
Secretariat's Memorandum

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South London Line options study and stakeholder meeting

1 Purpose of report

- 1.1 To report on the results of the South London Line options study and meeting with stakeholders on the 1 June 2010.

2 Recommendations

- 2.1 Members are recommended to note this report and also to endorse the proposal to adopt Option 7 as the most viable proposal to mitigate the effects of the withdrawal of South London Line services.
- 2.2 It is recommended that London TravelWatch use the example of this case study, to advocate the adoption of requirement on the Mayor/Transport for London (TfL) to consult on proposals for services changes, and seek more consumer involvement if more powers over rail franchises are delegated to the Mayor.
- 2.3 Members are asked to agree that a communications plan is put in place to counter inaccurate, misleading and derogatory information circulated in relation to option 7.

3 Background

- 3.1 Members will be aware that in April 2009 London TravelWatch expressed considerable concern about the decisions by the Department for Transport (DfT) and TfL not to proceed with the introduction of a Victoria–Bellingham service when the East London Line phase 2b extension is introduced in 2012, and at the same time the London Bridge–Peckham Rye–Victoria (South London Line) service is withdrawn to allow for the Thameslink works at London Bridge.
- 3.2 London TravelWatch then conducted its own origin and destination study of users affected by this decision which showed considerable disbenefits to existing users. This was received by the main board on the 29 September 2009.
- 3.3 Following intensive discussions with TfL and others it was agreed to set up a joint study to look at potential alternative options for providing alternative services. Initially this

looked at over 30 different options for additional train services, later refined to 5 options following a meeting with stakeholders in November 2009.

3.4 The five options were as follows :

1. Enhanced East London Line service Dalston Junction to Victoria
2. Modified East London Line service with 2 trains per hour diverted to Victoria instead of Clapham Junction
3. Additional Bellingham – Victoria service
4. Dartford services package
5. Additional stops package

3.5 These were then analysed against the identified gaps in service provision, how operationally feasible they were and how much they were likely to cost. As discussions over these various options progressed (TfL with Network Rail and the DfT – London TravelWatch not present) two further options emerged as a variation to those already being considered. These options were :

1. Option 6 a refined version of option 4 and
2. Option 7 Additional Bromley South – Victoria off peak service and additional stops on other services in the peak.

Of these Option 7 showed the most potential.

3.6 Having identified a potential funding gap on the options which were most likely to be feasible the study then (at London TravelWatch's instigation) looked at possible other means of funding for the additional services required. These included gating additional stations in South East London in line with our aspirations for station standards, and also possible community rail and smarter travel measures to increase overall revenue.

3.7 A further stakeholder meeting was then held on the 1 June 2010, where these options were then presented for comment, and it was agreed that Option 7 would be taken forward for further development.

3.8 The full report of the study is attached as Appendix A.

3.9 A 'frequently asked questions' summary is attached as Appendix B. This includes a listing of all alternative means of making journeys between stations on the South London Line.

4 Commentary

4.1. This issue has been extremely controversial and has consumed significant amounts of time and resource from both the senior management of London TravelWatch and TfL Rail, and the time of the Chair of London TravelWatch. However, the result if Option 7 can be taken forward is a significant improvement on the original proposal as put forward by London Rail.

- 4.2 Additionally aided by the results of our original and destination survey we were then able to challenge TfL's passenger flow and financial models that had been used to justify the original decision not to proceed with the Victoria–Bellingham service.
- 4.3 This then led to the use of more sophisticated modelling techniques by TfL. These will benefit the whole of London in future when other transport schemes are considered. This is because the new models can take account of travelling patterns over the whole day and week, whereas the previous model was only able to deal with peak hour travelling patterns.
- 4.4 The result from this is the many of TfL's original cost estimates for potential replacement services that have reduced to figures which we had considered to be more realistic.
- 4.5 Having done this extensive work it was found that in the light of the current economic climate that a further two options might produce a way forward at considerably less cost to the public purse.

5 Issues of general principle

- 5.1 The experience of this particular issue does however raise a number of concerns relating to how passenger concerns and consultation are dealt with in the future should additional powers be granted to the Mayor in relation to franchised rail services.
- 5.2 Firstly, that where changes to service patterns and timetables are concerned there must be an obligation on the Mayor/TfL to consult widely (as is done for other modes such as buses).
- 5.3 Second, that the Mayor/TfL should take into account consumer representations when considering changes to service specifications.

6 Representations from passengers

- 6.1 Throughout this process, there has been a substantial level of interaction with user groups and local politicians, and London TravelWatch has aimed to seek consensus on both the process and the potential outcome.
- 6.2 This has not been easy, but the 1 June 2010 stakeholder meeting did produce an agreement in principle from the majority of campaigners and politicians that Option 7 should be pursued even if it is the least worst option.
- 6.3 However, it should be noted that a small number of individuals did not agree with the proposed outcome. The Executive Group will discuss a number of issues relating to this – in particular the significant amounts of time and resources that had to be devoted by the Chair and senior management, resulting from inaccurate and derogatory material being circulated by these individuals and a consequent reputational risk.

- 6.4 In this case it is recommended that London TravelWatch should put together a communications plan to counter such material in the run up to any decision by the Mayor or the Secretary of State to financially support Option 7.

7 Equalities and inclusion implications

- 7.1 The completion of East London Line extension to Clapham Junction combined with option 7 will significantly improve the accessibility of large parts of the boroughs of Lambeth, Lewisham, Southwark and Wandsworth which suffer from significant deprivation.

8 Financial implications

- 8.1 The contents of this report have no specific financial implications for London TravelWatch.

9 Legal powers

- 9.1 Section 248 of the Greater London Authority Act 1999 places upon London TravelWatch (as the London Transport Users Committee) a duty to consider - and where it appears to the Committee to be desirable, to make recommendations with respect to - any matter affecting the functions of the Greater London Authority or Transport for London which relate to transport (other than of freight). Section 252A of the same Act (as amended by Schedule 6 of the Railways Act 2005) places a similar duty upon the Committee to keep under review matters affecting the interests of the public in relation to railway passenger and station services provided wholly or partly within the London railway area, and to make representations about them to such persons as it thinks appropriate.



TfL / London TravelWatch South London Line services study

Report of findings

June 2010

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Purpose and background

Purpose

The purpose of this report is to summarise the findings of a study into service options for the South London Line. This study has been jointly carried out by Transport for London (TfL) and London TravelWatch. It has looked at a range of options for addressing gaps in service provision that result from the withdrawal of the South London Line (SLL) service between London Bridge and Victoria in summer 2012.

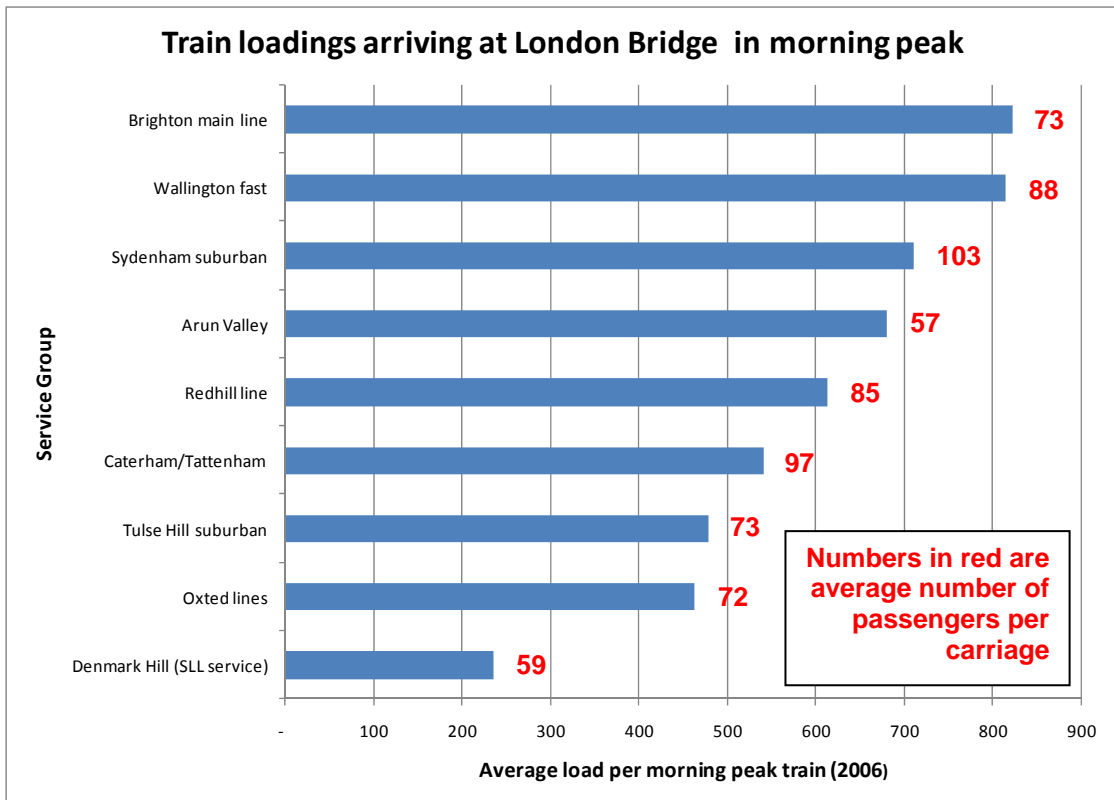
Withdrawal of SLL service

The withdrawal of the existing SLL service between London Bridge and Victoria was initially proposed by Network Rail in the South London Route Utilisation Strategy (RUS) in 2008. The withdrawal is necessary because of the planned major reconstruction of London Bridge station for the Thameslink Programme. Whilst this increases the number of through platforms, the number of platforms for terminating trains is reduced from nine to six. Currently up to 30 trains per hour (tph) can terminate at London Bridge but this will be reduced to a maximum of 24. The works are planned to begin in 2012 and the SLL service would be withdrawn at this time. The withdrawal of the service is also required as part of the DfT's South Central franchise, which states that the withdrawal will be implemented with the franchise 'Service Level Commitment 3' in October 2012.

Why remove the SLL service?

Analysis carried out by Network Rail showed that the SLL service was by far the least-used service of all those terminating at London Bridge in terms of both the average load per train and average number of passengers per carriage (see diagram overleaf). The next least-used services have roughly twice as many passengers per train. If other services were withdrawn from London Bridge instead of the SLL, then a higher number of passengers would suffer.





Other possibilities were considered to allow the SLL service to continue to operate. Each of these options was assessed with Network Rail, but none are feasible to operate for the reasons set out below:

- **Stacking trains on long platforms**
This is possible but it is track capacity that constrains the number of trains running to and from London Bridge. This method of working reduces overall capacity and most trains are full length anyway.
- **Lengthening all London Bridge Low Level platforms to 12 cars**
The track capacity and method of working would still constrain the overall number of trains.
- **Faster turnround times**
SLL services already turn round in around five minutes and anything faster than this cannot be robustly achieved.
- **Bouncing back other trains more quickly**
This is not possible because of the need to comply with Network Rail timetabling rules and longer trains need more time to turn around anyway. Track capacity would also still be a constraint.
- **Running through to Charing Cross**
This is not currently possible; whilst the future Thameslink layout could in theory allow it, there would be conflicts with all other routes into the terminating platforms and with some through services to Charing Cross.

Maintaining a service on the SLL

Network Rail acknowledged in the South London RUS that alternative services were required to maintain a train service on the SLL. One of these services was the East London Line (ELL) extension to Clapham Junction, also known as ELL Phase 2. This scheme involves a new link between Surrey Quays and Queens Road Peckham stations and track and platform works at Clapham Junction to allow a 4 tph service to operate between Dalston Junction and Clapham Junction. The service would call at all stations between Queens Road Peckham and Wandsworth Road on the SLL.

The RUS also proposed another service between Bellingham and Victoria. This would maintain the current level of frequency between stations on the SLL and the central London terminal of Victoria. The service would operate at 2 tph frequency and would call at all stations on the SLL between Peckham Rye and Wandsworth Road. Note that it will not be possible for any trains between the SLL and Victoria to call at Battersea Park in future because platform lengthening at the station (to allow 10-car trains to serve it) will mean that the SLL tracks will no longer be available for through services.

Other committed service improvements will help improve services on the SLL, including the Thameslink Programme which will provide improved journey opportunities between Peckham Rye/Denmark Hill and Blackfriars, St Pancras and beyond. Train lengthening is also planned on Southern services to London Bridge calling at Peckham Rye, Queens Road Peckham and South Bermondsey stations.

ELL Phase 2

In February 2009, the Mayor of London and the Secretary of State for Transport announced that a funding package covering £75m of infrastructure works for ELL Phase 2 had been agreed. This would allow ELL Phase 2 to go ahead with services beginning in 2012 in time for the withdrawal of the London Bridge – Victoria SLL service. The diagram overleaf shows the services that are currently planned to operate from 2012.

Part of the contribution from the Department for Transport (DfT) was £24m which the DfT would have had to spend on running the Bellingham – Victoria service if ELL Phase 2 did not go ahead. ELL Phase 2 would therefore be the only replacement for the London Bridge – Victoria service on the SLL. While this meant that the stations between Queens Road Peckham and Wandsworth Road would be served by an additional 2 tph compared to today, there would be a reduced level of service between these stations and London Victoria because ELL Phase 2 runs to Clapham Junction instead. Indeed, Clapham High Street and Wandsworth Road stations would no longer have a direct service to Victoria.



At the time, as there was insufficient funding for both schemes, TfL carried out analysis to identify whether ELL Phase 2 or a Bellingham – Victoria service had the greatest benefits for passengers in London. While on their own both schemes had a good case, ELL Phase 2 had greater benefits because it doubles the frequency on the SLL, is forecast to carry more passengers, provides access to more jobs and provides more new journey opportunities to a higher number of people. This analysis therefore justified funding to be put towards the ELL Phase 2 scheme.

The need for a study

Following the announcement of the go-ahead for ELL Phase 2, some stakeholders along the route of the SLL were unsatisfied with the future rail service they will receive. Whilst acknowledging that the ELL Phase 2 scheme has a good case and will provide an improved service frequency along the route, some passengers travelling to particular parts of central London will have a slightly longer journey and will lose the benefit of a direct service.

