

Meeting title:	Silvertown Tunnel Implementation Group Meeting #04
Date & time:	30 September 2021, 0930-1100
Location:	Virtual meeting hosted on MS Teams

Item:
<ol style="list-style-type: none">1. Introductions and welcome (All)2. Review of actions from previous meeting on 27 May 2021 (TfL)3. Safety, Health and Environment (All)4. Project update (TfL)5. Update and look ahead on refreshed assessment (Lot A) (TfL/Jacobs)6. Socio-economic monitoring surveys (Lot C) (TfL)7. Final traffic monitoring plan (Lot D) (TfL)8. Other relevant updates (All)9. Obligations and forward meeting planner (All)10. Next steps and AOB (All)

Item 4



Silvertown Tunnel Implementation Group

Update report
30 September 2021

MAYOR OF LONDON

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STIG administration

Remit of STIG

The Silvertown Tunnel Implementation Group (STIG) has been established under the terms of the Silvertown Tunnel Order 2018 (the Development Consent Order, or DCO), available here:

<https://www.legislation.gov.uk/ukxi/2018/574/contents>

Article 66 of the DCO sets out details of the group, the bodies that are represented on the group and the matters on which TfL must consult STIG. In summary, these matters concern the following two activities:

- Undertaking an updated or 'Refreshed Assessment' of the scheme's impacts when operational, to inform the user charges, changes that will be made to the bus network and any mitigation measures that may be required
- Monitoring the scheme's traffic, environmental and socio-economic effects once operational

These activities will be undertaken in accordance with the following documents which were certified as part of the DCO:

[Monitoring & Mitigation Strategy \(rev 2\)](#)
(herein referred to as the MMS)

[Bus Strategy \(rev 2\)](#)

[Charging Policies and Procedures \(rev 3\)](#)
(herein referred to as the Charging Policy)

A Terms of Reference was agreed by STIG members at the meeting on 28 January 2021. This will be kept under review and updated where necessary. Further information on STIG including papers and meeting notes can be found on TfL's website here:

<https://tfl.gov.uk/stig>

Meeting frequency / dates

In keeping with the STIG meetings that have taken place to date, we anticipate continuing the STIG meeting frequency on a four-monthly cycle until the Refreshed Assessment is concluded in late 2022 / early 2023. The next meeting is provisionally planned for 27 January 2022, with the following two meetings in May and September 2022 respectively.

Recording of decisions

Where TfL consults with STIG members on any matter listed within Article 66 of the DCO, a summary of the consultation undertaken, the responses received by STIG members and any material decision subsequently made by TfL in relation to that matter will be duly recorded. The 'record of decision' in relation to air quality monitoring is now available on TfL's website.

DCO obligations

The DCO and associated certified documents contain a large number of obligations which, under DCO conditions, TfL must discharge. Several of these obligations make a direct reference to the role of STIG and its membership.

TfL is maintaining a record of those DCO obligations that either make a direct reference to STIG or are deemed to be of specific interest to members. Progress on these obligations is being tracked in the form of a tracker and shared with the group at each meeting.

A copy of this obligation tracker will continue to be sent out to STIG members, with all other pre-meeting material prior to each meeting.

Purpose of this report

This report is intended to provide an overview of progress on the matters that are relevant to STIG. It also includes a brief update on the general progress of the project for information.

General project update

Construction update

Design has moved into the detailed design phase with many aspects of the design already approved, including the design of the south tunnel portal and the lining segments for the bored tunnels.

Construction of the scheme is now well underway. The piling for the launch chamber shafts is now complete and excavation is well underway ready to receive the Tunnel Boring Machine (TBM) on site in early 2022. The manufacture of the TBM is progressing well.

Many of the necessary enabling works and utility diversions have now been completed in order to facilitate the main works. This has included the diversion of a high voltage UKPN cable, the removal of piling obstructions, the relocation of car parks and the relocation of a DLR storage yard.

Riverlinx have been able to establish the removal of waste from site by river ahead of schedule. So far over 61,000 tonnes of material have been removed via this method, which has removed the equivalent of over 3,500 lorry trips which would otherwise have been made by road. In addition, several thousand tonnes of concrete arising from site clearance and demolition will be re-used

on site within both temporary and permanent works.

Programme

Based on the current programme the Silvertown Tunnel is planned to open in spring 2025.

Community Liaison Groups

Community Liaison Groups (CLGs) are held to provide construction updates to the local community, businesses and other interested parties and are an opportunity to provide feedback to Riverlinx directly. CLGs are held quarterly (currently on-line) but will return to venues in Newham and Greenwich when practical.

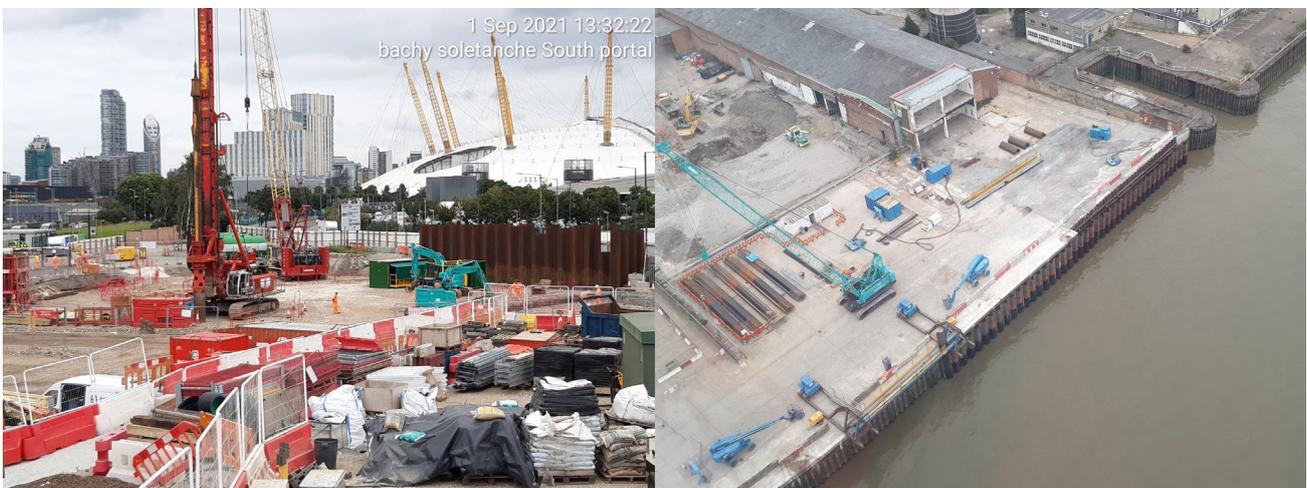
The next meeting dates are:

- 7 December 2021 at 6pm (Greenwich)
- 14 December 2021 at 6pm (Newham)

Any party wishing to be sent an invitation to attend a CLG should contact the site helpdesk:

Email: help@riverlinxcjv.co.uk

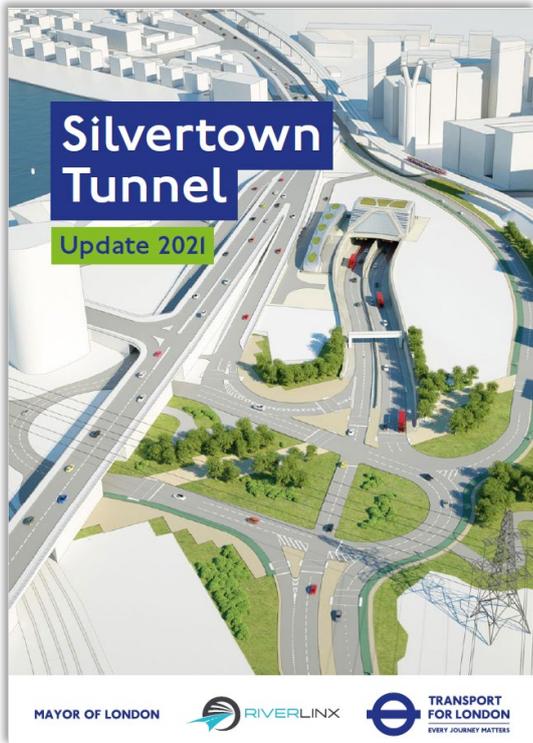
24/7 Helpdesk: 07907 978 486



Piling works for the south tunnel portal and river wall works in Silvertown

Project communications – summer 2021

In August 2021 we updated the local community on the project with a leaflet distributed to 40,000 homes and businesses across Newham and Greenwich.



We reminded stakeholders of the benefits of the scheme, why the project is needed and how cross-river public transport will be transformed. We also explained how user charging and mayoral policies such as the Ultra Low Emission Zone (ULEZ) will help us manage traffic and its long-term environmental impacts.

A QR code (below) provides a link to a new Riverlinx website which can be accessed here: www.riverlinx.co.uk



The website hosts information on construction progress, jobs and apprenticeship opportunities, project

news and a photo gallery, amongst other things.

