calls to the Police -Islington	Street-based Criminal Offences-Amwell	Street-based Criminal Offences -Islington
Sep-19	4.8%	3.5%	3.3%	1.9%	8.1%	4.9%
Oct-19	2.7%	2.8%	2.2%	3.8%	4.1%	5.6%
Nov-19	2.1%	3.0%	4.9%	3.1%	4.7%	4.9%
Dec-19	1.4%	2.0%	4.4%	2.9%	4.7%	4.3%
Jan-20	2.1%	2.7%	3.8%	3.1%	4.7%	5.1%
Feb-20	0.0%	2.9%	2.2%	2.8%	4.7%	5.2%
Mar-20	4.8%	3.5%	1.1%	3.8%	4.1%	3.9%
Apr-20	11.6%	7.0%	9.9%	8.8%	6.1%	2.8%
May-20	14.4%	8.2%	9.9%	9.4%	3.4%	3.5%
Jun-20	9.6%	7.6%	2.7%	6.0%	1.4%	3.5%
Jul-20	7.5%	7.7%	7.7%	6.2%	6.8%	4.0%
Aug-20	9.6%	5.5%	3.8%	5.1%	5.4%	4.5%
Sep-20	6.2%	4.0%	5.5%	4.8%	0.7%	4.3%
Oct-20	0.7%	3.4%	2.7%	3.8%	3.4%	4.0%
Nov-20*	0.0%	3.2%	2.7%	3.7%	1.4%	3.9%
Dec-20	2.1%	2.2%	5.5%	3.1%	2.0%	3.4%
Jan-21	0.7%	2.2%	1.6%	3.6%	1.4%	3.0%
Feb-21	0.7%	2.4%	2.2%	3.3%	2.7%	2.6%
Mar-21	1.4%	3.0%	4.4%	3.3%	4.1%	3.5%
Apr-21	1.4%	2.8%	0.5%	3.1%	2.7%	3.6%
May-21	2.7%	2.9%	4.4%	2.8%	6.8%	3.9%
Jun-21	6.2%	5.0%	4.9%	3.2%	2.0%	3.5%
Jul-21	3.4%	4.5%	3.8%	3.0%	6.1%	3.8%
Aug- 21	2.7%	4.2%	4.9%	2.6%	4.1%	4.2%
Sep-21	1.4%	3.9%	0.5%	2.5%	4.7%	4.2%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

