

From: Miles Andrew (ST)
Sent: 08 February 2017 16:28
To: Rowe David (ST)
Cc: Alder Chris
Subject: RE: Priority casework: Silvertown

Thanks – sending now

Andrew Miles | Consultation Specialist

Transport for London
Surface Transport
Consultation Delivery Team
3rd Floor – zone 3Y3
230 Blackfriars Road
London SE1 8NT



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From: Rowe David (ST)
Sent: 08 February 2017 16:27
To: Miles Andrew (ST)
Cc: Alder Chris
Subject: RE: Priority casework: Silvertown
Some tweaks made below. Many thanks. David

Dear 

Thank you for your email to Valerie Shawcross, on whose behalf I am replying.

A single-bore tunnel carrying two-way traffic would not be permissible in the UK today for safety reasons. The Rotherhithe Tunnel for example would never be permitted if proposed today. In addition, a single-bore Silvertown Tunnel would:

- Be more prone to complete closure than would a two-bore tunnel since any kind of incident in a single-bore tunnel would entail the closure of the entire link. With two bores it is possible in principle to operate the link – in one direction only – during any such closure affecting the other bore.
- Be less efficient as an alternative to the Blackwall Tunnel during any closures of the existing tunnel. Putting aside the fact that a single-bore tunnel would not be permissible, it would not offer sufficient capacity as an alternative to the Blackwall Tunnel. The Blackwall Tunnel is particularly susceptible to incidents that require that it be closed temporarily, and a key reason that the new Silvertown Tunnel is required is to improve the resilience of the road network in east London to incidents at the existing tunnel
- Not afford the opportunity to provide bus lanes in both directions to support the proposed step-change in cross river services in the east London that the Silvertown Tunnel enables.

TfL considered a wide range of alternative options before arriving at the proposed Silvertown Tunnel scheme. The alternatives TfL has considered include:

- Road-based alternatives such as bridge and different tunnel options
- Public transport options
- Walking and cycling options
- User charging and demand management options

- Options at different locations

TfL found that the Silvertown Tunnel scheme was the only solution to fully address the problems of congestion, closures and resilience at the Blackwall Tunnel. TfL included in its application for Development Consent for the Silvertown Tunnel the 'Case for the Scheme' document, which contains a full account of the options assessment process undertaken by TfL. This sets out the full range of options considered and the factors that TfL took into account to select between the options. The document is available to download via the following link:

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There have also been six separate consultations which have included proposals for the Silvertown Tunnel scheme. The scheme was first proposed in the Mayor's Transport Strategy, which was subject to consultation from October 2009. The proposals were included in the Mayor's London Plan, which was also subject to consultation from October 2009. TfL then held three separate consultations, firstly in relation to a package of river crossings in east London (which included proposals for the Silvertown Tunnel), from February – March 2012 and October – February 2013 and then in relation to the specific proposals for the Scheme between October – December 2014. TfL then held a statutory consultation on the scheme from October – November 2015. These consultations helped TfL to develop its proposals with the benefit of feedback from the public and other stakeholders.

We do not accept your comments about Richard de Cani or the Garden Bridge. The optioneering and design work for the Garden Bridge was carried out following a thorough and competitive procurement process.

Yours sincerely

David Rowe

Lead Sponsor, Silvertown Tunnel

From: Miles Andrew (ST)

Sent: 08 February 2017 16:01

To: Rowe David (ST)

Cc: Alder Chris

Subject: FW: Priority casework: Silvertown

Dear David

[REDACTED] is some sort of transport enthusiast/activist who has had contact with Val Shawcross a couple of times. On both occasions he has argued that the Silvertown Tunnel should/could be a single bore tunnel. Val asked for a 'senior officer' to respond to his latest email, which is at the bottom of this chain, and Planning suggest that this is you. Are you happy for us to send the draft email immediately below this to [REDACTED]? We'll send it from Rivercrossings so we can keep an eye out for any reaction from him.

The section right at the end about Richard/Garden Bridge was written by Andy Brown from Group Planning.

Regards

Andrew

Andrew Miles | Consultation Specialist

Transport for London
Surface Transport
Consultation Delivery Team
3rd Floor – zone 3Y3
230 Blackfriars Road
London SE1 8NT



w www.tfl.gov.uk

From: PlanningFOI

Sent: 08 February 2017 15:53

To: Miles Andrew (ST)

Cc: PlanningFOI

Subject: RE: Priority casework: Silvertown

Hi, We spoke earlier. It seems this will need to come from David Rowe (Senior Manager) as the majority of the response relates to Silvertown. Can you please confirm if he has reviewed it?

Is this something you need to send out? Thanks.

SUGGESTED RESPONSE BEGINS

Dear [REDACTED],

Thank you for your email to Valerie Shawcross, on whose behalf I am replying.

A single-bore tunnel carrying two-way traffic would not be permissible in the UK for road safety reasons. The Rotherhithe Tunnel for example would never be permitted if proposed today. In addition, a single-bore Silvertown Tunnel would:

- Be more prone to complete closure than would a two-bore tunnel since any kind of incident in a single-bore tunnel would entail the closure of the entire link. With two bores it is possible in principle to operate the link – in one direction only – during any such closure affecting the other bore.
- Be less efficient as an alternative to the Blackwall Tunnel during any closures of the existing tunnel. Putting aside the fact that a single-bore tunnel would not be permissible, it would not offer sufficient capacity as an alternative to the Blackwall Tunnel. The Blackwall Tunnel is particularly susceptible to incidents that require that it be closed temporarily, and a key reason that the new Silvertown Tunnel is required is to improve the resilience of the road network in east London to incidents at the existing tunnel
- Not provide the visible commitment to the London bus network that a two-bore Silvertown Tunnel would, since as you know it will include bus lanes and provide for a step-change in the east London cross-river bus network.

TfL considered a wide range of alternative options before arriving at the proposed Silvertown Tunnel scheme. The alternatives TfL has considered include:

- Road-based alternatives such as bridge and different tunnel options
- Public transport options
- Walking and cycling options
- User charging and demand management options
- Options at different locations

TfL found that the Silvertown Tunnel scheme was the only solution to fully address the problems of congestion, closures and resilience at the Blackwall Tunnel. TfL

included in its application for Development Consent for the Silvertown Tunnel the 'Case for the Scheme' document, which contains a full account of the options assessment process undertaken by TfL. This sets out the full range of options considered and the factors that TfL took into account to select between the options. The document is available to download via the following link:

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Yours sincerely

David Rowe

Lead Sponsor, Silvertown Tunnel

From: [REDACTED] >

Date: 18 January 2017 at 23:31:53 GMT

To: Valerie Shawcross <[REDACTED]>

Subject: Silvertown

Dear Val,

Just to say I'd be very happy to chat with you briefly about Silvertown, if that's at all useful. Looked at objectively, the project as it stands is nuts. It doubles the capacity across the river at Blackwall, at massive expense, - to carry more or less the same amount of traffic as now. Everything useful the scheme wants to achieve in terms of queue reduction and resilience can clearly be achieved with a much less ambitious design.

I suspect what happened here was that Richard de Cani played fast and loose with the process in the early stages of optioneering & design - as he did with the Garden Bridge - and then disappeared into the private sector, leaving his colleagues with a project that had by this point received a great deal of investment of time & money - but doesn't really stand up in this form. Obviously, given their sunk costs here, TfL now have very strong to push on regardless. So they've brought in the useless bus lanes to try to justify the scale of the project, and they're making the false argument that a single bore tunnel can't be made safe to try to justify the second bore.

For you & the Mayor, though, I don't see there's any reason to push forward with this massively wasteful design. You can save £300-400 million by building a single-bore tunnel (not the most urgent project out there, but I do acknowledge the politics), and use the rest of

the toll money (that is, after all, coming from Londoners' pockets..) to do something that's actually useful like build bike infra & improve public transport. Why would you not?

All best,



From: Alder Chris
Sent: 13 February 2017 10:27
To: Saldanha Jason; Miles Andrew (ST)
Cc: Rowe David (ST)
Subject: FW: Your email of 18 January 2017 to Valerie Shawcross

Morning both,

Just a heads up that the below has just come into river crossings from [REDACTED]. It has also gone direct to David, Leon and Val Shawcross.

I will start pulling a response together from the team.

Chris

From: [REDACTED]
Sent: 12 February 2017 21:57
To: rivercrossings; Rowe David (ST); Valerie Shawcross; Daniels Leon
Subject: Re: Your email of 18 January 2017 to Valerie Shawcross

Dear David and Val,

To take your points in order.

A single-bore tunnel carrying two-way traffic would not be permissible in the UK today for safety reasons.

To the best of my knowledge, this just isn't true. [BD 78/99](#) doesn't rule out bi-directional tunnels for trunk roads. In fact, it gives guidance for maximum lane capacity for bi-directional tunnels.

Volume 2 Section 2
Part 9 BD 78/99

Chapter 4
Geometric Design

Tunnel Flow/Type		Cut and Cover	Bored Tunnels	Immersed Tubes
Uni-directional	v/hr/lane	TD20 (DMRB 5.1)	2000	2000
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Note: Over or underestimation of traffic capacities can lead to severe economic penalties especially for major tunnels. Special scheme specific studies may be beneficial. Refer to PIARC Technical Committee on Road Tunnels report XVII World Roads Congress, Sydney 1983.

Usefully, this v/hr/lane is higher than the peak flow TfL expect at Silvertown - so it's clear a bi-directional, 2-lane tunnel will have significantly more capacity than TfL expect to need, even at peak.

The Rotherhithe Tunnel for example would never be permitted if proposed today.

This is true. A new single-bore bi-directional tunnel would need less sharp curves, wider lanes, and much better fire escape and suppression arrangements (which, as far as I can tell, are more significant in creating a safe tunnel than the uni-direction/bi-direction element)

In addition, a single-bore Silvertown Tunnel would:

- *Be more prone to complete closure than would a two-bore tunnel since any kind of incident in a single-bore tunnel would entail the closure of the entire link. With two bores it is possible in principle to operate the link – in one direction only – during any such closure affecting the other bore.*

This is true - but given that the Silvertown Tunnel is essentially a third and fourth bore for Blackwall, the Silvertown Tunnel gives resilience to Blackwall (that's part of its purpose) and vice-versa. So a second bore is not needed for this.

- *Be less efficient as an alternative to the Blackwall Tunnel during any closures of the existing tunnel. Putting aside the fact that a single-bore tunnel would not be permissible, it would not offer sufficient capacity as an alternative to the Blackwall Tunnel.*

The Blackwall Tunnel is particularly susceptible to incidents that require that it be closed temporarily, and a key reason that the new Silvertown Tunnel is required is to improve the resilience of the road network in east London to incidents at the existing tunnel

A single bore tunnel at Silvertown would be sufficient to ensure that traffic can cross the river in both directions when any one of the bores at Blackwall or at Silvertown is closed. If, further, the bore at Silvertown can also be used unidirectionally, then even with one bore closed, we return to today's situation, with, essentially, the same traffic levels, according to TfL's forecasts. This is a massive improvement in resilience from the existing situation. Any further improvement in resilience obtains rapidly decreasing returns, at vast expense.

- *Not afford the opportunity to provide bus lanes in both directions to support the proposed step-change in cross river services in the east London that the Silvertown Tunnel enables.*

As I've mentioned previously, the Silvertown Tunnel is forecast to have free-flowing traffic - it will move congestion elsewhere. In free-flowing traffic, bus lanes give little to no advantage either to buses or other traffic. In fact TfL's decision to provide bus lanes here represents a tacit acceptance of the fact that they're over-providing traffic capacity in this scheme. Just to note also that, to the best of my knowledge, TfL has no real analysis of demand for these cross-river services. If there is sufficient demand, why don't they exist already (using high-capacity bendy buses, if needs be..)

TfL considered a wide range of alternative options before arriving at the proposed Silvertown Tunnel scheme. The alternatives TfL has considered include:

- Road-based alternatives such as bridge and different tunnel options*
- Public transport options*
- Walking and cycling options*
- User charging and demand management options*
- Options at different locations*

TfL found that the Silvertown Tunnel scheme was the only solution to fully address the problems of congestion, closures and resilience at the Blackwall Tunnel. TfL included in its application for Development Consent for the Silvertown Tunnel the 'Case for the Scheme' document, which contains a full account of the options assessment process undertaken by TfL. This sets out the full range of options considered and the factors that TfL took into account to select between the options. The document is available to download via the following link:

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I've read this. There was no consideration of a single-bore tunnel at Silvertown, and a third bore at Blackwall was rejected on the (incorrect) assumption that it could only operate as a uni-directional tunnel (though, in fact, given the tidal flow, a uni-directional tunnel at Blackwall or Silvertown, with the capability of operating as uni-directional in both directions, would also provide most of the benefits of the Silvertown Tunnel at a much lower cost...)

There have also been six separate consultations which have included proposals for the Silvertown Tunnel scheme. The scheme was first proposed in the Mayor's

Transport Strategy, which was subject to consultation from October 2009. The proposals were included in the Mayor's London Plan, which was also subject to consultation from October 2009. TfL then held three separate consultations, firstly in relation to a package of river crossings in east London (which included proposals for the Silvertown Tunnel), from February – March 2012 and October – February 2013 and then in relation to the specific proposals for the Scheme between October – December 2014. TfL then held a statutory consultation on the scheme from October – November 2015. These consultations helped TfL to develop its proposals with the benefit of feedback from the public and other stakeholders.

This is true. None of these consultations included an option for a single-bore tunnel (either uni-directional, or bi-directional) at either Blackwall or Silvertown, or for the possibility of including a cycle/ebike/pedestrian/emergency access in the tunnel, (an option that was pre-emptively rejected by TfL) - so it wasn't possible for the public to comment on any single-bore option.

We do not accept your comments about Richard de Cani or the Garden Bridge. The optioneering and design work for the Garden Bridge was carried out following a thorough and competitive procurement process.

This is an opinion that isn't shared by anyone I know of who has looked closely at this process. And the various failures in the commissioning of the Garden Bridge project (notably the acceptance of a very poor business case and business plan, and handing the management of a large infrastructure project in a sensitive location to an organisation with no financial resources of its own) have lead directly to its dire situation now.

I'd be happy to join both of you on a call to talk through the technical and regulatory details here if that's useful - or to be corrected on any of the points I've made - but please correct me with technical evidence, not just unjustified assertions. I assume the difference in price here between the options we're looking at is of the order of £200-400m. That's a lot of money for Londoners to pay (through tolls) for road tunnel capacity that likely will never be used - and it's money that, in these times of difficult budgets, could be spent on something of real value (bike infrastructure, public transport)..

Best,



Yours sincerely

David Rowe

Lead Sponsor, Silvertown Tunnel

From: [REDACTED] >
Date: 18 January 2017 at 23:31:53 GMT
To: Valerie Shawcross <[REDACTED]>
Subject: Silvertown

Dear Val,

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Looked at objectively, the project as it stands is nuts. It doubles the capacity across the river at Blackwall, at massive expense, - to carry more or less the same amount of traffic as now. Everything useful the scheme wants to achieve in terms of queue reduction and resilience can clearly be achieved with a much less ambitious design.

I suspect what happened here was that Richard de Cani played fast and loose with the process in the early stages of optioneering & design - as he did with the Garden Bridge - and then disappeared into the private sector, leaving his colleagues with a project that had by this point received a great deal of investment of time & money - but doesn't really stand up in this form.

Obviously, given their sunk costs here, TfL now have very strong to push on regardless. So they've brought in the useless bus lanes to try to justify the scale of the project, and they're making the false argument that a single bore tunnel can't be made safe to try to justify the second bore.

For you & the Mayor, though, I don't see there's any reason to push forward with this massively wasteful design. You can save £300-400 million by building a single-bore tunnel (not the most urgent project out there, but i do acknowledge the politics), and use the rest of the toll money (that is, after all, coming from Londoners' pockets..) to do something that's actually useful like build bike infra & improve public transport. Why would you not?

All best,



From: Alder Chris
Sent: 14 February 2017 09:49
To: Saldanha Jason
Cc: Miles Andrew (ST); Rowe David (ST)
Subject: RE: Your email of 18 January 2017 to Valerie Shawcross

Hi Jason (cc David)

I spoke with Gary Poole on the subject of single-bore tunnel safety yesterday, and he advised speaking with yourself on this for more context.

Do we have a formal response on this point already, or are you happy with the below response to the assertion that we can in fact build a single bore under UK health and safety standards? This is based on a fuller response from Gary (attached).

Dear [REDACTED],

Thank you for your email of 12 February. Whilst noting all of your points, the headline point previously made by TfL -that to build a bi-directional single bore tunnel would not be acceptable today on safety grounds- remains most pertinent.

Safety is a principle focus of TfL and something we strive to be an industry leader in. I hope that the below explains the safety grounds for not pursuing a single-bore option to your satisfaction.

In your email of 12 February you refer to [BD78/99](#). It is important to recognise that this Highways England Standard is somewhat out of date, and is in fact currently in the process of being radically restructured and updated. As you may be aware the original standard, which is in its first iteration, was published shortly before the tragic spate of major road tunnel fires in the Alpine region -starting with the Mont Blanc fire of 1999 where 39 people died from smoke asphyxiation.

Subsequent to this sequence of major safety failings a great deal of funding and time was put into reviewing tunnel safety requirements in light of the impacts and behaviours seen in these fatal incidents. As such, in discharging our obligation to any make any risks to the safety of those using London's transport network As Low As Reasonably Practicable (ALARP) TfL cannot only consider the [BD78/99](#) standard in isolation.

Additional pertinent standards and legislation which TfL has considered in the development of the Silvertown Tunnel scheme include the EU Directive (No. 2004/54/EC) for the "minimum safety requirements for road tunnels", which was transposed into UK law via the Road Tunnel Safety Regulation (RTSR) 2007 (amended 2009). Whilst this does not strictly apply to tunnels which are not part of the Trans-European Road Network (TERN) it provides clear guidance, based on learnings from major safety failing, which TfL cannot ignore.

In view of the strong steer from such international good practice and legislation, as well as TfL's own detailed review of the Silvertown Tunnel's safety case, TfL currently adopts an organisation-wide policy of not constructing tunnels to normally support bi-directional traffic in a single bore. This decision is unlikely to be reversed for any location on the TfL Road Network until such time as they can be proven to be an adequately safe option.

Kind regards

From: Rowe David (ST)
Sent: 14 February 2017 08:29
To: Alder Chris; Miles Andrew (ST)
Subject: FW: Your email of 18 January 2017 to Valerie Shawcross

Chris / Andrew - See below. I think a response is needed to address the first point – please can you draft. Many thanks. David

From: [REDACTED]
Sent: 12 February 2017 21:57
To: rivercrossings; Rowe David (ST); Valerie Shawcross; Daniels Leon
Subject: Re: Your email of 18 January 2017 to Valerie Shawcross

Dear David and Val,

To take your points in order.

Attached :

From: Poole Garry (ST)
Sent: 13 February 2017 14:14
To: Alder Chris
Subject: RE: Legality of bi-directional single bore tunnels

Chris

This is a complex issue that has been looked at closely by the Sponsor(s) of Silvertown Tunnel. You should talk to Jason who will have a formalised position on this on file. Our response carefully considers the fact that Rotherhithe operates two-way traffic, albeit restricted to, essentially, cars and vans.

To give a quick sense of the position I note the following:

- It is important to recognise that BD78/99 is somewhat out of date and not a standard TfL is legally compelled to follow. It is a Highways England standard that is in the process of being radically restructured and updated (I am on their Technical Project Board for this revision). This standard, which is in its 1st iteration, was published months before the spate of major road tunnel fires in the Alpine region, starting with the Mont Blanc fire of 1999 where 39 people died from smoke asphyxiation void of a traffic collision.
- These fires stimulated a flurry of EU funded research projects with input and contributions from the International Tunnels community. This research has identified that the size of fires are greater than assumed when BD78/99 and actual human behaviour lessons have challenge the way we manage fire life safety. Therefore rather than blindly following BD78/99, our obligation is to look at international best practice in making our As Low As Reasonably Practicable (ALARP) informed risk mitigation decisions (ALARP is required of us via the GLS Act).
- In response to these fires the EU Directive (No. 2004/54/EC) for the “minimum safety requirements for road tunnels” came into being. It applies to tunnels over 500m in

length on the Trans-European Road Network (TERN). This Directive has been transposed into UK law via the Road Tunnel Safety Regulation (RTSR) 2007 (amended 2009), which is similarly limited to TERN Tunnels over 500m. The Transport for London Road Network (TLRN) is not part of the TERN, so neither the EU Directives nor RTSR strictly apply to us. It does, however, set a strong precedent TfL cannot ignore. Hence TfL's policy is to adopt the "spirit of the RTSR" insofar as it brings a clear guideline to tunnel management and provides benefit to Londoners and is in keeping with the Mayor's Transport Strategy.

- The EU Directive essentially prohibits the construction of tunnels to normally support 2 way traffic in a single bore. This is mainly in response to the Mont Blanc tunnel fire - Mont Blanc is a single bore tunnel and it took 3 years to reopen it only after implementing all available mitigation measures available to them, which has significantly reduced the amount of traffic the tunnel can now support.
- In view of the above, and through a detailed review of the tunnels safety case, our policy is to have a twin bore tunnel. This policy extends to the other river crossings and also the wider consideration of tunnels in London by the Road Task Force. Any notion of a deviation from this policy will require the matter to be revisited more widely than AMD (including Silvertown Tunnel).

I would be happy to help further, but suggest you liaise with Janson first.

Garry

From: Alder Chris

Sent: 13 February 2017 11:08

To: Poole Garry (ST)

Cc: Laidler Samuel

Subject: Legality of bi-directional single bore tunnels

Hi Gary,

We have previously advised stakeholders interested in the number of bores we are using that 'a single-bore tunnel carrying two way traffic would not be permissible in the UK today for safety reasons'

This has now been challenged (rather publicly):

To the best of my knowledge, this just isn't true. [BD 78/99](#) doesn't rule out bi-directional tunnels for trunk roads. In fact, it gives guidance for maximum lane capacity for bi-directional tunnels.

Volume 2 Section 2
Part 9 BD 78/99

Chapter 4
Geometric Design

Tunnel Flow/Type		Cut and Cover	Bored Tunnels	Immersed Tubes
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Note: Over or underestimation of traffic capacities can lead to severe economic penalties especially for major tunnels. Special scheme specific studies may be beneficial. Refer to PIARC Technical Committee on Road Tunnels report XVII World Roads Congress, Sydney 1983.

I am not sure what the source of our original assertion was, but are you able to shed any light on whether this is a defensible position for Silvertown and/or where the stakeholder may find information explaining why we would have said this?

Thanks very much

Chris

Chris Alder

Consultation & Engagement Specialist | Silvertown Tunnel

 Transport for London

230 Blackfriars Rd, 3rd floor Y3, Southwark, London, SE1 8PJ

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From: Rowe David (ST)
Sent: 14 February 2017 15:37
To: Saldanha Jason; Allder Chris
Cc: Miles Andrew (ST); King Tom; Parr Billy; Poole Garry (ST)
Subject: RE: Your email of 18 January 2017 to Valerie Shawcross

Many thanks. Chris is drafting a revised reply making clear this criteria and the implications in terms of Silvertown. David

From: Saldanha Jason
Sent: 14 February 2017 15:21
To: Rowe David (ST); Allder Chris
Cc: Miles Andrew (ST); King Tom; Parr Billy; Poole Garry (ST)
Subject: RE: Your email of 18 January 2017 to Valerie Shawcross

David

I believe that the EU safety standards referred to by Garry (cc'd) are Directive 2004/54/EC of the European Parliament and of the Council of 2004 on minimum safety requirements for tunnels in the Trans-European Road Network (TERN). For UK road tunnels that are part of TERN this EU Directive was implemented by The Road Tunnel Safety Regulations 2007 (SI 2007 no. 1520).

With reference to the EU Directive Clause 2 states:-

2. Infrastructure measures

2.1. Number of tubes and lanes

2.1.1. The main criteria for deciding whether to build a single or a twin-tube tunnel shall be projected traffic volume and safety, taking into account aspects such as the percentage of heavy goods vehicles, gradient and length.

2.1.2. In any case, where, for tunnels at the design stage, a 15-year forecast shows that the traffic volume will exceed 10 000 vehicles per day per lane, a twin-tube tunnel with unidirectional traffic shall be in place at the time when this value will be exceeded.

Regards Jason

From: Rowe David (ST)
Sent: 14 February 2017 10:40
To: Saldanha Jason; Allder Chris
Cc: Miles Andrew (ST); King Tom; Parr Billy
Subject: RE: Your email of 18 January 2017 to Valerie Shawcross

Jason

Do you have the EU Directive – I'd really like to quote what it says if possible.

Thanks. David

From: Saldanha Jason
Sent: 14 February 2017 10:12
To: Allder Chris
Cc: Miles Andrew (ST); Rowe David (ST); King Tom; Parr Billy
Subject: RE: Your email of 18 January 2017 to Valerie Shawcross

Thanks Chris

I think Garry's response is very helpful in explaining how tunnel safety standards and good practice have moved on since BD78/99 was published but I think there are a couple of other points that we can make:-

- We can cite the previous Mayoral decision to terminate tidal flow arrangements at Blackwell Tunnel as evidence of tighter safety regime.
- We want two traffic lanes in each direction for resilience reasons in the event of Blackwall Tunnel closures. This is a key objective of the scheme. Therefore forecast 'normal' traffic demand for Silvertown Tunnel is not the sole consideration when determining capacity.
- If we did want to pursue a single bore solution we would need physical separation between the opposing lanes either horizontally or vertically. This would result in a substantially larger tunnel bore, which given the need for cover under the low-point of the river profile, would not be feasible due to limiting longitudinal gradients between the low point and the tie-ins with the existing highways at either end.

I'm happy to help craft something but have meetings most of today.

Regards Jason

Jason Saldanha | Senior Project Manager
Transport Strategy and Planning
TfL Planning, Transport for London

T: [REDACTED]

A: 230 Blackfriars Rd, 3 floor Y6, Southwark, London, SE1 8PJ

From: Alder Chris
Sent: 14 February 2017 09:49
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Cc: Miles Andrew (ST); Rowe David (ST)
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Safety is a principle focus of TfL and something we strive to be an industry leader in. I hope that the below explains the safety grounds for not pursuing a single-bore option to your satisfaction.

In your email of 12 February you refer to [BD78/99](#). It is important to recognise that this Highways England Standard is somewhat out of date, and is in fact currently in the process of being radically restructured and updated. As you may be aware the original standard, which is in its first iteration, was published shortly before the tragic spate of major road tunnel fires in the Alpine region -starting with the Mont Blanc fire of 1999 where 39 people died from smoke asphyxiation.

Subsequent to this sequence of major safety failings a great deal of funding and time was put into reviewing tunnel safety requirements in light of the impacts and behaviours seen in these fatal incidents. As such, in discharging our obligation to any make any risks to the safety of those using London's transport network As Low As Reasonably Practicable (ALARP) TfL cannot only consider the [BD78/99](#) standard in isolation.

Additional pertinent standards and legislation which TfL has considered in the development of the Silvertown Tunnel scheme include the EU Directive (No. 2004/54/EC) for the "minimum safety requirements for road tunnels", which was transposed into UK law via the Road Tunnel Safety Regulation (RTSR) 2007 (amended 2009). Whilst this does not strictly apply to tunnels which are not part of the Trans-European Road Network (TERN) it provides clear guidance, based on learnings from major safety failing, which TfL cannot ignore.

In view of the strong steer from such international good practice and legislation, as well as TfL's own detailed review of the Silvertown Tunnel's safety case, TfL currently adopts an organisation-wide policy of not constructing tunnels to normally support bi-directional traffic in a single bore. This decision is unlikely to be reversed for any location on the TfL Road Network until such time as they can be proven to be an adequately safe option.

