

Appendix 1

Considering Access to Healthcare Services – Bus Planning

**Transport for London
Buses Directorate
Network Development**

February 2014

The Role of Buses

Buses often provide the main public transport access to health and other services in London, particularly in outer London, and those in lower income groups. As such, the Mayor has prioritised the continual improvement and maintenance of London's comprehensive bus network.

The TfL bus network is subject to a continuous review process, enabling changing travel patterns driven by changes in population, employment and land-use to be picked up and reflected in the changes in the bus network. The aim is to provide a network of services which is frequent, reliable, simple and comprehensive. Bus service changes are evidence-led and data on trip rates is necessary to allow meaningful assessment of service options.

TfL collects data from a variety of sources including operational and market surveys, roadside counts, quality of service indicators, customer satisfaction surveys, the national census, transport models and from local authorities, businesses, schools, NHS, shopping centres, developers and London TravelWatch as well as the public. TfL also takes a proactive approach to service planning where robust data is available to tailor the bus network in meeting future changes to demand.

Evaluating Proposals

Proposed changes are analysed to estimate the benefits (or disbenefits) to passengers in terms of waiting and travel times. This will take into account knowledge of the way demand varies, in time and in location. These benefits are then set against the cost of provision, in a social benefit and cost framework. The aim is to secure the best overall value within available funding.

Some proposals increase benefits but also increase net costs. They will be tested by calculating the ratio of benefits to net costs. A threshold is set for this ratio – proposals which do not attain the threshold would not normally be taken any further. Those which reach the threshold can be considered for introduction if funding is available. The current threshold for spending proposals is 2.0 to 1.

Impact of Reconfigurations on Bus Services

TfL has previously evaluated proposals in light of NHS reconfigurations. One example is the recent reconfiguration of NHS services in the London Boroughs of Barnet, Enfield and Haringey (BEH Clinical Strategy) where a number of services were transferred from Chase Farm Hospital to Barnet Hospital. The NHS provided data showing the number of staff and patients affected by the changes. Overall, the numbers were far too small to meet the threshold for additional services on the local bus network based on the criteria outlined above.

One scheme in the area in the area which has recently been implemented was a change to route 307 so that it served Barnet Hospital. This was done by diverting its western terminal so the last stop was changed from Arkley Hotel to Barnet Hospital, providing a direct service between the hospital and Enfield. This met our threshold as there were no additional resources required and it has subsequently generated

double the number of passengers than those inconvenienced by a longer walk to access the route. However construction works were necessary at the hospital to enlarge the bus stopping area to accommodate the new route.

Proposed changes to bus route 307 at Barnet Hospital

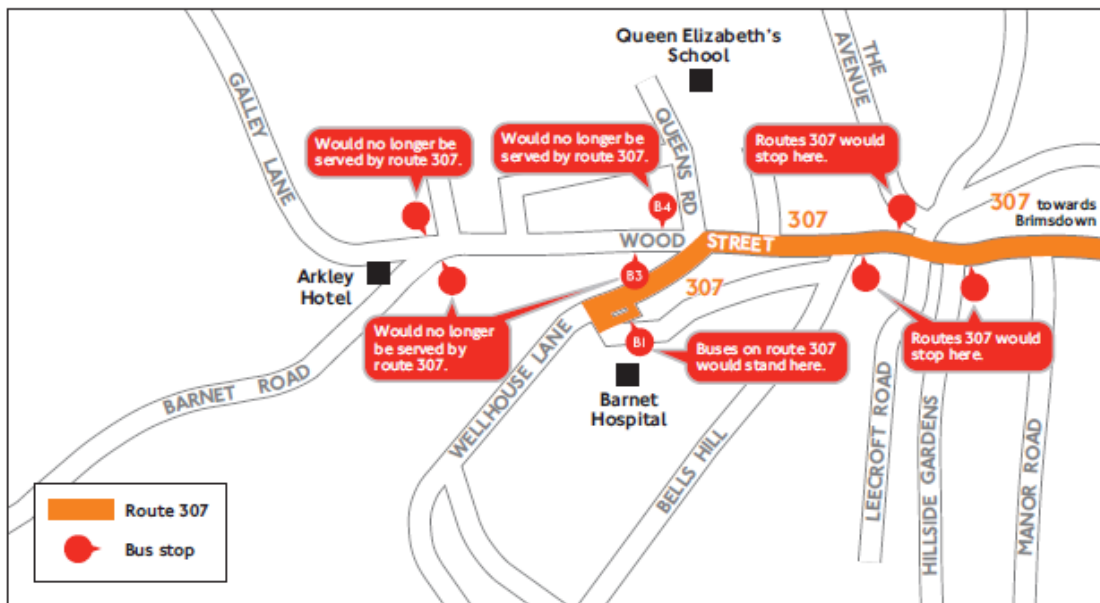


Figure 1: Consultation Map for Route 307 re-routing.