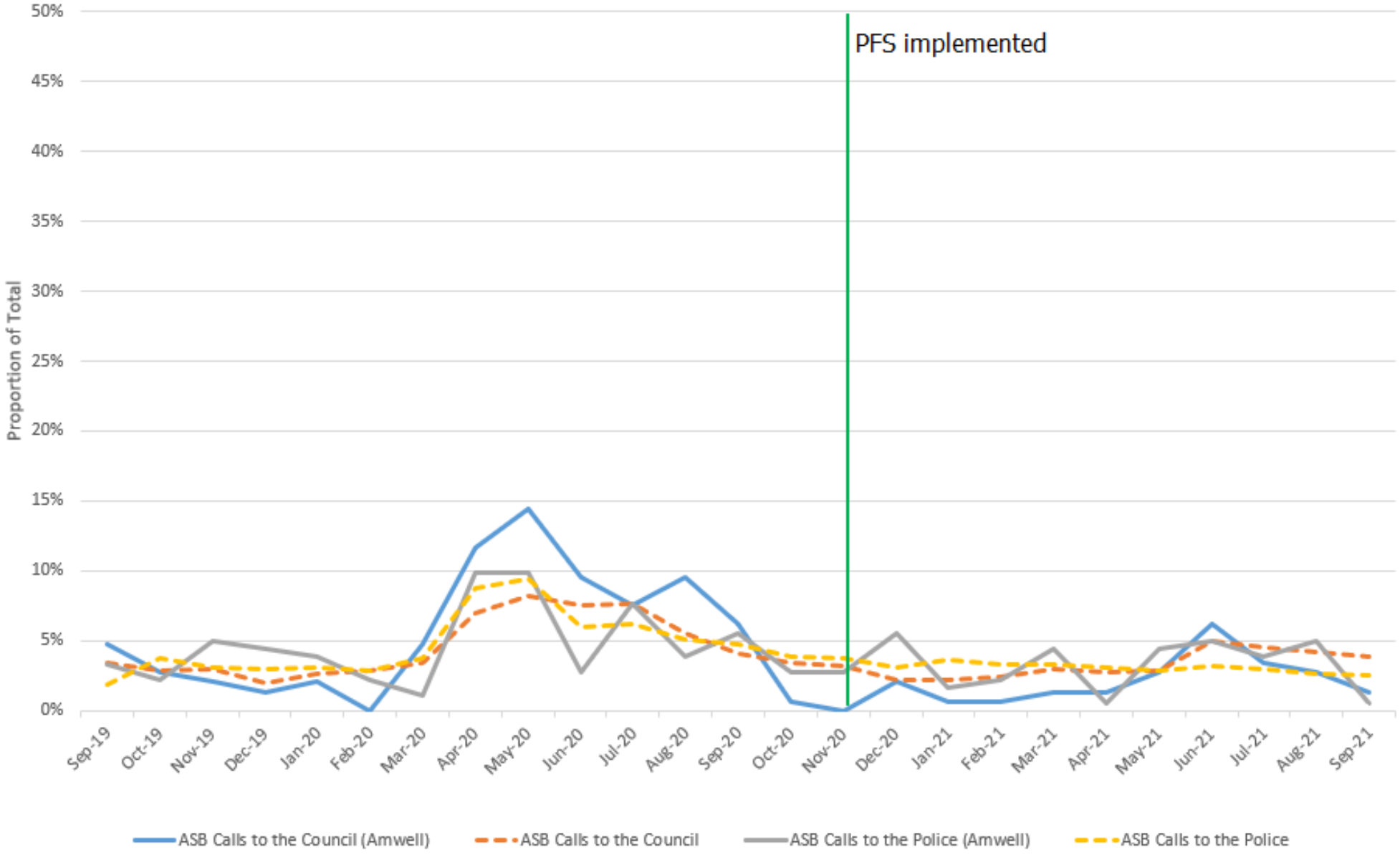
* November 2020 – PFS scheme starts

Table 60: Volume of calls and crimes in the Amwell area and Islington

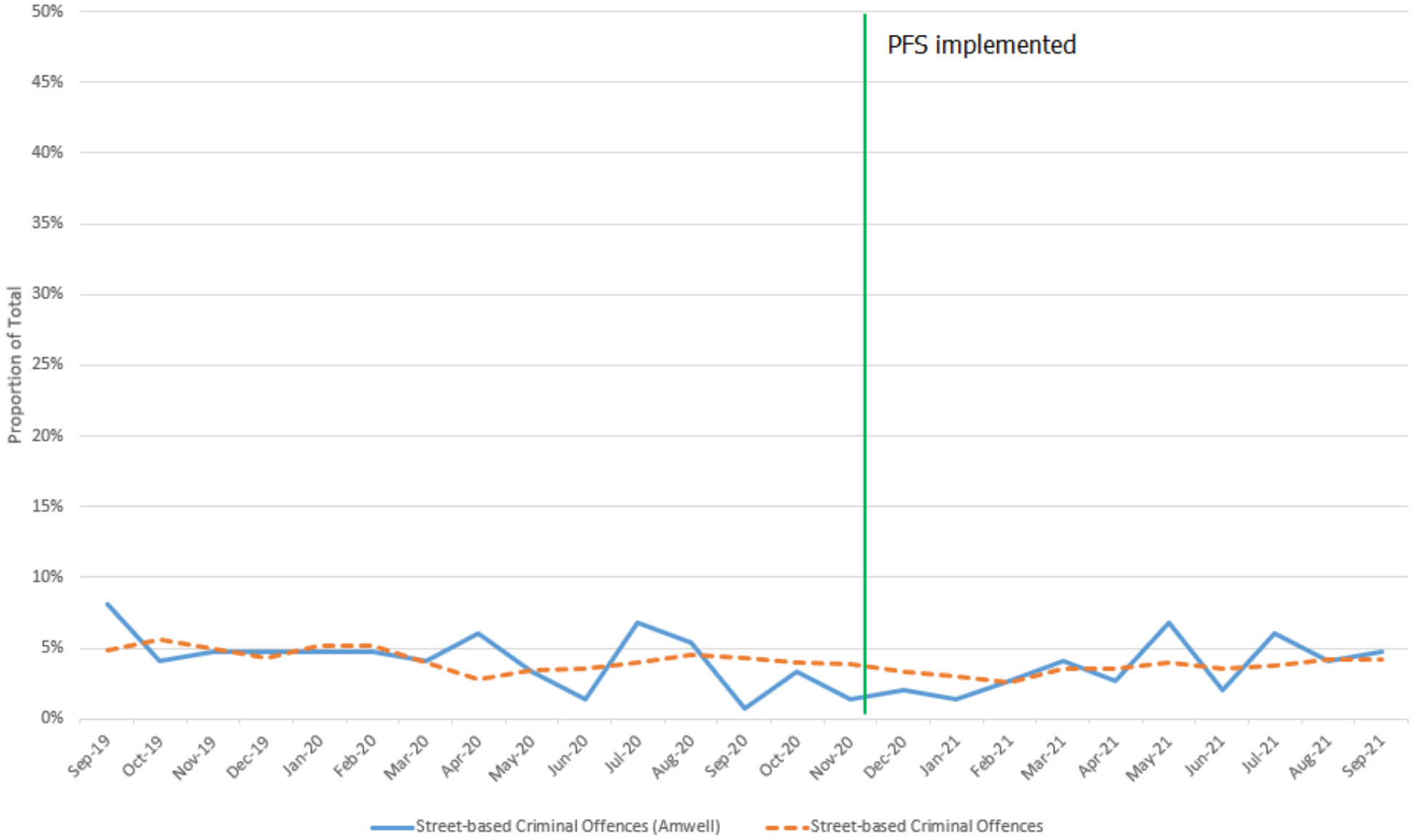
Month	ASB Calls to the Council- Amwell	ASB Calls to the Council-Islington	ASB Calls to the Police - Amwell	ASB Calls to the Police -Islington	Street-based Criminal Offences – Amwell	Street-based Criminal Offences –Islington
Sep-19	7	341	6	351	12	851
Oct-19	4	281	4	688	6	972
Nov-19	3	296	9	577	7	860
Dec-19	2	193	8	539	7	750
Jan-20	3	266	7	573	7	893
Feb-20	0	284	4	521	7	905
Mar-20	7	343	2	699	6	684
Apr-20	17	693	18	1612	9	486
May-20	21	805	18	1732	5	606
Jun-20	14	749	5	1108	2	612
Jul-20	11	756	14	1135	10	694
Aug-20	14	545	7	935	8	790
Sep-20	9	399	10	880	1	748
Oct-20	1	335	5	703	5	695
Nov-20*	0	317	5	685	2	671
Dec-20	3	216	10	573	3	586
Jan-21	1	216	3	665	2	517
Feb-21	1	240	4	614	4	449
Mar-21	2	295	8	604	6	607
Apr-21	2	272	1	562	4	620
May-21	4	284	8	518	10	683
Jun-21	9	497	9	579	3	607
Jul-21	5	445	7	546	9	653
Aug-21	4	417	9	485	6	723
Sep-21	2	387	1	460	7	736
Total	**146**	**9872**	**182**	**18344**	**148**	**17398**

