

	<p><b>London Borough of Hammersmith &amp; Fulham</b></p> <p><b>CABINET MEMBER DECISION</b></p> <p><b>DECEMBER 2014</b></p>
<p><b>STRENGTHENING/REFURBISHMENT OF HAMMERSMITH BRIDGE</b></p>	
<p><b>Report of the Cabinet Member for Environment, Transport &amp; Residents Services</b></p>	
<p><b>Open Report</b></p>	
<p><b>Classification - For Decision</b></p>	
<p><b>Key Decision:</b></p>	
<p><b>Wards Affected: Hammersmith Broadway</b></p>	
<p><b>Accountable Executive Director:</b> Nigel Pallace - Executive Director Transport &amp; Technical Services</p>	
<p><b>Report Author:</b> Anvar Alizadeh – Capital Projects Manager</p>	<p><b>Contact Details:</b>  Tel: 020 (8753 3033)  E-mail:  (anvar.alizadeh@lbhf.gov.uk)</p>

AUTHORISED BY: .....

The Cabinet Member has signed this report....

DATE: 15 December 2014.....

**1. EXECUTIVE SUMMARY**

- 1.1 This report seeks authority to go out to tender for design and build of the strengthening/refurbishment of Hammersmith Bridge. The outcome of the tendering exercise and recommendations will be part of Key Decision Report to Cabinet.
- 1.2 This report provides a summary of the issues concerning the condition of the bridge and outlines a programme for the improvement works necessary to undertake on the bridge to ensure its preservation. Including carriageway and footway deck, painting and decorative lighting and strengthening.
- 1.3 TfL have requested that the bridge is strengthened to allow double decker buses to use the bridge. To facilitate this work they have agreed to fund a

major refurbishment and strengthening project which in total is likely to cost £25 million with £23.5 million funded by TfL/LoBEG whilst they have agreed to under write the remain £1.5 contribution from the council for two years . They have also confirmed that the bus services will be maintained with the change to Double deckers.

## **2. RECOMMENDATIONS**

- 2.1. To tender for the design and build of the refurbishment/strengthening works on Hammersmith Bridge which will incorporate the request from TFL buses to strengthen the grade 2 listed structure to 18T to allow double decker buses use the bridge.
- 2.2. To note that the tendering process is to be fully funded by London Bridge Engineering Group (LoBEG) at a total cost of £200k.

## **3. REASONS FOR DECISION**

- 3.1. To note that TFL has indicated availability of £23.5M for this work and that TFL will underwrite the £1.5M shortfall required from LBHF as contribution to the scheme.
- 3.2. The last repainting of the bridge took place in 1994 and in 2000 the bridge was strengthened to the current loading capacity. The condition of the bridge is very poor due to wear and tear and the life expectancy of the paintwork, lighting and the timber deck has long expired. A complete refurbishment of the bridge is urgently required and given the aspirations of London Buses to increase the loading capacity of the bridge and their offer to fund such strengthening works, it is recommended to use this opportunity to overhaul the bridge.
- 3.3. To note the tight programme indicating commencement of the implementation in summer 2015, and note that to achieve such timescales a design and build procurement strategy needs to be pursued.

## **4. INTRODUCTION AND BACKGROUND**

- 4.1. Hammersmith Bridge is a grade II listed structure and any significant changes to the appearance of the bridge will require English Heritage Consent and planning permission. It needs to be noted that the bridge is a listed structure and there are restrictions on refurbishment works and that English Heritage have been consulted and in principal approve the scheme proposals.
- 4.2. The Bridge deck is in a poor condition and as such the main focus of the refurbishment works is the strengthening/replacement of the deck. During the deck refurbishment works, bridge lighting and painting will also be attended.
- 4.3. In October 2013, a feasibility study on Hammersmith Bridge was completed which identified options for refurbishment of the bridge.

