

Decision Maker: Environment PDS Committee

Date: 20th January 2015

Decision Type: Non-Urgent Non-Executive Non-Key

Title: CHISLEHURST ROAD BRIDGE – POST IMPLEMENTATION REVIEW

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Ward: Orpington, Petts Wood and Knoll, St Pauls Cray, St Mary Cray, Chislehurst

1. Reason for report

This is a post implementation review of the reconstruction of Chislehurst Road Bridge.

2. **RECOMMENDATION(S)**

The Environment PDS Committee to consider and comment on the content of this report.

Corporate Policy

1. Policy Status: Existing Policy
 2. BBB Priority: Quality Environment
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Financial

1. Cost of proposal: N/A
 2. Ongoing costs: N/A
 3. Budget head/performance centre: Capital Programme
 4. Total current budget for this head: £3.994m
 5. Source of funding: TfL funding
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Staff

1. Number of staff (current and additional): 3
 2. If from existing staff resources, number of staff hours: 2 Fte
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Legal

1. Legal Requirement: Statutory Requirement
 2. Call-in: Not Applicable
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Customer Impact

1. Estimated number of users/beneficiaries (current and projected): Borough wide
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Ward Councillor Views

1. Have Ward Councillors been asked for comments? Not Applicable
2. Summary of Ward Councillors comments: N/a

3. COMMENTARY

Background

- 3.1 Chislehurst Road Bridge is located on the A208 in Petts Wood. The structure carries vehicles and pedestrians over the railway, the route providing a main north – south link through the borough.
- 3.2 The original bridge was found to be weak and following structural assessment was weight limited to vehicles up to 7.5 Tonnes. A diversion route was established taking buses (routes 61 and 273) and HGV's along Poverest Road, Cray Avenue and Lessons Hill.
- 3.3 Approval was given to replace the structure with a comparable steel structure including provision of a fibre reinforced polymer enclosure to assist with future inspections and bridge maintenance (ref Committee Report ES10128). The costs associated with the proposals for bridge replacement are grant funded through Transport for London. Approval was given to use the Council's term Consulting Engineer (AECOM) for design, project management and site supervision of the scheme and to procure construction of the final design through competitive tender which involved a prequalification stage and invitations to tender.
- 3.4 Following the tender process, approval was given to award the contract for bridge demolition and reconstruction to Hochtief (UK) Construction Ltd (ref Committee Report ES11068) within a 12 month programme, at a tender value of £2.378m. Approval was given to use further funding to cover Network Rail Costs, enclosure costs and fees for project management and site supervision at a total estimated project cost of £4.114m.

Information

Achievement of Expected Benefits

- 3.5 The project was delivered successfully, providing the Council with a new bridge facility, as specified, reinstating use of the section of the A208 at Chislehurst Road/Orpington Road, restoring this important north/south road link in the borough for all users of the highway including HGV's and buses, without the need for any diversions.
- 3.6 The project was delivered according to the contractual programme and within budget, with the road opened to traffic on Friday 16th November 2012, following a start on site on 7th November 2011. The project outturn of £3.994m was within the original budget allocation of £4.114m.
- 3.7 This project included an FRP enclosure which effectively shields the bridge from the elements to help maximise its service life and enabling inspection and maintenance of the bridge without the need to arrange costly rail possessions through Network Rail. This will help reduce the Council's revenue outlay for many years to come.

Unexpected Benefits

- 3.8 Bridge demolition and reconstruction required the road to be fully closed to all motorised vehicles for the duration of the project (temporary pedestrian access across the bridge was maintained for the duration of the project) with all vehicles directed to use the original HGV diversion route indicated in 3.2 above. An unexpected benefit was residents' preference for the 273 bus to include Leeson's Hill and Cray Avenue in order the Nugent Estate shops were made more accessible. Once the bridge project had been completed TfL agreed that the 273 could continue to adopt the 'diversion' route.

- 3.9 A further unexpected benefit of the bridge reconstruction project is in respect of the improved traffic flow along Leasons Hill and Cray Avenue. Additional no waiting double and single yellow lines had been implemented at the time of the temporary diversion to help buses navigate Lessons Hill, and these continue to improve traffic flow. The bus lane in Cray Avenue was removed, also as part of the traffic management measures. This has not been reinstated and the associated benefits of improved traffic flow remain.
- 3.10 Turning initial wariness by neighbours to pride in being part of a project offering a significant legacy to the community. This was achieved through developing an effective dialogue with residents and responding quickly to problems and concerns. This was helped in no small part by having a scrutiny committee chair who was also a local ward member on the project board, ensuring confidence in the way the project was being run. As a demonstration of the level of effectiveness of our customer relations, this project found success in the Constructing Excellence Awards, winning the category for Outstanding Customer Satisfaction (London & South East Awards 2013).