TfL therefore agreed to carry out a joint study with London TravelWatch, who represent public transport users in London, to identify whether any modifications to services could be made to address the adverse impacts of the loss of the SLL service between London Bridge and Victoria. This draft Final Report contains an explanation of the work that has been carried out for this study and the findings.

Objectives of study

TfL and London TravelWatch identified six key objectives at the start of the study. These objectives were included in the Terms of Reference for the study which were sent to key stakeholders in August 2009. The objectives are set out below.

	Objective	How this objective is being addressed
1	To identify gaps in service provision on the SLL when ELL Phase 2 services commence and London Bridge – Victoria services are discontinued	<i>The future frequency of train service and destinations directly served at each of the SLL stations was assessed and compared to the present day service</i>
2	To develop potential service options that could address these gaps	<i>A large number of potential service options were identified through brainstorming and gathering the views of key stakeholders on potential services</i>
3	To assess whether these service options are operationally feasible at a high level	<i>This has been achieved through discussions with Network Rail and the DfT, TfL's own analysis and some detailed timetabling work carried out by Network Rail for some options</i>
4	To assess the affordability and value for money of these service options bearing in mind the financial impact on funders' budgets	<i>Detailed public transport modelling, business case analysis and financial analysis have been carried out for these assessments</i>
5	To identify whether any of the options can be taken forward for implementation and who would be responsible for delivery of the options	<i>This is informed by the analysis set out above and through high level discussions between the TfL and the DfT</i>
6	To present the findings of the study to stakeholders and explain how these findings are reached to ensure all stakeholders understand the process and can accept the conclusions	<i>This is the purpose of this draft Final Report and the stakeholder meeting in June 2010</i>

Study process

This section sets out the various stages of the study which were followed to ensure that the objectives could be met and a consistent approach taken to ensure all options were assessed fairly.

1 Assessment of gaps

The planned service changes were reviewed at each station to identify where passengers would be adversely affected and where there was a 'gap' in service provision

2 Develop long list of options

A range of different service options were identified which address the gaps, for example additional train services or changes to stopping patterns

3 Sift the long list of schemes into a short list

As it was not realistic to assess every option in great detail, a process was devised to reduce the long list into a short list of options that had the greatest potential for being progressed

4 Evaluate short list in detail

Each of the short listed options was assessed in detail to fully understand the feasibility, benefits and costs

5 Identification of the best option(s) for taking forward

The findings of the study for each option were compared to identify which option(s) could be recommended for further consideration

6 Assessment of funding options

Given that most options will require additional funding to take them forward, potential sources of funding were considered

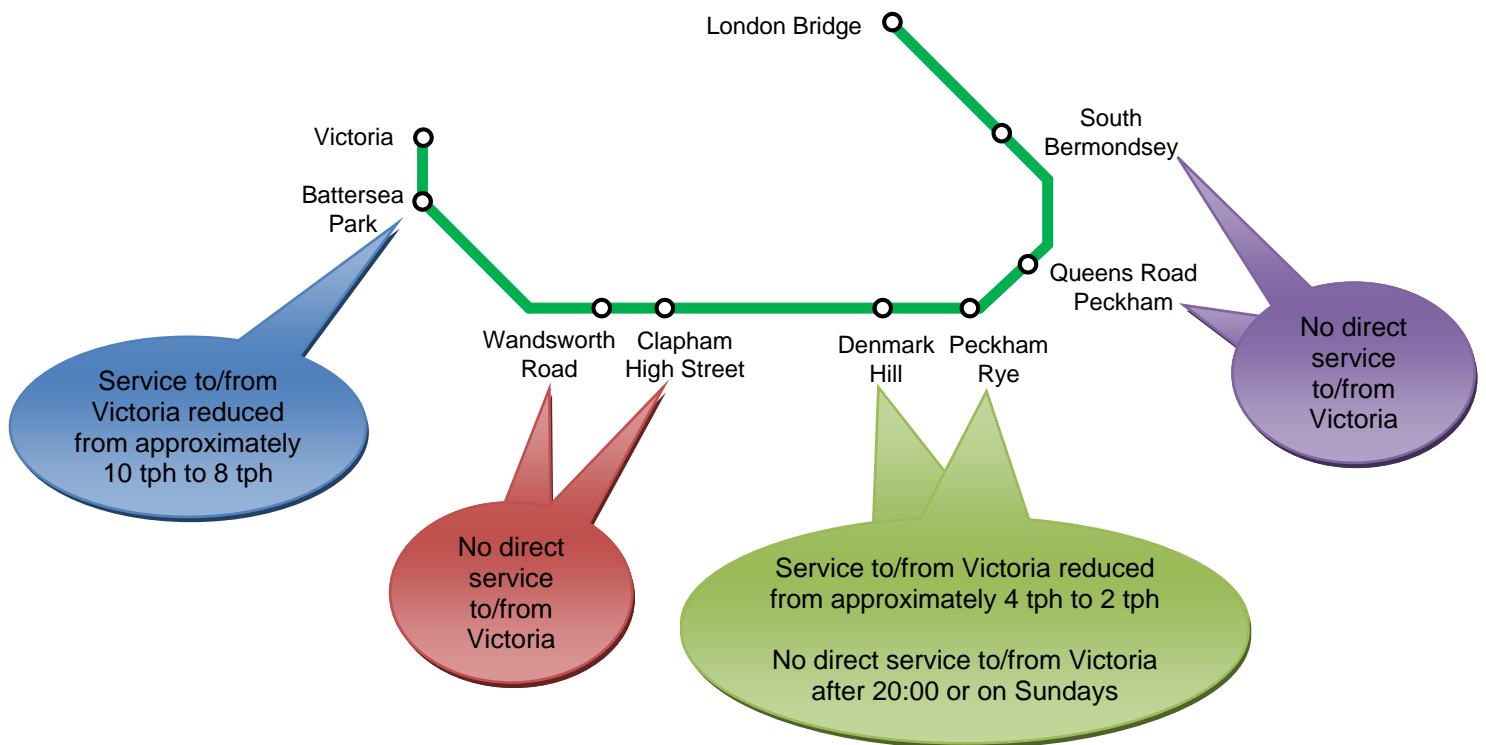
These stages are explained in the following sections.

Gaps

By comparing services today to those that would be provided at each of the SLL stations once ELL Phase 2 opens, the gaps in service provision have been identified.

Throughout the study, the loss or reduction in services to London Bridge from SLL stations has not been considered as a gap. This is because the loss or reduction is not caused by the introduction of ELL Phase 2 or the absence of a Victoria – Bellingham service; instead it is due to the Thameslink Programme reconstruction of London Bridge station. However, some options initially considered by the study would help restore service levels to London Bridge.

The gaps considered by this study at each station are set out below:



Addressing the gap at Battersea Park station is very difficult. Network Rail need to lengthen platforms at Battersea Park to allow longer 10-car Southern trains to call at the station. The planned way of achieving this is to close the SLL tracks to through services at the station. While the option of retaining short platforms and using 'selective door opening' was considered, Network Rail have confirmed it is not appropriate at a station so close to Victoria. This means that, even if the SLL service between London Bridge and Victoria was to continue, the trains would not have been able to call at Battersea Park. This gap cannot be addressed without major infrastructure work, but some options will help mitigate the loss of direct connectivity between Battersea Park and SLL stations. This is discussed later.

Long list of schemes

To address these gaps a long list of schemes was developed which included various different types of schemes. A brainstorming process was used to identify as many sensible options as possible that would improve services on the SLL. These included service changes which have been considered in the past and schemes recommended by stakeholders along the route.

A total of 30 different options were identified on the long list. All options assume that the SLL London Bridge – Victoria service is withdrawn because of the Thameslink Programme works at London Bridge. The options also all assume that ELL Phase 2 services are introduced and other funded service changes (for example, lengthening of some Southern trains) take place. The options can be summarised in the following sub-groups:

Option type	Number of options	Description
Reference Case ('Do Minimum')	1	No service changes beyond current planned interventions, e.g. withdrawal of SLL service, introduction of ELL Phase 2 services and Thameslink Programme service changes
East London Line	5	Changes to the planned train service for ELL Phase 2 with changes to service frequencies and ELL trains running to Victoria or Battersea Park
South London Line	3	Retention of the existing SLL service including a possible alternative terminal of Charing Cross instead of London Bridge
Catford Loop	3	Additional services on the Catford Loop running to/from Bellingham, Bromley South or Orpington
Hither Green	1	Additional service between Hither Green and Victoria
Sidcup	1	Additional service between Sidcup and Willesden Junction via the SLL and West London Line
Orpington	2	Additional stops in Orpington – Victoria services at Clapham High Street and Wandsworth Road
Norwood Junction	1	Additional service between Norwood Junction and Victoria via Tulse Hill
Hayes Branch	3	Alternative service patterns of Hayes Branch trains so that some trains serve Victoria
Sutton	1	Operate Wimbledon Loop service to/from Victoria instead of Blackfriars
Dartford	6	Various service changes to allow SLL stations to be better served by trains on the Bexleyheath or Sidcup routes to/from Dartford
Thameslink route	2	Enhancements to Thameslink route services via the Catford Loop to provide increased frequencies at Peckham Rye and Denmark Hill
Kent	1	Additional stops in long distance services at Peckham Rye and Denmark Hill
TOTAL	30	

It was not realistic for all 30 options to be assessed in great detail as the time and resources needed were unsustainable. A short listing process was therefore required to identify the most feasible and most beneficial options. The smaller number of short listed options could then be assessed in more detail. The short listing methodology is summarised in the next section.

Sifting methodology

To 'sift' the long list of options, each of the 30 schemes was scored on a consistent basis. There were five different elements to the scoring.

1 Fit with Mayoral transport objectives

Each option was scored against how well it fitted with each of the five objectives in the draft Mayor's Transport Strategy:

- Economic development
- Quality of life
- Safety and security
- Transport opportunities for all Londoners
- Climate change

2 Addressing station gaps

The options were assessed against how well they address the service gaps at each station which were set out above. Because passenger demand at Peckham Rye and Denmark Hill is higher than that at the other SLL stations, the scoring was weighted in favour of these stations. The station gaps score was given twice the weighting of the Mayoral transport objectives score because it was considered locally more important for the purposes of this study.

3 Scale of impact on passengers

The options were assessed to identify how many passengers would be affected and the magnitude of the affect on these passengers.

4 Indicative costs

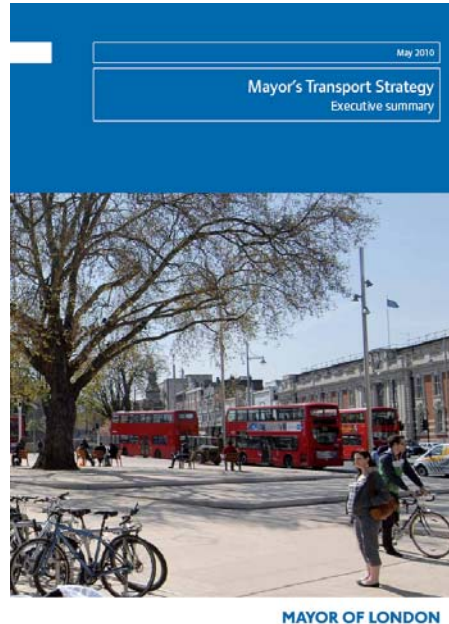
While it was not appropriate to calculate detailed costs of each option at this stage, a high level estimate was carried out so that the cost of options could be compared, with lower cost options scoring better.

A formula was used to combine these four elements into an overall score which was used alongside a fifth criterion.

5 Deliverability

However well an option scored, it would not be appropriate to take it forward to the short list if it was considered very difficult to put into practice. A deliverability score was therefore used alongside the overall score based on:

- Timetabling feasibility
- Complexity of implementing
- Performance/reliability impact



- Acceptability to passengers
- Political acceptability

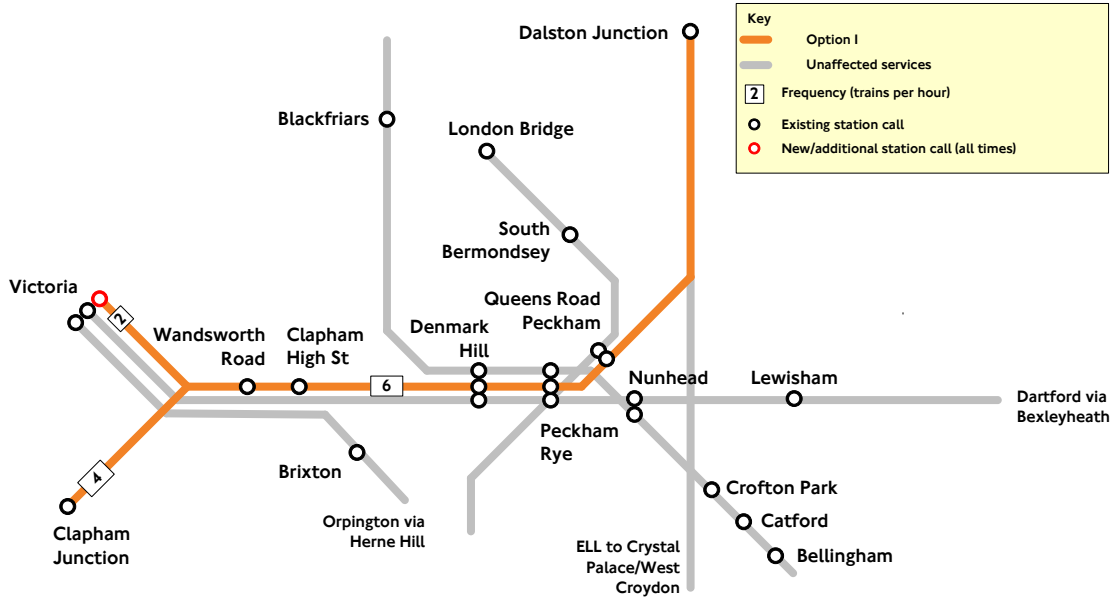
The schemes with the best overall score and deliverability score were taken forward to the short list. In response to stakeholder feedback that the method was too prescriptive, a degree of common sense was also used to ensure that a sensible range of schemes was taken forward to the short list. Since some of the schemes on the long list only partially addressed the gaps, some options were packaged together to ensure that each of the short listed options addressed as many of the gaps as possible.

