

SILVERTOWN TUNNEL

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Silvertown Tunnel

Bus Strategy

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List of Abbreviations

DCO	Development Consent Order
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Glossary of Terms

Assessed Case	Scenario adopted for assessment of likely effects of the proposed scheme, in the context of central forecasts of transport conditions and with user charges set so as to balance the Scheme's traffic, environmental, socio-economic and financial objectives.
Excess Wait Time (EWT)	The time waited in excess of the average scheduled wait time e.g. when waiting for a bus service.
ULEZ (Ultra Low Emission Zone)	A zone in central London where a daily charge applies for vehicles not meeting specified emissions standards

1. INTRODUCTION

1.1 Buses and the Scheme

- 1.1.1 As described in the Case for the Scheme, while the cross-river network in west London is well-established and comprehensive, the limited number, constrained dimensions, and poor performance of highway crossings in the east of London mean the eastern cross-river network consists of a single route. The Silvertown Tunnel will greatly improve this situation by providing a link which increases capacity, reliability and resilience and a lane dedicated to buses and heavy vehicles.
- 1.1.2 Given the location of the Silvertown Tunnel in the most rapidly-growing part of London, and the pressing need to encourage more sustainable forms of travel for the benefit of local communities and the environment, the Scheme offers an almost unique opportunity for a step-change in bus provision and patronage.
- 1.1.3 The new tunnel will be able to accommodate double deck buses and will enable additional routes and services. It will also improve the existing 108 service through the Blackwall Tunnel by making journey times shorter and more reliable.
- 1.1.4 This Bus Strategy ensures that TfL makes the most of this opportunity from the start.

1.2 Purpose of this document and context

- 1.2.1 On becoming Mayor of London in 2016, Sadiq Khan undertook a review of TfL's approach to river crossings in east London. In concluding this review, the Mayor affirmed his support for the Scheme, with a commitment to capitalise upon the excellent opportunities it provides to enhance bus services.
- 1.2.2 This commitment is set out in TfL's Business Plan¹:

At present, east London is poorly served by river crossings, which restricts transport options on this side of the city. We will tackle this, starting with

¹ Business Plan, 2016, TfL (REP3-026) (page 17)

the Silvertown tunnel, which is due to open in the early 2020s. As part of the Mayoral review of east London river crossings, we are committed to delivering the fundamental change in new cross-river bus services that the Silvertown Tunnel enables, and offering concessions to local residents to encourage take-up.

- 1.2.3 The enhancements to the Scheme which the Mayor proposed have been included as commitments in this Bus Strategy, in section 2.2.
- 1.2.4 This Bus Strategy sets out:
- Commitments to implement measures to support and enhance cross-river bus services.
 - A commitment to a minimum level of bus service that will be provided through the tunnels for an initial period.
 - The objectives TfL will adopt in developing cross-river bus services.
 - How TfL will involve STIG members and the relevant boroughs in planning and delivering the improved bus services enabled by the Scheme.
- 1.2.5 The commitments which TfL is making in this Strategy are numbered and shown in boxes in the remainder of this document, as are the Objectives which will be used in developing the bus network. These have been informed by the Mayoral Review, the Project Objectives and the Convergence Agenda.
- 1.2.6 The approach set out in this Strategy has been developed with regard to feedback received from the local boroughs throughout the DCO examination.
- 1.2.7 The commitments contained within this Strategy are secured by the ‘cross river bus services’ requirement in Schedule 2 to the DCO which provides that TfL must provide bus services in accordance with the Bus Strategy.
- 1.3 Buses can help to achieve the Project Objectives and the Convergence Agenda**
- 1.3.1 Buses will make an important contribution to achieving the Project Objectives (POs) for the Scheme (see Appendix A). In particular, they can help to support the significant population and economic growth which is forecast for east and south east London in the coming years (which is

referenced in PO3). In developing bus services, TfL will refer to the Project Objectives in order to optimise the benefits across a range of measures.

- 1.3.2 Because the Scheme is located in east London, the Convergence Agenda is also an important consideration in how the bus services are developed. The Convergence Strategy² which was agreed by leaders of the six Growth Boroughs³ (including all the host boroughs) in the context of the London 2012 Olympic and Paralympic Games sets out the ambition that:

Within 20 years the communities who host the 2012 Games will have the same social and economic chances as their neighbours across London

- 1.3.3 The Convergence Agenda has three themes, with associated convergence indicators:

- creating wealth and reducing poverty;
- supporting healthier lifestyles; and
- developing successful neighbourhoods.

- 1.3.4 It notes the lack of river crossings in east London as a barrier to an even spread of job and population growth in the area and London as a whole, and recognises the importance of public transport as a means to improve socio-economic conditions locally. The disparity in cross-river bus services in east London compared to central and west London was also noted in the Case for the Scheme⁴ and analysis of the forecast population, employment and trips in east London in 2021 suggests that an enhanced level of service would be appropriate at the Blackwall and Silvertown Tunnels in future⁵.

- 1.3.5 The commitments in this Strategy will help ensure that buses can help to achieve both the Project Objectives and the Convergence Agenda.

