

London Borough of Southwark

Walking Demand Study, Southwark

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1 Introduction

1.1 The Brief

1.1.1 Phil Jones Associates was commissioned to prepare this review of walking demand for the London Borough of Southwark. It assesses the current patterns of demand, how they compare to other parts of London, particularly the neighbouring boroughs of Lambeth and Lewisham, and focuses on a number of defined centres across the borough.

1.1.2 It concludes by identifying a number of principles for the further development of the borough's walking strategy.

1.2 Report Structure

1.2.1 The first task was to identify the current level of walking demand and a range of sources has been used for this purpose, which are described in Chapter 2. Perceptions of lack of safety are thought to be a significant deterrent to walking for many people, and crime statistics and the impact of the major highways in the Borough on road safety are described in Chapter 3. The work of Living Streets is summarised in Section 4 and a set of conclusions are drawn in Chapter 4.

1.3 The Appendix

1.3.1 The main focus in the work, which has been conducted in a short space of time, has been to take existing sources and assemble them in such a way as to be able to draw clear conclusions. The emphasis has been on displaying the material in a mapping format and Appendix A to this report provides all of the relevant information in a logically sequenced set of maps.



2 Identification of walking demand

2.1 Introduction

2.1.1 Demand data for journeys to work, education, leisure and shopping trips have been considered. Journey to work data has been derived from the 2001 and 2011 Censuses, and education, shopping and leisure trips have been taken from the London Travel Demand Survey (LTDS) data for the period 2010 to 2013.

2.2 Walking journeys to work

2.2.1 Table 2-1 below shows the proportion of journeys to work that were made on foot across London, Southwark and the neighbouring boroughs of Lambeth and Lewisham, as recorded in the 2001 and 2011 Censuses.

Table 2-1: Percentage of journeys to work on foot

Year	London	Southwark	Lambeth	Lewisham
2001	9%	12%	8%	7%
2011	9%	13%	8%	7%

2.2.2 Table 2-1 shows that overall there has been no significant change in the proportion of journeys to work made on foot across London or in the boroughs of Lambeth and Lewisham, but Southwark has seen an increase from 12% to 13%. The overall level of growth in walking mode share in Southwark was 6.2%.

2.2.3 Data contained in the LB Southwark report of May 2013 'Walking in Southwark' shows that, based on 2011 Census data, Southwark has the 7th highest mode share across all London boroughs, behind Westminster, Tower Hamlets, Camden, Islington, Kensington and Chelsea and Hammersmith and Fulham.

2.2.4 Maps 1 to 16 present the walking to work data from the two censuses in geo-referenced data form, while Map 17 shows the types of households across Southwark at Output Area level, based on Mosaic data.

2.2.5 Looking at London as a whole, Maps 1 and 2 shows how levels of walking to work in both 2001 and 2011 were substantially higher in inner London than in outer London, with Westminster having the highest levels of any borough. Southwark is slightly lower but still has higher levels overall than outer London and the neighbouring boroughs.



- 2.2.6 Maps 3 and 4 show how walking to work changed between the 2001 and 2011 Censuses. Map 3 presents this in terms of growth (2011 walk mode share ÷ 2001 walk mode share) while Map 4 shows this in terms of difference (2011 walk mode share – 2001 walk mode share).
- 2.2.7 The growth plot, Map 3, shows that there were declines in the amount of walking to work across some outer London boroughs but with large areas of little change. In inner London there was significant growth in Hackney, but Southwark also showed growth, as noted above.
- 2.2.8 The difference plot, Map 4, allows the scale of these changes to be seen more clearly. The absolute change in the percentage of people walking to work in most areas is fairly small, generally in the range of +1% to -1%. Southwark overall experienced a greater increase in walking to work than both Lambeth and Lewisham.
- 2.2.9 Maps 5 to 8 present similar analyses, but at Ward level so that the patterns of existing walking mode share, and the changes between 2001 and 2011 can be seen at a higher level of detail. This shows more clearly the significantly higher levels of walking in inner London, but also brings out the importance of town centres in outer London, such as Croydon, Kingston and Enfield.
- 2.2.10 Within Southwark, these plans show the significant difference in walking to work levels that exist between the northern and southern parts of the borough, which effectively includes parts of both inner and outer London.
- 2.2.11 Map 7 shows that there has been growth between 2001 and 2011 in walking mode share in the north of the borough and in North Dulwich but some decline around South Bermondsey. The absolute change in walking mode share is indicated on Map 8, which shows that the growth areas have seen a change of between 1 and 5% while the area of decline has seen a change of 0.5 to 1%. Overall the message is positive for Southwark – walking to work has grown over the last 10 years.
- 2.2.12 Maps 9 to 12 present a similar analysis for the three boroughs of Southwark, Lambeth and Lewisham at the most detailed level of geography available, Output Areas, while Maps 13 to 16 show this information at a greater scale for Southwark alone.
- 2.2.13 The gradation in walking levels from north to south for Southwark and for Lambeth can be seen more clearly at this higher level of resolution, and show that the areas inside the inner ring road in Southwark and in the northern part of Lambeth have the highest walking mode shares.
- 2.2.14 Within Southwark there are also pockets of high walking mode share to the east of Tower Bridge Road in Bermondsey, at South Bermondsey, Denmark Hill and Dulwich, although the size of the latter output area is unusually large since it includes significant areas of open space. Outside its northern tip Lambeth has few pockets of high mode share, with the area near Coldharbour Lane