Unexpected Problems

Ecological

- 3.11 An unexpected problem arose with the discovery of bats roosting on the soffit of the old bridge structure. Although an ecological survey was undertaken in 2009, this indicated the bridge had a low potential for supporting roosting bats. However, once mobilisation began it became evident bats were roosting in small diameter holes in the soffit of the bridge, thought to have been formed at the time of earlier concrete repair work in the 1970's. Although preliminary work on the project continued, the main programme could not be started until a licence had been granted by Natural England. This was forthcoming and with no delay to the contract.

Statutory utility fibre optic cable

- 3.12 To enable demolition of the old deck and re-construction of the new deck it was necessary for significant utilities diversionary work to facilitate construction activities. During the course of diverting British Telecom services a further, previously unknown, telecommunications cable was identified. This was in spite of significant work at pre-implementation stage when trial pits and Statutory Undertaker searches were undertaken. The cabling identified was owned by Interoute and the cable was an important link with continental Europe used for transferring banking data throughout the day and night time. The issue was overcome by negotiation and approval was given to 'slew' the cable during a night time operation and allowing construction of the deck slab.

User Stakeholder Experience

- 3.13 The new bridge provides a fit for purpose structure, not only making this section of the A208 both available and safe for the highway user but it has also ensured the safe operation of the important rail link below the bridge, which is used by many of the Council's residents for work and social purposes.

Lessons Learned

- 3.14 The problem with the fibre optic cable described above identified that a change in procedure was required in respect of any requests for Utility Searches received by the Council's NRSWA team. Although information regarding all the main utilities are routinely checked should a search request be received, a procedural change to include all inactive utilities in the search results has

been implemented. Interoute cables had been laid (as a one off) in the borough in the early 1990's and without any subsequent activity they did not feature in the common searches previously undertaken.

- 3.15 This construction contract was let according to conditions of contract known as the New Engineering Contract (NEC). This form of contract is the preferred industry form and is supported by the professional organisations such as the Institution of Civil Engineers. Use of NEC is growing but the conditions have introduced tight time frames for both the contractor and service manager to provide data, respond to enquiries etc. With this more complex project a decision was made to purchase a licence to use software (the CCM system marketed by Management Process Systems Ltd) that modelled the conditions, providing prompts and shared 'space' for important contract documents. This software helped facilitate the complex contract administration of this project leading to swift resolution of Early Warnings and helping to draw the financial elements of the contract to conclusion without undue delay.
- 3.16 For future projects of a similar scale it is recommended that the PDS Committee Chairman and/or local ward member be invited to join the project board.

4. POLICY IMPLICATIONS

- 4.1 The Environment Portfolio Plan 2014-17 includes the key aim "Invest in the quality of our roads, pavements and street lighting". The Plan states that:

'Keeping our roads safe and in good repair is an important challenge. Following good practice, preventative maintenance remains a key element of our approach to highways management. This prevents further deterioration and ensures the impact of maintenance works on traffic movements is minimised.'

5. FINANCIAL IMPLICATIONS

- 5.1 This report provides information on the post completion review of the Chislehurst Road Bridge capital scheme.
- 5.2 As highlighted in 3.6 above, the final scheme cost was £120k below the original capital estimate as summarised in the table below: -

Financial summary of Chislehurst Road Bridge capital scheme

	£'000	
Original Capital estimate	4,114	
Less reduction agreed by the Executive in July and Nov 2014	-120	
Latest approved capital estimate	<u>3,994</u>	
Final scheme costs	<u>3,994</u>	
Additional net underspend	<u><u>0</u></u>	

- 5.3 This scheme was fully funded by TfL resources and Members should note that the scheme costs have been fully claimed and reimbursed.

6. LEGAL IMPLICATIONS

6.1 Under the Highways Act 1980 the Council, as Highway Authority, has duties to ensure the safe passage of highway users and to maintain the highway.

Non-Applicable Sections:	Personnel implications
Background Documents: (Access via Contact Officer)	ES10128 – Chislehurst Road Bridge Procurement of a Replacement Bridge ES11068 – Chislehurst Road Bridge Replacement – Contract Award