



PROJECT BUSINESS CASE

Project Number: TBC

Project Title: Itchen Bridge Toll Automation

Release (Draft/Final)	FINAL
Version Number	101021
Date	21 st October 2010
Project Manager	Nick Johnson
Project Sponsor	Lorraine Brown
Portfolio	Environment and Transport
Directorate	Environment
Division	Highways and Parking

Final approval must be obtained before for the Business Case is registered on SharePoint. Please refer to the Gateway Approval process for Gold, Silver & Bronze projects

Project Type	SILVER
Approved by	LB

1. OUTLINE PROJECT PROPOSAL

1.1. Background

The current financial climate and the need for significant cost savings across the Council led to a review of the current Itchen Bridge Toll Collection Service. The current method of collection is a token and cash based system with manned 24hour toll booths. The introduction of an automated toll collection system would significantly reduce ongoing revenue costs as staff form the most significant cost to the service.

An optimum automated system would also provide more flexibility for tariff charging and increase the throughput of vehicles on the bridge

1.2. Update to Outline Project Proposal

Confirm project start and end dates below and highlight any changes since the Outline Project Proposal was agreed.

Project Start Date: November 2010

Project End Date: October 2011

2. OPTIONS APPRAISAL

2.1. Options Investigated

Option Description	Benefits	Costs	Risks
'Do nothing'	No disruption while work delivered. No up front project costs No loss of staff jobs	No up-front costs but significant ongoing revenue costs	Significant budget cuts required anyway, only way for this to be achieved would be to cut staff numbers which would lead to a reduction in service, reduced throughput and increased congestion
Remove the Toll	See Appendices		
Allow free passage when traffic volumes low	See Appendices		
Unattended roadside toll collection – cash bins and card payments at point of transaction	See Appendices		
Unattended roadside collection with Tag – cash bins and card payments	See Appendices		

AND Tags to enable pre-payment and concessions all lanes [Recommended Option]			
ANPR with Tag – Automatic Number Plate Recognition would enable post-payment primarily via internet, while Tag would enable pre-payment.	See Appendices		

Please see Appendices

2.2. Recommended Option

Recommended Option – Automation

It is clear from the work to date that there is a strong case for the automation of the Itchen Bridge Toll Collection service. The cost of implementation and the potential savings generated by the various automation solutions vary, however, each of the options demonstrate a level of payback through reduced ongoing service costs.

In addition to an initial Feasibility Study and 'Outline Business Case' undertaken by Capita, further work was required (Appendix 2 and 3) to identify the realisable savings from the proposed options and the most practical solution for automation of the toll.

Recommended Solution - Unattended Roadside Collection with Tag

An initial Feasibility and Outline Business Case was produced by Capita which recommended an ANPR with Tag system (see Appendix 1). However, after more careful analysis of the financial cost and benefits and the practicalities of the solutions it is felt that a more deliverable solution is Unattended Roadside Collection with Tag for frequent users. This would allow drivers to pay via cash bins or card machine and would also enable frequent users/concessionary users to pre-pay.

It is also felt that given the typically small toll fee for post-payments (typically 60p-£1.20) motorists would not favour a post-pay system such as ANPR.

If the automation of the bridge is approved a survey of users will be conducted to inform the detailed solution.

It should be noted that, if this business case is approved, as the detailed requirements and design is developed the solution may require amending. If this occurs then the financial case and benefits would be revisited to ensure the project remains within the prime business case and tolerances set.

3. PROJECT OBJECTIVES AND MEASURES

3.1. Objectives

Reduce revenue and operating costs to deliver recurring efficiency saving with no detriment to vehicle throughput.

3.2. Service / Business Benefits

Toll users will benefit through an increase in payment options which are easier, more modern and quicker.

Council will benefit through more efficient and effective service and lower service funding requirement

3.3. Estimated Cashable benefits

It is expected that from Year 2 of the project (Year 1 implementation costs and assumed no reduction in existing controllable budgets so no saving) a cashable benefit of £238,000 will be delivered year on year.

See Appendix 3 for detail.