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standing out. Lewisham shows a much more even pattern with only the area around Deptford Bridge being a high point.

- 2.2.15 In terms of change between 2001 and 2011, Maps 15 and 16 present the changes at OA level for Southwark, and show a somewhat mixed picture at this level of detail. There are pockets of substantial increase (over 10% in absolute terms) in Bermondsey, and absolute increases of up to 10% in London Bridge and around Dulwich, which is encouraging. Over much of the central part of the borough there has been absolute change in the -5% to +5% range, indicating that walking levels are fairly stable in most parts of Southwark.
- 2.2.16 Map 17 presents an analysis of Mosaic household classifications for Southwark at output area level. A comparison of this map with Maps 13 to 16 shows no obvious correlation between the amount or change in walking to work levels across the borough. Much of the area north of the A202 corridor is classified as 'Hard Pressed Families' yet there are large variations in the proportion of people walking to work. It appears that geographic factors matter more than demographic ones in terms of propensity to walk.
- 2.2.17 In summary, walking to work is higher in Southwark than London as a whole, and in the neighbouring boroughs; and Southwark is the only one of these areas that has seen an increase in walking to work between 2001 and 2011. Much of this increase has taken place in the northern part of the borough, within the Inner Ring Road and within Bermondsey. Across most of the borough, walking to work levels are fairly stable.

2.3 London Travel Demand Survey Data

- 2.3.1 Census data is comprehensive, but only includes journeys to work. Reference has therefore been made to data from the London Travel Demand Survey, which takes a sample of households across London on an annual basis and obtains a rich data set.
- 2.3.2 Map 18 shows a spider plot of all walking trips for Southwark from the 2010 to 2013 surveys, a total of 1252 records. This data shows a high proportion of trips being made on foot – some 55% of all records (2291). This indicates that walking is a very important mode of travel for shorter journeys when other journey purposes (e.g. education and shopping) are taken into account.
- 2.3.3 Compared to other London boroughs, Southwark has the 11th highest proportion of trips of under 2km made on foot. For all walking trips in the LTDS data set, walking within 2km accounts for some 30%, although there has been a slight decline in recent years, from just over 31% in 2006-2009.
- 2.3.4 The data has also been analysed to give a breakdown of all recorded walking trips by crow-fly distance.

**Table 2-2: Distribution of LTDS walking trips by crow-fly distance**

Crowfly Distance	Proportion of Trips
< 0.2km	30%
0.2km to 0.4km	25%
0.4km to 0.8km	27%
0.8km to 1.2km	12%
>1.2km	6%
Total	100%

2.3.5 Table 2-2 shows that, as expected, walking trips fall off quickly above 800m, which is often used for 'ped-shed' analyses.

2.3.6 Map 18 also shows the outlines of the main defined town centres in the borough:

- London Bridge
- Bankside
- Camberwell
- Elephant and Castle
- Peckham
- Lordship Lane
- Herne Hill

2.3.7 Although the spider plot is a little indistinct and scattered, it does show that a large number of walking journeys are focused on these defined town centres, which confirms their importance as key destinations.

2.3.8 Based on this data, we have therefore gone on to look at the spatial distribution of census journeys to work on foot around the main town centres within Southwark, based on a 1,200m catchment.

