

South Bristol Link Major Transport Scheme Bid

Purpose of Report

1. To inform Members of progress and seek their views and agreement on the next phase of work on the South Bristol Link major transport scheme bid.

Background

2. The South Bristol Link [SBL] is one of several major transport schemes in the Joint Local Transport Plan [JLTP] that are being promoted by the West of England authorities. The SBL would link the A370 with the A38 (phase 1) and the A38 with the A4174 at Hartcliffe Roundabout adjacent to Hengrove Park (phase 2).
3. The local objectives of the SBL are:
 - 1) To facilitate regeneration and growth in South Bristol¹ and the development area proposed in the draft RSS;
 - 2) To reduce congestion in South Bristol; and
 - 3) To improve accessibility from South Bristol to the city centre and to strategic transport links, including the trunk road network and Bristol International Airport [BIA].
4. The South West of England Regional Assembly has re-confirmed the project as a priority in the second Regional Funding Advice [RFA2] for construction between 2014-2017 and allocated £47m. This is linked to policies in the draft Regional Spatial Strategy [RSS], which proposes significant development both within the city of Bristol and in an area of search in North Somerset to the south-west of the city. In addition, BIA has submitted an application to expand and Bristol City Football Club has submitted an application for a new stadium and other uses in Ashton Vale. If confirmed, the draft RSS would be reflected in the emerging core strategies of the authorities; it would also require a review of the green belt in North Somerset.
5. Following on from the recommendations of the Greater Bristol Strategic Transport Study (GBSTS, Atkins, 2006), the SBL project has (with support from the South West of England Regional Development Agency [SWRDA]):
 - Reviewed the evidence base (not only GBSTS, but also previous studies on transport issues in this area);

¹ 'South Bristol' refers to south Bristol and adjacent areas of North Somerset.

- Developed a 'long-list' of potential options;
 - Built a transport model to compare options;
 - Distilled the long-list of options down to a 'short-list' of 5 options by considering how they performed against the project objectives and whether they would be deliverable and fundable;
 - Compared, appraised and reported on the performance of the 5 options using Department for Transport [DfT] criteria;
 - Consulted with the public and stakeholders (November to March 2009) and reported on the opinions received;
 - Collected additional data to update the transport model;
 - Identified the main features of the SBL bid for funding to the Department of Transport [DfT] in 2010.
6. The project has now reached the stage where more detailed appraisal is required in order to develop a bid to the DfT for funding. This bid is programmed for submission in March 2010; this is called a bid for Programme Entry and if successful, would trigger the detailed design and planning permissions required to build a scheme.
7. This report recommends how the project is taken forward for further appraisal and it explains the shortlisting of options that has taken place to date.

The Option Selection Process

8. The DfT provides prescriptive guidance on the development and appraisal of major transport scheme bids². Essentially the bid must demonstrate that the scheme is soundly based on the following criteria:
- a) **Strategic** - Does it support the objectives (local and national)?
 - b) **Value for Money** - What are its costs and benefits?
 - c) **Delivery** - Can we deliver the scheme to time and budget?
 - d) **Financial** - Can we demonstrate it can be paid for?
 - e) **Commercial** - Can we demonstrate it can be procured?
9. DfT recognise that there may initially be numerous options and that it would not be feasible to appraise each one in detail; therefore, it provides guidance on how to undertake initial 'high level' comparisons to sift-out options that do not support the above five criteria.

² 'Guidance for Local Authorities seeking Government funding for major transport schemes' and 'WebTAG' (Web-based Transport Appraisal Guidance), DfT.

10. The project started with a wide range of options in terms of route alignments (e.g. inner or outer), standards (e.g. single or dual carriageway, bus showcase or Rapid Transit) and modes (i.e. car, bus, Rapid Transit, rail). The project team undertook this first sift of options to leave five options that were appraised in more detail and were the basis for public/stakeholder consultation between November 2008 and March 2009.
11. The five options were as follows:

Option Number	Description (see Figure 1)
1.	Single carriageway highway only (phase 1 on an inner alignment, close to Bristol, i.e. the phase 1 'red' route safeguarded in the North Somerset Local Plan, phase 2 on the safeguarded alignment in Bristol);
2.	Single carriageway highway (phase 1 on an outer alignment, east of Barrow Hospital, phase 2 on the safeguarded alignment in Bristol);
3.	Rapid Transit (alignment as for Option 1);
4.	Single carriageway highway (A370-A38, inner alignment) plus Rapid Transit (alignment as for Option 3); and
5.	Single carriageway highway (A370-A38, outer alignment) plus Rapid Transit (alignment as for Option 3).