Kind regards

From: Rowe David (ST)
Sent: 14 February 2017 08:29
To: Alder Chris; Miles Andrew (ST)
Subject: FW: Your email of 18 January 2017 to Valerie Shawcross

Chris / Andrew - See below. I think a response is needed to address the first point – please can you draft. Many thanks. David

From: [REDACTED]
Sent: 12 February 2017 21:57
To: rivercrossings; Rowe David (ST); Valerie Shawcross; Daniels Leon
Subject: Re: Your email of 18 January 2017 to Valerie Shawcross

Dear David and Val,

To take your points in order.

From: Alder Chris
Sent: 15 February 2017 15:48
To: Rowe David (ST)
Cc: Miles Andrew (ST); Saldanha Jason
Subject: Draft response to Dominic Leggett

Hi David,

As discussed yesterday an EU Directive states that for tunnels (on the TERN) if 'a 15-year forecast shows that the traffic volume will exceed 10 000 vehicles per day per lane, a twin-tube tunnel with unidirectional traffic shall be in place at the time when this value will be exceeded'. Our total throughput of 25000 vehicles per day through the new bores therefore means that would be over the recommended limit for a single bore tunnel with two lanes from the start.

Were we to attempt a single bore with *four* lanes the design becomes unfeasible in engineering terms as we would have to go deeper to make such a large tunnel, and then the gradient becomes unacceptably steep. Martin has Atkins pulling some numbers/references to prove this, but in the interest of giving you time to review before you go on leave please find below a draft response addressing Dominic's original two-lane plan.

Dear [REDACTED],

Thank you for your email of 12 February. We have noted the points you make and stand by our previous response. We have little further to add and would like to bring this correspondence to a close.

TfL has developed the Silvertown Tunnel scheme in line with EU Directive 2004/54/EC (brought into UK law via the Road Tunnel Safety Regulations 2007). This Directive applies to tunnels at least 500m in length and which are part of the Trans-European Road Network. Given the tunnel's size and purpose, we consider that the Silvertown Tunnel should also be subject to this Directive. Directive 2004/54/EC requires that where a tunnel is forecast to carry more than 10,000 vehicles per lane per day, 'a twin-tube tunnel with unidirectional traffic shall be in place'. Approximately 25,000 vehicles are predicted to pass through the new Silvertown Tunnel each day, which rules out a two-lane bidirectional single bore as an option for this Scheme.

You may be interested to learn that the BD78/99 referenced in your email is currently being updated by the Highways Agency to better reflect current best-practice in the design and operation of tunnels. This includes incorporation of the lessons learnt following the fatal Mont Blanc fire in 1999, which are reflected in the European Directive referenced above but not currently in BD78/9.

Kind regards etc

David Rowe

Garry also provided a large number additional considerations against why we wouldn't want to change to a single bore, (eg GLA Act requiring us to follow an ALARP approach to risk; the Fire Service potentially refusing to send staff into a single bore in the event of fire etc). The above argument alone seem to make a single-bore untenable however, and keeping it short hopefully provides less wriggle room for a further protracted response.

R gds

Chris

Chris Alder

Consultation & Engagement | Silvertown Tunnel

 Transport for London

230 Blackfriars Rd, 3rd floor Y3, Southwark, London, SE1 8PJ



From: Rowe David (ST)
Sent: 14 February 2017 10:40
To: Saldanha Jason; Alder Chris
Cc: Miles Andrew (ST); King Tom; Parr Billy
Subject: RE: Your email of 18 January 2017 to Valerie Shawcross

Jason

Do you have the EU Directive – I'd really like to quote what it says if possible.
Thanks. David

Attached:

From: Poole Garry (ST)
Sent: 14 February 2017 13:07
To: Alder Chris
Subject: RE: Legality of bi-directional single bore tunnels

Chris

I have limited time to respond to this fully as I am on my way to a medical appointment shortly and will be on leave thereafter return to work on 22 Feb. So apologies if below is not written very well, but you should be able to make sense of it all the same. Also I think Andrew should get Atkins take on current good practice from a more international tunnel designer perspective. I am sure our Tunnel Safety Officer and the TDSCG will be very reluctant to support a single bore design too.

Please check to see if there is a Project Board paper on this put up by either Catherine or Jason? We need to be consistent in our messages.

I think the issue goes wider than just what the EU Directive States. There are maintenance, operations and other resilience issues to consider. Here are some points to consider:

1. TfL is compelled under the GLA Act to apply ALARP principles. This means we have to take into consideration current best practice and determine, via a risk assessment, what level of risk mitigation is affordable and what level of risks can be tolerated. We do not necessarily have to apply best practice by must be in a position

to explain why we are not as part of our statutory defence. As such we cannot ignore BD78/99, the EU Directive, the outcome of recent accepted research findings, etc. It should also be noted that the EU Directive sets “minimum” requirements – we are a World Class city and a very customer facing tunnel and network operator.

2. Risks are mitigated through the provision of suitable and sufficient assets (especially tunnel safety and traffic systems, and our management of people and resources. The design approach must take into consideration how the tunnel will be maintained and operated. Key to the safety case is the ability of the incident responders, such as the fire and rescue services, to play their part in mitigating our operating risks to tolerable level.
3. The safety case developed for the reference design describes how the ALARP principles should be applied to Silvertown Tunnel. This has been reviewed and agreed with the Tunnel Design Safety Consultation Group, which includes London Fire Brigade and other incident responders upon which TfL is heavily reliant in the event of a fire or toxic spillage. The TDSCG is expecting a twin bore tunnel with emergency access and egress cross-passages between the two bores. Any deviation from this arrangement would introduce major risk to the project as the TDSCG is unlikely to accept the compromise.
4. From a fire life safety design perspective, I believe both our Feasibility Design and Reference Design consultants, Mott MacDonald and Atkins respectively, have advocated a twin bore tunnel. If TfL determines a single bore tunnel with two way traffic operations is now required we would have to underwrite the associated risks as I cannot see how these could transfer to Project Co (may require a discussion). Such would require a major deviation from the current ITN approach and the financial imperative that we transfer risk to Project Co.
5. In terms of the fire life safety risk alone: In the event of a fire the heat and smoke must be managed in such a way as to ensure a safe means of evacuation. If there is two-way flow in the tunnel with longitudinal ventilation and no cross passage doors then smoke would have to be blown over one or other queue of vehicles in the bore (PS: this happened in the Mont Blanc tunnel and 39 people died of smoke asphyxiation and two of the tunnel operators managers went to jail). To mitigate this risk, albeit partially, a different form of ventilation would have to be considered. This would, most likely, require shafts at the 1/3 points (either side of the river bank). I cannot see the developers being happy with such being introduced now and we would have to agree the principles with the TDSCG.

NB:

- a. We do not allow two way traffic flows in either of the Blackwall Tunnels (yes two not one tunnel) under any circumstances on safety grounds (a subject of hot debate when the previous Mayor wanted to reintroduce tidal flow). We do on occasion reverse the traffic flow in the Southbound Bore to mitigate traffic disruption when the Northbound bore is closed for a prolonged period of time. As mentioned below the fire risks in Rotherhithe Tunnel are much reduced as we restrict vehicle sizes to essentially cars and vans.
- b. BD78/99 sensibly allows two way operation in one bore to allow for maintenance of the adjacent bore subject to suitable risk mitigation measures

being in place at the time - we practice this in our other twin-bore tunnels that are under 500m long. We do not own the A13 DBFO tunnels but they operate two-way traffic during maintenance periods in their modern tunnels which have cross-passages between the bores at 100m intervals.

- c. TfL's tunnels were included in the ADAC surveys across Europe shortly after the Mont Blanc fire, funded by Automobile Association including the UK's AA. I do not have time right now to find these reports, but it found that Rotherhithe and the two Blackwall tunnels were, in their opinion, amongst the least safe in Europe. The main issue was the lack of viable evacuation routes, i.e. no cross passage connections. We have made the improvements we can but these tunnels are inherently less safe than modern tunnels due to their structural form.
- 6. Our policy is to adopt a Fixed Fire Suppression System (FFFS). We do not have this in any of our current tunnels and the facility only exist in two tunnel in the UK now (Tyne Tunnel and Dartford Tunnel). Such a system cannot extinguish a fire but is can contain its size. I am not able to say with any confidence that such a system will be suitable for use with two way traffic; it will produce steam and prevent smoke from stratifying above the 'unfortunate' queue of vehicles and reduce the visibility down stream of the fire. Therefore the potential fire size could, subject to expert designer opinion, be contained from say 100MW to 20MW (heat release rate) with one way traffic but not with two way traffic in a single bore.
 - 7. If we do not have an adjacent bore with cross-passage connections for London Fire Brigade to use, and no FFFS, then the Fire Brigade would be expected to enter the tunnel from one of other portal. On the assumption the ventilation system is blowing the smoke over the fire in the opposite direction to that for evacuation LFB would be asked to approach the fire against the evacuation direction with all their gear. This is unlikely to be agreeable for a new build tunnel for a number of H&S and other logistical reasons.

Note: The Police provide a cordon around the tunnel incident (which is likely to be deemed an crime scene) and the Fire Brigade take H&S responsibility within the cordon. It is quite possible LFB would, undertake a dynamic H&S risk assessment, deem it too risky too risky for anyone to enter the tunnel.

- 8. In terms of operational resilience: If we only have one bore then we would have to rethink what vehicles we would permit to use the bore. In my view we would have to introduce a 4m height restriction consistent with that of the Blackwall Northbound tunnel. Otherwise where would they go when the single bore was closed to traffic in response to an incident or for a planned or unplanned maintenance activity? This resilience issue would undermine some of the benefits we are seeking, but would be less expensive to build, maintain and operate. This is very much within the Sponsor's domain to explore.
- 9. In terms of traffic flows, I am not close to the modelling and would need to be appraised accordingly. However is there not a case to design a crossing for the long term 120year life of the asset?

In summary: TfL has found it unacceptable to operate the Blackwall Bores in contraflow mode on safety grounds, mainly because of the absence of cross passage connections and the dilemma of which direction to ventilate fire smoke (which queue do we choose to kill). I do not see, in light of the above, that TfL could now deem a single bore option with two way traffic flow to be viable for Silvertown, especially without the introduction of shafts at the 1/3 points, on safety grounds.

Garry

From: Alder Chris

Sent: 14 February 2017 10:39

To: Poole Garry (ST)

Subject: RE: Legality of bi-directional single bore tunnels

Hi Gary,

I have spoken with Jason and David, are you able to expand a bit on how the EU Directive 'essentially prohibits' single bore?

I have found the below text, is there anything else pertinent? We are keen to make a clear case that outside of the fact it is not on TERN the Directive (something!) definitely directs us not to go single bore for Silvertown.

2.1. Number of tubes and lanes

2.1.1. The main criteria for deciding whether to build a single or a twin-tube tunnel shall be projected traffic volume and safety, taking into account aspects such as the percentage of heavy goods vehicles, gradient and length.

2.1.2. **In any case, where, for tunnels at the design stage, a 15-year forecast shows that the traffic volume will exceed 10 000 vehicles per day per lane**, a twin-tube tunnel with unidirectional traffic shall be in place at the time when this value will be exceeded.

Thanks in advance

Chris

Chris Alder

Consultation & Engagement Specialist | Silvertown Tunnel

🚇 Transport for London

230 Blackfriars Rd, 3rd floor Y3, Southwark, London, SE1 8PJ

📞

✉️

From: Rowe David (ST)
Sent: 15 February 2017 17:41
To: Saldanha Jason; Allder Chris
Cc: Miles Andrew (ST)
Subject: RE: Draft response to [REDACTED]

Sounds sensible – Chris please hold until we hear from Ian. Many thanks David

From: Saldanha Jason
Sent: 15 February 2017 17:40
To: Rowe David (ST); Allder Chris
Cc: Miles Andrew (ST)
Subject: RE: Draft response to [REDACTED]

David and Chris

Ian Gee has been in touch to say that he is preparing a note on this issue which he hoped to get to us today but will now be tomorrow. He did say this is not straightforward, as I think we recognise, but I wondered if we could hold back our response until we receive Ian's note?

Thanks Jason

From: Rowe David (ST)
Sent: 15 February 2017 17:26
To: Allder Chris
Cc: Miles Andrew (ST); Saldanha Jason
Subject: RE: Draft response to [REDACTED]

Many thanks Chris. Tweaked response below:

[REDACTED]

Thank you for your email of 12 February. We have noted the points you make and stand by our previous response.

In terms of the safety case and rationale for a twin bore tunnel, TfL has developed the Silvertown Tunnel scheme in line with EU Directive 2004/54/EC (brought into UK law via the Road Tunnel Safety Regulations 2007). This Directive applies to tunnels at least 500m in length and which are part of the Trans-European Road Network. Given the Silvertown Tunnel's size and purpose, we consider that the design should also be subject to this Directive. Directive 2004/54/EC requires that where a tunnel is forecast to carry more than 10,000 vehicles per lane per day, 'a twin-tube tunnel with unidirectional traffic shall be in place'. Approximately 25,000 vehicles are predicted to pass through the new Silvertown Tunnel each day, with one lane in each direction dedicated for buses and HGVs. This therefore rules out a two-lane bidirectional single bore as an option for the Scheme.

You may be interested to learn that the BD78/99 referenced in your email is currently being updated by the Highways Agency to better reflect current best-practice in the design and operation of tunnels. This includes incorporation of the lessons learnt following the fatal Mont Blanc fire in 1999, which are reflected in the European Directive referenced above but not currently in BD78/99.

Kind regards etc

David Rowe

From: Alder Chris
Sent: 15 February 2017 15:48
To: Rowe David (ST)
Cc: Miles Andrew (ST); Saldanha Jason
Subject: Draft response to [REDACTED]

Hi David,

As discussed yesterday an EU Directive states that for tunnels (on the TERN) if 'a 15-year forecast shows that the traffic volume will exceed 10 000 vehicles per day per lane, a twin-tube tunnel with unidirectional traffic shall be in place at the time when this value will be exceeded'. Our total throughput of 25000 vehicles per day through the new bores therefore means that would be over the recommended limit for a single bore tunnel with two lanes from the start.

Were we to attempt a single bore with *four* lanes the design becomes unfeasible in engineering terms as we would have to go deeper to make such a large tunnel, and then the gradient becomes unacceptably steep. Martin has Atkins pulling some numbers/references to prove this, but in the interest of giving you time to review before you go on leave please find below a draft response addressing Dominic's original two-lane plan.

[REDACTED]

Thank you for your email of 12 February. We have noted the points you make and stand by our previous response. We have little further to add and would like to bring this correspondence to a close.

TfL has developed the Silvertown Tunnel scheme in line with EU Directive 2004/54/EC (brought into UK law via the Road Tunnel Safety Regulations 2007). This Directive applies to tunnels at least 500m in length and which are part of the Trans-European Road Network. Given the tunnel's size and purpose, we consider that the Silvertown Tunnel should also be subject to this Directive. Directive 2004/54/EC requires that where a tunnel is forecast to carry more than 10,000 vehicles per lane per day, 'a twin-tube tunnel with unidirectional traffic shall be in place'. Approximately 25,000 vehicles are predicted to pass through the new Silvertown Tunnel each day, which rules out a two-lane bidirectional single bore as an option for this Scheme.

You may be interested to learn that the BD78/99 referenced in your email is currently being updated by the Highways Agency to better reflect current best-practice in the design and operation of tunnels. This includes incorporation of the lessons learnt following the fatal Mont Blanc fire in 1999, which are reflected in the European Directive referenced above but not currently in BD78/9.

Kind regards etc

David Rowe

Garry also provided a large number additional considerations against why we wouldn't want to change to a single bore, (eg GLA Act requiring us to follow an ALARP approach to risk;


the Fire Service potentially refusing to send staff into a single bore in the event of fire etc). The above argument alone seem to make a single-bore untenable however, and keeping it short hopefully provides less wriggle room for a further protracted response.

Rgds

Chris

Chris Ailder

Consultation & Engagement | Silvertown Tunnel

 Transport for London

230 Blackfriars Rd, 3rd floor Y3, Southwark, London, SE1 8PJ

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From: Saldanha Jason
Sent: 16 February 2017 14:49
To: Alder Chris
Cc: Miles Andrew (ST); Rowe David (ST)
Subject: RE: Draft response to [REDACTED]

Thanks Chris, I think you've done a good job of simplifying the technical bits. I've just tweaked a little to reintroduce the term 'single bore', which has become synonymous with Mr Leggatt!

Regards Jason

From: Alder Chris
Sent: 16 February 2017 14:30
To: Saldanha Jason
Cc: Miles Andrew (ST); Rowe David (ST)
Subject: RE: Draft response to [REDACTED]

Hi Jason,

Revised below. Unless there are any major concerns I will send off shortly. (Jason - I would ideally like to remove the word 'safely' from the new para. but I cannot find anything in the Directive that suggests we *have* to have a dividing wall if bidirectional. Does Ian's note give any clarity on this?)

This has deliberately been kept slightly short to limit things Dominic can chip away at. However, we now have a wealth of material from Garry and Ian in our back pockets if he tries to go around this.

Dear [REDACTED]

Thank you for your email of 12 February. We have noted the points you make and stand by our previous response.

In terms of the safety case and rationale for a twin bore tunnel, TfL has developed the Silvertown Tunnel scheme in line with [EU Directive 2004/54/EC](#) (brought into UK law via the Road Tunnel Safety Regulations 2007). This Directive reflects advances in road tunnel safety and applies to tunnels at least 500m in length which are part of the Trans-European Road Network. Given the Silvertown Tunnel's size and purpose, we consider that the design should also be subject to this Directive. Directive 2004/54/EC requires that where a tunnel is forecast to carry more than 10,000 vehicles per lane per day, 'a twin-tube tunnel with unidirectional traffic shall be in place'. Approximately 25,000 vehicles are predicted to pass through the new Silvertown Tunnel each day, with one lane in each direction dedicated for buses and HGVs. This therefore rules out a bidirectional single bore with two lanes as an option for the Scheme.

To safely ~~construct~~ provide a single bore tunnel with four lanes that is compliant with the EU Directive, would require a tunnel of over 18 metres in diameter. Such a large tunnel is not a viable consideration for the Silvertown Tunnel scheme, as in order to prevent the top of an 18m tunnel from being dangerously close to the River Thames, the gradient of the roads into and out of the tunnel would have to be in breach of the maximum 5% gradient permitted by the Directive. It is also worth noting that an 18m ~~plus~~ diameter bore would require excavating

a larger amount of earth, and thus cost more money, than our twin bore proposal currently being examined by the Planning Inspectorate.

In your recent response you referenced S standard [BD78/99](#). In light of this you may be interested to note that this standard is currently being updated by the Highways Agency in order to better reflect current best-practice in the design and operation of tunnels. This includes incorporation of the lessons learnt following the fatal Mont Blanc fire in 1999, which are reflected in the European Directive referenced above but not currently in BD78/99.

Best regards

From: Saldanha Jason
Sent: 16 February 2017 12:56
To: Miles Andrew (ST); Rowe David (ST); Alder Chris
Subject: RE: Draft response to [REDACTED]

No problem Andrew, I thought I'd managed to de-code Ian's techno jargon but there are layers of jargon!

Cheers Jason

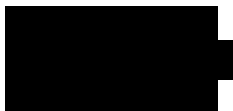
From: Miles Andrew (ST)
Sent: 16 February 2017 12:26
To: Saldanha Jason; Rowe David (ST); Alder Chris
Subject: RE: Draft response to [REDACTED]

Detail is no problem, however the new para in red uses language that I'm struggling to understand, and I'd bet [REDACTED] would struggle too. Just in the interests of plain language Chris should have a fiddle of it to come up with a plain English version, perhaps by having a chat to Ian (incidentally his email wasn't attached – could you resend?)

Andrew

Andrew Miles | Consultation Specialist

Transport for London
Surface Transport
Consultation Delivery Team
3rd Floor – zone 3Y3
230 Blackfriars Road
London SE1 8NT



w www.tfl.gov.uk

From: Saldanha Jason
Sent: 16 February 2017 12:21
To: Rowe David (ST); Alder Chris
Cc: Miles Andrew (ST)
Subject: RE: Draft response to Dominic Leggett

Chris

Further to Ian Gee's email (see attached) I've made some suggested changes to the draft agreed by David yesterday which hopefully bolster our position. I know it's getting into detail but we need to tackle the reasons why a large single bore tunnel won't work/fit.

Dear [REDACTED],

Thank you for your email of 12 February. We have noted the points you make and stand by our previous response.

*In terms of the safety case and rationale for a twin bore tunnel, TfL has developed the Silvertown Tunnel scheme in line with EU Directive 2004/54/EC (brought into UK law via the Road Tunnel Safety Regulations 2007). This Directive **reflects advances in road tunnel safety and** applies to tunnels at least 500m in length which are part of the Trans-European Road Network. Given the Silvertown Tunnel's size and purpose, we consider that the design should also be subject to this Directive. Directive 2004/54/EC requires that where a tunnel is forecast to carry more than 10,000 vehicles per lane per day, 'a twin-tube tunnel with unidirectional traffic shall be in place'. Approximately 25,000 vehicles are predicted to pass through the new Silvertown Tunnel each day, with one lane in each direction dedicated for buses and HGVs. This therefore rules out a two-lane bidirectional single bore as an option for the Scheme.*

To achieve a safe, single bore, bi-directional solution that is compliant with the EU Directive would require physical separation between the opposing carriageways. Whether this was achieved vertically (one carriageway above the other) or horizontally (side by side with a separation wall) would result in a tunnel diameter of 18 metres or more. This would generate more excavated volume than the proposed twin bore 12 metre diameter tunnels making this more costly to construct. In addition, this large single bore would need to have a greater depth of cover below the low-point in the river to resist flotation effects. This would result in a significant lowering of the carriageway levels at the low point of the tunnel alignment and a consequential steepening of the longitudinal gradients to the existing road tie-ins at either end. The EU Directive mandates that gradients greater than 5% are not permitted and this cannot be achieved with the large single bore option.

You may be interested to learn that the BD78/99 referenced in your email is currently being updated by the Highways Agency to better reflect current best-practice in the design and operation of tunnels. This includes incorporation of the lessons learnt following the fatal Mont Blanc fire in 1999, which are reflected in the European Directive referenced above but not currently in BD78/99.

Regards Jason

**Jason Saldanha | Senior Project Manager
Transport Strategy and Planning
TfL Planning, Transport for London**

T: [REDACTED]

A: 230 Blackfriars Rd, 3 floor Y6, Southwark, London, SE1 8PJ

From: Rowe David (ST)
Sent: 15 February 2017 17:26
To: Alder Chris

Cc: Miles Andrew (ST); Saldanha Jason

Subject: RE: Draft response to [REDACTED]

Many thanks Chris. Tweaked response below:

Dear [REDACTED],

Thank you for your email of 12 February. We have noted the points you make and stand by our previous response.

In terms of the safety case and rationale for a twin bore tunnel, TfL has developed the Silvertown Tunnel scheme in line with EU Directive 2004/54/EC (brought into UK law via the Road Tunnel Safety Regulations 2007). This Directive applies to tunnels at least 500m in length and which are part of the Trans-European Road Network. Given the Silvertown Tunnel's size and purpose, we consider that the design should also be subject to this Directive. Directive 2004/54/EC requires that where a tunnel is forecast to carry more than 10,000 vehicles per lane per day, 'a twin-tube tunnel with unidirectional traffic shall be in place'. Approximately 25,000 vehicles are predicted to pass through the new Silvertown Tunnel each day, with one lane in each direction dedicated for buses and HGVs. This therefore rules out a two-lane bidirectional single bore as an option for the Scheme.

You may be interested to learn that the BD78/99 referenced in your email is currently being updated by the Highways Agency to better reflect current best-practice in the design and operation of tunnels. This includes incorporation of the lessons learnt following the fatal Mont Blanc fire in 1999, which are reflected in the European Directive referenced above but not currently in BD78/99.

Kind regards etc

David Rowe

From: Rowe David (ST)
Sent: 07 April 2017 08:46
To: King Tom; Stockman Nick
Cc: Alder Chris
Subject: FW: Your email of 18 January 2017 to Valerie Shawcross

Tom / Nick

See e-mail below from [REDACTED]. As much as I doubt we will change [REDACTED]'s views given the previous correspondence with him on this issue, I would be grateful if you can review his claims below and draft a response for my review.
Many thanks. David

From: [REDACTED]
Sent: 06 April 2017 18:10
To: rivercrossings
Cc: Rowe David (ST); val@[REDACTED]; Daniels Leon
Subject: Re: Your email of 18 January 2017 to Valerie Shawcross

Dear Val and David,

Thanks for this response, and apologies for the slow reply - your response somehow went to my spam mailbox.

This is useful information, but does not affect the conclusion that a new two-lane single bore tunnel at Silvertown (or Blackwall) with a passage for emergency access, bikes, pedestrians, and light electric vehicles will provide nearly all the benefits of the proposed Silvertown Tunnel (and some increased benefits) at much lower cost. This is true even if you rule out two-way operation for tunnels with traffic of above 25K vehicles/day..

As I understand, there are three objectives of the Silvertown scheme:

- 1) Remove queues at the Blackwall Tunnel while not increasing overall cross-river traffic substantially
- 2) Provide resilience in the event of blockage of the northbound or southbound Blackwall Tunnels
- 3) Establish conditions for better, and better-used bus services across the river.

Key here is the fact that usage of the Blackwall Tunnel is tidal - and that the Blackwall Tunnel provides adequate capacity for contra-tidal flows.

All the relevant information is in section 4 of this document, though I have attached images of two useful graphs.

Objective (1), as you see in the attached graphs, can be achieved by providing capacity for a little under 6,000 vehicles northbound over 3 hours in the AM peak, (when there's no need for more capacity southbound) and capacity for a little under 6,000 vehicles southbound over 3 hours in the PM peak (when there's no need for more capacity southbound). So this objective can easily be achieved by using a single bore, uni-directional two lane tunnel with flow reversed in morning and evening peaks.

(I would also note that this queue-busting objective only requires that the tunnel takes 12K vehicles a day - flow beyond that is somewhat arbitrary and determined by pricing. So if you wanted to keep flows under 25K a day, or some other arbitrary figure, in a bi-directional tunnel, that is also possible. Using the tunnel uni-directionally at peaks and bi-directionally at quiet times is another option.)

Objective (2) can also be achieved with a single bore, uni-directional two-lane tunnel with reversible flow. The tunnel can substitute for whichever of the Blackwall tunnels is out of operation.

In terms of objective (3) building a single bore, reversible flow two lane tunnel will require routing buses via Blackwall, not Silvertown, because flows at Silvertown will reverse during the day and using single-decker bendy buses - but this is a relatively minor compromise given that Blackwall is on the main desire line. The scheme will still remove the main barrier to bus use across the river, which is the long waits at the tunnel.

Clearly, building a single-bore, two lane tunnel with the potential for unidirectional flow in either direction (and/or bidirectional flow), with emergency/bike/pedestrian/ultralight ev access, entails slightly more complexity in design and management in operation than the existing design - but it will still save £200-300 million with virtually the same benefits (and some added benefits for cyclists & pedestrians)

Best,

[REDACTED]

On Thu, Feb 16, 2017 at 3:10 PM, rivercrossings <SMBrivercrossings@tfl.gov.uk> wrote:

Dear [REDACTED]

Thank you for your email of 12 February. We have noted the points you make and stand by our previous response.

In terms of the safety case and rationale for a twin bore tunnel, TfL has developed the Silvertown Tunnel scheme in line with [EU Directive 2004/54/EC](#) (brought into UK law via the Road Tunnel Safety Regulations 2007). This Directive reflects advances in road tunnel safety and applies to tunnels at least 500m in length which are part of the Trans-European Road Network. Given the Silvertown Tunnel's size and purpose, we consider that the design should also be subject to this Directive. Directive 2004/54/EC requires that where a tunnel is forecast to carry more than 10,000 vehicles per lane per day, 'a twin-tube tunnel with unidirectional traffic shall be in place'. Approximately 25,000 vehicles are predicted to pass through the new Silvertown Tunnel each day, with one lane in each direction dedicated for buses and HGVs. This therefore rules out a bidirectional single bore with two lanes as an option for the Scheme.

