h&f the low tax borough	**London Borough of Hammersmith & Fulham** **SELECT COMMITTEE** **12 FEBRUARY 2014**

HAMMERSMITH FLYUNDER FEASIBILITY STUDY

Report of the Divisional Director

Open Report

Classification: For Scrutiny Review & Comment

Key Decision: No

Wards Affected: Hammersmith Broadway, Ravenscourt Park, Avonmore and Brook Green, Fulham Reach, North End

Accountable Executive Director: Nigel Pallace – Bi-Borough Executive Director Transport and Technical Services

Report Author: Nicholas Ruxton-Boyle – Transport and Development Manager	**Contact Details:** Tel: 020 8753 3069 E-mail: nick.boyle@lbhf.gov.uk

1. EXECUTIVE SUMMARY

1.1. The recent closures of Hammersmith Flyover for repairs has brought the long term viability of this structure to light. The flyover forms part of the A4 and is managed by Transport for London (TfL).

1.2. In 2013 the Mayoral Road Task Force report on the future of road policy in London recommended that tunnelling the A4 is explored. The council has undertaken a feasibility study into burying the flyover. This report is a draft of the findings and recommendations.

1.3. The final feasibility report will be published in March 2014 and issued to the Mayor with the sole purpose to encourage TfL to take the project through the next stages of development and eventually onto their forward plan.

2. RECOMMENDATIONS

2.1. Members are asked to review and comment on the key findings of this report with regards to the Council's Hammersmith Flyunder feasibility project as below:.

- There is a high level of local public support for removing the flyover, alongside concerns around traffic disruption and the local road network.
- Both long and short tunnels were found to be geotechnically feasible to construct at a cost of £200m to £1700m
- The degree to which Hammersmith Town Centre can be reimagined is dependent on the removal of the flyover but also on addressing the gyratory
- The longer the tunnel the less traffic is likely to use it
- Junctions from a main tunnel increase its use but considerable environmental and economic issues arise
- Neighbouring Councils have been involved in the study from the outset and are broadly supportive of the Council's vision.

2.2. Members are asked to review and comment on the recommendations to TfL as below:

- To establish strategic aspirations and concerns
- To continue and take forward the feasibility study allowing a more strategic view and detailed analysis of such matters as alignment, portal location and junctions
- To build on the collaborative work undertaken by the flyunder taskforce
- To develop an appraisal framework in order to inform investment decisions with regards to road infrastructure projects.

3. INTRODUCTION AND BACKGROUND

3.1 There are three main reasons why the council have chosen to undertake a feasibility study into the burying of Hammersmith Flyover. The first is that

ongoing and future maintenance of this 50 year old structure causes traffic chaos across west London. The second is that a number of recent publications have suggested that it would be beneficial to residents and businesses in Hammersmith it the flyover were buried, transforming the urban space. Third and finally, TfL, as the highway authority for the A4, challenged the Council to be bold and transformative which matches our ambition.

3.2 On 23 October 2013 the full Council resolved to:

- Welcome the appointment of the borough's "Flyunder Champion" Neale Stevenson and the Council's taskforce on the Hammersmith Flyunder.

- Resolve to work towards a tunnel replacement for the Hammersmith Flyover.

- Recognise that it is important to run an effective cross-party campaign that demonstrates to the public and key government and GLA decision makers how all of the London Borough of Hammersmith and Fulham Council's elected representatives back the Hammersmith Flyunder project.

3.3 The feasibility study was initiated out of this resolution with the following terms of reference developed by the former joint Chief Executive in consultation with the Executive Director Transport and Technical Services and the Council's independent Flyunder Champion:.

- To establish, at a preliminary level, the aspirations and any concerns of local residents and businesses.

- To establish current traffic patterns to best understand this route in its wider traffic network context. This will mean liaising with other local traffic authorities in adjoining boroughs and with TfL.

- To establish the best available information including future projections for future traffic volumes, relevant to a new structure.

- To establish the best available information including future projections of the cost of maintaining the current flyover structure over a suitably long period.