2.4 Town Centre Walking to Work

2.4.1 Map 19 shows the defined town centres within Southwark, together with a 1,200m notional walking catchment around each of them. This map illustrates clearly that almost all of Southwark lies within 1,200m of a town centre. The only exception is a small area between Old Kent Road



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and Southwark Park Road (which is only marginally outside the defined distance) and the southern part of the borough, mainly beyond Dulwich Common.

- 2.4.2 Maps 20 to 27 show an analysis of the journeys to work from a set of surrounding defined zones to each of these town centres. The shading on the plans shows the proportion of those journeys that are made on foot, which the numbers in the centre of each zone show the actual number of walking trips. The zone boundaries have been chosen to follow major features such as railway lines, major roads and the River Thames.
- 2.4.3 The absolute data presented on these plans should be treated with some degree of caution. Firstly the data is from 2001, since 2011 Origin Destination data is still unavailable. Furthermore, in order to enable trips to the defined town centres to be extracted, the analysis has had to be carried out at Output Area level, and so the zone to zone data is a summation of a large number of OA to OA journeys. Due to the need to prevent disclosure (the possibility that individual people could be identified from the data), ONS round numbers of trips between OA pairs of less than 10 to values of 3, 6 and 9. Nevertheless, the overall patterns of trip making are considered to be a good indication of reality.
- 2.4.4 Once the 2011 data is published, it would be possible to request a bespoke set of data for zone to zone (collections of OAs) walking trips from ONS which would have sufficient numbers of trips to avoid any problem with disclosure.
- 2.4.5 Looking at the maps in detail, Map 20 (London Bridge) shows relatively high numbers of walk to work trips from all of the surrounding areas to the south of the river, and particularly from the south, and with high mode shares of between 50 and 75%. Map 21 (Bankside) shows higher numbers again, with the highest numbers of trips coming from the London Bridge area and again with some high walking mode shares.
- 2.4.6 Map 22 (Camberwell), as a smaller centre further from inner London attracts lower numbers of trips, with most of them coming from the area to the north-east, and with mode shares generally in the 25 to 50% range. There are few trips from the south-east, possibly reflecting the severance effect of the railway line, with connectivity only available over a relatively short distance. Map 23 (Canada Water) shows similar numbers of trips, and again with mode shares mostly in the 25 to 50% range.
- 2.4.7 Map 24 (Elephant and Castle) shows trip numbers that are around the same order as London Bridge, and again with mode shares of mostly 50 to 75%. Map 25 (Peckham) is a little higher than Camberwell in numbers of trips but with similar mode shares. Moving further out, Map 26 (Lordship Lane) and Map 27 (Herne Hill) show lower numbers of walking trips – particularly the latter – but the mode shares are still quite high.



2.4.8 In summary, while these analyses focus only on journeys to work, they show that each of the town centres is successful in attracting a significant proportion of these trips to be made on foot.

2.4.9 The absolute number of trips varies greatly, however – as we have seen from the earlier analyses, walking is much more prevalent in the northern part of the borough.

2.5 Walking to School

2.5.1 Overall, walking to Southwark schools accounts for around 50% of all trips (Walking in Southwark data sheet, May 2013). Data has been mapped on travel to individual schools from data supplied by LB Southwark and is presented on Map 28. This shows that there are some schools that have very high levels of walking – over 80% - in both the north, central and southern parts of the borough, and so school travel varies much less with location than other types of trip. Most schools fall within the 60 to 80% band, which is still considered to be relatively high, certainly compared to more suburban locations and places outside London.

2.5.2 A number of schools do have lower proportions of walking to school, however, including a number inside the inner ring road. The schools in the lowest band, with mode shares of below 20%, are listed below.

- Beormund School
- Breedinghurst School
- Dulwich College Prep School
- Haymerle School
- Kingsdale Secondary School
- Notre Dame RC School
- Spa School
- St Joseph's RC Infants School
- St Michaels RC School
- Summerhouse PRU
- Tuke School
- Harris Girls Academy East Dulwich
- Cavendish School



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2.5.3 A number of these schools are denominational and so may be expected to have more dispersed catchments, but nevertheless these schools appear to be worthy of further targeting to improve walking levels.