As a result of this process, five options were short listed for detailed assessment.



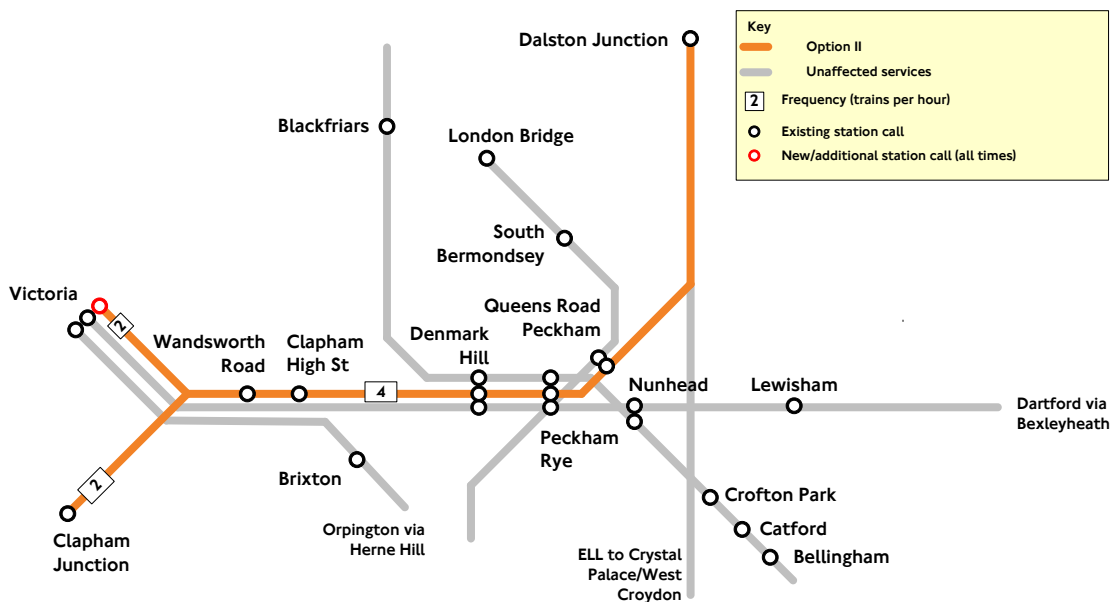
Short list

**Option 1 Enhanced ELL service:
4 tph Dalston Junction – Clapham Junction
Additional 2 tph Dalston Junction – Victoria**



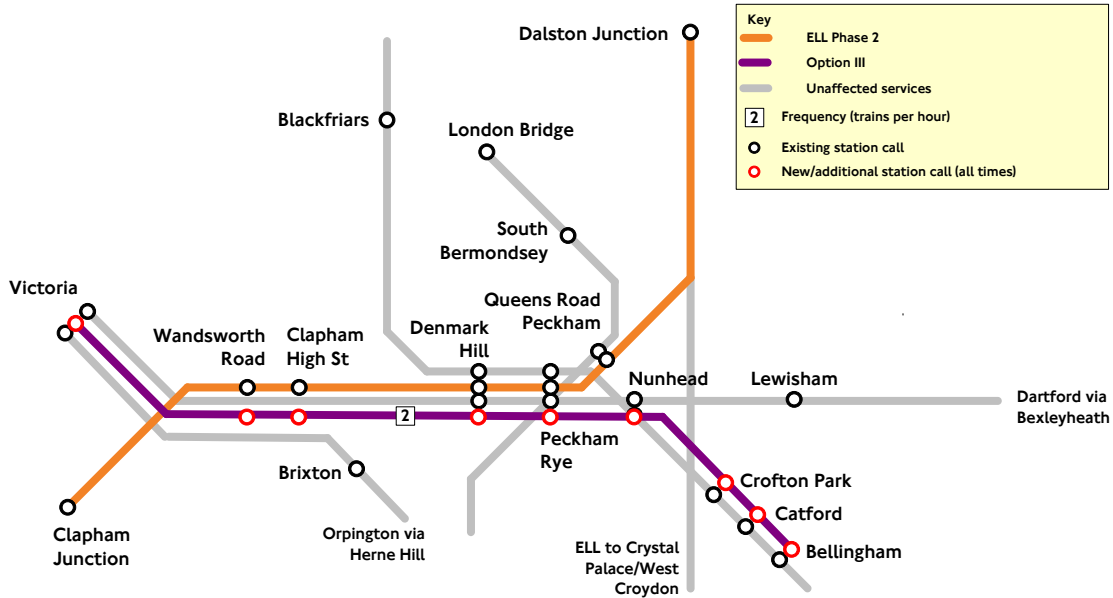
This option addresses all of the gaps with service levels to Victoria at all SLL stations between Queens Road Peckham and Wandsworth Road restored to their current levels all day, every day.

**Option 2 Modified ELL service:
2 tph Dalston Junction – Clapham Junction
2 tph Dalston Junction – Victoria**



Option 2 restores service levels to Victoria at all SLL stations between Queens Road Peckham and Wandsworth Road all day, every day. However, some passengers will be disadvantaged by the reduction in service frequency from 4 tph to 2 tph between SLL stations and Clapham Junction.

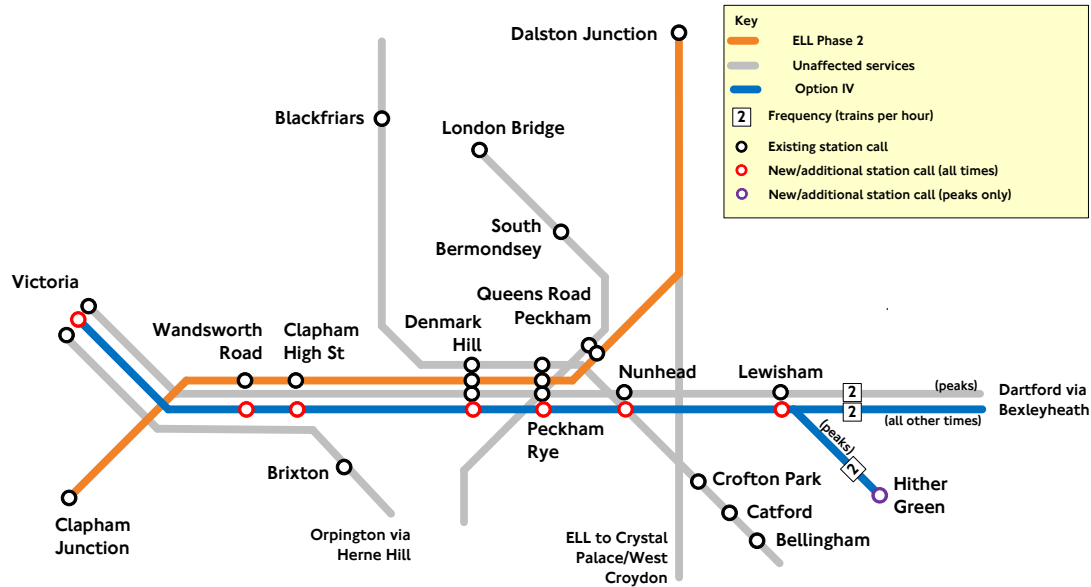
Option 3 Additional 2 tph Bellingham – Victoria



This option restores current service levels to Victoria from SLL stations between Peckham Rye and Wandsworth Road all day, every day. It also provides 4 tph on the Catford Loop south of Bellingham (one of the few routes in London with only a 2 tph service).

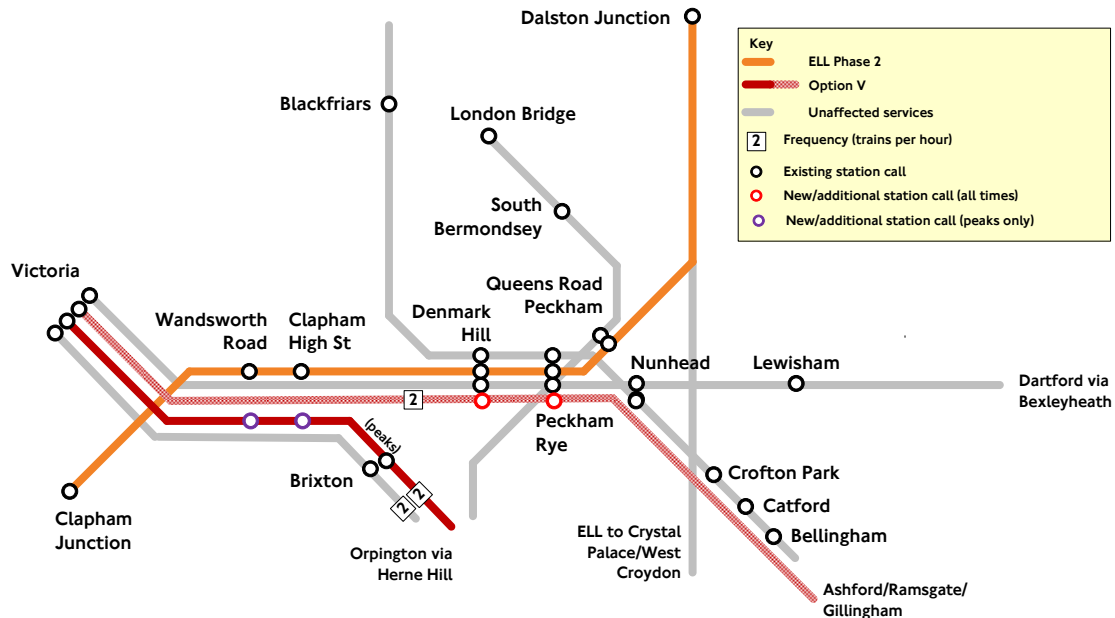


Option 4 Dartford services package
Additional 2 tph Hither Green to Victoria peaks only
Additional 2 tph Dartford – Victoria evenings and Sundays
Dartford – Victoria services call at Clapham High Street and
Wandsworth Road outside of peak times



Option 4 fully addresses the gaps at Clapham High Street and Wandsworth Road stations. It also restores today's frequency of service between Peckham Rye/Denmark Hill and Victoria during peak periods, evenings and Sundays. However, during the weekday daytime and on Saturdays, despite having an overall increased frequency compared to today, the service to/from Victoria would be 2 tph instead of the current 4 tph. The gap at these stations at these times is therefore not addressed.

Option 5 Additional stops package
2 tph Orpington – Victoria services call at Clapham High Street and Wandsworth Road outside of peak times
2 tph Ashford/Ramsgate/Gillingham – Victoria services call at Peckham Rye and Denmark Hill



This option addresses all of the gaps at the SLL stations between Peckham Rye and Wandsworth Road except at peak times. During peak periods, Wandsworth Road and Clapham High Street stations would still have no service to Victoria, so this gap has not been addressed.

South Bermondsey and Battersea Park stations

It has not been possible to address the gaps at these two stations in any of the short listed options.

At South Bermondsey station, the track layout means that the only possible destination for trains is London Bridge without major track modifications. The only options on the long list which would have addressed the gap of the loss of a direct link to Victoria are therefore the SLL options. None of these were considered to be deliverable because of the reduced number of terminating platforms at London Bridge. While this gap has not been addressed, South Bermondsey station will retain a relatively high frequency service to London Bridge, where passengers can interchange onto London Underground services to access Victoria. While it is not possible to address this gap, the number of passengers affected is expected to be very small. Indeed, the overall journey time from South Bermondsey to Victoria via central London (using London Underground services from London Bridge) is similar to that using the SLL service, plus trains via London Bridge are much more frequent.

At Battersea Park station, the Network Rail platform lengthening works mean that through services to Victoria can no longer call at the station. Battersea Park retains a high frequency service to Victoria (at least 8 tph all day) so this is not considered to be a major issue. However, the loss of a direct link to SLL stations is a more significant gap and this could only be addressed by a service on the SLL terminating at Battersea Park station. While an option which did this was included on the long list, it was not considered viable because there would not be sufficient demand to justify a service terminating at Battersea Park. Passengers will have alternative options to travel between Battersea Park and SLL stations, either via Clapham Junction or using local bus services. There is unfortunately no viable option to address this gap, other than the use of selective door opening instead of platform lengthening which Network Rail do not consider to be feasible at this location.



Evaluation of options

Each of the short listed options has been assessed in detail to understand if they are viable and could be taken forward.

Passenger demand

A new version of TfL's 'Railplan' model has been used to forecast how many passengers would use the services with each of the short listed options. The new version is now able to forecast passenger demand accurately in the daytime and evening peak as well as in the morning peak.

The impact of each option on access to jobs and for the wider population to access the SLL has also been assessed.

Operating costs

A detailed assessment of the costs of each option has been carried out so that the financial case for the options can be properly assessed.

Operational assessment

TfL has worked closely with Network Rail to understand whether it is possible to change the timetable to include the modifications to services without adversely affecting other train services.

The DfT has also provided advice on other technical issues, for example how franchises could be amended to include the service changes.

Business case and financial assessment

An assessment looking at the costs and benefits of each option to determine if the investment needed would be value for money. Financial assessments have also been carried out which analyse the forecast revenue and costs to determine the level of financial support required over a ten-year period.

Each of these areas is discussed in the following sections.

Passenger demand

Background to the Railplan model

Patronage and revenue forecasts for the SLL study have been developed using the TfL Railplan model. Railplan is a public transport assignment model that takes account of changes in journey time, service frequency and new journey opportunities to show how passenger volumes on the public transport network change. Railplan is one of the key public transport models used by TfL to predict changes in travel demand in the London area. It is a strategic model that allows the production of outputs that can be used to inform business cases for a range of public transport schemes.

The model represents the public transport network within the M25 to a good level of detail, and includes a lesser level of detail outside this area. It contains the National Rail, London Underground, London Buses, Docklands Light Railway and London Tramlink networks.