- To consider options for a replacement tunnel, considering the length, depth, width and start and end points, liaising with adjoining boroughs as appropriate. In particular to examine the implications of a flyunder with or without junctions to north-south routes.

- To consider thereafter the nature, extent and potential value of any released surface land, bearing in mind existing planning policies and any potential from varied planning policies.

- To establish very approximate costs for various tunnel options, noting the variables which will affect confidence in such estimates.

- To review options for meeting the construction costs including, but not limited to:
    - Future maintenance liability funding for the existing flyover redeployed
    - Capital funding from TfL
    - Capital funding from local councils
    - Captured value from developable land released
    - The possibility of modest user charges to contribute to any gap funding.

- To report at interim stage by March 2014:;
    - On local aspirations and concerns
    - On broad route options
    - On whether the tunnel must have junctions with other routes
    - On the preliminary views of neighbouring councils
    - On the geo-technical feasibility of a tunnel (bearing in mind other underground uses).

- This brief recognises that the most complex part of the task is to examine the possible and likely effects on the complex traffic system in the area. This work will need to be done by TfL and is likely to take some months. This work will therefore need to be done after the interim report beginning later in 2014.

- All this work will be done by existing LBHF council resources, TfL expertise, other contributions of expertise from neighbouring councils and other people of goodwill.

- However, one study will be commissioned from specialist engineers who will be needed to examine the geo-technical feasibility of a tunnel option.

4. THE FEASIBILITY PROJECT

4.1 Based on the above terms of reference the feasibility project was initiated and managed through linked work streams. The first ‘engagement’ work stream set out how all stakeholders would be involved in the study. The second ‘geotechnical’ work stream was to investigate and appraise a number of tunnelling options. The third ‘traffic’ work stream was to interrogate existing traffic data and models in order to establish the scale of impact of the various options. Finally ‘master planning’ was needed to explore the potential value from released developable land.

4.2 Each of these project areas are reported in the following paragraphs and will form the principal chapters in the feasibility report.

4.3 The project was managed using existing LBHF resources and funded using section 106 receipts from Hammersmith town centre development specifically secured to investigate traffic matters in the town centre.

5. ENGAGEMENT

5.1 At the outset of the project a stakeholder engagement strategy was developed which sought to ensure the wide range of stakeholders had the opportunity to get involved in the project.

5.2 Three distinct phases of the project were identified and engagement activities developed for each one. The project was launched with a flyunder summit held in Hammersmith Town Hall on 9 October 2013 attended by over 150 people. Throughout the project stakeholder groups have met to influence the work streams and the project will close with a second summit style public meeting and a formal handover of the findings and recommendations to the Mayor.

5.3 The flyunder summit saw presentations from the project team, West London Link Design (WLLD) group and TfL. It was used principally to establish a baseline of the public aspirations and concerns. A questionnaire was completed by those attending the summit and the results were combined with comments left on the council's dedicated flyunder web page www.lbhf.gov.uk/flyunder.

5.4 The questionnaire consisted of eight questions and formed the basis for developing the project work streams. Below is a summary of the responses and the full analysis can be found at appendix 1.

Question 1 - Do you agree with the council that Hammersmith Flyover should be replaced with a flyunder?

89% of respondents either strongly agreed or agreed with 10% disagreeing or strongly disagreeing and with 1% indifferent.

Question 2 - If you back a tunnel replacement, or 'flyunder', where do you think it should start and end?

A number of different options were provided for both western and eastern 'portal' locations. The most popular western portal location was Hogarth Roundabout and the most popular eastern portal location was Warwick Road.

Question 3 - Should the flyunder connect to any north-south links?

The two most popular answers were Fulham Palace Road at 32% and Shepherds Bush Road at 25%.

Question 4 - Do you think opportunities should be exploited to return Hammersmith Gyratory to two way working?

46% of respondents either strongly agreed or agreed with 19% disagreeing or strongly disagreeing and with 36% indifferent.

Question 5 - What are the current problems that you would like to see the flyunder overcome?