To safely provide a bidirectional single bore tunnel with four lanes that is compliant with the EU Directive, would require a tunnel of over 18 metres in diameter. Such a large tunnel is not a viable consideration for the Silvertown Tunnel scheme, as in order to prevent the top of an 18m tunnel from being dangerously close to the River Thames, the gradient of the roads into and out of the tunnel would have to be in breach of the maximum 5% gradient permitted by the Directive. It is also worth noting that an 18m plus diameter bore would require excavating a larger amount of earth, and thus cost more money, than our twin bore proposal currently being examined by the Planning Inspectorate.

In your recent response you referenced Standard [BD78/99](#). In light of this you may be interested to note that this standard is currently being updated by the Highways Agency in order to better reflect current best-practice in the design and operation of tunnels. This includes incorporation of the lessons learnt following the fatal Mont Blanc fire in 1999, which are reflected in the European Directive referenced above but not currently in BD78/99.

Best regards

David Rowe

Head of Silvertown Tunnel Sponsorship Team

 Transport for London

From: Rowe David (ST)
Sent: 07 April 2017 10:45
To: rivercrossings
Subject: RE: Your email of 18 January 2017 to Valerie Shawcross

Thanks Andrew – let me just check with Tom/Nick whether there is any value in responding on the tidal flow point. David

From: rivercrossings
Sent: 07 April 2017 09:57
To: Rowe David (ST)
Subject: RE: Your email of 18 January 2017 to Valerie Shawcross

David – my advice (not sure if you agree or not!) is not to get into this stuff with him.

Something short and along the lines of “thanks for your email. We’ve noted your points and believe that our proposals for the Silvertown Tunnel are the right ones. We don’t agree that the new tunnel should be a single bore. The DCO examination concludes on 11 April as you know and we await the view of the SoS thereafter”.

If you agree I could write a reply along those lines this morning?

I don’t think we’re getting anywhere and its time to just close it down – I get the impression that the MO/Val aren’t particularly interested either.

Andrew

Andrew Miles | Consultation Specialist

Transport for London
Surface Transport
Consultation Delivery Team
3rd Floor – zone 3Y3
230 Blackfriars Road
London SE1 8NT



w www.tfl.gov.uk

From: [REDACTED]
Sent: 06 April 2017 18:17
To: rivercrossings
Cc: Rowe David (ST); val@v; Daniels Leon
Subject: Re: Your email of 18 January 2017 to Valerie Shawcross

Forgot to link the document. Apologies. [Here](#).

On Thu, Apr 6, 2017 at 6:09 PM, [REDACTED] > wrote:
Dear Val and David,

Thanks for this response, and apologies for the slow reply - your response somehow went to my spam mailbox.

This is useful information, but does not affect the conclusion that a new two-lane single bore tunnel at Silvertown (or Blackwall) with a passage for emergency access, bikes, pedestrians, and light electric vehicles will provide nearly all the benefits of the proposed Silvertown Tunnel (and some increased benefits) at much lower cost. This is true even if you rule out two-way operation for tunnels with traffic of above 25K vehicles/day..

As I understand, there are three objectives of the Silvertown scheme:

- 1) Remove queues at the Blackwall Tunnel while not increasing overall cross-river traffic substantially
- 2) Provide resilience in the event of blockage of the northbound or southbound Blackwall Tunnels
- 3) Establish conditions for better, and better-used bus services across the river.

Key here is the fact that usage of the Blackwall Tunnel is tidal - and that the Blackwall Tunnel provides adequate capacity for contra-tidal flows.

All the relevant information is in section 4 of this document, though I have attached images of two useful graphs.

Objective (1), as you see in the attached graphs, can be achieved by providing capacity for a little under 6,000 vehicles northbound over 3 hours in the AM peak, (when there's no need for more capacity southbound) and capacity for a little under 6,000 vehicles southbound over 3 hours in the PM peak (when there's no need for more capacity southbound). So this objective can easily be achieved by using a single bore, uni-directional two lane tunnel with flow reversed in morning and evening peaks.

(I would also note that this queue-busting objective only requires that the tunnel takes 12K vehicles a day - flow beyond that is somewhat arbitrary and determined by pricing. So if you wanted to keep flows under 25K a day, or some other arbitrary figure, in a bi-directional tunnel, that is also possible. Using the tunnel uni-directionally at peaks and bi-directionally at quiet times is another option.)

Objective (2) can also be achieved with a single bore, uni-directional two-lane tunnel with reversible flow. The tunnel can substitute for whichever of the Blackwall tunnels is out of operation.

In terms of objective (3) building a single bore, reversible flow two lane tunnel will require routing buses via Blackwall, not Silvertown, because flows at Silvertown will reverse during the day and using single-decker bendy buses - but this is a relatively minor compromise given that Blackwall is on the main desire line. The scheme will still remove the main barrier to bus use across the river, which is the long waits at the tunnel.

Clearly, building a single-bore, two lane tunnel with the potential for unidirectional flow in either direction (and/or bidirectional flow), with emergency/bike/pedestrian/ultralight ev access, entails slightly more complexity in design and management in operation than the

existing design - but it will still save £200-300 million with virtually the same benefits (and some added benefits for cyclists & pedestrians)

Best,



From: Rowe David (ST)
Sent: 07 April 2017 11:15
To: King Tom; Stockman Nick
Cc: Alder Chris
Subject: RE: Your email of 18 January 2017 to Valerie Shawcross

Many thanks Tom.

From: King Tom
Sent: 07 April 2017 11:14
To: Rowe David (ST); Stockman Nick
Cc: Alder Chris
Subject: RE: Your email of 18 January 2017 to Valerie Shawcross

Hi David

As discussed just now, how about a response along the following lines:

[REDACTED]

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Regards etc

Tom

From: Rowe David (ST)
Sent: 07 April 2017 08:46
To: King Tom; Stockman Nick
Cc: Alder Chris
Subject: FW: Your email of 18 January 2017 to Valerie Shawcross

Tom / Nick

See e-mail below from [REDACTED]. As much as I doubt we will change [REDACTED] views given the previous correspondence with him on this issue, I would be grateful if you can review his claims below and draft a response for my review.
Many thanks. David

From: [REDACTED]
Sent: 06 April 2017 18:10
To: rivercrossings
Cc: Rowe David (ST); val@[REDACTED]; Daniels Leon
Subject: Re: Your email of 18 January 2017 to Valerie Shawcross

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Best,

[REDACTED]

From: Rowe David (ST)
Sent: 07 April 2017 12:07
To: rivercrossings
Subject: RE: Your email of 18 January 2017 to Valerie Shawcross

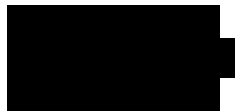
Fine. David

From: rivercrossings
Sent: 07 April 2017 11:39
To: Rowe David (ST)
Subject: RE: Your email of 18 January 2017 to Valerie Shawcross

Ok – I'll send on now. Are you happy that it go under your name?

Andrew Miles | Consultation Specialist

Transport for London
Surface Transport
Consultation Delivery Team
3rd Floor – zone 3Y3
230 Blackfriars Road
London SE1 8NT



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From: Rowe David (ST)
Sent: 07 April 2017 11:17
To: rivercrossings
Subject: RE: Your email of 18 January 2017 to Valerie Shawcross

Andrew – discussed with Tom and we suggest:

Dear 

Thank you for your email.

As you know, the Silvertown DCO Examination must conclude on 11 April 2017. The Scheme has been the subject of a comprehensive process of option assessment over a number of years, in which TfL has carefully considered the costs and benefits of all feasible options in order to identify a solution to the severe problems of the Blackwall Tunnel. TfL's reasons for promoting the Scheme and approach to the specification of the tunnel have been considered in detail during the DCO Examination and it is now appropriate to allow the Examining Authority to reflect on the issues raised as it prepares its report and recommendations for the Secretary of State.

Regards etc

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Andrew Miles | Consultation Specialist

Transport for London
Surface Transport
Consultation Delivery Team
3rd Floor – zone 3Y3
230 Blackfriars Road
London SE1 8NT



w www.tfl.gov.uk

From: [REDACTED]

Sent: 06 April 2017 18:17

To: rivercrossings

Cc: Rowe David (ST); val@[REDACTED]; Daniels Leon

Subject: Re: Your email of 18 January 2017 to Valerie Shawcross

Forgot to link the document. Apologies. [Here](#).

On Thu, Apr 6, 2017 at 6:09 PM, [REDACTED] > wrote:
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Best,



From: Rowe David (ST)
Sent: 07 April 2017 16:37
To: King Tom; Stockman Nick
Cc: Alder Chris
Subject: Re: Your email of 18 January 2017 to Valerie Shawcross

Hmmm...he's been very quick at responding to my latest email, which I'll forward separately.
David

From: King Tom
Sent: Friday, April 07, 2017 04:21 PM
To: Stockman Nick; Rowe David (ST)
Cc: Alder Chris
Subject: RE: Your email of 18 January 2017 to Valerie Shawcross

Wow. I wasn't actually expecting that.

I hope the rather brief response doesn't turn out to trip us up – to be quite honest I'm slightly regretting the 'all feasible options' line..

Tom

From: Stockman Nick
Sent: 07 April 2017 16:05
To: Rowe David (ST); King Tom
Cc: Alder Chris
Subject: RE: Your email of 18 January 2017 to Valerie Shawcross

FYI our correspondence with [REDACTED] right up to now has just been published by PINS
<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010021/TR010021-001678-Dominic%20Leggett.pdf>

From: Rowe David (ST)
Sent: 07 April 2017 11:15
To: King Tom; Stockman Nick
Cc: Alder Chris
Subject: RE: Your email of 18 January 2017 to Valerie Shawcross

Many thanks Tom.

From: King Tom
Sent: 07 April 2017 11:14
To: Rowe David (ST); Stockman Nick
Cc: Alder Chris
Subject: RE: Your email of 18 January 2017 to Valerie Shawcross

Hi David

As discussed just now, how about a response along the following lines:

Dear [REDACTED]

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Regards etc

Tom

From: Rowe David (ST)
Sent: 07 April 2017 08:46
To: King Tom; Stockman Nick
Cc: Alder Chris
Subject: FW: Your email of 18 January 2017 to Valerie Shawcross

Tom / Nick

See e-mail below from [REDACTED]. As much as I doubt we will change [REDACTED] views given the previous correspondence with him on this issue, I would be grateful if you can review his claims below and draft a response for my review.
Many thanks. David

From: [REDACTED]
Sent: 06 April 2017 18:10
To: rivercrossings
Cc: Rowe David (ST); [val@\[REDACTED\]](mailto:val@[REDACTED]); Daniels Leon
Subject: Re: Your email of 18 January 2017 to Valerie Shawcross

Dear Val and David,

Thanks for this response, and apologies for the slow reply - your response somehow went to my spam mailbox.

This is useful information, but does not affect the conclusion that a new two-lane single bore tunnel at Silvertown (or Blackwall) with a passage for emergency access, bikes, pedestrians, and light electric vehicles will provide nearly all the benefits of the proposed Silvertown Tunnel (and some increased benefits) at much lower cost. This is true even if you rule out two-way operation for tunnels with traffic of above 25K vehicles/day..

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Best,



-----Original Message-----

From: Rowe David (ST)

Sent: 10 April 2017 10:38

To: King Tom

Subject: RE: Your email of 18 January 2017 to Valerie Shawcross

Just off to a meeting at WH, should be back about 12.30pm

-----Original Message-----

From: King Tom

Sent: 10 April 2017 10:35

To: Rowe David (ST)

Subject: RE: Your email of 18 January 2017 to Valerie Shawcross

When are you around today David? We hope to hear back from the boroughs shortly on our suggested bus requirement/commitment.

Tom

-----Original Message-----

From: Rowe David (ST)

Sent: 07 April 2017 16:48

To: King Tom; Stockman Nick

Subject: Re: Your email of 18 January 2017 to Valerie Shawcross

Let's pick it up on Monday. David

----- Original Message -----

From: King Tom

Sent: Friday, April 07, 2017 04:44 PM

To: Rowe David (ST); Stockman Nick

Subject: RE: Your email of 18 January 2017 to Valerie Shawcross

Single bore bidirectional can be very robustly rejected on safety grounds ie not feasible

Single bore one direction was considered for Blackwall and not considered feasible OR operationally desirable.

But single bore Silvertown operated tidally we haven't covered in depth in the exam.

I'm on a call with Duncan but let me know if you want to discuss.

Tom

From: Rowe David (ST)

Sent: 07 April 2017 16:37

To: King Tom; Stockman Nick

Subject: Fw: Your email of 18 January 2017 to Valerie Shawcross

FYI. David

From: [REDACTED]

Sent: Friday, April 07, 2017 01:01 PM

To: rivercrossings
Cc: Rowe David (ST); val@[REDACTED] <val@[REDACTED]>; Daniels Leon
Subject: Re: Your email of 18 January 2017 to Valerie Shawcross

Dear David,

Thanks for your email.

As you know, a single bore tunnel at Silvertown capable of operating either as a unidirectional tunnel with tidal flow or a bidirectional flow was not considered as an option at any stage in optioneering or consultation.

I assume from your email that beyond the point you previously made about the EU 25K vehicle regulation, which I've responded to, you have no further comments on or objections to the technical & value for money case I've put forward for this option?

In that case, I would see this as a political & financial decision going forward, and one for Val to resolve with the Mayor.

Best,

[REDACTED]

On Fri, Apr 7, 2017 at 12:41 PM, rivercrossings
<SMBrivercrossings@tfl.gov.ukmailto:SMBrivercrossings@tfl.gov.uk>> wrote:
Dear [REDACTED]

Thank you for your email.

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David Rowe
Lead Sponsor – Silvertown Tunnel

From: [REDACTED]
[mailto:[REDACTED]>]
Sent: 06 April 2017 18:17
To: rivercrossings
Cc: Rowe David (ST); val@[REDACTED] <mailto:val@[REDACTED]>; Daniels Leon

Subject: Re: Your email of 18 January 2017 to Valerie Shawcross

Forgot to link the document. Apologies. Here.<<http://content.tfl.gov.uk/st-silvertown-traffic-forecasting-report.pdf>>

On Thu, Apr 6, 2017 at 6:09 PM, [REDACTED]
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Best,



From: Lunt Andrew
Sent: 26 June 2018 08:35
To: Rowe David (ST)
Cc: Pardoe John
Subject: Re: Silvertown

Ok thanks let me know if/when you need input from the team.

On 26 Jun 2018, at 08:33, Rowe David (ST) <[REDACTED]> wrote:

See below. [REDACTED] has copied his email to most relevant politicians and journalists. I'll pick up with the Press Office on how best to respond. David

From: [REDACTED]

Sent: 26 June 2018 00:10

To: Rowe David (ST)

Cc: Alexander Heidi; [REDACTED] Nick Bowes;

[REDACTED]

Subject: Silvertown

Dear David,

I wanted to give you the opportunity to refute any or all of the following points about the Silvertown scheme. Those CC'd to this email should assume that any points that are not successfully refuted are true.

- 1) With the scheme working as proposed, virtually none of the new road capacity that is being built at vast expense under the Thames at Silvertown will actually be used. (The tunnel will take traffic, but for most of the time both tunnels together are taking the same traffic as Blackwall does now. It's only for a couple of hours at peak that a tiny fraction (perhaps 1/10) of the new capacity provided is used to relieve congestion)
- 2) Much of the new capacity being built (at least 50%) can never and will never be used, unless there's a massive road widening project along the A12, and massive new tolerance for noise and pollution among East London residents
- 3) In fact, if any more than a tiny fraction of this new capacity that is being built is actually used (for example if the tunnel is built and the toll is then removed), due to the limits on the capacity of the roads around the tunnel, TfL's own figures show that this would produce more congestion, (and hence more pollution) and possibly less resilience than there is now. See [this blog](#) for more detail. (and attached image).
- 4) Therefore, TfL are building massive new road capacity at Blackwall, at great expense, and then tolling drivers to ensure that they can't use 95% of it.
- 5) The promise to hold traffic to current levels with the toll (on which condition the scheme got planning permission) means that the scheme cannot 'support growth in SE London' if 'supporting growth' means 'providing for more traffic'.
- 6) In fact, similar congestion benefits to the Silvertown scheme could in fact be delivered just by tolling the Blackwall tunnel at peak to redistribute the small amount of traffic that would be moved to Silvertown to times when there is spare capacity at Blackwall, instead. And not spending £1bn of money taxed from SE Londoners building road capacity that they'll never be able to use.

- 7) TfL has no models or estimates for actual demand for new bus services using the tunnel. Only a survey of interest in potential routes. So there may be very little or no actual demand for new services that have been promised.
- 8) Given that the Silvertown Tunnel is expected to be free-flowing, and always running well below capacity, the proposed bus & HGV lanes will give essentially no advantage to any user.
- 9) Given that tolling Blackwall alone at peak will have similar congestion benefits to the proposed scheme, the only major benefit of building the tunnel, rather than just tolling Blackwall, is 'resilience'.
- 10) TfL have not produced a cost-benefit analysis that compares just tolling Blackwall (and associated income & congestion benefits) with the proposed scheme (ie one that analyses whether 'resilience' at Blackwall, alone, is in fact worth £1bn of SE Londoner's money)
- 11) Nearly all the resilience benefits of the proposed scheme can be achieved by an alternative design of a single-bore two lane tunnel running southbound in the PM peak and northbound at all other times, with an escape tunnel/pedestrian walkway underneath (see [here](#) for an example design, scroll down). This option, which would be several hundred million £ cheaper, and would provide additional benefits for pedestrians and cyclists, was not considered in optioneering.
- 12) The cost/benefit analysis for adding a cycle route to the Silvertown tunnel was made using a different model to the ones used now. Current revised models show much higher demand. The modelling for this scheme has not been revised in accordance.
- 13) There is no example of a successful, well used cycle bus running through a tunnel or across a bridge, anywhere.
- 14) The only mechanism to hold motor traffic to levels where the new capacity is not used, and pollution and congestion don't increase is the proposed toll. The mitigation strategy for pollution only calls upon TfL to consult and recommend on the level of this toll. Actual decisions on future toll levels are made by the Mayor, alone.
- 15) Given that toll levels are set by the Mayor alone, they will be subject to political imperatives, as well as the imperative to hold traffic to the level promised. It is by no means certain that, once the tunnel is built, a future Mayor will prioritise keeping traffic levels down. If the toll is removed, or not increased in line with inflation (for example, as a manifesto promise), congestion and pollution in the boroughs around the tunnel will rise sharply (note that this is exactly what happened when Boris Johnson first took office - he removed Ken Livingstone's Congestion Charge Western Extension - despite a loss of income and an increase in pollution and congestion). There is no mechanism to prevent this happening, so once the tunnel is built levels of pollution & congestion in all boroughs around the tunnel can sharply increase at any point at the whim of the Mayor.
- Please do let me know if I've got anything wrong!

Best,



(image: increased traffic across Greenwich, Lewisham & Newham if the toll is removed, and just a small part of the Silvertown Tunnel's capacity is actually used. Source, TfL)

From: Nolan Gary
Sent: 26 June 2018 09:58
To: Canning Thomas; Rowe David (ST)
Cc: Plowden Ben; Lunt Andrew; Yuill Esme; Flindell Richard
Subject: RE: Silvertown

Hi David,

I'll check this out with the transport team at City Hall as Heidi, Will Norman and Shirley Rodrigues have been copied in, but I don't think it's particularly useful to go through this line by line rebutting points that are resting on fairly faulty logic.

I think we should set out that this was covered in a public examination, put in a couple of paragraphs covering the main themes (mostly for the benefit of those copied in) and then, where possible, answer the specific points by just linking to the relevant docs from the DCO.

Gary

From: Canning Thomas
Sent: 26 June 2018 08:53
To: Rowe David (ST); Nolan Gary
Cc: Plowden Ben; Lunt Andrew
Subject: RE: Silvertown

Seeing as he has included the line "*Those CC'd to this email should assume that any points that are not successfully refuted are true.*" - we probably do need to respond in some form. Particularly as we will probably get correspondence from those cc'd either reflecting this position or quoting it in the future. I think if we can point to evidence already provided in public, that would be stronger as it shows that its been fully considered.

Gary – would welcome your view though as this is more your area than mine.

Tom

From: Rowe David (ST)
Sent: 26 June 2018 08:43
To: Canning Thomas; Nolan Gary
Cc: Plowden Ben; Lunt Andrew
Subject: FW: Silvertown

Hi Tom / Gary

See email below from [REDACTED] that he has copied to various politicians and journalists. We could either respond advising that all these matters were considered during the Public Examination into the scheme and TfL's evidence can be found online at the Planning Inspectorate website, or we could do a point-by-point rebuttal.

There was previous email correspondence with [REDACTED] on this topic which went backwards and forwards for some time and I'd therefore be grateful for your thoughts on the best approach.

David

From: [REDACTED]

Sent: 26 June 2018 00:10

To: Rowe David (ST)

Cc: Alexander Heidi; [REDACTED] Nick Bowes; [REDACTED]

[REDACTED]

Subject: Silvertown

Dear David,

I wanted to give you the opportunity to refute any or all of the following points about the Silvertown scheme. Those CC'd to this email should assume that any points that are not successfully refuted are true.

1) With the scheme working as proposed, virtually none of the new road capacity that is being built at vast expense under the Thames at Silvertown will actually be used. (The tunnel will take traffic, but for most of the time both tunnels together are taking the same traffic as Blackwall does now. It's only for a couple of hours at peak that a tiny fraction (perhaps 1/10) of the new capacity provided is used to relieve congestion)

From: Lunt Andrew
Sent: 27 June 2018 10:39
To: Rowe David (ST)
Subject: RE: Silvertown

Thanks I think I have some of them – drafts at least I remember pulling them together with Chris Alder – but good if you can send through.

From: Rowe David (ST)
Sent: 27 June 2018 10:38
To: Lunt Andrew; Nolan Gary
Cc: Flindell Richard; Yuill Esme
Subject: RE: Silvertown

Andrew - I'll send you previous emails to [REDACTED] on these issues. David

From: Lunt Andrew
Sent: 27 June 2018 10:22
To: Rowe David (ST); Nolan Gary
Cc: Flindell Richard; Yuill Esme
Subject: RE: Silvertown

Ok understood. Will make a start and catch up with you tomorrow/Friday.

From: Rowe David (ST)
Sent: 27 June 2018 10:20
To: Lunt Andrew; Nolan Gary
Cc: Flindell Richard; Yuill Esme
Subject: RE: Silvertown

I think we should rebut all points, but can do this by pointing to relevant evidence through the Examination process. Lets discuss. David

From: Lunt Andrew
Sent: 27 June 2018 10:19
To: Rowe David (ST); Nolan Gary
Cc: Flindell Richard; Yuill Esme
Subject: RE: Silvertown

Thanks Gary. To be clear he wants us to directly rebut all the points? Or we provide a more stripped back response and separately provide answers for Heidi should she be required to defend it further?

From: Rowe David (ST)
Sent: 27 June 2018 09:40
To: Nolan Gary; Lunt Andrew
Cc: Flindell Richard; Yuill Esme
Subject: RE: Silvertown

Thanks Gary. I'll ask Andrew to put together a draft response. David

From: Nolan Gary
Sent: 27 June 2018 09:34
To: Lunt Andrew; Rowe David (ST)

Cc: Flindell Richard; Yuill Esme
Subject: RE: Silvertown

I spoke to Will Bradley at City Hall, and unfortunately he didn't necessarily agree with my suggested approach. He wants us to rebut all the various points as he thinks Heidi will want the answers to the questions as well in case she has to defend it against Caroline Russell etc.

Gary

From: Lunt Andrew
Sent: 27 June 2018 09:26
To: Rowe David (ST)
Cc: Nolan Gary
Subject: Re: Silvertown

Thanks David. Who is pulling together the response? Don't mind if it's me - just wanted to clarify so we don't duplicate efforts

On 26 Jun 2018, at 16:13, Rowe David (ST) <[REDACTED]> wrote:

FYI...

Sent from my iPad

Begin forwarded message:

From: Caroline Russell <[REDACTED]>
Date: 26 June 2018 15:52:13 BST
To: [REDACTED]

Nick Bowes

Subject: RE: Silvertown

Dear [REDACTED]

Many thanks for copying me in to this extensive list of questions. I look forward to David's response.

Best wishes

Caroline

Caroline Russell AM
LONDONASSEMBLY Green Party Group

City Hall
The Queen's Walk
London SE1 2AA
Tel: 0207 983 4388

www.london.gov.uk/people/assembly/caroline-russell

Your personal information will be held and used in accordance with the Data Protection Act 1998. Such information will not be disclosed to any unauthorised person and we will only disclose information to third parties if explicitly required to do so by English Law.

If you need any further information please contact the officer whose details are given below:

Email: [REDACTED]

Tel: [REDACTED]

In writing to: [REDACTED] Greater London Authority, City Hall, The Queen's Walk, London SE1 2AA

From: [REDACTED]

Sent: 26 June 2018 00:10

To: DavidRowe@ [REDACTED]

Cc: Heidi Alexander [REDACTED]

[REDACTED]; Nick Bowes [REDACTED]

Subject: Silvertown

Dear David,

I wanted to give you the opportunity to refute any or all of the following points about the Silvertown scheme. Those CC'd to this email should assume that any points that are not successfully refuted are true.

1) With the scheme working as proposed, virtually none of the new road capacity that is being built at vast expense under the Thames at Silvertown will actually be used. (The tunnel will take traffic, but for most of the time both tunnels together are taking the same traffic as Blackwall does now. It's only for a couple of hours at peak that a tiny fraction (perhaps 1/10) of the new capacity provided is used to relieve congestion)

From: Rowe David (ST)
Sent: 27 June 2018 10:44
To: Lunt Andrew
Subject: FW: LD16-818: Silvertown

FYI

From: [REDACTED]
Sent: 18 January 2017 10:24
To: Daniels Leon; Valerie Shawcross; Bristow Alan (ST); Rowe David (ST); Caroline Pidgeon; [REDACTED]
[REDACTED] Tim Steer; [REDACTED]
matthew [REDACTED]
[REDACTED] Emmerson Garrett
Subject: Re: LD16-818: Silvertown

Dear Leon,

Thanks for your email.

As TfL acknowledged during yesterday's planning hearing, your modelling predicts that the 100,000 vehicles using the Blackwall Tunnel each day will split so that approximately 75,000 continue to use the Blackwall Tunnel and 25,000 use the Silvertown Tunnel. This means that the Silvertown Tunnel will be built with the same capacity as the Blackwall Tunnel in order to carry 1/4 of the traffic the Blackwall Tunnel carries right now. So TfL is, right now, proposing to build an entire two-lane tunnel bore's worth of excess capacity that in nearly all circumstances will remain essentially unused, in the most expensive place they can possibly build it - and Londoners will end up paying for this.

TfL's 'Silvertown traffic forecasting report' indicates also that peak hourly usage of the Silvertown Tunnel will be in the order of 1500 vehicles/hour.

Both these traffic flows are well within the capacity of a single-bore, bi-directional tunnel. As a comparison, the bi-directional Rotherhithe Tunnel, which has narrow 2.6m lanes, and sharp bends carries between 35,000 and 40,000 vehicles a day. A bi-directional tunnel with wide lanes and no sharp curves could be expected to carry a maximum of perhaps 45,000 vehicles a day (or 1800-1900/hour).

Therefore, a bi-directional single bore tunnel can provide all the capacity increase needed to remove queues at Blackwall, both in the first year, and with significant subsequent increase in traffic. Even if traffic is not adequately controlled by the user charge as expected, the limits in capacity of the three-lane road south of the tunnel will ensure that, with a single-bore two-lane Silvertown Tunnel in place, queues at the tunnels will in all circumstances be minimal.

A bi-directional single-bore tunnel will also provide most of the resilience benefits of the existing scheme.