1.4 The Bus Strategy, the Charging Policies and Procedures and the Monitoring and Mitigation Strategy.

² Convergence Strategy and Action Plan 2015-18

³ LB Barking and Dagenham, RB Greenwich, LB Hackney, LB Newham, LB Tower Hamlets, LB Waltham Forest

⁴ Case for the Scheme, TfL, 2016 (APP-093) page 38.

⁵ Silvertown Tunnel Bus Strategy Appendix A of Response to ExA's FWQs on Principles and nature of the development (REP1-178)

1.4.1 This Bus Strategy interacts with the Monitoring and Mitigation Strategy (M&MS) and the Charging Policies and Procedures (CPAP).

1.4.2 The main functions of the three documents are as follows:

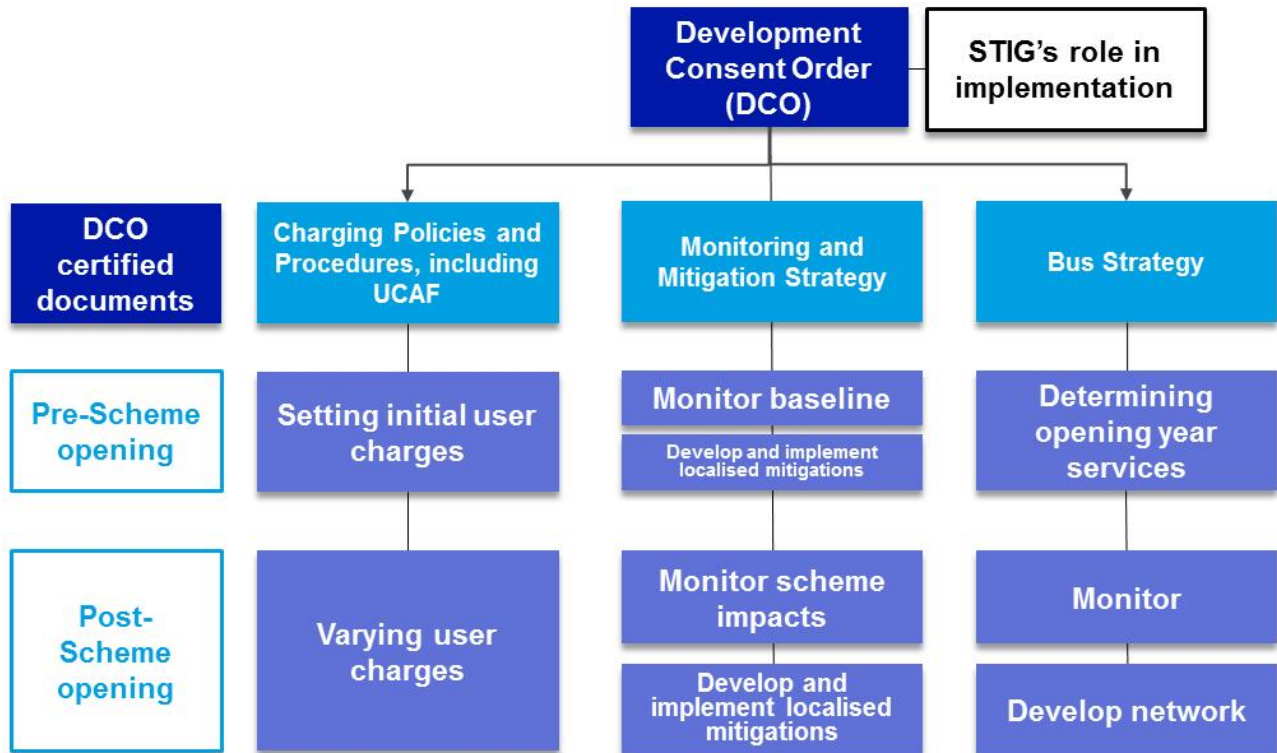
- Charging Policies and Procedures –sets out the principles according to which TfL must set and vary the user charges and the procedures that apply when doing so.
- Monitoring and Mitigation Strategy – sets out the scope of monitoring of Scheme impacts that TfL will undertake and the processes for determining and implementing appropriate mitigation for any localised traffic and traffic-related impacts.
- Bus Strategy – sets out the commitments which TfL will fulfil in developing bus services prior to Scheme opening and in reviewing and modifying services.

1.4.3 Compliance with the obligations in each of these documents is secured by requirements in Schedule 2 to the DCO and, in the case of the Charging Policies and Procedures, by article 52 of the DCO.

1.4.4 The DCO provides a role for members of the Silvertown Tunnel Implementation Group (STIG) in relation to the operation of each of these documents. The role and responsibilities of STIG are explained in each of these documents.

1.4.5 The functions of the three documents are illustrated in Figure 1-1 below.

Figure 1-1: The relationship between the Charging Policies and Procedures, Monitoring and Mitigation Strategy and the Bus Strategy



1.4.6 The M&MS applies from three years prior to the Scheme opening for public use and for three years following the Scheme opening for public use, with the potential to be extended by a further two years. The Bus Strategy and the Charging Policies and Procedures apply for the life of the Scheme.