The responses were spread relatively evenly across the five options that were presented for this question: air quality, noise, visual intrusion, town centre severance, river severance.

Question 6 - What are your main concerns for a flyunder?

The four main concerns for respondents in order of importance are traffic diversions, cost, A4 closure, construction lorries.

Question 7 - What should any land freed up by the removal of the flyover be used for?

There was equal support for open space, connections to the river and housing with less support for relief roads, offices and shops.

Question 8 - How should the flyunder be paid for?

A third of respondents considered over site development the best way to pay for the tunnel, with 20% considering the following suitable methods: national taxation, London-wide taxation and a user toll.

5.5 These responses helped to refine the tunnel options that were developed as part of the geotechnical work stream. Three alignments were tested alongside theoretical junction testing.

5.6 In order to drive and steer the project towards its challenging timeframes a number of workgroups were established.

5.7 The first group was a stakeholder group that met only once at the outset of the project. In addition to members of the technical group below invites were sent out to ward councillors of the five wards along the A4 and the 60 plus residents and tenants groups in these wards. Those that attended agreed that the wider stakeholders preferred a different method of engagement than this meeting could offer, namely evening summits/presentations and the website.

5.8 The second group was a technical group (known as the taskforce) which met on a monthly basis throughout the project. This group was attended by the three neighbouring local authorities: Hounslow, Richmond and Kensington and Chelsea. Other stakeholders included the GLA, TfL, WLLD, Hammersmith BID, Capco and Halcrow who were the engineering specialists commissioned to undertake the geotechnical study.

5.9 The third group was a TfL group which was established to bring together the various functions of the TfL family. Representatives from various parts of TfL including modelling, roads task force, forward planning and network management met with the project team on a regular basis in order to support the project.

5.10 Political stakeholder management was dealt with on a reactive basis with ad hoc meetings and updates arranged with both the administration and opposition members at LBHF and portfolio holders at the neighbouring boroughs.

5.1 The unprecedented support and feedback for this project, alongside constructive collaborative working with neighbouring boroughs, TfL and the private sector have established a sound platform to take this project forward.

6. GEOTECHNICAL

6.1 This fundamental part of the feasibility study was carried out by local engineering specialists Halcrow under existing contractual arrangements with the Council. Halcrow provided engineering support to the WLLD publication 'A chain of opportunities' in 2012.

6.2 The commission ran from October 2013 to February 2014 and was managed through the technical work group. The full Halcrow geotechnical report will be published as an appendix to the Council's feasibility report in March 2014.

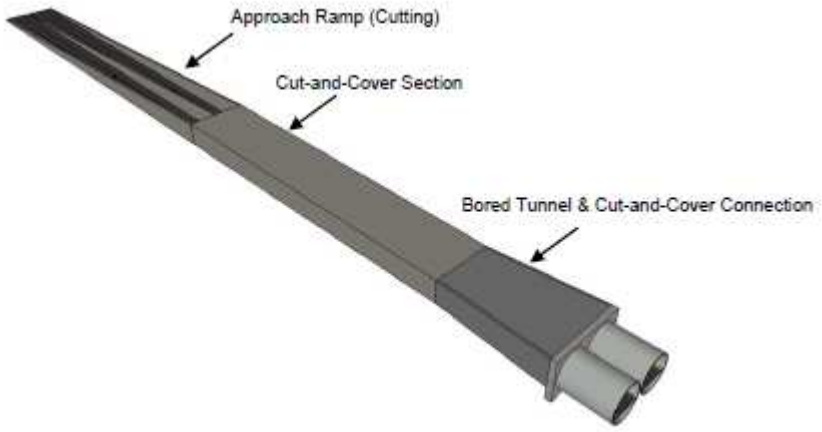
6.3 The commission developed and considered a number of tunnel options based on the ambition of the Council and those comments received by the public. **Three tunnel alignments were tested and all three were found be feasible to construct.** Each of the alignments, as shown below, has its own set of economic and environmental challenges.