* November 2020 – PFS scheme starts

Graph 6: ASB calls to the Council and Police in Amwell and Islington as a percentage of the total over 23 months



Graph 7: Street crimes Amwell and Islington as a percentage of the total over 23 months



Insights: anti-social behaviour and crime patterns

In terms of crime rates and ASB, during the past 23 months Amwell's PFS area showed similar trends to that of Islington as a whole. Across the various analyses of the volume of ASB calls and crimes in Amwell and Islington over the time period, the monthly volume of calls and crimes as a proportion of the total over the year period has remained approximately consistent between Amwell and Islington.

Table 59, 60 * November 2020 – PFS scheme starts

Table 59, Table 60, Graph 6 and Graph 7 show significant increases in anti-social behaviour during the first lockdown in 2020 between March and May. Contributing to this will have been reporting of people breaching the rules set out by Central Government, which can be seen especially around May 2020. Similarly, there have been large decreases in crime observed due to lockdown, which has been borne out in both Islington and Amwell PFS area. ASB calls in Amwell saw a significant decrease since the implementation of the PFS scheme up until around April 2021 ranging between 0-3%.

In terms of rates of crime and ASB (based on area), the Amwell PFS area showed slightly higher rates of crime and ASB compared to the borough, particularly in April 2020, July 2020 (before the PFS scheme was implemented), May 2021 and July 2021. Islington's rate of crime and ASB has remained at a relatively stable proportion in comparison to the various spikes recorded in Amwell. However, the council's ASB team have found no evidence to suggest that the rate increased following the implementation of the PFS area.

As can be seen in the above graph, there was a spike in ASB calls to the council in Amwell and Islington as a whole between May and July 2021 (as opposed to a sustained and/or continuous increase throughout the length of the trial period). This is linked to seasonality whereby the council normally sees a peak in anti-social behaviour calls in the summer months. There were two hotspots in the Amwell area reflected in the data (meaning when a significant number of calls are received related to a particular location). The council and police are aware of the issues and actions have been taken to resolve them. Early data suggests levels have settled back down again.

Concluding remarks

People-friendly streets are being introduced on a trial basis, with a full public consultation held twelve months into each scheme to give residents the chance to give their views. This pre-consultation monitoring report is intended to inform the consultation, by providing analysis of key indicators such as traffic volumes, air quality and emergency service response times.

This monitoring report shows that the Amwell PFS trial is having the intended impacts of reducing motorised traffic overall across internal roads and increasing levels of cycling on internal roads, including significantly on Margery Street (with flow – westbound) which is part of Cycleway 27. There has been negligible change in crime and antisocial behaviour patterns and fire brigade response times in the area. In terms of air quality, there has been a slight increase in NO2 levels, but slightly better than borough trends.

Although the number of motorised vehicles is generally low on all of the internal roads (less than 600 vehicles per day), increases in traffic were shown on Prideaux Place and Wharton Street. This may be partially due to the unauthorised removal of the traffic bollard from the traffic filter at Lloyd Square (north side). The bollard was absent during the pre-consultation counts. Although the signs for the modal filter remain in place and there is no legal access, the removal of the bollards means that motorised traffic can physically pass through the filters. At sites which are more directly affected by camera-enforced modal filters, traffic volumes have reduced. This indicates that the camera-enforced filters may be more effective in enforcing the PFS.

There has also been an increase in traffic on Farringdon Road, but this is disproportionate to the levels of traffic reduction from within the Amwell PFS area, suggesting causes other than the Amwell PFS trial. In addition the increase in traffic on Farringdon Road has been balanced by falls in traffic on Claremont Square and Amwell Street which were affected by unexpected utilities works on Amwell Street at the junction of Hardwick Street and Merlin Street, with temporary traffic lights in operation, during the pre-consultation counts. This potentially points to a redistribution of traffic on the north-south boundary roads of the PFS area, contributing to the increase on Farringdon Road while the works were happening.

Future decisions to keep, remove or amend the Amwell PFS will not depend on any single metric, but a combination of them together with feedback from the online survey and upcoming consultation with residents and stakeholders.

