BERKSHIRE LOCAL TRANSPORT BODY (BLTB)

REPORT TO: BLTB **DATE:** 12 March 2020

CONTACT OFFICER: Tim Wheadon, Chief Executive, Bracknell Forest Council

PART I

Item 8: 2.08 Slough: Rapid Transit, Phase 1 – One Year Evaluation Report

Purpose of Report

1. At your meeting in March 2017, you approved guidance for the preparation of one- and five-year-on impact reports for BLTB funded local transport schemes.

2. This report introduces the impact report for scheme 2.08 Slough: Rapid Transit, Phase 1.

Recommendation

3. You are recommended to note the reports from the scheme promoter and the independent assessor.

Other Implications

Financial

4. There are no direct financial implications of this report.

Risk Management

5. The government requires all LEPs to have Assurance Frameworks which set out governance arrangements and financial procedures. One of the specific requirements for transport schemes is to require scheme promoters to submit impact reports one and five years post implementation.

Human Rights Act and Other Legal Implications

6. Slough Borough Council will provide legal support for the BLTB should any questions arise on the application of the Assurance Framework.

Supporting Information

7. Slough Borough Council received £5.6m towards the £9.1m cost of this scheme.

8. The one-year on impact report is attached at Appendix 1; and the independent assessor's report is attached at Appendix 2.

Conclusion

9. The SMaRT 1YIR provides a good overview of the status of the project and some insight into the overall impact to date. Overall, it is not considered to meet all of the requirements for a 1YIR due to limitations in the availability of quantified metrics demonstrating the impact of the scheme.

10. The report provides a good overview of the infrastructure elements of the scheme. It highlights some of the challenges that have been met through the construction process and demonstrated that these did not unduly impact upon cost, albeit did significantly delay the delivery of the scheme.

11. The report also provides a good assessment of the operation of bus services along the western section of the infrastructure. The scheme has clearly facilitated a more effective approach to delivering bus services on behalf of major business employers along the corridor. It is estimated that there has been a 50% increase in patronage since the SMaRT service was launched primarily coming from business users (data from SMaRT Steering Group/Stewarts).

12. A number of developments have been granted planning permission with some starting on site but with no development complete and occupied.

13. The scheme was delivered on time and close to budget (+1.6%).

14. The Independent Assessors have found it hard to verify whether or not this project has currently delivered against its objectives. As such, TVB LEP has agreed with Slough Borough Council that they will undertake:

    - with the SMaRT steering group to evaluate the increase in patronage since the start of the public service
    - to provide the journey time savings that have been achieved since the launch of SMaRT
    - to provide an assessment outputs on air quality in the area through the AQMA
    - to ensure that all relevant learnings from phase 1 are shared for subsequent phases of the SMaRT scheme development

15. There is no further action required.

Background Papers: None.

Appendix 1

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Slough Borough Council
Growing a place of opportunity and ambition

Slough: Mass Rapid Transit 1 (SMaRT)

Berkshire Local Transport Body (BLTB)

One Year On Evaluation report

February 2020

GROWTH DEALS

Thames Valley Berkshire
LOCAL ENTERPRISE PARTNERSHIP

Local Growth Fund

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1. Introduction

1.1. Background

Slough Trading Estate, Slough Town Centre and the Langley area are key employment locations within Thames Valley Berkshire. The Trading Estate is one of the largest in Europe, with 486 acres of commercial property, over 450 businesses on site and more than 20,000 people employed. SEGRO continues to plan for expansion. The town centre is currently undergoing extensive regeneration, with much more development on the way. To the east of the borough, Heathrow airport is a prominent generator of trade and employment, and again, there are considerable plans to expand here. Hence there are enormous opportunities for growth across the borough.

Traffic congestion, however, has an adverse impact on business efficiency and inward investment and, as such, threatens the future economic vitality of Slough. There are also environmental concerns and problems with social distribution.

The Slough Mass Rapid Transit (SMaRT) scheme was therefore designed to address these problems by providing the infrastructure necessary to prioritise dedicated bus services on a key strategic route across the borough. Modal shift and increased patronage of public transport are part of the overall solution to create opportunities to the benefit of Slough's businesses, by reducing congestion and journey times, increasing network reliability, and improving road safety. This in turn creates a focus for future inward investment.

SMaRT was also designed to improve air quality by, reducing the number of journeys by private cars (especially single occupancy journeys), thereby reducing stop/start traffic and therefore helping to tackle the AQMA zone. The project was also developed in order to reduce severance by increasing public transport links, improving facilities and accessibility,

All of these measures support retention and growth of employment in Slough, the development of commercial opportunities and enhanced connectivity, as well as social and environmental benefits. SMaRT plays an important role therefore in making Slough a more vibrant and attractive place to live and work in.

1.2. Funding

Slough Borough Council received £5,600,000 from the Local Growth Fund towards the introduction of the SMaRT infrastructure. Additional funding was provided by Slough Borough Council via capital funds (£2,600,000) and S106 agreements (£900,000), making an overall total of £9,100,000 for the delivery of the scheme.

1.3. Objectives

As stated in the business cases, the following objectives and desired outcomes applied to the project:

Objective	Desired Outcome
1. Provide a high quality, safe, convenient and reliable alternative to the car and improve public perception of transport in Slough	Increase PT modal split Increase PT capacity Improve PT reliability Improve PT journey times Improve personal security Reduce casualty frequency and severity
2. Alleviate the severe congestion on the A4 by allowing better flow of traffic	Improve (or keep to neutral) car journey times
3. Minimise the impact of noise and air pollution and greenhouse gases on the A4 corridor	Reduce (or keep to neutral) carbon dioxide emissions and noise levels
4. Support economic development in Slough and Heathrow and contribute to tackling deprivation	Support employment and housing development planned for Slough Reduce unemployment in Slough

This report evaluates the success of the project with reference to these stated objectives, particularly the increased prioritisation of public transport and all the related impacts, as well as the ongoing requirements for monitoring and review.

1.4. Description of the scheme

The SMaRT scheme introduced new and enhanced infrastructure prioritising public transport along an essential stretch of the key strategic corridor that links Maidenhead, Slough and Heathrow, and will ultimately play an important role in providing surface access to the airport. Phase 1 of SMaRT runs from the Trading Estate in the west to Langley towards the east, via the town centre. The key features are dedicated bus lanes and other priority measures, along with junction improvements, new crossings and signalisation enhancements. Phase 2 (not covered directly by this evaluation report) will extend the SMaRT route beyond Langley as far as Heathrow, and will include a park and ride site.

