

Bath & North East Somerset Council

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| MEETING: | Cabinet | |
| MEETING DATE: | June 2012 | EXECUTIVE FORWARD PLAN REFERENCE: |
| | | E2428 |
| TITLE: | Victoria Bridge | |
| WARD: | Kingsmead, Westmoreland, Widcombe | |
| AN OPEN PUBLIC ITEM | | |
| List of attachments to this report: Appendix 1- Project Programme Appendix 2- Cost estimates | | |

1 THE ISSUE

- 1.1 Victoria Bridge is a Grade II* Listed structure, currently on English Heritage's Heritage At Risk Register. The bridge is a key route connecting communities, particularly in providing a safe route for school children between a number of primary schools and communities. It provides a primary link for cyclists on a safe, traffic-free route between the Upper & Lower Bristol Roads. Finally, it is a major composing element of the BWR masterplan, providing both connection and an historic focal point for the new housing regeneration.
- 1.2 Following structural inspections carried out in 2010, Victoria Bridge was closed to pedestrians and cyclists in the interests of public safety. Recent, (September 2011) structural monitoring of the bridge recorded significant cracks within critical structural members necessitating emergency works to stabilise and protect the bridge from the risk of collapse. These temporary works were successfully completed in December 2011.
- 1.3 Options have been considered for the future of the crossing. The future permanent solution has to meet a complex set of design criteria associated with heritage, engineering, safety and maintenance requirements. Of the options considered, Option 1 is viewed to achieve the best balance between these criteria. The Cabinet is requested to approve the funding source associated with delivery of the remainder of the project.

2 RECOMMENDATION

THE CABINET AGREES THAT:

- 2.1 The project funds are approved to progress the project in the capital programme, with funding as outlined in 3.5 below.
- 2.2 Cabinet is requested to consider and select the option that best meets the requirements of the brief for a permanent re-opening of the Bridge.
- 2.3 The Project Programme set out in Appendix 1 is approved.

3 FINANCIAL IMPLICATIONS

- 3.1 The estimated cost to deliver the project, based upon the option 1 solution including an average risk allowance, is £2.587m excluding VAT, which as broken down as illustrated below.

| | Option 1 |
|---------------|----------------|
| Works | £1,655k |
| Fees | £538k |
| Average. risk | £394k |
| Total | £2,587k |

- 3.2 The estimated costs to the deliver the project, based upon the other solutions including average risk allowance described herein are set out below excluding VAT.

| | Option 2 | Option 3 | Option 4 |
|--------------|----------------|----------------|--------------|
| Works | £985k | £2135k | £235k |
| Fees | £538k | £538k | £388k |
| Average risk | £755k | £505k | £285k |
| Total | £2,278k | £3,178k | £908k |

- 3.3 Tender submissions have recently been received for the roles of designer and design checker for the proposed Bridge solution. Tender prices were generally higher than project budget allowances. Estimated project costs have been increased to reflect this and the addition to the project scope of improving the linkage between the towpath and Victoria Bridge Road with a ramp connection, giving rise to the increase from the previous estimated delivery cost of £2.47m to the current £2.587m for Option 1.
- 3.4 A solution to improve the linkage between Victoria Bridge Road and the River Avon towpath is now part of the project scope. Officers will investigate whether there are any opportunities to fund these works through future development projects.

3.5 Sources of funds for Option 1 are identified as follows:-

| | |
|------------------------------|----------------|
| BWR s106 contribution | £500k |
| Council borrowing (headroom) | £1,900k |
| Capital contingency | £187k |
| Total | £2,587k |

3.6 For the option 1 solution, funding of circa £500k is available from the Bath Western Riverside section 106 Agreement; although this funding is confined to non-structural works to the Bridge. The section 106 contribution may not be available for options 2, 3 and 4 in which case funding for each of these options would comprise Council borrowing up to £1,900k with any remaining funding sourced from capital contingency.

3.7 The cost of Council borrowing is to be funded from existing resources identified in the February 2012 Budget Report up to £1.9m. Any balance of funding required is requested from Capital Contingency. If additional funding is forthcoming or the scheme costs less, then drawdown from Capital Contingency can be repaid.

3.8 Additional funding may be forthcoming from other adjoining developments by negotiation, should these developments see the benefit of the reinstated bridge link.

3.9 Funding from English Heritage would be limited to contributing towards project development costs, which could include historical research costs, and towards minor repair costs. Any application for funding assistance from English Heritage would be subject to a competitive process and therefore a successful application cannot be guaranteed. Even if successful it is considered unlikely that an application would have a significant impact upon the secured level of funding for the project.

3.10 The costs associated with the delivery of the emergency works to secure the structure, (complete December 2011) were subject to a previous approval and therefore are not part of the approval being sought herein. Funding of £830k was granted for these works and delivery of the peer review study which preceded them.