12. The proposed highway options would have additional lanes on approaches to junctions dedicated to turning traffic. All the options would include integral improvements to pedestrian and cycle networks and, where appropriate, traffic management to 'lock-in' the benefits of the additional transport network capacity on the existing network.
13. Details of the appraisal are contained in the 'South Bristol Link Option Appraisal Report' (Mott MacDonald, February 2009). Feedback received from the consultation is reported in the 'South Bristol Link Options Consultation Report' (BCC/NSC, June 2009). Both reports can be found on the West of England website: <http://www.westofengland.org/transport/south-bristol-link>.
14. The next section provides an overview of the performance of the five options against the DfT criteria.

(a) Strategic and (b) Value for Money

National Objectives

15. A summary of the impacts of each of the five options is captured in bespoke Appraisal Summary Tables [AST], which are appended to the Option Appraisal Report. Impacts are categorised under the following headings:

- Environment (e.g. noise, air quality, biodiversity);
 - Safety (e.g. accident rates);
 - Economy (e.g. Benefit – Cost Ratio [BCR], regeneration effects);
 - Accessibility (e.g. access to the transport system, severance); and
 - Integration (e.g. with policies and other transport networks).
16. In terms of national objectives, there are few significant differences between the five:
- All the Options show slight to moderate adverse impacts against the environmental factors;
 - All the Options are broadly the same in terms of the safety objectives;
 - All, except Option 3 (Rapid Transit-only), have strong positive BCRs, indicating 'high' value for money;
 - Options 4 and 5 (highway and Rapid Transit) would be slightly better than Options 1 and 2 (highway-only) against the integration objective
17. The estimate of the BCR is critical to securing DfT funding; hence, given that Option 3 (Rapid Transit-only) has BCR that is classified by DfT as giving only 'low to medium' value for money, the selected option should not comprise Rapid Transit alone.

Local Scheme Objectives

1. To facilitate regeneration and growth in South Bristol and the development area proposed in the draft RSS.

18. The two Options with both Rapid Transit and highway (4 and 5) offer more benefits than Options that are only single mode. The business community believes that the relatively poor connections between South Bristol and the wider strategic transport networks are a barrier to investment and, hence, job creation; similarly, it hinders residents accessing employment opportunities.
19. Better public transport helps the most people (including those without cars) to get to/from employment elsewhere, whilst better highways are thought to be more effective in encouraging business to locate in the area. Therefore, the SBL Options 4 and 5 with both new highway and Rapid Transit would maximise the potential for regeneration and growth; however, further analysis would be required on wider economic impacts as part of the bid development.

2. To reduce congestion in South Bristol.

20. A highway linking the A370 with Hartcliffe Roundabout (Options 1 and 2) is assessed to be more effective at reducing congestion than only a highway between

the A370 and A38, even if Rapid Transit is provided for the entire route (Options 4 and 5). This conclusion suggests that to better tackle congestion in South Bristol, a new highway for both phases 1 and 2 is desirable. Earlier studies have pointed out that congestion reduction offers benefits for public transport, especially if complementary measures are delivered on relevant routes (e.g. bus priority) and traffic reductions on existing routes can be preserved by implementing traffic management schemes.

3. To improve accessibility from South Bristol to the city centre and to strategic transport links, including the trunk road network and Bristol International Airport [BIA].

21. Improving accessibility is concerned with enabling people to have better access to the city centre, the wider transport network and to BIA regardless of car ownership, income or age. Since car ownership in the South Bristol urban area is relatively low, it follows that the Options that include Rapid Transit (3, 4 and 5) would be more beneficial than those that are road-only (1 and 2).

(c) Delivery, (d) Financial and (e) Commercial

22. DfT has a checklist to help consider these, which includes:

- Technical (is it a complex or simple scheme?);
- Legal (would unusual powers be needed?);
- Political (is there cross-party support?);
- Funding (is there RFA support, are developer contributions needed?);
- Phasing (could the scheme be split-up?);
- Complementarity (is it dependent on another scheme?);
- Procurement (can the requisite contractors be appointed to build and/or run the scheme); and
- Acceptability (is there public support?).

23. The project would consider all these issues in more detail as it progresses, but at this stage, early thoughts can help suggest options that should prove deliverable, being in line with technical criteria, practicability and acceptability requirements.