1.5. Location

The route for SMaRT phase 1 was split into two sections. The western section runs along the A4/Bath Road from the trading estate in the west of the borough to Slough Railway Station in the town centre. The central section continues from the town centre to the junction of the A4/London Road with High Street Langley, in east of the borough. Phase 2, (which is in progress at the time of writing this evaluation report for phase 1), extends the route as far as Heathrow. Phase 2 also incorporates a park and ride site to be accessed from the A4/London Road between Langley and Colnbrook. Phase 1 of SMaRT is therefore part of the main strategic route through Slough, with phase 2 extending this same overall route beyond the boundary to enhance the connectivity between these key commercial areas via public transport.

The SMaRT infrastructure comprises dedicated lanes along the A4, including service roads in front of major business offices along the Trading estate, with all the necessary signage and road markings on the highway. Traffic orders have been introduced to support the enforcement of turning manoeuvres (e.g. restricting access to buses at specific locations). The infrastructure also includes improved junctions and pedestrian crossings along the route. Many of these improvements included upgrades to signalisation and related detection equipment.

1.6. Historic Problems

1.6.1. Congestion

This route (A4/Bath Road/Three Tuns Junction/Wellington Street/Railway Station/Town Centre/London Road/Langley is subject to heavy traffic flow, as it carries a large amount of commuters as well as local traffic accessing businesses, schools, shops and other destinations. Tens of thousands of commuters enter and exit Slough on a daily basis, Monday to Friday. Many of these commuters engage in single occupancy vehicle journeys. As a result, congestion arises and journey times can be unpredictable.

1.6.2. Car Culture

As above, there is a high level of commuting in Slough, with many journeys made by private car. The problem is considered to be particularly severe in Slough, which has a reputation for having a culture of car ownership and usage. As ever, the various sustainability challenges must be addressed through a mixture of engineering, enforcement, and educational measures. The SMaRT project is therefore designed to reduce the widespread reliance on car travel, and to promote a variety of more sustainable travel modes and behaviours.

1.6.3. Uptake of Public Transport

Outside of London, where regulation is in place and services are much more prominent and frequent, the level of travel by bus is generally low and regarded by many as an inferior form of transport, with lack of accessibility, high ticket prices, lack of information and long waiting times often cited as reasons why people are reluctant to travel by this mode. The SMaRT scheme was delivered in order to make bus travel easier, more direct, more attractive and better value; overall to promote modal shift to a form of transport that is more sustainable economically, environmentally and socially.

1.6.4. Road Safety

Road safety can be problematic in any built up area, particularly in where there is a large number of vulnerable road users interacting with the traffic road network, even at designated crossing points. The SMaRT scheme was therefore designed to include a series of junction improvements, better crossing facilities and signals modifications at key locations.

1.7. Evaluation timetable

The Slough Mass Rapid Transit (SMaRT) scheme, phase 1, was completed in December 2017. Hence this one year on evaluation report has been produced later than the standard one year assessment period. Although the infrastructure element (the actual growth funded scheme) was completed at this stated point, the commencement of dedicated bus services formally making use of this infrastructure did not commence until July 2018.

With the agreement of the TV LEP team, it was therefore agreed that there would be a delay in this evaluation report in order to better assess the service element (i.e. the success of the bus services along the SMaRT route). Future evaluation reports, e.g. the five year evaluation, will be aligned accordingly.

2. Funding

2.1. Funding details

The majority of the funding for this scheme came from the LEP Local Growth Deal. Additional funding was provided by the Council from capital funds and S106 contributions. The full figures are shown in the tables below:

Source of funding	**Total**
Amount from LEP Local Growth Deal	£5,600,000
Local contributions from ….	
- Council Capital Programme	£2,600,000
- Section 106 agreements	£900,000
- Other sources	
Total Scheme Cost	**£9,100,000**

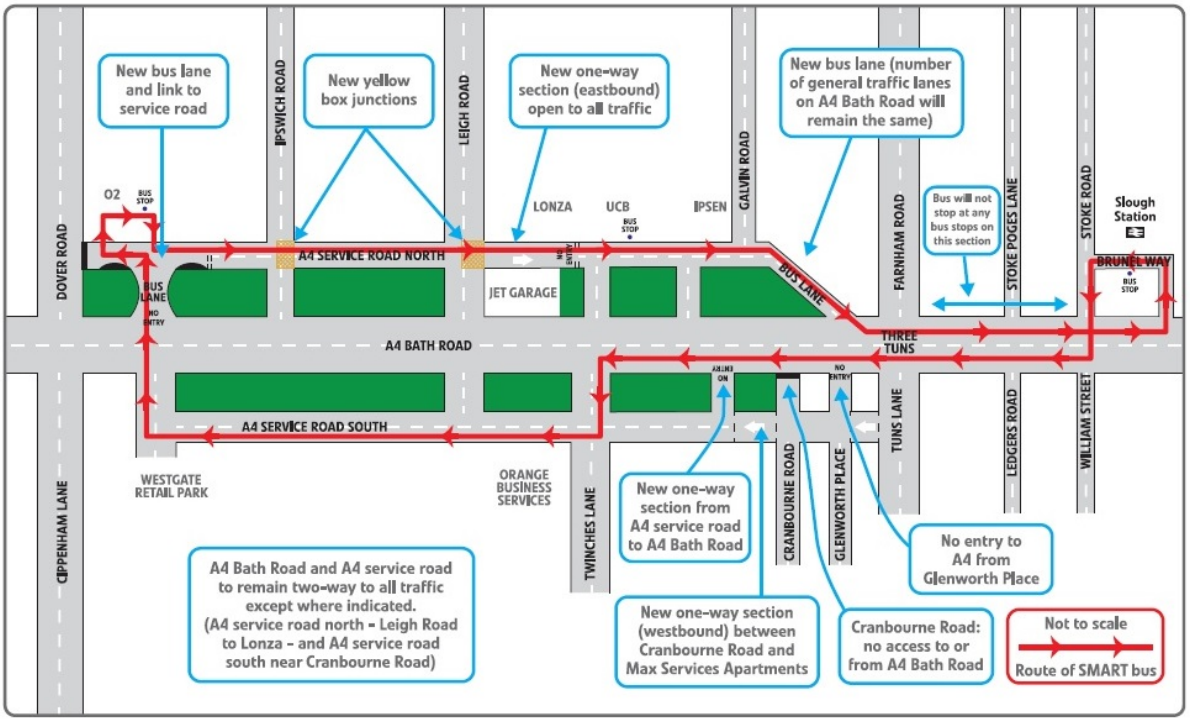
3. Scheme details

3.1. Design elements

The scheme included:

