

Walworth Low Emission Neighbourhood Bid to the Mayor's Air Quality Fund

Appendix D: Supporting Information

London Borough of Southwark
January 2018

LIVERPOOL GROVE
COMMUNITY SPACE

Southwark
Council
southwark.gov.uk



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PART 1: EVIDENCE BASE

1. About our Neighbourhood

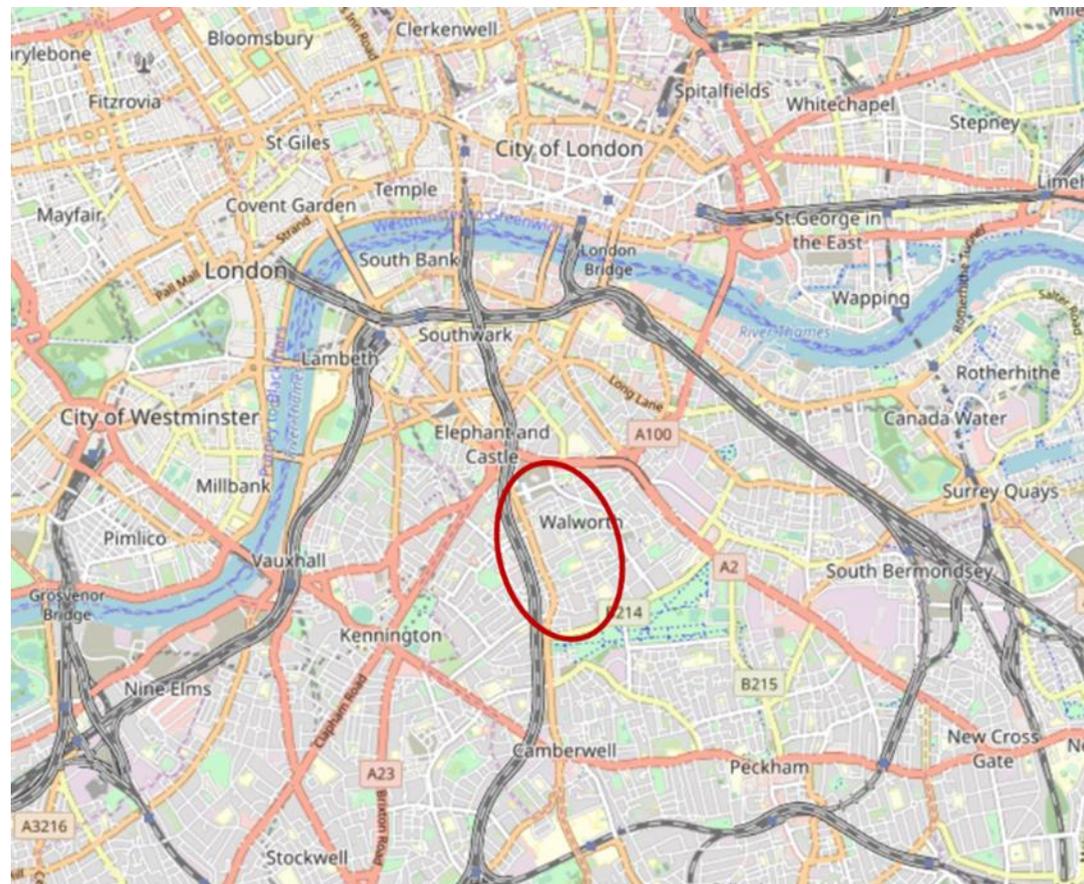
Suitability and location

The Walworth Road neighbourhood is highly suitable for a Low Emission Neighbourhood (LEN) due to it being an inner city, high density, low income neighbourhood that is exposed to high levels of air pollutants.

Walworth is situated between the Elephant and Castle and Camberwell (Figure 1). Our proposed Low Emission Neighbourhood (LEN) is bounded to the north by the Elephant and Castle, to the east by Thurlow Street, on the south by Albany Road and the Thameslink railway line on the west. Walworth is close to areas of major regeneration including at the Old Kent Road Opportunity Area, the Elephant and Castle and the Aylesbury Estate.

Walworth borders the Congestion Charging Zone (CCZ) to the north, which will also be on the boundary of the first phase of the Ultra Low Emission Zone (ULEZ) from April 2019.

Figure 1: Location of Walworth Low Emission Neighbourhood



Character and function

Walworth is a dense, vibrant and diverse neighbourhood, with Walworth Road and East Street providing a local town centre (Figure 2). Walworth Road has a wide range of independent local shops and East Street is renowned for its Saturday market and the sale of fresh produce during the week.

Walworth Road is the fourth busiest high street in Southwark, with a predominantly local retail offer. Visitors to the Walworth Road are attracted by the range of places to shop, eat and drink .

Housing in Walworth (Figure 3) includes high density post-war social housing developments, including the western section of the large Aylesbury Estate, constructed during the 1960s and 1970s, which is currently undergoing significant redevelopment. The neighbourhood also includes lower density social housing from the early 20th Century comprising cottages and tenement blocks on the streets surrounding Portland Street and around St Peter's church.

Walworth also contains several conservation areas, including Sutherland Square, the streets around Liverpool Grove and the streets around Larcom Street, which are protected in recognition of their special and historic architectural character.

Figure 2: Images of Walworth Road and East Street market



Figure 3: Different types of housing in Walworth



Parks and green space

Walworth already benefits from several neighbourhood parks and green spaces, providing good quality open space and greening upon which the LEN will build. Faraday Gardens and Nursery Row Park are within the neighbourhood and Burgess Park is located on the southern boundary. There are also smaller 'pocket' parks, for example on Cadiz Street and Wansey Street, the latter delivered as part of the Elephant and Castle regeneration and the former an initiative maintained by a housing association. Sutherland Square in the west of the neighbourhood was in the first wave of Home Zone schemes in 2001 and benefits from greening and street trees (Figure 4).

Figure 4: Pockets parks and small green spaces in Walworth



Demographic profile

Southwark as a whole has a population of 314,200. This population is much younger than the London or national average (Figure 5) and is forecast to grow by 20 per cent by 2030 (Figure 6). It is also ethnically diverse and densely housed, with a high turnover of people moving into and out of the borough.