Railplan includes network and demand matrices for a base year, which in this case is 2007. Demand matrices and networks have also been developed for future year scenarios to 2016 and 2026. These future scenarios take account of the predicted population and employment changes both in London and outside. The future year networks include service changes that are expected to be in place by the modelled year including:

- May 2010 Southern timetable with East London Line Phase 1
- Southeastern timetable changes including High Speed 1 services
- full Thameslink Programme service changes
- Crossrail
- ELL Phase 2 between Dalston Junction and Clapham Junction
- LU PPP upgrade changes
- other committed National Rail improvements

The modelling methodology also uses an appropriate technique to calculate the impact of passengers transferring from road to rail as a result of enhancements, and also calculates new trips where previously none were made i.e. generated demand.

Option assessment

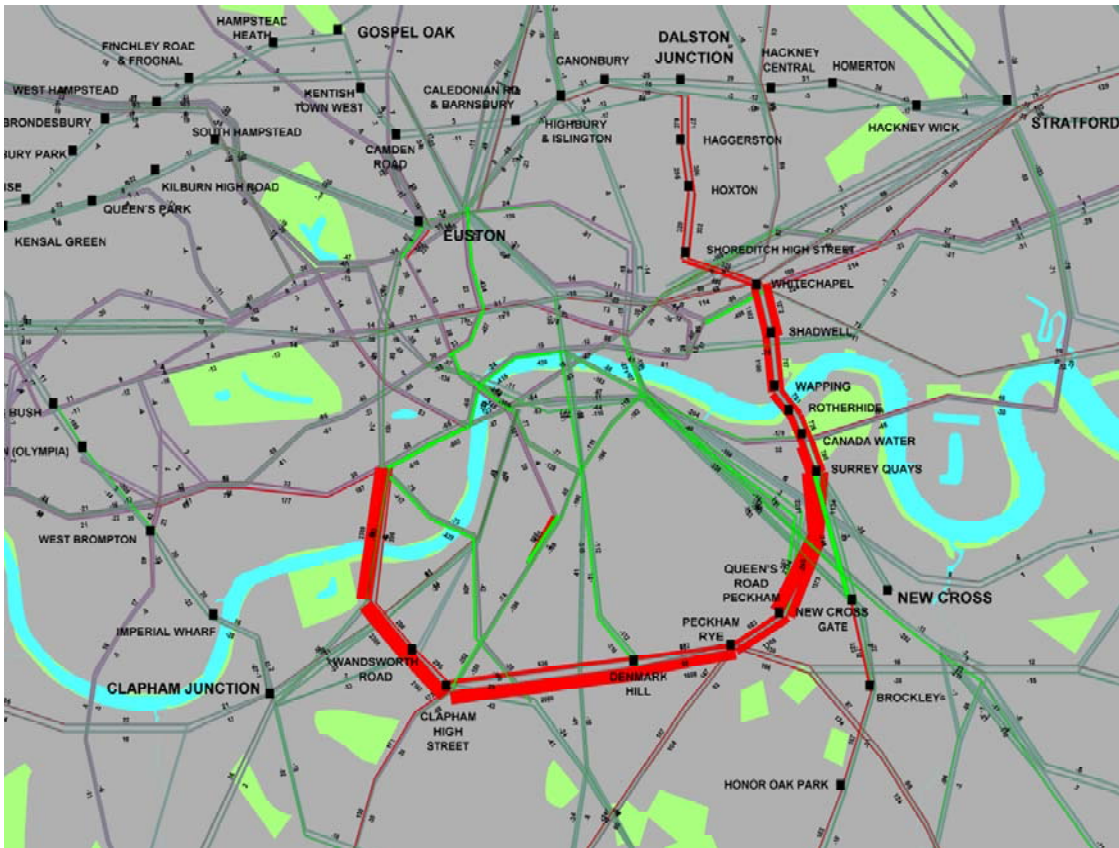
For each of the five options, demand forecasting was carried out using Railplan for each of the following three time periods:

- morning peak (07:00-10:00)
- interpeak (10:00-16:00)
- evening peak (16:00-19:00)

As some options have different services at different times of the day, it was important that there was the capability to carry out the forecasting for separate

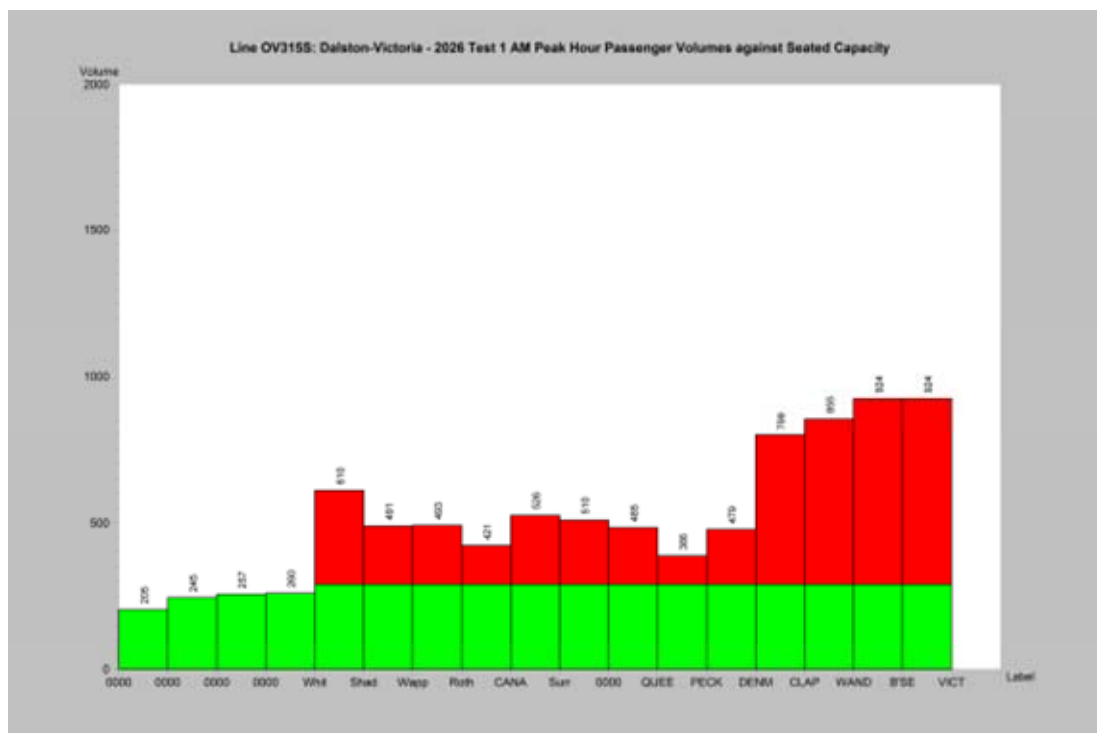
time periods. Future years of both 2016 and 2026 were used and the modelling assumes all funded schemes such as train lengthening on Southern services, the Thameslink Programme and London Underground service enhancements are delivered.

An example of the outputs is shown below – this shows the impact on passenger demand for Option 1 which has an additional two ELL trains per hour between Dalston Junction and Victoria. The plot shows the 3-hour morning peak period in 2026.



Red bars indicate an increase in the number of passengers whereas green bars indicate a reduction. This plot shows there is an increase in demand on the ELL and the SLL into Victoria with a reduction in demand on some of the radial rail and Underground routes into central London.

It is also possible to show the levels of crowding on trains. The diagram overleaf shows the number of passengers forecast to use the East London Line services to Victoria in one hour in the morning peak period in the same example (Option 1).



The green sections of the bars are where passengers are seated whereas the red sections represent standing passengers. The graph shows that these trains are busy with all seats taken between Whitechapel and Victoria.

The outputs from the model are combined together for each of the time periods and then converted to give annual forecasts. The table below shows the overall impact of the options on the different operators in the SLL area, in millions of passenger trips per annum. Other public transport includes other National Rail services, DLR, Tramlink and bus services. The table shows passengers switching between modes as well as newly generated trips.

Operator	Option 1 ELL 4 CJ +2 Vic	Option 2 ELL 2 CJ +2 Vic	Option 3 Victoria - Bellingham	Option 4 Dartford/ Hither Grn	Option 5 Additional stops
London Overground	+10.0	-0.4	-0.0	-0.2	+0.9
Southeastern	+0.5	+0.7	+4.5	+2.6	+1.9
First Capital Connect	+0.3	+0.2	+0.5	-0.1	+0.7
Other public transport	-6.3	+0.6	-2.8	+0.4	-2.7
TOTAL	+4.5	+1.1	+2.2	+2.7	+0.8

This table shows that all options have an overall positive impact on passenger demand, with Option 1 having the greatest impact. Other key points to note:

- There is a large increase in demand on London Overground services in Option 1, with an additional 2 tph between Dalston Junction and Victoria. Over half of the passengers are forecast to switch from other public transport (mainly bus and Underground services).

- Option 2, which involves a switching of some ELL services from Clapham Junction to Victoria, has only a small impact on passenger demand.
- The Bellingham – Victoria service is forecast to generate an additional 4.5m passengers a year on Southeastern services (it is assumed the Bellingham – Victoria service would be operated by Southeastern), with over half of these switching from buses.
- Option 4, which involves changes to Dartford trains and a new Hither Green service, results in a less significant increase in Southeastern passengers.
- The option with additional stops on both long distance and Orpington – Victoria services results in increased passengers using Southeastern, Overground and First Capital Connect (FCC) services. The latter is due to passengers from the Bromley area re-routeing to the SLL and switching to Thameslink services at Denmark Hill for onward travel to Blackfriars and beyond.



Operating costs

A detailed assessment of the operating costs of each of the five options was carried out. Costs were based on those calculated for ELL Phase 2 and are based on TfL's experience on London Overground and other National Rail projects.

To inform the costs, the number of additional trains required for each option needed to be calculated. A train 'diagramming' exercise was carried out which takes into account the journey time from end to end, how long it takes to turn trains around at their destination and other factors. This allows the number of new trains required to be estimated.

Each of the main components of the operating costs is described below.

Track access charges

Operators of train services are required to pay Network Rail to allow them to run services. This funds the maintenance of track and signals, etc. The charges are based on the lines used, type of train and time of day. They are split into the 'capacity charge', 'variable track access charge' (VTAC) and 'electrification asset usage charge' (EAUC).

Power

Train operators also have to pay Network Rail for the electricity used to power their trains. Again, these are based on the type of train and the time of day.

Train leasing

One of the most significant elements of the costs is the money required to lease and maintain the trains required. Most trains in the UK are owned by rolling stock leasing companies rather than the train operators and a lease charge therefore needs to be paid.

Staff

Some of the options require additional staff; principally train drivers but also additional driver managers.

Overheads

If there is an increase in train service then some other costs will also increase, for example the cost of selling tickets and other administrative costs. Overheads make a relatively small contribution to overall costs.

Management fee

This represents the profit margin that a train operator will take to run additional services – without this there would be no incentive for operators to make the service improvements.

Additionally, TfL would have to compensate the DfT for revenue lost to their franchises (mainly Southeastern) if London Overground services were to operate into Victoria station. This was a condition of the DfT contributing funding towards the ELL Phase 2 project and is relevant to Options 1 and 2.

The operating costs are summarised in the table below. These are annual costs in thousands of pounds and are in current prices.

	Option 1 ELL 4 CJ +2 Vic	Option 2 ELL 2 CJ +2 Vic	Option 3 Victoria - Bellingham	Option 4 Dartford/ Hither Grn	Option 5 Additional stops
Rolling stock requirement	3 units	None	2 units	2 units	None
Staff requirement	18 staff	None	13 staff	14 staff	None
Capacity charge	220	6	96	122	2
VTAC/EAUC	61	2	39	49	6
Electricity	157	4	95	110	5
Leasing	1350	0	900	900	0
Staff	810	0	578	624	0
Overheads	275	0	196	212	0
Management fee	201	1	133	144	1
Sub-total	3073	12	2038	2159	15
DfT revenue compensation	1300	1300	0	0	0
TOTAL	4373	1312	2038	2159	15

Option 1 has by far the greatest costs because of the additional trains running all day over a relatively long distance between Dalston Junction and Victoria combined with the revenue compensation to the DfT. Options 3 and 4 also have significant costs because they also involve running additional services. In each of these options, two 4-car trains are assumed to be required to operate the Bellingham – Victoria or Hither Green – Victoria services. This is based on the assumption that these services can ‘interwork’ with other services. For example, a service from Bellingham to Victoria could then form a service to Dartford rather than returning to Bellingham. This makes more efficient use of the train fleet and results in fewer trains being needed. If run as standalone services, then more trains would be required.

Option 5 requires very limited additional funding because the additional stops can be accommodated in the timetable with no extra trains required so costs are small. The operating costs for Option 2 are small because there is a straight swap of the terminal location of two of the services per hour from Clapham Junction to Victoria with no other changes. However, costs for this option are more significant when the revenue compensation to the DfT is taken into account.

Operational feasibility

TfL has worked closely with Network Rail throughout the study to understand the operational feasibility of the different options, i.e. whether there is enough track capacity for the service changes to be included in the timetable. For some options detailed work has been carried out. For others the informed opinion of Network Rail staff has been used but it would only be possible to determine for certain whether some options are fully feasible when the detailed future timetable for the route is prepared. The findings of the analysis are summarised below.

Option 1 Enhanced ELL service

Operating additional ELL services can be accommodated on the ELL itself as the line has capacity for more than the 16 tph that will be operating on the four branches to West Croydon, Crystal Palace, New Cross and Clapham Junction from 2012. On the SLL, Network Rail's view is that it is likely that the additional trains can also be accommodated, albeit it may not be possible to run a fully regular service at peak times.

Conclusion: **Achievable**

Option 2 Modified ELL service

The only change to the timetable in this option is the swapping of 2 tph from Clapham Junction to Victoria. This is not likely to cause any timetabling problems and would actually have benefits in the Clapham Junction area because of the reduced interaction with freight services.

