

## WHITCHURCH BRIDGE COMPANY TOLL APPLICATION DATED 31<sup>st</sup> OCTOBER 2008

### Financial Management and the Business Planning Model

#### 1) Principles

- a) The Whitchurch Bridge Company is in principle a relatively simple organisation from a financial point of view – it has a single objective, the maintenance of the bridge crossing at Whitchurch, and a single source of income, the revenue from tolls. It is a statutory undertaking, with its toll levels being fully regulated by the various Acts previously referred to.
- b) The financial issues that will need to be considered here arise, however, from the fact that the primary asset of the company, the Bridge itself, has a very long life cycle of over 100 years, which is significantly beyond the typical horizon of a normal company. Shortly after the existing bridge was built in 1902, the then Committee of Management, with the best advice then available to them, decided to make provision for rebuilding the bridge at the end of what they thought would be its life, in 1961. They therefore purchased an insurance policy to mature at that date for the sum of £4,000, this being the then estimated cost of rebuilding. Now, 48 years later, their successors are faced with the imminent task of reconstruction within the next 5 years at a cost of over £4 million.
- c) Therefore the entire financial management of the company has to be geared to a single once per 100 years event whose cost cannot be accurately predicted more than 5 years in advance, as the table below shows

<i>Date of estimate</i>	<i>Estimated cost of reconstruction</i>	<i>Prepared by</i>
1993	£517,000	OCC
1997	£640,000	OCC / Howard Humphreys
2004	£1,140,000	OCC / Howard Humphreys
2005	£2,150,000	OCC
2007	£2,450,000	OCC
2008	£3,222,000	OCC / Jacobs Baptie

- d) Even now, while the extensive preliminary work that has now been undertaken gives the Company higher confidence in the revised replacement cost as of today, the financial projections necessary to establish the level of tolls required to provide a revenue to the company that is neither “substantially less or substantially more than adequate to meet such expenditure on the working, management and maintenance of the undertaking and such other costs, charges and expenses of the undertaking as are properly chargeable to revenue, including reasonable contributions to any reserve, contingency or other fund and, where appropriate, a reasonable return upon the investment of the Company of Proprietors of Whitchurch Bridge in the Bridge as defined in Section 2 of the Whitchurch Bridge Act 1988” requires estimates to be made of a number of variables for a period of the next 20 years
- Traffic volume over the bridge
  - What percentage of that volume will use the discounted bridge card scheme
  - The general level of inflation affecting wages and other costs of operations
  - The specific level of inflation affecting the cost of reconstruction itself
  - The return on the company’s investment portfolio
  - The cost and availability of loan finance in 2013 – 2014
  - The future costs of maintenance and other capital requirements after 2014
  - The life cycle of the reconstructed bridge and the requirement to provide for its replacement

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- e) In order to manage this set of assumptions the Company has over many years developed a bespoke forecasting model that has been used for the last three toll applications. Some of the results of this model are shown in the attachments to this note, which gives an overview of the historical financial management of the Company and of the forecasts used in assessing the relevant optimum level of tolls now applied for.

## **2) Summary of previous toll applications**

- a) The company has made four toll applications over the last 20 years as follows

<i>Date of application</i>	<i>Effective date of increase</i>	<i>Approved cash toll per vehicle</i>	<i>Equivalent at 2009 prices</i>	<i>Average toll realised</i>	<i>Equivalent at 2009 prices</i>
July 1992	August 1993	8 pence	12.8 pence	7.5 pence	12.1 pence
November 1997	July 1998	10 pence	14.1 pence	9.5 pence	13.4 pence
July 2004	April 2005	20 pence	23.8 pence	14.5 pence	17.4 pence
October 2008		40 pence	40.0 pence	27 pence (est)	27.0 pence