Figure 5: Population profile of Southwark, 2017 (Source: Southwark Public Health, 2018)

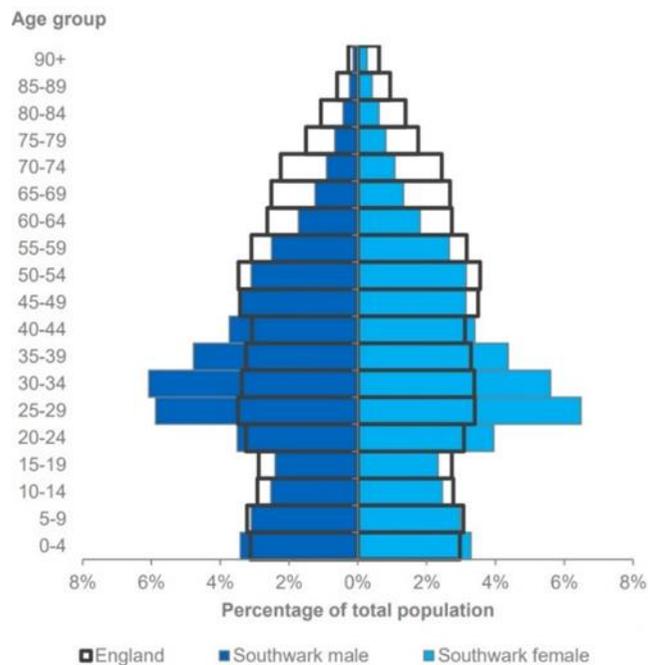
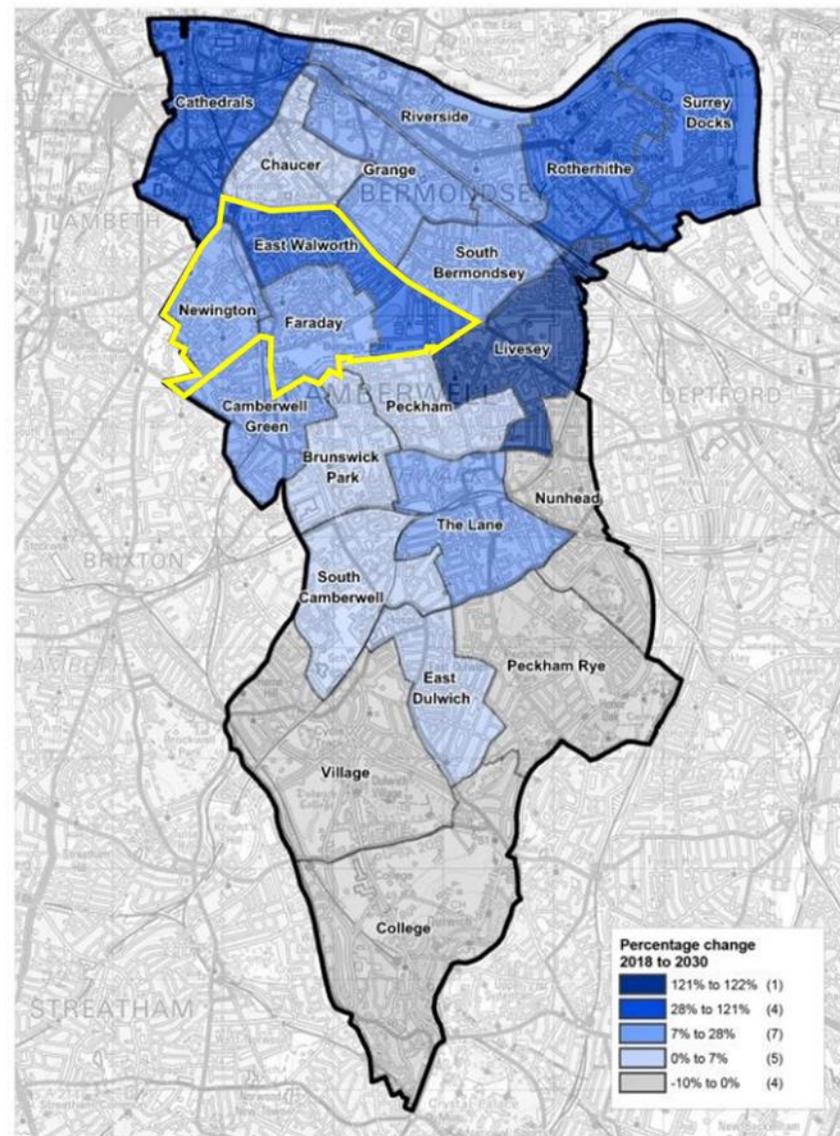


Figure 6: Forecast population growth 2018-2030 (Source: Southwark Public Health, 2018)