A small increase in the diameter of a single-bore tunnel, beyond the 12.5m in the existing proposal would allow a pedestrian/cycle path (and emergency access/ escape route) to be situated under the roadway. (some cross-sections of this kind of design can be seen here: <http://tunneltalk.com/images/article-0201/TunnelTECH-Apr2015-Arup-B.pdf>). This would significantly improve the benefits offered by the scheme.

Compared to a dual-bore, two-lane tunnel, a single bore two-lane tunnel with bike/pedestrian & emergency escape/access path will cost significantly less (probably less than 2/3 of the cost of the larger scheme), & will provide most of the queue-reduction & resilience benefits of the dual bore scheme. It will entail fewer disbenefits from construction to surrounding communities, and the construction process will produce much less pollution (Nox, Pm, CO2)

A single-bore tunnel would use the same charging regime as a twin-bore tunnel to limit traffic - so the money saved on construction costs by building the cheaper scheme could be used to fund other TfL public transport projects & reduce demand.

TfL proposes bus/HGV lanes in their twin bore scheme.. The purpose of bus lanes is to allow buses to pass stopped or slow-moving traffic - so these will provide negligible advantage to buses in a free-flowing tunnel, which the modelling indicates this will be.

Regarding your points on safety: analysis from Austria tells us that tunnels are in general relatively safe environments compared to the open road - and bi-directional tunnels have similar collision rates to uni-directional tunnels - but when collisions happen, their effects are more severe. (See <http://www.ectri.org/YRS07/Papiers/Session-9/Nussbaumer.pdf>)

However, these risks can be significantly reduced by lower speed limits, effective speed controls, and fire safety measures.

(See:

http://www.ilf.com/fileadmin/user_upload/publikationen/40_Austrian_Risk_Analysis_for_Road_Tunnels_Development_of_a_New_Method_for_the_Risk_Assessment_of_Road_Tunnels.pdf)

It's likely, for example, that much of the additional risk involved in building a bi-directional tunnel could be effectively compensated for by reducing the speed limit in the tunnel from 30 to 20mph.

Note that there are many single-bore two-way tunnels being used safely across Europe, and that they continue to be constructed in accordance with strict European tunnel safety standards brought in after the Mont Blanc incident. Risks in any new tunnel that is built, single or twin bore, will be significantly lower, in any case, than those currently tolerated at Blackwall and Rotherhithe.

An analysis of the relative risks of the two designs under various scenarios should be done using a tolerable risk framework, (example here:

http://www.piarc.org/ressources/documents/logiciel_eqr/9531.Pub-2.pdf) to understand whether any marginal reduced risk is worth the several hundred million pounds extra that would be spent on a twin-bore tunnel.

I would suggest, before moving forward, it might be useful for TfL to provide:

- 1) A full analysis of the comparative safety of single and twin-bore options here (including with pedestrian/cycle/emergency escape/access under the roadway), using a tolerable risk framework.

2) An assessment of the cost of a single bore bi-directional tunnel, with a pedestrian/cycle/emergency access/ escape path under the roadway, compared to a twin-bore tunnel.

3) An analysis of bus speeds in a free-flowing situation with a bus lane in one lane in a two-lane uni-directional tunnel vs in a single lane in a bi-directional tunnel.

4) A full analysis of potential demand for cross-river bus services (right now, I think TfL are basing their bus service suggestions on a survey, not a demand model) - as benefits to many boroughs appear to depend on new bus services.

5) An analysis of potential cycle and pedestrian demand for a river crossing here (the 'propensity to cycle tool' may be useful here), and potential for modal shift to bikes/walking..

(Note that the cable car is very little used by cyclists - mostly because it's expensive, and many people use bikes to save money - if they're going to pay anyway they'll take the tube. The proposed cross-river bike shuttle will make cyclists wait, probably won't be regular off-peak, and will be an easy candidate for cost savings. Certainly a similar shuttle on the Dartford crossing was little used and eventually eliminated).

Just to note, finally, that, personally, I would not support building a new road tunnel at Silvertown. Given the ongoing climate and diesel pollution crises, demand management by widespread road user charging, and use of the income from this to improve cross-river public transport and cycling facilities would be a more rational choice. But even if one accepts the arguments that have been put forward for building a new tunnel here, the case for TfL's proposed design is very weak. A more modest single-bore option can almost certainly be built to acceptable safety standards, and will provide much better value for money.

Best,

[REDACTED]

On Thu, Nov 3, 2016 at 1:18 PM, Daniels Leon <[REDACTED]> wrote:

Dear Dominic

Thank you for your email. I'm sorry for the delay in my response to you.

The Silvertown Tunnel proposal was developed as part of a wider package of measures to address the issues facing east London, including the need for improved connections for cars, public transport, pedestrians, cyclists and freight.

Under this proposal, a road link beneath the Thames will be provided between Greenwich Peninsula and Silvertown, which would reduce congestion at the Blackwall Tunnel and improve the reliability and resilience of the wider road network. It is considered that the

current proposal, as designed, will meet the increasing demands placed on the Capital, and is vital to its success.

In the delivering this scheme, a single bore crossing, accommodating two way traffic, would simply not meet the fundamental design standards for new tunnels. Tunnels are safety critical environments in which the implication of dangers such as collisions and fires pose even greater risk and can result in significant numbers of victims. The increased risk of collision associated with a single bore, and indeed the exacerbation of the severity of collisions, means that we could not implement such a design in practise.

It should also be noted the constraints posed by the confined space of a tunnel also make evacuation and emergency services access much more difficult. Consequently, we would need to build a parallel evacuation tunnel, or a second bore, to enable effective evacuation and emergency service access. The costs associated with this arrangement would not therefore achieve the savings suggested.

In addition, the severe queues which are experienced at present and forecast at the Blackwell Tunnel are effectively eliminated in all years modelled with the new tunnel as designed. This new tunnel, which will have a 30mph speed limit, will help ensure traffic travels moves efficiently. This will in turn help to improve air quality on some of London's most polluted roads.

As you mention, one lane in each bore will be reserved for buses, and will also accommodate coaches and HGVs. Height restrictions however currently prevent double-deck buses using the Blackwell Tunnel. The engineering solution identified is allowing us to develop proposals for bus routes that will utilise the proposed tunnel, and in turn provide new bus link opportunities. More information can be found on the TfL website at:
<https://consultations.tfl.gov.uk/rivercrossings/silvertown#Further%20benefits>.

The provision of two lanes in each direction also ensures operational flexibility and supports the resilience of the road network in east London should a closure or incident occur in the Blackwell area. For example, in 2014 there were only 20 days when it was not necessary to close the Blackwell tunnel. It also enables minor works to be undertaken on one lane of the tunnel without the entire tunnel having to be closed. This allows works to be carried out simultaneously.

As you may be aware, the Mayor of London recently affirmed his commitment to the scheme, which will unlock the massive economic potential of east London, and secure high quality transport infrastructure that improves the quality of life for everyone living and working in the area.

I hope this clarifies the design rationale, and the scale of the issues the Silvertown tunnel seeks to address. However, if you wish to discuss our assessment further, my officers would be happy to meet to talk you through them.

Yours sincerely

Leon.

Leon Daniels

Managing Director Surface Transport

Transport for London



From: [REDACTED]
Sent: 05 October 2016 04:14
To: [REDACTED] Caroline Pidgeon; [REDACTED]
[REDACTED] Valerie Shawcross; [REDACTED]
[REDACTED]
[REDACTED]
Subject: Silvertown

Dear All,

Given the decision to progress the Silvertown Tunnel project with little change, I am re-sending the below, which makes the case that a twin-bore four-lane tunnel is a massively over-designed solution here, and that a single-bore, two lane tunnel will offer nearly all the same benefits, and save £200-300 million in the process.

I would be very happy to be proved wrong (because I will know that £300 million of Londoner's money is not being wasted) , so I am offering a bottle of good single malt to anyone copied on this email who can make a convincing case for building a four-lane, twin bore tunnel at Silvertown over a two-lane single bore tunnel.

(A convincing case will need to refer, at least, to the capacity of the roads around the tunnel, the expected traffic flows in both tunnels, the capacity of the tunnels, the tolling regime, induced demand (for bus services as well as driving) the evidence for demand for any bus services, the impact of bus lanes on bus speeds, and the relative cost of building one tunnel rather than two. To keep things fair, if 2/3 of the people cc'd on this email agree an argument is convincing, I will accept it!)

Just to be clear: the question of whether or not to build the scheme is not at issue here - there are solid arguments for and against, and a decision whether to go ahead will be made on political priorities. My point is that, even if one supports the Sivertown plan, there is no argument at all right now for building a twin-bore four lane tunnel over a two-lane single bore tunnel. My impression is that TfL did not even consider the single-bore two-lane option during their optioneering process, though again I would be happy to be corrected.

Best,

Dear All,

A couple of thoughts on the Silvertown Project.

Key takeaway: The scheme (in its current form) is building (astronomically expensive) extra road capacity under the river that will almost certainly never be fully used, under any circumstances.

1) The intuition here is that Silvertown is (essentially) a doubling of the Blackwall Tunnel (and it is being promoted as such). To over-simplify a little (but this is essentially correct) - right now we have six-lane approach roads, and four lanes under the river. So the section under the river is the bottleneck. With Silvertown built, we will still have six-lane approach roads, but eight lanes under the river. So traffic under the river should flow freely - but - even if traffic is allowed to increase - the new (massively expensive) capacity under the river will always be under-used, because the six-lane approach roads will become the bottleneck.

2) If travel times are reduced by increasing capacity, and reducing queues to zero, this will increase demand at the crossing. TfL claims that the toll they will be making motorists pay will effectively counteract this increased demand - and overall traffic post-tunnel will be marginally higher than before. This may or may not be correct - there are two possible scenarios:

a) TfL effectively manages to control demand with tolling, and there is a marginal increase in traffic, as predicted. In this case, congestion and pollution will be reduced at the tunnel, and increase a little elsewhere. However, the extra four lanes of capacity that have just been built under the river will be almost unused - the eight lanes will carry just slightly more traffic than the existing four lanes. And one could obtain nearly as much benefit in terms of pollution/congestion (without spending nearly a billion pounds) by just putting a (slightly higher) toll on the existing Blackwall Tunnel

b) TfL does not set a high enough toll, and traffic ramps up over time (a more likely scenario, I think). In this case, the bottleneck at the tunnel will be removed - and the approach roads will become the bottleneck. Pollution will increase with the increase in traffic, and congestion will be displaced from the tunnel entrance to the approach roads. Even in this case, though, traffic will be limited by the capacity of the approach roads - and much of the capacity that has been built under the river will not be used.

Policy implications:

Under nearly all circumstances (unless it is the precursor to a massive road-building project in South East London) the current project is vastly over-designed. It provides at least two traffic lanes worth of capacity under the river that won't be used.

(Note that TfL appears to have identified this excess capacity, and, in the latest iteration, added bus lanes. They don't, however, have any evidence on the demand for the proposed buses - and in any case, bus lanes are mainly useful for buses to pass stopped traffic - they will provide very little advantage in a free-flowing tunnel)

Possible options that should be investigated, going forward, before any decision to build:

a) Smart-tolling the existing Blackwall Tunnel

This will reduce congestion and pollution, without the near-billion spend (and will in fact raise income that can be used to improve crossings elsewhere). It won't provide the added resilience that Silvertown would provide.

b) A lower-capacity (single-bore) tunnel (with similar tolling strategy)

This would provide almost all the perceived benefits of Silvertown (resilience, congestion reduction etc) at much lower cost. One option would be a single bore of slightly wider radius than the proposed tunnels, which would allow for provision for cycling etc (like this: <http://www.aurecongroup.com/~media/Images/Aurecon/Web-structure/Thinking/Latest/2015/New-tunnel-design-concept/Three-lane-tunnel.jpg>)

c) A more widespread congestion/pollution pricing strategy across the London area, that would sharply reduce demand through the tunnel, and elsewhere.

Given this: <http://www.carbonbrief.org/analysis-only-five-years-left-before-one-point-five-c-budget-is-blown> this seems to me a much saner strategy for the next few years than new roadbuilding..

So - just to recap - and I am happy to argue this out, if anyone thinks I'm wrong - but it seems to me that whether or not one thinks building this crossing is a good idea, it is almost certain that the existing design is the wrong choice, and that the any potential benefits could be provided equally well by a much less expensive and ambitious scheme.

Best,



From: Rowe David (ST)
Sent: 27 June 2018 10:44
To: Lunt Andrew
Subject: FW: Your email of 18 January 2017 to Valerie Shawcross

FYI

From: [REDACTED]
Sent: 07 April 2017 13:01
To: rivercrossings
Cc: Rowe David (ST); val@[REDACTED]; Daniels Leon
Subject: Re: Your email of 18 January 2017 to Valerie Shawcross

Dear David,

Thanks for your email.

As you know, a single bore tunnel at Silvertown capable of operating either as a unidirectional tunnel with tidal flow or a bidirectional flow was not considered as an option at any stage in optioneering or consultation.

I assume from your email that beyond the point you previously made about the EU 25K vehicle regulation, which I've responded to, you have no further comments on or objections to the technical & value for money case I've put forward for this option?

In that case, I would see this as a political & financial decision going forward, and one for Val to resolve with the Mayor.

Best,

[REDACTED]

On Fri, Apr 7, 2017 at 12:41 PM, rivercrossings <SMBrivercrossings@tfl.gov.uk> wrote:

Dear [REDACTED]

Thank you for your email.

As you know, the Silvertown DCO Examination must conclude on 11 April 2017. The Scheme has been the subject of a comprehensive process of option assessment over a number of years, in which TfL has carefully considered the costs and benefits of all feasible options in order to identify a solution to the severe problems of the Blackwall Tunnel. TfL's reasons for promoting the Scheme and approach to the specification of the tunnel have been considered in detail during the DCO Examination and it is now appropriate to allow the Examining Authority to reflect on the issues raised as it prepares its report and recommendations for the Secretary of State.

David Rowe

Lead Sponsor – Silvertown Tunnel

From: [REDACTED]
Sent: 06 April 2017 18:17
To: rivercrossings
Cc: Rowe David (ST); [val@](#)[REDACTED]; Daniels Leon

Subject: Re: Your email of 18 January 2017 to Valerie Shawcross

Forgot to link the document. Apologies. [Here](#).

On Thu, Apr 6, 2017 at 6:09 PM, [REDACTED] > wrote:

Dear Val and David,

Thanks for this response, and apologies for the slow reply - your response somehow went to my spam mailbox.

This is useful information, but does not affect the conclusion that a new two-lane single bore tunnel at Silvertown (or Blackwall) with a passage for emergency access, bikes, pedestrians, and light electric vehicles will provide nearly all the benefits of the proposed Silvertown Tunnel (and some increased benefits) at much lower cost. This is true even if you rule out two-way operation for tunnels with traffic of above 25K vehicles/day..

As I understand, there are three objectives of the Silvertown scheme:

- 1) Remove queues at the Blackwall Tunnel while not increasing overall cross-river traffic substantially
- 2) Provide resilience in the event of blockage of the northbound or southbound Blackwall Tunnels
- 3) Establish conditions for better, and better-used bus services across the river.

Key here is the fact that usage of the Blackwall Tunnel is tidal - and that the Blackwall Tunnel provides adequate capacity for contra-tidal flows.

All the relevant information is in section 4 of this document, though I have attached images of two useful graphs.

Objective (1), as you see in the attached graphs, can be achieved by providing capacity for a little under 6,000 vehicles northbound over 3 hours in the AM peak, (when there's no need for more capacity southbound) and capacity for a little under 6,000 vehicles southbound over 3 hours in the PM peak (when there's no need for more capacity southbound). So this objective can easily be achieved by using a single bore, uni-directional two lane tunnel with flow reversed in morning and evening peaks.

(I would also note that this queue-busting objective only requires that the tunnel takes 12K vehicles a day - flow beyond that is somewhat arbitrary and determined by pricing. So if you wanted to keep flows under 25K a day, or some other arbitrary figure, in a bi-directional

tunnel, that is also possible. Using the tunnel uni-directionally at peaks and bi-directionally at quiet times is another option.)

Objective (2) can also be achieved with a single bore, uni-directional two-lane tunnel with reversible flow. The tunnel can substitute for whichever of the Blackwall tunnels is out of operation.

In terms of objective (3) building a single bore, reversible flow two lane tunnel will require routing buses via Blackwall, not Silvertown, because flows at Silvertown will reverse during the day and using single-decker bendy buses - but this is a relatively minor compromise given that Blackwall is on the main desire line. The scheme will still remove the main barrier to bus use across the river, which is the long waits at the tunnel.

Clearly, building a single-bore, two lane tunnel with the potential for unidirectional flow in either direction (and/or bidirectional flow), with emergency/bike/pedestrian/ultralight ev access, entails slightly more complexity in design and management in operation than the existing design - but it will still save £200-300 million with virtually the same benefits (and some added benefits for cyclists & pedestrians)

Best,

[REDACTED]

On Thu, Feb 16, 2017 at 3:10 PM, rivercrossings <SMBrivercrossings@tfl.gov.uk> wrote:

Dear [REDACTED],

Thank you for your email of 12 February. We have noted the points you make and stand by our previous response.

In terms of the safety case and rationale for a twin bore tunnel, TfL has developed the Silvertown Tunnel scheme in line with [EU Directive 2004/54/EC](#) (brought into UK law via the Road Tunnel Safety Regulations 2007). This Directive reflects advances in road tunnel safety and applies to tunnels at least 500m in length which are part of the Trans-European Road Network. Given the Silvertown Tunnel's size and purpose, we consider that the design should also be subject to this Directive. Directive 2004/54/EC requires that where a tunnel is forecast to carry more than 10,000 vehicles per lane per day, 'a twin-tube tunnel with unidirectional traffic shall be in place'. Approximately 25,000 vehicles are predicted to pass through the new Silvertown Tunnel each day, with one lane in each direction dedicated for buses and HGVs. This therefore rules out a bidirectional single bore with two lanes as an option for the Scheme.

To safely provide a bidirectional single bore tunnel with four lanes that is compliant with the EU Directive, would require a tunnel of over 18 metres in diameter. Such a large tunnel is not a viable consideration for the Silvertown Tunnel scheme, as in order to prevent the top of an 18m tunnel from being dangerously close to the River Thames, the gradient of the roads into and out of the tunnel would have to be in breach of the maximum 5% gradient permitted by the Directive. It is also worth noting that an 18m plus diameter bore would require excavating a larger amount of earth, and thus cost more money, than our twin bore proposal currently being examined by the Planning Inspectorate.

In your recent response you referenced Standard [BD78/99](#). In light of this you may be interested to note that this standard is currently being updated by the Highways Agency in order to better reflect current best-practice in the design and operation of tunnels. This includes incorporation of the lessons learnt following the fatal Mont Blanc fire in 1999, which are reflected in the European Directive referenced above but not currently in BD78/99.

Best regards

David Rowe

Head of Silvertown Tunnel Sponsorship Team

🚗 Transport for London

From: [REDACTED]
Sent: 12 February 2017 21:57
To: rivercrossings; Rowe David (ST); Valerie Shawcross; Daniels Leon
Subject: Re: Your email of 18 January 2017 to Valerie Shawcross

Dear David and Val,

To take your points in order.

A single-bore tunnel carrying two-way traffic would not be permissible in the UK today for safety reasons.

To the best of my knowledge, this just isn't true. [BD 78/99](#) doesn't rule out bi-directional tunnels for trunk roads. In fact, it gives guidance for maximum lane capacity for bi-directional tunnels.

Volume 2 Section 2
Part 9 BD 78/99

Chapter 4
Geometric Design

Tunnel Flow/Type		Cut and Cover	Bored Tunnels	Immersed Tubes
Uni-directional	v/hr/lane	TD20 (DMRB 5.1)	2000	2000
Bi-directional	v/hr/lane	TD20 (DMRB 5.1)	1800	1800

Note: Over or underestimation of traffic capacities can lead to severe economic penalties especially for major tunnels. Special scheme specific studies may be beneficial. Refer to PIARC Technical Committee on Road Tunnels report XVII World Roads Congress, Sydney 1983.

Usefully, this v/hr/lane is higher than the peak flow TfL expect at Silvertown - so it's clear a bi-directional, 2-lane tunnel will have significantly more capacity than TfL expect to need, even at peak.

The Rotherhithe Tunnel for example would never be permitted if proposed today.

This is true. A new single-bore bi-directional tunnel would need less sharp curves, wider lanes, and much better fire escape and suppression arrangements (which, as far as I can tell, are more significant in creating a safe tunnel than the uni-direction/bi-direction element)

In addition, a single-bore Silvertown Tunnel would:

- *Be more prone to complete closure than would a two-bore tunnel since any kind of incident in a single-bore tunnel would entail the closure of the entire link. With two bores it is possible in principle to operate the link – in one direction only – during any such closure affecting the other bore.*

This is true - but given that the Silvertown Tunnel is essentially a third and fourth bore for Blackwall, the Silvertown Tunnel gives resilience to Blackwall (that's part of its purpose) and vice-versa. So a second bore is not needed for this.

- *Be less efficient as an alternative to the Blackwall Tunnel during any closures of the existing tunnel. Putting aside the fact that a single-bore tunnel would not be permissible, it would not offer sufficient capacity as an alternative to the Blackwall Tunnel.*

The Blackwall Tunnel is particularly susceptible to incidents that require that it be closed temporarily, and a key reason that the new Silvertown Tunnel is required is to improve the resilience of the road network in east London to incidents at the existing tunnel

A single bore tunnel at Silvertown would be sufficient to ensure that traffic can cross the river in both directions when any one of the bores at Blackwall or at Silvertown is closed. If, further, the bore at Silvertown can also be used unidirectionally, then even with one bore closed, we return to today's situation, with, essentially, the same traffic levels, according to TfL's forecasts. This is a massive improvement in resilience from the existing situation. Any further improvement in resilience obtains rapidly decreasing returns, at vast expense.

- *Not afford the opportunity to provide bus lanes in both directions to support the proposed step-change in cross river services in the east London that the Silvertown Tunnel enables.*

As I've mentioned previously, the Silvertown Tunnel is forecast to have free-flowing traffic - it will move congestion elsewhere. In free-flowing traffic, bus lanes give little to no advantage either to buses or other traffic. In fact TfL's decision to provide bus lanes here represents a tacit acceptance of the fact that they're over-providing traffic capacity in this scheme. Just to note also that, to the best of my knowledge, TfL has no real analysis of demand for these cross-river services. If there is sufficient demand, why don't they exist already (using high-capacity bendy buses, if needs be..)

TfL considered a wide range of alternative options before arriving at the proposed Silvertown Tunnel scheme. The alternatives TfL has considered include:

- *Road-based alternatives such as bridge and different tunnel options*
- *Public transport options*
- *Walking and cycling options*
- *User charging and demand management options*

•Options at different locations

TfL found that the Silvertown Tunnel scheme was the only solution to fully address the problems of congestion, closures and resilience at the Blackwall Tunnel. TfL included in its application for Development Consent for the Silvertown Tunnel the 'Case for the Scheme' document, which contains a full account of the options assessment process undertaken by TfL. This sets out the full range of options considered and the factors that TfL took into account to select between the options. The document is available to download via the following link:

<https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/TR010021/TR010021-000228-7.1%20Case%20for%20the%20Scheme.pdf>

I've read this. There was no consideration of a single-bore tunnel at Silvertown, and a third bore at Blackwall was rejected on the (incorrect) assumption that it could only operate as a uni-directional tunnel (though, in fact, given the tidal flow, a uni-directional tunnel at Blackwall or Silvertown, with the capability of operating as uni-directional in both directions, would also provide most of the benefits of the Silvertown Tunnel at a much lower cost...)

There have also been six separate consultations which have included proposals for the Silvertown Tunnel scheme. The scheme was first proposed in the Mayor's Transport Strategy, which was subject to consultation from October 2009. The proposals were included in the Mayor's London Plan, which was also subject to consultation from October 2009. TfL then held three separate consultations, firstly in relation to a package of river crossings in east London (which included proposals for the Silvertown Tunnel), from February – March 2012 and October – February 2013 and then in relation to the specific proposals for the Scheme between October – December 2014. TfL then held a statutory consultation on the scheme from October – November 2015. These consultations helped TfL to develop its proposals with the benefit of feedback from the public and other stakeholders.

This is true. None of these consultations included an option for a single-bore tunnel (either uni-directional, or bi-directional) at either Blackwall or Silvertown, or for the possibility of including a cycle/ebike/pedestrian/emergency access in the tunnel, (an option that was pre-emptively rejected by TfL) - so it wasn't possible for the public to comment on any single-bore option.

We do not accept your comments about Richard de Cani or the Garden Bridge. The optioneering and design work for the Garden Bridge was carried out following a thorough and competitive procurement process.

This is an opinion that isn't shared by anyone I know of who has looked closely at this process. And the various failures in the commissioning of the Garden Bridge project (notably the acceptance of a very poor business case and business plan, and handing the management of a large infrastructure project in a sensitive location to an organisation with no financial resources of its own) have lead directly to its dire situation now.

I'd be happy to join both of you on a call to talk through the technical and regulatory details here if that's useful - or to be corrected on any of the points I've made - but please correct me with technical evidence, not just unjustified assertions. I assume the difference in price here between the options we're looking at is of the order of £200-400m. That's a lot of money for Londoners to pay (through tolls) for road tunnel capacity that likely will never be used - and it's money that, in these times of difficult budgets, could be spent on something of real value (bike infrastructure, public transport)..

Best,

[REDACTED]

Yours sincerely

David Rowe

Lead Sponsor, Silvertown Tunnel

From: [REDACTED] >
Date: 18 January 2017 at 23:31:53 GMT
To: Valerie Shawcross <val@[REDACTED]>
Subject: Silvertown

Dear Val,

Just to say I'd be very happy to chat with you briefly about Silvertown, if that's at all useful.

Looked at objectively, the project as it stands is nuts. It doubles the capacity across the river at Blackwall, at massive expense, - to carry more or less the same amount of traffic as now. Everything useful the scheme wants to achieve in terms of queue reduction and resilience can clearly be achieved with a much less ambitious design.

I suspect what happened here was that Richard de Cani played fast and loose with the process in the early stages of optioneering & design - as he did with the Garden Bridge - and then disappeared into the private sector, leaving his colleagues with a project that had by this point received a great deal of investment of time & money - but doesn't really stand up in this form.

Obviously, given their sunk costs here, TfL now have very strong to push on regardless. So they've brought in the useless bus lanes to try to justify the scale of the project, and they're making the false argument that a single bore tunnel can't be made safe to try to justify the second bore.

For you & the Mayor, though, I don't see there's any reason to push forward with this massively wasteful design. You can save £300-400 million by building a single-bore tunnel (not the most urgent project out there, but i do acknowledge the politics), and use the rest of the toll money (that is, after all, coming from Londoners' pockets..) to do something that's actually useful like build bike infra & improve public transport. Why would you not?

All best,



From: Lunt Andrew
Sent: 27 June 2018 17:01
To: Rowe David (ST)
Subject: RE: Silvertown

Thanks – yes Blackwall 3rd bore is closest to what he's suggesting. Catch up in the morning.

From: Rowe David (ST)
Sent: 27 June 2018 15:50
To: Lunt Andrew
Subject: RE: Silvertown

Andrew

Further to our brief chat, link to 'Case for the Scheme' below. There is a table from page 173 onwards that summarises all the options that were explored, including 3R (Blackwall Tunnel 3rd Bore with user charges) and 3S (Blackwall Tunnel Refurbishment including user charging), 4C (Charging Blackwall Tunnel) and 4D (Charging at Blackwall, Rotherhithe, Woolwich).