Conclusion: **Achievable**

Option 3 Additional 2 tph Bellingham – Victoria

Detailed timetabling analysis was carried out for this option, the conclusion being that the Bellingham – Victoria service would not be possible to run at peak times alongside the ELL to Clapham Junction and other existing services. The available spaces between trains in the timetable on the Catford Loop do not match those available on the SLL. A Bellingham – Victoria service could run if there is a complete change to the whole Southeastern timetable in south London but this is not planned until the completion of the Thameslink Programme in 2016. It should be noted that the South London RUS assumed that this major timetable change would happen to allow the Bellingham – Victoria service and other service changes to be introduced.

A Bellingham – Victoria service could fit into the current timetable at all other times outside the peak periods with only relatively minor changes to other services needed.

Conclusion: **Only achievable outside of peak times**

Option 4 Dartford services package

The peak Hither Green – Victoria service that forms part of this package cannot be operated because there is no capacity for additional services through the bottleneck at Lewisham (without removing other services from this route). Running the Dartford – Victoria service all day (i.e. additional services after 20:00 on weekdays and all day on Sundays) should not be a problem. Stopping Dartford – Victoria services at Clapham High Street and Wandsworth Road outside the peak periods is likely to be possible on most trains although this would need to be determined for certain as part of the development of the detailed 2012 timetable for the route.

However, Network Rail and the DfT have identified a potential major constraint. Whilst Dartford – Victoria services currently operate at 4-car length, they may need to be extended to 8-car length during Thameslink Programme construction works at London Bridge (2012-16). This is to provide additional capacity so that more passengers are routed to/from Victoria rather than London Bridge, which will be very constrained during the construction works. The types of trains that operate the Dartford – Victoria services are not fitted with Selective Door Opening, and the cost of installing this facility would be very high. These factors are likely to prevent the Dartford services from calling at Clapham High Street and Wandsworth Road because the platforms are too short for trains longer than four cars to be able to serve the stations.

Conclusion: Only the parts of the package involving Dartford – Victoria services are likely to be achievable

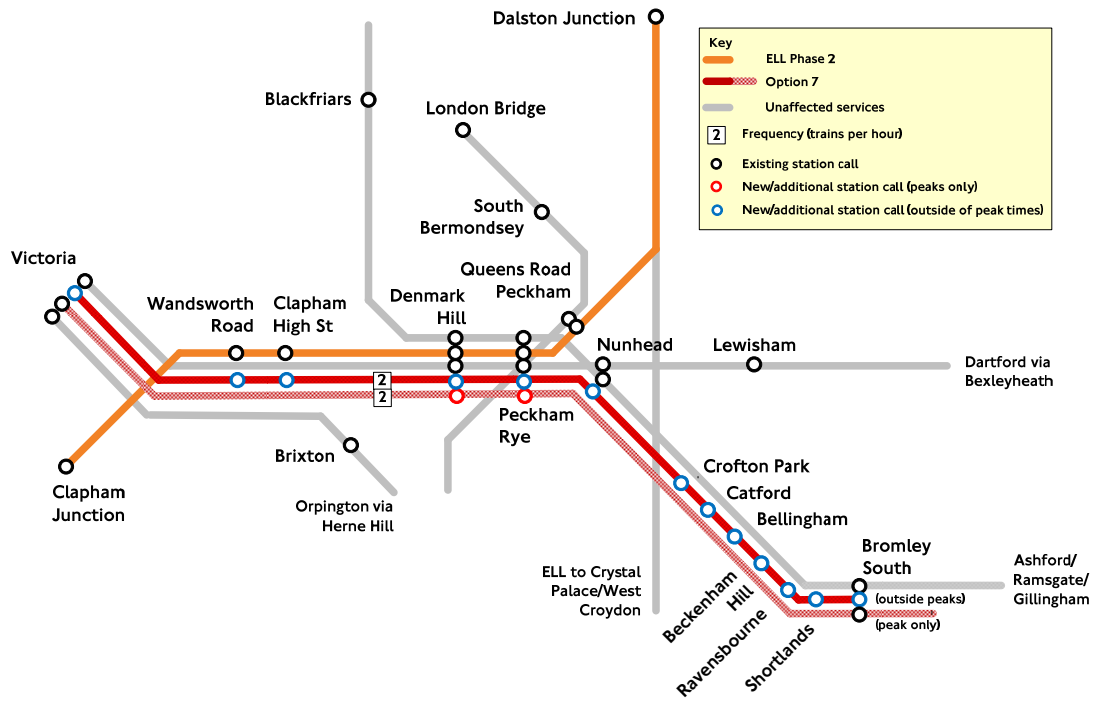
Option 5 Additional stops package

Stopping some long distance trains at Peckham Rye and Denmark Hill is likely to be feasible, although timetable changes to allow the stops could affect the pathing of trains at Rochester Bridge Junction, which is critical for the pathing of trains in the north Kent area. There would also be an adverse impact on journey time for some longer distance passengers as some trains would need to be diverted from the main line via Herne Hill so that they could call at Peckham Rye and Denmark Hill.

Stopping some Orpington – Victoria services at Clapham High Street and Wandsworth Road will be more difficult as these services will need to cross over to different tracks after Brixton station to allow them to call at Clapham High Street and Wandsworth Road stations. This could prove difficult because of potential conflicts with other services running to Victoria. This would have to be determined as part of the development of the detailed 2012 timetable for the route.

Conclusion: Stopping long distance services is achievable but stopping Orpington – Victoria services is unproven given the potential impact on other services

Option 7 Bromley South and additional stops package
Additional 2 tph Bromley South – Victoria outside of peak times
2 tph Ashford/Ramsgate/Gillingham – Victoria services call at Peckham Rye and Denmark Hill peaks only



This option takes the best parts of two of the existing options to combine them into a new package. The Bellingham – Victoria service from Option 3, which was found to only be deliverable outside of peak times, is included and extended to Bromley South as an off peak only service. The extension is because Bromley South is a better destination than Bellingham because of the facilities available for passengers in Bromley town centre, and it is feasible to turn trains round at Bromley South at off peak times (this would not be possible during peak periods). The additional stops in long distance services at Peckham Rye and Denmark Hill are included at peak times to address the gap at these stations in the peaks. The only gap that is not addressed by this option is the lack of a service between Clapham High Street/Wandsworth Road and Victoria at peak times.

Demand impact and operating costs

The tables overleaf show the equivalent figures for changes in passenger demand and operating costs that have been presented for the other five options in previous sections.

Operator	Option 6 Revised Dartford	Option 7 Bromley S/long distance
London Overground	-0.3	+0.2
Southeastern	+0.7	+3.5
First Capital Connect	+0.2	+1.3
Other public transport	+0.9	-3.8
TOTAL	+1.6	+1.2

	Option 6 Revised Dartford	Option 7 Bromley S/ long distance
<i>Rolling stock requirement</i>	<i>None</i>	<i>None</i>
<i>Staff requirement</i>	<i>10 staff</i>	<i>16 staff</i>
Capacity charge	59	47
VTAC/EAUC	40	41
Electricity	81	89
Leasing	0	0
Staff	447	717
Overheads	152	244
Management fee	55	80
Sub-total	834	1217
DfT revenue compensation	0	0
TOTAL	834	1217

As neither of the additional options require any additional trains at peak times, this means that costs are significantly lower than Options 1 to 5 since train leasing costs are a major contributor to the overall costs.

Options 6 and 7 makes more intensive use of existing assets, which fits well with the objective of the new Secretary of State for Transport to see assets better utilised.



Business case

For each of the seven final options, the 'business case' was calculated to determine whether the investment required for each option would provide good value for money. The calculation of benefits includes revenues and social benefits such as time savings and crowding relief. The business case generates a benefit to cost ratio (BCR) which demonstrates how many pounds of benefit will result from each £1 of investment over the period of assessment.

The business case is assessed over a period of 60 years as per standard Government guidelines and is based on the TfL Business Case Development Manual (BCDM) assessment criteria. The BCDM provides a uniform framework for the evaluation of schemes across London. By assessing the service options on a consistent basis, and by being consistent with the assessment of other schemes elsewhere in London, this allows funders to make informed decisions on whether to approve schemes and provide funding.

Each option is compared against a 'Reference Case' scenario which includes all the committed changes such as removal of the SLL London Bridge – Victoria service, introduction of ELL Phase 2 services, the Thameslink Programme service changes, etc.

There are various inputs to the business case assessment:

Capital and operating costs

The capital costs are the cost of building new infrastructure. None of the short listed options in this study require new infrastructure. Operating costs are the cost of implementing the service changes as described in previous sections.

Revenue

This is the amount of additional income generated by the service changes. Only revenue new to the public transport sector is included.

Social benefits

In addition to the financial benefit of extra revenue, the options will also have wider benefits to passengers and Londoners in general. The most significant of these are journey time benefits due to passengers being able to make quicker journeys or making journeys in less crowded conditions. However a number of other social benefits are included in the assessment including road decongestion, safety and environmental benefits.

The table overleaf contains a summary of the business cases for all seven options. Values are in millions of pounds in 2007 prices over the 60-year appraisal period.

Option	Capital and operating costs	Revenue	Net financial effect	Social benefits	Benefit-cost ratio
Option 1 ELL 4 CJ +2 Vic	-102	+28	-74	+299	4.1 to 1
Option 2 ELL 2 CJ +2 Vic	-31	-1	-31	-108	No case
Option 3 Victoria - Bellingham	-48	+11	-36	+252	6.9 to 1
Option 4 Dartford/ Hither Grn	-50	+9	-41	+147	3.6 to 1
Option 5 Additional stops	-0	-0	-1	+33	55.8 to 1
Option 6 Revised Dartford	-19	+8	-12	+18	1.6 to 1
Option 7 Bromley S/ long distance	-28	+18	-10	+45	4.5 to 1

Notes: TfL business case methodology used; DfT methodology would give different results
Not all options are operationally deliverable

The 'pass mark' for the business case of a scheme is considered to be 1.5 by TfL, as stated in the TfL Business Case Development Manual. Any option with a pass mark below 1.5 would not be taken forward for further development because it would not be considered to be sufficient value for money. While a pass mark above 1.0 indicates that revenue and benefits are greater than costs, the benefits are generally not sufficiently great for the option to be worthwhile taking forward.

The table shows that all options have a BCR above 1.5 with the exception of Option 2. This option does not have a BCR because the option results in an overall disbenefit to passengers and has an additional cost. There is therefore no case for taking this option forward.

Option 5 has a very high BCR but this is due to it having very low costs. This means that when the benefits are divided by the costs a very high BCR is calculated even though the benefits are small compared to other options.

The BCR for Option 6 is only just above the pass mark of 1.5 which indicates that the case for taking this option forward would be marginal.



Financial assessment

Alongside the value for money assessment described in the previous section, the financial case for taking the schemes forward has also been assessed. This is one of the most critical elements of the study. As funding will be severely constrained in the coming years, any scheme which requires too great a financial input is unlikely to be taken forward, even if it has a good BCR.

Only the additional revenue generated and the net costs are included in the financial assessment, since social benefits do not provide a financial benefit to operators or funders of services. A ten-year appraisal period has been used for the financial assessment and it has been undertaken from a UK-wide perspective, i.e. not the financial impact specifically on TfL or DfT-franchised services. There is little value in using a longer appraisal period because there is no certainty about the funding that is likely to be available to the rail industry over the longer term. Also, the figures may be affected by future service changes which are not currently planned.

The table below shows the financial assessment for each of the seven options. Figures are in millions of pounds in actual prices over the ten-year period. Note that a negative figure indicates that financial support is required.

Option	Revenue	Costs	Net financial requirement
Option 1: ELL 4 CJ +2 Vic	+9	-55	-46
Option 2: ELL 2 CJ +2 Vic	-1	-17	-18
Option 3: Victoria - Bellingham	+5	-26	-21
Option 4: Dartford/Hither Grn	+1	-28	-27
Option 5: Additional stops	+0.5	-0.2	+0.4
Option 6: Revised Dartford	+1	-11	-10
Option 7: Bromley S/long distance	+7	-16	-9

Clearly Option 1 has by far the highest financial requirement over the ten-year period and it is unlikely that sufficient additional funding of around £4.6m per year could be found from any source to support this service.

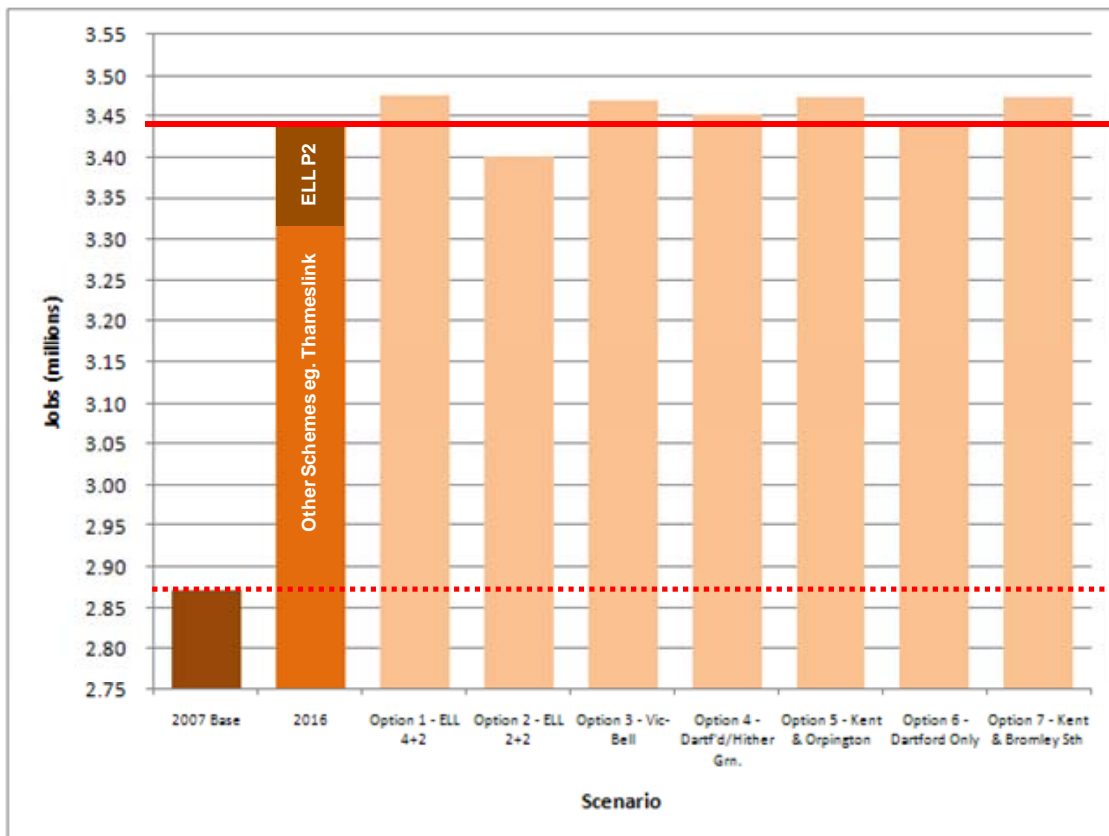
The forecasts show that Option 5 does not require any additional funding although this is dependent on all elements of the option being operationally deliverable. The stops at Clapham High Street and Wandsworth Road in the Orpington – Victoria services are unlikely to be possible, particularly in the peak periods.