A virtual exhibition also unveiled designs for the portal buildings and the new Boord Street bridge, and can be viewed at the following link:

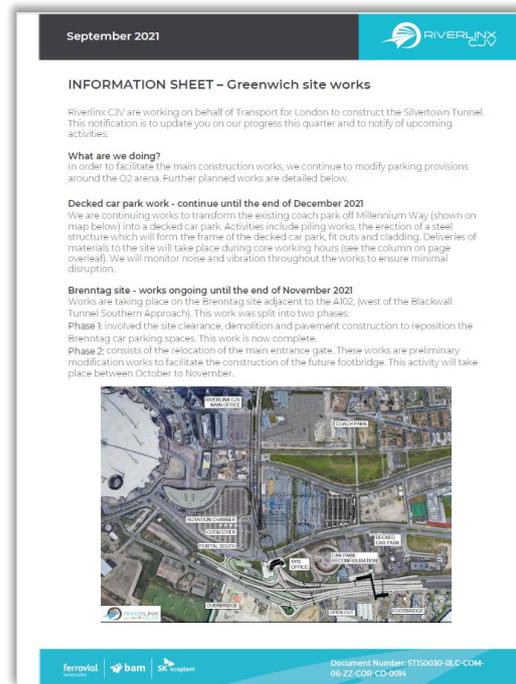
<https://www.riverlinx.co.uk/virtual-exhibition>

The following press release was issued:

<https://tfl-newsroom.prgloo.com/news/tfl-press-release-silvertown-tunnel-virtual-exhibition-launches>

Riverlinx information bulletin

The latest quarterly information bulletin was distributed to local residents and businesses in September 2021.



Refreshed Assessment of scheme impacts

A range of modelling applications will be used to inform the Refreshed Assessment of the scheme's operational impacts, based on updated information and data.

Traffic modelling

Calibration and validation of the 2019 base year strategic highway and public transport models (LoHAM and Railplan) is now complete. Documentation is now in draft form and will be available before the next STIG meeting.

Development of the 2025 forecast year is now underway, informed by the interim 2026 demand model (MoTiON) run that was undertaken back in May. We will be running our 2025 Reference Case forecast imminently, in addition we will also prepare another 2025 forecast that considers some of the possible longer-term behavioural impacts of the Covid-19 pandemic. This forecast will be aligned with TfL's wider scenario planning forecasting exercise that we have been undertaking and consistently updating throughout the pandemic.

We are grateful for the comments received on the proposed transport network assumptions to be adopted in our forthcoming year 2025 forecasts. These have been taken on board as part of the technical work being now undertaken.

Environmental modelling

The scope of the environmental compliance assessment report was shared with STIG members following the last meeting on 27 May 2021. Comments from STIG members on the scope are welcome until 15 October 2021. As explained previously, the environmental compliance assessment will utilise outputs from the Refreshed Assessment to

respond to the requirements of Policy 10 of the Charging Policy.

The environmental modelling will comprise updated air quality and noise models and will utilise outputs from the traffic modelling. Development of the environmental models has now commenced, with a review of the links within the air quality model underway to determine any amendments that are required to ensure consistency with the traffic modelling. The outputs from the models will feed into the environmental compliance assessment report in due course.

User charging

An integral element of the scheme is the implementation of user charging at both the Silvertown and Blackwall Tunnels when the Silvertown Tunnel opens.

High level requirements for the user charging system for both tunnels have now been captured, in accordance with the Charging Policy. These requirements are being used to inform the user charging system design which is being led by the TfL team that deliver projects relating to road user charging in London such as the ULEZ extension (which will go live at the end of October 2021), Congestion Charge changes, and other future road user charging projects.

The upcoming Refreshed Assessment work will initially assume the same user charges as proposed during the DCO application stage. As this work progresses over the coming months, and the interactions between the traffic and environmental modelling are better understood, the charges will be reviewed and refined where required.

Bus network planning

The opportunity to improve the cross-river bus network represents an important part of the scheme.

Work is continuing on the development of bus network options for initial assessment before the Refreshed Assessment of the scheme commences later in 2021. This work is taking account of the Bus Strategy and TfL's business-as-usual bus planning processes, and consideration is being given to the tools available to inform the bus network options with the aim of maximising the benefits of these options.

A discussion on the emerging thinking on potential bus network changes in line with TfL's commitments under the DCO is now planned for late October 2021 with interested STIG members, later than originally planned. This is to allow more consideration to be given to the assessment framework to be used for testing different network options.

In the meantime should STIG members have any suggestions on potential changes to the bus network or on the approach to planning the

new cross-river network they are invited to contact the Silvertown project team.

Mitigation measures

TfL is required to submit details of any necessary mitigation measures to the Secretary of State for Transport for approval having first consulted with members of STIG.

Work is continuing to ascertain what changes have taken place to the highway network (or are planned) since the DCO application was submitted in 2016, and to what extent these changes may affect the need for mitigation measures including potential adjustments to the user charge.

A list of known and planned changes to the highway network was circulated to STIG members on 27 July 2021. As well as being used to inform the update of the traffic models, this will be used to inform the potential need for mitigation associated with the scheme when operational.

Consideration is now being given to the methodology for identifying the need for potential mitigation measures drawing on



All buses running through the Silvertown and Blackwall Tunnels will be zero emission from scheme opening

the process outlined in the MMS and taking account of more recent experience gained from the ULEZ extension project. We intend to provide an update on the potential approaches for discussion at the next STIG meeting in January 2022.

Monitoring of scheme impacts

The scheme's impacts once operational must be monitored for at least three years, and in order to provide a representative baseline this monitoring must commence at least three years pre-opening.

Traffic monitoring

The proposed approach to traffic monitoring was presented to STIG at the last meeting on 27 May 2021. The monitoring will comprise a range of metrics including traffic flows, traffic composition, journey times and journey time reliability, junction performance, bus performance and road safety.

An order has now been placed for the additional market-leading sensors that will be implemented to supplement the existing monitoring network, and these sensors will be focused within the scheme's area of influence on key corridors. A list of the proposed sensor sites has been shared with STIG

members, and engagement is taking place with affected local highway authorities regarding the exact locations and the permissions required for installation.

The latest traffic monitoring plan, which sets out the means by which the data will be collected for each location/metric, has been sent to STIG members ahead of this meeting.

Traffic monitoring is on track to commence in late 2021. We anticipate that the traffic data that is collected will be shared with STIG members on a dedicated Sharepoint site, with consideration being given to other mediums for making the data collected accessible.

Air quality monitoring

Air quality monitoring commenced in December 2020 at a total of 38 sites across five London Boroughs. This includes three continuous monitoring station (CMS) sites in RB Greenwich and LB Newham.

A brief update on the data collected hitherto from the three CMS sites will be presented to STIG at the meeting on 30 September 2021. The data from the CMS sites is now accessible on the London Air Quality Network Website:

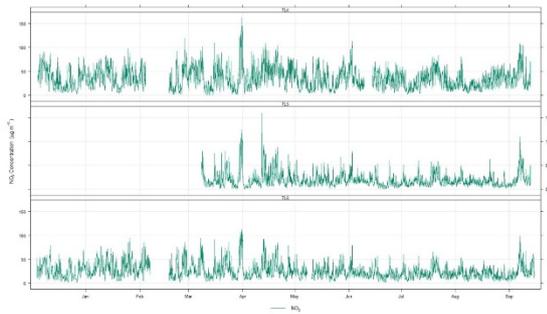
<https://www.londonair.org.uk/LondonAir/Default.aspx>

The screenshot shows the LAQN Monitoring Sites interface. At the top, there are navigation tabs: 'Bulletins', 'Site Details' (selected), 'Statistics', and 'Pollution Episodes'. A search bar is present with the text 'Find postcode'. Below the search bar is a map of the Newham area, showing the River Thames and the Britannia Gate site. A pop-up window over the site reads 'Newham - Britannia Gate - Roadside' and includes a 'View monitoring site details' link. To the right of the map, there is a sidebar with the Transport for London logo and the following information:

- Switch to: site location - site photos.
- Your selected monitoring site » **Newham - Britannia Gate**
- Site operated by » TfL
- Classification:** Roadside
- QA/QC:** LAQN
- Monitoring Dates:** 04 Dec 2020 to present
- Distance to Road:** 7 metres
- Sampling Height:** 1.36 metres
- Species Monitored:** Nitrogen Dioxide, PM2.5 Particulate (by BAMH).

At the bottom of the screenshot, a blue banner contains the text: 'Information on the Britannia Gate CMS available on the LAQN website'.

Site	Date Started	Average ($\mu\text{g}/\text{m}^3$)		Max. 1-hour NO_2 ($\mu\text{g}/\text{m}^3$)	Data Capture (%)
		NO_x	NO_2		
TL4	04-Dec-20	61.0	34.5	162.3	92.6
TL5	08-Mar-21	25.3	18.8	158.9	99.3
TL6	04-Dec-20	41.1	25.1	113.6	94.6



Extract of data collected from CMS sites to 31 August 2021

The data collected from the diffusion tubes will be ratified and shared with STIG members once 12 months' data has been collected.

Following discussion with LB Newham, TfL has extended the scope of the monitoring at the CMS located at Britannia Gate to also measure $\text{PM}_{2.5}$ (in addition to NO_x/NO_2). Whilst this is not a requirement of the DCO, the data collected on $\text{PM}_{2.5}$ will provide a better understanding of baseline levels of this pollutant and supplement the growing network of $\text{PM}_{2.5}$ monitors across London. There is an existing CMS which is operated by RB Greenwich on John Harrison Way which also monitors $\text{PM}_{2.5}$.