3.11 On-going revenue costs for the inspection and maintenance regime, based upon the Option 1 solution, are estimated to be approx. £8k per annum from 2014/15, on average. This is estimated to be similar in magnitude to the required annual cost prior to the project of adequately inspecting and maintaining the Bridge in line with statutory bridge code requirements. It has been agreed that the inspection and maintenance costs will be funded from the Highway Authority's structures maintenance budget.

4 CORPORATE PRIORITIES

- *Addressing the causes and effects of Climate Change*
The bridge provides a key pedestrian and cycle link to and from the Bath Western Riverside development helping to avoid dependency on motor vehicles
- *Improving transport and the public realm*
The structure forms part of a key safe route school helping to promote alternative modes of transport.

5 THE REPORT

- 5.1 Victoria Bridge was built in 1836 and designed by James Dredge, a brewer and bridge designer who was a resident of Bath. Very few bridges of this unusual design remain; it is the oldest example. The Bridge has a Grade 2* listing.
- 5.2 The Bridge is fifty years beyond what would now be considered a suitable design life for a modern, new Bridge and is now in a poor condition. Following routine structural assessments in 2010 it was found necessary to close the bridge to pedestrians and cyclists.
- 5.3 Monitoring in Autumn 2011 highlighted a significant and rapid deterioration in the condition of some of the principal components of the Bridge. With structural failure being a significant risk action was taken to install temporary works to secure the Bridge. This work was completed in December 2011.
- 5.4 A peer review process was undertaken in the Summer of 2011 to investigate the options available to ensure the crossing at Victoria Bridge can be reopened for public use on a permanent basis. With advice from Planning Services, the process considered nine options, which are summarised as follows:-

1. Replace with faithful replica in steel, retaining original wrought iron fabric where feasible.
2. Introduce new deck (on new supporting structure) in place of existing deck with existing Bridge refurbished but not used.
3. Replace existing with high quality, contemporary bridge.
4. Abandon the Bridge retaining only the towers.
5. Refurbish/repair using wrought iron with essential interventions to make the Bridge usable.
6. Introduce new deck (on new supporting structure) above existing with existing Bridge refurbished but not used.
7. Introduce new bridge alongside existing with existing Bridge refurbished and retained but not used.
8. Replace existing with utilitarian bridge.
9. Abandon the Bridge and retain the temporary support structure as the permanent crossing.

- 5.5 Fundamental requirements and design objectives for the project have been developed in conjunction with English Heritage and the relative merits of the nine options considered against those requirements and objectives. The requirements and objectives are as follows:-

Fundamental requirements

- Enable the route across the River to be reopened on a permanent basis as soon as reasonably practicable.
- Comply with appropriate modern design standards and loading criteria.
- Crossing width to be adequate for pedestrians/cyclists/crowd loading.

Design objectives

- Reasonable value for money.
- Design life of at least 50 years.

- Provide safe and efficient maintenance access.
- Preserve and enhance the special architectural and historic interest of the Bridge.
- Retain the structural form.
- Where possible retain historic fabric.
- Allow interventions to improve dynamic performance.
- Undo earlier in appropriate structural interventions.
- Improve structural detailing where practicable and appropriate.

5.6 Of the nine options considered, 4 have been summarised in this paper to provide a cross spectrum of the 9 options considered. The other 5 were discounted against the above criteria including being undeliverable, (option 7 due to land ownership constraints), not being able to provide an adequate crossing width, (options 5 and 9) and low probability of securing the necessary consents (option 8). With option 6 being discounted for the reason that it is broadly similar in nature to option 2, albeit with a different deck height.

5.7 Option 1, (dismantling the existing superstructure and reconstructing in its original form and function, using steel components to achieve the necessary strength and performance criteria for the Bridge to be used as a Public Highway asset, whilst retaining original ironwork where otherwise possible) is the option which best meets the requirements and achieves the objectives. English Heritage have accepted in principle that of the options considered, Option 1 is an appropriate solution to take forward, given the various technical and heritage related constraints which need to be overcome.

5.8 The consultations held to date with English Heritage have highlighted that maximising the retention of the Bridge's historic fabric and retaining its overall form, engineering function and appearance are all important factors that would be considered by them in the assessment of any statutory consents required for the design. Whilst Option 1 would lead to the loss of a significant portion of the historic fabric, English Heritage has confirmed that Option 1 is worth taking forward to the next stage of development, however they are unable to fully endorse this option as an acceptable scheme without the benefit of the more detailed design proposals, which would be produced during the next stage of design. Whilst statutory consents would be the Council's responsibility as Local Planning Authority, English Heritage would be a statutory consultee under the planning process and therefore their views would be highly significant.

5.9 RISK MANAGEMENT

5.10 The report author and Lead Cabinet member have fully reviewed the risk assessment related to the issue and recommendations, in compliance with the Council's decision making risk management guidance.