1.5 Pre-opening procedures

1.5.1 Prior to the Silvertown Tunnel opening for public use, TfL must refresh its assessment of Scheme impacts, in order to:

- Set the opening user charges;
- Define the requirement for and form of localised mitigation for residual effects; and
- Specify the bus network through the Silvertown Tunnel that will operate on opening.

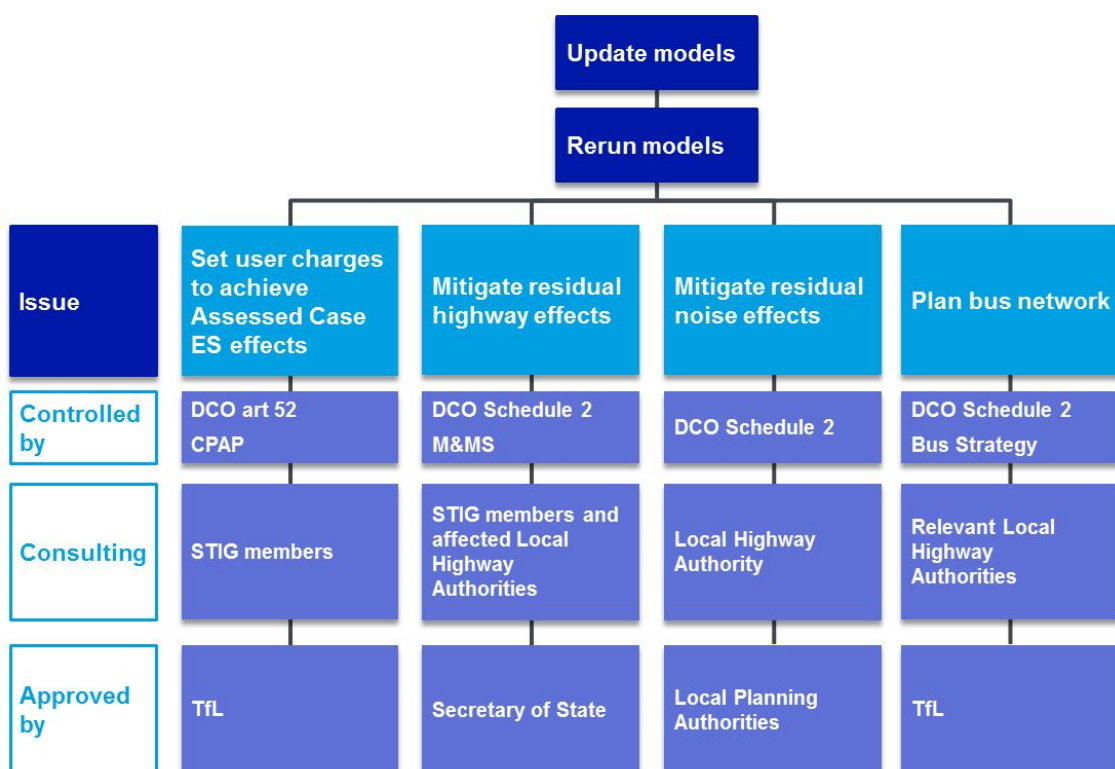
1.5.2 For this process TfL will update the relevant transport and environmental models, rerun those models, and develop its proposals for each element in conformity with the commitments, policies and procedures set out in the

relevant certified documents and any DCO requirements. The assessment will incorporate a wider range of analyses than the modelling alone.

1.5.3 Because there are interactions between each of these elements, TfL must ensure that they are developed and considered in light of one another.

1.5.4 Figure 1-2 below summarises the elements of the process and the governance arrangements applying to each.

Figure 1-2: Process for implementing the Bus Strategy in the context of the M&MS and the CPAP



1.5.5 This approach ensures that opening user charges, mitigation measures and the opening bus network are based on the most up to date information that is available before the Scheme opens.

1.5.6 This will result in a better outcome than specifying these aspects of the Scheme now, for the following reasons:

- The Scheme is still a number of years from implementation, with an expected opening date of 2023;

- Significant growth is expected across east and south-east London over the next few years, which could materially change background conditions (there is an inherent degree of uncertainty regarding the pace of this growth). As set out in Chapter 5 of the Transport Assessment, across the Silvertown Tunnel host boroughs (Greenwich, Newham and Tower Hamlets) the forecast growth rate in population and employment in the period to 2021 is more than double the London average;
 - Linked to this growth, the road network in this part of London is especially dynamic and will change and evolve between now and Scheme opening (with several schemes in the vicinity of the tunnels being actively considered although not presently committed; for example, Cycle Superhighway 4 and the Bow Vision scheme).
- 1.5.7 The refreshed assessment will not ‘replace’ the assessment which was used to identify the likely significant effects of the Scheme in the Environmental Statement (ES). Rather, it will enable TfL to have the benefit of the most up-to-date data when setting the initial user charges and identifying any implementing any mitigation measures that are necessary before the Scheme opens.
- 1.5.8 The Monitoring and Mitigation Strategy concerns the mitigation of residual traffic-related local effects identified as part of the refreshed assessment process undertaken prior to Scheme opening. If, through the refreshed assessment, the need for localised traffic-related mitigation measures is identified, TfL will develop these measures in consultation with STIG members and submit them to the Secretary of State for approval. TfL must then implement the approved measures before the Silvertown Tunnel opens for public use, or provide funding for the relevant local highway authority to implement them.
- 1.5.9 Any measures required to mitigate residual noise impacts will be submitted for the approval of the local planning authority in accordance with the noise mitigation requirement in Schedule 2 to the DCO.
- 1.5.10 The data from the refreshed assessment will be used by TfL when setting the initial user charges. As these charges will have a direct bearing on the extent and scope of any mitigation measures required, it is important that any mitigation for residual effects is set in the context of these charges.
- 1.5.11 This Bus Strategy sets out the Applicant’s commitments in relation to cross-river bus services, including the objectives for those services, the measures