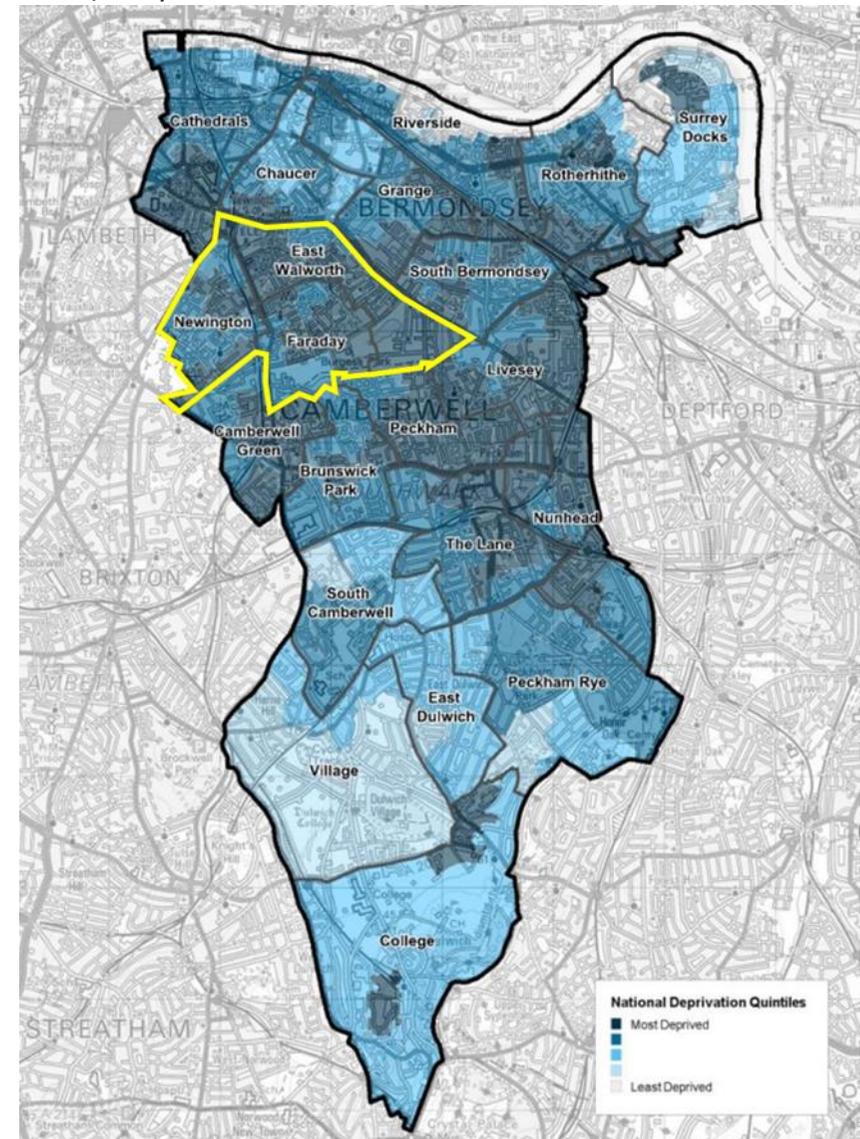


The Walworth LEN spans the wards of East Walworth, Faraday and Newington. These three wards constitute a highly dense and diverse population of 39,940 people, with considerable deprivation (Figure 7). Across the population of these wards:

- 53% are from BAME backgrounds
- 60% are in the most deprived quintile nationally
- 34% children under the age of 20 are living in low income households
- 30% of children in Year 6 are classified as having excess weight

Proposals for the LEN aim to address some of the key challenges and inequalities faced by Walworth’s population in terms of air pollution, active travel and green space.

Figure 7: Instances of deprivation in Southwark, 2015 (Southwark Public Health, 2017)



2. Existing Situation

Air quality in Walworth

Walworth is part of an LAEI focus area (extending to Camberwell and Camberwell Green). This area has been selected because it experiences concentrations of NO₂ above legal limits and there is high human exposure to it on the high street and surrounding streets (Figures 8 and 9).

Transport for London (TfL) previously suggested in MAQF guidance that the Camberwell area would make an ideal location for a LEN proposal. Southwark Council and GLA officers have agreed to focus on the northern end of this area in Walworth, in which people are exposed to unsafe levels of NO₂, not least due to concentrations emanating from Elephant and Castle in the north. With the introduction of ULEZ in April 2019, it is likely that more traffic will divert through Walworth to avoid the charge, which would have significant impacts in the area unless steps are taken to reduce through-traffic.

Both figures show that the highest concentrations of NO₂ are on the main roads, including the A201, A3, A3 and the Walworth Road. The neighbourhoods surrounding these main roads also experience air pollution above the legal limit. These neighbourhoods are the focus of this LEN application.

Figure 8: LAEI focus areas in Southwark – December 2026 update (Source: GLA, 2016)

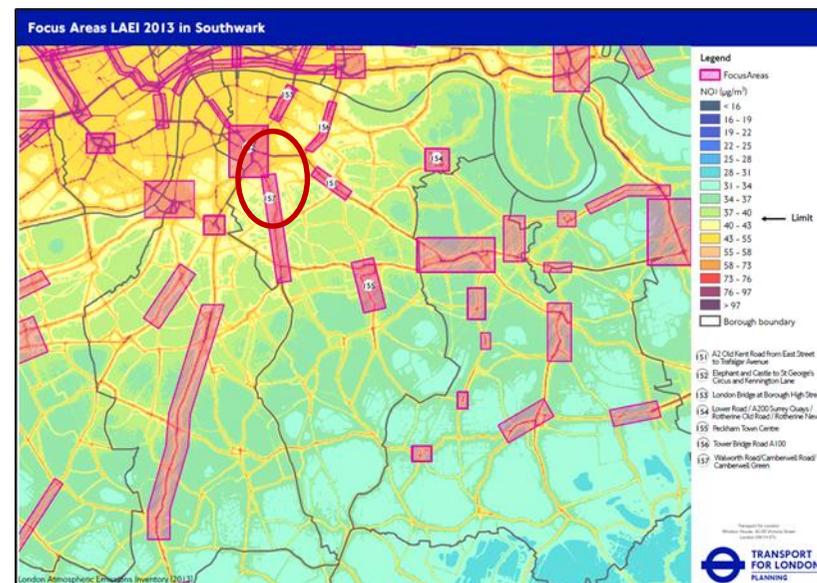
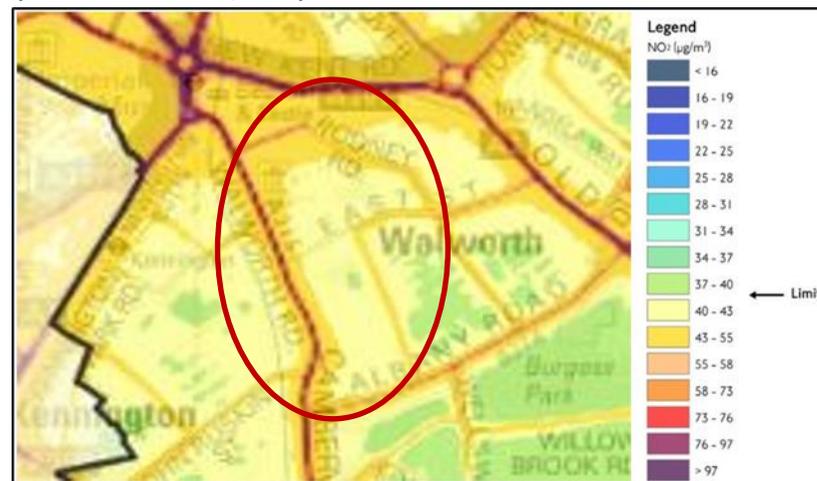


Figure 9: Detailed view of NO₂ concentrations in Walworth, 2013 (Source: Southwark, 2017)



Traffic and transport

A key issue that needs to be addressed is through-traffic crossing the Walworth Road and running through the surrounding neighbourhoods. This traffic uses residential streets to rat run between the A2 and A3. The A3 will form the ULEZ boundary from April 2019, when it is expected that pollution will become more acute, with more traffic cutting through Walworth to avoid increased road charges.

Traffic counts and origin-destination analysis provides good evidence of this east-west movement, which can be addressed in two ways by this proposal (Figure 10).