2.6 Trips to Railway Stations

2.6.1 Trips to stations are another important generator of walking trips within London, and Map 29 shows the number of trips to the various rail and underground stations across Southwark. Not all of these trips will be made entirely on foot – many will be from a connecting bus, or by cycle in particular. However, the final leg of a trip into and out of the station will be on foot and therefore these trips are particularly important in the immediate area.

2.6.2 It is clear from this map that London Bridge station, with circa 120m passenger entries and exits per year, is by far and away the busiest station in the borough, and must be generating a significant proportion of the walking trips in the local area. Although they are an order of magnitude lower, Elephant and Castle, Surrey Quays and Southwark are also important walking trip generators in the northern part of the borough.

2.6.3 In the central and southern parts of Southwark, station trips are much lower again, with Denmark Hill, Peckham Rye and Herne Hill being the most significant of the outer stations.



3 Environmental Factors

3.1 Introduction

3.1.1 The previous section has looked at actual demand data from a variety of sources, together with demographic information for the Borough. We now look at a number of environmental factors that may be having an effect on walking levels.

3.2 Major Roads, Crossings and Road Casualties

3.2.1 Maps 30 to 32 show major (A) roads, signalised and zebra crossings, and casualties involving pedestrians (for the period July 2010 to June 2013) across the northern, central and southern parts of the borough.

3.2.2 Not surprisingly, casualties tend to be clustered along major highways in the northern and central parts of Southwark, with particular problem areas being:

- London Bridge
- Elephant and Castle
- Walworth Road
- New Kent Road near Elephant and Castle
- Old Kent Road
- Jamaica Road, Bermondsey
- Denmark Hill through Camberwell
- Peckham Road between Camberwell and Queens Road, Peckham
- Rye Lane

3.2.3 Pedestrian casualties are much lower in the southern part of the borough.

3.2.4 Looking at the possible relationship between pedestrian casualties and the absence of formal crossings (which would justify a more thorough study), the following areas appear to be worthy of further investigation to assess whether additional crossings would be beneficial:

- New Kent Road near Elephant and Castle
- Peckham Road near Southampton Way
- Denmark Hill through Camberwell



3.3 Crime Statistics

- 3.3.1 Crime, and the fear of crime, may also have an effect on walking levels, and so Map 33 was produced which shows a single dot for every three recorded crimes of particular types considered relevant to pedestrians¹ within 1200m of the defined town centres over the period May 2013 to January 2014.
- 3.3.2 The large number of points is somewhat surprising and shows how crimes of these types are concentrated around the more active parts of the borough, particularly London Bridge, Elephant and Castle, Camberwell and Peckham.
- 3.3.3 These are also the areas with high walking demands, which suggests that rather than crime being a deterrent to more walking, it is actually associated with areas where walking is higher.

3.4 PERS scores

- 3.4.1 LB Southwark undertakes PERS (Pedestrian Environment Review System) assessments on a routing basis, which gives a score measuring the overall quality of the network in an area. Only limited parts of the Borough have been mapped so far, mainly in Peckham and the area to the south of the Peckham Road corridor; and around South Bermondsey and Bermondsey underground stations.
- 3.4.2 The results are shown on Map 34, which indicates that most streets were classified as Amber or Green, including much of the busy Peckham Road.
- 3.4.3 PERS measures a large number of variables, and so within the scope of this study it has not been possible to assess in detail the factors that have led to low scores on the locations that have been indicated as red.

¹ Anti social behaviour, public order offences, robbery, theft from person & violence and sexual offences



4 Living Streets Studies

4.1 Introduction

4.1.1 Living Streets, the national organisation promoting walking, is working with LB Southwark on a number of initiatives. We have had discussions with Living Streets on their programme of work and they have provided us with copies of a number of their reports. We have also discussed with them the methodology used in this study.

4.2 Key Issues and Concerns

4.2.1 Living Streets have identified a number of areas of priority that they intend to focus on in the near future.

4.2.2 Elephant and Castle is a major priority, because of the large number of casualties (see above) and the very poor pedestrian environment. Southwark and TfL are working on substantial improvements to the area, including the conversion of the northern roundabout to a peninsula with much more direct pedestrian crossings.