that must be taken to support those services, the processes TfL must follow in developing the bus network, and the process for engaging with the relevant local authorities.

1.6 TfL's duties with regard to providing bus services

1.6.1 TfL has statutory duties with regard to bus provision. The bus network is kept under regular review and, from time to time, service changes (ranging from minor diversions to changes in frequency and the addition of entirely new routes) are consulted on and implemented⁶.

1.6.2 The Greater London Authority Act 1999 sets out TfL's duties in this regard, including:

- discharging the Mayor's general transport duty (section 141),
- the provision of public passenger transport services (section 173); and
- obligations specific to the London bus network (sections 181 to 183).

1.6.3 A requirement to consult with affected boroughs and others on variations or additions to the bus network is set out in section 183 of the GLA Act. At any given time, several bus consultations are typically underway (there were eight ongoing on 12 January 2017) and the public as well as stakeholders are given an opportunity to comment.

1.6.4 This obligation to keep the bus services under review is also set out in Proposal 23 of the MTS⁷:

The Mayor, through TfL, and working with the London boroughs and other stakeholders, will keep the development of the bus network under regular review, including reviews of the strategic priorities underlying the process approximately every five years, to ensure it caters for growth in population and employment, while maintaining ease of use, attractive frequencies and adequate capacity, reliable services, good coverage and good interchange with other modes. All proposals for change will be appraised

⁶ These changes are published on TfL's website several times per year: www.tfl.gov.uk/modes/buses/bus-service-changes?intcmp=43300

⁷ Mayors Transport Strategy, GLA, 2010

to ensure that they deliver good value for money and that the funds available are being invested in optimum service improvements.

- 1.6.5 Bus services are funded from fare revenues, a revenue grant from central government (which will be removed by 2018/19) and contributions from developers negotiated via section 106 agreements. A fares freeze has been implemented by the Mayor until 2020.
- 1.6.6 In this financial context, it will continue to be important to secure developer contributions to bus service development via section 106 agreements. Contributions made in this way are expected to be particularly important in east and south east London, given the scale of expected development in this sub-region.
- 1.6.7 The rapidly-changing local context also means that it is not possible to specify, years in advance of Scheme opening, precisely which developments may come forward and what opportunities these might offer in terms of helping to secure bus services. However, it does mean that there are likely to be considerable opportunities to secure this type of funding in future, and by linking services to development, that the services provided will closely match the emerging demand.
- 1.6.8 TfL uses Bus Service Planning Guidelines (BSPG)⁸ in developing London's bus network. These set out TfL's objectives and approach in planning London's bus network to efficiently meet passenger demand. These guidelines can be summarised as follows:

- **The frequent network**

Where justified by demand, services should be designed so that passengers can use the network without the need to consult a timetable before travelling, with the ability to 'turn-up-and-go'. This means one bus every 12 minutes i.e. five buses per hour (bph).

- **The reliable network**

Unreliable and unpredictable public transport can be a source of significant additional cost to both business and public services. If people are unable to predict their travel times and arrive at, for

⁸ <http://content.tfl.gov.uk/bus-service-planning-guidelines.pdf>

example, work or to health appointments on time, then those businesses and services will incur additional costs of this disruption.

- **The simple network**

The network should be designed so that the service pattern on each route is as simple as possible.

- **The comprehensive network**

A comprehensive network should be provided ensuring that people have access to their local amenities such as shops, hospitals, schools and transport interchanges.

- **The cost effective network**

Demand for travel changes over time, for example as homes are built, shopping patterns change, or people change their mode of travel. There is a constant check that resources are being allocated to the service patterns that best reflect overall travel needs and the amount of money available at any given time. This maintains the sustainability of the network.

1.6.9 These Guidelines recognise the importance of a flexible and responsive approach:

[...] bus network development must be a continuous process, responsive to London's changing transport needs and led by the priorities of passengers and potential passengers and the actual usage made of the network.

1.6.10 These Guidelines will be applied in developing the bus network for the Scheme.

2. COMMITMENTS TO SUPPORT BUSES

2.1 Buses as a key benefit of the Scheme

- 2.1.1 TfL is committed to providing a step-change in cross-river public transport to capitalise on the opportunities presented by the Scheme.
- 2.1.2 The new bus services will provide an affordable and accessible alternative to private car travel. In addition they will provide new services which are more reliable and have reduced journey times. These will represent a considerable improvement on the single route (108 Stratford International station-Lewisham station) which is currently available through the Blackwall Tunnel, and is capacity-constrained and unreliable.
- 2.1.3 This strategy will secure the provision of bus services which are particularly important in securing access to jobs and services and in enabling active travel. They can also help to mitigate the environmental impacts of transport, because they are a sustainable mode and offer the opportunity to deploy lower-emission vehicles. In planning bus services for the Scheme, TfL will develop the bus services to support the achievement of the Project Objectives and the Convergence Agenda, as set out in the Commitments in the following sections.