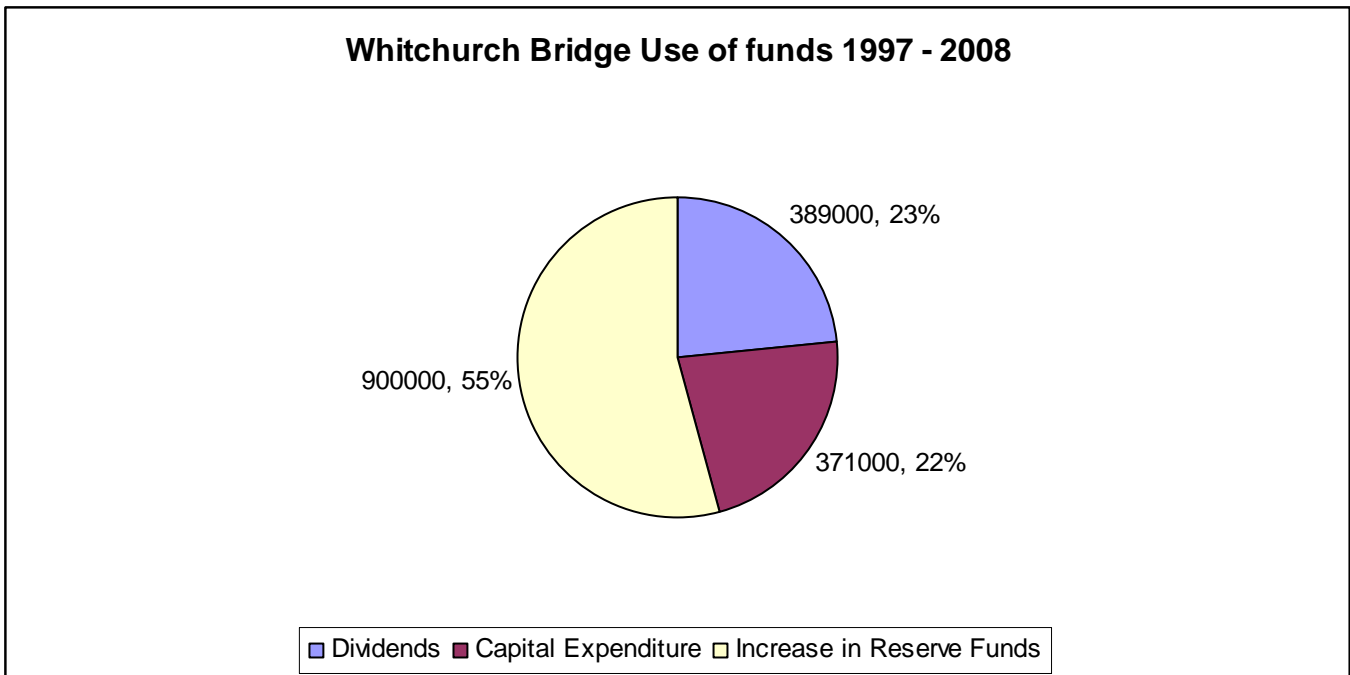
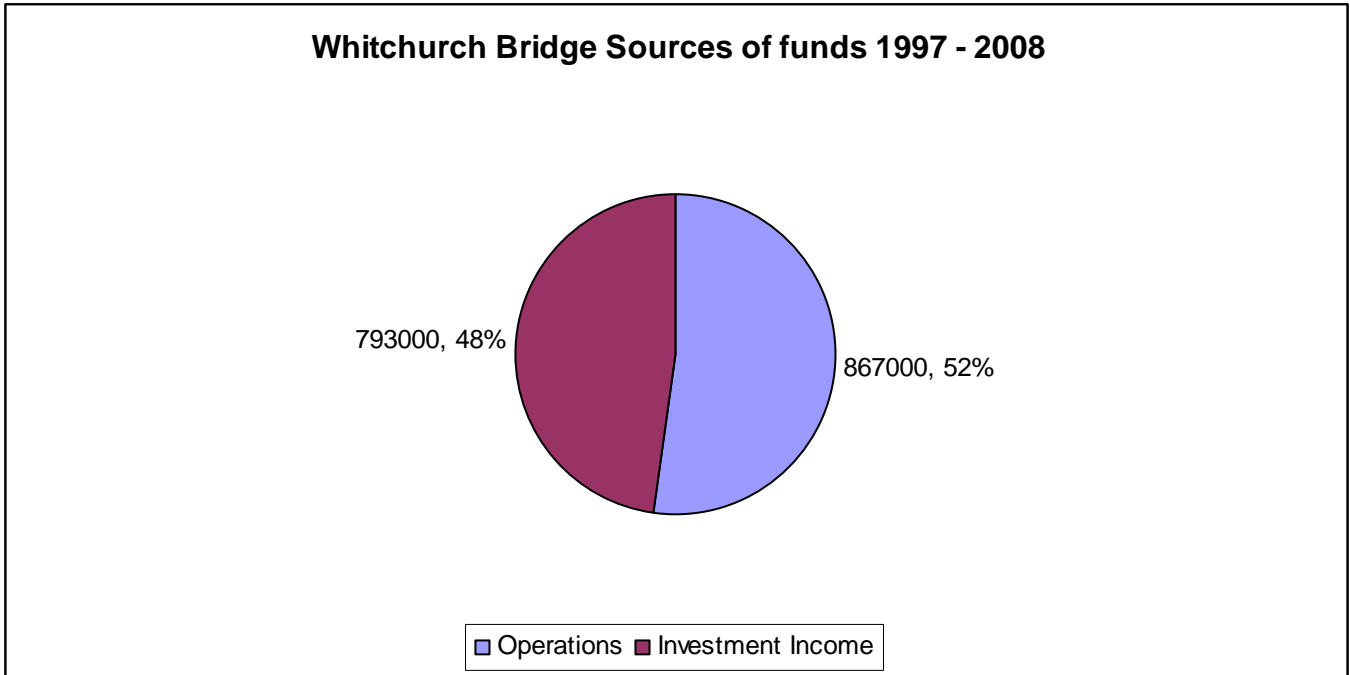
- b) As can be seen from this table, the discount from cash tolls to average tolls has increased from 6% in 1993 (when only paper tickets were available) to more than 30% in the current proposal, due to the active encouragement for all regular users of the bridge to take advantage of the automated bridge card scheme. The expectation of the current application is that the proposed toll will be sufficient to provide the required level of income through the period of reconstruction and the period beyond that to 2029, based on the assumptions given in the forecasts below, and the proposal has therefore been designed to give the optimum balance of financial contribution over this 20 year period.

## **3) Historical Financial Overview 1997 – 2008**

- a) The attached data at Attachment 1 shows relevant Company financial figures for the past 12 years from 1997 to 2008 and the Company's forecast figures for the period up to Bridge Reconstruction from mid 2009 to 2013. The latter figures are based on the assumption of a 40p cash toll taking effect from mid 2009.
- b) Toll Applications were made in 1997 – effective 1998 – for a 10p cash toll, and in 2003 – effective April 2005 – for a 20p cash toll (however as noted above the 20p cash toll was made on the basis of an increased discount structure so that the increase in average tolls was from 9.5p to 14.5p).
- c) During this 12 year period:-
- The average toll increased from 7.2p to 15.3p (11.5p) per crossing – an inflation-adjusted increase of only 0.36p pa.
  - Operating costs rose from £79k to £127k (£96k) – an inflation-adjusted increase of a minimal £1.1k pa. Cost efficiencies have been maximised during this period. Despite very modest increases in toll revenue, costs have remained an average of 60% of toll revenue.
  - Dividends have remained at 2.3% of net assets – a low percentage for comparable regulated businesses.
  - The Reserve Fund increased from £750k to £1.454m (£1.096m) net of capital expenditure during the period of some £370k.. Investment income return rose from 3.6% pa to 4.0% pa, and the total return on investments was 6.7%.
  - Total assets showed a commensurate increase from £1m to £2.1m (£1.6m) largely as a result of the increase in the Reserve Fund where toll operating profits have regularly been transferred to the Fund.