6.4 The below table is a summary of the alignment and portal locations for the three options tested;

option	alignment length	western portal	eastern portal
1	**1.6km/ 1 mile**	**Furnivall Gardens**	**West London College**
2	**3.6km/ 2.2 miles**	**Sutton Court Road**	**North End Road**
3	**4.1km/ 2.5 miles**	**Sutton Court Road**	**Earls Court Road**

6.5 Tunnel portals

The entrance to and exit from a tunnel are known as portals and are a common feature to all options. A portal will consist of a cutting where the road ramps down at the required gradient of 4%. This cutting would be approximately 200m in length and would be immediately followed by a structure to house ventilation equipment. The location of these portals vary with each option however their broad space requirements are the same. The image below shows an indicative layout of a tunnel portal.



6.6 Tunnel construction comparison

Below is a table setting out the main differences between the short (option 1) and long (options 2 and 3) tunnels. All options can be constructed in the thick band of London clay underneath Hammersmith and all have a similar construction time. The fundamental difference between the short and long option is the two methods of construction (cut and cover and tunnel boring machine) which both have their own well documented distinctive economic and environmental issues.

option	**main construction method**	**depth**	**construction time**
1	**cut and cover**	**15m**	**3 years**
2	**tunnel boring machine**	**25m**	**2/3 years**
3	**tunnel boring machine**	**25m**	**2/3 years**

6.7 Principal concerns

From the project engagement four principal concerns were identified: traffic redistribution, cost, traffic disruption and construction traffic.

6.8 Principal concern 1 – traffic redistribution

The traffic analysis that was carried out as part of this feasibility study is detailed in paragraph 7 below, alongside its limitations and assumptions. Traffic redistribution varies based on the length of a tunnel and its start and end points and in this instance the longer the tunnel the less traffic would be likely to use it. As such, opportunities to remove or reduce the existing surface road network diminish as tunnel length increases, primarily down to the current traffic distribution and proportion of through traffic. Smaller side road junction tunnels can provide opportunities for the main tunnel to pick up and distribute more traffic however this is one area in which much further and more detailed strategic analysis is required. This more sophisticated further traffic modelling would also forecast wider sub-regional impact such as local and strategic redistribution based on a new network. **Essentially the longer the tunnel, the less opportunity traffic has to turn on and off and hence less traffic is likely to use it.**

option	% of east-west traffic likely to use tunnel
1	**100%**
2	**60%**
3	**50%**

6.9 Principal concern 2 – cost

The cost of the construction alone (not including land acquisition, governance or mitigation) is a function of the length of the tunnel and construction methodology. The different construction methodologies between the long and short options affect their construction cost. The longer tunnel options are twin bore, i.e. there is a separate tunnel for each direction of traffic. This significantly increases cost. A single bore was considered, with traffic stacked inside, however the tunnel boring machine required to build such a tunnel would be one of the the largest in the world at 20m in diameter. **Notwithstanding other influences, the longer the tunnel, the more expensive the construction cost.**

option	**construction methodology**	**total tunnel length**	**construction cost (2013 prices)**
1	**cut and cover**	**1.6km/ 1 mile**	**£218m**
2	**tunnel boring machine**	**7.4km/ 4.6 miles**	**£1,210m**

3	**tunnel boring machine**	**8.2km/5.1 miles**	**£1,297m**

6.10 Principal concern 3 – traffic disruption during construction

The three options considered as part of this study take broadly the same time to construct at three years. Again this is down to their length and different construction methodologies. Traffic flow along the A4 is assumed to be disrupted for approximately half the construction time. Disruption to the A4 is likely to entail lane closures, tidal flow and night time and weekend closures. The table below compares construction time and disruption time. It also established another fundamental difference in the long and short tunnels, namely the location of the disruption. For the short option the construction disruption will be in Hammersmith Town Centre whilst for the longer tunnel it will be spread across the portal locations and drive site. **All options have a broadly similar disruptive impact on the operation of the A4 however this disruption is located in different places.**

option	construction time	A4 disruption	location of main disruption
1	**3 years**	**18 months**	**Hammersmith town centre**
2	**2/3 years**	**12/18months**	**portal locations and drive site**
3	**2/3 years**	**12/18 months**	**portal locations and drive site**

6.11 Principal concern 4 – construction traffic

The amount of construction traffic created by any subterranean construction is a function of the material removed and the construction methodology. **Broadly speaking the longer the tunnel, the more spoil removed and more construction material required and therefore the more construction traffic**. **This, however, does not take into account the opportunity for river transport of certain materials that a tunnelling project adjacent to the river could explore.** This could reduce lorry movements significantly.