The new Options 6 and 7 are the two options which have the lowest funding requirement and are also feasible to be delivered.

Accessibility

The final piece of analysis that has been carried out on each of the options is on their accessibility impact. The most important aspects of this are the impact on the number of jobs accessible to residents along the route of the SLL and the population that can access destinations along the SLL. Denmark Hill station has been used as an example in this section.

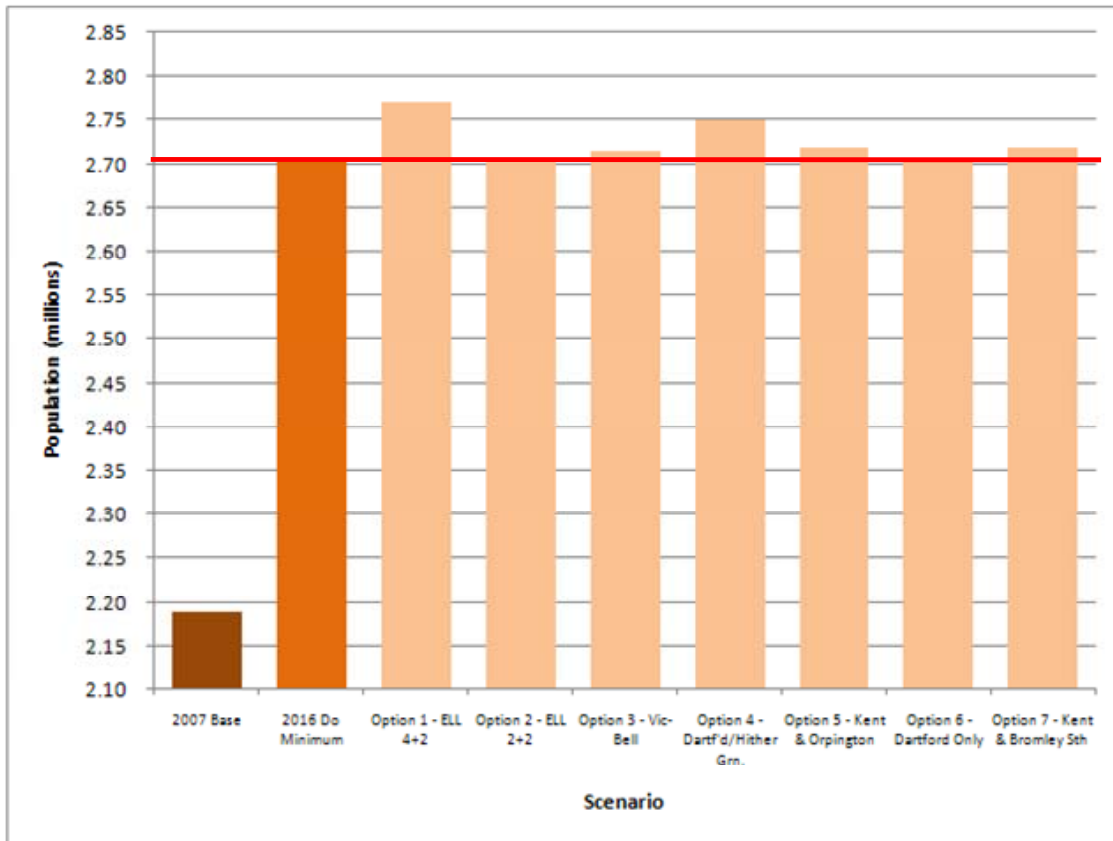
The graph below contains a representation of the number of jobs accessible within 60 minutes travel time to the 33,000 people living within 1 km of Denmark Hill station in the morning peak period in 2016.



This diagram shows that there is a very significant improvement in accessibility from Denmark Hill station between 2007 and 2016 once the committed schemes such as the Thameslink Programme and ELL Phase 2 have been completed. The number of jobs accessible within 60 minutes is forecast to increase by around 20%.

For each of the seven options, the subsequent variation in accessibility, compared to the Do Minimum scenario which includes ELLP Phase 2, is very limited, ranging from a slight reduction in the number of jobs accessible in Option 2 to small improvements with some other options.

The same type of diagram for the reverse direction is shown below, representing the population who can access Denmark Hill in 60 minutes in the 2016 morning peak period. This is relevant for people to access the 13,000 jobs available within 1 km of Denmark Hill station.



There is a similar 23% improvement in accessibility between 2007 and 2016. Again, the options have a very small impact compared to the Do Minimum scenario with Options 1 and 4 having the greatest benefits.

Assessments have also been carried out for changes in accessibility for:

- the interpeak period
- the 10% most deprived people in London
- staff and patients of Kings College Hospital near Denmark Hill station

In all cases there is a similar trend, i.e. a significant improvement in accessibility between the base year and future years with only minor changes between each of the seven options.

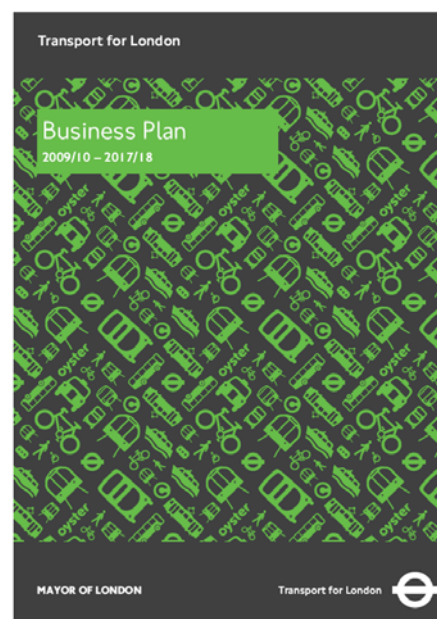
Potential funding sources

Department for Transport

The DfT is the principal funder of National Rail services in Great Britain. However, the DfT have made clear they do not have funding available to put towards any of these service options. There is potentially scope for the service changes to be included in the next South Eastern franchise, which is expected to begin in 2014. Indeed, in a meeting between the Mayor of London and the then Minister of State for Transport in late 2009, the Minister offered to include service enhancements as a priced option in the next franchise provided TfL fund the enhancements prior to this time. However, there is no guarantee that the DfT would exercise this option.

Transport for London

TfL has a funding settlement from the DfT which covers the period up to the end of the 2017/18 financial year. TfL's Business Plan contains the details of how the funding settlement will be spent over this time. All of TfL's funding is allocated in the Business Plan, so there is no spare money available to implement any of the service options for the SLL without taking money away from other schemes or operations. TfL's Business Plan is already heavily under pressure, particularly because of the increased costs of bringing the work of the London Underground Public Private Partnership contractors (Metronet and Tube Lines), back in house.



Furthermore, the Institute of Fiscal Studies recently released a report which sets out the funding cuts likely to be required to enable the UK to address its budget deficit. It is expected that the DfT will have to make significant cuts of 20% or more (<http://www.ifs.org.uk/budgets/budget2010/emmerson.pdf>) and these could feed through to cuts in TfL's budget. Any additional expenditure during this time is therefore unlikely.

Since funding is unlikely to be available from either the DfT or TfL, other potential sources of funding have been considered, as set out below.

Gating stations

One option that has been explored is the gating of additional stations in south London. Gating of stations results in increased revenue for train operators because the number of passengers travelling without a valid ticket is reduced. If this increased revenue outweighs the cost of installing the gates and the ongoing cost of maintaining and staffing the gate lines, then this additional revenue could be used to help fund service options for the SLL. It should be

noted that specific agreements would need to be put in place between TfL, the DfT and the relevant train operator(s) to ensure that the increased revenue could be diverted towards services on the SLL.

TfL has worked with London TravelWatch to identify those stations that are relatively close to the SLL which could be considered for gating. A total of 11 stations are considered to have potential. For each station, the number of entrances that would need to be gated has been identified and the number of gates required has been determined. The cost of installing the gates has been estimated, including:

- the physical cost of the gates
- installation costs
- equipment costs
- Oyster data costs
- cost of removing existing Oyster validators
- cost of enabling works

Any difficulties with installing the gates have also been identified, for example if there are particular constraints at a station, as this would inform whether a gating scheme is likely to be feasible.

The level of ticketless travel at the stations is assumed to reduce from 10% to 5% as a result of gating,, based on TfL's previous experience on the London Overground and Southern networks. The additional operating costs have also been estimated based on the number of entrances (and therefore staff required) and the number of gates.

The table overleaf summarises the findings for each station. Based on the estimated costs and revenues, the number of years before a gating scheme 'breaks even' - after which additional revenue could be diverted towards enhanced services on the SLL - has been calculated.



Before



After

Station	Capital cost	Change in annual revenue	Change in annual operating costs	Years to break even	Difficulty of gating
Herne Hill	-£288k	+£154k	-£45k	3	Medium
Elephant & Castle	-£347k	+£169k	-£86k	5	Medium
Denmark Hill	-£190k	+£198k	-£41k	2	Easy (once Access for All scheme complete)
Hither Green	-£404k	+£174k	-£82k	5	Medium
Blackheath	-£404k	+£177k	-£82k	5	Difficult (ticket office needs moving)
Grove Park	-£210k	+£132k	-£41k	3	Easy
Catford Bridge	-£444k	+£104k	-£82k	N/A	Difficult (station manager's office needs moving)
East Dulwich	-£392k	+£87k	-£74k	N/A	Medium
Loughborough Junction	-£228k	+£59k	-£41k	17	Easy
Nunhead	-£283k	+£53k	-£41k	N/A	Difficult (new ticket office needed)
Deptford	-£372k	+£47k	-£74k	N/A	Difficult (two narrow entrances, major structural work needed)

The table shows that at some of the stations the costs over ten years are greater than the estimated increase in revenue, indicating that there is no case for gating these stations. However, gating the top six stations on the list is forecast to generate net revenue of £2.6m over ten years after capital costs and operating costs have been considered. This would address around one-quarter of the funding gap of Option 7.

The Access for All scheme being delivered at Denmark Hill will provide for gating in the future, should it be required. The gating of other stations on the list may involve the closure of some side entrances to stations.

Because of the capital costs, funding of an initial £1.8m would be required to install the gates in the first place. The profits are only delivered towards the end of the ten-year period so this suggests a potential cash flow issue for taking this forward. Nevertheless, gating stations could potentially be a way of obtaining additional funding for service enhancements if the commercial and organisational issues can be overcome.

Community rail and smarter travel measures

Getting more community involvement in the railway has been identified as another way of increasing the number of passengers using the SLL, generating increased revenue to help fund service changes. The work of Community Rail

Partnerships is aimed at improving the effectiveness of local railways. This can include:

- promoting bus links to stations
- developing walking and cycling routes
- bringing station buildings back to life
- art and education projects
- organising special events which promote the railway and its relevance to the community

Discussions have been held with the DfT over the potential for these types of ideas. While there are certainly cases where community rail involvement has been successful in urban areas, it has been on a relatively small scale. There are examples in Bristol, Birmingham and Manchester and also at specific locations in London, including Homerton station on the London Overground network. At Ravensbourne station on the Catford Loop an accessibility and image enhancement scheme is believed to have increased demand. The ELL has a supporters' website (www.eastlondonlines.co.uk), which has resulted in a number of community events during the week of opening ELL Phase 1 to promote the railway and the local area. The approach is also consistent with the new Government's 'Big Society' policy.

Although this could generate additional rail trips because of the improved ambience of stations, community involvement in the SLL would result in very limited additional revenue. There is also no firm way of identifying how much extra revenue is due to the community rail involvement and then ring-fencing this for service enhancements on the SLL..

Smarter travel measures can also encourage extra passengers to use the SLL. Discussions with TfL's Smarter Travel Unit have been held to identify the opportunities. Possibilities include:

- Additional marketing above and beyond that which would usually be provided for a new rail service. For example, roadshows could be held in locations along the route such as in shopping centres or community centres.
- Personalised Travel Planning (PTP) could be applied in schools and workplaces to encourage use of rail services to travel to and from the place of education or work.



Some research into these types of measures show that it may be possible to achieve a £4 return for every £1 spent on smarter travel measures. However, this research is mainly based on encouraging the use of buses and there is little evidence that it could be as successful for rail. For example, PTP for schoolchildren may not be successful because in general children will live close to their school and would therefore be unlikely to use rail services to get to and from school.

Again, significant initial investment would be needed to put the measures in place before a return could be made. Furthermore, as with community rail, it would be very difficult to provide evidence to allow the revenue generated to be specifically diverted towards enhancing services on the SLL.

Other sources

The additional revenue required to support Option 7 (the cheapest feasible option) over ten years is £9m. This is equivalent to approximately 3800 additional passengers using rail services per day. These passengers have to be new to public transport to generate the extra revenue; if they switch from buses, for example, then the extra rail revenue is offset by the loss in bus revenue. It is unlikely that this many additional passengers could be attracted via community involvement or smarter travel measures.