- Installations of dedicated bus lanes along key stretches of the route, including all line markings and signage
- Junction improvements at various points along the route
- New islands / better crossing facilities along the route, most notably on the A4/ London Road towards Langley, including new Puffin and Toucan crossings
- Widening the carriageway at various points along the route
- Drainage improvement
- Replacing the old signals configurations at key sites, including the Three Tuns junction (extensive changes) and along the A4, with the associated installation of ITS equipment to ensure traffic detection and system connectivity/control
- Replacing the street lighting
- Full resurfacing with new lane markings
- New, permanent traffic orders: restricting the use of the new bus lanes to only authorised vehicles, and restricting access to service roads at key locations along the route (allowing access only to buses)

SMaRT route – western section (Trading Estate to the Town Centre).



3.2. Supporting measures

3.2.1. Traffic Management

Given the high volume, strategic nature of the route, extensive traffic management plans were devised and implemented. This included extensive lane closures at various key stages as well as road closures, when necessary, to allow safe and efficient working conditions along the A4, service roads and adjoining roads.

3.2.2. Communications

The project was supported by an extensive communications programme to keep residents and motorists advised of upcoming works and disruptions. This was particularly important at times when closures were in place, for road surfacing, and when diversions were in operation.

The communications took the form of public consultations, letter drops, press releases, the SBC website, and information sharing with relevant partner authorities, mostly notably Highways England with reference to the potential impacts of works and diversions on each other's parts of the network.

As would be expected with a project of this scope, a number of complaints were received from residents and motorists. These were responded to promptly by either the contractors or the Council (Transport and Communications teams), as appropriate. Generally there was widespread patience and acceptance of the disruption in expectation of the network and wider benefits that would arise from the new road layout.

3.2.3. Member support

Slough Council members, notably including the Commission of Transport and Highway, were kept fully informed of the progress of the project. Considerable support for this project (and also the A355/Tuns Lane and A332/Windsor Road projects, all linked in terms of their impact on the network), was received from the Commissioner, who regularly stated his backing in the local press, where he advised the public on the long-term benefits that would follow the temporary disruption.

3.3. Key dates

Construction started on site in December 2015. The work was completed in December 2017.

4. Project Management / Progress and Monitoring

4.1. SBC / Balfour Beatty partnership

Regular contract monitoring and scheme progress reports were provided by Balfour Beatty and discussed with the Head of Transport at the Council.

Quarterly 'Customer Experience' meetings were held with Balfour Beatty and the project team, including representation from SBC Transport. This forum provided an opportunity to discuss any problems relating to construction, finance or any other aspects of performance and progress in a relaxed setting and with a Balfour Beatty representative not directly involved in the project.

SBC engineers regularly attended the works site along with fellow project team members in order to monitor progress and to check adherence to technical plans and specifications.

4.2. Health and Safety

As set out in the monthly reports received by SBC, an excellent health and safety record was maintained for the duration of the project. Balfour Beatty strive to maintain zero harm, and this was backed up by minimal incidents and quick responses, with thorough investigation into any problems that arose, and a culture of transparency. There were no serious incidents on site during the project.

4.3. Network Management

Monthly meetings were held with the project manager, main contractor (Balfour Beatty) and their traffic management subcontractors, Highways England and their managing agents (Kier and ConnectPlus25), RBWM and Thames Valley Police to discuss road safety matters throughout the duration of the project. The links to junction 7 to the west and to junction 5 to the east of the borough were of particular interest to Highways England, but there were no significant concerns overall. All diversions required for the scheme were deployed within the Slough network, and were carefully coordinated to ensure there were no clashes with Highways England planned diversions.

Extensive signage was displayed throughout the project, with advance warning signs on the M4 approaches to junctions 5 and 7 as well as across the borough. Messages were displayed on

Variable Message (VMS) signs, both the static signs in Slough and temporary, portable VMS on the motorway verges.

4.4. Unexpected problems

In terms of managing the contract, the dispute mechanisms and procedure were adhered to, but at times this was problematic, with a number of compensation events being raised by the contractor, some of which resulted in lengthy technical investigations and negotiation.
The compensations events were due largely to highways structure issues, including the presence of utility services at unexpected locations, with re-designs and diversions necessary in some cases. All problems were ultimately resolved to mutual satisfaction, but at times this was a lengthy process.

4.5. Costs and financial control

There was a relatively minor overspend on the construction, of approximately £150k due to compensation events arising out of additional utility service related work. This additional cost was covered by the Council from capital funds.

Budget management for the scheme was undertaken by the project manager appointed by the Council for the three major construction projects with growth funding at the time (SMaRT1, A355/Tuns Lane and A332 Copthorne Roundabout), which were all delivered by the main contractor Balfour Beatty. This was regularly reviewed and overseen by the Council's Head of Service for Transport.

5. Review and evaluation of the outcomes:

5.1. Overall outcome:

The scheme was completed satisfactorily, to a high technical standard and close to budget. The construction work took longer than had originally been anticipated, and the completion date was therefore later than planned. This was due partly to unexpected utility services diversion requirements, but also to the need to best manage the wider programme of the three major projects on the network, with conflicting network requirements and impacts during the construction phases.

The infrastructure created has provided the means for a high quality, safe and reliable public transport innovation, namely the mass rapid transit service provided for travel by business commuters and members of the public. This was one of the main objectives of the scheme, and one which has enhanced the profile of the transport network in Slough. Public transport capacity has increased, with regular patronage of the service. Patronage levels and modal shift, along with journey times, traffic counts and overall network performance and resilience will be continually reviewed on an ongoing basis, with the expectation of further, increasingly substantial and positive changes as the service expands and is used more widely. These reviews will be most beneficial once the service has been in operation for a number of years.

The MRT service, run by Stewarts Coaches Ltd has been running since July 2018. This service was initially a replacement for a number of shuttle services provided by four companies: Telefonica, UCB, Lonza and Ipsen, and was limited to business passengers to start with. Subsequently, the service was opened up to members of the public, and this remains the case, though the majority of passengers is still made up of business commuters. This has demonstrated some level of success in modal shift, and is an encouraging sign, though considerable increase here is still crucial to the overall success of the service and indeed the transport network.