Noise monitoring

Noise monitoring data was collected in the vicinity of the Silvertown Tunnel portals in RB Greenwich and LB Newham for a period of 12 months prior to the start of construction activities.

Socio-economic monitoring

TfL's approach for socio-economic monitoring was presented to STIG at the meeting on 27 May 2021. The socio-economic monitoring comprises two elements:

- Primary research made up of surveys of residents and businesses.
- Secondary research involving the analysis of secondary data sources. This is information collected or compiled by third parties such as the Office for National Statistics.

Primary and secondary data analysis will be used in tandem to discern specific changes in the study area, against the general backdrop of social and economic trends.

As per the MMS, three waves of data collection and analysis will be undertaken before the tunnel opens, and three waves after. 2021 is the baseline year for this work to ensure that there are sufficient insights before major construction works on the scheme begins, with the following survey wave due to take place in autumn 2023.

The report baselining secondary data has been completed and this report shared with STIG members. In addition the draft residential and business survey questionnaires were circulated on 20 August 2021, together with the proposed sampling approach, and feedback received was taken into account prior to the commencement of the primary research in late September. The 2021 primary research will be supplemented with business focus groups, to allow a greater qualitative exploration of issues identified in the business survey. Initial results are expected from early next year and will be shared with STIG in due course.

Item 7

Silvertown Tunnel Traffic Monitoring Plan

September 2021

This document sets out the traffic monitoring plan for the Silvertown Tunnel project, drawing on the initial traffic monitoring plan in Appendix A of the Monitoring & Mitigation Strategy (Rev 2, April 2017). For each of the metrics/locations set out in the initial traffic monitoring plan, the method of monitoring has been specified. A map showing the key monitoring locations is attached as Appendix 1.

This note should be read in conjunction with the update on traffic monitoring proposals that was shared with the Silvertown Tunnel Implementation Group on 27 May 2021.

It is planned that data collection will commence by the end of 2021. The data that is collected will be collated and made available by utilising interactive Power BI dashboards and disseminated via an externally accessible Sharepoint site.

Post-opening of the Silvertown Tunnel, the data will be drawn together with the other monitoring data being collected in connection with the scheme to enable a holistic analysis of the impact of the scheme in operation.

Acronyms and definitions

ANPR	Automatic Number Plate Recognition
ATC	Automatic Traffic Counter
INRIX	Provider of journey time data
JT	Journey time
LCAP	London Congestion Analysis Project
LSP	London Streetspace Plan
NB / SB	Northbound / Southbound
NIMBUS	Near Instant Monitoring of Buses
ODX	Origin Destination Interchange tool
SCOOT	Split Cycle Offset Optimisation Technique
UTC	Urban Traffic Control

Traffic monitoring plan

Item No.	Outcome	Metric	Location	Duration	Method of Monitoring
River crossings					
1	Blackwall Tunnel & Silvertown Tunnel crossing performance	Hourly traffic crossing flow (including vehicle type & assessment of volume to capacity ratio)	Blackwall Tunnel & Silvertown Tunnel northbound & southbound	Continuous, subject to data collection methods	Approach road ATCs for Blackwall & new sensor proposed
		Peak hour traffic crossing delay	Blackwall Tunnel & Silvertown Tunnel northbound & southbound approaches	AM peak, inter peak & PM peak data to allow establishment of trends over time	ANPR LCAP pairings NB/SB
2	Performance of adjacent crossings: Woolwich Ferry	Hourly traffic crossing flow (including vehicle type)	Woolwich Ferry northbound & southbound	Continuous, subject to data collection methods	Ferry boarding data/ANPR link north and south
		Queue lengths	Woolwich Ferry northbound & southbound approaches	AM peak, inter peak & PM peak data to allow establishment of trends over time	Bespoke annual survey capturing % of time per day the ferry queue impacts normal traffic
3	Performance of adjacent crossings: Rotherhithe Tunnel	Hourly traffic crossing flow (including vehicle type & assessment of volume to capacity ratio)	Rotherhithe Tunnel northbound & southbound	Continuous, subject to data collection methods	ATC 7 total vehicle flow not broken down by vehicle type.
		Peak hour traffic crossing delay	Rotherhithe Tunnel northbound & southbound approaches	AM peak, inter peak & PM peak data to allow establishment of trends over time	ANPR LCAP pairings NB/SB
4	Performance of adjacent crossings: Tower Bridge	Hourly traffic crossing flow (including vehicle type & assessment of volume to capacity ratio)	Tower Bridge northbound & southbound	Continuous, subject to data collection methods	Existing Vivacity sensor for flow & vehicle type

		Peak hour traffic crossing delay	Tower Bridge northbound & southbound approaches	AM peak, inter peak & PM peak data to allow establishment of trends over time	ANPR LCAP pairings NB/SB
<p>Key Corridors (see Figure A-1 for a map highlighting these locations)</p> <p>Key corridors will be monitored using a combination of existing ATCs for traffic flow and LCAP/INRIX for journey time data as well as making use of the journey time disruption matrix.</p>					
5	Performance of key corridors: A2 (incl. A102)	Vehicle journey times	GLA boundary to Blackwall/Silvertown Tunnel diverge northbound & southbound	Continuous, subject to data collection methods	LCAP/Inrix
		Vehicle journey time reliability	GLA boundary to Blackwall/Silvertown Tunnel diverge northbound & southbound	Continuous, subject to data collection methods	JT disruption metric
		Hourly traffic flow (including vehicle type & assessment of volume to capacity ratio)	GLA boundary to Blackwall/Silvertown Tunnel diverge northbound & southbound	Continuous, subject to data collection methods	ATCs 126, 127, 345, 346, 271, 272, 197 & 198 - flow not including vehicle type
6	Performance of key corridors: A12	Vehicle journey times	Redbridge Roundabout to Blackwall Tunnel portal northbound & southbound	Continuous, subject to data collection methods	LCAP/Inrix
		Vehicle journey time reliability	Redbridge Roundabout to Blackwall Tunnel portal northbound & southbound	Continuous, subject to data collection methods	JT disruption metric
		Hourly traffic flow (including vehicle type & assessment of volume to capacity ratio)	Redbridge Roundabout to Blackwall Tunnel portal northbound & southbound	Continuous, subject to data collection methods	ATCS 282, 283, 97, 98, 332, 333, 336, 337, 269, 270, 199, 200 - flow not including vehicle type
7	Performance of key corridors: A13	Vehicle journey times	Aldgate to Renwick Road eastbound & westbound	Continuous, subject to data collection methods	LCAP/Inrix

		Vehicle journey time reliability	Aldgate to Renwick Road eastbound & westbound	Continuous, subject to data collection methods	JT disruption metric
		Hourly traffic flow (including vehicle type & assessment of volume to capacity ratio)	Aldgate to Renwick Road eastbound & westbound	Continuous, subject to data collection methods	ATCs 355, 33, 30, 32 - flow not including vehicle type
Other strategic & local links (see Figure A-1 for a map highlighting these locations)					
The other strategic and local links will be monitored using the 40 newly commissioned sensors which are planned for sites marked priority 1-27 as well as making use of other sensors on the network and existing TfL owned ATCs.					
1	Performance of other strategic & local links: A1261 Aspen Way	Traffic flow (including assessment of volume to capacity ratio)	A13 East India Dock Road to Leamouth Circus eastbound & westbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 6)
2	Performance of other strategic & local links: Cassland Road	Traffic flow (including assessment of volume to capacity ratio)	A102/Cassland Road/Wick Road junction to Cassland Road/B113 junction eastbound & westbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 42) LB Hackney to install sensor & share data
3	strategic & local links: Charlton Way	Traffic flow (including assessment of volume to capacity ratio)	Shooters Hill Road to Vanburgh Park eastbound & westbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 13)
4	Performance of other strategic & local links: Connaught Bridge	Traffic flow (including assessment of volume to capacity ratio)	N Woolwich Road to Victoria Dock Road northbound & southbound	Hourly data for a typical weekday & weekend da	New sensor (Priority 4)
5	Performance of other strategic & local links: A200 Creek Road	Traffic flow (including assessment of volume to capacity ratio)	A2209 Deptford Church Street to Greenwich Town Centre eastbound & westbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 25) ATC 135
6	Performance of other strategic & local links: A20 Eltham Road	Traffic flow (including assessment of volume to capacity ratio)	Kidbrooke Park Road to Burnt Ash Road eastbound & westbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 28) ATC 286
7	Performance of other strategic & local links: Homerton High Street	Traffic flow (including assessment of volume to capacity ratio)	Kenworthy Road to Ponsford Street eastbound & westbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 29) ATC3