Nevertheless there are other potential funding sources. For example, boroughs may be willing to contribute, perhaps via Local Implementation Plans (LIPS) funding. There may also be commercial developments along the route which could support enhanced services via Section 106 or Community Infrastructure Levy funding. These options could be explored further to help fund the service enhancements.

Summary of findings and recommendations

The SLL service between London Bridge and Victoria has to be withdrawn in 2012 due to the Thameslink Programme works at London Bridge. This has some adverse consequences which this study has considered how to mitigate.

The table below contains an overall summary of the findings of the SLL study.

Option	Net demand impact (passengers / year)	Operating costs (annual)	Operational feasibility	Benefit-cost ratio	Financial requirement over ten years	Accessibility impact
Option 1 ELL 4 CJ +2 Vic	+5m	£4373k	Feasible	4.1 to 1	£46m	Slight beneficial
Option 2 ELL 2 CJ +2 Vic	+1m	£1312k	Feasible	No case	£18m	Slight adverse
Option 3 Victoria - Bellingham	+2m	£2038k	Outside peak times only	6.9 to 1	£21m	Slight beneficial
Option 4 Dartford/ Hither Grn	+3m	£2159k	Dartford services only*	3.6 to 1	£27m	Slight beneficial
Option 5 Additional stops	+2m	£15k	Long distance stops only	55.8 to 1	-£0.4m	Slight beneficial
Option 6 Revised Dartford	+2m	£834k	Feasible*	1.6 to 1	£10m	Neutral
Option 7 Bromley S/ long distance	+1m	£1217k	Feasible	4.5 to 1	£9m	Slight beneficial

* Subject to trains able to operate as 4-car length during Thameslink construction works

Recommendations

Bearing in mind the findings of the study, the recommendations for each option are set out below.

Option 1 Enhanced ELL service

While this option has the highest social benefits of all, the financial requirement is by far the greatest of all options (£20m more than any other options over ten years). The expenditure required (£4.6m per year) will not be possible to justify bearing in mind the constrained funding situation expected in the next few years. **It is therefore recommended that this option is not pursued.**

Option 2 Modified ELL service

This option has disbenefits for passengers and requires £1.8m per year funding to deliver. **This option should therefore not be taken forward.**

Option 3 Additional 2 tph Bellingham – Victoria

The operational analysis for this option demonstrated that the Bellingham – Victoria service is not possible to run at peak times. An alternative Bromley South – Victoria service is included in Option 7 as an alternative. **This option therefore should not be developed any further unless the timetable for the whole of south east London is restructured.**

Option 4 Dartford services package

Operational analysis for this option showed that the Hither Green element of this package could not be operated. There are also concerns over whether stops at Clapham High Street and Wandsworth Road will be possible on Dartford – Victoria trains as these may need to be longer than four cars during Thameslink Programme construction works. Some elements of this package have been taken forward in Option 6 so **Option 4 should not be progressed further.**

Option 5 Additional stops package

While the additional stops on long distance services in this package are expected to be able to be achieved, it is not possible to determine for certain whether Orpington – Victoria services can call at Clapham High Street and Wandsworth Road without developing a detailed timetable for the route. Although the overall benefits of the option are small compared to some other options, there is no requirement for additional funding. It is recommended that detailed timetabling work is carried out for this option to determine for certain whether the additional stops can be accommodated. **This option can be considered for implementation subject to further timetabling work being successful. It is important to note that there would be a cost associated with the timetabling work.**

Option 6 Revised Dartford services package

The point made in the summary for Option 4 above regarding train lengths also applies to this option, so stopping Dartford – Victoria services at Clapham High Street and Wandsworth Road during Thameslink Programme construction works may not be feasible. However, running Dartford – Victoria services in the evenings and on Sundays is a sensible option and the bulk of the funding requirement of £1.0m per annum in Option 6 can be attributed to these services. The low BCR of this option indicates that it is not as good value for money as most other options. **This option should only be considered for implementation if funding is made available and Dartford – Victoria services are able to continue operating at 4-car length.**

Option 7 Bromley South and additional stops package

Option 7 appears to have the best case of all options to be taken forward. The benefits to passengers are higher than the other viable options (5 and 6), the funding requirement of £900k per year is relatively modest, it is operationally viable and it addresses almost all the gaps (the only exception being the lack of a service between Clapham High Street and Wandsworth Road during peak periods). **It is therefore recommended that this option is considered for implementation with the highest priority should funding be made available.**

Next steps

This study has recommended that the most appropriate intervention to address the gaps in service provision on the SLL in the interim is Option 7. This option provides additional stops on long distance services at peak times to serve Denmark Hill and Peckham Rye, and a Bromley South – Victoria service outside of peak times to serve all stations between Peckham Rye and Wandsworth Road. This option is the best of an imperfect lot – a gap remains in the peaks with Clapham High Street and Wandsworth Road not having a direct link to Victoria, but it has not been possible to identify a way around this without significant expenditure. In the longer term, options that address the gaps more fully could be considered as part of a timetable recast in 2016.

The next steps are to consider options for funding, with approximately £900k per year needed to subsidise the service changes. The DfT have stated that they have no additional funding available to contribute towards additional services. A £683m reduction in the DfT's budget is required by the Treasury in 2010/11. Of this, TfL has to make £108m of savings this financial year. The Institute of Fiscal Studies envisages further budget cuts to unprotected Government departments (such as the DfT) and their sponsoring bodies (such as TfL) of £40bn by 2014-15 or 20% overall. There is therefore little realistic expectation that TfL can fund enhancements from its Business Plan which is fully committed until the 2017/18 financial year in any case.

Contributions from other sources may also be possible and these could be explored in more detail by the various stakeholders involved. There is the potential for a small portion of the funding to be provided by gating six stations in south London including Denmark Hill and Queens Road Peckham on the SLL. To take this forward, initial investment would have to be made to make station modifications and install the gates, and the source of this funding would need to be identified.

The boroughs along the route could also consider whether they are able to make a funding contribution towards additional services or indeed gating, however they are also likely to be affected by the reduction in public spending. Stakeholders could also consider the use of enhanced marketing and other measures such as personalised travel planning to encourage passengers to use services on the SLL. The additional revenue generated could help justify and fund service enhancements although the revenue increase is unlikely to be significant and would be difficult to separate from background passenger and revenue growth.

If funding could be found then the next steps would be to persuade the DfT, Southeastern and Network Rail to amend franchise agreements and timetables to allow the service enhancements to be implemented.

TfL and London TravelWatch hope that this study has provided useful information to help identify the best solutions for making service enhancements

on the SLL. We look forward to assisting stakeholders in progressing these ideas in the future.

South London Line – your frequently asked questions answered

I've heard that the South London Line is being withdrawn in 2012 is this correct?

It is right that the London Bridge–Peckham Rye–London Victoria service is being withdrawn in 2012, but it is being replaced by a number of other services which will in many cases run more frequently or give better connections to the places where passengers who use this service travel to and from.

What are these replacement services?

The East London Line will have a new branch from Surrey Quays to Queens Road Peckham, and it will then run on the existing tracks to Peckham Rye, Denmark Hill, Clapham High Street, Wandsworth Road and then on the existing freight line to Clapham Junction. It will run every 15 minutes from Dalston Junction to Clapham Junction all day every day.

Southern services to London Bridge in the peak hours from Peckham Rye will remain at the same level as now, but two of these trains instead of running to/from London Victoria will run to and from the Tulse Hill line, and they will all be 8 cars long instead of 2 or 4 or 6 cars as now.

What about going to London Victoria?

By 2012 there will have already been an increase in the number of peak hour trains on the Dartford–Lewisham–Peckham Rye–Victoria route. However, London TravelWatch and Transport for London (TfL) have identified that there is a need for additional services. The current proposal is known as Option 7 and it proposes the following changes :

1. To run a new service from Bromley South to Victoria via Peckham Rye calling at all stations including Clapham High Street and Wandsworth Road. It would run all day every day except at peak times on Mondays to Fridays when there is currently not enough track capacity to run it.
2. At these times it is proposed that services running into Victoria from destinations in Kent which currently run non-stop from Bromley South would also call at Peckham Rye and Denmark Hill.

However, this new service is subject to the agreement of Southeastern railways to run it, Network Rail to say it can have a slot in the timetable and the Department for Transport to agree to pay for any additional costs associated with it. These are estimated at £900,000 per year. If enough additional passengers and revenue are generated from this, it may be possible to run the Bromley South–Victoria service at

peak times as well from 2016.

But I travel from Clapham High Street/Wandsworth Road to Victoria at peak times, what do I do?

At the moment Network Rail have said it is not possible to run trains over certain parts of the peak period without a full recast of the Southeastern timetable. This will not be possible before December 2016 when the Thameslink programme works at London Bridge and other places is finished.

It is also not possible to stop other trains that are longer than 4 cars because the platforms at Clapham High Street and Wandsworth Road are not long enough and the rolling stock used does not have selective door opening.

However, there are frequent other means of making your journey at these times.

I travel from Denmark Hill to London Bridge what do I do?

The rebuilding of London Bridge station from 2012 to 2016 as part of the Thameslink programme means that the number of trains able to run into London Bridge from the Peckham Rye route will be restricted, and it will not be possible to run trains directly from Denmark Hill.

However, with the introduction of the East London Line trains this will mean that with one same platform interchange at Queens Road Peckham, it will be possible to get to London Bridge 4 times per hour instead of 2 and as the ELL train will be followed immediately by a Tulse Hill line one going to London Bridge you will only have a very short wait at Queens Road Peckham.

By 2012 there will be a new entrance on the south bank of the Thames at Blackfriars station which will be served by the existing First Capital Connect/Southeastern trains from Denmark Hill. This new entrance will mean easier access to many of the offices and business premises used by people who travel via London Bridge station at the moment.

Alternatively buses 35 and 40 run at a very high frequency from Denmark Hill (40 only) or Camberwell Green to London Bridge.

I travel to Battersea Park, what happens there?

At the moment depending on Network Rail's plans to lengthen the main line platforms at Battersea Park, it is most likely that there will be no ability to run trains to Victoria from the South London Line through Battersea Park. However, our surveys of passengers have shown that significant numbers of users here are using this line

as an interchange with other Southern services or with South West Trains services via Clapham Junction. In which case the East London Line services to Clapham Junction will improve their journey by being more frequent and more direct. Travellers to and from stations on the South London Line will either be able to travel via Clapham Junction or Victoria, or by the frequent 452 bus from Battersea Park to Wandsworth Road station. People travelling to London Bridge can use the frequent South West Trains service from the adjacent Queenstown Road (Battersea) station to Waterloo and change to either Southeastern services or the Jubilee line to London Bridge. Alternatively there is the longer duration Southern service via Crystal Palace.

Won't this increase overcrowding on the Northern Line from Clapham North into central London?

It is correct that people travelling from Clapham High Street to London Bridge will in future need to use the Northern line from Clapham North. However, analysis of people's final destinations at both stations shows significant numbers of existing Northern Line users from Clapham North will likely transfer to the East London Line service from Clapham High Street because their journeys are to places such as Canary Wharf, Aldgate and other parts of the city fringe which will be quicker using this route than going via London Bridge. These passengers far outnumber the travellers from Clapham High Street to London Bridge who would need to transfer to the Northern Line.

Does the Victoria–Bellingham service exist at the moment?

No, although during the Thameslink works all Saturday and Sunday services on the Catford loop (and also late evenings on Mondays to Fridays) do operate to London Victoria instead of to Blackfriars and St.Pancras International.

Surely you could just stop some of the existing fast trains at stations like Peckham Rye, Denmark Hill, Clapham High Street and Wandsworth Road?

It is proposed to do this at Peckham Rye and Denmark Hill, because the platforms are long enough at these stations. However, at Clapham High Street and Wandsworth Road the platforms are only 4 cars long and Southeastern's trains (unlike those of Southern) are not fitted for selective door opening. So, only trains of less than 4 car length can call at these stations. This is a limiting factor at peak times because then most trains are more than 4 cars long.

What would the advantages be of a Bromley South – Catford loop – Victoria service?

- It would retain the current frequency of trains on the section between Peckham Rye and London Victoria
- It would reduce journey times from stations on the Catford Loop and the West End by providing a link to Victoria.
- It would reduce journey times from Wandsworth Road/Clapham High Street to Bromley South by a third by providing a direct service to this major shopping centre rather than long and complicated journeys by connecting buses, tubes and trains or by car.
- It would produce attractive journey times between parts of South East London and South West London by virtue of the interchange between Clapham High Street and Clapham North stations. This would enable easy journeys from say Catford to Tooting Broadway by public transport rather than by car.
- It would double the frequency of trains calling at all stations between Denmark Hill and Bromley South in the off peak making local journey by rail more attractive and giving better access to Kings College Hospital.

Can you show me the alternatives to my current journey?