- 4.4. Whilst consulting with London Buses on the feasibility study, the Council was requested to investigate the possibility of allowing double decker buses over the bridge. A Load assessment of the bridge was then commissioned (funded by TFL) which shows significant amount of strengthening works need to undertake on the bridge to enable double decker buses using the bridge. London Buses/TFL have indicated that TFL will contribute £23.5M of funding to the strengthening works, should it be possible to allow for double decker buses over the bridge.
- 4.5. Undertaking works on Hammersmith Bridge is difficult. The police and emergency services along with the motoring and pedestrian traffic wish to have the bridge operational at all times. This is supported by both our own network management team who have a statutory duty to co-ordinate street works as well as Transport for London who have similar concerns over the utilisation of the cross Thames bridges on the strategic road network. In addition Port of London requirement to maintain unrestricted access to navigational channels poses further challenges that need to be managed during the works planning.
- 4.6. In order to carry out the strengthening/refurbishment works, highway and navigational traffic management would be needed. Although every measure will be taken to keep disruption to minimum, full or partial closure of the bridge for long duration would be required to facilitate refurbishment/replacement of the carriageway deck units.
- 4.7. To minimise the impact of possible closure of Hammersmith Bridge, it would be necessary for the adjacent bridges to be available for diverted traffic. Wandsworth Council had initially indicated that Putney Bridge needed to close for repair works for 12 months. With this in mind the Hammersmith Bridge refurbishment works that were planned for summer 2014 was postponed to start in summer 2015. Although Wandsworth Council have now indicated the Putney Bridge closure will only take 3 months as of July 2014, the programme for Hammersmith Bridge works still remains as before with an implementation in summer 2015. Please see the timetable in section 10 below.
- 4.8. Due to the original 6-12 month programme given by Wandsworth Council for Putney Bridge, and in view of the poor condition of the carriageway deck, measures were put in place to repair the deck in the interim as a holding measure until the Putney Bridge works are complete.

## **5. WORK REQUIREMENTS**

- 5.1. The following is a list of the items that need to be refurbished on the bridge:
  1. the entire timber road deck is worn out and need to be replaced
  2. the footway surfacing panels are worn out and need to be replaced
  3. a more detailed inspection and analysis of all the cast iron embellishments needs to be carried out
  4. the decorative lighting and the wiring is beyond economic repair and needs to be replaced

5. the bridge was last painted in 1993/94 and its life is now expired and needs to be re-painted
  6. Subject to the outcome of the load assessment, strengthening works need to be undertaken to allow use by double decker buses (provided members wish to allow this to take place)
  7. the performance of the road barriers, controlling vehicular use of the bridge, needs to be improved
- 5.2. Consultation with English Heritage started on the refurbishment works and is currently in progress. Although English Heritage have given approval in principle to the proposed changes as part of the strengthening works, further discussions are currently in progress to finalise their consent.

## **6. SUMMARY OF THE FEASIBILITY STUDY AND THE LOAD ASSESSMENT**

- 6.1. The feasibility study investigated the following areas:
- a. Refurbishment/replacement of Carriageway deck
  - b. Refurbishment/replacement of footway panels
  - c. Refurbishment/replacement of Decorative and street lighting
  - d. Repainting of the bridge
  - e. Options for procurement of the works
- 6.2. The Load Assessment looked into the following options
- a. The current loading arrangements
  - b. Load capacity upto 18T GVW weight limit
  - c. Load capacity upto 7.5T GVW weight limit and unrestricted flow of double decker buses (at 18T GVW)
  - d. Load capacity upto 7.5T GVW weight limit and restricted flow of double decker buses (at 18T GVW). The optimum frequency of restricted bus use over the bridge to be established as part of the assessment
- 6.3. The Feasibility study identified eight options for the refurbishment of the deck, six options for replacement of the footway surfacing panels, five options for improvements to the decorative and street lighting. The Load Assessment investigated five loading options as set out in 3.2 above.