<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010021/TR010021-000228-7.1%20Case%20for%20the%20Scheme.pdf>

From: Rowe David (ST)
Sent: 27 June 2018 09:40
To: Nolan Gary; Lunt Andrew
Cc: Flindell Richard; Yuill Esme
Subject: RE: Silvertown

Thanks Gary. I'll ask Andrew to put together a draft response. David

From: Nolan Gary
Sent: 27 June 2018 09:34
To: Lunt Andrew; Rowe David (ST)
Cc: Flindell Richard; Yuill Esme
Subject: RE: Silvertown

I spoke to Will Bradley at City Hall, and unfortunately he didn't necessarily agree with my suggested approach. He wants us to rebut all the various points as he thinks Heidi will want the answers to the questions as well in case she has to defend it against Caroline Russell etc.

Gary

From: Lunt Andrew
Sent: 27 June 2018 09:26
To: Rowe David (ST)
Cc: Nolan Gary
Subject: Re: Silvertown

Thanks David. Who is pulling together the response? Don't mind if it's me - just wanted to clarify so we don't duplicate efforts

On 26 Jun 2018, at 16:13, Rowe David (ST) <[REDACTED]> wrote:

FYI...

Sent from my iPad

Begin forwarded message:

From: Caroline Russell <[REDACTED]>

Date: 26 June 2018 15:52:13 BST

To: [REDACTED]

Cc: Heidi Alexander

[REDACTED], Nick Bowes

Subject: RE: Silvertown

Dear [REDACTED]

Many thanks for copying me in to this extensive list of questions. I look forward to David's response.

Best wishes

Caroline

Caroline Russell AM
LONDONASSEMBLY Green Party Group

City Hall
The Queen's Walk
London SE1 2AA
Tel: 0207 983 4388

www.london.gov.uk/people/assembly/caroline-russell

Your personal information will be held and used in accordance with the Data Protection Act 1998. Such information will not be disclosed to any unauthorised person and we will only disclose information to third parties if explicitly required to do so by English Law.

If you need any further information please contact the officer whose details are given below:

Email: [REDACTED]

Tel: [REDACTED]

In writing to: George Raszka, Greater London Authority, City Hall, The Queen's Walk, London SE1 2AA

From: [REDACTED]

Sent: 26 June 2018 00:10

To: [David Rowe](#) [REDACTED]

Cc: Heidi Alexander [REDACTED]

[REDACTED]; Nick Bowes [REDACTED]

Subject: Silvertown

Dear David,

I wanted to give you the opportunity to refute any or all of the following points about the Silvertown scheme. Those CC'd to this email should assume that any points that are not successfully refuted are true.

1) With the scheme working as proposed, virtually none of the new road capacity that is being built at vast expense under the Thames at Silvertown will actually be used. (The tunnel will take traffic, but for most of the time both tunnels together are taking the same traffic as Blackwall does now. It's only for a couple of hours at peak that a tiny fraction (perhaps 1/10) of the new capacity provided is used to relieve congestion)

From: Rowe David (ST)
Sent: 28 June 2018 12:33
To: [REDACTED]
Subject: RE: Silvertown

Hi [REDACTED]

Just left you a message. Give me a call back when convenient. David

David Rowe

Head of Major Projects Sponsorship, Surface Transport

Transport for London

4th floor, Zone 4R2, Palestra, Blackfriars Road, London SE1 8NJ
tel: [REDACTED]
email: [REDACTED] | www.tfl.gov.uk

From: [REDACTED]
Sent: 28 June 2018 11:40
To: Rowe David (ST)
Cc: [REDACTED]
Subject: FW: Silvertown

Hi David,
I tried to give you a quick call about the below but you were away from your desk.

[REDACTED] has asked if we can see a copy of your reply please.

Also I did a bit of digging and I saw that this chap made many of the same points in representations to the DCO so it would be good to understand the history a little bit as well. If you or someone in your team could give me a quick call to discuss I would greatly appreciate it.

Thanks

[REDACTED]

[REDACTED]

[REDACTED]
[REDACTED] london.gov.uk

From: [REDACTED]
Date: Tuesday, 26 June 2018 at 00:11:19

To:

Cc: "Heidi Alexander"

, "Nick Bowes"

Subject: Silvertown

Dear David,

I wanted to give you the opportunity to refute any or all of the following points about the Silvertown scheme. Those CC'd to this email should assume that any points that are not successfully refuted are true.

1) With the scheme working as proposed, virtually none of the new road capacity that is being built at vast expense under the Thames at Silvertown will actually be used. (The tunnel will take traffic, but for most of the time both tunnels together are taking the same traffic as Blackwall does now. It's only for a couple of hours at peak that a tiny fraction (perhaps 1/10) of the new capacity provided is used to relieve congestion)

From: Rowe David (ST)
Sent: 04 July 2018 10:33
To: Lunt Andrew
Subject: RE: Silvertown

Hi Andrew

How are you getting on with the draft response to [REDACTED] email(?)
David

From: Rowe David (ST)
Sent: 28 June 2018 12:32
To: Lunt Andrew
Subject: FW: Silvertown

FYI. I'll give [REDACTED] a call, but we should run the draft response past him. David

From: [REDACTED]@london.gov.uk]
Sent: 28 June 2018 11:40
To: Rowe David (ST)
Cc: [REDACTED]
Subject: FW: Silvertown

Hi David,
I tried to give you a quick call about the below but you were away from your desk.

Shirley has asked if we can see a copy of your reply please.

Also I did a bit of digging and I saw that this chap made many of the same points in representations to the DCO so it would be good to understand the history a little bit as well. If you or someone in your team could give me a quick call to discuss I would greatly appreciate it.

Thanks

[REDACTED]

[REDACTED]

[REDACTED]
[REDACTED] london.gov.uk

From: [REDACTED]
Date: Tuesday, 26 June 2018 at 00:11:19
To: "David Rowe" [REDACTED]
Cc: "Heidi Alexander" [REDACTED]

[REDACTED], "Nick Bowes" [REDACTED]
[REDACTED]

Subject: Silvertown

Dear David,

I wanted to give you the opportunity to refute any or all of the following points about the Silvertown scheme. Those CC'd to this email should assume that any points that are not successfully refuted are true.

1) With the scheme working as proposed, virtually none of the new road capacity that is being built at vast expense under the Thames at Silvertown will actually be used. (The tunnel will take traffic, but for most of the time both tunnels together are taking the same traffic as Blackwall does now. It's only for a couple of hours at peak that a tiny fraction (perhaps 1/10) of the new capacity provided is used to relieve congestion)

-----Original Message-----

From: Lunt Andrew

Sent: 04 July 2018 13:25

To: Rowe David (S T)

Subject: E mailing: [REDACTED] draft response

Your message is ready to be sent with the following file or link attachments:

[REDACTED] draft response

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

Attachment:

Dear [REDACTED]

[Thank you for your email]. I am confident in the case for the Silvertown Tunnel scheme, the identified need, and that our solution is the most appropriate to address it. As you know from our correspondence [in 2017], we applied for a Development Consent Order (DCO) for the powers to build and operate the Silvertown Tunnel. We submitted a thorough body of evidence for the DCO application and subsequent Public Examination, covering all relevant topic areas. Interested Parties were invited to submit their own evidence, comments and questions, and I recall you did so in writing and in person during the Public Examination. The Examining Authority considers all of this evidence in making [their recommendations](#). In making the DCO the Secretary of State has considered all of this evidence and endorsed the case we put forward for the scheme.

Perhaps most relevant to your points, the [decision letter](#) states '*...there was no challenge to the fact that there are existing problems in relation to the Blackwall Tunnel and its approaches that demonstrate that there is a need to be addressed. The Secretary of State agrees... that there are no reasons to disagree with the objectives set by the Applicant for identifying a solution.... The Secretary of State notes the options appraised and alternatives canvassed... and he agrees with the Panel that there has been sufficient assessment of alternatives*'

The making of the DCO is a clear, fair and transparent endorsement of our appraisal of the scheme, and our continued promotion of the Silvertown Tunnel. I am happy to respond to each of your points however, and for ease of reference I have provided extracts from our previous correspondence and links to relevant documents submitted through the DCO process.

[I hope this satisfies your enquiry.] / [I believe we have undertaken thorough consultation and engagement as part of developing the scheme but, as ever, I would be happy to provide any further information you or anyone copied to the email require.]

[... David Rowe]

=====

From: Rowe David (ST)
Sent: 05 July 2018 08:29
To: Flindell Richard; Lunt Andrew
Cc: Yuill Esme; Nolan Gary
Subject: RE: Silvertown

Hi Richard

Has this been sent to both [REDACTED] and [REDACTED] at City Hall?
David

From: Flindell Richard
Sent: 05 July 2018 07:40
To: Lunt Andrew; Rowe David (ST)
Cc: Yuill Esme; Nolan Gary
Subject: Re: Silvertown

Hi David, Andrew

I responded to Gary yesterday and he was happy with your response to [REDACTED] and to send on to City Hall. I have made a couple of very minor amends highlighted in yellow below.

Best wishes

Richard

Richard Flindell | Project Communications Specialist
Transport for London
Red Zone 5, Floor 8, Endeavour Square, Stratford, London E20 1JN
Tel [REDACTED]

On 4 Jul 2018, at 16:00, Flindell Richard <[REDACTED]> wrote:

Seems like a very logical response to me ...

Some minor amends below:

Richard Flindell | Project Communications Specialist
Consultations and Projects | Public Affairs and External Relations | Transport for London
Mail: Red Zone 5, Floor 8, Endeavour Square, Stratford, London, E20 1JN
Phone: [REDACTED]
Email: [REDACTED]

From: Rowe David (ST)
Sent: 04 July 2018 14:40
To: Nolan Gary; Lunt Andrew
Cc: Flindell Richard; Yuill Esme
Subject: RE: Silvertown

Gary

See proposed response to [REDACTED] below. [REDACTED] in the GLA Environment team has asked to see a copy of the draft before it is sent, so I could send it to him and [REDACTED] at the same time.

Let me know if you have any comments – I'd like to send this to GLA colleagues tomorrow if possible.

Many thanks. David

Dear [REDACTED]

Thank you for your email. As you will know from our previous correspondence, we applied for a Development Consent Order (DCO) for the powers to build and operate the Silvertown Tunnel. We submitted a thorough body of evidence as part of the DCO application and the subsequent six month Public Examination, covering all relevant topic areas. Interested Parties were invited to submit their own evidence, comments and questions, and I recall you did so in writing and in person during the Public Examination.

The Examining Authority considered all of this evidence in making [their recommendations](#), as did the Secretary of State who endorsed the case we put forward for the scheme.

Perhaps most relevant to your points, the DCO [decision letter](#) states '*...there was no challenge to the fact that there are existing problems in relation to the Blackwall Tunnel and its approaches that demonstrate that there is a need to be addressed. The Secretary of State agrees... that there are no reasons to disagree with the objectives set by the Applicant for identifying a solution.... The Secretary of State notes the options appraised and alternatives canvassed... and he agrees with the Panel that there has been sufficient assessment of alternatives*'

The making of the DCO is a clear, fair and transparent endorsement of our appraisal of the scheme, and our continued promotion of the Silvertown Tunnel. Below I have responded [below](#) to your points, providing links to relevant documents submitted through the DCO process.⁰

Points 1 - 4

The need for the scheme and the best option for meeting the objectives are reported in the [Case for the Scheme](#) and [Outline Business Case](#). In summary, a range of different options were examined from new cross-river rail links, [to options](#) a third bore at Blackwall or user charging only. The consented scheme most effectively addresses the identified problems.

The forecast traffic flows for the new crossing are set out within the [Transport Assessment](#). This also contains information on changes to traffic flows at other crossings and across the wider network, together with predicted changes to journey times, queues, public transport accessibility and a range of other matters.

Point 5

Supporting growth does not explicitly mean providing for more traffic. The rationale for supporting growth and the means by which the scheme achieves this are described in the [Case for the Scheme](#) and [Outline Business Case](#).

Point 6

We undertook a specific appraisal of an option for charging the Blackwall Tunnel only and this is reported in our [Response on Options Appraisal](#). As you know we do not believe this provides as effective a solution as the consented scheme.

Point 7

The [Transport Assessment](#) sets out the modelled effects of the indicative bus network that has been developed as part of the scheme, as well as an explanation of how we have modelled forecast demand for, and impacts of, such a network. Furthermore, the [Case for the Scheme](#) and the [Bus Strategy](#) outline that, 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. The Bus Strategy is explicitly developed to allow flexibility in our development of the bus network in the area to both encourage and respond to demand for bus services in the future.

Point 8

As stated in the [Bus Strategy](#), the dedicated lane will increase safety for all users as well as providing priority for these permitted vehicles. The dedicated lanes will ensure reliability of bus journey times at all times and will offer us a valuable tool in our monitoring the performance of the highway network.

Point 9

The [Case for the Scheme](#) and [Outline Business Case](#) describe the importance of the resilience benefit and how the scheme delivers against it. These documents also set out the wider benefits, such as the crucial role the Silvertown Tunnel scheme plays in allowing a step change in the provision of cross river bus services.

Point 10

Our full analysis of options is presented in the [Case for the Scheme](#) and [Outline Business Case](#). A cost-benefit analysis comparing just tolling Blackwall with the proposed scheme was submitted in the document [Response on Options Appraisal](#).

Point 11

This option is essentially equivalent to a Blackwall Tunnel third bore, which was assessed as part of our development of the scheme. Furthermore, the safety reasons why this option is not practical were set out in the responses to your previous emails dating from 2016. In summary, we do not believe a single bore crossing would meet the fundamental design standards for new tunnels. Tunnels are safety critical environments in which the implication of dangers such as collisions and fires pose even greater risk and can result in significant numbers of victims. The constraints posed by the confined space of a tunnel also make evacuation and emergency services access much more difficult. Consequently, we would need to

either construct a significantly larger single tunnel or build a parallel evacuation tunnel (a second bore) to enable effective evacuation and emergency service access.

The provision of two lanes in each direction also ensures operational flexibility and supports the resilience of the road network in east London should a closure or incident occur in the Blackwell area. For example, in 2014 there were only 20 days when it was not necessary to close the Blackwell tunnel. It also enables flexibility in our approach to undertaking maintenance works in the Silvertown and Blackwall tunnels, whilst ensuring continued performance of the river crossing.

Point 12

It is unclear which models you are referring to. TfL's recent Strategic Cycling Analysis did not recommend a route in this location unlike, for example, routes to and from the proposed crossing between Rotherhithe **and** Canary Wharf.

Pedestrian and cycle facilities around and through the tunnel were considered as part of the scheme development and scrutinised through the DCO process. We are committed to significant walking, cycling, public realm and landscaping improvements to transform the local area as set out through the [Design Principles](#). We are in ongoing discussions with the Local Authorities to determine additional enhancements that we will provide, including the additional facilities referred to in your comment below.

Point 13

There are examples of similar facilities elsewhere, although I accept this is not a well proven solution. In the [DCO](#) we have set out a clear commitment to enhanced river crossing facilities for pedestrians and cyclists and we are working closely with the Local Authorities to determine the most appropriate means of delivering this provision. Monitoring the effectiveness of such measures will be a key part of the scheme.

Point 14

The [Charging Policies and Procedures](#) and the [Monitoring and Mitigation Strategy](#) set a robust mechanism for managing traffic levels, and the associated impacts. In the decision letter, the Secretary of State *'agrees with the Panel that there is no reason to doubt the effectiveness of varying the user charges to control traffic levels (PR.2.97) and that the availability of a user charge mechanism would enable any uncertainty and unexpected outcomes that might present themselves to be monitored and mitigated against. He agrees with the Panel that requirement 7 (monitoring and mitigation strategy) ("MMS") along with article 54 (power to charge for use of the tunnels) in the DCO enables the review of the user charge, in consultation with Silvertown Tunnel Implementation Group ("STIG") to provide a suitable, robust and flexible mechanism to adjust the user charging to control traffic levels so that they reflect the assessed case (PR.5.2.95).'*

Point 15

As described above we believe a suitable mechanism has been established. Whilst the decision is ultimately for the Mayor, such a decision would need to take regard

for the relevant evidence provided, including consultation with stakeholders through the Silvertown Tunnel Implementation Group (STIG).

I trust this satisfies your enquiry.

Yours sincerely

David Rowe

From: Nolan Gary
Sent: 27 June 2018 09:34
To: Lunt Andrew; Rowe David (ST)
Cc: Flindell Richard; Yuill Esme
Subject: RE: Silvertown

I spoke to [REDACTED] at City Hall, and unfortunately he didn't necessarily agree with my suggested approach. He wants us to rebut all the various points as he thinks Heidi will want the answers to the questions as well in case she has to defend it against Caroline Russell etc.

Gary

From: Lunt Andrew
Sent: 27 June 2018 09:26
To: Rowe David (ST)
Cc: Nolan Gary
Subject: Re: Silvertown

Thanks David. Who is pulling together the response? Don't mind if it's me - just wanted to clarify so we don't duplicate efforts

On 26 Jun 2018, at 16:13, Rowe David (ST) <[REDACTED]> wrote:

FYI...

Sent from my iPad

Begin forwarded message:

From: Caroline Russell <[REDACTED]>
Date: 26 June 2018 15:52:13 BST
To: [REDACTED] "[DavidRowe](#)" [REDACTED]

Cc: Heidi Alexander

[REDACTED], Nick Bowes

[REDACTED]

Subject: RE: Silvertown

Dear [REDACTED]

Many thanks for copying me in to this extensive list of questions. I look forward to David's response.

Best wishes

Caroline

Caroline Russell AM
LONDONASSEMBLY Green Party Group

City Hall
The Queen's Walk
London SE1 2AA
Tel: [REDACTED]

www.london.gov.uk/people/assembly/caroline-russell

Your personal information will be held and used in accordance with the Data Protection Act 1998. Such information will not be disclosed to any unauthorised person and we will only disclose information to third parties if explicitly required to do so by English Law.

If you need any further information please contact the officer whose details are given below:

Email: [REDACTED]

Tel: [REDACTED]

In writing to: George Raszka, Greater London Authority, City Hall, The Queen's Walk, London SE1 2AA

From: [REDACTED]

Sent: 26 June 2018 00:10

To: [David Rowe](#) [REDACTED]

Cc: Heidi Alexander [REDACTED]

[REDACTED]; Nick Bowes [REDACTED]

[REDACTED]

Subject: Silvertown

Dear David,

I wanted to give you the opportunity to refute any or all of the following points about the Silvertown scheme. Those CC'd to this email should assume that any points that are not successfully refuted are true.

1) With the scheme working as proposed, virtually none of the new road capacity that is being built at vast expense under the Thames at Silvertown will actually be used. (The tunnel will take traffic, but for most of the time both tunnels together are taking the same traffic as Blackwall does now. It's only for a couple of hours at peak that a tiny fraction (perhaps 1/10) of the new capacity provided is used to relieve congestion)

From: [REDACTED]@london.gov.uk]
Sent: 09 July 2018 10:22
To: Rowe David (ST)
Cc: [REDACTED]; Nolan Gary; Lunt Andrew; Flindell Richard
Subject: RE: Silvertown

Thanks David. Response looks good.

[REDACTED]

From: Rowe David (ST) [mailto:[REDACTED]]
Sent: 09 July 2018 09:47
To: [REDACTED]
Cc: [REDACTED]; Nolan Gary; Lunt Andrew; Flindell Richard
Subject: Re: Silvertown

Will
Unless you have any comments(?), I will send today. David

Sent from my iPad

On 9 Jul 2018, at 09:45, "[REDACTED]@london.gov.uk" wrote:

Hi all, apologies I was on leave last week. Has this been sorted?

[REDACTED]

From: Rowe David (ST) [mailto:[REDACTED]]
Sent: 05 July 2018 09:19
To: [REDACTED]@london.gov.uk>; [REDACTED]
[REDACTED]@london.gov.uk>; [REDACTED]@london.gov.uk>
Cc: Nolan Gary <[REDACTED]>; Lunt Andrew <[REDACTED]>;
Flindell Richard <[REDACTED]>
Subject: Re: Silvertown
Resent as I got [REDACTED]'s email wrong first time...

Sent from my iPad

On 5 Jul 2018, at 09:02, "Rowe David (ST)" <[REDACTED]k> wrote:

Hi [REDACTED]

Either Gary or myself have spoken to you about the proposed response to [REDACTED] email. See below draft - I would be grateful if you can let me have any comments by lunchtime tomorrow.

Many thanks. David

Dear [REDACTED],

Thank you for your email. As you will know from our previous correspondence, we applied for a Development Consent Order (DCO) for the powers to build and operate the Silvertown Tunnel. We submitted a thorough body of evidence as part of the DCO application and the subsequent six month Public Examination, covering all relevant topic areas. Interested Parties were invited to submit their own evidence, comments and questions, and I recall you did so in writing and in person during the Public Examination.

The Examining Authority considered all of this evidence in making [their recommendations](#), as did the Secretary of State who endorsed the case we put forward for the scheme.

Perhaps most relevant to your points, the DCO [decision letter](#) states ‘...there was no challenge to the fact that there are existing problems in relation to the Blackwall Tunnel and its approaches that demonstrate that there is a need to be addressed. The Secretary of State agrees... that there are no reasons to disagree with the objectives set by the Applicant for identifying a solution.... The Secretary of State notes the options appraised and alternatives canvassed... and he agrees with the Panel that there has been sufficient assessment of alternatives’

The making of the DCO is a clear, fair and transparent endorsement of our appraisal of the scheme, and our continued promotion of the Silvertown Tunnel. Below I have responded to your points, providing links to relevant documents submitted through the DCO process.⁰

Points 1 - 4

The need for the scheme and the best option for meeting the objectives are reported in the [Case for the Scheme](#) and [Outline Business Case](#). In summary, a range of different options were examined which included new cross river rail links, a third bore at Blackwall or user charging only. The consented scheme most effectively addresses the identified problems. The forecast traffic flows for the new crossing are set out within the [Transport Assessment](#). This also contains information on changes to traffic flows at other crossings and across the wider network, together with predicted changes to journey times, queues, public transport accessibility and a range of other matters.

Point 5

Supporting growth does not explicitly mean providing for more traffic. The rationale for supporting growth and the means by which the scheme achieves this are described in the [Case for the Scheme](#) and [Outline Business Case](#).

Point 6

We undertook a specific appraisal of an option for charging the Blackwall Tunnel only and this is reported in our [Response on Options Appraisal](#). As you know we do not believe this provides as effective a solution as the consented scheme.

Point 7

The [Transport Assessment](#) sets out the modelled effects of the indicative bus network that has been developed as part of the scheme, as well as an explanation of how we have modelled forecast demand for, and impacts of, such a network. Furthermore, the [Case for the Scheme](#) and the [Bus Strategy](#) outline that, 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. The Bus Strategy is explicitly developed to allow flexibility in our development of the bus network in the area to both encourage and respond to demand for bus services in the future.

Point 8

As stated in the [Bus Strategy](#), the dedicated lane will increase safety for all users as well as providing priority for these permitted vehicles. The dedicated lanes will ensure reliability of bus journey times at all times and will offer us a valuable tool in our monitoring the performance of the highway network.

Point 9

The [Case for the Scheme](#) and [Outline Business Case](#) describe the importance of the resilience benefit and how the scheme delivers against it. These documents also set out the wider benefits, such as the crucial role the Silvertown Tunnel scheme plays in allowing a step change in the provision of cross river bus services.

Point 10

Our full analysis of options is presented in the [Case for the Scheme](#) and [Outline Business Case](#). A cost-benefit analysis comparing just tolling Blackwall with the proposed scheme was submitted in the document [Response on Options Appraisal](#).

Point 11

This option is essentially equivalent to a Blackwall Tunnel third bore, which was assessed as part of our development of the scheme. Furthermore, the safety reasons why this option is not practical were set out in the responses to your previous emails dating from 2016. In summary, we do not believe a single bore crossing would meet the fundamental design standards for new tunnels. Tunnels are safety critical environments in which the implication of dangers such as collisions and fires pose even greater risk and can result in significant numbers of victims. The constraints posed by the confined space of a tunnel also make evacuation and emergency services access much more difficult. Consequently, we would need to either construct a significantly larger single tunnel or build a parallel evacuation tunnel (a second bore) to enable effective evacuation and emergency service access.

The provision of two lanes in each direction also ensures operational flexibility and supports the resilience of the road network in east London should a closure or incident occur in the Blackwell area. For example, in 2014 there were only 20 days when it was not necessary to close the Blackwell tunnel. It also enables flexibility in our approach to undertaking maintenance works in the Silvertown and Blackwall tunnels, whilst ensuring continued performance of the river crossing.

Point 12

It is unclear which models you are referring to. TfL's recent Strategic Cycling Analysis did not recommend a route in this location unlike, for example, routes to and from the proposed crossing between Rotherhithe and Canary Wharf.

Pedestrian and cycle facilities around and through the tunnel were considered as part of the scheme development and scrutinised through the DCO process. We are committed to significant walking, cycling, public realm and landscaping improvements to transform the local area as set out through the [Design Principles](#). We are in ongoing discussions with the Local Authorities to determine additional enhancements that we will provide, including the additional facilities referred to in your comment below.

Point 13

There are examples of similar facilities elsewhere, although I accept this is not a well proven solution. In the [DCO](#) we have set out a clear commitment to enhanced river crossing facilities for pedestrians and cyclists and we are working closely with the Local Authorities to determine the most appropriate means of delivering this provision. Monitoring the effectiveness of such measures will be a key part of the scheme.

Point 14

The [Charging Policies and Procedures](#) and the [Monitoring and Mitigation Strategy](#) set a robust mechanism for managing traffic levels, and the associated impacts. In the decision letter, the Secretary of State *'agrees with the Panel that there is no reason to doubt the effectiveness of varying the user charges to control traffic levels (PR.2.97) and that the availability of a user charge mechanism would enable any uncertainty and unexpected outcomes that might present themselves to be monitored and mitigated against. He agrees with the Panel that requirement 7 (monitoring and mitigation strategy) ("MMS") along with article 54 (power to charge for use of the tunnels) in the DCO enables the review of the user charge, in consultation with Silvertown Tunnel Implementation Group ("STIG") to provide a suitable, robust and flexible mechanism to adjust the user charging to control traffic levels so that they reflect the assessed case (PR.5.2.95).'*

Point 15

As described above we believe a suitable mechanism has been established. Whilst the decision is ultimately for the Mayor, such a decision would need to take regard for the relevant evidence provided, including consultation with stakeholders through the Silvertown Tunnel Implementation Group (STIG).

I trust this satisfies your enquiry.

Yours sincerely

David Rowe

From: [REDACTED] [\[REDACTED\]@london.gov.uk](mailto:[REDACTED]@london.gov.uk)

Sent: 28 June 2018 11:40

To: Rowe David (ST)

Cc: [REDACTED]

Subject: FW: Silvertown

Hi David,

I tried to give you a quick call about the below but you were away from your desk.

[REDACTED] has asked if we can see a copy of your reply please.

Also I did a bit of digging and I saw that this chap made many of the same points in representations to the DCO so it would be good to understand the history a little bit as well. If you or someone in your team could give me a quick call to discuss I would greatly appreciate it.

Thanks

[REDACTED]

[REDACTED]

<hr size=2 width="100%" align=center>

From: "[REDACTED]"

Date: Tuesday, 26 June 2018 at 00:11:19

To: "DavidRowe@

Cc: "Heidi Alexander"

[REDACTED], "Nick Bowes"

Subject: Silvertown

Dear David,

I wanted to give you the opportunity to refute any or all of the following points about the Silvertown scheme. Those CC'd to this email should assume that any points that are not successfully refuted are true.