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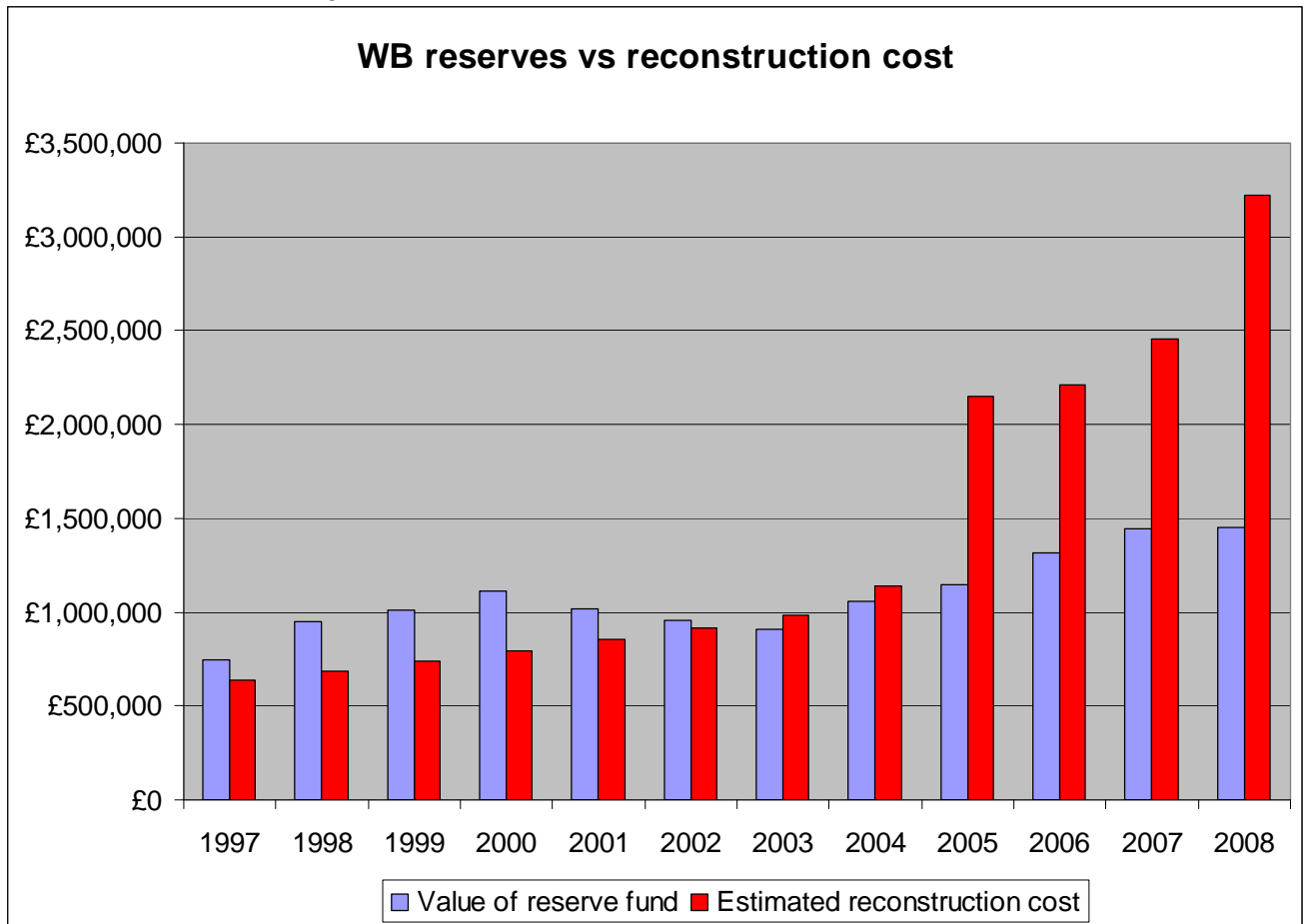
- d) During this period the analysis of sources and use of funds shows a balance between operating revenue and revenue from investments, with most of the income going to the increase in reserve funds (note that capital expenditure over this period includes preliminary investigation and design costs for bridge reconstruction of £k93 in 2008)



- e) The value of the bridge as measured by the estimate of Bridge replacement costs however increased from £1.77m to £4.0m (£3.0m).
- f) Bridge reconstruction costs have increased from £638k to £3.2m (£2.4m) – a rate of increase of 14% pa compound.
- g) These costs have far outpaced the generation of funds for the Reserve Fund on the current toll regime – hence the need to increase toll revenue (see chart below).
- h) The chart shows very clearly that at the time of the last toll increase in 2004 – 2005 the then level of reserves (£1m) was very consistent with the estimated cost of replacement (£1.1m), whereas it is the major revisions of cost in 2005 and 2008 that have caused the current widening of the funding gap to £1.8m and the consequential requirement for a substantial increase in toll charges.

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- i) The current situation of the Company is therefore radically different from that in 2005, and it is clear that the present level of tolls will be completely inadequate to fund the required cost for the reconstruction of the bridge in 2013 - 2014

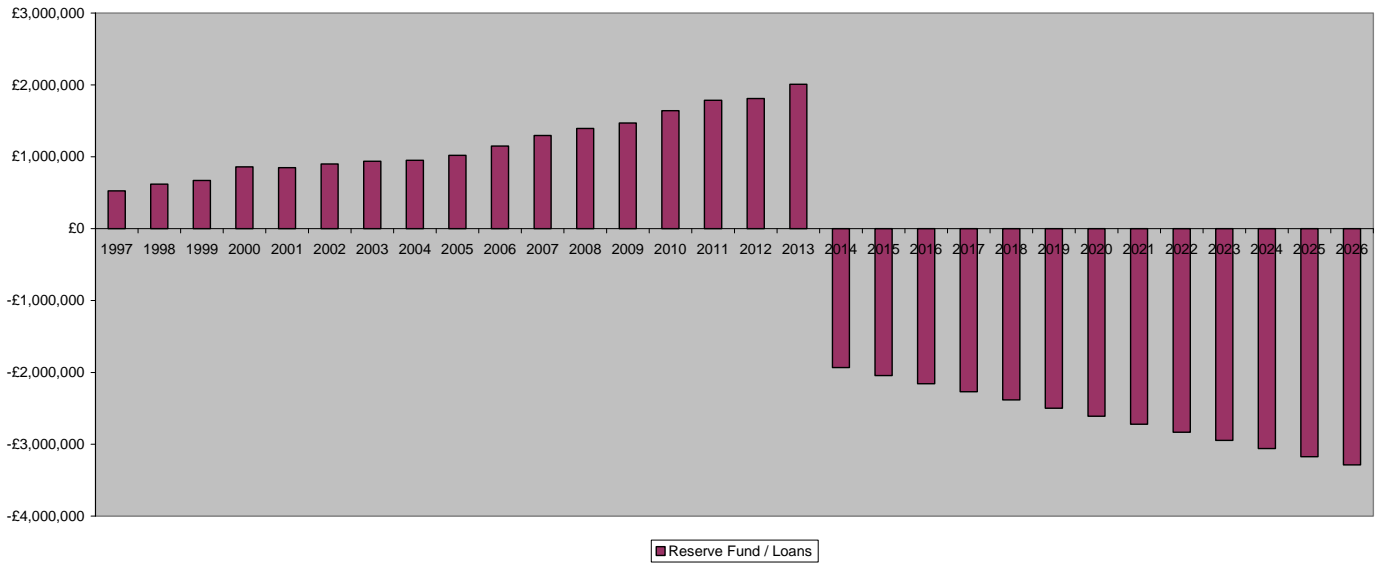


- j) **Summary** - This shows a picture of a business constrained in its revenue, ploughing as much of its operating profits as possible into the Reserve Fund, managing prudently both expenditure on the Bridge and the Reserve Fund portfolio for maximum income, and with shareholders receiving modest dividends well below those in comparable regulated businesses. Meanwhile the increase in Bridge reconstruction costs has substantially outpaced the ability of the Company to build up sufficient funds for reconstruction without a realistic increase in toll revenue.