8	Strategic & local links: Jamaica Road	Traffic flow (including assessment of volume to capacity ratio)	Lower Road to Tower Bridge eastbound & westbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 31) ATC 291
9	Performance of other strategic & local links: Kenworthy Road	Traffic flow (including assessment of volume to capacity ratio)	A102/B112 junction to A102/Casland Road/Wick Road junction northbound & southbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 11)
10	Performance of other strategic & local links: Limehouse Link	Traffic flow (including assessment of volume to capacity ratio)	Eastbound & westbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 9)
11	Performance of other strategic & local links: Lower Lea Crossing	Traffic flow (including assessment of volume to capacity ratio)	Leamouth Circus to Tidal Basin Roundabout eastbound & westbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 23) ATC 147
12	Performance of other strategic & local links: A200 Lower Road / Evelyn Street	Traffic flow (including assessment of volume to capacity ratio)	Rotherhithe Tunnel Roundabout to A2209 Deptford Church Street northbound & southbound	Hourly data for a typical weekday & weekend day	ID 37 LB Southwark – sensor already installed
13	Performance of other strategic & local links: Maze Hill	Traffic flow (including assessment of volume to capacity ratio)	Trafalgar Road to Vanburgh Terrance northbound & southbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 16)
14	Performance of other strategic & local links: A11 Mile End Road / Bow Road	Traffic flow (including assessment of volume to capacity ratio)	A13 to Bow Roundabout eastbound & westbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 10) ATC 15
15	Performance of other strategic & local links: A2 New Cross Road / Blackheath Hill	Traffic flow (including assessment of volume to capacity ratio)	A2/A207 junction to Old Kent Road eastbound & westbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 24) ATC 11
16	Performance of other strategic & local links: A1020 Nth Woolwich Road	Traffic flow (including assessment of volume to capacity ratio)	Tidal Basin Roundabout to Connaught Bridge northbound & southbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 22)

17	Performance of other strategic & local links: A2 Old Kent Road	Traffic flow (including assessment of volume to capacity ratio)	New Cross Road to Tower Bridge Road eastbound & westbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 26) ATCs 273&274
18	Performance of other strategic & local links: Royal Albert Way	Traffic flow (including assessment of volume to capacity ratio)	Gallions Reach Roundabout to Connaught Bridge / A1020 / A112 junction eastbound & westbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 5)
19	Performance of other strategic & local links: Royal Docks Road	Traffic flow (including assessment of volume to capacity ratio)	A13/A406 Interchange to Beckton Roundabout northbound & southbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 30) ATC 12&17
20	strategic & local links: A1011 Silvertown Way	Traffic flow (including assessment of volume to capacity ratio)	Tidal Basin Roundabout to Canning Town Roundabout northbound & southbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 1)
21	Performance of other strategic & local links: A205 South Circular	Traffic flow (including assessment of volume to capacity ratio)	Woolwich Ferry Roundabout to A20 Sidcup Road northbound & southbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 7)
22	Performance of other strategic & local links: Stockwell Street/Crooms Hill/General Wolfe Road	Traffic flow (including assessment of volume to capacity ratio)	A206 to A2 northbound & southbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 15)
23	Performance of other strategic & local links: A1203 The Highway	Traffic flow (including assessment of volume to capacity ratio)	A100 Tower Bridge to Limehouse Link eastbound & westbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 32) ATC 316
24	Performance of other strategic & local links: Tower Bridge Road	Traffic flow (including assessment of volume to capacity ratio)	Tower Bridge to Old Kent Road northbound & southbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 34) ATC 1 Vivacity sensor already at location

25	Performance of other strategic & local links: A206 Trafalgar Road / Romney Road	Traffic flow (including assessment of volume to capacity ratio)	Greenwich Town Centre to A102	Hourly data for a typical weekday & weekend day	New sensor (Priority 38) LSP Vivacity sensor already installed
26	Performance of other strategic & local links: B207 Trundley's Road / Sanford Street	Traffic flow (including assessment of volume to capacity ratio)	Bestwood Street to New Cross Road northbound & southbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 14)
27	Performance of other strategic & local links: Tunnel Avenue	Traffic flow (including assessment of volume to capacity ratio)	Blackwall Tunnel Southern Approach to Blackwall Lane northbound & southbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 12)
28	Performance of other strategic & local links: Victoria Park Road	Traffic flow (including assessment of volume to capacity ratio)	Victoria Park Rd/Wick Road junction to Harrowgate Road/Victoria Park Road junction eastbound & westbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 41) Hackney to install sensor & share data
29	Performance of other strategic & local links: Wick Road	Traffic flow (including assessment of volume to capacity ratio)	A12 junction to Well Street/B113 junction eastbound & westbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 40) Hackney to install sensor & share data
30	Performance of other strategic & local links: Woolwich Manor Way	Traffic flow (including assessment of volume to capacity ratio)	A13 Newham Way to Gallions Roundabout northbound & southbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 33) Use data from surrounding sensors
31	Performance of other strategic & local links: A206 Woolwich Road	Traffic flow (including assessment of volume to capacity ratio)	A102 to Woolwich Ferry Roundabout northbound & southbound	Hourly data for a typical weekday & weekend day	New sensor (Priority 36) ATCs 219 & 220 Vivacity Sensor already installed

Junctions (see Appendix 1 for a map highlighting these locations)

Junctions to be monitored using SCOOT data where available.

1	Performance of junctions: A100 Tower Bridge Road / Grange Rd / Bermondsey St	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N08/005
2	A100 Tower Bridge Road / A1203 E Smithfield / A1210 Mansell St	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N05/097
3	Performance of junctions: A1011 Silvertown Way / Tidal Basin Road	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N17/232 N17/076
4	Performance of junctions: A102 Kenworthy Road B112 Marsh Hill	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	No UTC SCOOT Nodes Signalised? – No Junction delay (via Inrix) is our primary data source
5	Performance of junctions: A102 / A206 Woolwich Road	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N06/191 N06/189
6	Performance of junctions: A1020 Lower Lea Crossing / Tidal Basin Roundabout	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	No UTC SCOOT Node Signalised? – Yes UTC to be used to measure the degree of saturation.
7	Performance of junctions: A1020 Royal Albert Way / A1020 Royal Docks Road / Sir Steve Redgrave Bridge / Gallions Roundabout	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N17/126 N17/145 N17/162 N17/165

8	Performance of junctions: A1020 North Woolwich Road / Connaught Bridge	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	No UTC SCOOT Node Signalised? – No Junction delay (via Inrix) is our primary data source
9	Performance of junctions: A112 Connaught Road / Connaught Bridge	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	No UTC SCOOT Node Signalised? – No Junction delay (via Inrix) is our primary data source
10	Performance of junctions: A112 Connaught Road / A1020 Royal Albert Way / Connaught Bridge	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	No UTC SCOOT Node Signalised? – No Junction delay (via Inrix) is our primary data source
11	Performance of junctions: A112 Prince Regent Lane / Victoria Dock Road	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N17/116
12	Performance of junctions: A112 Prince Regent Lane / A124 Barking Road / A112 Greengate Street	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N17/006
13	Performance of junctions: A12 Blackwall Tunnel Northern Approach / Devas Street	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	No UTC SCOOT Node Signalised? – No Junction delay (via Inrix) is our primary data source

14	Performance of junctions: A12 Blackwall Tunnel Northern Approach / A13 East India Dock Road	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N05/098 N05/207 N05/109 N05/110 N05/118 N05/046
15	Performance of junctions: A12 / A11 Bow Roundabout	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N05/239
16	Performance of junctions: A1206 Preston's Road Roundabout / Cotton Street	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N05/189
17	Performance of junctions: A1261 Aspen Way / Upper Bank Street	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N05/157
18	Performance of junctions: A1261 Aspen Way / A1261 W India Dock Rd / A1203 Limehouse Link	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N05/386 N05/156
19	Performance of junctions: A13 Alfreds Way / Renwick Road	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N16/027
20	Performance of junctions: A13 Eastbound diverge at A1020 junction	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N17/196

21	Performance of junctions: A13 / A117 High Street South / A117 Woolwich Manor Way	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N17/216 N17/214 N17/212 N17/213 N17/002
22	Performance of junctions: A13 / A112 Prince Regent Lane	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N17/001
23	Performance of junctions: A13 / Canning Town Gyrotory	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N17/062 N17/148 N17/060 N17/220
24	Performance of junctions: A13 Newham Way / A406 North Circular Road	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N17/196
25	Performance of junctions: A2 Blackheath Hill / Greenwich South Street / Lewisham Road	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N06/016
26	Performance of junctions: A2 Blackheath Hill / Hyde Vale	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	No UTC SCOOT Node Signalised? – No Junction delay (via Inrix) is our primary data source
27	Performance of junctions: A2 Deptford Bridge / Greenwich High Road	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N06/017

28	Performance of junctions: A2 Deptford Bridge / Deptford Church Street	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N07/021
29	Performance of junctions: A2 / A2213 / Kidbrooke Interchange	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N06/091
30	Performance of junctions: A2 Shooters Hill Road / Charlton Way	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	No UTC SCOOT Node Signalised? – No Junction delay (via Inrix) is our primary data source
31	Performance of junctions: A2 Shooters Hill Road / Prince Charles Road	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	No UTC SCOOT Node Signalised? – No Junction delay (via Inrix) is our primary data source
32	Performance of junctions: A2 / A102 / A207 / Sun in the Sands Roundabout	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	No UTC SCOOT Node Signalised? – No Junction delay (via Inrix) is our primary data source
33	Performance of junctions: A2 / A205 Westhorpe Avenue	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N06/094
34	Performance of junctions: A2 New Cross Road / Pagnell Street	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	No UTC SCOOT Node Signalised? – No Junction delay (via Inrix) is our primary data source
35	Performance of junctions: A20 Lee High Road / A2212 Burnt Ash Road	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N07/016