Technical and Legal

24. For all the Options, there are numerous technical and legal issues that need to be tackled as the project progresses, including engineering design, planning procedures, Transport and Works Act (for Rapid Transit), land ownership and developer interests; however, none are considered especially onerous or 'show-stoppers' for any of the Options currently being considered.

Political

25. The SBL project has been supported by elected decision-makers in the West of England authorities through its inclusion in the JLTP and its reaffirmation in RFA2.

- Joint Local Transport Plan (2006/07 to 2010/11); West of England Partnership; submitted to Secretary of State for Transport, 31st March 2006.

- Our Future Transport; West of England Partnership; submitted to DfT October 2007.
- Joint Local Transport Plan 2008 Progress Review; West of England Partnership; submitted to DfT December 2008.
- Regional Funding Advice; West of England Partnership; updated advice (RFA2) submitted to DfT February 2009.

Funding

26. DfT funding for the SBL is identified in RFA2 (£47m), which is not tied to a particular scheme Option as long as the selected Option meets DfT criteria; as stated previously, only Option 3 does not (because of its low BCR).
27. Regardless of the Option taken forward, further 'local' (or non-DfT) contributions would be required to top-up the major scheme preparatory and construction costs; the minimum requirement is 12% of the combined total. The actual amount of the local contribution would depend on the Option taken forward; given that Options 4 and 5 (highway and Rapid Transit) are more costly, this could increase the local contribution requirement up to about £30m (40%).

Phasing

28. Options that include both Rapid Transit and new highway (4 and 5) for both phases could lend themselves to phasing, in that sections and modes could be delivered sequentially. For example, the phase 1 highway link between the A370 and A38 could be delivered first, followed by the full rapid transit and then the phase 2 highway, or vice versa. However, this would result in an extended construction programme that would not match that in RFA2, which could have an adverse impact on funding certainty.

Procurement

29. At this stage of the project the details of how the scheme would be procured have not been considered in detail; however, it is anticipated that there would be great commercial interest in constructing the chosen Option. The commercial interest in operating a Rapid Transit will be informed by ongoing work in respect of the Bristol - Ashton Vale major scheme.

Complementarity

30. The main dependency of the SBL is on the completion of the Bristol – Ashton Vale Rapid Transit route; this is programmed to be operational in 2014, 3-years in advance of the programmed completion date for the SBL. The phasing of the SBL project could also be influenced by progress with the Rapid Transit between Hengrove Park and Bristol North Fringe and by the pace of developments in the area.

Acceptability

31. The first round of public consultation ended on 31 March 2009 and has been reported in the aforementioned Options Consultation Report. Preliminary

responses from both public and key stakeholders show a range of views with the two extremes being presented as:

- ‘the link is not needed; people want to go to the city centre; it will enable unwanted development; roads in particular induce more traffic when the world faces global warming and end of fossil oil’; and, at the other extreme
- ‘a link road has been desperately needed for many years; South Bristol will remain disadvantaged without it; we’ll never attract businesses or good local jobs without it; it should ideally be a dual carriageway road connected to M5 and existing parts of the ring road [Hicks Gate]; government and the council have ignored us for too long’.

32. Between these extremes there is a fairly even balance among members of the public between those who favour a highway and those who do not. Many of those opposed to a link are also opposed to new development (as proposed in the draft Regional Spatial Strategy) and tend to see both as a linked and unacceptable intrusion on the Green Belt.
33. The business community, represented by GWE Business West, “... welcome and fully support the proposals for both road and public transport links between the A370 and the A38 and onwards to the Hartcliffe Way Roundabout as part of a package of measures that will help to deliver the accessibility and connectivity required in South Bristol to bring much needed jobs growth and regeneration to the area.”
34. Opposition to a highway link is led by the Alliance Against the South Bristol Ring Road (AASBRR), which has over the past two years organised meetings at venues in South Bristol and neighbouring areas of North Somerset. AASBRR opposes a highway link because “...new roads have always resulted in an increase in car use, whereas government and local authority policy is to reduce car use. The road would increase noise, pollution and CO2 emissions...either route would cut a huge swathe through green belt land...would increase “rat running” ...etc.”
35. Major transport schemes usually elicit strong feelings and a broad spectrum of views (especially as this scheme is perceived as purely a new highway, even a dual-carriageway, which it is not). The public consultation has so far attracted a broadly even balance of views, with business generally favouring new highway as a priority. Hence, it is concluded that Options 4 or 5, with both highway and Rapid Transit, would ultimately secure the most support.