1) With the scheme working as proposed, virtually none of the new road capacity that is being built at vast expense under the Thames at Silvertown will actually be used. (The tunnel will take traffic, but for most of the time both tunnels together are taking the same traffic as Blackwall does now. It's only for a couple of hours at peak that a tiny fraction (perhaps 1/10) of the new capacity provided is used to relieve congestion)

From: Rowe David (ST)
Sent: 09 July 2018 10:38
To: [REDACTED] Nolan Gary; Flindell Richard; Lunt Andrew
Subject: FW: Silvertown

FYI. David

From: Rowe David (ST)
Sent: 09 July 2018 10:37
To: [REDACTED]
Cc: Alexander Heidi; [REDACTED]; Nick Bowes; [REDACTED]

Subject: RE: Silvertown

Dear [REDACTED]

Thank you for your email. As you will know from our previous correspondence, we applied for a Development Consent Order (DCO) for the powers to build and operate the Silvertown Tunnel. We submitted a thorough body of evidence as part of the DCO application and the subsequent six month Public Examination, covering all relevant topic areas. Interested Parties were invited to submit their own evidence, comments and questions, and I recall you did so in writing and in person during the Public Examination.

The Examining Authority considered all of this evidence in making [their recommendations](#), as did the Secretary of State who endorsed the case we put forward for the scheme.

Perhaps most relevant to your points, the DCO [decision letter](#) states '*...there was no challenge to the fact that there are existing problems in relation to the Blackwall Tunnel and its approaches that demonstrate that there is a need to be addressed. The Secretary of State agrees... that there are no reasons to disagree with the objectives set by the Applicant for identifying a solution.... The Secretary of State notes the options appraised and alternatives canvassed... and he agrees with the Panel that there has been sufficient assessment of alternatives*'

The making of the DCO is a clear, fair and transparent endorsement of our appraisal of the scheme, and our continued promotion of the Silvertown Tunnel. Below I have responded to your points, providing links to relevant documents submitted through the DCO process.

Points 1 - 4

The need for the scheme and the best option for meeting the objectives are reported in the [Case for the Scheme](#) and [Outline Business Case](#). In summary, a range of different options were examined which included new cross river rail links, a third bore at Blackwall or user charging only. The consented scheme most effectively addresses the identified problems.

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As stated in the [Bus Strategy](#), the dedicated lane will increase safety for all users as well as providing priority for these permitted vehicles. The dedicated lanes will ensure reliability of bus journey times at all times and will offer us a valuable tool in our monitoring the performance of the highway network.

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Our full analysis of options is presented in the [Case for the Scheme](#) and [Outline Business Case](#). A cost-benefit analysis comparing just tolling Blackwall with the proposed scheme was submitted in the document [Response on Options Appraisal](#).

Point 11

This option is essentially equivalent to a Blackwall Tunnel third bore, which was assessed as part of our development of the scheme. Furthermore, the safety reasons why this option is not practical were set out in the responses to your previous emails dating from 2016. In summary, we do not believe a single bore crossing would meet the fundamental design standards for new tunnels. Tunnels are safety critical environments in which the implication of dangers such as collisions and fires pose even greater risk and can result in significant numbers of victims. The constraints posed by the confined space of a tunnel also make evacuation and emergency services access much more difficult. Consequently, we would need to either construct a significantly larger single tunnel or build a parallel evacuation tunnel (a second bore) to enable effective evacuation and emergency service access.

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close the Blackwell tunnel. It also enables flexibility in our approach to undertaking maintenance works in the Silvertown and Blackwall tunnels, whilst ensuring continued performance of the river crossing.

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Point 14

The [Charging Policies and Procedures](#) and the [Monitoring and Mitigation Strategy](#) set a robust mechanism for managing traffic levels, and the associated impacts. In the decision letter, the Secretary of State *'agrees with the Panel that there is no reason to doubt the effectiveness of varying the user charges to control traffic levels (PR.2.97) and that the availability of a user charge mechanism would enable any uncertainty and unexpected outcomes that might present themselves to be monitored and mitigated against. He agrees with the Panel that requirement 7 (monitoring and mitigation strategy) ("MMS") along with article 54 (power to charge for use of the tunnels) in the DCO enables the review of the user charge, in consultation with Silvertown Tunnel Implementation Group ("STIG") to provide a suitable, robust and flexible mechanism to adjust the user charging to control traffic levels so that they reflect the assessed case (PR.5.2.95).'*

Point 15

As described above we believe a suitable mechanism has been established. Whilst the decision is ultimately for the Mayor, such a decision would need to take regard for the relevant evidence provided, including consultation with stakeholders through the Silvertown Tunnel Implementation Group (STIG).

I trust this satisfies your enquiry.

Yours sincerely

David Rowe

Head of Major Projects Sponsorship, Surface Transport

Transport for London

email: [REDACTED] | www.tfl.gov.uk

From: [REDACTED]

Sent: 26 June 2018 00:10

To: Rowe David (ST)

Cc: Alexander Heidi; [REDACTED]

Subject: Silvertown

Dear David,

I wanted to give you the opportunity to refute any or all of the following points about the Silvertown scheme. Those CC'd to this email should assume that any points that are not successfully refuted are true.

1) With the scheme working as proposed, virtually none of the new road capacity that is being built at vast expense under the Thames at Silvertown will actually be used. (The tunnel will take traffic, but for most of the time both tunnels together are taking the same traffic as Blackwall does now. It's only for a couple of hours at peak that a tiny fraction (perhaps 1/10) of the new capacity provided is used to relieve congestion)

From: Rowe David (ST)
Sent: 13 July 2018 09:21
To: Nolan Gary
Cc: Lunt Andrew
Subject: FW: Silvertown

Gary

FYI. Unless you think different, I don't propose we respond as it will simply become email tennis, as has happened before with Dominic.

David

From: [REDACTED]
Sent: 12 July 2018 23:41
To: Rowe David (ST)
Cc: Alexander Heidi; [REDACTED]; Nick Bowes; [REDACTED]

Subject: Re: Silvertown

Dear David,

Thanks for taking the time to reply, and for the updated links.

The Examining Authority is of course welcome to its opinion, as is everyone else cc'd. My purpose here is only to pin down some facts about the scheme - principally about value for money and risks - that may not have been obvious thus far to those involved with moving the scheme ahead.

I think it's useful here to separate out the two key goals of the scheme - removing congestion, and providing resilience in case of incidents - and to be precise about both the benefits and costs of each of these goals, and the interventions necessary to achieve them.

I am confused by your cost/benefit comparison of 'only charging the Blackwall Tunnel' against the proposed scheme. It's clearly possible (assuming we retain existing daily traffic levels) to create a charging scheme at Blackwall that would remove congestion entirely here by providing drivers with correct incentives to use the tunnel at times when there is spare capacity. I would assume that this tolling regime is the one you should compare to the proposed scheme. And, by definition, installing this tolling regime would have exactly the same congestion benefits as the proposed scheme. So it's not clear to me why, in your analysis, you found only about half the congestion benefits. What tolling regime for 'charging Blackwall only' did you use in your analysis? Or were you adding together congestion & resilience benefits?

In terms of the possibility of a single bore scheme at Silvertown (let's call it Silvertown-lite), an option that wasn't considered in the optioneering, and might provide nearly all the congestion & resilience benefits of the proposed scheme at significantly lower cost:

- The objection to a third bore at Blackwall (in your analysis) is, consistently, that there isn't the physical space to build it. This clearly isn't the case at Silvertown, where there's room to build two new bores, at least.

- In previous correspondence, you mentioned the safety issues in a two-way single bore tunnel, and the need for an escape route. Neither of these objections hold with the scheme I am suggesting you investigate - which is a single bore, two lane tunnel that operates southbound only in the PM peak, and northbound only at all other times, and has an escape route/engineering emergency access/pedestrian & cycle route under the carriageway (see [here](#), scroll down for an indicative design). As far as I can tell this would require a change from a 12.5m to a 14m bore. I assume this is also, essentially, what you would have built if a third bore at Blackwall had been technically feasible.

- In terms of cycling - this Silvertown-lite option would provide a new river crossing for pedestrians, bikes, cargo bikes & micro-evs (pedivans etc) - which the proposed scheme would not. These modes represent the future of inner-city transport, as they're the only way to get the sharp reductions we need in CO2 pollution, local pollution, and road danger. So we would need to include this benefit (increasing over time) in any BCR (note that cycle buses don't, in general, provide for alternative bikes of any kind - and the post-hoc evaluation you suggest is pretty pointless if it doesn't work. We should be planning to enable cycling & zero-emission logistics with solutions that we know to work...)

I've looked at your indicative bus network. As far as I can tell, the major effects of the proposed network are to move trips from walking & cycling to bus, and from rail to bus. This looks like a big step backwards, moving trips from more efficient modes to less, and less polluting (and healthier) modes to more polluting and less healthy. I wonder if this bus network, at least, has been devised post-hoc as a way to justify the tunnel, rather than to enable modal shift in the right direction? I would suggest, in any case, that we do not regard the potential for new cross-river bus services as a benefit of the proposed scheme unless you can propose a network that, mostly, when modelled, moves trips from individual motor vehicles to the bus.

On bus - HGV lanes; do you have any evidence that a dedicated lane will increase safety for all users, or will improve bus reliability at all assuming a free-flowing tunnel?

In short, if I were tasked with moving this scheme forward I would ask for a full cost-benefit comparison (separating out congestion & resilience benefits) of:

Option A: Charge the Blackwall Tunnel, using the minimal charging regime that effectively removes all congestion by incentivising drivers to move some trips off-peak.

Option B: Silvertown-lite; A single-bore 14m tunnel with escape/cycle/pedestrian route under the roadway, operating s-bound only in pm peak, n-bound only at other times

Option C: The proposed scheme.

(Note that nearly all benefits to bus services come from removing congestion, and so apply similarly to all 3 options)

I would also, if I decided to move forward with either tunnel option, first investigate whether it is possible to create a legal mechanism that ensures that tolls are regularly adjusted to keep traffic levels and pollution levels within those predicted in the assessed case, and that protects this process (and the environment in SE London) from the uncertain political incentives of future mayors.

Obviously, I don't have the authority to ask you for this work - but perhaps someone else cc'd will!

Thanks again for your time,

Very best,

[REDACTED]

On Mon, Jul 9, 2018 at 10:37 AM, Rowe David (ST) <[REDACTED]> wrote:

Dear [REDACTED]

Thank you for your email. As you will know from our previous correspondence, we applied for a Development Consent Order (DCO) for the powers to build and operate the Silvertown Tunnel. We submitted a thorough body of evidence as part of the DCO application and the subsequent six month Public Examination, covering all relevant topic areas. Interested Parties were invited to submit their own evidence, comments and questions, and I recall you did so in writing and in person during the Public Examination.

From: Canning Thomas
Sent: 25 July 2018 09:19
To: Lunt Andrew; City Planning Correspondence
Cc: Chester Neil; Rowe David (ST); Nolan Gary; Flindell Richard; Pardoe John
Subject: Re: VIP Draft Request MGLA130618-4686 [REDACTED]

Should we also add at the end:

including the provision of significant new cross-river buses services and walking and cycling improvements around the tunnel entrances and approaches on both sides of the river.

As the supporting measures are a major local benefit for the area and something which I would assume could be delivered in part before the tunnel opens.

Tom

From: Lunt Andrew
Sent: 25 July 2018 09:13
To: City Planning Correspondence
Cc: Chester Neil; Rowe David (ST); Nolan Gary; Flindell Richard; Canning Thomas; Pardoe John
Subject: RE: VIP Draft Request MGLA130618-4686 [REDACTED]

As discussed below I'd suggest a response referring to the correspondence we've already had with [REDACTED] (attached for reference). Subject to any comments from those copied, something along the lines of:

Dear [REDACTED]

Thank you for your email and apologies for the delayed response [I don't know if you'd normally say this?]. I was copied to your emails with David Rowe at TfL covering similar topics and am satisfied with David's response of 9th July. TfL have undertaken thorough work to assess the existing problems at the Blackwall Tunnel and identify the option that best addresses these problems

I am confident in the case for the Silvertown Tunnel which will address the significant issues of traffic congestion and unreliability at the Blackwall Tunnel and the consequential effects these have on travel, the environment, the economy and growth across the wider east and south east London area. Now the Development Consent Order has been granted I am eager for TfL to deliver the benefits of this scheme at the earliest opportunity, including the provision of significant new cross-river buses services.

[sign off]

From: Chester Neil
Sent: 25 July 2018 08:57
To: Lunt Andrew
Subject: FW: VIP Draft Request MGLA130618-4686 [REDACTED]

fyi

From: City Planning Correspondence
Sent: 24 July 2018 17:24
To: Chester Neil
Subject: FW: VIP Draft Request MGLA130618-4686 [REDACTED]

Hi Neil,

I have received the attached correspondence with regards to the Silvertown tunnel.

Are you able to coordinate a response to this? Please do let me know if you would like me to request additional information from others across the business.

Thanks in advance!

Regards, Sarah

From: Mayoral Correspondence
Sent: 24 July 2018 15:15
To: City Planning Correspondence
Subject: FW: VIP Draft Request MGLA130618-4686 [REDACTED]

Hi team,

Please can you draft a response to the attached?

Many thanks,
Gus

From: [REDACTED]@london.gov.uk]
Sent: 13 June 2018 13:47
To: Mayoral Correspondence
Cc: [REDACTED]@london.gov.uk
Subject: VIP Draft Request MGLA130618-4686 [REDACTED]

Hi Team

For Heidi's signature please.

Thanks
Natalie #LondonIsOpen

Attached:

From: "Rowe David (ST)" <[REDACTED]>
Date: 13 July 2018 at 09:20:52 BST
To: Nolan Gary <[REDACTED]>
Cc: Lunt Andrew [REDACTED]
Subject: FW: Silvertown

Gary

FYI. Unless you think different, I don't propose we respond as it will simply become email tennis, as has happened before with [REDACTED]
David

From: [REDACTED]

Sent: 12 July 2018 23:41

To: Rowe David (ST)

Cc: Alexander Heidi; [REDACTED] Nick Bowes;

Subject: Re: Silvertown

Dear David,

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I think it's useful here to separate out the two key goals of the scheme - removing congestion, and providing resilience in case of incidents - and to be precise about both the benefits and costs of each of these goals, and the interventions necessary to achieve them.

I am confused by your cost/benefit comparison of 'only charging the Blackwall Tunnel' against the proposed scheme. It's clearly possible (assuming we retain existing daily traffic levels) to create a charging scheme at Blackwall that would remove congestion entirely here by providing drivers with correct incentives to use the tunnel at times when there is spare capacity. I would assume that this tolling regime is the one you should compare to the proposed scheme. And, by definition, installing this tolling regime would have exactly the same congestion benefits as the proposed scheme. So it's not clear to me why, in your analysis, you found only about half the congestion benefits. What tolling regime for 'charging Blackwall only' did you use in your analysis? Or were you adding together congestion & resilience benefits?

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- In terms of cycling - this Silvertown-lite option would provide a new river crossing for pedestrians, bikes, cargo bikes & micro-evs (pedivans etc) - which the proposed scheme would not. These modes represent the future of inner-city transport, as they're the only way to get the sharp reductions we need in CO2 pollution, local pollution, and road danger. So we

would need to include this benefit (increasing over time) in any BCR (note that cycle buses don't, in general, provide for alternative bikes of any kind - and the post-hoc evaluation you suggest is pretty pointless if it doesn't work. We should be planning to enable cycling & zero-emission logistics with solutions that we know to work...)

I've looked at your indicative bus network. As far as I can tell, the major effects of the proposed network are to move trips from walking & cycling to bus, and from rail to bus. This looks like a big step backwards, moving trips from more efficient modes to less, and less polluting (and healthier) modes to more polluting and less healthy. I wonder if this bus network, at least, has been devised post-hoc as a way to justify the tunnel, rather than to enable modal shift in the right direction? I would suggest, in any case, that we do not regard the potential for new cross-river bus services as a benefit of the proposed scheme unless you can propose a network that, mostly, when modelled, moves trips from individual motor vehicles to the bus.

On bus - HGV lanes; do you have any evidence that a dedicated lane will increase safety for all users, or will improve bus reliability at all assuming a free-flowing tunnel?

In short, if I were tasked with moving this scheme forward I would ask for a full cost-benefit comparison (separating out congestion & resilience benefits) of:

Option A: Charge the Blackwall Tunnel, using the minimal charging regime that effectively removes all congestion by incentivising drivers to move some trips off-peak.

Option B: Silvertown-lite; A single-bore 14m tunnel with escape/cycle/pedestrian route under the roadway, operating s-bound only in pm peak, n-bound only at other times

Option C: The proposed scheme.

(Note that nearly all benefits to bus services come from removing congestion, and so apply similarly to all 3 options)

I would also, if I decided to move forward with either tunnel option, first investigate whether it is possible to create a legal mechanism that ensures that tolls are regularly adjusted to keep traffic levels and pollution levels within those predicted in the assessed case, and that protects this process (and the environment in SE London) from the uncertain political incentives of future mayors.

Obviously, I don't have the authority to ask you for this work - but perhaps someone else cc'd will!

Thanks again for your time,

Very best,



From: Davies Gus
Sent: 08 August 2018 12:46
To: City Planning Correspondence
Cc: Asaas Sarah; Lunt Andrew; Rowe David (ST)
Subject: RE: VIP Draft Request MGLA130618-4686 [REDACTED]

Hi there,

I'm attaching the latest draft on this. At the end, we say 'I hope this response addresses your concerns', however the letter really feels like it doesn't. Is it possible to include a bit more detail from David's response of 9 July so it feels like we have tried harder to answer the question?

Thanks,
Gus

From: City Planning Correspondence
Sent: 07 August 2018 14:51
To: Mayoral Correspondence; City Planning Correspondence
Subject: RE: VIP Draft Request MGLA130618-4686 [REDACTED]

Hi Gus,

Please find approved response.

Please note, this has been approved by Andrew Lunt in David Rowe's absence.

'Dear [REDACTED]

Thank you for your email and apologies for the delay in responding, I was copied to your emails with David Rowe at TfL covering similar topics and am satisfied with David's response of 9th July. TfL have undertaken thorough work to assess the existing problems at the Blackwall Tunnel and identify the option that best addresses these problems.

I am confident in the case for the Silvertown Tunnel which will address the significant issues of traffic congestion and unreliability at the Blackwall Tunnel and the consequential effects these have on travel, the environment, the economy and growth across the wider east and south east London area. Now the Development Consent Order has been granted I am eager for TfL to deliver the benefits of this scheme at the earliest opportunity, including the provision of significant new cross-river buses services and walking and cycling improvements around the tunnel entrances and approaches on both side of the river.

We hope this response addresses your concerns raised.

Regards'

Regards, Sarah

From: Mayoral Correspondence
Sent: 24 July 2018 15:15
To: City Planning Correspondence
Subject: FW: VIP Draft Request MGLA130618-4686 [REDACTED]

Hi team,

Please can you draft a response to the attached?

Many thanks,
Gus

Ref: MGLA130618-4686

Attached:

Date:

Dear [REDACTED]

Thank you for your email and please accept my apologies for the delay in responding. I was copied into your emails with David Rowe at TfL covering similar topics and am satisfied with David's response of 9th July. TfL has undertaken thorough work to assess the existing problems at the Blackwall Tunnel and to identify the option that best addresses these problems.

I am confident that the Silvertown Tunnel will address the significant issues of traffic congestion and unreliability at the Blackwall Tunnel and the consequential effects these have on travel, the environment, the economy and growth across the wider east and south east London area. Now the Development Consent Order has been granted I am eager for TfL to deliver the benefits of this scheme at the earliest opportunity, including the provision of significant new cross-river bus services and walking and cycling improvements around the tunnel entrances and approaches on both side of the river.

I hope this response addresses your concerns.

Yours sincerely,

Heidi Alexander
Deputy Mayor for Transport

From: Dyer Samantha **On Behalf Of** Rowe David (ST)
Sent: 08 August 2018 14:31
To: Davies Gus; Rowe David (ST); City Planning Correspondence
Cc: Asaas Sarah; Lunt Andrew; Pardoe John
Subject: RE: VIP Draft Request MGLA130618-4686 [REDACTED]

Thank you Gus.

Kind regards
Samantha

Samantha Dyer

Business Support | Network Sponsorship & Major Projects Sponsorship

Surface Strategy & Network Development | Surface Transport | Transport for London

Phone: [REDACTED]

4th Floor 4B5, Palestra, 197 Blackfriars Road, London SE1 8NJ | Email:
[REDACTED]

S&ND Health & Safety Representative



mental health first aid england TfL Mental Health First Aider Volunteer

TfL Mental Health First Aid Volunteers are trained to recognise the signs that someone may be unwell and provide initial help to guide a person towards appropriate professional help. [MHFA Volunteer Register](#)

"Mental health is an integral part of health; indeed, there is no health without mental health." [WHO]



From: Davies Gus
Sent: 08 August 2018 14:29
To: Rowe David (ST); City Planning Correspondence
Cc: Asaas Sarah; Lunt Andrew; Pardoe John
Subject: RE: VIP Draft Request MGLA130618-4686 [REDACTED]

That's fine – we can wait until Monday.

Thanks,
Gus

From: Dyer Samantha **On Behalf Of** Rowe David (ST)
Sent: 08 August 2018 14:20
To: Davies Gus; City Planning Correspondence
Cc: Asaas Sarah; Lunt Andrew; Rowe David (ST); Pardoe John
Subject: RE: VIP Draft Request MGLA130618-4686 [REDACTED]

Hello Gus,

As advised previously, both David Rowe and Andrew Lunt are on leave at present – David returning Monday 13th and Andrew on 24th August. John Pardoe from the Silvertown team is also on leave now until Monday 13th. Are you able to hold on this until Monday? Please can the latest draft be attached also.

Sarah – you mention Andrew had previously approved a response in David’s absence (shown below) – when was this please?

Many thanks
Samantha

Samantha Dyer

Business Support | Network Sponsorship & Major Projects Sponsorship

Surface Strategy & Network Development | Surface Transport | Transport for London

Phone: [REDACTED]

4th Floor 4B5, Palestra, 197 Blackfriars Road, London SE1 8NJ | Email:

[REDACTED]

S&ND Health & Safety Representative



mental health first aid england TfL Mental Health First Aider Volunteer

TfL Mental Health First Aid Volunteers are trained to recognise the signs that someone may be unwell and provide initial help to guide a person towards appropriate professional help. [MHFA Volunteer Register](#)

“Mental health is an integral part of health; indeed, there is no health without mental health.” [WHO]



From: Davies Gus

Sent: 08 August 2018 12:46

To: City Planning Correspondence

Cc: Asaas Sarah; Lunt Andrew; Rowe David (ST)

Subject: RE: VIP Draft Request MGLA130618-4686 [REDACTED]

Hi there,

I’m attaching the latest draft on this. At the end, we say ‘I hope this response addresses your concerns’, however the letter really feels like it doesn’t. Is it possible to include a bit more detail from David’s response of 9 July so it feels like we have tried harder to answer the question?

Thanks,
Gus

From: Rowe David (ST)
Sent: 13 August 2018 12:02
To: Pardoe John
Subject: RE: VIP Draft Request MGLA130618-4686 [REDACTED]

Many thanks John. David

From: Pardoe John
Sent: 13 August 2018 09:21
To: Rowe David (ST)
Subject: RE: VIP Draft Request MGLA130618-4686 [REDACTED]

Hi David

How about the below changes (in blue)?

'Dear [REDACTED]

Thank you for your email and apologies for the delay in responding, I was copied to your emails with David Rowe at TfL covering similar topics and am satisfied with David's response of 9th July. In it he responded to each of the points you made and provided links to the relevant documents submitted through the Development Consent Order process. The response is attached to this letter.

TfL have undertaken thorough work to assess the existing problems at the Blackwall Tunnel and identify the option that best addresses these problems. The Examining Authority considered all of the submitted evidence in making their recommendations, as did the Secretary of State who endorsed the case TfL put forward for the scheme.

I am confident in the case for the Silvertown Tunnel which will address the significant issues of traffic congestion and unreliability at the Blackwall Tunnel and the consequential effects these have on travel, the environment, the economy and growth across the wider east and south east London area. Now the Development Consent Order has been granted I am eager for TfL to deliver the benefits of this scheme at the earliest opportunity, including the provision of significant new cross-river buses services and walking and cycling improvements around the tunnel entrances and approaches on both side of the river.

We hope David's response and our support for the DCO outcome addresses your concerns raised.

Regards'

From: Rowe David (ST)
Sent: 09 July 2018 10:37
To: [REDACTED]
Cc: Alexander Heidi; [REDACTED]
[REDACTED]
[REDACTED]

Subject: RE: Silvertown

Dear [REDACTED]

Thank you for your email. As you will know from our previous correspondence, we applied for a Development Consent Order (DCO) for the powers to build and operate the Silvertown Tunnel. We submitted a thorough body of evidence as part of the DCO application and the subsequent six month Public Examination, covering all relevant topic areas. Interested Parties were invited to submit their own evidence, comments and questions, and I recall you did so in writing and in person during the Public Examination.

The Examining Authority considered all of this evidence in making [their recommendations](#), as did the Secretary of State who endorsed the case we put forward for the scheme.

Perhaps most relevant to your points, the DCO [decision letter](#) states ‘...there was no challenge to the fact that there are existing problems in relation to the Blackwall Tunnel and its approaches that demonstrate that there is a need to be addressed. The Secretary of State agrees... that there are no reasons to disagree with the objectives set by the Applicant for identifying a solution.... The Secretary of State notes the options appraised and alternatives canvassed... and he agrees with the Panel that there has been sufficient assessment of alternatives’

The making of the DCO is a clear, fair and transparent endorsement of our appraisal of the scheme, and our continued promotion of the Silvertown Tunnel. Below I have responded to your points, providing links to relevant documents submitted through the DCO process.

Points 1 - 4

The need for the scheme and the best option for meeting the objectives are reported in the [Case for the Scheme](#) and [Outline Business Case](#). In summary, a range of different options were examined which included new cross river rail links, a third bore at Blackwall or user charging only. The consented scheme most effectively addresses the identified problems.

The forecast traffic flows for the new crossing are set out within the [Transport Assessment](#). This also contains information on changes to traffic flows at other crossings and across the wider network, together with predicted changes to journey times, queues, public transport accessibility and a range of other matters.

Point 5

Supporting growth does not explicitly mean providing for more traffic. The rationale for supporting growth and the means by which the scheme achieves this are described in the [Case for the Scheme](#) and [Outline Business Case](#).

Point 6

We undertook a specific appraisal of an option for charging the Blackwall Tunnel only and this is reported in our [Response on Options Appraisal](#). As you know we do not believe this provides as effective a solution as the consented scheme.

Point 7

The [Transport Assessment](#) sets out the modelled effects of the indicative bus network that has been developed as part of the scheme, as well as an explanation of how we have modelled forecast demand for, and impacts of, such a network. Furthermore, the [Case for the Scheme](#) and the [Bus Strategy](#) outline that, 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. The Bus Strategy is explicitly developed to allow flexibility in our development of the bus network in the area to both encourage and respond to demand for bus services in the future.

Point 8

As stated in the [Bus Strategy](#), the dedicated lane will increase safety for all users as well as providing priority for these permitted vehicles. The dedicated lanes will ensure reliability of bus journey times at all times and will offer us a valuable tool in our monitoring the performance of the highway network.

Point 9

The [Case for the Scheme](#) and [Outline Business Case](#) describe the importance of the resilience benefit and how the scheme delivers against it. These documents also set out the wider benefits, such as the crucial role the Silvertown Tunnel scheme plays in allowing a step change in the provision of cross river bus services.

Point 10

Our full analysis of options is presented in the [Case for the Scheme](#) and [Outline Business Case](#). A cost-benefit analysis comparing just tolling Blackwall with the proposed scheme was submitted in the document [Response on Options Appraisal](#).

Point 11

This option is essentially equivalent to a Blackwall Tunnel third bore, which was assessed as part of our development of the scheme. Furthermore, the safety reasons why this option is not practical were set out in the responses to your previous emails dating from 2016. In summary, we do not believe a single bore crossing would meet the fundamental design standards for new tunnels. Tunnels are safety critical environments in which the implication of dangers such as collisions and fires pose even greater risk and can result in significant numbers of victims. The constraints posed by the confined space of a tunnel also make evacuation and emergency services access much more difficult. Consequently, we would need to either construct a significantly larger single tunnel or build a parallel evacuation tunnel (a second bore) to enable effective evacuation and emergency service access.