Carriageway deck – Eight options for deck were reviewed and the Consultant's recommendation is a modern orthotropic steel deck which would have an estimated 100 year life expectancy. Half depth Baulk Timbers may need to be retained for aesthetic reasons to satisfy the heritage requirements. The consultant's recommendation has been discussed with English Heritage who is considering the proposals.

- 6.4. Footway – The footway plywood surfacing panels need to be replaced and proposal is to use anti-skid coated composite panels. The Consultant's recommendation is that the plywood panels are replaced with Glass Reinforced Plastic (GRP) panels coated with anti-skid surfacing.

- 6.5. Bridge and decorative lighting – various options have been studied taking into account use of LED fittings for longer durability and low power consumption properties of these. English Heritage has been consulted and agreement has been reached that at detail design stage, samples of the proposed fitting would be trialled on site to assist in selection of the options.
- 6.6. Bridge painting – The proposal is to repaint the bridge in its current colour schemes which is acceptable to English Heritage as the Bridge aesthetics is not changing. As part of the bridge repainting works all the decorative embellishments will be dismantled refurbished and refitted.
- 6.7. Bridge strengthening – stiffening of the longitudinal and cross girders, replacement of some of the hangers, stiffening the tower bracings and bearings are the main element of the strengthening works.

## 7. ESTIMATED COST OF OPTIONS

- 7.1. The table below summarises the cost estimates provided by the consultant for each of the schemes. These values may change following the completion of the load assessment and provision of any strengthening works.

Hammersmith Bridge Refurbishment feasibility	Design cost estimate (8%)	Implementation cost Estimate	Project Mgmt/ site supervision (10% of design & Build)	Subtotal
<b>Strengthening to 18T</b>	£1,040,000	£13,000,000	£1,404,000	£15,444,000
<b>New Steel Deck</b>	£343,000	£4,288,000	£463,000	£5,094,000
<b>Footway GRP panels</b>	£56,000	£700,000	£75,600	£831,600
<b>Lighting Rewire and refit</b>	£56,000	£700,000	£75,600	£831,600
<b>Painting (Prepare and repaint)</b>	£40,000	£500,000	£54,000	£594,000
subtotal	£1,535,000	£19,188,000	£2,072,200	<b>£22,795,200</b>
			Add Contingency (10%)	£2,279,520
			<b>Total estimate</b>	<b>£25,074,720</b>

## 8. FUNDING & BUDGET

- 8.1. London Bridge Engineering Group (LoBEG) has already made £200k funding available to use in 2014/15 for contract document preparation, tendering, tender appraisal. This funding will cover the cost of the tendering that is being recommended in this report.
- 8.2. The budget for the refurbishment/strengthening works is to be obtained from various funding sources ranging from LoBEG, TFL buses, and S106 funds.
- 8.3. The following are the bids place in various budget streams for the procurement of design and build:

- a. S106 – A bid for £1.5M has been made from S106 budget to be approved but no funding is available through the s106 stream. TFL has agreed to underwrite and fund the £1.5M shortfall for 2 years.
- b. LoBEG – A bid for £8.0M has been made from LoBEG budget which has been indicatively approved.
- c. TFL Buses – A bid for £15.5M has been made to TFL/London buses which has been indicatively approved.

8.4. The total bid for funding is £25M which is the estimated cost of design and build for the proposed works on Hammersmith Bridge. .