3.4. *Quality Measures

Baseline performance level (at project start date):

Current annual revenue cost of the service = 2010/11 Controllable Revenue Budget = £695,300

Current average throughput:

- Average throughput during peak periods (Mon - Fri 07:00 to 09:30 & 16:00 - 18:30) is 260 (1300 vehicles per. Hour/5 lanes)
- Average throughput during off-peak periods is 157.5 (630 vehicles per. hour./4 lanes)

Current Cost per transaction:

- The current cost per transaction is 10.5 pence (controllable expenditure of 695k by 6.6m vehicles in 09/10)

Performance target/s (at project end date):

Target annual revenue cost once system fully implemented = Controllable annual budget of £460,000 or below

Target Throughput:

Target average throughput once system fully implemented at Peak times = 300 per hour

Target average throughput once system is fully implemented at non-peak times = 200 per hour

Target Cost per transaction once system fully implemented = 7p or below
(controllable expenditure by 6.6m vehicles)

4. PROJECT KEY DRIVER

Is it more important that the project is delivered within the set Timescale, Cost or Quality? For an Olympic project the timescale would be critical so, for example, the weightings could be Time 50%, Quality 30%, Budget 20%.

The weightings will be used to assess project success at Gateway 5. In the Olympic example above, if the project was delivered on Time and to the Quality specified but was significantly over budget, overall, the project would be considered a success due to the relatively low weighting for Budget.

Criteria	Weighted % score
	If all 3 criteria are of equal importance, score each 33%
TIME (see section 1.2 above)	33%
COST (see Appendix 5.1 below)	33%
QUALITY (see section 3.4 above)	33%

4.1. Risk Quantification and Sensitivity Analysis

Please complete the table below with the known risks to this project or attach a Risk, Assumptions, Issues, Dependencies (RAID) log:

Risk	Risk Owner	Probability	Impact on project (H/M/L)	Timing	Mitigation
Up-front funding can not be provided	NJ	Low	High	Immediate	None
Staff resistance	MS	High	Low	Ongoing	Clear and early communication with staff and Trade Unions
Staff strike	MS	Low	Low	Ongoing	Clear and early communication with staff and Trade Unions
Proposed solution not deliverable	NJ	Low	High	Short-term	Thorough consideration of solution practicalities during business case stage
Service deteriorates	KB	High	Low	Ongoing	Clear performance targets and close monitoring. Engagement with Bridge Manager to make clear implications
Appropriate system can not be procured	NJ	Low	High	Medium	Market-testing, use of external expertise, realistic and market-led specification
Bridge users do not adopt new system	KB	Low	High	Post-project	Clear communications and publicity, long lead-in times
Significant reduction in number of bridge users means payback slower	KB	Low	Low on project High on Council	Ongoing	Ongoing monitoring of usage to identify any dip and the reasons asap and address
Negative publicity (Historic Echo/Itchen Toll)	Corporate Comms	High	Low on project High on Council	Ongoing	Clear Comms strategy with strong consistent messages on benefits of project
Interface between System provider and Civils contractors	Technical Lead	Medium	High	Medium-term	Let one contract to transfer risk to provider. If not, clear specifications are required.

5. APPENDICES

5.1. Project Costs

SEE APPENDIX 3 FOR FULL DETAILS

Unattend and Tag	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Implementation Cost	£999,900	£150,000	£849,900	£0	£0	£0	£0	£0	£0	£0
Annual Revenue Saving	£237,446	£0	£59,362	£237,446	£237,446	£237,446	£237,446	£237,446	£237,446	£237,446
Financial Benefit	£150,000	£940,538	£703,092	£465,646	£228,200	£-9,246	£246,692	£484,138	£-721,584	£-959,030

Itchen Bridge Major Maintenance Fund Contribution

2011/12 £490,000

Debt Charges

Description	
Capital Sum	£510,000
Number of Years	20
Annual Repayment to be deducted from Service Area	45,390

Key Assumptions:

- Works will be phased and undertaken overnight/weekend/non-peak periods to negate need to close bridge and loss of income
- Redundancy costs will be covered corporately
- Credit/Debit Card split and payments - 60% cash payment and 40% debit/credit split by 50/50 debit/credit. Bulk Discount Factor for pre-payment
- No technology refresh cost has been included
- Implementation costs calculated at July 2010 with procurement expected early 2011, no allowance for inflation
- There will be no significant or lasting negative impact on the annual toll revenue from the changes (i.e. the change in collection method will not dissuade drivers from using the bridge and reduce income)
- Not all savings will be realisable from Day 1 of automation therefore assumed 50% savings for year 1 of automation operation

5.2. Initial Impact Assessment

Attached at Appendix 4