Conclusion

36. The main pros and cons of the options are summarised in the following table.

Criteria	Option 1	Option 2	Option 3	Option 4	Option 5
Objective 1	√	√	√	√√	√√
Objective 2	√	√		√	√
Objective 3			√	√	√
Tech. & Legal	√	√	√	√	√
Political	√	√	√	√	√
Funding	√√	√√	√√	√	√
Phasing	√	√	√	√	√
Procurement	√	√	√	√	√
Complementarity	None	None	RT-AV	RT-AV	RT-AV
Acceptability	√	√	√	√√	√√

37. Options 4 and 5 perform best against the local scheme objectives and DfT criteria because:

- Regeneration and growth requires both a highway (because this is more effective in attracting business to the area) and public transport (because this enables people, including non car owners, to access jobs, both in the area and elsewhere);
- Highways and Rapid Transit, with associated complementary schemes (e.g. bus priority, traffic management), can reduce congestion and improve safety;
- Modern attractive public transport, such as provided by Rapid Transit, improves accessibility for all groups;
- A Rapid Transit scheme alone would be unlikely to provide value for money because of low patronage on orbital routes;
- As described in the Options Consultation Report, more people support a combined road/ Rapid Transit scheme than either on its own;
- There are no technical, legal or funding barriers that would prove insurmountable;
- A combined scheme may readily be modified if necessary, in response to changes in external factors, such as other major transport schemes and development scenarios;

38. It is recommended that the highway element of Options 4/5 be extended from the Phase 1 (A370-A38) section to cover Phase 2 (A38-Hartcliffe Roundabout) as well; this would help deliver better the local objectives.

39. There thus remains a choice between enhanced Option 4 and 5; that is, an inner highway alignment almost wholly adjacent to the Rapid Transit (4) and an outer highway alignment for phase 1 that would join the Rapid Transit at the edge of the

city urban area (5). The key issues between the two options are summarised below.

Issue	Enhanced Option 4 (inner alignment)	Enhanced Option 5 (outer alignment)
Cost:		
Railway Underpass Cost	£5.3m	£1.8m
Road Construction Cost	£11.7m	£10.2m
Rapid Transit Const. Cost	£10.4m	£10.4m
Land Purchase ³	£13.7m	£15.0m
Total Const Cost	£41.1m	£37.4m
Summary:	Greater cost associated with railway underpass.	Lesser cost associated with railway underpass.
Risk	Greater risks associated with building a 4-lane railway underpass. Lesser risk associated with a scheme on a safeguarded route.	Reduced risk with building only a 2-lane railway underpass for Rapid Transit. Greater risk of delivery on a non-safeguarded alignment.
Benefit-Cost Ratio	Strong BCR >2.0 anticipated based on current data.	Strong BCR >2.0 anticipated based on current data.
Environmental Impact	Main concern would be in the Colliters Brook valley where a 4-lane structure would be required with higher vehicular flows that would have an adverse impact on the local environment (which includes a SSSI).	The impact in the Colliters Brook valley would be less, with construction limited to the 2-lane Rapid Transit and greatly reduced vehicular flows compared to Option 4.
Traffic Impact (2016 AADT)	Option 1 flows as proxy	Option 2 flows as proxy
Phase 1	18450	18400
Phase 2 (St Georges Rd)	9050	10350
Phase 2 (east end)	23150	24500
Kings Head Lane	3650	2500
Winterstoke Rd	24600	26200
Barrow Gurney	10000	8450
Summary:	The performance of the two schemes is broadly similar.	
Fit with Policy & Objectives	Both options would cross the Green Belt as currently defined, but would fit with draft RSS and support local objectives.	

³ Excludes value of BCC land

40. Hence, it can be seen that the balance of argument between the enhanced options 4 and 5 is finely drawn. In order to better understand the differences between the two options of a western (outer) alignment and an eastern (inner) highway alignment for phase 1, further assessment is required.
41. An indicative plan showing the two options is shown in Figure 2.

Next Steps

42. Subject to the approval of the Committee, design and appraisal work would be undertaken on these two option concepts; and further work would continue to provide the detail needed to finalise a bid. Any scheme may be further modified in response to detailed considerations and further public engagement.
43. A draft bid document would be prepared, the key features of which would be reported to this Committee, seeking its endorsement to submit a bid to the DfT.