36	Performance of junctions: A20 Lewisham Way / Dixon Rd	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	No UTC SCOOT Node Signalised? – No Junction delay (via Inrix) is our primary data source
37	Performance of junctions: A20 Sidcup Rd / B263 Green Lane / Southwood Road	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N06/010
38	Performance of junctions: A200 Creek Road / Deptford Church Street	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N06/060
39	Performance of junctions: A200 Evelyn Street / Deptford High Street	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	No UTC SCOOT Node Signalised? – Yes UTC to be used to measure the degree of saturation.
40	Performance of junctions: A200 Evelyn Street / Oxestalls Road	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N07/222
41	Performance of junctions: A200 Lower Road / Surrey Quays Road	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N08/114
42	Performance of junctions: A200 Lower Road / Bush Road	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N08/002

43	Performance of junctions: A200 Lower Road / A200 Jamaica Road / Rotherhithe Tunnel	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N08/394 N08/395 N08/407
44	Performance of junctions: A205 / A206 / Woolwich Ferry Roundabout	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	No UTC SCOOT Node Signalised? – No Junction delay (via Inrix) is our primary data source
45	Performance of junctions: A205 South Circular Road / A207 Shooters Hill Road	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N06/006
46	Performance of junctions: A205 South Circular Road // A208 Well Hall Road / Rochester Way	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N06/037 N06/168
47	A205 South Circular Road / A21 Rushey Green	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N07/015 N07/165
48	Performance of junctions: A205 South Circular Road // A210 Eltham Road / A210 Eltham Hill	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	No UTC SCOOT Node Signalised? – No Junction delay (via Inrix) is our primary data source
49	Performance of junctions: A205 South Circular Road / A2212 Burnt Ash Hill	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	No UTC SCOOT Node Signalised? – Yes UTC to be used to measure the degree of saturation.

50	Performance of junctions: A206 / Blackwall Lane / Vanbrugh Hill	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N06/852 N06/003
51	Performance of junctions: A206 / A200 / Greenwich Town Centre	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N06/151 N06/150
52	Performance of junctions: A206 Plumstead Road / Burrage Road	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N06/066
53	Performance of junctions: A206 Romney Road / Park Row	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N06/268
54	Performance of junctions: A206 Woolwich Road / Anchor & Hope Lane	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N06/031
55	Performance of junctions: A206 Trafalgar Road / Maze Hill	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	No UTC SCOOT Node Signalised? – Yes UTC to be used to measure the degree of saturation.
56	Performance of junctions: A21 Bromley Road / Bellingham Road / Randlesdown Road	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N07/002

57	Performance of junctions: A210 Eltham High Street / A208 Well Hall Road	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N06/008
58	Performance of junctions: B210 Charlton Way / Maze Hill / Prince Charles Road	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	SCOOT Node N06/020
59	Performance of junctions: B212 Lee Road / B220 Lee Terrace	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	No UTC SCOOT Node Signalised? – No Junction delay (via Inrix) is our primary data source
60	Performance of junctions: Bugsby's Way / Anchor and Hope Lane	Junction delay, degree of saturation, journey time	-	AM peak and PM peak for a typical weekday	No UTC SCOOT Node Signalised? – No Junction delay (via Inrix) is our primary data source

Buses and other public transport

Bus data from a variety of sources in TfL covering road sections in the vicinity of the tunnels and specific bus routes where applicable.

	Performance of cross-river bus routes via Blackwall Tunnel & Silvertown Tunnel	Bus journey time, speed	Relevant sections of cross-river bus routes on key approaches to Blackwall & Silvertown Tunnels	Continuous, subject to data collection methods	Nimbus Route 108 through Blackwall Tunnel and Silvertown routes to be monitored once open
		Excess wait time	Entire route of all cross-river bus routes using Blackwall & Silvertown Tunnels	Continuous, subject to data collection methods	Direct from Buses - route only indicator
	Performance of bus routes on the network adjacent to the crossings	Bus journey time, speed	Relevant sections of bus routes on key approaches to Blackwall & Silvertown Tunnels	Continuous, subject to data collection methods	Nimbus
		Excess wait time	Entire route of relevant bus routes using approaches to Blackwall & Silvertown Tunnels	Continuous, subject to data collection methods	Direct from Buses - route only indicator

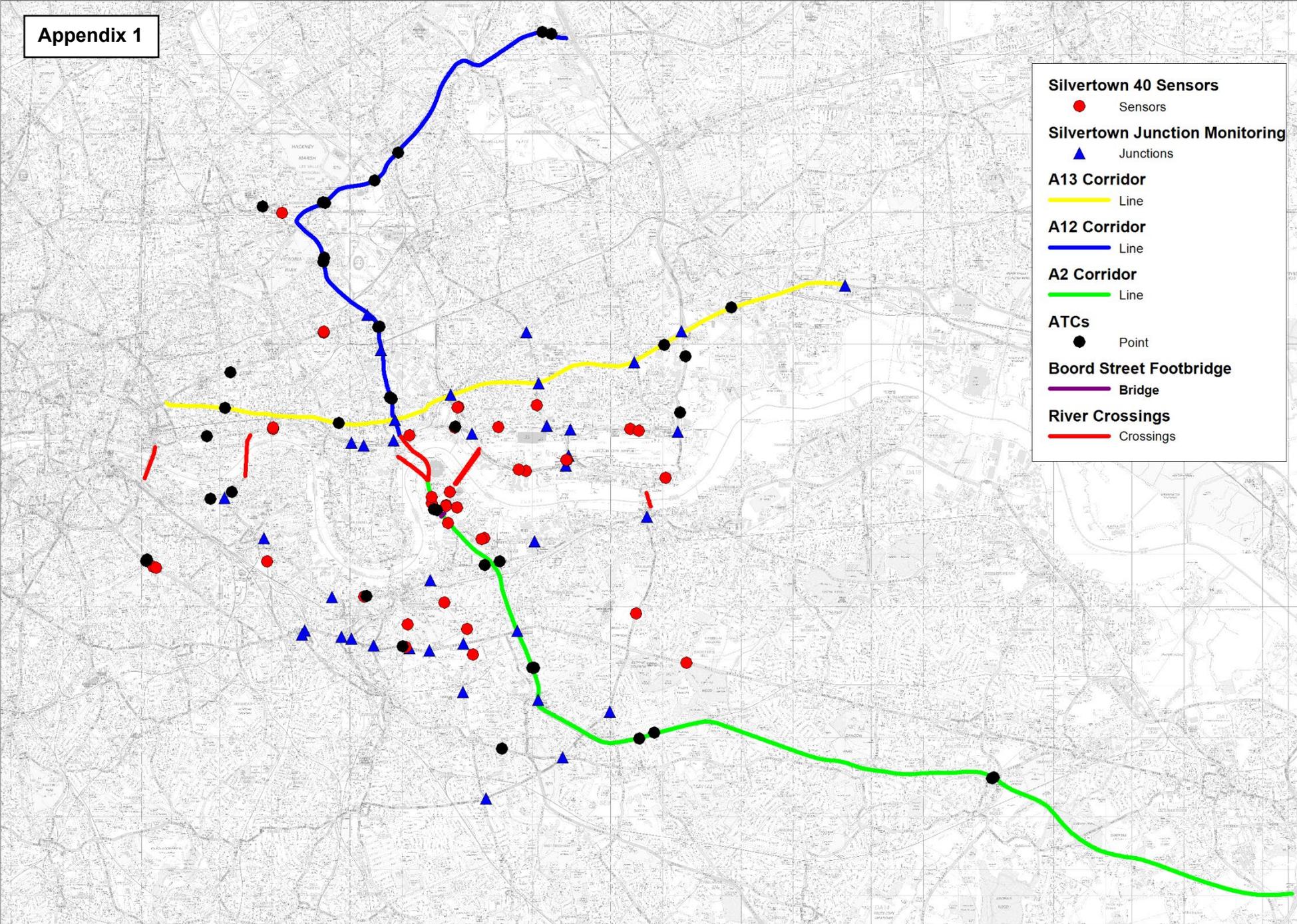
	Bus patronage levels	Bus patronage data	Entire route of all cross-river bus routes using Blackwall & Silvertown Tunnels	Continuous, subject to data collection methods	ODX (not daily)
	Cycle shuttle service	Patronage data	Entire route (note: route is to be confirmed)	Continuous, subject to data collection methods	Not available till post opening then boarding numbers/survey to be carried out
	Rail patronage levels	Rail patronage data	Jubilee line between Canning Town and North Greenwich		TfL patronage data
			Docklands Light Railway between Island Gardens and Cutty Sark		TfL patronage data
			Docklands Light Railway between King George V and Woolwich Arsenal		TfL patronage data
			Continuous, subject to data collection methods		TfL patronage data
Road safety					
	Changes in patterns of road accidents, especially those involving vulnerable road users	Accident data	Key corridors, other strategic & local links & junctions set out earlier in this table	Full annual records	Annual 1yr in arrears TfL – Collision Statistics
Pedestrian & cyclist indicators					
Pedestrian and cycle indicators will also be monitored using the 40 proposed new sensors and ensuring that they have count lines on the pavement and cycle lanes as appropriate. Other data will come from ad-hoc surveys in the case of the Boord Street footbridge and passenger numbers for the Emirates Airline.					
	Impact of Scheme related changes in traffic flow on severance and the ability of pedestrians and cyclists to use/cross the roads	Traffic flow data	Albert Road/Connaught Road between Hartmann Road and Pier Road	Traffic flow	New sensor (Priority 3)
		Pedestrian & cyclist indicators such as crossing wait times etc.	Bugsby's Way between John Harrison Way and Peartree Way	24-hour data for a typical week and weekend	New sensor (Priority 17)