**4) Forecasts for the period 2009 – 2013**

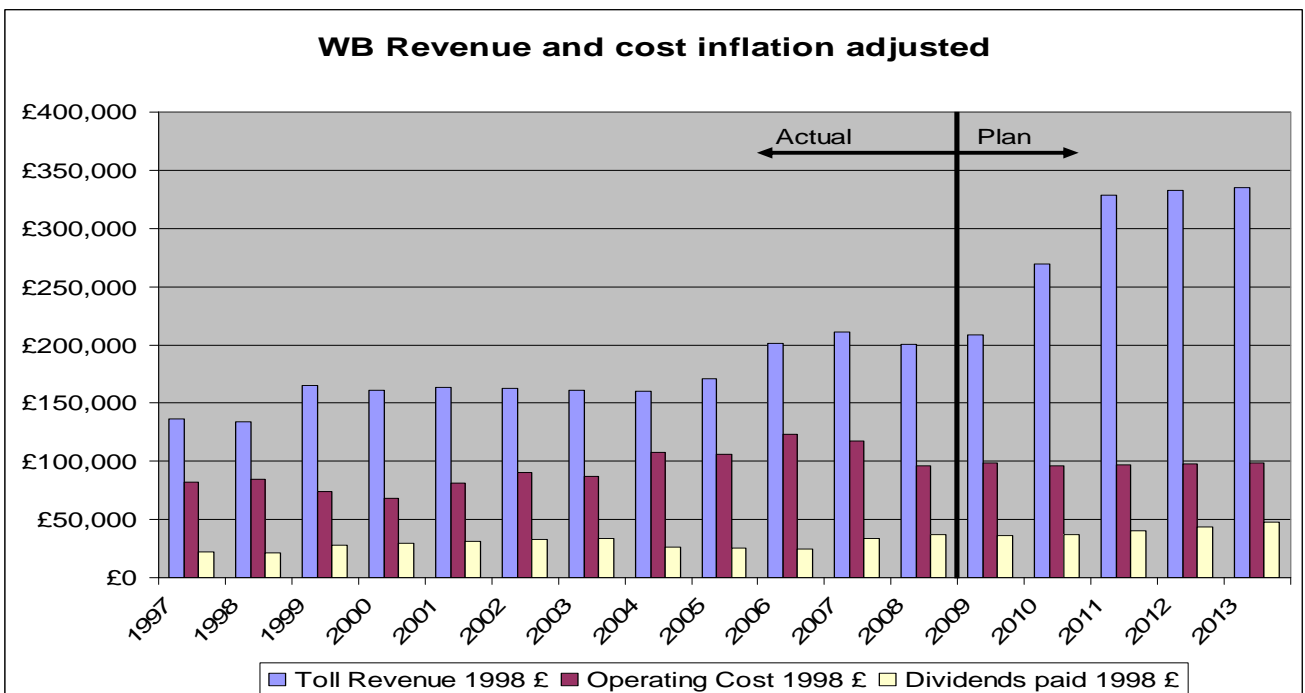
- a) The basis of the Toll Application to increase the cash toll to 40p is that this is an essential requirement in order to increase toll revenue sufficient to fund some 70% of the Bridge Reconstruction costs in 2013 - 2014. This is detailed in Attachment 2, which shows the target income levels from operating cash from tolls and reserve fund investment income for the 4 years 2010 to 2013. The shortfall of some 30% (£1.2m) is planned to be by way of borrowing to be repaid over 15 to 20 years from 2014 to 2029.
- b) The toll application document clearly shows that at the present level of tolls the resulting projected shortfall rises to £1.9m, or 46% of reconstruction costs, and this level of borrowing cannot be sustained over the following years, as the income would not be sufficient to cover the interest and repayment of the loans. The chart below shows the resulting situation

Whitchurch Bridge Reserves and Funding - Current Toll Levels

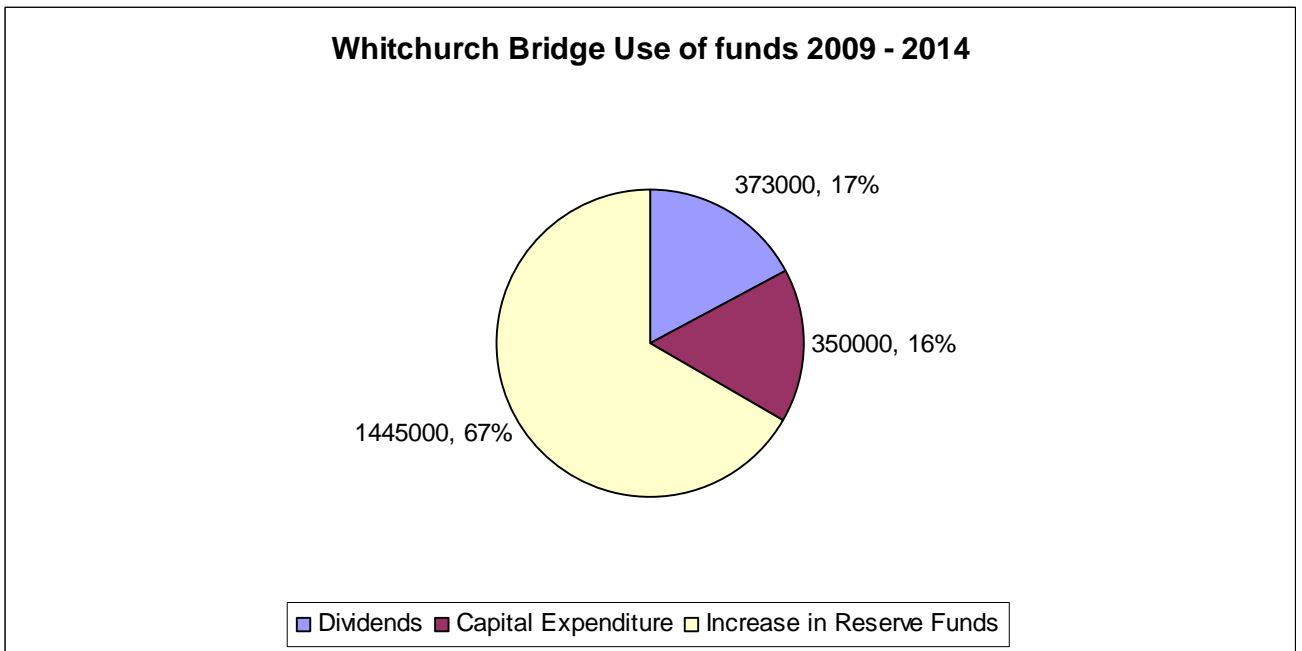
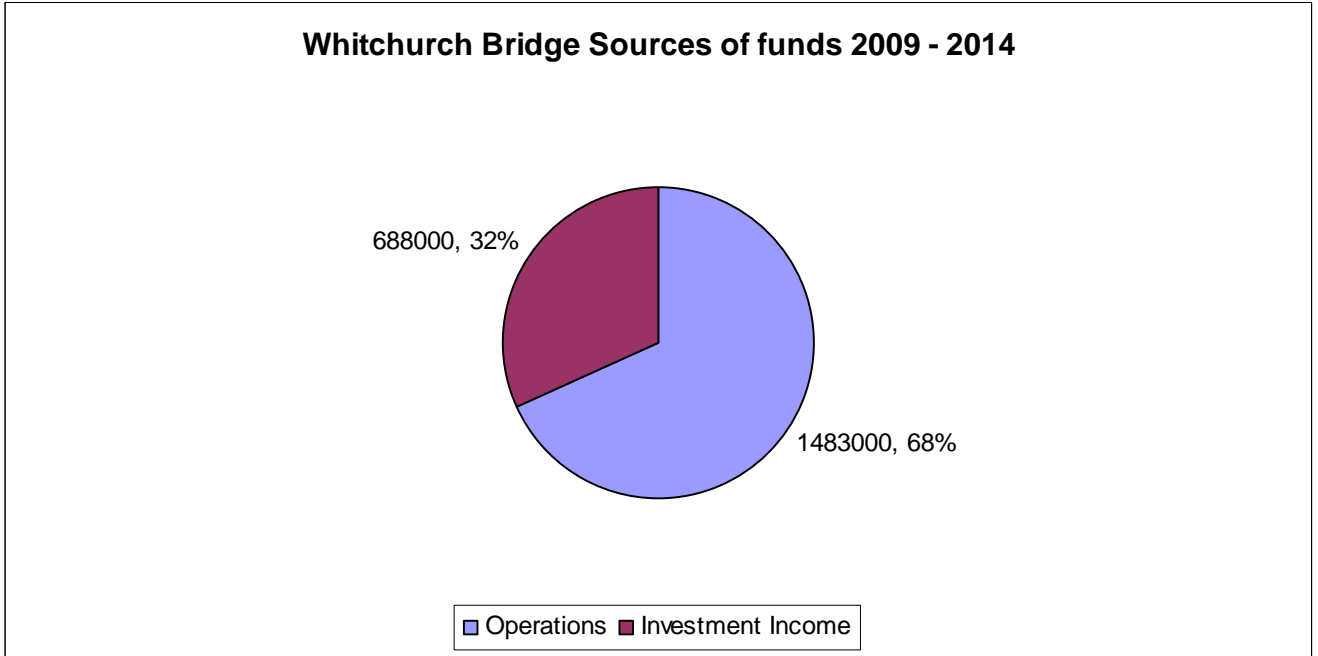