Typically, the number of new passenger trips required for a new TfL service proposal to meet our threshold is in the many hundreds per weekday. The number of people displaced by the reconfiguration of Barnet, Enfield and Haringey NHS services were far too small to justify the significant spend required to provide a new TfL service between the hospitals involved. Instead, a free shuttle bus provided by Barnet and Chase Farm Hospitals NHS Trusts started service in December 2013 for patients, staff and visitors between the three hospitals during Monday to Friday daytimes.

Using the provided data from Shaping a Healthier Future for patients displaced from Central Middlesex and Ealing Hospitals, TfL have undertaken an assessment of the figures provided by the NHS to assess a requested new TfL service to West Middlesex Hospital.

Case Study: Bus Services between Ealing and West Middlesex Hospital

The data provided within the Shaping a Healthier Future's Travel Analysis shows that a number of patients displaced from Central Middlesex and Ealing Hospital reconfigurations will travel to West Middlesex Hospital. The Travel Analysis shows that about an estimated 2,260 would travel from Central Middlesex Hospital and 41,280 would travel from Ealing Hospital to West Middlesex Hospital annually - a total of 43,540 patients per year or about 174 per weekday, which equates to 350 daily trips assuming 2-way journeys. A number of requests have been received for a

new direct bus link between Ealing and West Middlesex, namely an extension of route E2 or E8 that currently terminate in Brentford. Both routes were assessed for extension to West Middlesex Hospital using the methodology outlined above between Brentford and West Middlesex Hospital.

Route E2 runs every 7.5 minutes and route E8 every 8 minutes during Monday to Saturday daytimes. Extending either of these routes whilst leaving frequency unchanged would require three additional vehicles per route which would add around £550,000 to £700,000 per annum to the cost of running each route. For one of these extensions to meet our current threshold for implementation it would require at least 1,250 additional trips per weekday, considerably larger than the estimate from the analysis described earlier.

It is likely that many patients would still need to change buses in Brentford even if one of these routes were extended as no one route would serve all the locations in the borough of Ealing that patients would be travelling from. In addition, many patients living near to rail stations on the Great Western mainline in Ealing who have a choice of hospital may opt to travel to St Mary's Hospital located next to Paddington Station. Whilst more expensive than travelling by bus, it may still be attractive for many residents compared with travelling to West Middlesex or Northwick Park regardless of whether a direct bus service is available or not with trains travelling between Ealing Broadway and Paddington Stations in around 8-10 minutes. Frequency at many stations in the Ealing will also increase once Crossrail services start in 2019.

Existing Bus Services

Currently, passengers can travel to Brentford from many parts within the borough of Ealing using high frequency routes 65, E2 and E8. In addition, route 195 was extended in 2008 between Ealing Hospital and Brentford providing additional frequency and direct links. All these routes offer an interchange with route 267 that serves the hospital every 10 minutes during Monday to Saturday daytimes.

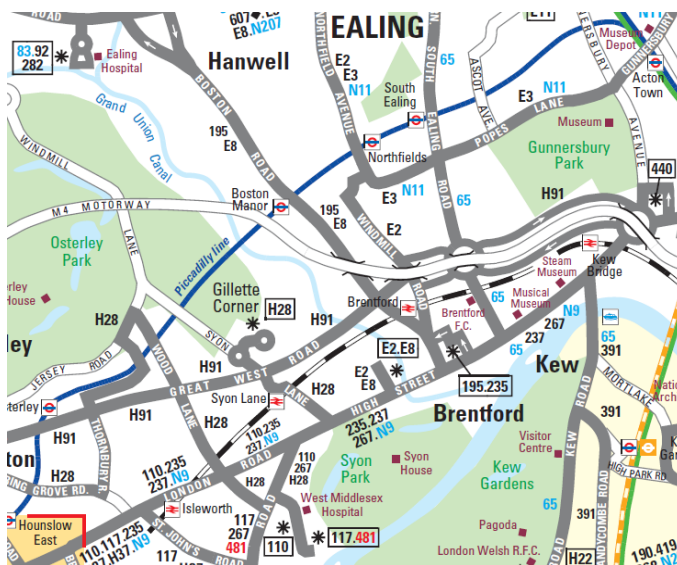


Figure 2: Bus Services in Brentford and Surrounding Area

Given the current provision of bus services and the predicted number of trips to West Middlesex Hospital, the existing network is adequate to cater for additional demand to the hospital. Moreover, the redistribution of patients from Ealing Hospital to West Middlesex Hospital represents the largest number shown in the data. Therefore, it is unlikely other changes to the bus network that require significant variation would be justified in light of this reconfiguration alone.