			Connaught Bridge between Connaught Roundabout and Connaught Road	Pedestrian & cyclist indicators: AM peak and PM peak for a typical weekday	New sensor (Priority 4)
			Lower Lea Crossing between Leamouth Circus and Tidal Basin Roundabout		New sensor (Priority 23)
			Millennium Way between Edmund Halley Way and John Harrison Way		New sensor (Priority 19)
			A206 Nelson Road/Trafalgar Road between Greenwich High Road and Blackwall Lane		New sensor (Priority 38) LSP sensor already installed
			North Woolwich Road between Silvertown Way and North Woolwich Roundabout		New sensor (Priority 22)
			Prince of Wales Road between A2 Shooters Hill and South Row		New sensor (Priority 18)
			Prince Regent Lane between A13 and Victoria Dock Road		New sensor (Priority 2)
			Silvertown Way between A13 and North Woolwich Road		New sensor (Priority 1)
			Victoria Dock Road between Caxton Street North and Connaught Roundabout		New sensor (Priority 21)
			West Parkside/Pilot Busway between Edmund Halley Way and John Harrison Way		New sensor (Priority 20)
			A206 Woolwich Road between Blackwall Lane and Anchor and Hope Lane		New sensor (Priority 36) Sensor already installed

	Use of local roads by cyclists and pedestrians	Pedestrian & cyclist numbers	Boord Street footbridge	24-hour data for a typical weekday and weekend	New sensor (Priority 35) Ad hoc manual survey - annual
			Lower Lea Crossing		New sensor (Priority 23)
	Use of Emirates Air Line as pedestrian & cyclist crossing	Pedestrian & cyclist numbers	Emirates Air Line	24-hour data for a typical week and weekend	Direct from Emirates Airline
	Impact of mitigation measures on pedestrians & cyclists	Pedestrian & cyclist numbers, wait times etc.	Locations where mitigations are being implemented as a result of this strategy	24-hour data for a typical weekday and weekend	TBA – dependent on mitigation delivered
Travel behaviour					
	Changes in travel behaviour of Blackwall Tunnel & Silvertown Tunnel users and the local population	Survey data including stated and revealed preference for users of different modes and vehicle types	No fixed geographic location	Every two years during a neutral month	TfL Group
Control sites					
	Changes in travel patterns and trends independent of the Scheme	Vehicle journey times	Making use of TfL's existing and ongoing data collection programme	Making use of TfL's existing and ongoing data collection programme	Make use of the data from the above sites to make baseline figures
		Vehicle journey time reliability			
		Traffic flow (including assessment of volume to capacity ratio)			
		Junction delay			
		Degree of saturation			
		Bus speed			
		Accident data			
Additional traffic data to update the strategic traffic model					

	To update the strategic traffic model in advance of Scheme opening	Traffic flows, vehicle journey time routes, origin & destination pairs	As required to update the model	As required to update the model	Ad hoc surveys as required
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Appendix 1



Item 9

Silvertown Tunnel Programme - Silvertown Tunnel Implementation Group Obligations / Requirements										
Work In Progress: This tracker is regularly updated & subject to change v.24/09/2021										
Category	STIG ref #	Year* Activity commence	Quarter* Activity commence	Document	Document ref	Activity	Requirement	Status	Updates	
01 - STIG administration	1	2020	Q3	DCO	66 (1)	Establishment of STIG	TfL must establish and fund the reasonable secretarial and administrative costs of a consultative body to be known as the Silvertown Tunnel Implementation Group.	Underway	16/09/2020 - First STIG meeting planned for 24/09/2020 20/01/2021 - Second STIG meeting planned for 28/01/2021	
	2	2020	Q3	DCO	66 (7)	Frequency/timing of STIG meetings	Unless otherwise agreed by STIG, TfL must convene a meeting of STIG, chaired by a representative elected by the members of STIG, at least twice a year on a date to be determined by TfL, including on each occasion that TfL publishes a monitoring report in accordance with the monitoring and mitigation strategy.	Underway	Meeting 1: 16 Sep 2020 Meeting 2: 28 Jan 2021 Meeting 3: 27 May 2021 Meeting 4: 30 Sep 2021	
	3	2020	Q3	DCO	66(8)	First STIG meeting	The first meeting should be held no less than 3 years before the tunnel opens.	Completed	16/09/2020 - First STIG meeting planned for 24/09/2020	
	4	2020	Q3	DCO	66 (10)	Publication of STIG material	TfL must publish on its website agendas, reports, minutes and other relevant documents relating to the operation of STIG as soon as reasonably practicable after they become available.	Underway	Link to website	
	5	2020	Q3	DCO	66 (5)	STIG matters - need to consult STIG	TfL must consult the other members of STIG on the following matters relating to implementation of the authorised development :	Underway		
	6	2020	Q3	DCO	66 (5)	STIG matters - (a) monitoring	(a) the extent, nature and duration of monitoring to be implemented in accordance with the monitoring and mitigation strategy;	Underway	16/09/2020 - Paper on air quality monitoring proposals to be presented at STIG meeting on 16/09/2020 20/05/2021 - Papers on Socio economic and traffic monitoring proposals presented at STIG meeting on 27/05/2021 24/09/21 - Socio-economic surveys shared for comment with STIG members 20/08. Further traffic monitoring information to be shared at 30/09 STIG meeting	
	7	2020	Q3	DCO	66 (5)	STIG matters - (b) bus services	(b) the proposals for the initial bus services that will operate through the tunnels when the Silvertown Tunnel opens for public use;	Underway		
	8	2020	Q3	DCO	66 (5)	STIG matters - (c) monitoring reports	(c) the monitoring reports produced in accordance with the monitoring and mitigation strategy;	Not started		
	9	2020	Q3	DCO	66 (5)	STIG matters - (d) revisions to charging policy	(d) any proposed revisions to the charging policy under article 53 (the charging policy); and	Underway		
	10	2020	Q3	DCO	66 (5)	STIG matters - (e) user charges	(e) the level of charges required to be paid for use of the tunnels	Not started		
		11	2020	Q3	DCO	66 (6)	STIG recommendations / representations	In taking any decision in respect of any of the matters set out in paragraph (5), TfL must have regard to any recommendations or representations made by a member of STIG in response to the consultation carried out under that paragraph.	Underway	20/01/2021 - Process discussed at 28/01/21 STIG meeting
02- Refreshed assessment / pre-opening mitigation	12	2022	Q3	DCO	Sch 2 Req 2	Agree £1m business transitional support package with councils	Prior to the opening of the authorised development for public use TfL must make all reasonable endeavours to agree a business transitional support package with the councils of the London Borough of Newham, the London Borough of Tower Hamlets and the Royal Borough of Greenwich. As part of this business transitional support package TfL must make available to those councils the sum of one million pounds for the purpose of supporting local businesses.	Not started		
	13	2020	Q4	MMS	2.1.1	Develop refreshed assessment	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.	Underway	28/01/21 - approach to strategic transport modelling for refreshed assessment presented to STIG 20/09/2021 - update on refreshed assessment to be presented and discussed at 30/09/21 STIG meeting	
	14	2020	Q3	MMS	2.1.2	Update the transport and environmental models	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.	Underway		
	15	2022	Q1	MMS	2.3.13	Develop package of mitigation measures	TfL will work closely with affected local authorities to identify and develop the package of localised traffic mitigation to be implemented pre-opening. Once the proposed package of localised traffic-related mitigation measures has been finalised, TfL will submit details of the package to the Secretary of State for Transport for approval.	Not started		
	16	2022	Q1	MMS	2.3.8	Take view of LHAs into account in assessing localised mitigation measures	In assessing the need for localised mitigation for locations in the short list, TfL will take into account views from the affected local highway authority (or authorities should the location affect more than one borough).....	Not started		
	17	2022	Q2	MMS	3.8.5	TfL to install noise monitors	Once operational, the noise monitoring will continue for a minimum of three years. Before the end of that period, TfL will consult STIG members on whether it is appropriate to extend this period by up to an additional two years.	Not started		
	18	2022	Q1	DCO	Sch 2 Req 7 (2)	Implementation of mitigation measures when TfL powers are not sufficient	If the statutory powers vested in TfL in relation to highways and road traffic in Greater London are not sufficient to enable TfL to implement any mitigation measure which it is obliged to implement under this requirement, TfL must either agree with the council to implement the changes on its behalf or pay the council to implement the measures.	Not started		
	19	2020	Q4	DCO	Sch 2 Req 7(4)	Refreshed assessment	TfL must undertake an updated assessment of the scheme's impacts and consult STIG on a proposed scheme of mitigation including the locations where mitigation is required, the measures proposed and the programme for implementation	Underway	28/01/21 - approach to strategic transport modelling for refreshed assessment presented to STIG 20/09/2021 - update on refreshed assessment to be presented and discussed at 30/09/21 STIG meeting	
	20	2022	Q1	DCO	Sch 2 Req 7 (5)	Consultation on the scheme of mitigation	TfL must have regard to any consultation responses from STIG members on the proposed mitigation and engage with local highway authorities as required.	Not started		
	21	2022	Q1	DCO	Sch 2 Req 7 (7)	SoS to consult STIG on mitigation measures	The Silvertown Tunnel must not open for public use until the scheme of mitigation has been approved by the Secretary of State. If the Secretary of State proposes to approve the scheme of mitigation with material modifications, the Secretary of State must consult the members of STIG on the proposed modifications and have regard to any responses received when deciding whether to approve the scheme.	Not started		
	22	2021	Q4	DCO	Sch 2 Req 7 (10)	Consultation with STIG on changes required to the highway network.	For the duration of the monitoring period (at least 3 years before opening and 3 years after scheme opens), TfL must— (c) identify in consultation with the members of STIG appropriate thresholds for changes on the highway network which require TfL to investigate whether mitigation measures are necessary;	Not started		
	23	2021	Q4	DCO	Sch 2 Req 7 (10)	Consultation with STIG on changes required to the highway network.	For the duration of the monitoring period (at least 3 years before opening and 3 years after scheme opens), TfL must— (d) develop in consultation with the relevant highway authority any measures which are necessary to mitigate adverse impacts on the highway network which are attributable to the operation of the authorised development; and	Not started		
	24	2021	Q4	DCO	Sch 2 Req 7 (10)	Consultation with STIG on changes required to the highway network.	For the duration of the monitoring period (at least 3 years before opening and 3 years after scheme opens), TfL must— (e) implement or secure the implementation of the necessary mitigation measures.	Not started		
	25	2022	Q2	DCO	Sch 2 Req 7	Mayor of London to consult relevant air quality authority	Before considering whether to approve the scheme of mitigation, the Mayor of London must consult any relevant air quality authority and take into consideration any responses received. (17) TfL must implement or secure the implementation of the scheme of mitigation approved by the Mayor of London in accordance with the programme contained in the approved scheme of mitigation.	Not started		
	26	2022	Q1	MMS	2.1.8	Development of pre-opening mitigation measures	If, through the refreshed assessment, the need for localised traffic-related mitigation measures is identified, TfL will develop these measures in consultation with STIG and submit them to the Secretary of State for Transport for approval.	Not started		
	27	2022	Q3	MMS	2.1.8	Implementation of pre-opening mitigation measures	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.	Not started		