A number of environmental objectives still need to be fully evaluated, including the impacts of the scheme on air quality, greenhouse gases and levels of noise pollution. In addition, growth developments relating to employment and housing will also continue to be evaluated and reported on more thoroughly to the LEP. Again, reviews in all of these areas will be most helpful once data has been collected over a longer period, and is representative of the longer terms benefits arising from all related developments and schemes, collectively helping to advance sustainability across the borough.

5.2. SMaRT infrastructure: images

The photographs below show examples of the infrastructure for the western section of the SMaRT route (Trading Estate to the Railway Station)

Image 1: Telefonica/O2 – accessed via the SMaRT bus gate leading onto Bath Road Service Road North

Image 2: As above, with the Stewarts' coach arriving.

Image 3: Junction of Bath Road Service Road North and the A4/Bath Road

Image 4: As left, highlighting the bus lane enforcement signage

5.3. Infrastructure problems and recommendations

The highway development was successful and delivered in accordance with the designs. Since operation of the service commenced, however, the Council has received a number of recommendations for improvements to help streamline the service operation.

The Council has been notified by Stewarts (the service operator) about a specific issue relating to the layout at the end of Galvin Road, where there have been some incidences of conflict with cars failing to observe the bus lane restrictions. Better signage has been requested here. A problem situation can also arise in front of the Telefonica building where there can be a ‘give and take’ situation which is not advantageous to the flow of large vehicles. Potential improvements to the junction with Twinches Lane have also been suggested.

The issues reported here will be studied or further investigated where previously known about and not yet resolved, with appropriate responses to be forthcoming from the Council as the highway authority. In addition, any residual resurfacing requirements will be covered in the Highways department's annual resurfacing programme.

5.4. Service Performance

Although the service element of the overall scheme is not funded by the Growth Fund contribution, the transport service is an essential part of the success of the infrastructure development. The service also makes an essential contribution to achieving the specific objective of providing a safe, reliable, public transport alternative to the conventional dominance of car travel and single occupancy journeys, enabling reduced congestion through modal shift.

Stewarts Coaches Ltd have operated a registered bus service on the Slough MRT phase 1 since July 2018, serving the Bath Road Central Trading Estate. Through a collaborative process with Slough Borough Council and a number of prominent businesses, the MRT scheme facilitated a new, shared community service. Previously, four businesses (Telefonica, UCB, Lonza, Ipsen) each had their own bus services, which multiplied the number of vehicles on the road network unnecessarily. The new, combined service brought the benefit of reduced emissions.

Image 5: One of Stewarts' fleet of shuttle coaches, heading west on the A4/Bath Road

After an initial start up period for the businesses, the service was opened up to the general public, with a competitive day time ticket ('*as many trips as you like'*). To stimulate public patronage of the service, a free off-peak service was offered for a three month period in the summer of 2019. This proved to be highly successful. The service has continued to be well

populated with strong growth in the ridership and although growth mainly comes from business travel, this is encouraging, and future, wider growth is to be expected.

The following data, provided by Stewarts, gives an indication of the level of travel on the SMaRT service, since it commenced.

Question	Answer	Comments
All passengers		
Number of bus runs per day	60	Circa 25,000 journeys per month
Number of bus runs per hour (peak times)	6-10	
Number of bus runs per hour (off-peak times)	4	
Daily start and end times	06:41 to 19:55	
Daily start and end times (peak)	07:45-09:30 15:45-19:00	
Bus capacity: number of seats / total passengers	37 seated / 70 maximum	
Average number of passengers per bus run (peak)	35	98% are business users 2% public
Average number of passengers per bus run (off-peak)	2	
Average journey time from Slough railway station to the Trading Estate (peak)	15	
Average journey time for a full 'loop' of the route (peak times)	24	
Average journey time from Slough railway station to the Trading Estate (off-peak)	12	
Average journey time for a full 'loop' of the route (off-peak)	24	
Public passengers		
Percentage of all passengers	2%	60% of these are concessionary fares, 40% paying
Full price of ticket for members of the public	£6	Competitive day time ticket: *'as many trips as you like'*

Permitted hours of travel	All day (06:41 to 19:55)	
Free trial period for the public - dates	**Summer 2019, 3 months**	
How many public passengers travelled in total during this free trial period?	616	
Number of public travellers per day during this period	Approx. 10/day	
Previous shuttle services		
Businesses that previously had shuttle services	Telefonica, UCB, Lonza, Ipsen	
Number of shuttle run per day	60 per day for Telefonica (by Stewards) Other companies: unknown	Other companies: likely to have been off-peak only service, perhaps 10 journeys per day for each company.

5.5. Modal share

From the information provided by Stewarts and the companies involved, there is evidence of a certain amount of modal shift and people making multi-modal journeys. Passengers for the service are regularly seen queuing at Slough Railway Station. However, due to business expansion, the company car parks continue to be heavily used. This suggests there is scope to increase the number and frequencies of journeys by the shuttle buses, to keep up with growth and travel needs.

There is also scope for other companies to join the scheme, at an approximate cost of £130k per company per year.

As noted throughout this report, modal shift on a much more extensive level remains a priority for everyone, as part of a comprehensive sustainable solution. Slough Borough Council, along with all other committed stakeholders/partners, will continue to work hard to explore and promote all additional ways to promote the uptake of mass forms of travel. In the short term, at least, there is potential to repeat the free trial period, or to provide a long term subsidised service.

The operator's business model is based on increased growth and new opportunities. This includes the potential to run services along the central (Langley) stretch of the SMaRT network, and to take advantage of the further opportunities being provided by SMaRT phase 2, including the park and ride side connectivity. This commitment to providing such services is greatly welcomed by the Council.

5.6. Innovations

The buses provided by Stewart's all have low floors and are wheelchair accessible. This is welcomed as a way to promoted social inclusion. In addition, SMART card and QR code ticketing technology is also in place. Plans are underway to provide a contactless payment system in 2021, via new app being developed. These measures also promote inclusion and make the service more attractive.

New incentives to use the service will also be explored. There is clearly a need to find ways to make more efficient use of the service during off peak periods, as well as to increase number of passengers overall.

Stewarts have also stated their desire for more of the Slough road network to include bus priority measures, to make all bus journeys more reliable and appealing. This is duly noted and continues to be an area under review within the Transport service.