First, there are significant numbers of vehicles traveling from Walworth Road / Camberwell Road to the A3 via John Ruskin Street, Dale Road, Cooks Road and Kennington Park Place. This amounts to around 1,780 vehicles per day, 95% of which turn left on to the A3. Banning this left turn is expected to significantly decrease the amount of through traffic in this area.

Aside from the number of vehicles making this journey each day, vehicle speed is also a concern. This area is part of a 20mph zone, yet traffic data from John Ruskin Street found that 31% of vehicles were travelling above the speed limit northbound and 56% southbound. Vehicle speeds are due to be addressed as part of Quietway 8 works in summer 2019 and banning this left turn will complement both schemes.

Second, there is evidence of east-west movement across Walworth Road between Browning Street and Manor Place, which are residential streets. Traffic counts found that around 240 use the junction of Browning Street and Walworth Road in the morning peak (between 07:00-10:00), 97% of which cross Walworth Road on to Manor Place. Similarly, around 550 vehicles use to junction of Manor Place and Walworth Road in the morning peak, 82% of which continue on to Browning Street. Introducing filtered permeability on Browning Street will address this issue.

There is excellent public transport provision in the Walworth LEN area (Figure 11), with a range of bus routes available on Walworth Road and at the Elephant and Castle. There are more than 110 buses per hour on Walworth Road serving the local community. The area around East Street has the highest patronage, with 1.6 million-3.2 million passengers boarding annually.

There are London Underground services at Kennington and Elephant and Castle, and the area is on the periphery of the Santander Cycles zone (we would welcome discussions with TfL to discuss possible extension in to Walworth). Therefore, Walworth is an ideal area to make improvements to maximise public transport use, which will support the Mayor's ambitions to increase walking, cycling and public transport trips to 80% by 2041.

There is a well-developed cycle network in Walworth (Figure 12), made up of older London Cycle Network (LCN) routes and new and proposed Quietways; notably Quietway 7 between Elephant and Castle and Burgess Park, and Quietway 8 between Oval and Burgess Park. Cycle Superhighway also runs along the A3, Kennington Park Road. This means that there is already cycling infrastructure in place to complement measures to reduce the dominance of motor traffic in the area and promote walking and cycling.

Figure 10: The remaining key rat-runs to address around Elephant and Castle are both in Walworth



Figure 11: Public Transport Accessibility Levels (Source: TfL WebCAT)

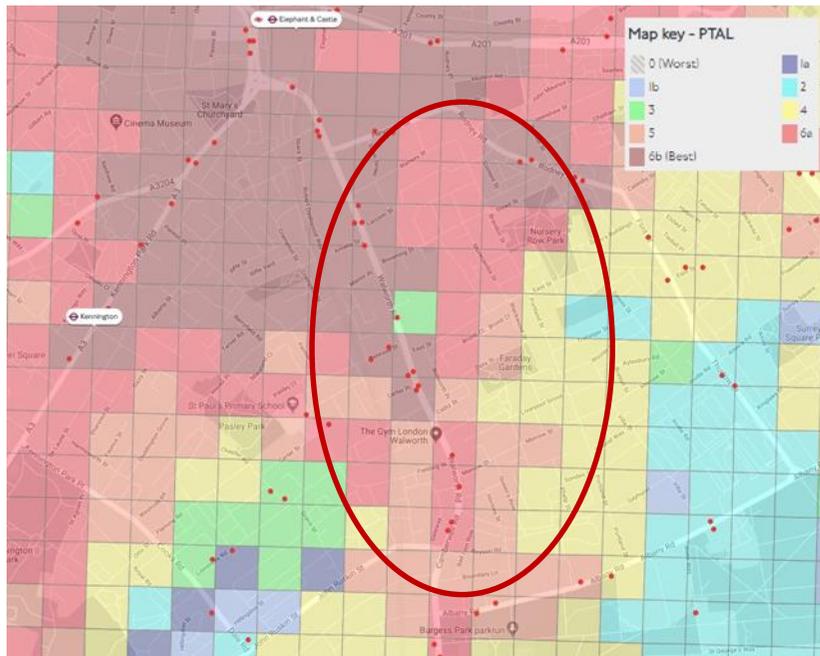
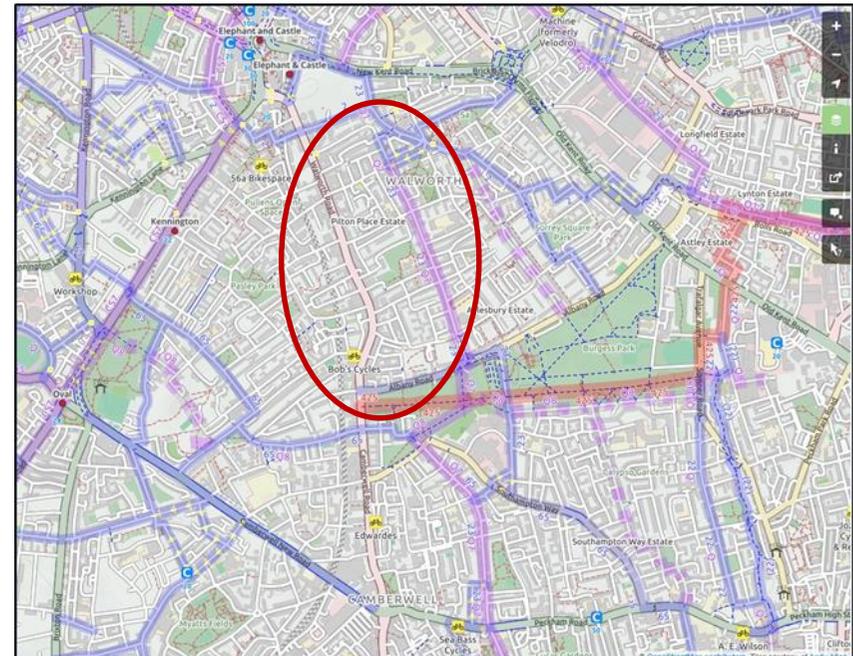


Figure 12: Cycle network in Walworth (Source: OpenStreetMap)



Complementary projects

Bus priority

Southwark Council is discussing with TfL a bus priority scheme for the Walworth Road, which may be further developed through 2019. The scheme proposes to prioritise buses and cycles on the Walworth Road and significantly widen the footway to make the environment more attractive for walking and cycling. The proposals set out for the LEN will complement this larger scheme.