From London Bridge to : -	Current frequency	Alternative means of travel	New frequency
South Bermondsey	6 per hour	Southern (services to Tulse Hill)	6 per hour (4 off peak)
Queens Road Peckham	6 per hour	Southern (services to Tulse Hill)	6 per hour (4 off peak)
Peckham Rye	6 per hour	Southern (services to Tulse Hill)	6 per hour (4 off peak)
Denmark Hill	2 per hour	Southern to Peckham Rye, then either East London Line or Southeastern services	6 per hour (4 off peak)
	7-8 per hour (24 minute journey)	Bus 40 direct from London Bridge	7-8 per hour (24 minute journey)
Clapham High Street	2 per hour	Northern Line to Clapham North	Every few minutes
Wandsworth Road	2 per hour	Southern to Peckham Rye, then either East London Line or Southeastern services or Northern Line to Clapham North and walk Or Jubilee line to either Waterloo and then bus 77 or Westminster and then bus 87	Every few minutes
Battersea Park	4 per hour (2 via Crystal Palace)	Southern service via Crystal Palace	2 per hour
		Southeastern to Waterloo East, then South West Trains to Queenstown Road, Battersea	Every few minutes
London Victoria	4 per hour (2 via Crystal Palace)	Southern service via Crystal Palace	2 per hour
		Jubilee line to Westminster, then District/Circle lines	Every few minutes

From South Bermondsey to :-	Current frequency	Alternative means of travel	New frequency
London Bridge	6 per hour	Southern (services to London Bridge)	6 per hour (4 off peak)
Queens Road Peckham	6 per hour	Southern (services to Tulse Hill)	6 per hour (4 off peak)
	Every 10 minutes	Bus P12 direct from South Bermondsey	Every 10 minutes
Peckham Rye	6 per hour	Southern (services to Tulse Hill)	6 per hour (4 off peak)
	Every 10 minutes	Bus P12 direct from South Bermondsey	Every 10 minutes
Denmark Hill	2 per hour	Southern to Peckham Rye, then either East London Line or Southeastern services	6 per hour (4 off peak)
		Or East London Line direct from Surrey Canal Road station (if built)	4 per hour
Clapham High Street	2 per hour	Southern to Peckham Rye, then either East London Line or Southeastern services	6 per hour peak / 4 per hour off peak
		Or East London Line direct from Surrey Canal Road station (if built)	4 per hour
Wandsworth Road	2 per hour	Southern to Peckham Rye, then either East London Line or Southeastern services	6 per hour peak / 4 per hour off peak
		Or East London Line direct from Surrey Canal Road station (if built)	4 per hour
Battersea Park	2 per hour	Southern to Peckham Rye, then either East London Line or Southeastern services, changing at either Victoria or Clapham Junction for Southern services to Battersea Park or SWT to Queenstown Road Battersea.	6 per hour peak / 4 per hour off peak

London Victoria	2 per hour	Southern to Peckham Rye, then Southeastern to Victoria	6 per hour peak / 4 per hour off peak
Clapham Junction and points beyond (currently change at Battersea Park and at Clapham Junction)	2 per hour	East London Line direct to Clapham Junction	4 per hour
Points in the West End beyond London Bridge (Currently change at Victoria)	2 per hour	Southern (services to London Bridge), then Jubilee line and connections at Waterloo, Westminster, Green Park and Bond Street	6 per hour peak / 4 per hour off peak

From Queens Road Peckham to : -	Current frequency	Alternative means of travel : -	New frequency
Canary Wharf (currently change at London Bridge or bus 177 and DLR from Deptford Bridge)	6 per hour	East London line to Canada Water then Jubilee line	4 per hour but shorter journey time
London Bridge	6 per hour	Southern (services to London Bridge)	6 per hour peak / 4 per hour off peak
South Bermondsey	6 per hour	Southern (services to London Bridge)	6 per hour peak / 4 per hour off peak
Peckham Rye	6 per hour	Southern (services to Tulse Hill) East London Line direct	10 per hour peak / 8 per hour off peak
Denmark Hill	2 per hour	East London Line direct	4 per hour
Clapham High Street	2 per hour	East London Line direct	4 per hour
Wandsworth Road	2 per hour	East London Line direct	4 per hour
Battersea Park	2 per hour	East London Line to Wandsworth Road then bus 452 or to Clapham Junction then Southern services to Battersea Park or SWT to Queenstown Road	4 per hour
	Every few minutes	Bus 36/436 to Vauxhall, then bus 156/344	Every few minutes
London Victoria	2 per hour	Southern (services to Tulse Hill) / East London Line to Peckham Rye then Southeastern (services from Bromley South/Dartford) or	at least 4 to 6 trains per hour
	2 per hour	Walk to Nunhead then direct Southeastern services	4 per hour
	Every few minutes	Bus 36/436 direct	Every few minutes

Clapham Junction and points beyond (currently change at Battersea Park and at Clapham Junction)	2 per hour	East London Line direct	4 per hour
Points in the West End beyond London Bridge (Currently change at Victoria)	2 per hour 2 per hour	Southern (services to London Bridge), then Jubilee line and connections at Waterloo, Westminster, Green Park and Bond Street or Walk to Nunhead and use Southeastern services via Victoria	6 per hour peak / 4 per hour off peak 4 per hour

From Peckham Rye to : -	Current frequency	Alternative means of travel : -	New frequency
Canary Wharf (currently change at London Bridge or bus 177 from Peckham High Street and DLR from Deptford Bridge)	6 per hour 6 per hour	East London line to Canada Water then Jubilee line	4 per hour but shorter journey time
London Bridge	6 per hour	Southern (services to London Bridge)	6 per hour peak / 4 per hour off peak
South Bermondsey	6 per hour 6 per hour	Southern (services to London Bridge) Bus P12 direct	6 per hour peak / 4 per hour off peak 6 per hour
Queens Road Peckham	6 per hour 6 per hour	Southern (services to London Bridge) East London Line direct Bus P12 direct	10 per hour peak / 8 per hour off peak 6 per hour
Denmark Hill	8 per hour peak / 6 per hour off peak	Southeastern services and East London Line direct	Up to 12 per hour peak / 10 per hour off peak
Clapham High Street	2 per hour	East London Line direct	4 per hour
Wandsworth Road	2 per hour	East London Line direct	4 per hour
Battersea Park	2 per hour Every few minutes	East London Line to Wandsworth Road then bus 452 or to Clapham Junction then Southern services to Battersea Park or SWT to Queenstown Road Bus 36/436 from Peckham High Street to Vauxhall, then bus 156/344	4 per hour Every few minutes

London Victoria	4 per hour Every few minutes	Southeastern (services from Bromley South/Dartford) direct Bus 36/436 from Peckham High Street direct	4 per hour Every few minutes
Clapham Junction and points beyond (currently change at Battersea Park and at Clapham Junction)	2 per hour	East London Line direct	4 per hour
Points in the West End beyond London Bridge (Currently change at Victoria)	4 per hour	Southeastern services via Victoria as now or Southeastern Thameslink route services via Elephant & Castle, Blackfriars or St.Pancras International as now	4 per hour

From Denmark Hill to : -	Current frequency	Alternative means of travel : -	New frequency
Canary Wharf (currently change at London Bridge)	2 per hour	East London line to Canada Water then Jubilee line	4 per hour
London Bridge	2 per hour 7-8 per hour (24 minute journey) 4 per hour	East London Line to Queens Road Peckham , then Southern services (from Tulse Hill). Bus 40 direct Or walk to East Dulwich and use Southern Tulse Hill line services direct	4 per hour 7-8 per hour (24 minute journey) 6 per hour peak 4 off peak
South Bermondsey	2 per hour	East London Line to Queens Road Peckham, then Southern services (from Tulse Hill). Or East London Line direct from Surrey Canal Road station (if built)	4 per hour 4 per hour
Queens Road Peckham	2 per hour	East London Line direct	4 per hour
Peckham Rye	2 per hour	East London Line direct	4 per hour
Clapham High Street	2 per hour	East London Line direct	4 per hour
Wandsworth Road	2 per hour	East London Line direct	4 per hour
Battersea Park	2 per hour	East London Line to Wandsworth Road then bus 452 or to Clapham Junction then Southern services to Battersea Park or SWT to Queenstown Road	4 per hour
London Victoria	4 per hour Frequent service	Southeastern (services from Bromley South/Dartford) direct Bus 185 direct	4 per hour Frequent service

Clapham Junction and points beyond (currently change at Battersea Park and at Clapham Junction)	2 per hour	East London Line direct	4 per hour
Points in the West End beyond London Bridge (Currently change at Victoria)	4 per hour 4 per hour peak / 2 off peak	Southeastern services via Victoria as now or Southeastern Thameslink route services via Elephant & Castle, Blackfriars or St.Pancras International as now	4 per hour 4 per hour peak / 2 off peak

From Clapham High Street to : -	Current frequency	Alternative means of travel : -	New frequency
Canary Wharf (currently change at London Bridge)	2 per hour	East London line to Canada Water then Jubilee line	4 per hour
London Bridge	2 per hour	Northern Line direct from Clapham North	Frequent service
South Bermondsey	2 per hour	East London Line to Queens Road Peckham, then Southern services (from Tulse Hill). Or East London Line direct from Surrey Canal Road station (if built)	4 per hour 4 per hour
Queens Road Peckham	2 per hour	East London Line direct	4 per hour
Peckham Rye	2 per hour	East London Line direct	4 per hour peak / 6 per hour off-peak
Denmark Hill	2 per hour	East London Line direct	4 per hour peak / 6 per hour off
Wandsworth Road	2 per hour	East London Line direct	4 per hour peak / 6 per hour off
Battersea Park	2 per hour	East London Line to Wandsworth Road then bus 452 or to Clapham Junction then Southern services to Battersea Park or SWT to Queenstown Road Or bus 137 direct from Clapham Common	4 per hour Frequent service
London Victoria	2 per hour Frequent service	Southeastern (services from Bromley South) direct in the off-peak and weekends or Northern Line from Clapham North to Stockwell then Victoria Line or East London Line to Clapham Junction then Southern services	2 per hour off-peak Frequent service 4 per hour

Clapham Junction and points beyond (currently change at Battersea Park and at Clapham Junction)	2 per hour	East London Line direct	4 per hour
Points in the West End beyond London Bridge (Currently change at Victoria)	2 per hour Frequent service	Southeastern services via Victoria in the off peak or Northern Line from Clapham North with interchanges at Stockwell, Kennington, Elephant & Castle, London Bridge, Bank and Kings Cross as now	2 per hour off –peak Frequent service

From Wandsworth Road to : -	Current frequency	Alternative means of travel : -	New frequency
Canary Wharf (currently change at London Bridge_	2 per hour	East London line to Canada Water then Jubilee line	4 per hour
London Bridge	2 per hour Frequent service	East London Line or Southeastern services to Peckham Rye then Southern service from Tulse Hill or walk Clapham North and get Northern Line direct Or bus 77 to Waterloo / bus 87 to Westminster and then Jubilee Line	4 per hour peak / 6 per hour off peak Frequent service
South Bermondsey	2 per hour	East London Line to Queens Road Peckham , then Southern services (from Tulse Hill). Or East London Line direct from Surrey Canal Road station (if built)	4 per hour 4 per hour
Queens Road Peckham	2 per hour	East London Line direct	4 per hour
Peckham Rye	2 per hour	East London Line direct	4 per hour peak / 6 per hour off-peak
Denmark Hill	2 per hour	East London Line direct	4 per hour peak / 6 per hour off
Clapham High Street	2 per hour	East London Line direct	4 per hour peak / 6 per hour off
Battersea Park	2 per hour	Bus 452 direct	4 per hour Frequent service
London Victoria	2 per hour Frequent service	Southeastern (services from Bromley South) direct in the off-peak and weekends or East London Line to Clapham Junction then Southern services	2 per hour off-peak Frequent service 4 per hour
Clapham Junction and points beyond (currently	2 per hour	East London Line direct	4 per hour

change at Battersea Park and at Clapham Junction)			
Points in the West End beyond London Bridge (Currently change at Victoria)	2 per hour Frequent service	Southeastern services via Victoria in the off peak or East London Line to Clapham Junction then Southern services Or buses 77/87 to Vauxhall for Victoria Line or bus 452 via Sloane Square / Knightsbridge	2 per hour off –peak Frequent service

From Battersea Park :-	Current frequency	Alternative means of travel :-	New frequency
London Bridge	4 per hour Frequent service	Southern service via Crystal Palace South West Trains service from Queenstown Road Battersea to Waterloo then Southeastern service from Waterloo East	2 per hour Frequent service
South Bermondsey	2 per hour	Southern service to Clapham Junction (or SWT service from Queenstown Road Battersea), then East London Line (direct if Surrey Canal Road built) or change at Peckham Rye to Southern service from Tulse Hill	4 per hour
Queens Road Peckham	2 per hour	Bus 452 to Wandsworth Road or Southern service to Clapham Junction (or SWT service from Queenstown Road Battersea), then East London Line Or bus 156/344 to Vauxhall then bus 36/436.	4 per hour Frequent service
Peckham Rye	2 per hour	Bus 452 to Wandsworth Road or Southern service to Clapham Junction (or SWT service from Queenstown Road Battersea), then East London Line Or bus 156/344 to Vauxhall then bus 36/436 to Peckham High Street	4 per hour Frequent service
Denmark Hill	2 per hour	Bus 452 to Wandsworth Road or Southern service to Clapham Junction (or SWT service from Queenstown Road Battersea), then East London Line	4 per hour

Clapham High Street	2 per hour	Bus 452 to Wandsworth Road or Southern service to Clapham Junction (or SWT service from Queenstown Road Battersea), then East London Line Or bus 137 to Clapham Common	4 per hour Frequent service
Wandsworth Road	2 per hour	Bus 452 direct	Frequent service
London Victoria	Frequent services	Southern services as now Bus 44 direct	Frequent services
Points in the West End beyond London Bridge (Currently change at Victoria)	Frequent services	Southern services as now	Frequent services

From London Victoria to : -	Current frequency	Alternative means of travel : -	New frequency
London Bridge	4 per hour Frequent service	Southern service via Crystal Palace District/Circle lines to Westminster, then Jubilee line	2 per hour Frequent service
South Bermondsey	2 per hour	Southeastern to Peckham Rye, then Southern service (from Tulse Hill)	At least 4-6 per hour
Queens Road Peckham	2 per hour 2 per hour Frequent service	Southeastern (services to Bromley South/Dartford) to Peckham Rye then Southern or East London line services or Southeastern services to Nunhead and then walk or Bus 36/436 direct	At least 4-6 per hour 4 per hour Frequent service
Peckham Rye	4 per hour	Southeastern (services to Bromley South/Dartford) direct Bus 36/436 to Peckham High Street direct	4 per hour
Denmark Hill	4 per hour Frequent service	Southeastern (services to Bromley South/Dartford) direct Bus 185 direct	4 per hour Frequent service
Clapham High Street	2 per hour Frequent service	Southeastern (services to Bromley South) direct in the off-peak and weekends or Victoria Line to Stockwell then Northern Line to Clapham North or Southern services to Clapham Junction then East London Line	2 per hour off peak Frequent service 4 per hour

Wandsworth Road	2 per hour	Southeastern (services to Bromley South) direct in the off-peak and weekends or Southern services to Clapham Junction then East London Line	2 per hour off peak 4 per hour
Battersea Park	Frequent services	Southern services as now Bus 44 direct	Frequent services