6.12 Translating the volume of material created and required for a tunnelling project into likely lorry movements is not straightforward. In addition the location of this traffic will be concentrated at different times and locations over the multi-year construction period. For the short option this is Hammersmith as it is the location for the four main construction areas: the two portals, the main tunnel and the removal of the flyover. The potential use of the river could reduce the number of surface lorry movements and

would have different levels of reduction for the different construction locations, as above. At Hammersmith, for example, the use of conveyor belts and catenary systems could potentially move spoil the short distance to the river without any significant use of road vehicles, although such a method would bring its own environmental impact issues. It is also possible that the great majority of any necessary lorry movements, for all options, would be via the A4 itself, thereby minimising the wider environmental impact. The table below shows the total volume of spoil for each option that would need be removed and an approximation of the daily lorry equivalent movements this spoil, and incoming material creates without using the river. Use of the river could greatly reduce these figures. 90% of main tunnel excavated material, tunnel lining precast segments and concrete aggregates can be transported by barge.

option	total tunnel length	volume of spoil to be disposed (M^3)	Average daily lorry equivalents (with no river use)	Average daily lorry equivalents assuming use of river
1	1.6km/ 1 mile	430,000	150	28
2	7.4km/4.6 miles	1,000,000	320	50
3	8.2km/5.1 miles	1,140,000	375	61

6.13 Summary.

As reported at the start of this section, each of the three options can feasibly be built. However each option has differing economic and environmental issues to consider. Broadly speaking, the disruption to the operation of the A4 for all three options is similar. What is fundamentally different is the cost difference, construction traffic profile and traffic redistribution between the long and short options. The short tunnel costs considerably less than the long tunnel, would create fewer construction vehicle movements and would cause significantly less traffic redistribution.

7. TRAFFIC

7.1 The traffic analysis was carried out using TfL data including traffic counts and outputs from their strategic traffic model for West London. Both current actual and modelled traffic flows were reviewed from this data alongside forecasts for 2031 traffic flows based on the growth in jobs and population in the current London Plan and the planned transport network i.e. without a tunnel.

7.2 The traffic analysis was carried out to understand how much traffic would be likely to use the various tunnel options (which in turn has influenced

tunnel dimensions) and as a result how much would not and what surface network would be required. The traffic analysis was developed during the project to include investigating the Hammersmith Gyratory, the impacts on the various options and to explore opportunities to reduce the severance caused by the current one way system. This could include returning the gyratory to two way working which has been achieved at other similar gyratories in London.

7.3 All quoted modelled data is the rounded average evening peak traffic flow only. Flows in the inter-peak, weekend and morning peak periods are likely to be different.

7.4 In 2031 it is forecast that approximately 2,500 vehicles an hour will use the flyover in either direction, an increase in 14% on the current flow. Traffic flow to the east of the flyover is of a similar magnitude and to the west is considerably higher at 3,500 per hour. There is a similar volume of traffic travelling around Hammersmith Gyratory showing a similar increase over current flow. As the A4 travels into central London traffic flow generally decreases which is representative of a radial traffic corridor. Likewise as the A4 travels out of central London traffic flow increases.