2.2 Measures to support and enhance bus services

- 2.2.1 The Silvertown Tunnel scheme contains a number of measures to support and enhance the role of buses in cross-river travel in the east of London.
- 2.2.2 Among these is a commitment to a resident concession on cross-river bus services, as announced by the Mayor in October 2016. This measure will be of particular benefit in light of the magnitude of the change in bus services which is envisaged, helping to ensure that existing and potential passengers become familiar with new bus services. TfL will provide £2m in funding for concessionary bus travel to residents of the host boroughs once the Scheme is open. The details of how this funding is used will be discussed with the host boroughs prior to the Scheme opening.
- 2.2.3 By making it easy to use the new routes and services TfL can help to change behaviour so that a cross-river journey by bus becomes accessible and attractive from the start for residents. This will help to embed sustainable travel behaviour in the long term.

Commitment 1: TfL must provide £2m in funding for concessionary bus travel to residents of the London Boroughs of Newham and Tower Hamlets and the Royal Borough of Greenwich for a period after the Silvertown Tunnel opens for public use

- 2.2.4 A further important commitment, in recognition of their importance as a sustainable transport mode, is that the user charges that apply when the Scheme opens for public use will provide for a 100% discount for buses. This will also apply to coaches.

Commitment 2: the initial Statement of Charges prepared in accordance with the Charging Policies and Procedures will provide for a 100% discount for public service buses

- 2.2.5 Buses are also provided for within the physical design of the Scheme. One lane of the tunnel in each direction will be designated as a bus, coach and HGV lane. This will increase safety for all users as well as providing priority for these permitted vehicles.
- 2.2.6 Commitment 3: for the duration of the monitoring period, buses, coaches and heavy vehicles will have a dedicated lane in the Silvertown Tunnel. After the expiry of the monitoring period, TfL must maintain the bus lane in the Tunnel to the extent that it is necessary or expedient to achieve the Project Objectives. The 'monitoring period' referred to in Commitment 3 means a period of not less than three years commencing on the date the Silvertown Tunnel opens for public use. The monitoring period may be extended by TfL for up to two years if this is deemed necessary following consultation with the members of STIG. See section 3.4 of the Monitoring and Mitigation Strategy.
- 2.2.7 TfL believes the bus lane will need to be retained in the tunnel as a long term measure to assist with achieving the Project Objectives and cannot envisage a time when the bus lane would not be retained. If TfL wished to remove or amend the bus lane provisions in the future it would need to make an order under the Road Traffic Regulation Act 1984. The statutory procedures for making any such order require TfL to consult with any borough which is the highway authority or traffic authority for a road on which traffic is likely to be affected by the order. In addition to those procedures, TfL will undertake an assessment of the likely effects of removing the bus lane and will consult affected highway authorities on the proposals, prior to making any order.
- 2.2.8 The supporting measures will also contribute to a more environmentally-friendly Scheme. From 2018, TfL will purchase only hybrid or zero emission

double deck buses, and is seeking to phase out diesel buses⁹. A central London ULEZ will apply from 2020 and TfL will be consulting (in 2017) on a potential expansion of the zone, which requires all vehicles to meet emissions standards or pay a daily charge to travel.

- 2.2.9 The Silvertown Tunnel will be one of London's new Low Emission Bus Zones¹⁰, meaning buses will have to meet the Euro VI or equivalent standard, and that opportunities for bus priority will also be sought. This standard leads to a significant reduction in NO_x emissions compared to previous standards¹¹.

Commitment 4: TfL must ensure that any bus ordinarily using the Silvertown Tunnel as part of a London local service must comply with the Euro VI emissions limits or with equivalent emissions standards.

“Euro VI emissions limits” means the emissions limits for heavy duty vehicles set out in Annex I to Regulation (EC) No 595/2009 of the European Parliament and of the Council (as amended by Annex XV of Commission Regulation (EU) No 582/2011)

⁹ TfL Business Plan 2016, page 17

¹⁰ www.london.gov.uk/press-releases/mayoral/mayor-announces-10-new-low-emission-bus-zones

¹¹ For a discussion, see Appendix 7 (REP3-032) of the Written Summary of the ISH on 18 January 2017

3. DEVELOPING A BUS NETWORK

3.1 Developing a network that optimises the opportunities brought by the Scheme

3.1.1 For the DCO application, TfL developed an indicative bus network which demonstrated that the Scheme could facilitate a very substantial increase in bus provision across the river in this location. The indicative network assumed for the purposes of the Assessed Case represents a combined service level of 37.5 buses per hour in each direction including the existing 108 through the Blackwall Tunnel.¹²

3.1.2 Given that east and south east London are developing rapidly, TfL also stated that it would undertake further refinements to this indicative network closer to Scheme opening. Local boroughs and other stakeholders have made many suggestions related to possible routes since TfL put forward this indicative network.