	28	2022	Q2	MMS	2.1.9	Noise mitigation measures	Any measures required to mitigate residual noise impacts will be submitted for the approval of the local planning authority in accordance with requirement 12 of the DCO.	Not started	
	29	2021	Q3	MMS	2.2.2	Approach to refreshed assessment	TfL will engage with STIG members on the approach to completing the refreshed assessment, including aspects that are of particular interest to host boroughs such as the collection of origin and destination data and users' values of time (including stated preference surveys).	Underway	28/01/21 - approach to strategic transport modelling for refreshed assessment presented to STIG 20/09/2021 - update on refreshed assessment to be presented and discussed at 30/09/21 STIG meeting
	30	2021	Q4	MMS	2.3.4	STIG review of long-listed mitigation measures	Once the long list has been populated this will be reviewed in consultation with the members of STIG and TfL will make a decision on which locations will be included within a 'short list' to be assessed further using local modelling.	Not started	
	31	2021	Q4	MMS	2.5.2	Commencement of baseline monitoring	Monitoring of baseline conditions pre-opening will commence no later than three years prior to the expected date of Scheme opening, and any data that is required to inform the refreshed assessment (for example traffic counts) will be collected as part of this process.	Underway	Jan21 - air quality baseline monitoring is underway
	32	2021	Q2	MMS	2.5.2	Final scope of monitoring programme	The finalised scope of the monitoring programme will be presented to STIG members for review approximately six months before the commencement of traffic-related monitoring (i.e. around three and a half years prior to Scheme opening).	Underway	27/05/21 - traffic monitoring approach presented to STIG 24/09/21 - further information on approach to be presented at 30/09 STIG meeting
	33	2020	Q3	MMS	3.3.2	Monitoring data collected by others	The monitoring programme will be of sufficient scope to provide a sound understanding of the impact of the Scheme in operation. Nonetheless, TfL recognises the value of monitoring undertaken by others and hence in addition to the data collected through the monitoring programme, TfL will take into account monitoring data collected by local authorities and other bodies where it is relevant and appropriate to do so.	Underway	
	34	2021	Q2	MMS	3.5.3	Geographical extent of monitoring	The geographical scope of the monitoring will be reviewed at the time when TfL is undertaking its refreshed assessment of Scheme impacts. Should this refreshed assessment identify potential Scheme impacts at locations not identified in current modelling, the scope of the monitoring programme will be extended to ensure these locations are included in the monitoring programme. If justified by the refreshed assessment, the monitoring of Scheme impacts could be undertaken over a much wider area through TfL's wider monitoring programmes.	Underway	
	35	2020	Q3	MMS	3.7.1	Commencement of air quality monitoring	Three years prior to Scheme opening TfL will install a network of diffusion tubes and, where appropriate, automatic air quality monitors to collect air quality data for a continuous period of at least twelve months to establish an up-to-date baseline. This will provide a picture of the actual concentrations at a point closer to the Scheme opening. In addition, the results of monitoring undertaken by relevant local authorities and Defra will be utilised by TfL to provide additional baseline information.	Underway	Diffusion tubes and CMS installed at agreed sites - baseline air quality monitoring data collection underway in January 2021.
	03 - User Charging	36	2022	Q2	Charging Policy	2.3.4	User charge discount	For a period of not less than 56 days prior to Scheme opening, eligible residents and small businesses in the host boroughs will be able to register online for a payment account without paying the annual registration fee for the initial year (Policy 5).	Not started
37		2022	Q2	Charging Policy	2.3.7	User charge discount	For the duration of the monitoring period a discount of not less than 50% on the user charges will be available for eligible residents of host boroughs on a low income who register for an online account with TfL. After the expiry of the monitoring period, TfL will review in consultation with the host boroughs whether the discount should continue (Policy 6).	Not started	
38		2022	Q2	Charging Policy	3.2.3	Setting the initial user charge	The extent to which the user charges will assist in achieving the Project Objectives is the primary consideration which TfL will have regard to when setting the initial user charges (policy 9). In this TfL will have regard to: - traffic - the environment, and - population, economy and growth - other project objective considerations, including the ability to pay for the Scheme.	Not started	
39		2022	Q2	Charging Policy	3.2.4	Setting the initial user charge	TfL will set the initial charges at a level and subject to conditions so that the Scheme in operation is not likely to give rise to materially new or materially different environmental effects to those reported in the ES (Policy 10).	Not started	
40		2025	Q2	Charging Policy	3.3.1	Variations to the user charges	TfL must keep the user charges under review, and will make variations to charges where this is considered necessary to ensure the continued achievement of the Project Objectives (policy 11). In this TfL will have regard to: - traffic - the environment, and - population, economy and growth - other project objective considerations, including the ability to pay for the Scheme.	Not started	
41		2022	Q2	Charging Policy	4.2.1	Setting the initial user charge	TfL must set initial charges before the Silvertown Tunnel opens to traffic. The process for setting the charges will commence around two and a half years in advance of Scheme opening.	Not started	
42		2022	Q2	Charging Policy	4.2.1	Setting the initial user charge	In the setting of the initial user charge, TfL will follow this process - TfL will re-run the strategic traffic model (using up-to-date data) - TfL will use the outputs of this model run to undertake a re-assessment of the significant likely effects of the proposed initial user charges on air quality, noise, socio-economic effects, in accordance with the approach adopted in the Environmental Statement (Document Reference: 6.1) - TfL will populate the UCAF with its impact assessment	Underway	Re-run of strategic traffic modelling is underway
43		2022	Q2	Charging Policy	4.2.1	Setting the initial user charge	TfL will consult with members of STIG on the proposed charges for the opening year, and present the completed UCAF. STIG members may make recommendations or representations to TfL in response to these, and the views of STIG's members will be recorded	Not started	
44		2022	Q2	Charging Policy	4.2.1	Setting the initial user charge	TfL will submit the proposed opening user charges, including setting out the recommendations and representations of STIG members, to the TfL Board for approval. When deciding whether or not to approve the proposed charges the TfL Board must: - in accordance with article 65 of the DCO have regard to any recommendations or representations made by members of STIG; and - only approve the charges if it is satisfied that Policies 9 and 10 of the Charging Policy are met.	Not started	
45		2022	Q2	Charging Policy	4.2.1	Setting the initial user charge	The completed UCAF will be published on TfL's website as a record of the assessment undertaken.	Not started	
46		2025	Q2	Charging Policy	4.3.1	Variations to the user charges	In proposing variations to the user charges, TfL will use the UCAF to assess the likely impacts of variations to the charges on the achievement of the Project Objectives and other considerations (set out in 3.3 of the Charging Policy). In accordance with Article 65 of the DCO, TfL will consult with members of STIG on these proposed variations who may make representations and recommendations in response.	Will be undertaken if required	
47	2025	Q2	Charging Policy	4.3.1	Variations to the user charges	TfL will then submit the proposed variations to the user charges, including setting out the recommendations of STIG members, to the TfL Board for approval. When deciding whether or not to approve the variations the TfL Board must: - in accordance with article 65 of the DCO have regard to any recommendations or representations made by members of STIG; and - only approve the charges if it is satisfied that the proposed charges comply with Policy 12 of the Charging Policy.	Will be undertaken if required		
48	2024	Q4	Charging Policy	4.4.1	Statement of charges	In accordance with Article 53 of the DCO, where the TfL Board decides to approve the proposed charges (for the initial charge and for subsequent variations), TfL must publish a Statement of Charges describing the charges in the form set out in Appendix A of the Charging Policy or in a form to the like effect. The Statement will set out the date from which the charges take effect.	Not started		
49	2026	Q3	Charging Policy	5.1.2	12-month review of user charges	TfL must complete a '12-month review' of the user charges not later than 15 months after the Scheme opens for public use and, if necessary, must revise the charges to mitigate any significant adverse impacts attributable to the Scheme which were not predicted in the preopening assessment (Policy 15).	Not started		