c) Assuming an increase in the cash toll to 40p from mid 2009 as proposed in the toll application:-

- i) The **average toll** pence is forecast to increase during these 5 years from 16p to **29.1p** with the discount for Bridge Card users changing from 13.9p (36 crossings for £5) to 20p (25 crossings for £5).
- ii) As shown in Attachment 2 an average of just over £250k per annum is forecast to be transferred from operating cash from tolls to the Reserve Fund, which itself allows greater investment income to be generated in the Fund so that the target Company funds for reconstruction of £2.7m can be achieved.
- iii) Dividends remain at 2.3 % of total net assets.
- iv) With a higher level of toll income operating costs are controlled at an inflation-adjusted figure of £98k pa for each of the forecast years so that they reduce to 29% of toll revenue. The chart below shows that costs and dividends are constrained during this period



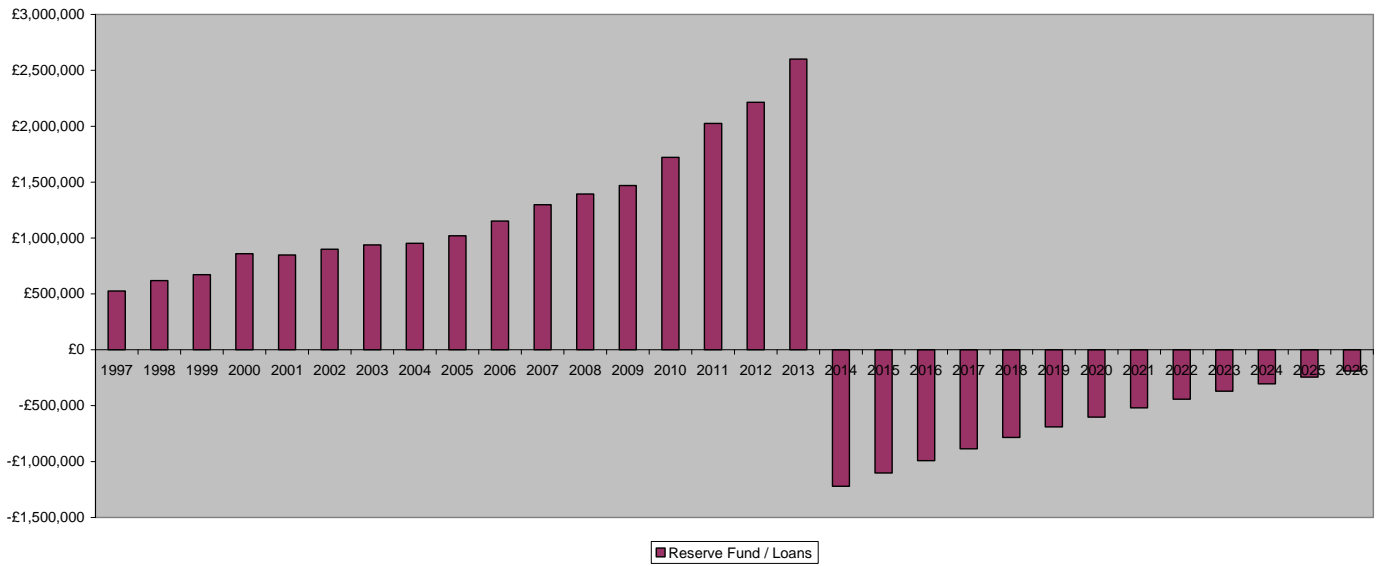
d) The analysis of source and use of funds therefore shows that the increase in tolls leads directly to the increase in operating cash flow required to sustain the build up of funds for the reconstruction work within appropriate financial constraints (it should be noted that the projected capital expenditure during this period is mainly accounted for by preliminary work on the reconstruction project itself)



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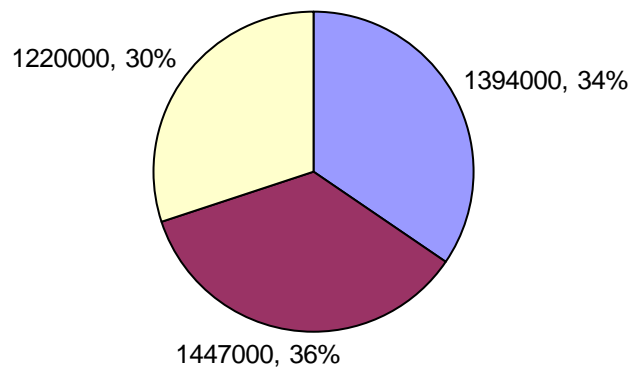
- e) The 40p cash toll will be required to service loan repayments of capital and interest during the subsequent period 2014 – 2029/34 (see Attachment 2 and chart below).