3.1.3 The potential for the Scheme to transform cross-river bus services in east London is a key part of its benefits. In order to ensure that the best use is made of this opportunity, TfL noted that the bus network would need to be refined closer to scheme opening:

While it is useful to show indicative routes now, east London is undergoing significant change and it is appropriate to confirm services nearer to the Scheme opening to ensure that they best serve the area. As for all TfL's bus route changes, these proposals would be subject to consultation. The Silvertown Tunnel Implementation Group (STIG) would also have a role in reviewing proposals for cross-river bus services and making recommendations to TfL¹³.

3.1.4 The following commitments in this Bus Strategy sets out how these routes will be developed, and incorporate TfL's existing statutory duties, the BSPG and a set of commitments specific to the Scheme. It also describes how STIG members will be involved in this development. Data from the

¹² See Appendix F of the Transport Assessment (Document 6.5, APP-087)

¹³ Case for the Scheme, TfL, 2016 (Document Reference 7.1), para 6.3.13

monitoring carried out in accordance with the Monitoring and Mitigation Strategy will be an important input in developing the bus network over time.

3.2 The importance of flexibility

- 3.2.1 Buses are a highly flexible mode and it is important – for reasons of value for money, environmental impact and to optimise benefits for users – that they are appropriately adapted to the prevailing circumstances. Additionally, and particularly in the context of constrained financial circumstances, providing unsustainable services could duplicate services or take public funding streams and, as a result, reduce opportunities for services elsewhere, so it is critical that there is a good fit between demand and service provision.
- 3.2.2 It is also important to ensure that the infrastructure which is needed to enable bus services – for example appropriate bus stations and stands – are available, which in part relies on the boroughs and needs to be planned over time. TfL will work with the boroughs to develop these facilities.
- 3.2.3 This flexible approach is typical of bus service provision. London is always changing and TfL has a duty to respond to this in its transport planning. (For reference, evidence of changes to bus provision in the past year, made in anticipation of changes including the introduction of the Night Tube and other major developments, is set out in Appendix B).
- 3.2.4 It will also be important to take advantage of opportunities to utilise section 106 agreements as a means of funding bus services where possible. Guaranteeing specific services well ahead of Scheme opening could undermine those opportunities. As developments come forward across east and south east London, this will be an increasingly important source of funding, and will also serve to inform the location and frequency of services to be provided.

3.3 Commitment to a minimum level of bus services

- 3.3.1 An assessment of the outputs of the Assessed Case demonstrates that the expected demand in the Scheme's opening year could be accommodated with a level of service below the 37.5bph which was assumed for the duration of the Assessed Case appraisal period. Accordingly, the 'cross river bus services' requirement in Schedule 2 to the DCO imposes a minimum level of bus service which TfL must provide through the Blackwall and Silvertown Tunnels for the duration of the initial monitoring period. The bus services must not fall below the minimum level of service specified in the

DCO and TfL expects that service levels will reach and potentially exceed 37.5bph in the following years, commensurate with forecast levels of growing of demand.

Commitment 5: TfL must secure the provision of not less than the minimum level of bus services specified in the 'cross river bus services' requirement in Schedule 2 to the DCO for the duration of the monitoring period.

- 3.3.2 The 'monitoring period' referred to in Commitment 5 means a period of not less than three years commencing on the date the Silvertown Tunnel opens for public use. The monitoring period may be extended by TfL for up to two years if this is deemed necessary following consultation with the members of STIG. See section 3.4 of the Monitoring and Mitigation Strategy.
- 3.3.3 As set out in section 1.5 above, TfL will undertake a refreshed assessment of the Scheme's impacts prior to opening and will use this to inform the setting of the user charges, localised mitigations and the bus network. This will take place around two and a half years before the Scheme opens.
- 3.3.4 TfL will review the demand for bus services as part of the refreshed assessment to ensure the appropriate level of service is provided at the time the Scheme opens for public use. Thereafter, TfL will keep the level of bus services under review in accordance with its statutory duty under the GLA Act.

Commitment 6: TfL must keep the bus services through the tunnels under review and must secure the provision of bus services in accordance with the objectives set out in section 3.5 of this Bus Strategy.

- 3.3.5 The commitment to a minimum level of service for the initial monitoring period is made with the expectation that these bus services would be monitored and increased as demand grows. GLA forecasts are that London will grow by around 1.2m people between 2011 and 2031. The boroughs in the east and south east sub-regions are expected to accommodate 37 per cent of this growth, and the three Silvertown Tunnel host boroughs plus the London Borough of Barking and Dagenham, to accommodate 23 per cent of London's growth. In this context, it is very likely that there will be a rapid increase to bus services in the years following Scheme opening.
- 3.3.6 Given the commitment to a minimum service level in Schedule 2 to the DCO, and the expected increase in this service level over time, it is important to set out a robust approach for developing bus services for the Silvertown Tunnel. This is set out below.