Recommendation

That Members:

- 1) Note progress to-date;
- 2) Endorse further assessment of SBL options for a combined single-carriageway highway and Rapid Transit link between the A370 and Hartcliffe roundabout comprising an inner alignment Rapid Transit route with either an inner or outer highway alignment between A370 and A38, and safeguarded highway alignment between A38 and Hartcliffe roundabout;
- 3) Agree to a second round of public engagement in winter 2009/2010;
- 4) Require a report on the outcome of the further assessments/public engagement and seeking approval to submit a bid to the DfT be submitted to this Committee in early 2010.

Officer presenting the report:

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Figure 1: South Bristol Link Options, February 2009

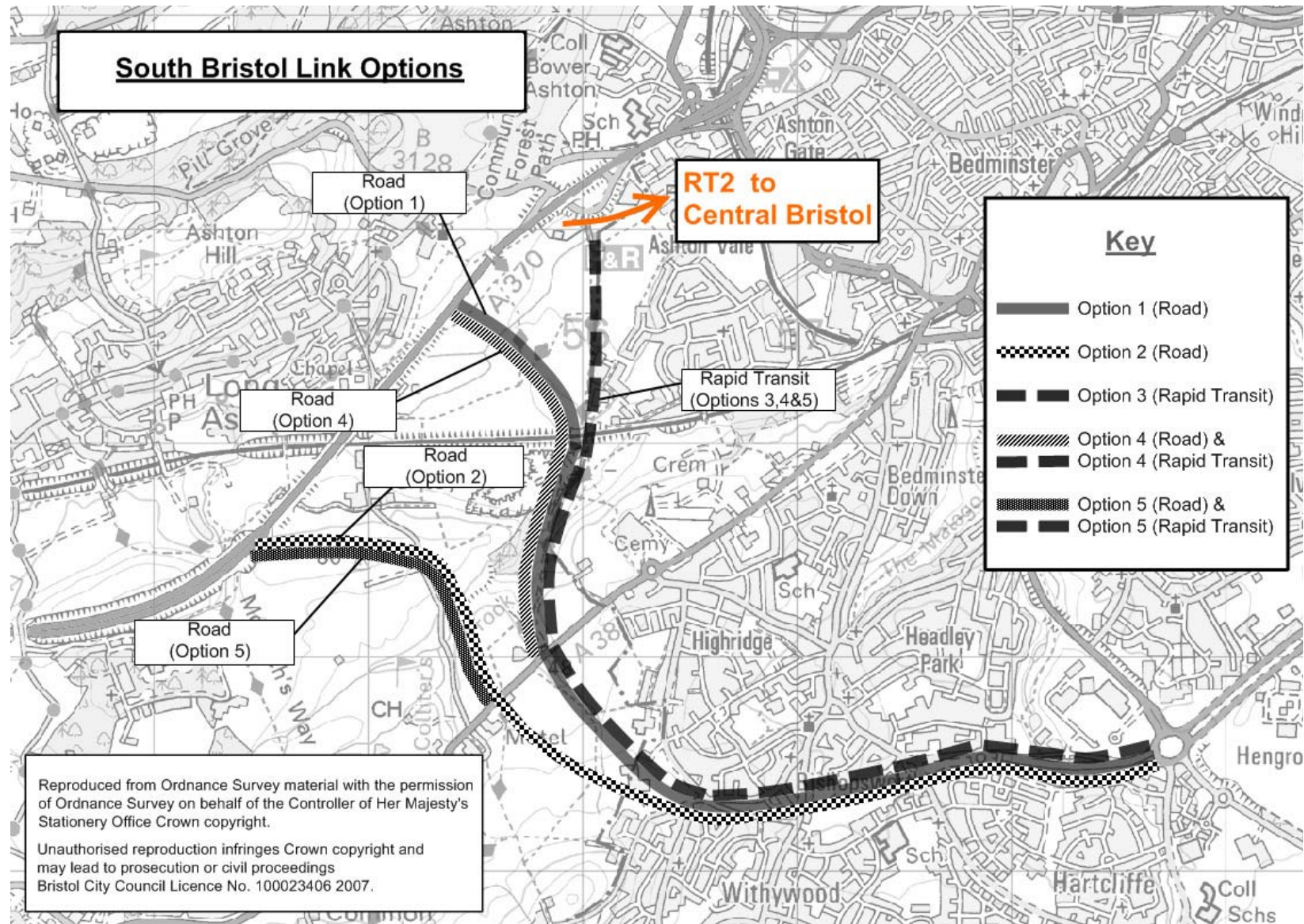


Figure 2: South Bristol Link Options for Further Appraisal, September 2009