Other air quality initiatives championed by Southwark Council

The Council has been leading several air quality initiatives, including:

- Cleaner Air 4 Schools toolkit, focusing on journeys to school and energy efficient school buildings to reduce emissions (Figure 13).
- Trials of innovative dust suppressants at construction sites and with King's College London research into the effectiveness of nitrogen dioxide reducing reactive paints at the Elephant and Castle.
- Anti-idling campaigns on major routes, working with local schools and the Better Bankside Business Improvement District.
- Encouraging the uptake of low emission vehicles by increasing awareness among residents and businesses of poor air quality in the borough.

Walworth Schools Superzones

Southwark Council is piloting two Schools Superzones in Walworth to help address high levels of air pollution, childhood obesity and youth violence in the borough. The Council plans to work with local schools to deliver activities that will improve the health and lifestyle of children and young people in Walworth. This will include links to air quality awareness and improvements, such as school streets, anti-idling campaigns and the promotion of active travel for journeys to school. In autumn 2018 Walworth took part in a Beat the Street initiative to encourage local children and parents to walk, cycle and explore their neighbourhood.

Figure 13: Southwark Clean Air 4 Schools Programme



Walking and cycling

- **Quietways:** Quietway 7 runs north-south through the proposed LEN providing a quieter alternative to cycling on the busier Walworth Road or Thurlow Street and connecting with Quietway 1 just to the north of Walworth. Proposed Quietway 8 runs east-west to the south of the proposed LEN area.
- **Cycle Superhighways:** the original CS7 and the recently delivered CS6 (North-South) routes connect Elephant and Castle with central and south London. Walworth is a short distance from these high quality links.
- **Local cycling connections:** there is a network of connections within Walworth that facilitate access to the Quietways and Superhighways, such as links on Steedman Street and Content Street and the existing filtered permeability on Liverpool Grove.

Major urban renewal

- **Elephant and Castle:** £3bn investment in 19 projects that will deliver almost 1,700 new affordable homes and 10,000 new jobs, training and apprenticeships. Southwark Council granted consent for the redevelopment of the Elephant and Castle shopping centre in December 2018. The regeneration will also help to deliver the new Northern Line ticket hall at Elephant and Castle station (Figure 14).
- **Aylesbury Estate:** 3,500 new homes on the site of the existing estate, the first phase of which is the western end within the proposed LEN area, due for completion around 2020-21.
- **Old Kent Road Opportunity Area:** expected to accommodate 20,000 new homes, 10,000 new jobs, a new town centre and new parks and green spaces.

Northern and Bakerloo Line Extensions

Walworth is located close to the Old Kent Road and longer term the Bakerloo Line Extension is planned to deliver two new stations on the Old Kent Road, enabling more trips by public transport by residents. In the shorter term, Walworth is a short walk from Kennington station providing access to the Northern Line Extension to Battersea. Both of these major schemes will further enhance the public transport provision in Walworth.

Figure 14: Regeneration at the Elephant and Castle



Policy alignment

Healthy Streets

- **Pedestrians from all walks of life:** the LEN targets a demographically diverse area, an area of high deprivation and includes measures to improve streetscape and public realm. This will make the neighbourhood a more pleasant place for people to spend time and encourage local walking and cycling journeys.
- **Things to see and do:** the LEN seeks to improve the urban realm in Walworth and build on the neighbourhood's heritage, hence the proposal to improve the section of Liverpool Grove west of St Peter's church, highlighting the façade of this listed building while creating more space for walking, cycling and community uses.
- **Shade and shelter:** the LEN will deliver new greening and street trees including at Liverpool Grove and Browning Street.
- **Clean air:** through the LEN and its complementary projects Southwark will work with schools, businesses and residents in Walworth to raise awareness of air quality issues, promote the LEN itself and encourage more walking and cycling.
- **Places to stop and rest:** Southwark will work with the community and local stakeholders to integrate resting places within the urban realm designs as they progress through the design phase.

- **People feel safe:** the LEN seeks to reduce road danger by reducing through-traffic using the residential streets in the neighbourhood.

Vision Zero

The Walworth LEN will make a strong contribution to the delivery of the Mayor's Vision Zero commitment. The filtered permeability proposal at Browning Street and the resulting reduction in through-traffic will make streets safer for those living in and visiting the neighbourhood.

Southwark Movement Plan (Consultation Draft 2018)

The emerging Movement Plan places people at the heart of local transport strategy and puts emphasis on fairness and equality; the LEN plans are fully aligned with these aims, focusing attention on some of the most deprived streets in Southwark and ensuring the people in Walworth are affected disproportionately by traffic displaced by the ULEZ. The Movement Plan seeks to create streets where it is pleasant to walk and cycle to help address inactivity and high levels of obesity. Through the LEN walking and cycling will be encouraged working with local schools, businesses and residents.

Mayor's Environment Strategy

- **Green infrastructure:** the LEN will build on Walworth's existing green infrastructure, introducing new planting and street trees.
- **Air quality:** the programme has been developed with reference to the aims and actions on air quality. The LEN is designed to support the introduction of the ULEZ and help to mitigate its impact on deprived streets on the periphery of the ULEZ. The engagement proposed as part of the LEN will assist the Mayor and TfL in disseminating best practice and learnings from LEN implementation and raise awareness of air quality among those living and working in Walworth.
- **Low carbon circular economy:** the LEN will also support the health of Walworth Road as a local high street, encouraging people to visit and support local businesses. In turn this will reduce the need to travel for goods and services. The public realm and engagement elements of the programme aim to promote walking and cycling for these short local journeys.

3. The Opportunity: Creating a LEN in Walworth

Why Walworth?

There is major change and investment taking place on all sides of Walworth. Now is the time to lock-in complementary benefits and deliver a Low Emission Neighbourhood that will help to improve local streets for some of the most diverse and disadvantaged Londoners.

Help is needed to support our residents and address through-traffic avoiding the Elephant and Castle junctions. This includes additional support to manage the impact of being on the periphery of the CCZ and ULEZ in Walworth, as traffic diverts around the zone through the neighbourhood.

Local residents are demanding that through-traffic is addressed in the area. Just to the north west of the Walworth LEN, Pullens Tenants and Residents Association has applied for CleanerGreenerSafer funding to carry out a scoping study and consultation to introduce filtered permeability and street greening. Also, residents around Cooks Road, one of the major through-routes, are requesting that through-traffic is stopped.

The Walworth LEN scheme has the local political support too. Evidence is provided by the accompanying letter from the portfolio holder.

The scheme concepts presented in this LEN bid have the support of local stakeholders including the Walworth Society and Southwark Living Streets. Southwark Council is committed to co-designing and developing these schemes with the local community.