The public consultation for the Amwell PFS LTN will take place between Wednesday 15 December 2021 and Monday 31 January 2022. More information is available at https://www.islington.gov.uk/roads/people-friendly-streets/amwell

Appendices

Appendix 1: Internal Roads counts

This section contains pre-consultation results, for interim results please refer to the Amwell Interim Monitoring Report.

Great Percy Street

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	5802	6232	1207	1269	-4595	-4963	-79%	-80%
7 day daily average	829	890	172	181	-656	-709	-79%	-80%
5 day total	4496	4829	911	958	-3585	-3871	-80%	-80%
5 day daily average	899	966	182	192	-717	-774	-80%	-80%
5-day AM peak hourly average	51	55	11	12	-40	-43	-78%	-78%
5-day PM peak hourly average	64	69	10	10	-54	-59	-85%	-85%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	1513	1518	5	0%
7 day daily average	216	217	1	0%
5 day total	1282	1350	68	5%
5 day daily average	256	270	14	5%
5 day AM peak hourly average	34	36	2	7%
5 day PM peak hourly average	16	18	2	13%

Prideaux Place

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	1379	1481	2769	2912	1390	1430	101%	97%
7 day daily average	197	212	396	416	199	204	101%	97%
5 day total	1106	1188	2150	2261	1044	1073	94%	90%
5 day daily average	221	238	430	452	209	215	94%	90%
5 day AM peak hourly average	11	12	21	22	10	10	90%	86%
5 day PM peak hourly average	16	17	31	33	15	16	93%	89%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	274	459	185	68%
7 day daily average	39	66	26	68%
5 day total	214	377	163	76%
5 day daily average	43	75	33	76%
5 day AM peak hourly average	4	7	4	95%
5 day PM peak hourly average	3	5	2	46%

Wharton Street

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	3294	3538	3925	4127	631	589	19%	17%
7 day daily average	471	505	561	590	90	84	19%	17%
5 day total	2636	2831	3050	3207	414	376	16%	13%
5 day daily average	527	566	610	641	83	75	16%	13%
5 day AM peak hourly average	27	29	31	33	4	4	15%	13%
5 day PM peak hourly average	41	44	41	43	0	-1	0%	-2%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	1557	1967	410	26%
7 day daily average	222	281	59	26%
5 day total	1314	1741	427	32%
5 day daily average	263	348	85	32%
5 day AM peak hourly average	34	44	10	29%
5 day PM peak hourly average	18	29	11	65%

Lloyd Baker Street

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	7685	8255	2264	2381	-5421	-5874	-71%	-71%
7 day daily average	1098	1179	323	340	-774	-839	-71%	-71%
5 day total	6327	6796	1760	1851	-4567	-4945	-72%	-73%
5 day daily average	1265	1359	352	370	-913	-989	-72%	-73%
5 day AM peak hourly average	54	58	14	14	-40	-44	-75%	-75%
5 day PM peak hourly average	116	125	31	32	-85	-92	-74%	-74%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	1300	1449	149	11%
7 day daily average	186	207	21	11%
5 day total	1115	1327	212	19%
5 day daily average	223	265	42	19%
5 day AM peak hourly average	3	4	0	10%
5 day PM peak hourly average	39	47	8	21%

Wilmington Street

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	1375	1477	1484	1560	109	84	8%	6%
7 day daily average	196	211	212	223	16	12	8%	6%
5 day total	1048	1126	1093	1149	45	24	4%	2%
5 day daily average	210	225	219	230	9	5	4%	2%
5 day AM peak hourly average	11	12	11	11	0	-1	-2%	-5%
5 day PM peak hourly average	16	18	14	14	-3	-3	-17%	-19%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	658	961	303	46%
7 day daily average	94	137	43	46%
5 day total	536	849	313	58%
5 day daily average	107	170	63	58%
5 day AM peak hourly average	9	15	6	69%
5 day PM peak hourly average	11	14	4	34%

Lloyd Street

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	5231	5619	657	691	-4574	-4928	-87%	-88%
7 day daily average	1046	1124	131	138	-915	-986	-87%	-88%
5 day total	51	55	5	5	-46	-50	-91%	-91%
5 day daily average	89	96	9	9	-81	-87	-90%	-91%
5 day AM peak hourly average	5231	5619	657	691	-4574	-4928	-87%	-88%
5 day PM peak hourly average	1046	1124	131	138	-915	-986	-87%	-88%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	688	555	-133	-19%
7 day daily average	138	111	-27	-19%
5 day total	7	7	0	-5%
5 day daily average	17	14	-3	-17%
5 day AM peak hourly average	688	555	-133	-19%
5 day PM peak hourly average	138	111	-27	-19%

Margery Street

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	7953	8543	2979	3132	-4974	-5410	-63%	-63%
7 day daily average	1136	1220	426	447	-711	-773	-63%	-63%
5 day total	6326	6795	2393	2516	-3933	-4279	-62%	-63%
5 day daily average	1265	1359	479	503	-787	-856	-62%	-63%
5 day AM peak hourly average	106	114	59	62	-47	-52	-44%	-46%
5 day PM peak hourly average	71	76	25	26	-46	-50	-65%	-66%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	1824	5395	3571	196%
7 day daily average	261	771	510	196%
5 day total	1252	4839	3587	287%
5 day daily average	250	968	717	287%
5 day AM peak hourly average	41	166	125	306%
5 day PM peak hourly average	10	40	30	298%