Whitchurch Bridge Reserves and Funding - 40p toll level



- f) As a result of this approach the balance of required funding is split equitably between existing funds, required funds for the period up to reconstruction, and post-reconstruction funding by means of loans

Whitchurch Bridge Contribution to reconstruction cost in 2014



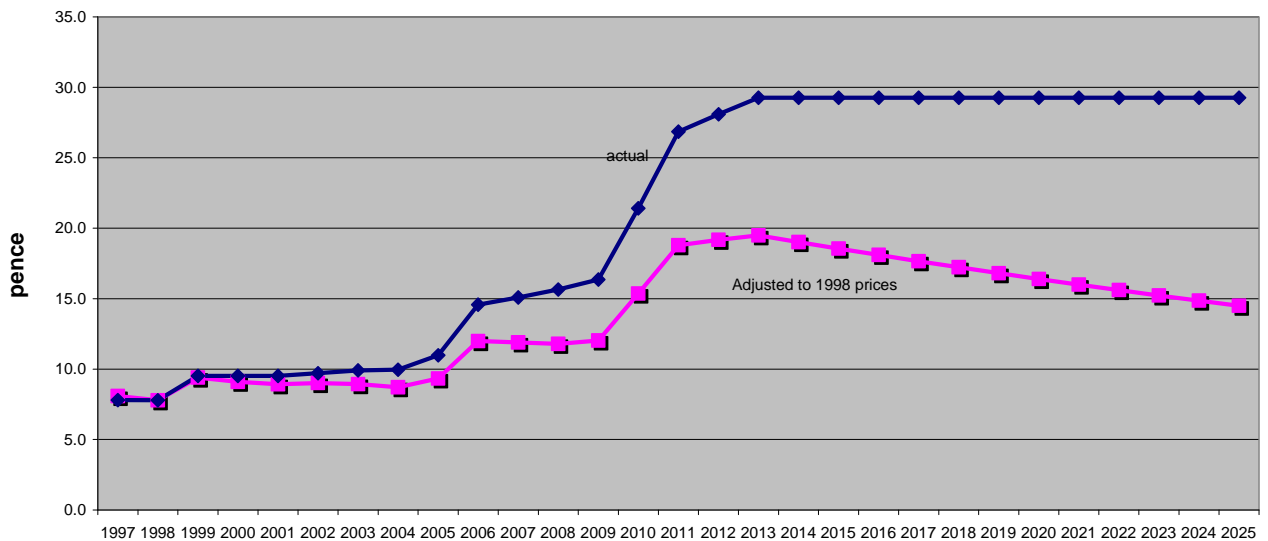
Legend: Fund as at June 2008 (Blue), Increase 2009 - 2014 (Maroon), Loan finance 2015 - 2029 (Yellow)

- g) Once the loan is repaid a new Reserve Fund will need to be built up for maintenance and future replacement/reconstruction of the Bridge, such cash reserves replacing the loan repayments. These reserves should at least match the depreciation on replacement cost basis of the valuation of the bridge (see note on dividend policy and the cost of capital)
- h) **Summary** - Assuming a 40p cash toll these proposed actions take into account the medium term requirements of the Company, the long term needs of the community and the facility which the Whitchurch Bridge provides for them.

**5) Forecasts for the period 2014 – 2029**

- a) During the 15 years after reconstruction the only income for the Company will be its operating income, as the investment funds will by definition have been used up by the reconstruction project. The operating income therefore has to cover the interest and repayments on the loans as well as the normal operating costs of the business and the return on assets to shareholders. Attachment 2 also shows that the **average toll** required over this period in order to achieve this is **30 pence** per crossing. It is clear therefore that in order to allow any discounts whatever to local users a cash toll of more than 30p is required, and the projected income allows therefore for the cash toll of 40p to be accompanied by a continuing discount throughout this period of more than 40%, which is an increase over the current levels. The chart below shows the average projected toll per vehicle at actual and inflation adjusted rates over the entire period from 1997 to 2026

**Whitchurch Bridge Toll Average Charge per vehicle**



**6) Analysis of options and sensitivities**

- a) As noted above, the forecast included here is dependent on a number of key assumptions. The table below shows the sensitivity of the model to each of these assumptions.
  - i) Traffic volumes – the current trend over the last 4 years as measured by the traffic counters and toll revenues shows a decrease of 0.6% per year measured both over a 24 hour period and over the period during which tolls are collected. This decrease is thought to be due to multiple cultural and economic factors, and is forecast to continue through this period. It is a critical assumption, but one which cannot be controlled or accurately forecast
  - ii) % of vehicles using cards – the current bridge card scheme offers a discount of 30% on the cash toll, and is taken up by 50% of bridge users on average. With an increase in the cash toll to 40p, but the discounted toll being constrained to give an average projected toll level of 30p in order to sustain the required income level, there is likely to be a higher take up of bridge cards with a higher level of perceived discount. Therefore an increase in take up to 55% has been assumed: this may well be an underestimate if the benefit is seen to be much larger than at present. It will be the policy of the company to manage the discount structure in order to maintain the projected required average toll level of 30p, all other assumptions being equal
  - iii) General inflation – the average rate assumed of 2.5% reflects experience over the last 10 years: at present inflation is estimated to be close to zero in 2009 but is expected to return to the long term average in due course – the directions to the Bank of England are to maintain an inflation rate of between 2% and 3% over the long term.
  - iv) Return on investments – the records show that the investments of the company have actually achieved a return of 6.7% over the period 1997 – 2008, but against that the current actual value of the investment portfolio has been affected to some extent by the current economic and financial difficulties, despite being invested carefully and prudently. Therefore unless

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there is a rapid recovery the chances are that returns will be lower in future and this assumption may be optimistic. The company has therefore assumed a return of 6% for the period under consideration.