Walworth would be an ideal location for a LEN and quite different demographically to previous LENs. It has some of the highest levels of deprivation in London and a large BAME representation.

Finally, Southwark Council has a strong track record of working with TfL, GLA and partners to deliver major schemes including the Elephant and Castle junction improvements, Cycle Superhighways, Quietways and masterplanning for the Old Kent Road Opportunity Area. The Council is also experienced in the delivery of air quality improvement schemes and is a supporting partner Better Bankside's Business Low Emission Neighbourhood.



PART 2: OVERVIEW OF PROPOSED LEN SCHEMES

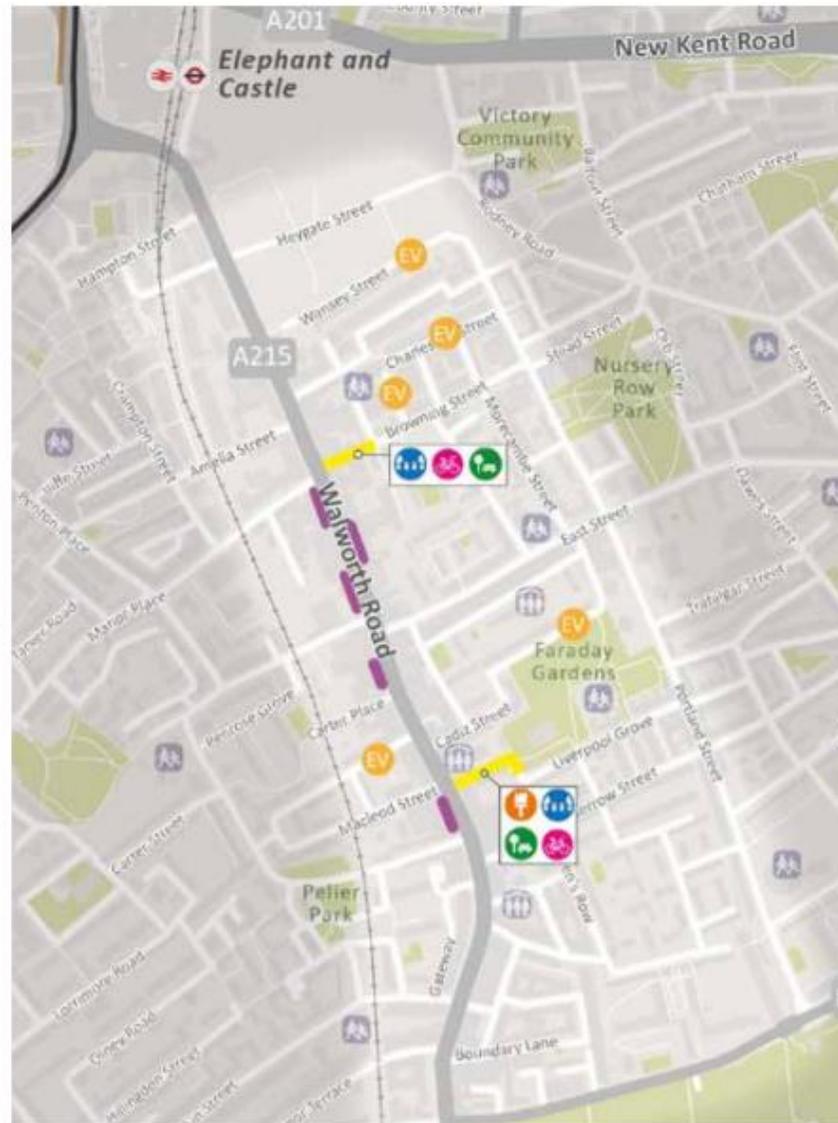
4. Proposed Schemes

Key projects and area-wide schemes

Eight projects and schemes are proposed as part of the Walworth LEN programme:

1. Browning Street filtered permeability and pocket park
2. Liverpool Grove public realm improvements
3. Reducing through-traffic to the A3 Kennington Park Road
4. Ensuring the LEN works for local people
 - i. Business engagement
 - ii. Community engagement
 - iii. Schools engagement
5. Encouraging active travel
6. Supporting the uptake of cleaner vehicles
7. Area-wide delivery and servicing optimisation
8. Monitoring and evaluating the benefits

Each scheme is introduced on the following pages.



1. Browning Street Filtered Permeability and Pocket Park

The northern part of the Walworth LEN suffers with the highest concentrations of NO₂ due to its proximity to Elephant and Castle. The ambitious road closure scheme at Browning Street will provide traffic and pollution relief for surrounding neighbourhoods. It will benefit bus journey times by reducing the traffic crossing or entering Walworth Road at this junction. With the significant reduction in east-west movements this filter will bring we would anticipate removing the traffic signals from this junction.

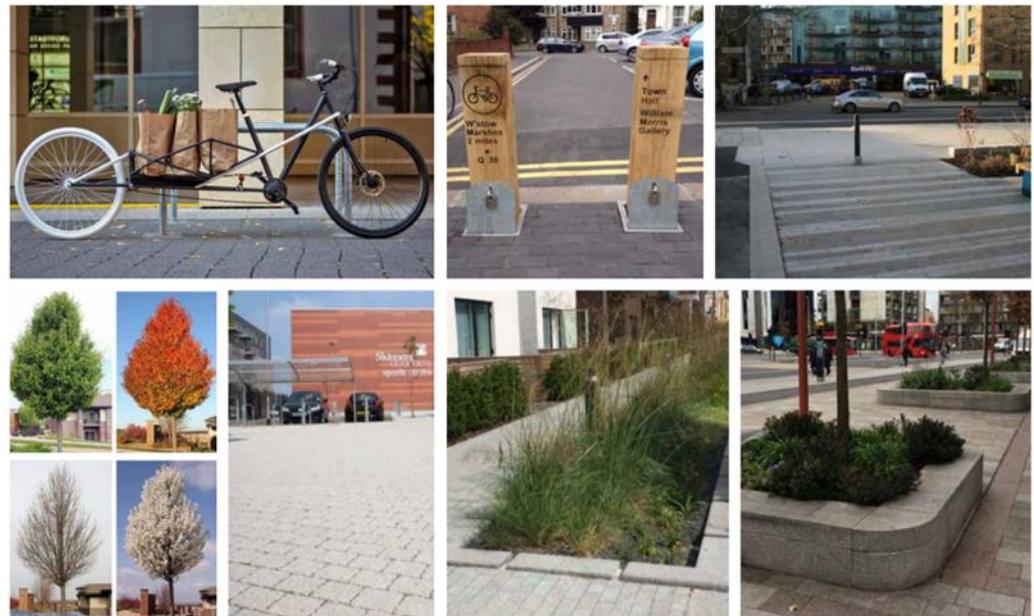
Our analysis shows that around 97% of vehicles on Browning Street are making east-west movements. The filter will remove this traffic, whilst still allowing access for cycles and emergency vehicles. Servicing vehicles will retain local access via Browning Street to the east of the filter.

