

## WHITCHURCH BRIDGE COMPANY TOLL APPLICATION DATED 5<sup>th</sup> November 2014

### 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 (see Document 09- Legislative Framework)
- b) The recent reconstruction represents the fourth major investment in maintaining the bridge over the River Thames between Whitchurch and Pangbourne since 1792, and the next major work is anticipated to be in 100 years' time. This investment has provided significant benefit to the community and has been maintained to a high standard at no cost to the taxpayer or local ratepayer.
- c) The toll charges for the Company were last reviewed in an application dated October 2008, which was approved following a Public Inquiry in May 2009. At that time it was estimated that the Bridge would need to be reconstructed in 2013 at a cost of some £4m. Since then the Bridge has indeed been reconstructed, but the actual cost incurred over the period 2013 – 2014 amounted to £6.5m. The reasons for this significant increase are set out elsewhere (see Document 13 - Bridge Reconstruction Management). This combined with a lower than expected volume of traffic crossing the bridge results in a significantly different financial situation for the Company, necessitating a further toll increase application.
- d) 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. 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 / Actual 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
2008	£3,222,000	OCC / Jacobs Babbie
April 2013	£4,400,000	OCC / Balfour Beatty
Actual 2014	<b>£6,549,453</b>	OCC / Balfour Beatty

- e) Even now that we know the actual cost of reconstruction, 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
  - i) Traffic volume over the bridge

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- ii) What percentage of that volume will use the discounted bridge card scheme
  - iii) The general level of inflation affecting wages and other costs of operations
  - iv) The future costs of maintenance and other capital requirements
  - v) The cost of the loan finance required as a result of the reconstruction work
  - vi) The life cycle of the reconstructed bridge and the requirement to provide for its replacement
- f) 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 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 and current toll applications**

- a) The company has made five toll applications over the last 22 years as follows

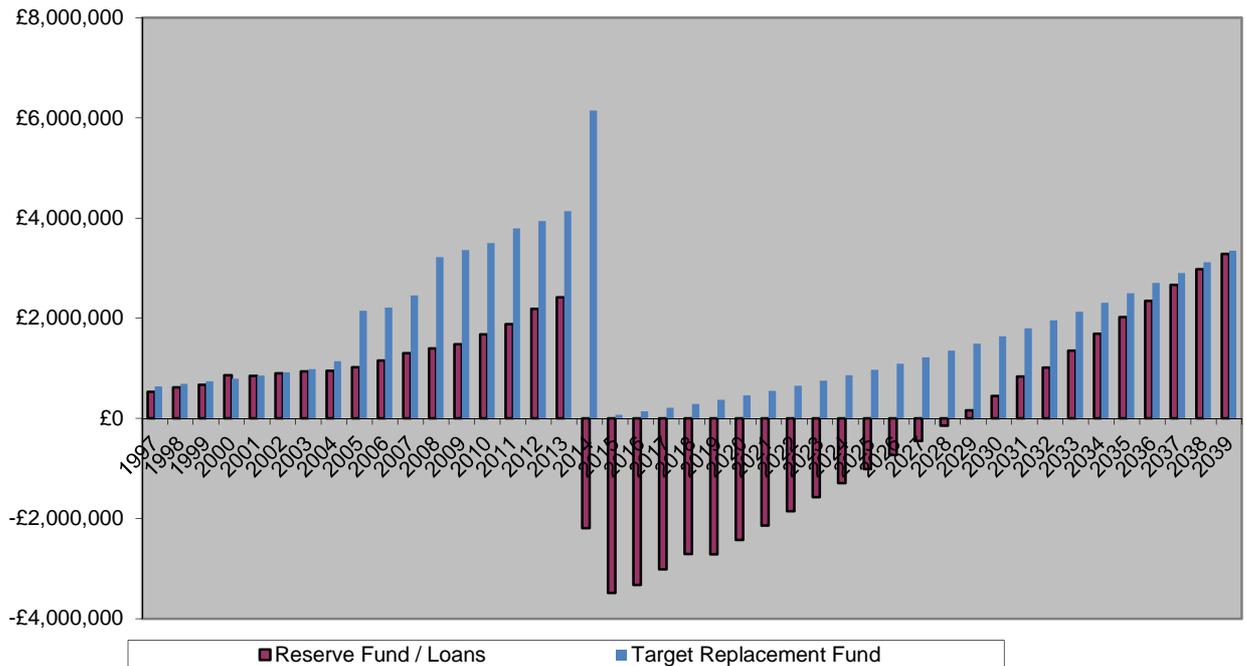
<i>Date of application</i>	<i>Effective date of increase</i>	<i>Approved cash toll per vehicle</i>	<i>Equivalent at 2014 prices</i>	<i>Average toll realised</i>	<i>Equivalent at 2014 prices</i>
July 1992	August 1993	8 pence	14.5 pence	7.5 pence	13.6 pence
November 1997	July 1998	10 pence	15.7 pence	9.5 pence	14.9 pence
July 2004	April 2005	20 pence	27.4 pence	14.5 pence	19.9 pence
October 2008	October 2009	40 pence	47.3 pence	27.8 pence	32.9 pence
November 2014		60 pence	60.0 pence	49.6 pence	49.6 pence