- v) Return on shareholders assets – as noted previously, returns to the Company’s shareholders are low by any standards and are forecast to remain so.
- vi) Cost of loan finance – a reasonable rate has been assumed based on typical conditions, but there is no way of accurately forecasting this cost in 2013, so a number of different assumptions have been modelled in order to ensure that the scenario projected is sustainable
- vii) Replacement cost of bridge – as noted this cost estimate has increased very substantially over the last 5 years, and although the current estimates are to a far higher level of detail than previously we cannot be sure what the cost will be until full planning permission has been granted and a contractor has quoted by competitive tender for the work. This will not take place until 2011-12 at the earliest. Therefore prudence suggests that the forecasts should allow for further changes in this cost, and the projected borrowing levels have been set to allow for this possibility.
- viii) Typically it will be expected that variations in general assumptions will to some extent cancel each other out, and an analysis of the current financial position compared with the assumptions made at the time of the 1997 and 2004 toll applications shows that the forecasts made at that time have proved remarkably accurate – the actual value of reserves in 2008 is within + / - £K150 of that forecast in 1997 and 2004 – with the sole exception of the costs of reconstruction, which has proved to be by far the highest risk factor and highest variability

<i>Assumption</i>	<i>Current value</i>	<i>Alternate values</i>	<i>Impact on funding 2014</i>	<i>Cumulative funding impact through 2026</i>	<i>Effect on average toll required 2014 - 2026</i>
Traffic volumes	-0.6% per year	+ / - 0.5%	+ / - £K50	+ / - £K450	+ / - 1.6p
% of vehicles using cards	55%	+ / - 5%	+ / - £K70	+ / - £K350	+ / - 1.3p
General inflation rate	2.5%	+ / - 0.5%	+ / - £K120	+ / - £K350	+ / - 1.3p
Return on investments	6.0%	+ / - 0.5%	+ / - £K60	+ / - £K150	+ / - 0.6p
Return on shareholders assets	2.3%	+ / - 0.5%	+ / - £K70	+ / - £K350	+ / - 1.3p
Cost of loan finance	7%	+ / - 1%	£0	+ / - £K150	+ / - 0.6p
Replacement cost of bridge	£4.1m in 2013	+ / - 10%	+ / - £K400	+ / - £K800	+ / - 3.3p

**7) Conclusion**

- a) The company has been managed consistently and effectively to meet as far as possible its unusual mission to manage a single very long life asset by prudent management and funding policies.
- b) Since the last toll application in 2004 – 2005 the financial scenarios have been severely impacted by a very specific one time increase in the estimated cost of reconstruction of the bridge – this cost has increased over the last 5 years by 180% or more than £2m compared with previous estimates. When projecting this forward the funding gap in 2013 is increased by £2.7m compared with previous estimates. The present toll application proposes to fill this funding gap by
- c) An immediate increase in the cash toll to **40p**, while maintaining the company policy of substantial discounts for regular users by means of the bridge card scheme in order to give an average toll over the entire period 2009 – 2029 of **30 pence** per crossing. This action is forecast

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to increase the Company's reserves from £1.4m in 2008 to £2.9m in 2013, allowing the funding of 70% of the projected cost from reserves

- d) Retaining that level of tolls as a sustainable rate for the long term through 2026, enabling the Company to fund borrowings of £1.2m to cover the remaining 30% of reconstruction costs.
- e) This approach is entirely within the framework of the permitted funding allowed by statute, as it results in a level of tolls that is neither "substantially less or substantially more than adequate to meet such expenditure on the working, management and maintenance of the undertaking and such other costs, charges and expenses of the undertaking as are properly chargeable to revenue, including reasonable contributions to any reserve, contingency or other fund and, where appropriate, a reasonable return upon the investment of the Company of Proprietors of Whitchurch Bridge in the Bridge as defined in Section 2 of the Whitchurch Bridge Act 1988"

# Whitchurch Bridge - 1997-2013

Year to 30 June	Toll Application							Toll Application							Toll Application						
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013				
Traffic volume in collecting hours '000	1809	1827	1801	1839	1892	1876	1861	1894	1896	1802	1850	1739	1773	1762	1752	1741	1731				
Average toll pence	7.2	7.3	9.3	9.2	9.2	9.4	9.6	9.7	10.6	13.6	14.5	15.3	16.0	21.3	26.8	28.0	29.1				
Toll Revenue	£131,304	£133,721	£167,364	£168,785	£174,775	£175,775	£178,889	£183,024	£200,660	£244,389	£267,484	£266,380	£284,000	£375,000	£469,000	£487,000	£503,000				
Operating Cost	£79,047	£84,676	£75,318	£71,340	£86,629	£97,717	£96,811	£123,309	£124,619	£149,659	£148,997	£127,138	£133,583	£133,857	£138,279	£142,817	£147,538				
Dividends paid	£21,150	£21,667	£28,200	£30,550	£32,900	£35,250	£37,600	£30,080	£30,080	£30,080	£42,300	£49,350	£49,350	£52,000	£57,000	£64,000	£72,000				
Operating cost % revenue	60%	63%	45%	42%	50%	56%	54%	67%	62%	61%	56%	48%	47%	36%	29%	29%	29%				
Dividends % Toll Revenue	16%	16%	17%	18%	19%	20%	21%	16%	15%	12%	16%	19%	17%	14%	12%	13%	14%				
£ per share	£450	£461	£600	£650	£700	£750	£800	£640	£640	£640	£900	£1,050	£1,050	£1,106	£1,213	£1,362	£1,532				
Total Assets	£949,319	£1,032,805	£1,236,322	£1,601,349	£1,583,894	£1,618,560	£1,727,779	£1,729,956	£1,856,888	£1,989,902	£2,128,594	£2,152,003	£2,273,220	£2,487,640	£2,799,225	£3,132,986	£3,478,820				
Dividends % assets	2.2%	2.1%	2.3%	1.9%	2.1%	2.2%	2.2%	1.7%	1.6%	1.5%	2.0%	2.3%	2.2%	2.1%	2.0%	2.0%	2.1%				
Transfers to reserve fund	£59,199	£92,435	£52,677	£187,850	£34,079	£54,433	£38,302	£13,750	£67,554	£131,574	£123,641	£48,657	£75,841	£256,932	£311,695	£197,345	£394,896				
Value of reserve fund	£746,679	£949,519	£1,011,552	£1,112,227	£1,020,649	£953,446	£907,223	£1,058,663	£1,148,388	£1,313,660	£1,442,390	£1,454,404	£1,530,000	£1,787,000	£2,099,000	£2,296,000	£2,691,000				
Investment Income	£29,469	£72,952	£45,021	£142,048	£15,809	£47,780	£22,171	£20,373	£85,756	£112,968	£112,598	£85,639	£87,300	£91,800	£107,200	£125,900	£137,800				
% reserve fund	4%	8%	4%	13%	2%	5%	2%	2%	7%	9%	8%	6%	6%	5%	5%	5%	5%				
Replacement cost of bridge	£1,773,663	£1,841,225	£1,864,915	£1,922,300	£1,961,780	£1,978,700	£2,044,500	£2,103,250	£3,392,989	£3,481,929	£3,830,794	£4,020,000	£4,220,000	£4,430,000	£4,650,000	£4,880,000	£5,120,000				
Estimated reconstruction cost	£638,319	£686,193	£737,657	£792,981	£852,455	£916,389	£985,118	£1,139,750	£2,150,261	£2,211,404	£2,454,673	£3,222,000	£3,380,000	£3,550,000	£3,730,000	£3,920,000	£4,120,000				
Reconstruction cost % replacement cost	36%	37%	40%	41%	43%	46%	48%	54%	63%	64%	64%	80%	80%	80%	80%	80%	80%				
Reserve fund % reconstruction cost	117%	138%	137%	140%	120%	104%	92%	93%	53%	59%	59%	45%	45%	50%	56%	59%	65%				
RPI deflator	157.5	163.4	165.6	171.1	174.4	176.2	181.3	186.8	192.2	198.5	207.3	216.8	222.2	227.8	233.5	239.3	245.3				
Average toll 1998 £	7.4	7.3	9.2	8.8	8.7	8.7	8.7	8.5	9.0	11.2	11.4	11.5	11.8	15.3	18.7	19.1	19.4				
Toll Revenue 1998 £	£136,223	£133,721	£165,140	£161,189	£163,752	£163,006	£161,227	£160,097	£170,592	£201,175	£210,839	£200,768	£208,827	£269,015	£328,242	£332,527	£335,075				
Operating Cost 1998 £	£82,008	£84,676	£74,317	£68,129	£81,165	£90,618	£87,253	£107,862	£105,946	£123,195	£117,444	£95,823	£98,225	£96,025	£96,778	£97,516	£98,283				
Dividends paid 1998 £	£21,942	£21,667	£27,825	£29,175	£30,825	£32,689	£33,888	£26,312	£25,573	£24,761	£33,342	£37,195	£36,287	£37,303	£39,893	£43,700	£47,963				
Total Assets 1998 £	£984,881	£1,032,805	£1,219,897	£1,529,283	£1,483,993	£1,500,980	£1,557,193	£1,513,248	£1,578,644	£1,638,035	£1,677,821	£1,621,943	£1,671,515	£1,784,566	£1,959,111	£2,139,222	£2,317,423				
Transfers to reserve fund 1998 £	£61,417	£92,435	£51,977	£179,396	£31,930	£50,479	£34,520	£12,028	£57,431	£108,308	£97,457	£36,672	£55,766	£184,316	£218,148	£134,748	£263,061				
Value of reserve fund 1998 £	£774,650	£949,519	£998,114	£1,062,174	£956,273	£884,183	£817,652	£926,047	£976,309	£1,081,370	£1,136,935	£1,096,170	£1,125,020	£1,281,946	£1,469,040	£1,567,723	£1,792,615				
Investment Income 1998 £	£30,573	£72,952	£44,423	£135,655	£14,812	£44,309	£19,982	£17,821	£72,906	£92,992	£88,753	£64,545	£64,192	£65,855	£75,027	£85,965	£91,796				
Replacement Cost 1998 £	£1,840,104	£1,841,225	£1,840,140	£1,835,791	£1,838,044	£1,834,958	£1,842,644	£1,839,781	£2,884,570	£2,866,233	£3,019,545	£3,029,834	£3,102,997	£3,177,963	£3,254,424	£3,332,093	£3,410,699				
Estimated reconstruction cost 1998 £	£662,230	£686,193	£727,857	£757,295	£798,688	£849,818	£887,856	£996,976	£1,828,058	£1,820,370	£1,934,846	£2,428,389	£2,485,339	£2,546,674	£2,610,538	£2,676,599	£2,744,547				