	50	2026	Q3	Charging Policy	5.4	12-month review of user charges	TfL will consult on its proposed response to the data analysis for the '12-month review' with members of STIG. Members of STIG may make representations in response to TfL's proposal. The decision on the response to the review will be made by TfL. TfL will publish a report summarising the review and its outcome.	Not started	
	51	2022	Q2	DCO	53 (2)	Revisions to charging policy	TfL must consult STIG on any proposed revisions to the charging policy	Will be undertaken if required	
04 - Monitoring / post-opening mitigation	52	2021	Q1	DCO	Sch 2 Req 7 (10)	Consultation with STIG on changes required to the highway network.	For the duration of the monitoring period (at least 3 years before opening and 3 years after scheme opens), TfL must— (a) implement a monitoring programme in consultation with the members of STIG;	Underway	Jan21 - air quality baseline monitoring is underway Socio-economic primary data collection due to start in Oct 21
	53	2022	Q3	DCO	Sch 2 Req 7 (10)	Consultation with STIG on changes required to the highway network.	For the duration of the monitoring period (at least 3 years before opening and 3 years after scheme opens), TfL must— (b) prepare— (i) quarterly monitoring reports for a period of one year from the Silvertown Tunnel opening for public use; and (ii) annual monitoring reports thereafter, derived from that monitoring, and submit them for consideration by the members of STIG;	Not started	
	54	2026	Q1	DCO	Sch 2 Req 7 (14)	TfL to consult STIG on the appointment of independent air quality experts to review each annual monitoring report	The monitoring data within each annual monitoring report referred to in sub-paragraph (10) must be reviewed as soon as reasonably practicable by a firm of independent air quality experts appointed by TfL in consultation with the members of STIG. The annual review undertaken by the firm of experts must determine in accordance with the criteria set out in the monitoring and mitigation strategy whether or not there has been a material worsening of air quality as a result of the authorised development beyond the likely impacts reported within the environmental statement at locations where there are (whether as a result of the authorised development of otherwise) exceedances of national air quality objectives.	Not started	
	55	2020	Q3	MMS	3.4.1	Commencement of monitoring	The monitoring programme will commence no later than three years prior to the expected date of Scheme opening.	Underway	Jan21 - air quality baseline monitoring is underway
	56	2020	Q3	MMS	3.4.1	Extending the monitoring period	The duration of the post-opening monitoring will be reviewed and TfL will consult the members of STIG on whether it is appropriate to extend this period by up to an additional two years.	Not started	
	57	2025	Q2	MMS	3.5.4	Scheme impacts not captured by monitoring programme	Once the Scheme is operational, should a member of STIG identify potential impacts that they consider may be a result of the Scheme at a location not being monitored under the Scheme's monitoring programme at that time (for instance using TfL's publicly available wider data set), this can be brought to TfL's attention for further consideration and possible inclusion in the monitoring programme going forward.	Not started	
	58	2026	Q3	MMS	3.7.6	Reporting and expert review of AQ data	The air quality monitoring data will be reported in the annual monitoring report which must be reviewed as soon as reasonably practicable by a firm of air quality experts appointed by TfL in consultation with STIG members. The expert review must determine whether or not there has been a material worsening of air quality as a result of the Scheme (as detailed in section 4.4 of this document).	Not started	
	59	2025	Q2	MMS	3.10.3	Quarterly interim reports in first year after opening	For the first year after the Silvertown Tunnel opens for public use, TfL will produce and submit to STIG interim monitoring reports on a quarterly basis to help ensure that any impacts can be identified promptly. These reports will be less detailed than the annual monitoring reports but will include data collected to date and a high level analysis of the results.	Not started	
	60	2026	Q3	MMS	3.11.1	Production of monitoring reports	The annual monitoring reports will be produced by TfL and sent to STIG members within two months of data collection.	Not started	
	61	2026	Q3	MMS	3.11.1	STIG review of monitoring reports	STIG will be responsible for: • Reviewing the findings presented in the monitoring reports • Considering the need for and type of any mitigation measures that might be required to address Scheme impacts, in line with the process set out in Chapter 4 of this document • Reviewing the monitoring programme and make recommendations to TfL for changes where appropriate	Not started	
	62	2020	Q3	MMS	3.11.2	Changes to monitoring programme	Proposals for changes to the monitoring programme can be made by any member of STIG in the interest of enabling future impacts to be fully captured. Aspects on which STIG members may request changes include the monitoring locations, metrics considered and data collection methods. In updating the monitoring programme, TfL shall have regard to any recommendations made by STIG.	Will be undertaken if required	
	63	2026	Q3	MMS	3.11.3	Contents of monitoring reports	STIG will also be able to request changes to the contents of the monitoring reports including the addition of new topics and removal of existing topics if considered appropriate. TfL will remain responsible for the final content and structure of the monitoring reports.	Not started	
	64	2026	Q3	MMS	4.1.2	Post-opening mitigation measures	The need for any mitigation following the Scheme's opening will be identified through review of the monitoring reports containing the data collected through the monitoring programme. Different processes will apply to different Scheme impacts, as follows:.....	Not started	
	65	2026	Q3	MMS	4.1.2	Post-opening mitigation measures	The air quality data will be reviewed by a firm of experts appointed by TfL in consultation with the members of STIG. If in the view of the experts there has been a material worsening in air quality as a result of the Scheme, TfL must develop a scheme of mitigation and submit this to the Mayor of London for approval.	Not started	
	66	2026	Q1	MMS	4.4.1	Appointment of independent air quality expert	TfL will appoint an independent air quality expert to review the post-opening air quality monitoring data set in the annual monitoring reports. TfL will consult with STIG members regarding the expert to be appointed.	Not started	
	67	2026	Q1	MMS	4.5.2	Appointment of noise expert	TfL will appoint an independent noise expert to carry out an annual review the post-opening noise monitoring data presented within the annual monitoring reports. TfL will consult STIG members regarding the expert to be appointed.	Not started	
	68	2026	Q2	MMS	4.5.3	Annual review by Independent noise expert	If the annual review carried out by the independent noise expert concludes that the difference in calculated Basic Noise Level values between the predicted flows and measured flows through the Blackwall and Silvertown Tunnel is greater than 1dB (and that the difference is attributable to the Scheme), TfL will consider the need for localised noise mitigation measures in consultation with the relevant local authorities.	Not started	
	05 - Buses	69	2025	Q2	Bus Strategy	2.2.3	Concessionary bus travel	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	Not started
70		2022	Q2	Bus Strategy	3.4.3	Bus network proposals	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.	Not started	
71		2022	Q2	Bus Strategy	3.4.5	Bus network planning	Commitment 8: Bus service planning will commence not less than 2 years prior to Scheme opening, using TfL's Bus Service Planning Guidelines	Not started	
72		2022	Q2	Bus Strategy	3.4.8	Bus priority measures	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	Not started	
73		2022	Q2	Bus Strategy	3.6.3	Socio-economic impacts of bus services	Commitment 10: TfL and STIG members will consider socio-economic monitoring and information in assessing bus services.	Not started	
74		2025	Q2	Bus Strategy	3.6.4	Socio-economic impacts of bus services	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.	Not started	

Meeting 1 – 24 September 2020

- Terms of Reference
- Update on MMS procurement
- High-level milestones and engagement
- Air quality monitoring proposals

**Meeting 2 – 28 January 2021**

- Election of chairperson
- Recording of decisions made
- Approach to strategic transport modelling
- Lot B, C and D – general update

**Meeting 3 – 27 May 2021**

- Scope of environmental compliance assessment
- Approach to socio-economic monitoring
- Traffic monitoring proposals

**Meeting 4 – 30 September 2021**

- Update on refreshed assessment, including core modelling scenarios
- Socio-economic monitoring – primary surveys
- Final traffic monitoring plan

Meeting 5 – 27 January 2022 (tbc)

- Approach to identifying mitigation measures
- Emerging modelling outcomes (Lot A)
- Update on initial bus proposals
- User charging assessment framework

Meeting 6 – May 2022

- Environmental compliance assessment
- Air quality monitoring data
- Early air quality modelling outputs
- Emerging mitigation measures

Meeting 7 – September 2022

- Opportunities for bus priority measures
- Reporting of monitoring data
- Proposed scheme of mitigation

Meeting 8 – January 2023

- Submission to Secretary of State