5.7. Traffic network / congestion

Although one of the main objectives of the scheme was to reduce single occupancy journeys, improve traffic flow and reduce congestion, the frequency and level of service is not yet of a sufficiently advanced level to expect a significant improvement in this respect. Therefore, no analysis of traffic count data has been carried out for the purposes of this evaluation report. It would not be reasonable to assert, or possible to prove, with the available data evidence, that significant improvements have been made to traffic flow yet.

In terms of observation and public opinion, it has been noted that the SMaRT route is generally considered to be performing well, and the Council has received few complaints about traffic flow since the completion of the project. There have also been very few complaints about the nature of the lane reallocation for the dedicated bus routes, or any other aspect of the infrastructure installed as part of the scheme.

Modal shift and traffic improvements remain a key priority, however, and they are an essential element of the long term transport vision for Slough. An evidence based appraisal will still be essential, in due course. It is recommended in this report that detailed analysis of traffic volumes, vehicle type, journey times and so forth be undertaken at the earliest opportunity. The expectation remains that there will be fewer single occupancy car journeys, more travel by bus and therefore less congestion and more reliable journey times. This is, again, likely to be when the SMaRT service has fully taken off, and there is considerably more public patronage of this form of transport in Slough.

The optimum improvements in this area of study are likely to come once the full SMaRT route has been established, continuing all the way to Heathrow, in conjunction with a fully operating park and ride side. Still further benefits would be expected to arise with increased reallocation of lane space, and potentially the restriction of access to certain stretches of the main strategic routes in Slough as part of a much wider transformation of the network, especially in the town centre.

5.8. Enforcement

Stewarts (the service providers), have reported that compliance with static parking restrictions is generally good, but there are sometimes problems with anti-social lorry parking at key points on the route, making manoeuvres difficult at times.

Enforcement of the use of the dedicated bus lanes commenced in May 2019. Over a nine month period, 9500 penalty charge notices (PCNS) have been issued for moving traffic offences. This factors up to 12,667 per annum. The annual number is expected to go down in subsequent years, once motorists become more familiar and ideally more compliant with the restrictions.

In project delivery terms, this shows the value of the extensive work that went into the designs, signage, markings, traffic orders, acquiring the technology/equipment, all of which makes this enforcement possible, and ultimately enables the prioritisation of the service on the road network.

5.9. Road Safety

There have been no major incidents and no changes to the level of overall road safety incidents along the SMaRT route since the scheme was completed. Ongoing monitoring of road safety incident data will be performed as part of our statutory duty, and the data will be presented in the five year impact review.

5.6.1. Road Safety Audits

Road Safety audits were carried out at each stage of the project. The stage 3 audit was conducted in 2018 by Acorn Projects Ltd with SBC and Thames Valley Police observers in attendance.

- Notes: no departures from standard reported by the Design Organisation.
- All issues raised at stage 2 (design) were resolved.

Hence, the site / route is considered to be compliant with road safety guidelines.

5.10. Air Quality and Noise Pollution

A reduction in noise and air pollution goes hand in hand with reduced congestion. However, monitoring is required on a co**n**tinual basis to contribute to the evidence of positive impact in this area. A detailed review will be made available in the five year impact report with interim findings wherever possible.

5.11. Requirements for further technical evaluation

As stated in the main review of outcomes in this evaluation report, and in-keeping with the guidelines for evaluating schemes with a public funding contribution of greater that £5m a number of requirements are outstanding. These largely relate to data collection and analysis that will only be meaningful once a greater level of modal shift has been achieved. With all schemes of this nature, forming part of a long term sustainable solution, this is likely to be after a number of years following commencement of the transport service, and stimulated further by future infrastructure, service developments, and travel demand measures, leading to extensive behavioural change.

In terms of traffic and congestion related impacts, specifically, there remains a requirement to conduct detailed analyses of the following as impacted by the scheme:

- AADT for peak an off-peak hours for Bath Road, Wellington Street, London Road
- Average AM and PM peak journey time per mile on key routes.
- Average AM and PM peak journey time on key routes
- Day to day travel time variability (variation from the timetable). *Nb this is not of great significance due to the frequency of the services.*

In terms of the Environmental and Social impacts of the schemes, the following metrics still need to be analysed in detail:

- Average annual CO2 emissions
- Nitrous Oxide and particulates emissions
- Accident rate / casualty rate
- Traffic noise levels at receptor locations

6. Review and evaluation of growth related outcomes

6.1. Growth Forecast and Actuals

In terms of growth, the predicted outcomes of the project included the delivery of new jobs, commercial floorspace and housing units, along with a range of transport and highways outputs. The planned figures and known actual figures to date are shown in the table below, and are also included in the regularly submitted LEP / Berkshire Local Transport Forum pro-forma updates.

Predicted Outcomes	**Planned**	**Actual (to Feb 2020)**
Planned Jobs connected to the intervention	2,460	To be determined
Commercial floorspace constructed (square metres)	108,700sqm	To be determined
Housing units	3,120	To be determined
Transport and Highways Outputs		
Total length of resurfaced roads	2,000m	1,500m
Total length of newly built roads	150m	110m
Total length of reallocated roadspace (bus lanes)	2,850m	2,140m
Total length of new cycle ways (bus lanes)	*2,850m*	*2,140m*

The figures for jobs, floorspace and housing units arising from the delivery of the SMaRT scheme are not easy to assess. The original numbers proposed must be best understood in the context of the expected outcomes from the three major projects (SMaRT, A355/Tuns Lane, A332/Windsor Road). The impacts of all of these schemes must be considered together. This includes proposed floorspace/office space in the Slough Trading Estate, new dwellings in the town centre, as part of the 'Heart of Slough' project, and new jobs in all of the areas affected by these major infrastructure scheme, again largely on the Trading Estate and in the Town Centre, with additional growth also likely to arise from the SMaRT scheme specifically in the Langley area.

In terms of Transport and Highways related outputs, the proposed measures have largely been delivered. The amount of resurfacing required turned out to be lower than originally estimated, however the full stretch of the route is continually under review, and further resurfacing is to be expected in the foreseeable future. The amount of newly constructed and reallocated roadspace also varied as a result of revisions at the detailed design stage, but this did not affect the overall integrity of the route.