## 9. THE WAY FORWARD

- 9.1. To commence implementation in summer 2015, the design and build procurement option need to be pursued which combines the detail design and implementation activities together. This would mean that one contractor/consultant will be responsible for design and construction so most of the client risks will be transferred to the contractor. Whoever as at tendering stage the details of the works are not known, the contractors often build-in large contingencies in their rates to offset against the unknown risks.
- 9.2. Given the poor condition of the deck and procurement process to be followed, the timescales are quite tight and therefore the option to be considered must be the one that attracts the English Heritage’s consent. The Council has presented the options to the English Heritage and is awaiting their response.
- 9.3. In view of the high estimated value of the scheme , it is essential that the tendering process is put in place as soon as possible to appoint a contractor to undertake the design and build exercise. Furthermore given the short timescales, the procurement strategy needs to be in an open tender format whilst setting performance and quality criteria to limit the contractors to select few specialists. LoBEG has allocated funding for preparation of the contract documentation to tender for the detail design of selected options which currently in progress.
- 9.4. The programme given below in item 10 indicates how tight the timescales are and it is vital to commence the detail design immediately if the July 2015 implementation date is to be met.

## 10. PROGRAMME

10.1. The draft programme is as follows:

	<b>Work</b>	<b>Timeframe</b>	<b>Estimate</b>
1.	To finalise the procurement tender brief/contract documentation for design and build contract	Dec 2014	£15K
2.	Tender – Including OJUE, PQQ	Jan-Feb 2015	£3k
3.	Tender appraisal, recommendation and award	March 2015	£5k

4.	Detail Design	April-June 2015	£1.53M
5.	Implementation	July 2015 to July 2016	£19.18M

10.2. Officers have lobbied Transport for London (TFL) through the London Bridges Engineering Group (LoBEG), Cycling and London Buses for funding these proposed works on Hammersmith Bridge in 2015/16. TFL has confirmed that the funding is available but TFL's formal process for bidding by means of business case needs to be followed with a view to obtain the funding approval in February 2015. TFL has agreed that tendering will take place and that the award of the design and build contract will be subject to availability of funding and approval by Hammersmith and Fulham's Cabinet.

## **11. CONSULTATION**

11.1 TFL buses, TFL Network Management and English Heritage have been consulted. The consultation is ongoing and as the detail design progresses more stakeholders will be consulted. So far the feedback from the consulted group is positive. Neighbouring boroughs such as Richmond and Wandsworth will be key consultees.

## **12 EQUALITY IMPLICATIONS**

12.1 A completed Equality Impact Assessment will form part of the tendering process.

## **13 LEGAL IMPLICATIONS**

13.1 There are no immediate legal implications other than those indicated in the report.

13.2 Implications verified/completed by: Andre Jaskowiak, Bi-Borough Legal Services, 0207 361 2756

## **14 FINANCIAL AND RESOURCES IMPLICATIONS**

14.1 This report seeks authority to proceed with a tender process at a cost of £200,000 which is to be funded by LoBeg. Any costs in excess of this amount cannot be assumed to be funded by LoBeg unless this is approved in advance.

14.2 The decision whether or not to award the contract and proceed with the works will be the subject of a future report.

14.3 Implications verified/completed by: (Gary Hannaway, Head of Finance, Ex. 6071)

## **15 RISK MANAGEMENT**

15.1 As part of the tendering process risks related to the design and construction will be scrutinised. A separate report will be presented to the members to summarise the outcome of the tenders with recommendations for members key decision before award subject to availability of the funding.

## **16 PROCUREMENT AND IT STRATEGY IMPLICATIONS**

16.1 This will be a regulated procurement process undertaken in accordance with the Public Contracts Regulations 2006 (as amended) or the Public Contracts Regulations 2015 (depending on when the opportunity is advertised).

16.2 The procurement will also be undertaken in accordance with the Council's Contract Standing Orders. The timetable for the implementation of the project is tight and preliminary discussions with the Client Department suggest that the use of the Open Procedure (no pre-qualification) may be appropriate in this instance given the specialist nature of works to a Grade II Listed Building.

16.3 Implications verified/completed by: Alan Parry, Principle Procurement Consultant. Telephone (020) 8753 2581

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

<b>No.</b>	<b>Description of Background Papers</b>	<b>Name/Ext of holder of file/copy</b>	<b>Department/ Location</b>
1.		Anvar Alizadeh / 3033	TTS / 5 <sup>th</sup> Floor HTHX