A pocket park will be created to provide a new community space. The park will include flexible use areas that might be used to support local businesses, as well as parking for all types of cycles and new seating. Where possible within the design we will introduce green features to absorb local pollutants, manage rainwater and make the area a more attractive place to spend time

Browning Street - existing situation



Browning Street pocket space - reference images



Browning Street pocket space - concept



2. Liverpool Grove Public Realm Improvements

LEN funding will ensure that Liverpool Grove becomes a cleaner and greener community space; bringing the community together in a playful space that encourages active travel, improves biodiversity and that is planted with carefully-selected species to absorb local pollutants.

The new green space will be made possible by relocating a small number of car parking spaces that move the existing road closure on Liverpool Grove closer to Walworth Road. Cycle and emergency vehicle passage will be provided through the space, as well as access for refuse and servicing vehicles. Local residents and visitors to St Peter's church will retain access.

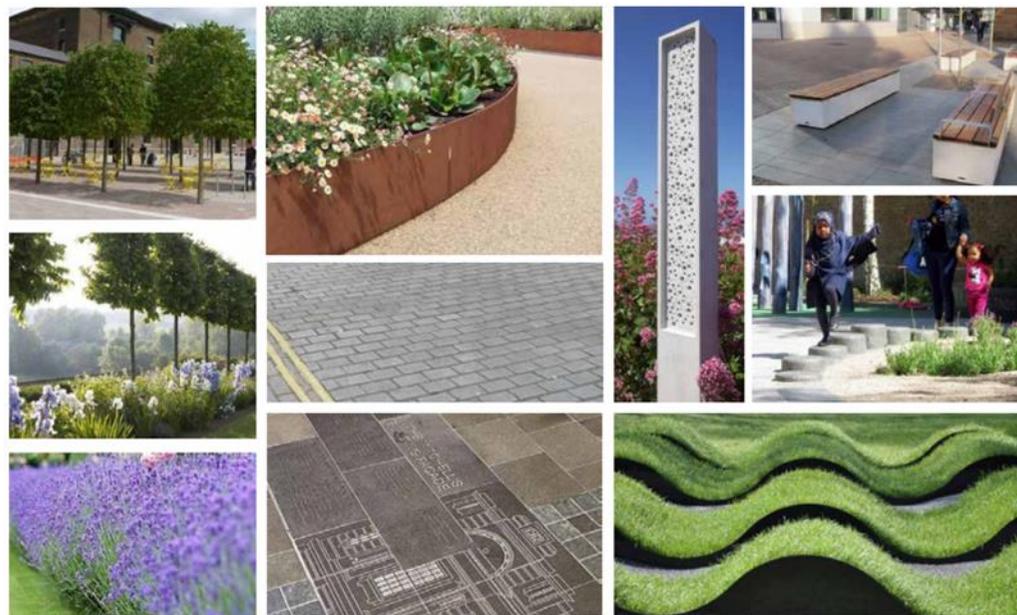
The proposal will benefit the local high street by drawing more people to this community focal point by making it a more attractive place to spend time and enjoy. It includes the flexibility to provide outdoor space for a variety of uses, such as café seating, street food units and event space that will be used for LEN promotional activities.

This proposal will be co-designed with the local community. A Healthy Streets check will be carried out as part of the design process to ensure that benefits are maximised.