6.2. Growth Evaluation – further comment

The Business case sets out a stringent evaluation process, with reference to short/medium benefits and long term benefits. The Council is committed to ongoing studies to determine the actual figures for the combined impacts of all of the schemes mentioned here, and continues to be in discussion with the TV LEP team in order to come up with the most relevant and most accurate figures.

The Council also considers that a one year period is too soon to provide a realistic assessment of actual outcomes. The five year evaluation report is expected to produce a much more helpful review of actual growth.

In terms of overall growth across the borough, in the Heart of Slough and on the Trading Estate, as well as the immediate area surrounding the stretch of highway that has been enhanced, extensive residential and commercial development opportunities are all expected to be forthcoming following the completion of the scheme. It is therefore not possible to establish at this stage the number of houses built, property developed or occupied, or jobs created. Ongoing monitoring will be necessary, along with an agreed formula to be confirmed, in order to establish these outcomes.

7. Links to wider Growth Fund projects and Network activity

The A4 is the major strategic route through Slough, parallel to the M4 motorway and tangential to a number of key north/south routes including the A355/Tuns Lane, the A332/Windsor Road and the A412/ Uxbridge Road. The SMaRT route (western section) runs from the Trading Estate along the A4/Bath Road, across the Three Tuns junction, one of the most heavily used junctions in Berkshire, before continuing on to the town centre, where it doubles back in a loop at Slough Railway Station.

The eastern section continues on to Langley, with the newly installed infrastructure continuing as far as the A4/London Road junction with High Street Langley.

The SMaRT route therefore interacts with a number of high profile links and junctions that have been subject to major network and transport infrastructure changes enabled by contributions from the Growth Fund.The various, inter-related schemes have all contributed to the overall improvements to the town centre, the approaching routes, and the Langley area to the east of

the borough. This has included enhanced connectivity between the rail and bus transport hubs, prominent business locations and centres of commercial activity.

Bespoke bus services are still not in place for the central section of SMaRT phase 1, the Langley stretch of the route. This situation is under review. The expectation is that the greatest collective benefits will be realised on the completion of the next phase of the overall SMaRT project (phase 2), which will continue along the A4 as far as Heathrow airport. This follow on scheme is currently in progress. The attractiveness of the route / services to commuters and others travellers to the key origins and destinations, along with the commercial advantages to bus operating companies, will be greatest once the second phase has been completed. Phase 2 also incorporates a Park and Ride site, which will further enhance the travel options available and increases Slough's commitment to connectivity through sustainable transport.

The A332/Windsor Road project has recently been declared fully complete, though the vast majority of the scheme was delivered soon after the completion of the SMaRT scheme. Prior to this, the A355 / Tuns Lane / Copthorne roundabout project was completed in January. 2017. Both of these related schemes also involved road widening, junction and crossing improvements, all designed to improve traffic flow, better network resilience, reduced congestion and road safety. The combination of these three major schemes, along with the emerging SMaRT 2 construction and future projects, therefore contributes significantly to the consistent and progressive narrative of development and growth across Slough.

8. Lessons Learnt

As noted in the evaluation of the A355/Copthorne roundabout highway improvement scheme, the main lessons learnt relate to construction and project matters rather than growth or funding aspects. This situation arose in part due to the same construction company being appointed for all three major projects (the third being the A332/Windsor Road scheme), with the same project management team and procedures in place. More significant were the interdependencies of the concurrent construction of the various schemes, causing conflicting traffic management requirements. The original intention was to timetable the various projects separately, to prevent such clashes of impacts, but ultimately there was only limited success in this way, and a certain amount of overlapping proved to be inevitable.

The eventual completion date of the scheme was over a year later than the originally planned completion date. This was due to a) the need to revisit the composite programme for the three major growth fund projects in progress at the time, to ensure appropriate staggering to prevent unmanageable conditions on the network, and b) the discovery of utility services in unexpected locations, despite carefully checking the plans well in advance and carrying out trial holes before the main excavations. This is a common problem in works for road purposes, and there is a limit to how much preparatory exploration can be carried out before the main works. However, recommendations would be:

- Greater preparation of the contract, further in advance of the construction phase, specifically regarding compensation events, to avoid lengthy disputes, analysis and negotiation during construction.
- More time should be factored in to the overall programme for contingencies, for example discovering unexpected services (requiring diversions) and materials (hard concrete requiring additional excavation time).
- There is also an ongoing need to develop a better means of evaluating the growth outcomes, and to set a realistic timeframe for evaluation (taking into account the time it takes for actual growth to be realised). It can be challenging to establish a direct (and in some cases indirect) causal relationship between transport and highways schemes and housing development and new jobs in a project of this nature.

9. Final comments and conclusions

Slough Borough Council would like to express its appreciation to the Local Enterprise Partnership for the Growth Fund financial contribution enabling the delivery of this project. The resulting infrastructure has been successfully constructed, and the associated services, though in their early stages in terms of delivering travel alternatives and genuine modal shift, represent a long-term commitment to sustainable transport in the borough. From the services run to date, including the ongoing business services and the free trial period for the public, it is clear that there is considerable desire to travel by this means and on the specific routes in question.

With reference to the expected reduction in congestion and related traffic benefits, major improvements in these aspects are still anticipated. However, much of this relies on greater uptake of the MRT service and public transport more widely. Extensive modal shift remains a key element of Slough's transport vision. Success here will also require an increase in publicity

and educational programmes desired to bring about behavioural change, as well as further services, partnerships and engineering based solutions.

The various impacts of the services, including number of buses and passengers and the affects on the network will continue to be assessed on a regular basis. Further, in terms of the wider outcomes, the predicted growth benefits are still being reviewed, and the expectations are that these benefits will be realised over the next three to five years, as part of the progress enabled through the various major infrastructure projects being delivered in the town.