5.11 A risk analysis for the four options has been undertaken and the findings used to inform this report. For each of the four options, average and maximum likely risk sums were derived. These are presented below:-

| Option | Average risk sum | Maximum risk sum |
|--------|------------------|------------------|
| 1 | £394k | £682k |
| 2 | £755k | £1,590k |
| 3 | £505k | £1,205k |
| 4 | £285k | £1,288k |

5.12 Option 1 presents the lowest risk option in terms of overall deliverability when factoring in all project risks associated with design and the ability to achieve statutory consents within the project programme and construction.

5.13 The probability of the design development process being delayed and prolonged in trying to secure the necessary statutory consents is considered to be high for options 2, 3 and 4 in comparison with option 1.

5.14 Whilst securing necessary consents is not guaranteed for any of the options, the consultations undertaken to date with the Planning Authority and English Heritage suggest that securing the necessary consents for a design based on option 1 is most feasible.

5.15 Each of the above options can comply with the relevant engineering and life safety requirements for a highway asset, albeit Option 4 does not provide a River crossing. The principal differences between the options are associated with the likelihood of being able to obtain the necessary statutory consents, (particularly listed building and planning consents) programme and cost, appearance and maintenance requirements.

6 EQUALITIES

6.1 An equalities assessment has been carried out in accordance with corporate guidelines. Failure to repair the bridge will disadvantage young people and the elderly who do not have access a motor vehicle and will be denied a desirable pedestrian route across the River.

6.2 A solution to improve the linkage between Victoria Bridge Road and the River Avon towpath is now part of the project scope. This has the potential to improve local access for pedestrians, cyclists and wheelchair users.

7 RATIONALE

7.1 As the Bridge has an historic value, provides an important route for pedestrians (including a route to school) and is a key gateway to the Western Riverside development the Council should take the necessary steps to ensure the Bridge is restored. Failure to restore the crossing will inevitably raise reputational issues highlighted by the Council's statutory responsibility for safeguarding heritage assets.

7.2 In selecting Option 1 a balance would be achieved between whole life future maintenance costs and protecting the character and historic value of the structure.

8 OTHER OPTIONS CONSIDERED

8.1 Nine options have been considered, four of which have been put forward in this report. Option 1 is the solution which is recommended for approval. The other three are as follows:-

Option 2 – Introduce a new structural deck and up-stand beam solution within the footprint of the existing deck, whilst retaining and refurbishing the remainder of the existing iron superstructure in a non-structural capacity. The historic structure would no longer be a suspension bridge and the new introduced structure would dominate the visual appearance of the bridge.

Option 3 – Complete removal of the existing superstructure followed by the introduction of a completely new bridge of a contemporary and high quality design.

Option 4 – Complete removal of the existing superstructure and the permanent abandonment of the crossing.

Each of the above options could incorporate the retention of the original stone piers.

8.2 It is considered unlikely that English Heritage would be supportive of any application seeking statutory consents in relation to option 2, which would significantly alter the appearance, form and function of the bridge.

Whilst option 4 would have a similar impact to option 3 in terms of degree of loss of heritage infrastructure, it is conceivable that the necessary consents could be secured for option 3, if an appropriate innovative new design were proposed. However, it would be necessary in either case to demonstrate why restoration would be inappropriate. Option 4 also fails to provide a pedestrian/cycling route across the River.

9 CONSULTATION

9.1 The Cabinet Member for Transport, Section 151 Finance Officer; Chief Executive, Divisional Director for Planning and Transportation and the Monitoring Officer have been consulted on the report. Their comments have been included in the body of the report.

9.2 Initial consultation with ward councillors, statutory bodies, (including planning and conservations offices and English Heritage) and relevant stakeholder organisations has been undertaken during the option appraisal process.

9.3 Further consultation will be carried out with relevant stakeholders in order to secure the various consents required to enable the restoration to be completed.

10 ISSUES TO CONSIDER IN REACHING THE DECISION

10.1 The Bridge is a Grade II* Listed structure and is therefore of significant importance both nationally and locally, and of more than special interest.

10.2 Before being closed for safety reasons, the Bridge provided a safe and amenable route across the River Avon for pedestrians and cyclists.

- 10.3 The introduction of a sizeable new population at Bath Western Riverside will increase the importance of the crossing point provided by the Bridge.
- 10.4 Statutory consents will need to be secured for the chosen option following a period of design development. Each of the four options will require a planning consent and listed building consent.
- 10.5 Completion of the works is required by Q2 2014 in order to avoid the Bridge works being operationally constrained by BWR construction works which are to be carried out to the south west of the Bridge.

11 ADVICE SOUGHT

- 11.1 The Council's Monitoring Officer (Divisional Director – Legal and Democratic Services) and Section 151 Officer (Divisional Director - Finance) have had the opportunity to input to this report and have cleared it for publication.

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| Background papers | <i>None</i> |
| Please contact the report author if you need to access this report in an alternative format | |