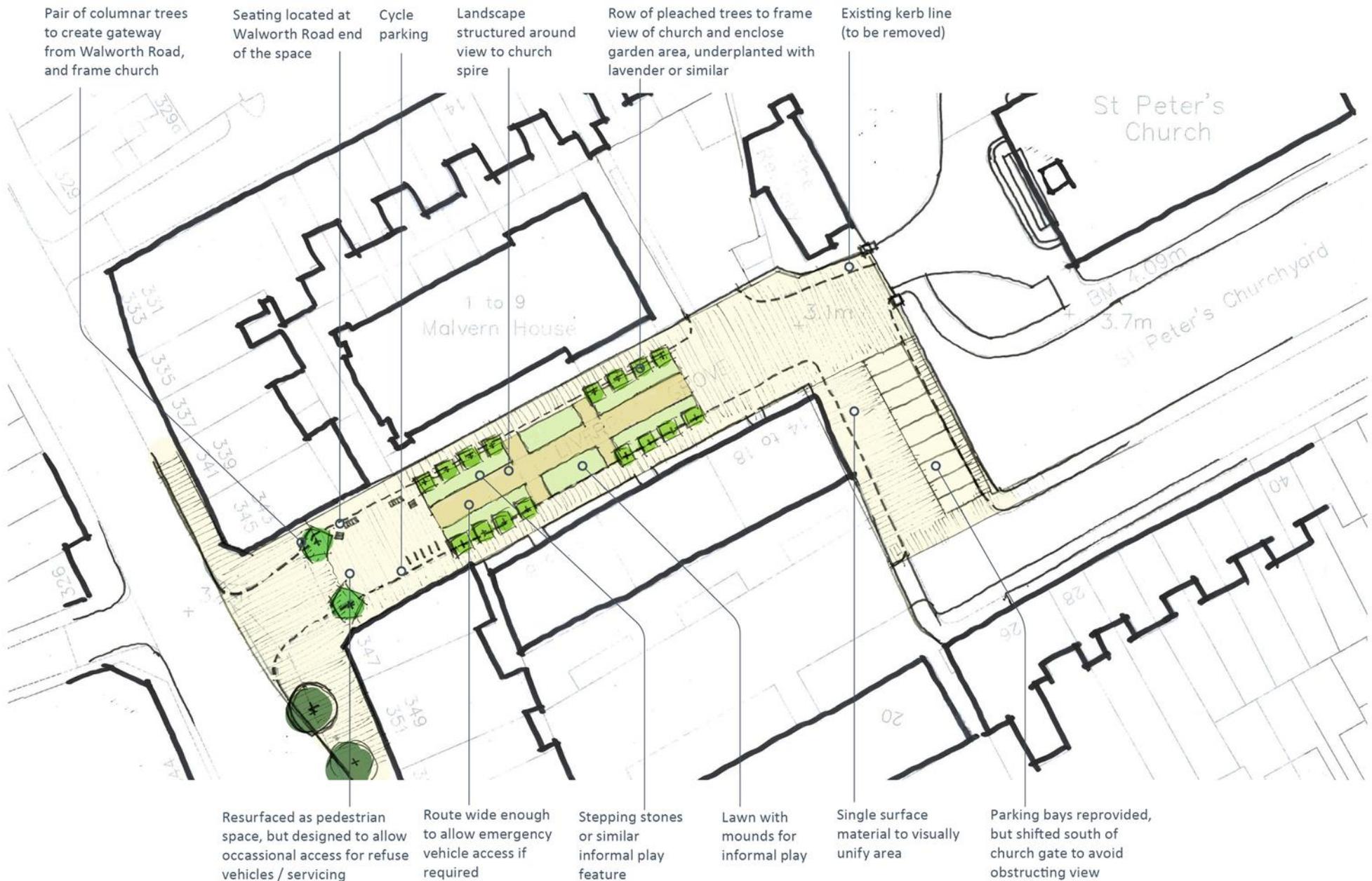
Liverpool Grove - existing situation



Liverpool Grove pocket space - reference images



Liverpool Grove pocket space concept



Visualisation: Liverpool Grove Public Realm Improvements



3. Reducing through-traffic to the A3 Kennington Park Road

The LEN will deliver a much-needed complementary measure to reduce high amounts of through-traffic from the Walworth Road / Camberwell Road to the A3 Kennington Park Road, which will be achieved by banning left-turning vehicles.

Currently, around 1,180 vehicles make this movement each day, using residential John Ruskin Street, Dale Road, Cooks Road and Kennington Park Place to cut through the Walworth area. Local residents around Cooks Road have asked Southwark Council to address this problem, which inflicts air pollution, noise pollution and road danger on this community.

The Council will work closely with Transport for London and the local community to introduce the banned left turn.

4. Ensuring the LEN works for local people

i. Business engagement

An important component of the LEN is close working with businesses on the high street, which support local communities. Resource will be funded to meet with and survey local businesses. A key aim will be to recruit businesses to the project through knowledge sharing, offering grants and trials to encourage more sustainable and low emission practices.

Businesses have already been engaged in a pilot scheme for timed waste collection. This has proven successful and has been retained as a permanent scheme; making the road a cleaner and more pleasant place for everyone (<https://www.southwark.gov.uk/bins-and-recycling/timed-collections>).

As part of further engagement, the LEN will offer businesses energy audits to tackle non-road-based sources of NO2 and promote wider energy efficiency.

ii. Community engagement

The main objective of the LEN is to improve the lives of residents in Walworth. Southwark Council will ensure that proposals have community support and will engage with local residents and stakeholders, such as The Walworth Society, to co-design and promote schemes.

To educate and enthuse the community about the LEN, Southwark Council will organise community events, drop-in sessions and a launch event.

iii. School engagement

Walworth is a School Superzone and engagement is already taking place with local schools to improve air quality, encourage active travel, improve safety and school children's health. The work of the LEN will be integrated into this programme and school children will have the opportunity to inform schemes and will be educated about the LEN. This will include fun classroom activities, such as identifying where pollutants come from, how to improve local air quality and installing diffusion tubes at the school for school children to monitor.

5. Encouraging active travel

LEN funding would help to encourage active travel in Walworth, which will address local inequalities, obesity and air pollution.

The area has lots of local amenities, good public transport accessibly and a dense local cycle network. Walworth Road has a high frequency of buses and the Northern Line and Bakerloo Line at Kennington and Elephant and Castle, which are within a 10 minute walk of the centre of the LEN. Within 400m of the LEN are Cycle Superhighway 7 and Quietways 1, 7 and 8. Use of public transport and the local cycle network, walking and cycling will be promoted through engagement activities.

To further encourage active travel, Southwark Council will deliver a range of behaviour change measures, funded by the LEN. These will include cycle training, Dr. Bike sessions, led rides and cycle loans for residents and school children (including electric, cargo and adapted cycle).

The LEN will introduce smaller infrastructure improvements to further encourage walking and cycling. These will include continuous footways as part of the Liverpool Grove and Browning Street schemes, improving cycle permeability throughout the LEN area by introducing more dropped kerbs, for example, and delivering new cycle parking for all types of cycle, including those adapted for disabled cyclists.

6. Supporting uptake of cleaner vehicles

As emissions from vehicles is a major source of NO2 in the LEN, we will encourage the use of zero and ultra-low emission vehicles by both residents and businesses.

For businesses, we will offer trials of electric vehicles and cargo cycles, so that businesses can try new ways of making delivery and servicing trips. We will also offer sustainable travel grants to local businesses of up to £2,000 towards the cost of purchasing electric vehicles, cargo cycles or active travel facilities for staff.

For residents, we will offer discounted car club membership – considering that every car club vehicle takes at least 15 personally-owned vehicles off the road – and will introduce more car club parking spaces in the LEN area. We will also partner with local businesses to offer discounted cycle purchases, including cargo and electric cycles.

To encourage and facilitate the use of electric vehicles by residents and businesses, we will install new electric charging points across the LEN area, on or close to the high street and on residential streets.

7. Area-wide delivery and servicing optimisation

A coordinated approach to managing deliveries and servicing has the potential to significantly reduce motor vehicle emissions and movements in the area. Southwark Council will work with businesses to identify opportunities to promote collaborative procurement, local collection points, micro-consolidation and sustainable last mile deliveries.

LEN funding will enable Southwark Council to thoroughly investigate the potential to establish a local micro-consolidation centre and how it could be possible to trial innovative virtual loading bays on Walworth Road, to help to reduce emissions. Preparatory work has already identified a number of locations where a micro-consolidation facility might be located and survey work will establish the potential for a virtual loading bay trial.

8. Monitoring and evaluating the benefits

We will comprehensively monitor and evaluate the introduction of these LEN measures.

A number of new AQMesh sensors will be installed across the LEN to complement the existing sensors on Walworth Road, including diffusion tubes and local continuous monitoring stations. Traffic counts will be carried out across the LEN before and after implementation to compare data. The participation and satisfaction of businesses, schools and the community will be recorded to measure success of the LEN.

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Southwark Council engaged the support of Steer
to develop this Low Emission Neighbourhood bid.

www.steergroup.com