3.4 Proactive planning of services with relevant boroughs and STIG members

- 3.4.1 TfL uses its established Bus Service Planning Guidelines (BSPG)¹⁴ in order to ensure that the network is responsive and appropriate for achieving the goals of the MTS. These guidelines set out that the network should be frequent, simple, reliable, comprehensive and cost-effective and they set out how proposals will be appraised on this basis. BSPG will be used in developing the network for the Silvertown Tunnel.
- 3.4.2 It is important that bus service planning is timely. TfL is already required to consult with relevant local authorities on proposed changes to bus services (described in section 1.6). In addition to that requirement, this Strategy enables relevant boroughs to influence bus planning ahead of this formal route planning process (for example by highlighting aspirational development) as well as being able to review TfL's proposals. STIG will be the main forum for this engagement with relevant boroughs.
- 3.4.3 The consultation with STIG members carried out under Commitment 7 will take place in advance of TfL discharging its statutory duty under section 183 of the GLA Act 1999 to consult affected local authorities on proposed changes to bus services.

Commitment 7: Prior to the Silvertown Tunnel opening for public use TfL will consult with STIG members on its outline proposals with regard to the bus network.

- 3.4.4 It is also important that the approach to planning bus services fully capitalises on the exceptional opportunity which arises from the Silvertown Tunnel. The opening up of entirely new transport connections can pose challenges for demand forecasts, because existing data may not fully reflect the nature and level of potential demand for new and changed services. In this context it may be appropriate to take a more flexible approach in planning services than is normally applied.
- 3.4.5 TfL recognises the potential role of pump-priming for service enhancements, provided these enhancements appear capable of meeting the TfL criteria for

¹⁴ <http://content.tfl.gov.uk/bus-service-planning-guidelines.pdf>

subsidy by the end of the sponsorship term, and make an effective contribution to the transport network¹⁵.

Commitment 8: Bus service planning will commence not less than 2 years prior to Scheme opening, using TfL's Bus Service Planning Guidelines

- 3.4.6 The DCO application contains several additional proposals to enhance bus priority which will be implemented as part of the Scheme, including:
- a bus-only link on tunnel Avenue for buses to join the A102 Blackwall Tunnel Approach northbound
 - a dedicated bus only exit slip to allow access to North Greenwich Bus station for southbound buses via Millennium Way.
- 3.4.7 As part of its ongoing development of the bus network, TfL has been undertaking work in partnership with boroughs in the east and south east subregion to identify how bus priority investment can be used to cater for future growth.
- 3.4.8 Further opportunities to implement bus priority will be sought and will be an important part of the discussions with boroughs to ensure appropriate measures are identified so that journey times and reliability are optimised for new services that use the Scheme.

Commitment 9: TfL will work with STIG members to seek opportunities to implement bus priority measures on the network around the Silvertown Tunnel, for example by undertaking bus priority studies

3.5 Objectives to inform the approach

- 3.5.1 In addition to the Bus Service Planning Guidelines, TfL will adopt a series of specific objectives to guide the development of the bus network.
- 3.5.2 These objectives relate to the Project Objectives for the Silvertown Tunnel (the POs) and also to the priorities of the local authorities in the nearby area.

Public Transport User Benefits

¹⁵ Route Sponsorship Agreements - General Information for Developers and Planning Authorities, TfL, 2013

- 3.5.3 As stated in section 3.1 above, TfL developed an indicative bus network for inclusion in the Assessed Case. Based on this indicative network, the benefits of the Scheme over a 60-year period, including public transport benefits, were appraised. This is set out in the Economic Appraisal Report (Document Reference 7.8.1) in Chapter 5.

Objective 1: In developing cross river bus services TfL will seek to deliver the public transport economic benefits of the Scheme as set out in the Assessed Case for the 60-year appraisal period.

Employment

- 3.5.4 The bus network is important in supporting access to jobs, especially for the 45% of residents in the Host Boroughs who do not have access to a car. Projected employment and population growth in the area show that there is likely to be substantial demand for cross-river bus travel. In planning bus services TfL will take account of local needs and aspirations.

Objective 2: TfL will bring forward a network of bus services which seeks to optimise opportunities for residents of the Growth Boroughs to access employment, including increased service frequencies, capacity and connectivity. In planning services, TfL will seek to improve access in areas of deprivation.

Opportunities and convergence

- 3.5.5 The benefits of the Scheme accrue disproportionately to low income groups in the local boroughs, largely owing to the enhanced bus services which the Scheme enables. TfL commits to optimising these opportunities in order to deliver these benefits.

Objective 3: In planning cross-river and adjacent bus services, TfL will seek to support the achievement of the Project Objectives and the Convergence Agenda

Health, accessibility, and active travel

- 3.5.6 Both the Convergence Agenda and the Project Objectives recognise the importance of the health and wellbeing of local communities. In 2014, TfL launched a Transport Action Plan¹⁶ to improve the health of Londoners. As well as putting in place healthy streets and encouraging low emission vehicles, facilitating a greater use of public transport is an effective way of increasing physical activity and thereby improving health, because more than two thirds of public transport trips involve a walking trip of 5 minutes or more. By enhancing bus services, walking opportunities are also increased. The enhancements to public realm that TfL has committed to as part of the Scheme, together with the development and borough-related improvements to the area can also help to facilitate this.
- 3.5.7 Buses will continue to be a highly accessible mode, meaning that they are a critical part of the network for disabled people and older people. By making good connections with other parts of the network which are also accessible, including much of the Jubilee line, the DLR and forthcoming Crossrail stations, we can enhance the opportunities available.