Our Position

TfL will continue to help the NHS by providing advice and relevant transport expertise for reconfigurations. TfL will not itself be able to undertake the required analysis but will need to receive the results to be able to assess whether there are any significant impacts on the bus network.

The bus network is under regular review and the network will continue to be monitored for any changes in usage. Further data is available in the appendices on bus route frequencies at each of the hospitals in scope and daily usage.

Appendix A: Daily usage at stops nearest to each hospital per typical weekday

Hospital	Nearest Stop(s)	Routes	Buses Per Hour	Boarders per day	Alighters per day;
Central Middlesex	Within grounds	187, 228, 224, 226, 260, 440, 487	29	2,700	2,300
Ealing	Within grounds	83, 92, 282	20	1,900	2,100
	Uxbridge Road	92, 195, 207, 282, 427, 607	36	2,900	3,000
Hammersmith	Du Cane Road	7, 70, 72, 272, 283	33	3,200	3,300
Mount Vernon	Within grounds	282, 331, H11	12	600	700
Northwick Park	Within grounds	186, 223, H9/H10, H14	20	300	500
	Watford Road	182	7.5	1,700	1,800
	Kenton Road	114, 183, 223, H9/H10, H18/H19	25.5	400	600
St Mary's	Praed Street / Norfolk Place	7, 23, 27, 36, 159, 205, 436	60	2,400	2,600
West Middlesex	Within grounds	110, 117, 481	7	1,200	1,300
	Twickenham Road	267, H28	9	800	800

Note: Above figures include all usage at listed stops and may include passengers that are not going to and from hospital. Buses per hour column total number of buses per hour during Monday to Friday daytimes in each direction.

Appendix B: Routes serving hospitals and their daytime frequencies

Hospital	Route Number	Buses Per Hour	Route
Central Middlesex	187	6	Central Middlesex Hospital – Finchley Rd
	224	4	Wembley Stadium – St Raphael’s Estate
	228	5	Central Middlesex Hospital – Maida Hill
	260	5	White City – Golders Green
	440	4	Gunnersbury – Stonebridge Park
	487	4	South Harrow - Harlesden
Ealing	83	7.5	Ealing Hospital – Golders Green
	92	7.5	Ealing Hospital – St. Raphael’s Estate
	195	5	Charville Lane – Brentford
	207	10	Hayes By-pass – White City
	282	5	Ealing Hospital – Mount Vernon Hospital
	427	7.5	Uxbridge – Acton
	607	6	Uxbridge – White City
Hammersmith	7	8	East Acton – Russell Square
	70	6	Acton – South Kensington
	72	7.5	Roehampton – East Acton
	272	4	Chiswick – Shepherd’s Bush
	283	7.5	East Acton – Barnes
Mount Vernon	282	5	Ealing Hospital – Mount Vernon Hospital
	331	3	Uxbridge – Ruislip
	H11	4	Mount Vernon Hospital – Harrow
Northwick Park	114	6	Ruislip – Mill Hill Broadway
	182	7.5	Harrow Weald – Brent Cross
	183	7.5	Pinner – Golders Green
	186	5	Northwick Park Hospital – Brent Cross
	223	3	Harrow – Wembley Central
	H9/H10	6	Harrow via Kenton & South Harrow (circular)
	H14	6	Northwick Park Hospital – Hatch End
	H18/H19	3	Harrow via Kenton & Harrow Weald (circular)
St Mary’s	7	8	East Acton – Russell Square
	23	8	Westbourne Park – Liverpool St
	27	8	Chiswick Business Park – Chalk Farm
	36	10	Queens Park – New Cross
	159	10	Streatham – Paddington
	205	8	Paddington – Bow
	436	8	Lewisham – Paddington
West Middlesex	110	3	West Middlesex Hospital – Twickenham
	117	3	West Middlesex Hospital – Staines
	481	1	West Middlesex Hospital – Kingston
	267	6	Hammersmith - Fulwell
	H28	3	Bulls Bridge – Syon Lane