Cruikshank Street

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	1433	1762	967	1017	-466	-745	-33%	-42%
7 day daily average	205	252	138	145	-67	-106	-33%	-42%
5 day total	719	884	737	775	18	-109	3%	-12%
5 day daily average	144	177	147	155	4	-22	3%	-12%
5 day AM peak hourly average	4	5	8	8	3	3	71%	46%
5 day PM peak hourly average	11	13	8	8	-3	-5	-26%	-36%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	416	208	-208	-50%
7 day daily average	59	30	-30	-50%
5 day total	323	186	-137	-42%
5 day daily average	65	37	-27	-42%
5 day AM peak hourly average	6	5	-1	-17%
5 day PM peak hourly average	4	2	-2	-46%

Appendix 2: Boundary roads counts

Claremont Square

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	39458	42383	28103	29551	-11355	-12832	-29%	-30%
7 day daily average	5637	6055	4015	4222	-1622	-1833	-29%	-30%
5 day total	31141	33449	21358	22458	-9783	-10991	-31%	-33%
5 day daily average	6228	6690	4272	4492	-1957	-2198	-31%	-33%
5 day AM peak hourly average	354	380	279	293	-75	-87	-21%	-23%
5 day PM peak hourly average	450	483	278	293	-171	-190	-38%	-39%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	4438	10765	6327	143%
7 day daily average	634	1538	904	143%
5 day total	3609	9295	5686	158%
5 day daily average	722	1859	1137	158%
5 day AM peak hourly average	31	137	106	341%
5 day PM peak hourly average	88	181	93	106%

Amwell Street

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	32290	34683	14407	15149	-17883	-19534	-55%	-56%
7 day daily average	4613	4955	2058	2164	-2555	-2791	-55%	-56%
5 day total	25524	27416	10706	11258	-14818	-16158	-58%	-59%
5 day daily average	5105	5483	2141	2252	-2964	-3232	-58%	-59%
5 day AM peak hourly average	340	365	139	146	-201	-219	-59%	-60%
5 day PM peak hourly average	358	384	135	142	-223	-243	-62%	-63%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	6489	4247	-2242	-35%
7 day daily average	927	607	-320	-35%
5 day total	5160	3607	-1553	-30%
5 day daily average	1032	721	-311	-30%
5 day AM peak hourly average	87	67	-20	-23%
5 day PM peak hourly average	91	59	-32	-35%

Rosebery Avenue (southern site)

Motorised traffic*

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	95366	102435	92130	96877	-3236	-5558	-3%	-5%
7 day daily average	13624	14634	13161	13840	-462	-794	-3%	-5%
5 day total	72426	77795	68999	72554	-3427	-5240	-5%	-7%
5 day daily average	14485	15559	13800	14511	-685	-1048	-5%	-7%
5 day AM peak hourly average	790	849	684	720	-106	-129	-13%	-15%
5 day PM peak hourly average	868	932	826	869	-41	-63	-5%	-7%

Cycling*

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	12267	10692	-1575	-13%
7 day daily average	1752	1527	-225	-13%
5 day total	9350	8746	-604	-6%
5 day daily average	1870	1749	-121	-6%
5 day AM peak hourly average	96	97	1	1%
5 day PM peak hourly average	169	165	-4	-2%

* There was data loss from the ATC between 16:45 and 17:30 on Monday 4 October 2021. This data was patched with the average weekday traffic volumes for the corresponding times

Farringdon Road

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	54283	58307	72023	75734	17740	17427	33%	30%
7 day daily average	7755	8330	10289	10819	2534	2490	33%	30%
5 day total	39990	42954	53845	56619	13855	13665	35%	32%
5 day daily average	7998	8591	10769	11324	2771	2733	35%	32%
5 day AM peak hourly average	1846	1983	2437	2563	591	580	32%	29%
5 day PM peak hourly average	2233	2399	2870	3018	637	619	29%	26%

Pentonville Road

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	170604	183250	180316	189607	9712	6357	6%	3%
7 day daily average	24372	26179	25759	27087	1387	908	6%	3%
5 day total	119640	128508	126377	132889	6737	4380	6%	3%
5 day daily average	23928	25702	25275	26578	1347	876	6%	3%
5 day AM peak hourly average	5791	6220	6103	6417	312	197	5%	3%
5 day PM peak hourly average	6039	6487	6449	6782	410	295	7%	5%

Appendix 3: Local and Main Road counts beyond the PFS

Cynthia Street

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	13744	14763	6975	7334	-6769	-7428	-49%	-50%
7 day daily average	1963	2109	996	1048	-967	-1061	-49%	-50%
5 day total	10364	11132	4311	4533	-6053	-6599	-58%	-59%
5 day daily average	2073	2226	862	907	-1211	-1320	-58%	-59%
5 day AM peak hourly average	106	114	23	24	-83	-90	-78%	-79%
5 day PM peak hourly average	120	129	59	62	-61	-67	-50%	-51%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	141	270	129	91%
7 day daily average	20	39	18	91%
5 day total	119	211	92	77%
5 day daily average	24	42	18	77%
5 day AM peak hourly average	2	3	2	92%
5 day PM peak hourly average	2	3	0	14%