7.5 As the A4 passes through the London Boroughs of Hounslow, Hammersmith & Fulham and the Royal Borough of Kensington and Chelsea it has junctions with a number of side roads and vehicles both join and leave the A4 to continue their journeys. Over the length of option 3 (Sutton Court Road to Earls Court) over half the traffic travelling east leaves the A4. A similar profile is found travelling westbound with traffic doubling in volume over the same stretch. **This is a fundamental finding as traffic that joins the A4 between the start and end points of a tunnel between Chiswick and Earls Court will have to use a surface network and should the flyover be removed be diverted around Hammersmith Gyratory.**

7.6 Option 1 would have no impact on traffic flow as it is a straight replacement of the flyover with a tunnel. All traffic that currently uses the flyover could and would use the tunnel and traffic leaving or joining the A4 via Hammersmith Gyratory would do so as it does today. Traffic flow around the gyratory would be unaffected.

7.7 Both longer options would require a surface road network to cater for up to 50% of the current A4 flow. Option 2 would allow slightly more traffic to join and leave a long tunnel alignment and hence a slightly higher percentage of traffic would use the tunnel than would be the case for the longer option 3. This could allow for a narrowing of the A4 however if the flyover were to be removed, this being the primary objective of this study, this traffic would be diverted through Hammersmith Gyratory. Any capacity increases that can be achieved at Hammersmith Gyratory, even if possible, would not be consistent with the vision for the improved town centre.

7.8 Given the importance of Hammersmith gyratory an additional tunnel scoping exercise was undertaken to see how traffic flow could be reduced. The main north-south route from Shepherds Bush Road to Fulham Palace

Road was considered as an additional tunnelled route. It was found that, again, this could feasibly be constructed but not without significant environmental and economic issues. In addition, basic traffic analysis was undertaken and found that the beneficial impact on traffic flow around the gyratory would not be sufficient to reallocate capacity. **Further analysis of the operation of the gyratory would need to be undertaken to support both the regeneration of the town centre and any A4 tunnel solution.**

7.9 In summary, the longer the tunnel, the less likely traffic would be to use it. If a tunnel only served a proportion of the corridor movement the remaining movement would be redistributed onto the surface network that would need sufficient capacity to function effectively.

8. MASTERPLANNING

8.1 A theoretical exercise was undertaken in partnership with the Greater London Authority (GLA) in order to capture the land value from developable land released by the burying of the flyover in order to meet construction and other costs. In order to do this a master planning type piece of work was undertaken in Hammersmith town centre and along the A4 corridor to come to a reasonable assumption of the quantum of land released for suitable development. From this, assumptions were made on residential sales values, unit sizes and financial receipts.

8.2 The results of this indicate that between Hogarth roundabout in the east and Baron's Court Road in the west, there is the potential to accommodate 366,000sqm of Gross Internal Area (GIA) floor space through development of released land. Of this:

- 143,000sqm of this could be provided directly on land freed up by the removal of the A4, which would be in either LBHF or TfL freehold ownership and therefore after construction costs and other development costs, all net profit could go towards financing the flyover, were the project to be fully financed by the public sector.

- 30,000sqm could be provided, part on A4 land and part on adjacent landholdings. It is anticipated that a joint venture would be necessary with private owners to realise values in this circumstance. A sharing of profit has therefore been incorporated into the assumptions for this floor space.

- The remaining 193,000sqm would be provided from development off the A4 on land that could be brought forward in the areas around the A4 and in Hammersmith Town Centre, particularly to the south side of King Street, to open up connections between Hammersmith Town Centre and the River Thames.

8.3 The study looked at various sources of financing. For LBHF/TfL freehold, the overriding driver of value is net sales on return. For all land, total Community Infrastructure Levy (CIL) receipts have been assumed to be held to finance the A4 tunnel. Section 106 receipts have also been factored into the calculations for all public and private sector released land. For the purpose of this exercise, redevelopment has been assumed to be 100%

residential with no affordable housing provision, in order to optimise residential sales values and receipts.

8.4 Current estimates indicate that redevelopment could achieve in the order of £1billion some of which could form part of the flyunder financing package.

8.5 As well as financially assisting the delivery of the A4 tunnel, redevelopment could provide substantial benefits for Hammersmith Town Centre and its surrounds. These include:

- New homes, jobs and opportunities to expand the retail offer in Hammersmith Town Centre;
- Opportunities for new and improved open space
- Better, more pedestrian and cycle-friendly connections between Hammersmith and the River Thames; and
- Opportunities to unravel the Hammersmith Gyratory through the provision of a relief road on the current alignment of the A4.