With regard to improved connectivity, the benefits associated with ease of access to the Trading Estate, the Town Centre and the major transport hubs are already being realised.,
Plans are underway to maximise the opportunities provided by the Langley section of the route. In addition, the second major phase of the overall SMaRT project in Slough is now in progress, and this will bring continuity, enhanced travel opportunities and greater optimisation of the services facilitated through the original scheme, as well as the benefits and opportunities arising out of the new connectivity with Heathrow airport and surrounding areas. All of this these developments will contribute to the realisation of Slough's overall Transport Vision

End of report

Links

Thames Valley Berkshire – Local Enterprise Partnership

www.thamesvalleyberkshire.co.uk

SBC's Business Case for funding for the SMaRT scheme (phase 1)

www.slough.gov.uk/parking-travel-and-roads/slough-mass-rapid-transit-phase-1-smart-p1-business-case.aspx

Drive through simulation for SMaRT

www.slough.gov.uk/parking-travel-and-roads/slough-mass-rapid-transit-phase-1-smart-p1.aspx

Appendix 2

Thames Valley Berkshire Local Enterprise Partnership

Independent Assessment Summary Report: Slough Mass Rapid Transit 1 (SMaRT 1)

One Year Impact Report

March 2020

www.hatchregeneris.co.uk

Contents Page

Independent Assessment

i. This technical note provides an independent assessment of the One-year Impact Report submitted by Slough Borough Council (SBC) in relation to the Slough Mass Rapid Transit 1 (SMaRT 1).

ii. The SMaRT scheme received £5,600,000 million funding through the Thames Valley Berkshire Local Enterprise Partnership (TVB LEP) Local Growth Fund deal. As part of the on-going assurance process, TVB LEP requires all funded schemes to produce one-year and five-year post-implementation impact reports to demonstrate how each scheme has performed against expectations.

Process

iii. The one and five-year impact reports are expected to assess the following elements of the scheme:

a. did it get built?

b. was it to plan?

c. was it on time?

d. was it to budget?

e. is it working ok?

f. what impact has it had?

g. any learning points?

iv. SBC has submitted a One Year Impact Report (1YIR). Hatch Regeneris have applied the above criteria, but also sought to use the process as positive influence to identify specific ways in which project scheme design or delivery could be enhanced to enhance future value of this scheme or other future LEP funded schemes.

Scheme Summary

v. The Council received £ 5,600,000 (62%) from the TVB LEP Local Growth Fund as part of an overall estimated scheme cost of £9,100,000.

vi. SMaRT is a scheme providing new and enhanced infrastructure prioritising public transport along an essential stretch of the key strategic corridor that links Maidenhead, Slough and Heathrow. Phase 1 runs from the Trading Estate in the west to Langley towards the east, via the town centre and incorporates two sections:

Western section: along the A4/Bath Road from the trading estate in the west of the borough to Slough Railway Station in the town centre.

Central section: continues from the town centre to the junction of the A4/London Road with High Street Langley, in east of the borough.

vii. The separate Phase 2 of the project extends the route to Heathrow and includes and park & ride site. Phase 2 is not part of this evaluation.

viii. The key features are dedicated bus lanes and other priority measures, along with junction improvements, new pedestrian crossings, and signalisation enhancements

and related bus detection equipment. Traffic orders have been introduced to support the enforcement of turning manoeuvres (e.g. restricting access to buses at specific locations). Specifically, the scheme included:

Installations of dedicated bus lanes along key stretches of the route, including all line markings and signage

Junction improvements at various points along the route

New islands / better crossing facilities along the route, most notably on the A4/London Road towards Langley, including new Puffin and Toucan crossings

Widening the carriageway at various points along the route

Drainage improvement

Replacing the old signals configurations at key sites, including the Three Tuns junction (extensive changes) and along the A4, with the associated installation of ITS equipment to ensure traffic detection and system connectivity/control

Replacing the street lighting

Full resurfacing with new lane markings

New, permanent traffic orders: restricting the use of the new bus lanes to only authorised vehicles, and restricting access to service roads at key locations along the route (allowing access only to buses)

ix. The scheme was designed to address a range of historic issues within the area of the corridor:

Congestion: the route has been subject to heavy traffic flows, many of which are single occupancy vehicle journeys. As a result, congestion arises, and journey times can be unpredictable.

Car culture: a high level of commuting by car in Slough, which has a reputation for having a culture of car ownership and usage.

Uptake of Public Transport: a reluctance amongst people to travel by bus due to lack of accessibility, high ticket prices, lack of information and long waiting lack of accessibility, high ticket prices, lack of information and long waiting times.

Road Safety: a general issue within any built-up area, particularly in where there is a large number of vulnerable road users interacting with the traffic road network.

x. A summary of the primary objectives of the scheme were to provide a high quality, safe, convenient and reliable alternative to the car; alleviate the severe congestion on the A4; minimise the impact of noise and air pollution and greenhouse gases on the A4 corridor; and support economic development in Slough and Heathrow and contribute to tackling deprivation.

xi. It is not reported within the One Year Impact Report what the SMaRT1 Full Business Case (FBC) Monitoring and Evaluation Plan included as metrics for post-scheme assessment.

xii. The infrastructure elements of the SMaRT 1 was completed in December 2017; however, the commencement of dedicated bus services formally making use of this infrastructure did not commence until July 2018. With the agreement of the TVB LEP, the One Year Impact Report was delayed to better assess the service element (i.e.

the success of the bus services along the SMaRT route). Future evaluation reports (e.g. the five-year evaluation) will be aligned accordingly.

Review Findings

General Observations

xiii. The infrastructure works were completed satisfactorily by December 2017, to a high technical standard. It is understood this was a year behind the original project programme. The delay was partly due to unexpected utilities works, but also having to manage wider conflicting network requirements. It is not known whether these other network requirements were identified within the FBC as interdependencies.

xiv. The Transport and Highways Outputs that have been delivered are lower across all for planned metrics: length of resurfaced road; length of newly built roads; length of reallocated roadspace (bus lanes); and length of new cycle ways (bus lanes). SBC have indicated that this has not affected the overall integrity of the route.

xv. The commencement of bus operations did not occur until July 2018, meaning there was a further 6-months delay in utilising the infrastructure provision. It is understood that bespoke bus services are still only operating on the western section of SMaRT1 and not the central section.

xvi. This western section service was initially a replacement for a number of shuttle services provided by four companies: Telefonica, UCB, Lonza and Ipsen, and was limited to business passengers. Subsequently, the service was opened up to members of the public, and this remains the case, though the majority of passengers is still made up of business commuters. It is not clear when the public service commenced but a 3-month free off-peak service was offered in the summer of 2019, to stimulate demand.

xvii. The scheme was delivered close to budget, with a relatively modest cost overrun of approximately £150,000 (1.6%), which was covered by SBC. The overruns were due to 'compensation events' with the contractor, arising from additional utilities work. The 'compensation events', whilst ultimately resolved to the satisfactorily, were problematic and were, at times, a lengthy progress. The One Year Impact Report does not include any reference to the risk register included within the SMaRT1 FBC, therefore it is currently unclear what risk and financial contingency were included for 'compensation events' and/or utilities works. Furthermore, since the overall level of quantified risk budget from the FBC is not quoted, it cannot be concluded how accurate the original baseline assessment of scheme costs were, prior to any contingency being added.