Donegal Street

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	20824	22368	25515	26830	4691	4462	23%	20%
7 day daily average	2975	3195	3645	3833	670	637	23%	20%
5 day total	16124	17319	18787	19755	2663	2436	17%	14%
5 day daily average	3225	3464	3757	3951	533	487	17%	14%
5 day AM peak hourly average	212	228	210	221	-2	-7	-1%	-3%
5 day PM peak hourly average	220	236	252	265	32	29	15%	12%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	1841	2299	458	25%
7 day daily average	263	328	65	25%
5 day total	1445	1961	516	36%
5 day daily average	289	392	103	36%
5 day AM peak hourly average	26	33	7	28%
5 day PM peak hourly average	24	34	10	41%

Calthorpe Street

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	25084	26943	21895	23023	-3189	-3920	-13%	-15%
7 day daily average	3583	3849	3128	3289	-456	-560	-13%	-15%
5 day total	20196	21693	17283	18174	-2913	-3520	-14%	-16%
5 day daily average	4039	4339	3457	3635	-583	-704	-14%	-16%
5 day AM peak hourly average	302	325	218	230	-84	-95	-28%	-29%
5 day PM peak hourly average	252	271	226	237	-26	-33	-10%	-12%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	7879	8794	915	12%
7 day daily average	1126	1256	131	12%
5 day total	6411	7537	1126	18%
5 day daily average	1282	1507	225	18%
5 day AM peak hourly average	129	106	-23	-18%
5 day PM peak hourly average	101	153	52	52%

Topham Street

Motorised Traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	2547	3132	2848	2994	301	-138	12%	-4%
7 day daily average	364	447	407	428	43	-20	12%	-4%
5 day total	2069	2544	2172	2284	103	-261	5%	-10%
5 day daily average	414	509	434	457	21	-52	5%	-10%
5 day AM peak hourly average	18	22	18	19	0	-3	0%	-15%
5 day PM peak hourly average	19	24	23	24	4	0	18%	1%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	144	106	-38	-26%
7 day daily average	21	15	-5	-26%
5 day total	124	91	-33	-26%
5 day daily average	25	18	-7	-26%
5 day AM peak hourly average	2	2	0	-19%
5 day PM peak hourly average	2	1	0	-22%

Rosebery Avenue (north site)

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	62318	66937	64842	68183	2524	1246	4%	2%
7 day daily average	8903	9562	9263	9740	361	178	4%	2%
5 day total	46016	49427	47548	49998	1532	571	3%	1%
5 day daily average	9203	9885	9510	10000	306	114	3%	1%
5 day AM peak hourly average	448	481	474	499	27	18	6%	4%
5 day PM peak hourly average	529	568	534	561	5	-6	1%	-1%

Cycling

	Before observed	After observed	Difference observed	Difference observed (%)
7 day total	8326	12419	4093	49%
7 day daily average	1189	1774	585	49%
5 day total	6541	10680	4139	63%
5 day daily average	1308	2136	828	63%
5 day AM peak hourly average	48	185	137	287%
5 day PM peak hourly average	149	173	24	16%

Acton Street

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	47457	50975	58259	61261	10802	10286	23%	20%
7 day daily average	6780	7282	8323	8752	1543	1469	23%	20%
5 day total	35938	38602	44638	46938	8700	8336	24%	22%
5 day daily average	7188	7720	8928	9388	1740	1667	24%	22%
5 day AM peak hourly average	432	464	477	501	45	37	10%	8%
5 day PM peak hourly average	407	437	511	537	104	100	26%	23%

Swinton Street

Motorised traffic

	Before observed	Before normalised	After observed	After normalised	Difference observed	Difference normalised	Difference observed (%)	Difference normalised (%)
7 day total	52068	55928	76906	80869	24838	24941	48%	45%
7 day daily average	7438	7990	10987	11553	3548	3563	48%	45%
5 day total	33836	36344	55091	57930	21255	21585	63%	59%
5 day daily average	6767	7269	11018	11586	4251	4317	63%	59%
5 day AM peak hourly average	375	403	628	661	253	257	67%	64%
5 day PM peak hourly average	382	410	565	594	183	183	48%	45%

Appendix 4: Speed results

Speeds on internal roads (seven-day totals)

	Average speed before (mph)	Average Speed after (mph)	85th percentile speed before (mph)	85th percentile speed after (mph)	Volume over Posted Speed Limit before	Volume over Posted Speed Limit after	% Over Posted Speed Limit before	% Over Posted Speed Limit after
Great Percy Street	15.72	13.20	19.11	16.70	86	6	10%	3%
Prideaux Place	12.32	12.00	15.61	15.60	5	15	3%	4%
Wharton Street	17.60	16.90	22.80	20.90	141	108	30%	19%
Lloyd Baker Street	17.22	16.20	20.93	21.40	226	67	21%	21%
Wilmington Street	9.37	9.40	11.87	11.50	1	1	1%	1%
Margery Street	18.65	16.60	22.45	19.60	371	54	33%	13%

5-day daily average - September 2020 vs October 2021	Average speed before (mph)	Average Speed after (mph)	85th percentile speed before (mph)	85th percentile speed after (mph)	Volume over Posted Speed Limit before	Volume over Posted Speed Limit after	% Over Posted Speed Limit before	% Over Posted Speed Limit after
Lloyd Street	16.60	15.20	21.46	19.70	212	18	20%	13%