Attachment 2

**1. COPWB Transfers to Reserve Fund (RF) to meet Target Income - 2010 - 2013**

£000s	40p cash toll	20p cash toll	40p cash toll	20p cash toll	40p cash toll	20p cash toll	40p cash toll	20p cash toll
Year	2010	2010	2011	2011	2012	2012	2013	2013
Toll operating cash *	250	100	250	90	250	80	250	70
RF investment income	90	90	110	100	130	110	140	110
Total for year	340	190	360	190	380	190	390	180
Cumulative Total Target Income (starting at £1.47m June 2009)	1810	1660	2170	1850	2550	2040	2940	2220
% of reconstruction cost	51%	47%	58%	50%	65%	52%	71%	54%

\* Toll operating profit plus depreciation less dividends (Appendix 5 Toll Application 2008)

This chart shows the transfers required under the 40p cash toll scenario to meet the annual target income from tolls and the Reserve Fund to reach the cumulative target of £2.9m by 2013 to fund the projected reconstruction costs at that date of £4.1m, with the shortfall being funded by loan finance.

This document shows clearly that the 20p cash toll is totally insufficient, requiring borrowing of £1.9m, and a cash toll of 40p is the minimum cash toll required. Even this will leave a shortfall to be funded by borrowing.

**2. Loan Calculations from 2014**

Amount	Term	Interest Rate	Repayments - capital & interest		£000s
			Monthly	Annual	
£1.2m	15	7%	11	131.8	
£1.2m	20	7%	9.4	113.3	
£1.2m	15	12%	14.7	176.2	
£1.2m	20	12%	13.4	160.6	

The above shows the COPWB forecast level of borrowing (estimated at £1.2m) from 2014 to finance the shortfall in the forecast reconstruction costs. A range of financing costs is modelled including capital and interest between £113k and £161k pa depending on cost of borrowing at the time and term of loan. It is clear that at 7% minimum the cost of loan finance is higher than equity and therefore borrowing by way of loan should be kept as low as possible at a maximum of £1.2m.

**3. Comparison of 40p and 30p Toll Levels 2014 - 2029**

*Company of Proprietors of Whitchurch Bridge*

The table below illustrates further that as an average toll level of approximately 30p is required during the post-reconstruction period 2014 – 2029 then a cash toll of 40p is required in order to allow any discounts at all to regular users of the bridge.

£000s	COPWB Financing/Economic Model - 2014 - 2029	
Scenario - cash toll	40p	30p
Reserve Fund 2014	2900	2600
Loan Finance required	1200 (29%)	1500 (37%)
Operating costs	180	180
Depreciation	75	75
General maintenance allowance	18	18
Cost of loan financing	130	168
Cost of equity financing	75	64
<b>Total operating toll income required</b>	<b>478</b>	<b>505</b>
<b>Average toll required pence</b>	<b>29.6</b>	<b>31.3</b>
Cash toll pence	40	30
Discounted toll pence - averaged over 15 yrs	22.7	32.1

Operating costs are annualised over period 2014 – 2029

**Assumptions :-**

- Reconstruction cost £4.1m
- Annual adjusted traffic volume 1.617m.
- 55% crossings by Bridge Card
- 7% cost of loan financing
- Equity return to shareholders 2.3%

Assuming a cash toll of 40p the average toll pence is well below the cash toll because of the heavily discounted toll. Under the 30p scenario the average toll pence required and the discounted toll required is above the cash toll and therefore unworkable.

Therefore a 40p cash toll is totally justified.

Once the loan is repaid in 2029 a new reserve Fund is required to be built up over the life of the reconstructed bridge.