4.2.3 Living Streets has carried out a review of the pedestrian environment at London Bridge on behalf of the City of London and LB Southwark. This has concluded that improvements are needed in the following key areas:

- Connectivity - improving connections to riverside routes
- Wayfinding - developing a better shared approach to signage
- Crossings – widening and relocating crossings, removing guardrail, and in the longer term rethinking traffic management options to better rebalance the area in favour of pedestrians and cyclists
- Footways – decluttering to remove redundant poles etc, plus guardrails and bollards
- Motor traffic speeds – reducing speed through 20mph limits, narrowing carriageways and reducing visibility splays, removing guardrail etc
- Safety (perception) – Improving lighting, creating active frontages
- Appearance – tidying up the area, removing litter and graffiti, reducing clutter

4.2.4 At Walworth Road, Living Streets believe that the southern part of the route, which was not part of the Mixed Priority Routes improvement scheme carried out several years ago, now needs attention, with the poor environment not encouraging walking along the corridor between Camberwell and Walworth.



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4.2.5 In the centre of Camberwell, Living Streets welcome the work which is now underway to improve the pedestrian environment, including better pedestrian crossings, footway widening and relocated bus stops.

4.2.6 In Rye Lane, Peckham, Living Streets carried out an audit with local people which identified a number of areas for improvement, including:

- Removing graffiti
- Levelling footways
- Removing bins and shops' goods from footways
- Reallocating road space from carriageway to footway



5 Conclusions

5.1 Levels of Walking

- 5.1.1 The analysis has shown that walking levels in Southwark are relatively high compared to other London Boroughs, and there has been a 6% increase in the amount of walking to work between the 2001 and 2011 censuses, currently standing at 13%. Much of this increase has taken place in the northern part of the borough, within the Inner Ring Road and within Bermondsey. Across most of the borough, walking to work levels are fairly stable.
- 5.1.2 When all trips are considered walking mode share around 30% of trips and 55% of all trips under 2km (LTDS data). Most trips are much shorter than this distance – some 94% of all trips are under 1.2km, and 82% less than 800m (crow fly).
- 5.1.3 These broad averages conceal a large difference in the number and proportion of walk trips between the north and south of the borough, however. Walking to work is at much higher levels in and next to the inner ring road, compared to areas in the south. This does not appear to be correlated with demographic factors.
- 5.1.4 The defined town centres are very important destinations for walking, particularly those in the centre and north of the borough. These centres attract a high proportion of their trips from the surrounding catchments on foot.
- 5.1.5 Railway stations, which tend to be in these centres, also attract significant numbers of walking trips – particularly London Bridge, which has more station entries and exits than all of the other stations combined.
- 5.1.6 Walking school is popular right across the borough with an overall walking mode share at a commendable 50%, although there are some schools that are much lower than this average figure, and represent a potential target for action.

5.2 Barriers to Walking

- 5.2.1 Living Streets have worked with a number of local communities and have confirmed that their concerns about their local environment are typical – people want to see cleaner and tidier areas, with better crossings, wider footways and lower traffic volumes and speeds.
- 5.2.2 Our analysis has confirmed that actual safety problems are concentrated along the major highways as expected, and that there are some sections of route where the frequency of crossings is less than elsewhere and may be associated with a greater number of casualties.
- 5.2.3 Crime is often cited as a source of concern that prevents walking, but our analysis has shown that the highest crime areas are those where walking is already high.



5.3 Overall Strategy

5.3.1 A study of this scale can only give a broad indication of how LB Southwark should continue investing to improve walking, but our findings lead to the following overall recommendations:

- Walking trips are short and are therefore easily deterred by relatively local problems of route quality and connectivity. Increasing walking levels is likely to come from a large number of small scale interventions, targeted to address particular issues.
- The northern part of the Borough, the designated town centres and the railway stations are important walking destinations and strategies should continue to be followed that identify and overcome problems in the network of routes that serve them. Clearly this is already happening, with schemes underway or planned in several areas such as Elephant and Castle and Camberwell.
- There is significant potential to increase walking from a lower base in the southern parts of the borough, and investment in the key centres in this part of Southwark should also be considered.
- The major roads through the Borough, and particularly the sections that pass through town centres, account for the majority of pedestrian casualties and should be the target for continued investment in road safety improvements.
- The aim should be to deal with road safety problems in a way that also improves the walking experience, so that people are encouraged to walk more – for example reducing clutter, speeds and carriageway widths, rather than erecting more guardrailing.
- Walking to school is also important, not least in terms of tackling child obesity, and while the overall level of walking is relatively high, there is potential for targeting low performing schools.



Appendix A Maps