May 2021 vs October 2021	Average speed before (mph)	Average Speed after (mph)	85th percentile speed before (mph)	85th percentile speed after (mph)	Volume over Posted Speed Limit before	Volume over Posted Speed Limit after	% Over Posted Speed Limit before	% Over Posted Speed Limit after
Cruikshank Street	14.30	14.90	18.40	18.90	19	14	9%	10%

Speeds on boundary roads (seven-day totals)

	Average speed before (mph)	Average Speed after (mph)	85th percentile speed before (mph)	85th percentile speed after (mph)	Volume over Posted Speed Limit before	Volume over Posted Speed Limit after	% Over Posted Speed Limit before	% Over Posted Speed Limit after
Claremont Square	15.64	16.90	19.33	20.60	664	741	12%	18%
Amwell Street	15.28	11.90	19.12	15.30	469	60	10%	3%
Rosebery Avenue (south site)	19.51	20.10	24.27	24.80	6012	6543	45%	50%
Farringdon Road	27.45	22.98	33.71	28.86	4149	7283	54%	71%
Pentonville Road	20.86	19.26	28.71	24.29	2576	692	11%	3%

Speeds on local roads outside the PFS (seven-day totals)

	Average speed before (mph)	Average Speed after (mph)	85th percentile speed before (mph)	85th percentile speed after (mph)	Volume over Posted Speed Limit before	Volume over Posted Speed Limit after	% Over Posted Speed Limit before	% Over Posted Speed Limit after
Cynthia Street	12.46	18.70	14.79	23.20	9	389	0%	39%
Donegal Street	16.64	16.70	20.08	20.00	457	538	15%	15%
Calthorpe Street	18.49	18.80	22.99	23.20	1306	1200	37%	38%

	Average speed before (mph)	Average Speed after (mph)	85th percentile speed before (mph)	85th percentile speed after (mph)	Volume over Posted Speed Limit before	Volume over Posted Speed Limit after	% Over Posted Speed Limit before	% Over Posted Speed Limit after
Topham Street	10	10	13	0	9	0	0%	0%

Speeds on main roads outside the PFS (seven-day totals)

	Average speed before (mph)	Average Speed after (mph)	85th percentile speed before (mph)	85th percentile speed after (mph)	Volume over Posted Speed Limit before	Volume over Posted Speed Limit after	% Over Posted Speed Limit before	% Over Posted Speed Limit after
Rosebery Avenue (north site)	22.37	20.50	26.75	25.90	6150	4984	69%	54%
Acton Street	23.65	21.52	27.14	25.00	438	107	6%	1%
Swinton Street	19.73	17.58	22.00	20.00	92	14	0%	0%

Appendix 5: Amwell traffic count locations and type

Islington-commissioned ATC (Automated Traffic Count) and Radar sites

Boundary	**Type**
Claremont Square	ATC
Amwell Street	ATC
Rosebery Avenue (south site)	ATC
Farringdon Road	Radar
Pentonville Road	Radar
Internal	
Great Percy Street	ATC
Prideaux Place	ATC
Wharton Street	ATC
Lloyd Baker Street	ATC
Wilmington Street	ATC
Cruikshank Street	ATC
Lloyd Street	ATC
Margery Street	ATC
Local Roads beyond the PFS	
Cynthia Street	ATC
Donegal Street	ATC
Cathorpe Street	ATC
Topham Street	ATC
Main Roads beyond the PFS	
Rosebery Avenue (north site)	ATC
Acton Street	Radar
Swinton Street	Radar

TfL permanent traffic sites and coordinates (all ATCs)

Street name	Northing	Easting
A1 Archway	529219	187254
Pentonville Road	531004	183093
Camden Road	529924	185126
Caledonian Road	530708.1	183517.3
Clerkenwell Road	531863	182129
City Road	532762	182386
Old Street	532668	182448
St Johns Street	531460	183048
A1 Upper Street	531650	184311
Holloway Road	531239	185120
Amwell Street	531885.4	184353.7
Southgate Road	532956	184553

ATCs measure traffic volumes and speeds using two thin tubes that run across the street and are connected to a sensor. When wheels pass over the tubes, the pressure impact is interpreted by the sensor to identify the type of vehicle passing over, and the speed with which it passed. They are considered to be approximately 98% reliable. Inaccuracies can arise when, for example, two vehicles pass at the same time they may be counted as one, or if a car and bicycle pass at the same time, it may be read as one car. However, the same method is used before and after and the method is considered a good industry standard. They are used as a standard in monitoring transport schemes.

Radar counts monitor speeds and vehicle volumes to a less specific categorisation using a radar sensor and do not include cycles. The suppliers state their accuracy rate is 98%.

Appendix 6: Traffic count normalisation methodologies

Traffic counts

In order to account for the fact that there was less traffic on Islington streets from March 2020 onwards we have provided adjusted figures that provide an estimate for what the traffic would have been if there was no COVID-19 disruption. This allows us to analyse the impacts of the PFS area scheme rather than the impacts of COVID-19 on the traffic volumes.

To calculate the percentage change the difference has then been taken between the two, and divided by the normalised baseline volume to arrive at a normalised percentage change.

To calculate the normalised percentage differences, the September 2020 traffic counts volumes have been divided by 0.8841, June 2020 traffic count volumes have been divided by 0.7790, and the June 2021 traffic counts by 0.911 to give normalised volumes.