The provision of two lanes in each direction also ensures operational flexibility and supports the resilience of the road network in east London should a closure or incident occur in the Blackwell area. For example, in 2014 there were only 20 days when it was not necessary to close the Blackwell tunnel. It also enables flexibility in our approach to undertaking maintenance works in the Silvertown and Blackwall tunnels, whilst ensuring continued performance of the river crossing.

Point 12

It is unclear which models you are referring to. TfL's recent Strategic Cycling Analysis did not recommend a route in this location unlike, for example, routes to and from the proposed crossing between Rotherhithe and Canary Wharf.

Pedestrian and cycle facilities around and through the tunnel were considered as part of the scheme development and scrutinised through the DCO process. We are committed to significant walking, cycling, public realm and landscaping improvements to transform the local area as set out through the [Design Principles](#). We are in ongoing discussions with the Local Authorities to determine additional enhancements that we will provide, including the additional facilities referred to in your comment below.

Point 13

There are examples of similar facilities elsewhere, although I accept this is not a well proven solution. In the [DCO](#) we have set out a clear commitment to enhanced river crossing facilities for pedestrians and cyclists and we are working closely with the Local Authorities to determine the most appropriate means of delivering this provision. Monitoring the effectiveness of such measures will be a key part of the scheme.

Point 14

The [Charging Policies and Procedures](#) and the [Monitoring and Mitigation Strategy](#) set a robust mechanism for managing traffic levels, and the associated impacts. In the decision letter, the Secretary of State *'agrees with the Panel that there is no reason to doubt the effectiveness of varying the user charges to control traffic levels (PR.2.97) and that the availability of a user charge mechanism would enable any uncertainty and unexpected outcomes that might present themselves to be monitored and mitigated against. He agrees with the Panel that requirement 7 (monitoring and mitigation strategy) ("MMS") along with article 54 (power to charge for use of the tunnels) in the DCO enables the review of the user charge, in consultation with Silvertown Tunnel Implementation Group ("STIG") to provide a suitable, robust and flexible mechanism to adjust the user charging to control traffic levels so that they reflect the assessed case (PR.5.2.95).'*

Point 15

As described above we believe a suitable mechanism has been established. Whilst the decision is ultimately for the Mayor, such a decision would need to take regard for the relevant evidence provided, including consultation with stakeholders through the Silvertown Tunnel Implementation Group (STIG).

I trust this satisfies your enquiry.

Yours sincerely

David Rowe

Head of Major Projects Sponsorship, Surface Transport

Transport for London

email: [REDACTED] | www.tfl.gov.uk

From: [REDACTED]

Sent: 26 June 2018 00:10

To: Rowe David (ST)

Cc: Alexander Heidi; [REDACTED]; Nick Bowes; [REDACTED]

Subject: Silvertown

Dear David,

I wanted to give you the opportunity to refute any or all of the following points about the Silvertown scheme. Those CC'd to this email should assume that any points that are not successfully refuted are true.

1) With the scheme working as proposed, virtually none of the new road capacity that is being built at vast expense under the Thames at Silvertown will actually be used. (The tunnel will take traffic, but for most of the time both tunnels together are taking the same traffic as Blackwall does now. It's only for a couple of hours at peak that a tiny fraction (perhaps 1/10) of the new capacity provided is used to relieve congestion)

From: Rowe David (ST)
Sent: 13 August 2018 12:17
To: Davies Gus
Subject: RE: VIP Draft Request MGLA130618-4686 [REDACTED]

Done

From: Davies Gus
Sent: 13 August 2018 12:12
To: Rowe David (ST); City Planning Correspondence
Cc: Asaas Sarah; Lunt Andrew; Pardoe John
Subject: RE: VIP Draft Request MGLA130618-4686 [REDACTED]

Hi David,

Thanks for this. Unfortunately, the attached is email is archived. Can you open it up and send it to me separately please?

Thanks again – I will rework our response as below.

Gus

From: Rowe David (ST)
Sent: 13 August 2018 12:09
To: Davies Gus; City Planning Correspondence
Cc: Asaas Sarah; Lunt Andrew; Pardoe John
Subject: RE: VIP Draft Request MGLA130618-4686 [REDACTED]

Gus

Revised proposed response below. I don't know if you want to include the response from me to [REDACTED], but I have attached it to this email and included optional text to that effect in red below.

Dear [REDACTED]

Thank you for your email and apologies for the delay in responding, I was copied to your emails with David Rowe at TfL covering similar topics and am satisfied with David's response of 9th July (copy attached). This addresses each of the points you made and provides links to the relevant documents submitted by TfL through the Development Consent Order process.

TfL have undertaken thorough work to assess the existing problems at the Blackwall Tunnel and identify the option that best addresses these problems. The Examining Authority considered all of the submitted evidence in making their recommendations, as did the Secretary of State who endorsed the case TfL put forward for the scheme.

I am confident in the case for the Silvertown Tunnel which will address the significant issues of traffic congestion and unreliability at the Blackwall Tunnel and the consequential effects these have on travel, the environment, the economy and growth across the wider east and south east London area. Now the Development Consent Order has been granted I am eager for TfL to deliver the benefits of this scheme at the earliest opportunity, including the

provision of significant new cross-river buses services and walking and cycling improvements around the tunnel entrances and approaches on both side of the river.

Regards'

From: Davies Gus

Sent: 08 August 2018 14:29

To: Rowe David (ST); City Planning Correspondence

Cc: Asaas Sarah; Lunt Andrew; Pardoe John

Subject: RE: VIP Draft Request MGLA130618-4686 [REDACTED]

That's fine – we can wait until Monday.

Thanks,
Gus

From: Rowe David (ST)
Sent: 02 November 2018 16:32
To: [REDACTED]
Cc: Steer Tim; Plowden Ben; Preedy Edward (ST)
Subject: FW: Silvertown

Hi [REDACTED]

I've received an email from [REDACTED] regarding Silvertown (see below). Given the individuals he has copied it to, I wanted to check City Hall are happy with my proposed response, which is set out below. Grateful if you could let me have any comments.

Many thanks. David

Dear [REDACTED]

Thank you for your email of 29 October 2018.

It is incorrect to say these issues have not been considered already. For example, the answers to your first three questions concerning the forecast costs of the scheme and the benefits in term of congestion and resilience are set out within the [Outline Business Case](#) and the answers to many of the other questions you have raised are set out in my previous email of 9 July 2018 (below), including why a single bore two lane tunnel is not practical (see response to point 11), information on the assessment of introducing tolling on the existing Blackwall Tunnel (see the [Case for the Scheme](#) and [Response on Options Appraisal](#)), the arrangements for planning the new bus services closer to the time of the new tunnel opening (see the [Bus Strategy](#)) and how the user charges will be set to effectively manage and monitor traffic levels and the process that must be followed for any future variations (see [Charging Policies and Procedures](#) and the [Monitoring and Mitigation Strategy](#)).

The relevant policies and procedures are now enshrined in the DCO that was granted for the scheme by the Secretary of State earlier this year, which will help ensure the scheme delivers the forecast benefits for reducing congestion, improving resilience and enabling a step change in cross river bus travel.

Yours ...

From: [REDACTED]

Sent: 29 October 2018 15:15

To: Rowe David (ST)

Cc: Alexander Heidi; [REDACTED]; Nick Bowes; [REDACTED]

Subject: Re: Silvertown

Dear David,

Just following up on this. As far as I know, the following questions haven't yet been answered in public. I wonder if you would be able to answer them?

- 1) What's the latest estimated cost of the Silvertown Tunnel?
- 2) What's the congestion benefit of the proposed scheme?
- 3) What's the resilience benefit of the proposed scheme?
- 4) Are there any technical reasons you would be unable to build a single-bore two lane tunnel at Silvertown that reverses direction with peak flow (and otherwise operates northbound), includes a cycle track/footway/emergency escape path under the roadway, and works to the same charging regimen as the proposed scheme?
- 5) If not, what would you estimate as the cost of a single tunnel scheme?
- 6) What would be the congestion benefits of such a single bore scheme?
- 7) What would be the resilience benefits of a single bore scheme?
- 8) What would be the carbon emission benefits of building a single bore scheme over the proposed scheme? (In each case, please add the social cost of carbon emissions to the estimated cost of the scheme. About [\\$200 per ton](#), perhaps?)
- 9) What would be the additional benefits of the cycle track/pedestrian path that would be included in a single tunnel scheme (please make an estimate that includes an estimate for growth in the e-bike & e-cargo bike sector, and carbon emission benefits from modal shift)?
- 10) What would be the costs of a scheme that just implemented tolls on the existing tunnel in such a way as to relieve congestion with existing traffic levels by giving incentives to drive at different times?
- 11) What would be the congestion benefits of just tolling the existing tunnel (I presume slightly less than the proposed scheme, as there's some cost for people changing the times of their trips)?
- 12) What would be the resilience benefits of just tolling the existing tunnel as described above (I presume there would be some as there would be less traffic build-up at peak..)
- 13) What would be the carbon emission benefits of just tolling the existing tunnel, over the proposed scheme?
- 14) Given TfL's difficult finances, and potential suggestions for improving them, how would repayment of the costs of all the above schemes be affected by any future proposal for widespread congestion charging across London (and associated reduction in demand)?

15) How would such a widespread congestion charging proposal affect the perceived need for a scheme at Silvertown (given that, in itself, it would significantly reduce congestion and increase resilience)?

16) The main outcome of the existing indicative plan for new bus services through the tunnel is 4000 trips moved from cycling & walking to bus services. This is clearly a negative outcome - cycling & walking trips converted to bus trips cost more to both users and tfl, increase pollution, and reduce physical activity. Can you produce an indicative plan for new bus services that will have net benefits?

17) If you can propose an indicative set of new bus services through the tunnel that has net positive effects (and assuming the possibility of using articulated buses), will either of the above proposals (single bore tunnel, or charging blackwall), which both remove congestion, allow you to implement the new services as well as the proposed twin bore scheme will do?

18) In the event of building a single or twin bore tunnel, have you been able to devise a political mechanism that will prevent future Mayors from removing the toll (or not increasing it sufficiently), and so allowing traffic to increase sharply across Lewisham, Greenwich and Newham, with associated increases in congestion, pollution, and reductions in resilience that, according to TfL's own forecasts, will make the situation significantly worse than it is now? (Note that this is exactly what is happening with the M4 Severn Bridge toll - it's being removed for political reasons despite forecasts of increased pollution & congestion..)

Thanks very much!



From: Rowe David (ST)
Sent: 02 November 2018 16:32
To: Fenimore laura; Flindell Richard; Lunt Andrew; Pardoe John; Clements Chris
Cc: Nolan Gary; Yuill Esme
Subject: RE: Silvertown

Will do. David

From: Fenimore laura
Sent: 02 November 2018 15:39
To: Flindell Richard; Rowe David (ST); Lunt Andrew; Pardoe John; Clements Chris
Cc: Nolan Gary; Yuill Esme
Subject: RE: Silvertown

Yes of course, thanks.

From: Flindell Richard
Sent: 02 November 2018 15:24
To: Rowe David (ST); Lunt Andrew; Pardoe John; Fenimore laura; Clements Chris
Cc: Nolan Gary; Yuill Esme
Subject: FW: Silvertown

Hi David

I agree with your approach David and just copying in Laura and Chris as we should run the response via City Hall given the audience [REDACTED] has copied his email to. I think last time you were dealing with [REDACTED].

Laura, are you happy that David runs this past [REDACTED] at City Hall?

Thanks

Richard

Richard Flindell | Project Communications Specialist
Consultations and Projects | Public Affairs and External Relations | Transport for London
Mail: Red Zone, Floor 9, Endeavour Square, Stratford, London, E20 1JN
Phone: [REDACTED]
Email: [REDACTED]

From: Nolan Gary
Sent: 02 November 2018 12:46
To: Flindell Richard; Yuill Esme
Subject: FW: Silvertown

Looks like one for you guys I think.

From: Lunt Andrew
Sent: 02 November 2018 11:49
To: Rowe David (ST); Nolan Gary
Subject: RE: Silvertown

Sounds pretty good to me David. Thanks.

From: Rowe David (ST)
Sent: 02 November 2018 11:07
To: Lunt Andrew; Nolan Gary
Subject: FW: Silvertown

Andrew / Gary

See below email from [REDACTED]. I don't propose we answer every single question, but I think it does need a response given the people it's been copied to. What do you think of the following:

Dear [REDACTED]

Thank you for your email of 29 October 2018.

It is incorrect to say these issues have not been considered already. For example, the answers to your first three questions concerning the forecast costs of the scheme and the benefits in term of congestion and resilience are set out within the [Outline Business Case](#) and the answers to many of the other questions you have raised are set out in my previous email of 9 July 2018 (below), including why a single bore two lane tunnel is not practical (see response to point 11), information on the assessment of introducing tolling on the existing Blackwall Tunnel (see the [Case for the Scheme](#) and [Response on Options Appraisal](#)), the arrangements for planning the new bus services closer to the time of the new tunnel opening (see the [Bus Strategy](#)) and how the user charges will be set to effectively manage and monitor traffic levels and the process that must be followed for any future variations (see [Charging Policies and Procedures](#) and the [Monitoring and Mitigation Strategy](#)).

The relevant policies and procedures are now enshrined in the DCO that was granted for the scheme by the Secretary of State earlier this year, which will help ensure the scheme delivers the forecast benefits for reducing congestion, improving resilience and enabling a step change in cross river bus travel.

Yours ...

From: [REDACTED]y@london.gov.uk]
Sent: 05 November 2018 08:18
To: Steer Tim; Rowe David (ST)
Cc: Plowden Ben; Preedy Edward (ST)
Subject: Re: Silvertown

Hi David – I'm happy too.

[REDACTED]

From: Tim Steer
Date: Friday, 2 November 2018 at 16:36
To: 'Rowe ', [REDACTED]@london.gov.uk"
Cc: Plowden Ben , Preedy Edward
Subject: Re: Silvertown
I think it's fine David. ([REDACTED] away today.)

Thanks

Tim

From: "[REDACTED]"
Date: Friday, 2 November 2018 at 16:32
To: [REDACTED]
Cc: Tim Steer , Plowden Ben , Preedy Edward
Subject: FW: Silvertown

Hi [REDACTED]

I've received an email from [REDACTED] regarding Silvertown (see below). Given the individuals he has copied it to, I wanted to check City Hall are happy with my proposed response, which is set out below. Grateful if you could let me have any comments.
Many thanks. David

See below. Please can you get John to have a look at the email below from [REDACTED] and advise if there is a succinct way we can answer this that preferably wont lead to email tennis... .

From: [REDACTED]
Sent: 09 November 2018 02:12
To: Rowe David (ST)
Cc: Alexander Heidi; [REDACTED] Nick Bowes; [REDACTED]

Subject: Re: Silvertown

Dear David,

Thank you for taking the time to reply, and for links to those documents, most of which I think you have sent previously.

As I am sure you understand, the questions I am asking you have emerged from the information in those documents, and from previous correspondence. Let me explain why they are relevant:

Scheme costs and benefits:

As you know, in your business case, you quote 2010 prices for the costs of the scheme. It would be good to know the present estimates, at 2018. For example, the construction cost is quoted at £733m (£834m inc. maintenance), in 2010 prices. Updating for inflation, this comes to about £900m (£1.016bn) , but I assume there are also revisions to your estimate based on costs imposed by Brexit, etc?

Anyway, working with your 2010 figures, let me sketch out a comparison of a scheme that removes congestion from the Blackwall Tunnel (while allowing the same amount of traffic through the tunnel) by imposing charges that incentivise driving at less congested times (this is clearly a possibility, though you haven't yet analysed it in detail), with the proposed scheme. (Figures from OBC, p121, 145, 60 year horizon)

Proposed Scheme:

Costs: £733m (construction) + £101m (maintenance) + £436m (60 yr costs of tolling)
Benefits: £967m (congestion) + £258m (reliability/resilience)

Tolling Blackwall to remove congestion only:

Costs: £436m (costs of tolling - maybe less if you're tolling one tunnel only?)

Benefits: £967m (congestion - will in effect be slightly less because of added costs of driving at different times) +£x (added resilience from free-flowing traffic)

I've left out the question of toll income because in your figures it both pays for your scheme and is a disbenefit for users (and the disbenefit you show just about covers the cost of tolling, not construction and maintenance costs) , & it's not clear how you fit that in your analysis..

So what I see here is that **the added costs of building and maintaining the tunnel (£834m, 2010 figures) only bring you £258m in (resilience) benefits over and above the benefits of just tolling Blackwall to remove congestion.** This seems very bad value, to me. And this is without adding in an sensible social cost of carbon for the construction.

Clearly, I might have misunderstood something here. Your documents aren't always clear. But it would be very valuable for everyone, I think, to have a clear analysis of three possible options (tolling Blackwall, single bore tunnel, double bore tunnel) in terms of costs, toll income, resilience benefits, and congestion benefits.

It would also be useful to understand how benefits of all schemes (and repayments of construction costs) would be affected by the introduction of user charging across London, which would likely reduce demand and congestion at Blackwall independently of any tunnel or local charging scheme.

Single bore tunnel

In terms of the option of a single bore tunnel. Your objections to this option in your previous email were that a two-way tunnel would not be safe, and that a single bore tunnel would need another bore next to it as an escape route. (The objection to a single bore tunnel at Blackwall was that there wasn't enough space - which is irrelevant, since that isn't the case at Silvertown). I asked you to evaluate a single bore tunnel at Silvertown that reverses direction with peak flow (as you know, congestion at Blackwall at peak is in only one direction. northbound in the morning, southbound in the evening), and that has an escape route/service route/cycle path under the roadway. This would clearly cover your objections, would be significantly cheaper to build, would have similar (though not identical) congestion/resilience benefits to the proposed scheme, and would also allow additional benefits from creating a route for cyclists, e-cargo bikes etc across the river.

Buses

The public case for the scheme has relied heavily on the prospect of new bus services. The indicative new bus service in your documents has a mostly negative effect - its key function is to take trips away from cycling and walking and move them to buses, increasing pollution, reducing health etc. It would be useful to know if TfL can come up with an indicative bus service with more positive effects.

Mitigation/Monitoring/Tolling

As you know, TfL's own figures show that the construction of any tunnel, single or double bore, sets up a pollution/congestion 'bomb' for Lewisham, Greenwich and Newham, which will make pollution and congestion significantly worse than it is today, and which is set off if more than a small fraction of the new capacity under the river that is being built is actually used for anything more than 'resilience' purposes. This will happen if a new Mayor decides to remove the charge, or not to increase it to keep up with inflation/demand. This is a significant risk - Mayor Johnson removed the Western Congestion Charge extension despite the extra traffic that generated. Tolls on the Severn Bridge are being removed for political purposes despite a significant forecast increase in pollution & congestion. So it would be useful to know whether there might be a legal mechanism that could be used to keep tolls at the correct rate to hold traffic down in a way that removes the possibility of tolling (and welfare of citizens in inner SE London) becoming a political football..

PFI

It would be useful to understand how the PFI scheme proposed here is affected by the government's recent decision to drop PFI schemes.

This is a very high cost scheme (effectively, road widening in the most expensive place you can possibly do it) that will eventually be paid for by Londoners. It's in everyone's interest that we ensure that it's both needed, and the best value option we can find, before starting construction.

You manage a large team, and I am certain you can easily spare the resources to answer the questions I sent in detail, rather than sending links. This will also make the discussion much easier to read for everyone cc'd.

Best,

[REDACTED]

On Thu, Nov 8, 2018 at 8:29 AM Rowe David (ST) <[REDACTED]> wrote:

Dear [REDACTED]

Thank you for your email of 29 October 2018.

It is incorrect to say these issues have not been considered already. For example, the answers to your first three questions concerning the forecast costs of the scheme and the benefits in term of congestion and resilience are set out within the [Outline Business Case](#). Furthermore, the answers to many of the other questions you have raised are set out in my previous email of 9 July 2018 (below), including why a single bore two lane tunnel is not

practical (see response to point 11), information on the assessment of introducing tolling on the existing Blackwall Tunnel (see the [Case for the Scheme](#) and [Response on Options Appraisal](#)), the arrangements for planning the new bus services closer to the time of the new tunnel opening (see the [Bus Strategy](#)) and how the user charges will be set to effectively manage and monitor traffic levels and the process that must be followed for any future variations (see [Charging Policies and Procedures](#) and the [Monitoring and Mitigation Strategy](#)).

The relevant policies and procedures are now enshrined in the DCO that was granted for the scheme by the Secretary of State earlier this year, which will help ensure the scheme delivers the forecast benefits for reducing congestion, improving resilience and enabling a step change in cross river bus travel.

Yours sincerely

David Rowe

Head of Major Projects Sponsorship, Surface Transport

Transport for London

4th floor, Zone 4R2, Palestra, Blackfriars Road, London SE1 8NJ

tel: [REDACTED]

email: [REDACTED] | www.tfl.gov.uk

From: Rees Penny
Sent: 19 November 2018 16:22
To: Rowe David (ST)
Cc: Smith Tracey (ST); Monck Sam
Subject: Re: Stoke Newington / Extinction Rebellion / Next Mayoral Term

Thanks David - a lot of important points in there.

Penny Rees | Head of Network Sponsorship
Project & Programme Sponsorship | Surface Transport | Transport for London
Mail: 4th floor, Palestra, [197 Blackfriars Road, Southwark, London, SE1 8NJ](#)
Phone: [REDACTED] (mobile)
Email: [REDACTED]

From: Rowe David (ST)
Sent: 19 November 2018 13:58
To: Smith Tracey (ST)
Cc: Rees Penny
Subject: FW: Stoke Newington / Extinction Rebellion / Next Mayoral Term

Hi Tracey

I understand from Rob that Stoke Newington is one of your schemes. See email below from [REDACTED] to the Deputy Mayor and Cycling Commissioner.
David

From: [REDACTED]
Sent: 19 November 2018 13:34
To: Alexander Heidi; [REDACTED]
Subject: Stoke Newington / Extinction Rebellion / Next Mayoral Term

Dear Heidi & [REDACTED],

A couple of quick thoughts on the Stoke Newington scheme - because I think it epitomises what's going wrong in terms of actual decision-making on new projects - and some suggestions on how to re-frame to allow us to do things better.

There are four key strategic priorities right now, in terms of surface transport:

- 1) Reduce CO2 pollution. The recent IPCC report communicates well the urgency of this. Surface transport is the lowest hanging fruit in terms of CO2 reduction, and, given that CO2 accumulation is cumulative, the faster we make reductions, the more effect that reduction has. In the context of the IPCC's report, London's existing goal of
- 2) Reduce local air pollution. Our evolving understanding of the harm air pollution does, particularly to [children](#), indicates that this is a health emergency and we should take action as swiftly as possible.
- 3) Reduce road danger

4) Increase active travel to improve health outcomes.

In surface transport, the way to achieve these outcomes is to shift as many trips as possible from more polluting, dangerous modes to more efficient, less polluting modes.

Ken Livingstone's expansion of the bus priority network (and implementation of the Congestion Charge) led to a significant (and valuable) modal shift to buses - we now have a very good bus network - but it's clear that we're near the limit of the modal shift that can be achieved with improvements to bus services, unless there is a sharp reduction in general traffic to improve bus timing..

In London, right now, then the main opportunity to achieve these priorities (and one that has, in part, emerged only recently through improvements in battery technology) is by shifting trips from private cars, taxis, vans and bus to bikes, electric bikes, e-cargo bikes and (regulation permitting) other ultralight electric vehicles. These vehicles emit very little CO₂, and no local pollution, are spatially efficient, and (due to low mass and kinetic energy) represent little danger.

All the evidence we have shows that what is needed to enable this modal shift is a network of safe protected or truly quiet cycle/micro EV routes. While we have a network for general traffic that allows travel more or less anywhere, a good bus network, and a just adequate network for walking (which needs more safe road crossings, in particular), we have only a few kilometres of safe cycle network. There's an immense amount to do.

The policy priority, therefore, if we want to achieve our strategic priorities, is to create an extensive, safe cycle/micro EV network across London. And if compromises have to be made, given that we are aiming to achieve, primarily, modal shift from heavy motor traffic, those compromises should hit the general motor traffic network first.

Looking at the Stoke Newington Gyratory scheme - this is essentially a relatively minor rationalisation of the bus network. But it achieves this improvement at a high cost, principally in terms of potential improvements to the cycling and pedestrian networks. The scheme runs more buses down the High St - and though buses are more efficient than cars, they are still large, dirty, dangerous vehicles, and routing them down commercial high streets has high costs in terms of air quality, noise, pedestrian amenity and safety. There's a reason that Westfield doesn't have buses running directly through it. Placing two-way buses on a relatively narrow street ensures that at least 6m of road space is given over to heavy motor vehicles, restricting what can be done in terms of cycle safety and better walking conditions.

This Stoke Newington scheme will do very little to achieve modal shift (and, therefore, little to achieve the four strategic goals I mentioned at the beginning of this email). The improvements for cycling on the key desire line (a part-time, intermittent cycle track in one direction and a shared bus lane in the other) will make conditions marginally better for those who cycle already, but will do nothing for the majority of risk-averse potential cyclists. So the scheme achieves almost nothing in terms of either building a wider safe cycle network, or allowing inclusive local access. Walking is not going to be more pleasant on the High Street, and crossing the road in many cases will take longer than at present.

So what would a good scheme look like? Its first priority would be to create a safe cycle/micro EV route on the main desire line. Its second priority would be to remove buses from the High Street as far as possible, to improve conditions for pedestrians, while not negatively impacting bus timings (even without buses on the High St, bus users on the High St would never have to walk more than 250m to catch a bus. as a comparison, visitors to Westfield Shepherds Bush are never more than 350m from public transport..). To achieve both of these priorities, it might be necessary to restrict general traffic in some ways, either through timed restrictions, or through charging.

This brings us to the wider point - which is that to build an effective london-wide cycle/micro EV network, without damaging bus services, we're going to need to restrict general traffic. Politically, as soon as we make driving harder, we're going to need to both offer people other choices, and to be able to argue that those other choices are both practical and beneficial.

The way we're trying to do this right now - the kind of gradual incrementalism we're seeing at Stoke Newington, or at Waterloo Roundabout, with expensive schemes that take years of arduous consultation and political struggles to build, and give us tiny improvements in the cycling network limited by a reluctance to make any but the smallest compromises on the general motor traffic network - won't result in a workable london-wide cycle and micro-ev network any time soon. It's not an appropriate approach, given the climate emergency, and the immediate human costs of air pollution.

There's another option, though. Rather than peeling off the plaster slowly, inch by inch, pull it all off at once.. and move immediately from one equilibrium to another, rather than trying to make that move in slow, painful steps.

What would this involve?

Simultaneously:

- 1) Implementation of a london-wide smart congestion charge on all private vehicles & cabs (possibly only on TfL roads and some of the SRN, if the same camera system is used, both to reduce costs and exemptions, and to provide incentives to boroughs to filter rat-runs)
- 2) Using the capacity released by the congestion charge to implement a light-segregation cycle/micro ev network on key desire lines across most of TfL's roads and junctions (and some of the SRN)
- 3) Widespread filtering of rat-runs on borough streets, incentivised by the tolls on main roads.
- 4) Additional bus priority measures (principally bus gates) to avoid negative impacts on bus services.

(It may be useful to plan this in two stages - for example implementation inside the N/S circular in 2020 and outside in 2022..)

This scheme, by offering a safe alternative choice for all at the same time as sharply reducing motor vehicle use would allow immediate and significant modal shift to cleaner & more efficient transport across the city.

There's a precedent for implementing this kind of change. In 2012, TfL successfully temporarily re-engineered much of London's road network to enable the Olympics. So they know how to do it.