8.6 Should it be necessary that a modest user charge is required to be explored further to fill any funding gap the economic benefit (income) would need to be considered in light of the environmental disbenefit of more traffic using the 'free' congested surface network in order to avoid the charge.

9. RECOMMENDATIONS TO TFL

9.1 The feasibility study was designed to report the following given that it is not in the Councils power to make any alterations to Hammersmith Flyover or the A4.

- On local aspirations and concerns
- On broad route options
- On whether the tunnel must have junctions with other routes
- On the preliminary views of neighbouring councils
- On the geo-technical feasibility of a tunnel (bearing in mind other underground uses)

9.2 Based on the feedback the Council has received both before and during the feasibility study there is strong support for a tunnel, however this is accompanied by concerns of how long the A4 will be disrupted for to build a tunnel, the impact of construction traffic, traffic displacement onto alternative routes and the high cost of a tunnel. **It is, however, recognised that the feedback received is considered to be local and a more strategic view should be sought by TfL.**

9.3 Three route options were developed, based on the above feedback and sound engineering judgements. These are by no means the only options available to TfL as has been seen with the WLLD study. It is apparent from this study that as the tunnel length increases its usage and utility is likely to

decrease. As a result, the longer tunnelled options do not provide the opportunity to reduce the surface road network and could lead to worsening traffic conditions at Hammersmith Gyratory. The route options with junctions go some way to address this, however there are a number of issues with regards to the junction portals. **TfL should refine the options and establish a project to explore the shortlist in greater detail.**

9.4 The neighbouring boroughs of Hounslow, Richmond and Kensington and Chelsea have been involved in and supported the feasibility study from the outset. Each borough is broadly supported of the Council's vision and ambition and have been invited to submit a written letter which shall form part of the feasibility report to be published and submitted to TfL. **Given the strategic and bold and transformative nature of an A4 tunnel, TfL should continue to engage with the taskforce of boroughs while taking this project forward.**

9.5 Each of the three tunnel options has its own unique set of geotechnical challenges, however there is a thick band of London clay in this part of the capital which is a well-known tunnelling medium. The options cover the two main techniques for tunnelling; top down cut and cover and the use of a tunnel boring machine. Each technique comes with its own set of issues, the two differences being surface disruption and cost with top down cut and cover being the least expensive but most disruptive as it geographically concentrates the disruption. **TfL should develop an appraisal matrix to allow a fully informed comparison and debate on the pros and cons of each tunnel route and construction methodology to enable future investment decisions to be made.**

10. NEXT STAGES

10.1 The final feasibility report will be published on our website and handed to the Mayor in the week commencing 10 March 2014. The feasibility report is the borough's response to the road task force suggestion to explore 'alternative tunnelled routes'.

10.2 A final technical group meeting will be scheduled following publication at which TfL have advised the taskforce that they will respond to the feasibility report. TfL's response shall be published alongside the feasibility report and its content will advise the boroughs (and other stakeholders) further work. It is, however, planned that the feasibility study be formally closed down at this stage and future work taken up through planned transport and planning-led projects and policy work.

10.3 During the feasibility study TfL announced that Hammersmith gyratory was on a short list to receive significant funding for a cycling-led project to address some of the more complicated junctions that are seen to be obstacles to safe and comfortable cycling in London. This is one of the many project to be delivered through the Mayor's cycling vision. Should this project receive funding the flyunder feasibility study findings and recommendations shall form part of the project objectives and scope.

LOCAL GOVERNMENT ACT 2000
LIST OF BACKGROUND PAPERS USED IN PREPARING THIS REPORT

No.	Description of Background Papers	Name/Ext of holder of file/copy	Department/ Location
1.	Hammersmith Flyunder feasibility Study – Tunnel and Geotechnical Engineering (Halcrow)	Nicholas Ruxton-Boyle x3069	TTS HTHX

LIST OF APPENDICES:

1. Summit questionnaire responses