Objective 4: In planning bus services, TfL will seek to optimise opportunities for complementary active travel and for accessible connections, for example good walking routes to bus stops

3.6 Monitoring and Review

- 3.6.1 In order for the bus services to remain effective and beneficial in the long-term, TfL will monitor their performance and make changes from time to time in accordance with its statutory duty under the GLA Act.
- 3.6.2 TfL will collect and analyse data from the operation of the Scheme (and in advance of Scheme opening) in order to inform this review, and may also use data from third parties.
- 3.6.3 Given that bus services will be particularly important for low-income groups, it is appropriate for this monitoring to include socio-economic effects. TfL and STIG members will consider this data in the planning and operation of bus services. The indicative Monitoring Plan (at Appendix A of the Monitoring

¹⁶ <http://content.tfl.gov.uk/improving-the-health-of-londoners-transport-action-plan.pdf>

and Mitigation Strategy) contains a range of potential data sources for this approach.

Commitment 10: TfL and STIG members will consider socio-economic monitoring and information in assessing bus services.

- 3.6.4 The Monitoring Plan also contains a number of metrics related to buses operating through and near the Silvertown Tunnel, including excess wait times, patronage levels, and bus journey times. Data from this monitoring would be provided to STIG on a regular basis. Members of STIG can also recommend that additional monitoring be undertaken.

Commitment 11: TfL will collect monitoring data on cross-river bus performance and use this to modify services in order to maintain the continued achievement of the Project Objectives.

- 3.6.5 TfL's usual monitoring and publication of performance data¹⁷ related to the bus network would apply in parallel to and beyond the duration of the Monitoring and Mitigation Strategy.

¹⁷ Bus performance data is published on TfL's website: www.tfl.gov.uk/corporate/publications-and-reports/?Category=Performance&Mode=Buses

APPENDIX A: PROJECT OBJECTIVES

- PO1: to improve the resilience of the river crossings in the highway network in east and southeast London to cope with planned and unplanned events and incidents;
- PO2: to improve the road network performance of the Blackwall Tunnel and its approach roads;
- PO3: to support economic and population growth, in particular in east and southeast London by providing improved cross-river transport links;
- PO4: to integrate with local and strategic land use policies;
- PO5: to minimise any adverse impacts of any proposals on communities, health, safety and the environment;
- PO6: to ensure where possible that any proposals are acceptable in principle to key stakeholders, including affected boroughs; and
- PO7: to achieve value for money and, through road user charging, to manage congestion.

APPENDIX B: Examples of changes to bus services since the beginning of 2016

1. Introduction of the Night Tube at weekends (2016)

- Phased introduction late summer and winter 2016¹⁸, following public consultation
- Changes include revisions and extensions to existing day and night services and the introduction of new services
- Eight new weekend 24-hour bus routes for first phase¹⁹
- Additional night services from October 2016²⁰
- Further night services from winter 2016²¹

2. East London Transit (2016-17)

In response to the Barking Riverside development and continued growth in this area, TfL consulted on the extension of route EL1 and the conversion of route 387 to East London transit (EL3) changes to EL2 routing and frequency increases to EL1 and EL2. These changes will be introduced in 2017.

3. Central London services (ongoing)

Consultation underway on changes to some 23 bus services in advance of the opening of the Elizabeth Line and the proposed changes to Oxford Street.

4. Changes in response to development (2016-17 and ongoing)²²

Route 436 (Lewisham to Battersea Park Station) now diverts at Vauxhall to serve the major developments emerging at Vauxhall Nine Elms Battersea (VNEB).

¹⁸ Central and Victoria lines 19 August; Jubilee line 7 October; Northern line 18 November; Piccadilly line 16 December (all later than planned owing to industrial action)

¹⁹ 34 (Barnet Church to Walthamstow Central), 123 (Ilford High Road to Wood Green), 145 (Leytonstone to Dagenham), 158 (Stratford to Chingford Mount), 296 (Ilford Broadway to Romford), E1 (Greenford Broadway to Ealing Broadway), W3 (Finsbury Park to Northumberland Park), W7 (Finsbury Park to Muswell Hill Broadway).

²⁰ 114 Mill Hill to Ruislip Station, 183 Golders Green to Pinner

²¹ 307 Barnet Hospital to Brimsdown, 319 Sloane Square to Streatham Hill, H32 Hounslow to Southall

²² TfL publishes a regular summary of recently implemented and planned changes to bus services on its website: <https://tfl.gov.uk/modes/buses/bus-service-changes?intcmp=43300>

Route 452 (Kensal Rise –Vauxhall) was extended to increase capacity along Wandsworth Road, owing to a housing development currently under construction.

A new route 483 (Ealing Hospital – Harrow) was brought in as part of a major scheme in autumn 2016 to increase capacity in Wembley.