xviii. The infrastructure was delivered as designed. SBC has been notified of some localised issues about the operation of the infrastructure around Galvin Road, in front of the Telfonica Building and around Twitches Lane, where incidences of conflicts between buses and cars have arisen. These issues will be reviewed by SBC and "appropriate responses" will be forthcoming.

xix. Stewart's run the bus services along the route and all their buses have low floors and are wheelchair accessible. In addition, SMART card and QR code ticketing technology is also in place, with further plans for contactless payment system in 2021, via a new App.

xx. By combining the bus services previously operated by the four individual companies, the new service will have reduced vehicle emissions, although this has not been quantified. The 1YIR provides service details for the bus service. This indicates there are 60 bus runs per day, with an average of 35 passengers per peak bus (07:45 – 9.30) and 2 passengers per off-peak bus. Around 98% of peak bus users are estimated to be business travellers. It is not reported whether peak passenger numbers have changed as a result of the scheme.

xxi. During the free off-peak trial, bus patronage was higher, although seemingly not exceptionally. Off-peak bus loadings would appear to remain low.

xxii. Bus journey times are stated, but it is not reported how this compares to previous bus journey times along the route and any positive impact the infrastructure investment has had, either in terms of total journey time or journey time reliability.

xxiii. Anecdotal evidence is presented that the bus service has encouraged modal share, albeit, due to business growth, this has not necessarily reduced the absolute number of cars travelling to business locations.

xxiv. No analysis of traffic count data has been carried out for the purposes of the 1YIR as SBC consider the frequency and level of service is not yet of a sufficiently advanced level to expect a significant improvement in this respect.

xxv. Anecdotally, from observation and public opinion, the SMaRT route is generally considered to be performing well, and SBC has received few complaints about traffic flow, or the scheme, since the completion of the project.

xxvi. Over a nine-month period, 9,500 penalty charge notices have been issued for moving traffic offences in the bus lanes. This indicates a relatively high level of initial non-compliance with the regulations, but also that the effective enforcement should deter future non-compliance.

xxvii. Road Safety Audits of the final scheme deemed it to be compliant with regulations. No major incidents and no changes to the level of overall road safety incidents along the SMaRT route since the scheme was completed.

xxviii. No assessment of noise or air quality impacts have been undertaken. A full review will take place for the 5-year evaluation.

xxix. Predicted outcomes relating to jobs, commercial floorspace, and housing have yet to be determined by SBC.

xxx. The 1YIR acknowledges that there are a number of areas where further technical evaluation work are required of the scheme, specifically in relation to traffic and congestion impacts, and environmental and social impacts.

Conclusions

xxxi. The SMaRT 1YIR provides a good overview of the status of the project and some insight into the overall impact to date. Overall, it is not considered to meet all of the requirements for a 1YIR due to limitations in the availability of quantified metrics demonstrating the impact of the scheme. There would, ideally, also have been more reference to the original FBC documentation to demonstrate how the scheme has been delivered in accordance with the original plans, particularly in relation to costs and risk management.

xxxii. The report provides a good overview of the infrastructure elements of the scheme. It highlights some of the challenges that have been met through the construction process and demonstrated that these did not unduly impact upon cost, albeit did significantly delay the delivery of the scheme.

xxxiii. The report also provides a good assessment of the operation of bus services along the western section of the infrastructure. The scheme has clearly facilitated a more effective approach to delivering bus services on behalf of major business employers along the corridor. Whilst the current bus journey times are presented, there is no evidence of how these have improved, either in absolute terms or in terms of reliability.

xxxiv. Whilst it is recognised that peak bus services are being well used by commuters, it is unclear how this level of patronage has changes as a result of the scheme. The impact upon overall mode share is also unclear. The report itself acknowledges that more needs to be done to encourage mode shift in both the peak and off-peak periods.

xxxv. No evidence is presented to determine the impact of the scheme on reducing congestion or improving environmental conditions. The impact on supporting wider growth has also yet to be assessed.

xxxvi. It is unclear what, if any, bus services currently operate on the central section of the route. The implication is that this section of the route will not be properly utilised until SMaRT2 is in place.

xxxvii. The scheme was delivered on time and close to budget (+1.6%). There is no available data to understand how outturn costs evolved in relation to forecast costs. Overall, however, the budgeting process appears reasonably robust. Some elements of the management of the project were clearly challenging and delays resulted. It is particularly noted that the infrastructure was not immediately utilised upon completion by the bus services.

xxxviii. As Independent Assessors, there is currently insufficient evidence available to verify whether or not this project has currently delivered against its objectives. Given the deficiencies in the evaluation, we recommend a further evaluation is conducted within the next year, which seeks to address the following points:

Present an explanation of whether the other capital projects being undertaken on the network at the same time were included within the interdependencies and risk assessment for SMaRT1;

Reporting on when the public bus service first commenced and how this was promoted;

Further evidence around the current utilisation of the central section;

Cross referencing outturn costs to original cost estimates and the extent to which cost contingencies and a quantified risk budget was included;

An assessment of whether the scheme has reduced bus journey times reductions or improved reliability;

An assessment of whether bus patronage for commuters to the major employers has increased as a result of the scheme;

An assessment of general traffic impacts and congestion;

An assessment of environmental impact of the scheme, specifically noise and air quality; and

An assessment of the extent to which the scheme has support the delivery of jobs, commercial space, and housing.

xxxix. We also recognise there are significant opportunities to enhance the future outcomes of this project, specifically:

Understand how the utilisation of the bus infrastructure can be maximised, for both the western and central sections, and higher bus patronage levels encouraged through partnership working and wider travel behaviour change incentives.

xl. Additional points to facilitate wider learning across future projects include:

Ensure sufficient time and monetary contingency is included to cover all potential utilities work;

Incorporate robust processes, or ideally contractual arrangements, that ensure infrastructure is utilised by private sector operators both immediately and extensively;

Ensure that sensitivity tests are undertaken that replicate scenarios where there are delays to operational services coming forward and bus patronage and mode shift levels lower than forecast; and

Recognise the importance of tracking outturn costs against projections produced at the FBC stage. This will provide understanding of how costs elements vary and whether appropriate levels of contingency and risk have been included.