Appendix 7: Air quality monitoring

We have been monitoring air quality since 2000 and have 21 long-term monitoring sites across the borough. We also have additional monitoring in place for specific projects and have been monitoring air quality outside every school in the borough since 2018. As such, there is significant long-term air quality data collection across the borough, which will be used in the normalisation process. It also means there is existing air quality monitoring within the Amwell PFS trial area, though some monitoring equipment has been added to expand the air quality monitoring in and around an area.

The air quality monitoring sites in the Amwell area are listed below, with details about type and if they have been added as part of the PFS programme or were pre-existing.

Amwell air quality monitoring sites type and period of installation

Locations	PFS road type	Monitoring type	Installation	Site Type by DEFRA classification*
Percy Circus (BIS04)	Internal Road	Diffusion tube	Pre-existing (since 2000)	Background urban
Lloyd Baker Street	Internal Road	Diffusion tube	New (since August 2020)	Background urban
Amwell Street (S16)	Boundary Road	Diffusion tube	New (since February 2020)	Roadside
Pentonville Road (PF34)	Boundary Road	Diffusion tube	New (since September 2020)	Roadside
Rosebery Avenue (BIS02)	Boundary Road	Diffusion tube	Pre-existing (since 2000)	Roadside
Farringdon Road (N50)	Boundary Road	Diffusion tube	Pre-existing (December 2019)	Roadside

Islington's air quality team classify sites using Defra guidance based on their location. Roadside sites are those within one to five metres of a busy road, while urban background sites are those in an urban location but more distanced from sources and therefore more representative of wider background conditions.

Methodology

Data quality control

As a council we are legally obliged to monitor air quality and report on this every year. To ensure data is as accurate as possible we follow national guidance for monitoring air quality, in terms of deployment and results analysis. For example: use of accredited monitors, personnel and laboratories or correction of diffusion tube data based on annual comparisons to automatic monitors. More information on this process can be found in our annual reports.

The data used in this analysis will follow these rules as much as possible, especially in regards to monitor deployment. However it will not have fully gone through this process, especially in regards to normal end of year analysis processes for 2021, and should therefore be treated as provisional. This is even more the case with the sensor data, which is not an approved monitoring type for official reports and where the uncertainties are more unknown.

The 2019 data in this report has been adjusted using a correction factor of 0.88; the bias adjustment factor for 2020 data was 0.94. Adjusting data in this way is standard practice in making air quality data as accurate as possible, more information on this factor can be found in the 2019 annual report. The data for 2021 is still raw as a bias correction factor has not yet been calculated. For time periods where less than 75% of data was captured the data has been "annualised", meaning it has been adjusted by comparing it to monitors that had data for the whole period. More information can be found on this process in the annual air quality report.

Insights background

Pollution levels are impacted by a range of local and wider sources. For example, the source apportionment study conducted for Islington in 2015 found only 3% of London's NOx emissions came from inside Islington. Therefore, it can be very hard to pick up on local changes caused by schemes such as people-friendly streets

Pollution also varies a lot over time due to a range of external factors (such as weather) for which this study has not corrected, therefore ideally a longer period of study would be required to analyse these results more fully. This would also allow further quality control of data that has not been possible with these results. There is also further uncertainty in recent results and whether these will represent longer term trends due to COVID-19. Studies of the first lockdown in March, for example by the Greater London Authority, show a decrease in

overall motorised traffic and NO_2 levels but no consistent change in PM due to weather impacts. Since the introduction of people-friendly streets in Amwell there have been further lockdowns.

Appendix 8: Project Centre Ltd Statement

Project Centre is a multi-disciplinary design, engineering and landscaping architecture consultancy, whose highly talented people are passionate about creating places that are attractive, innovative, sustainable and safe. Project Centre's areas of expertise include air quality improvement schemes, neighbourhood traffic schemes, pedestrianisation, cycle design, road safety, traffic modelling and traffic data analysis.

Project Centre Ltd (PCL) has been commissioned by the London Borough of Islington (LBI) to prepare their report, the Amwell People-Friendly Streets trial Pre-Consultation Monitoring Report. It is intended that this report provides an accurate, neutral evaluation of the impact of the Amwell people-friendly street scheme.

The key areas of focus were that the agreed methodology followed the correct process; that the conclusions were drawn without bias; that the tables and charts in both the report and appendices corresponded exactly with the underlying data analysis; and that this analysis corresponded with the methodology set out within the report and was free from error.

PCL carried out extensive checks on the data analysis. This included checking that formulae correctly reflected the processes described in the reports as well containing the correct values or cell references. Checks were also made that data had been correctly copied through a mixture of verifying complete tables against those in the report and appendices and spot-checking values in the raw data and analyses calculations.

Neither PCL nor LB Islington can be held accountable for errors in the data provided by third parties, where these errors have not been identified through the usual checking processes.

In preparing the report, application of the agreed methodology and data, PCL assessed whether the approaches taken and methods of presentation used provided a neutral evaluation of the scheme. Care was taken so that data was treated even-handedly and had in no-way exaggerated results that could be considered beneficial or hidden those that could be considered negative.

The methodology followed made appropriate assumptions that allowed for a fair comparison of counts taken before and after the trial implementation against a background of fluctuating overall traffic volumes as a consequence of COVID-19.