What wouldn't be possible, with an extensive modal shift scheme like this, is the kind of detailed modelling that TfL does for its road schemes now. Instead, the procedure would be to implement using temporary measures, and then re-work as appropriate. Again, this would help change happen much faster - because our existing modelling doesn't model modal shift well - and so always pushes us towards a slightly re-jigged version of the status quo.

So this is what an appropriate and rational policy response to the ongoing climate and air pollution emergencies looks like. How do we achieve it, politically?

In some ways, the politics become much easier, too, despite this being much more radical and faster change than we're used to. Because there's one goal - swift modal shift to cleaner, more efficient transport - serving a few clear strategic goals (air pollution and road safety), all the parts (ie changes to individual junctions) work together, support each other, and can be argued for together. Instead of fighting many separate local political battles over the course of a mayoral term, defending individual schemes, the case for everything can be made together, and each part can be effectively defended on the grounds that it's necessary to achieve the whole.

In terms of democratic consent; politically, this scheme needs to be achieved the same way Ken Livingstone achieved the congestion charge - ie by using the mayoral election itself to create a credible mandate (which means we need to start work on it now, so there's a well-worked out plan to include in the 2020 manifesto). Any consultation should then assume the project is going ahead, and only ask for suggestions for improvements, not be a referendum on the scheme.

Any scheme (and particularly one of this scale), even if it's rational and appropriate policy, and even if it eventually benefits nearly everyone, as this will, comes up against opposition from people who have an emotional connection to the freedoms that the status quo allows them. So we need an emotional narrative that supports our rational policy. In this case, the narrative should be structured around a theme of 'a future for our children'. This effectively pulls together the climate change, local pollution, road danger and active travel aspects. And, as an emotional narrative, it accurately describes the outcomes of the policy, and is very difficult to oppose.

This policy (and the narrative supporting it) will get strong political backing by several outside groups - notably the new and well-organised direct action climate group that has sprung up following the IPCC report, and that closed five central London bridges this weekend - and the growing network of parents concerned about the effects of air pollution on their children's development.

More widely, it's also clear that a green, multicultural international democratic socialist movement is beginning to emerge in reaction to the inward-looking, short-termist, authoritarian nationalism of Brexit. Sadiq Khan is in a great position to ride this wave - but, given the severity of the situation, he needs to show an ability to move away from an ultra-cautious managerial approach, and use the power that he has to enable wide-reaching change. There are two ways to be a democratic politician - either you ask everyone what policies they want, and try to give all of them tiny incremental improvements that look like what they've asked for - or, you see a way to vastly improve things for everyone (to give them what they want, but not necessarily in the way they'd imagined), you work to make them understand

why this is a good idea, you put all your political energy into implementing this change, and then you survive, or not, politically depending on whether you were right. This is a great time for the second approach.

(Finally, this would also be a great time to cancel the Silvertown Tunnel. A time of climate emergency is a really bad time to be embarking on a £1bn new road project with a BCR of 0.3..)

I'm happy to talk more if it's useful.

Best,



From: Pardoe John
Sent: 23 November 2018 08:31
To: Lunt Andrew
Cc: Rowe David (ST)
Subject: RE: Silvertown

[Case for the Scheme](#)

3.3 Summary of options considered and findings

3.3.22

BACK-CHECK of walking and cycling options (see Appendix A)

TfL's recent back-check against the project objectives confirms that walking and cycling measures in and of themselves would be highly unlikely to achieve the significant reduction in demand needed to address the congestion and closure problems of the Blackwall Tunnel. Furthermore a walk or cycle crossing could not offer a realistic alternative in case of incidents or closures and hence would not provide any additional resilience.

TfL has reconsidered the potential to include provision for pedestrians and cyclists within the structure of the Silvertown Tunnel itself. The length of the Tunnel means that a poor and potentially intimidating ambience is inevitable, and there is concern over safety and security implications. In the context of the existing Emirates Air Line which follows broadly the same alignment but ties more directly into the local centres of activity, it would likely prove unattractive to most potential users. Additionally, cost impacts would likely be very significant: **in the region of £70m** for one bore and £150m for both bores in additional cost.

It is considered that there are more cost-effective ways of improving connections for pedestrians and cyclists in this area. These include:

From: Lunt Andrew
Sent: 22 November 2018 17:09
To: Rowe David (ST)
Cc: Pardoe John
Subject: RE: Silvertown

David,

John has pulled together a draft response below. Let us know what you think. I have stripped back some of the information on reflection, as I think we have answered lots of these questions before, but John did some more detailed answers before.

Sorry for the delay it's been sitting in my inbox for review.

John – in your draft you mentioned 'Our financial evaluation indicated it would be more expensive than the proposed solution by some £70m' – where did this come from?

Andrew

From: Pardoe John
Sent: 15 November 2018 15:06
To: Lunt Andrew
Subject: FW: Silvertown

Dear [REDACTED]

Firstly, it is incorrect to surmise that I can easily spare resource to investigate and respond to your questions. My team is currently progressing a number of activities to support the implementation of the Silvertown Tunnel, let alone other projects. We are under significant cost pressures at TfL and it's not appropriate for me to allocate substantive resources to reopen previous work.

As stated in my letter Mon, Jul 9, 2018, in making the Development Consent Order "*The Secretary of State agrees... that there are no reasons to disagree with the objectives set by the Applicant for identifying a solution... . The Secretary of State notes the options appraised and alternatives canvassed... and he agrees with the Panel that there has been sufficient assessment of alternatives*". The work to consider options for this scheme has already been completed, shared with the public for comment, and subjected to significant scrutiny as you know. I don't believe you have raised any material new information and so in responding to your questions it was appropriate for me to include references/links to our previous work.

Again I would refer you to our previous correspondence for answers to your questions on scheme costs/benefits, the viability of a single bore and monitoring/mitigation. I explained that while you're correct regarding the Mayor's decision on the charge, such a decision would need to take regard for the relevant evidence provided, including consultation with stakeholders through the Silvertown Tunnel Implementation Group (STIG). I also explained how the Bus Strategy for the scheme is explicitly developed to allow flexibility in our development of the bus network in the area to both encourage and respond to demand for bus services in the future.

To your question on PFI, I presume you refer to the recent budget announcement which states that the Chancellor will not sign any new PFIs. The footnotes say that this decision does not apply to devolved administrations, which would include Transport for London. It therefore has no implications for the Silvertown Tunnel proposals and we are continuing discussions with the shortlisted bidders and plan to

I welcome your interest in this scheme along with your resolve to identify the best value option. We too are focused on best value and providing the most appropriate solution to the significant issues of traffic congestion and unreliability at the Blackwall Tunnel and the consequential effects these have on travel, the environment, the economy and growth across the wider east and south east London area.

Yours sincerely

David Rowe

Head of Major Projects Sponsorship, Surface Transport

Transport for London

4th floor, Zone 4R2, Palestra, Blackfriars Road, London SE1 8NJ

tel: [REDACTED]

email: [REDACTED] | www.tfl.gov.uk

From: [REDACTED]

Sent: 09 November 2018 02:12

To: Rowe David (ST)

Cc: Alexander Heidi; [REDACTED]; Nick Bowes; [REDACTED]

[REDACTED]

Subject: Re: Silvertown

Dear David,

Thank you for taking the time to reply, and for links to those documents, most of which I think you have sent previously.

From: Pardoe John
Sent: 03 December 2018 08:57
To: Rowe David (ST)
Cc: Lunt Andrew
Subject: RE: Silvertown

Yes, that is correct according to the published Outline Business Case.

From: Rowe David (ST)
Sent: 03 December 2018 08:54
To: Pardoe John
Cc: Lunt Andrew
Subject: RE: Silvertown

Thanks John. So the response should read... . Is that correct(?)

Dear [REDACTED]

In respect of costs and benefits, the scheme has been evaluated using a Net Present Value (NPV) in line with Treasury Green Book Guidance. This is calculated as the difference between the Value of Benefits and the Value of Costs. Our current proposals for the Silvertown Tunnel are expected to deliver a positive NPV of £967m to £1,225m (the latter when reliability benefits are included). These values increase significantly if London values of time are used in the appraisal with the benefits rising by some £795m to £916m i.e. £1,762m to £2,141m

The implementation of a charge only at the Blackwall Tunnel has much lower costs, but also significantly reduced benefits. Furthermore, as set out in the Case for the Scheme this option would not achieve the core project objective of improving the reliability and resilience of the local network, would be less effective at reducing Blackwall Tunnel congestion and would offer significantly lower potential for public transport improvements. Further information on how we considered value for money at each stage of our options assessment is set out in the [‘response to question regarding Option Appraisal’](#) that was submitted by TfL during the DCO examination.

I would refer you to our previous correspondence for answers to your questions on the viability of a single bore and monitoring/mitigation. I explained that whilst the Mayor is responsible for setting the user charges, such a decision would need to take regard for the relevant evidence provided, including consultation with stakeholders through the Silvertown Tunnel Implementation Group (STIG). I also explained how the Bus Strategy for the scheme is explicitly developed to allow flexibility in our development of the bus network in the area to both encourage and respond to demand for bus services in the future.

To your question on PFI, I presume you refer to the recent budget announcement which states that the Chancellor will not sign any new PFIs. The footnotes say that this decision does not apply to devolved administrations, which would include Transport for London. It therefore has no implications for the Silvertown Tunnel proposals and we are continuing discussions with the shortlisted bidders.

The work to consider options for this scheme has already been completed, shared with the public for comment and subjected to significant scrutiny as you know. As stated in my email of 9 July 2018, in making the Development Consent Order (DCO) *“The Secretary of State agrees... that there are no reasons to disagree with the objectives set by the Applicant for*

identifying a solution... . The Secretary of State notes the options appraised and alternatives canvassed... and he agrees with the Panel that there has been sufficient assessment of alternatives". I don't believe you have raised any materially new information, hence the references/links I have provided to our previous work.

Yours sincerely

David Rowe

From: Pardoe John
Sent: 03 December 2018 08:34
To: Rowe David (ST)
Cc: Lunt Andrew
Subject: RE: Silvertown

Sorry for the slow response David, we were trying to get to the bottom of where the numbers you quote are from.

The numbers in the Outline business case (Tables 11 and 12, page 36) are slightly different from that which you used in the email below.

“to deliver a positive NPV of £967m to £1,225m (the latter when reliability benefits are included). These values increase significantly if London values of time are used in the appraisal with the benefits rising by some £600m to £700m i.e. £1,567m to £1,925m”

In the Outline business case (Tables 11 and 12, page 36) these numbers seem to be:

to deliver a positive NPV of £967m to £1,225m (the latter when reliability benefits are included). These values increase significantly if London values of time are used in the appraisal with the benefits rising by some £795m to £916m i.e. £1,762m to £2,141m

Dear [REDACTED]

In respect of costs and benefits, the scheme has been evaluated using a Net Present Value (NPV) in line with Treasury Green Book Guidance. This is calculated as the difference between the Value of Benefits and the Value of Costs. Our current proposals for the Silvertown Tunnel are expected to deliver a positive NPV of £967m to £1,225m (the latter when reliability benefits are included). These values increase significantly if London values of time are used in the appraisal with the benefits rising by some £600m to £700m to £1,567m to £1,925m (the latter for the adjusted estimates). Based on Treasury advice this represents a very good economic outcome and very high value for money. **JOHN / ANDREW - CAN WE PROVIDE THE PUBLIC SOURCE FOR THESE NUMBERS OTHERWISE WE'LL NEED TO USE NUMBERS PUBLISHED IN DCO EVIDENCE.**

From: Rowe David (ST)
Sent: 03 December 2018 08:26
To: Lunt Andrew
Cc: Pardoe John
Subject: RE: Silvertown

Morning John / Andrew

Please can I get a revised draft of this response to [REDACTED] today. He is continuing to email politicians claiming Silvertown has a poor BCR, which we need to correct – see highlighted text in example below.

David

: [REDACTED]
Sent: 03 December 2018 02:25
To: Alexander Heidi; [REDACTED]; Nick Bowes;
[REDACTED]; Rowe David (ST); Barton Glynn (ST)
Subject: Re: Stoke Newington / Extinction Rebellion / Next Mayoral Term

Dear Heidi and [REDACTED],

Just to follow up on this. I think there are two practical steps that could be taken now.

The first is to calculate the benefits of moving as fast as possible towards moving the 7m daily cyclable trips from heavy motorised road transport modes to bikes/electric bikes/micro EVs. So, for example, we could calculate the CO2, local air pollution, road-danger and exercise-related health benefits of moving 5m trips/day to clean/efficient modes in the next 4 years, rather than the next 40. As all these benefits are cumulative, we should see very significant advantages to acting fast.

Second is to get a practical evaluation from TfL as to what's actually feasible, in terms of modification of the TLRN using 'temporary' measures, if one wanted to provide safe cycle infrastructure, while not damaging (and, preferably, while significantly improving) bus services (given a city-wide congestion charge..) - and some sense of how long it would take to implement.

In terms of finding resources to implement this project - there's a great team of engineers and managers right now working on the Silvertown Tunnel. Given that that scheme has a benefit to cost ratio of 0.3 (and does nothing to solve either the climate emergency or our acute air pollution problems) - those teams could be transferred to this, and the Silvertown project cancelled.

[This](#) may be a useful read. Also [this](#).

Best,

[REDACTED]

From: Rowe David (ST)
Sent: 27 November 2018 12:26
To: Lunt Andrew
Cc: Pardoe John
Subject: RE: Silvertown

I think we should reword along the lines... grateful if you can fill in the blanks/review:

Dear [REDACTED]

In respect of costs and benefits, the scheme has been evaluated using a Net Present Value (NPV) in line with Treasury Green Book Guidance. This is calculated as the difference between the Value of Benefits and the Value of Costs. Our current proposals for the Silvertown Tunnel are expected to deliver a positive NPV of £967m to £1,225m (the latter when reliability benefits are included). These values increase significantly if London values of time are used in the appraisal with the benefits rising by some £600m to £700m to £1,567m to £1,925m (the latter for the adjusted estimates). Based on Treasury advice this represents a very good economic outcome and very high value for money. JOHN / ANDREW - CAN WE PROVIDE THE PUBLIC SOURCE FOR THESE NUMBERS OTHERWISE WE'LL NEED TO USE NUMBERS PUBLISHED IN DCO EVIDENCE.

The implementation of a charge only at the Blackwall Tunnel has much lower costs, but also significantly reduced benefits. Furthermore, as set out in the Case for the Scheme this option would not achieve the core project objective of improving the resilience of the local network, would be less effective at reducing Blackwall Tunnel congestion and would offer significantly lower potential for public transport improvements. Further information on how we considered value for money at each stage of our options assessment is set out in the [‘response to question regarding Option Appraisal’](#) that was submitted by TfL during the DCO examination.

I would refer you to our previous correspondence for answers to your questions on the viability of a single bore and monitoring/mitigation. I explained that whilst the Mayor is responsible for setting the user charges, such a decision would need to take regard for the relevant evidence provided, including consultation with stakeholders through the Silvertown Tunnel Implementation Group (STIG). I also explained how the Bus Strategy for the scheme is explicitly developed to allow flexibility in our development of the bus network in the area to both encourage and respond to demand for bus services in the future.

To your question on PFI, I presume you refer to the recent budget announcement which states that the Chancellor will not sign any new PFIs. The footnotes say that this decision does not apply to devolved administrations, which would include Transport for London. It therefore has no implications for the Silvertown Tunnel proposals and we are continuing discussions with the shortlisted bidders.

The work to consider options for this scheme has already been completed, shared with the public for comment and subjected to significant scrutiny as you know. As stated in my email of 9 July 2018, in making the Development Consent Order (DCO) *“The Secretary of State agrees... that there are no reasons to disagree with the objectives set by the Applicant for identifying a solution... . The Secretary of State notes the options appraised and alternatives canvassed... and he agrees with the Panel that there has been sufficient assessment of*

alternatives". I don't believe you have raised any materially new information, hence the references/links I have provided to our previous work.

Yours sincerely

David Rowe

From: Rowe David (ST)
Sent: 27 November 2018 09:00
To: Lunt Andrew
Cc: Pardoe John
Subject: RE: Silvertown

Its getting there, but I don't think the quoted £967m relates to the figures in the referenced note(?) – we need to ensure we don't give [REDACTED] ammunition to attack our analysis. I think it would be better to use the published analysis unless the update figures have been published and we can share a link to the relevant extract of analysis. Many thanks. David

From: Lunt Andrew
Sent: 26 November 2018 19:00
To: Rowe David (ST)
Cc: Pardoe John
Subject: RE: Silvertown

Few amends made to yours below John.

David – what do you think?

From: Pardoe John
Sent: 23 November 2018 13:19
To: Lunt Andrew
Subject: RE: Silvertown

Hi Andrew

Are you happy with this?

From: Rowe David (ST)
Sent: 22 November 2018 17:31
To: Lunt Andrew
Cc: Pardoe John
Subject: RE: Silvertown

Many thanks, but I think we need to tackle the value for money issue head on, as I've seen other emails from [REDACTED] to politicians where he has continued to push his view that Silvertown has a poor business case. I'd suggest using the headline information from the update to the business case we provided to the Inspector in April 2017 (see link below) that quantifies the value of charging only v. charging + Silvertown and make clear that an NPV calculation determines the value of the scheme after the costs have been subtracted from the overall benefits.

<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010021/TR010021-001609->

[TfL% 208.119% 20Applicants% 20Response% 20on% 20Option% 20Appraisal% 20\(Five% 20Case\)% 20from% 20ISH% 2028% 20March% 202017.pdf](#)

David

Dear [REDACTED]

Firstly, it is incorrect to surmise that I can easily spare resource to investigate and respond to your questions. My team is currently progressing a number of activities to support the implementation of the Silvertown Tunnel, let alone other projects. We are under significant cost pressures at TfL and it is not appropriate for me to allocate substantive resources to reopen previous work.

As stated in my letter Mon, Jul 9, 2018, in making the Development Consent Order (DCO) *"The Secretary of State agrees... that there are no reasons to disagree with the objectives set by the Applicant for identifying a solution... . The Secretary of State notes the options appraised and alternatives canvassed... and he agrees with the Panel that there has been sufficient assessment of alternatives"*. The work to consider options for this scheme has already been completed, shared with the public for comment and subjected to significant scrutiny as you know. I don't believe you have raised any materially new information and so in responding to your questions it was appropriate for me to include references/links to our previous work.

As I have explained previously, our '[response to question regarding Option Appraisal](#)' during the DCO examination explained how we considered the Value for Money at each stage of our options assessment. For example the implementation of a charge only at the Blackwall Tunnel presented much lower costs, but also significantly reduced benefits. I am satisfied that the value for money of the preferred option was carefully considered, that the best alternatives were been compared to each other, and that the best value for money option has been taken forward. Our current proposals for the Silvertown Tunnel are expected to deliver a positive Net Present Value (NPV) of £967m. This is calculated as the difference between the Present Value of Benefits and the Present Value of Costs and so demonstrates that the scheme will have substantial overall benefits after costs are deducted.

Again I would refer you to our previous correspondence for answers to your questions on the viability of a single bore and monitoring/mitigation. I explained that while you're correct regarding the Mayor's decision on the charge, such a decision would need to take regard for the relevant evidence provided, including consultation with stakeholders through the Silvertown Tunnel Implementation Group (STIG). I also explained how the Bus Strategy for the scheme is explicitly developed to allow flexibility in our development of the bus network in the area to both encourage and respond to demand for bus services in the future.

To your question on PFI, I presume you refer to the recent budget announcement which states that the Chancellor will not sign any new PFIs. The footnotes say that this decision does not apply to devolved administrations, which would include Transport for London. It therefore has no implications for the Silvertown Tunnel proposals and we are continuing discussions with the shortlisted bidders and plan to

I welcome your interest in this scheme along with your resolve to identify the best value option. We too are focused on best value and providing the most appropriate solution to the significant issues of traffic congestion and unreliability at the Blackwall Tunnel and the consequential effects these have on travel, the environment, the economy and growth across the wider east and south east London area.

Yours sincerely

David Rowe

Head of Major Projects Sponsorship, Surface Transport

Transport for London

4th floor, Zone 4R2, Palestra, Blackfriars Road, London SE1 8NJ

tel: [REDACTED]

email: [REDACTED] | www.tfl.gov.uk

From: [REDACTED]

Sent: 09 November 2018 02:12

To: Rowe David (ST)

Cc: Alexander Heidi; [REDACTED]; Nick Bowes; [REDACTED]

[REDACTED]

Barton Glynn (ST)

Subject: Re: Silvertown

Dear David,

Thank you for taking the time to reply, and for links to those documents, most of which I think you have sent previously.

As I am sure you understand, the questions I am asking you have emerged from the information in those documents, and from previous correspondence. Let me explain why they are relevant:

Scheme costs and benefits:

As you know, in your business case, you quote 2010 prices for the costs of the scheme. It would be good to know the present estimates, at 2018. For example, the construction cost is quoted at £733m (£834m inc. maintenance), in 2010 prices. Updating for inflation, this comes to about £900m (£1.016bn) , but I assume there are also revisions to your estimate based on costs imposed by Brexit, etc?

Anyway, working with your 2010 figures, let me sketch out a comparison of a scheme that removes congestion from the Blackwall Tunnel (while allowing the same amount of traffic

through the tunnel) by imposing charges that incentivise driving at less congested times (this is clearly a possibility, though you haven't yet analysed it in detail), with the proposed scheme. (Figures from OBC, p121, 145, 60 year horizon)

Proposed Scheme:

Costs: £733m (construction) + £101m (maintenance) + £436m (60 yr costs of tolling)

Benefits: £967m (congestion) + £258m (reliability/resilience)

Tolling Blackwall to remove congestion only:

Costs: £436m (costs of tolling - maybe less if you're tolling one tunnel only?)

Benefits: £967m (congestion - will in effect be slightly less because of added costs of driving at different times) +£x (added resilience from free-flowing traffic)

I've left out the question of toll income because in your figures it both pays for your scheme and is a disbenefit for users (and the disbenefit you show just about covers the cost of tolling, not construction and maintenance costs) , & it's not clear how you fit that in your analysis..

So what I see here is that **the added costs of building and maintaining the tunnel (£834m, 2010 figures) only bring you £258m in (resilience) benefits over and above the benefits of just tolling Blackwall to remove congestion.** This seems very bad value, to me. And this is without adding in an sensible social cost of carbon for the construction.

Clearly, I might have misunderstood something here. Your documents aren't always clear. But it would be very valuable for everyone, I think, to have a clear analysis of three possible options (tolling Blackwall, single bore tunnel, double bore tunnel) in terms of costs, toll income, resilience benefits, and congestion benefits.

It would also be useful to understand how benefits of all schemes (and repayments of construction costs) would be affected by the introduction of user charging across London, which would likely reduce demand and congestion at Blackwall independently of any tunnel or local charging scheme.

Single bore tunnel

In terms of the option of a single bore tunnel. Your objections to this option in your previous email were that a two-way tunnel would not be safe, and that a single bore tunnel would need another bore next to it as an escape route. (The objection to a single bore tunnel at Blackwall was that there wasn't enough space - which is irrelevant, since that isn't the case at Silvertown). I asked you to evaluate a single bore tunnel at Silvertown that reverses direction with peak flow (as you know, congestion at Blackwall at peak is in only one direction. northbound in the morning, southbound in the evening), and that has an escape route/service route/cycle path under the roadway. This would clearly cover your objections, would be significantly cheaper to build, would have similar (though not identical) congestion/resilience benefits to the proposed scheme, and would also allow additional benefits from creating a route for cyclists, e-cargo bikes etc across the river.

Buses

The public case for the scheme has relied heavily on the prospect of new bus services. The indicative new bus service in your documents has a mostly negative effect - its key function is to take trips away from cycling and walking and move them to buses, increasing pollution, reducing health etc. It would be useful to know if TfL can come up with an indicative bus service with more positive effects.

Mitigation/Monitoring/Tolling

As you know, TfL's own figures show that the construction of any tunnel, single or double bore, sets up a pollution/congestion 'bomb' for Lewisham, Greenwich and Newham, which will make pollution and congestion significantly worse than it is today, and which is set off if more than a small fraction of the new capacity under the river that is being built is actually used for anything more than 'resilience' purposes. This will happen if a new Mayor decides to remove the charge, or not to increase it to keep up with inflation/demand. This is a significant risk - Mayor Johnson removed the Western Congestion Charge extension despite the extra traffic that generated. Tolls on the Severn Bridge are being removed for political purposes despite a significant forecast increase in pollution & congestion. So it would be useful to know whether there might be a legal mechanism that could be used to keep tolls at the correct rate to hold traffic down in a way that removes the possibility of tolling (and welfare of citizens in inner SE London) becoming a political football..

PFI

It would be useful to understand how the PFI scheme proposed here is affected by the government's recent decision to drop PFI schemes.

This is a very high cost scheme (effectively, road widening in the most expensive place you can possibly do it) that will eventually be paid for by Londoners. It's in everyone's interest that we ensure that it's both needed, and the best value option we can find, before starting construction.

You manage a large team, and I am certain you can easily spare the resources to answer the questions I sent in detail, rather than sending links. This will also make the discussion much easier to read for everyone cc'd.

Best,



From: Rowe David (ST)
Sent: 03 December 2018 11:43
To: Pardoe John
Cc: Lunt Andrew
Subject: RE: Silvertown

Thanks. David

From: Pardoe John
Sent: 03 December 2018 09:07
To: Rowe David (ST)
Cc: Lunt Andrew
Subject: RE: Silvertown

Could add as below in green

From: Rowe David (ST)
Sent: 03 December 2018 08:54
To: Pardoe John
Cc: Lunt Andrew
Subject: RE: Silvertown

Thanks John. So the response should read... . Is that correct(?)

Dear [REDACTED]

In respect of costs and benefits, the scheme has been evaluated using a Net Present Value (NPV) in line with Treasury Green Book Guidance. This is calculated as the difference between the Value of Benefits and the Value of Costs. Our current proposals for the Silvertown Tunnel are expected to deliver a positive NPV of £967m to £1,225m (the latter when reliability benefits are included). These values increase significantly if London values of time are used in the appraisal with the benefits rising by some £795m to £916m i.e. £1,762m to £2,141m. **Our conclusion remains that, taking all the economic and other related factors into account, the Scheme provides very high value for money. Overall it is clear that there is a very strong economic case for the Silvertown Tunnel.**

The implementation of a charge only at the Blackwall Tunnel has much lower costs, but also significantly reduced benefits. Furthermore, as set out in the Case for the Scheme this option would not achieve the core project objective of improving the reliability and resilience of the local network, would be less effective at reducing Blackwall Tunnel congestion and would offer significantly lower potential for public transport improvements. Further information on how we considered value for money at each stage of our options assessment is set out in the [‘response to question regarding Option Appraisal’](#) that was submitted by TfL during the DCO examination.

I would refer you to our previous correspondence for answers to your questions on the viability of a single bore and monitoring/mitigation. I explained that whilst the Mayor is responsible for setting the user charges, such a decision would need to take regard for the relevant evidence provided, including consultation with stakeholders through the Silvertown Tunnel Implementation Group (STIG). I also explained how the Bus Strategy for the scheme is explicitly developed to allow flexibility in our development of the bus network in the area to both encourage and respond to demand for bus services in the future.

To your question on PFI, I presume you refer to the recent budget announcement which states that the Chancellor will not sign any new PFIs. The footnotes say that this decision does not apply to devolved administrations, which would include Transport for London. It therefore has no implications for the Silvertown Tunnel proposals and we are continuing discussions with the shortlisted bidders.

The work to consider options for this scheme has already been completed, shared with the public for comment and subjected to significant scrutiny as you know. As stated in my email of 9 July 2018, in making the Development Consent Order (DCO) *"The Secretary of State agrees... that there are no reasons to disagree with the objectives set by the Applicant for identifying a solution... . The Secretary of State notes the options appraised and alternatives canvassed... and he agrees with the Panel that there has been sufficient assessment of alternatives"*. I don't believe you have raised any materially new information, hence the references/links I have provided to our previous work.

Yours sincerely

David Rowe

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