- b) The increases shown here can be seen to be exactly parallel to and entirely driven by the increase in reconstruction costs noted above.
- c) 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 25% 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.
- d) The expectation of the current application is that the proposed toll will be sufficient to provide the required level of income through the period 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 15 year period.
- e) Now that reconstruction has taken place there is much more certainty over the future financial projections and there is no reason to expect significant changes in future other than to deal with normal levels of inflation.

## **3) Historical and Forecast Financial Overview 1997 – 2039**

- a) The graph below shows relevant Company financial funding figures for the past 17 years from 1997 to 2014 and the Company's forecast figures for the period up to 2039 – a total period of 43 years, reflecting the Company's long term nature. The latter figures are based on the assumption of a 60p cash toll taking effect from mid-2015. This illustrates graphically in one chart the gradual build-up of funds, the escalation in the target replacement cost, the funding of the reconstruction, and the repayment of loans followed by a build-up of reserve funds over the next 25 years

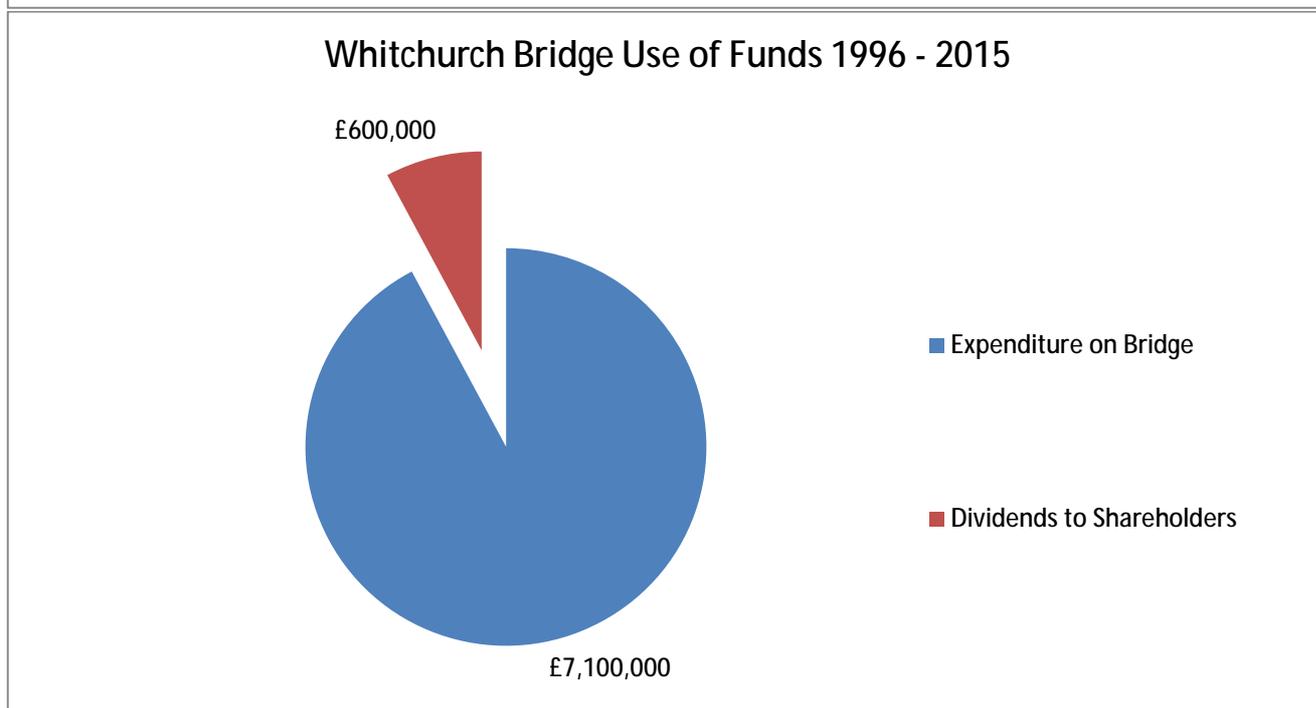
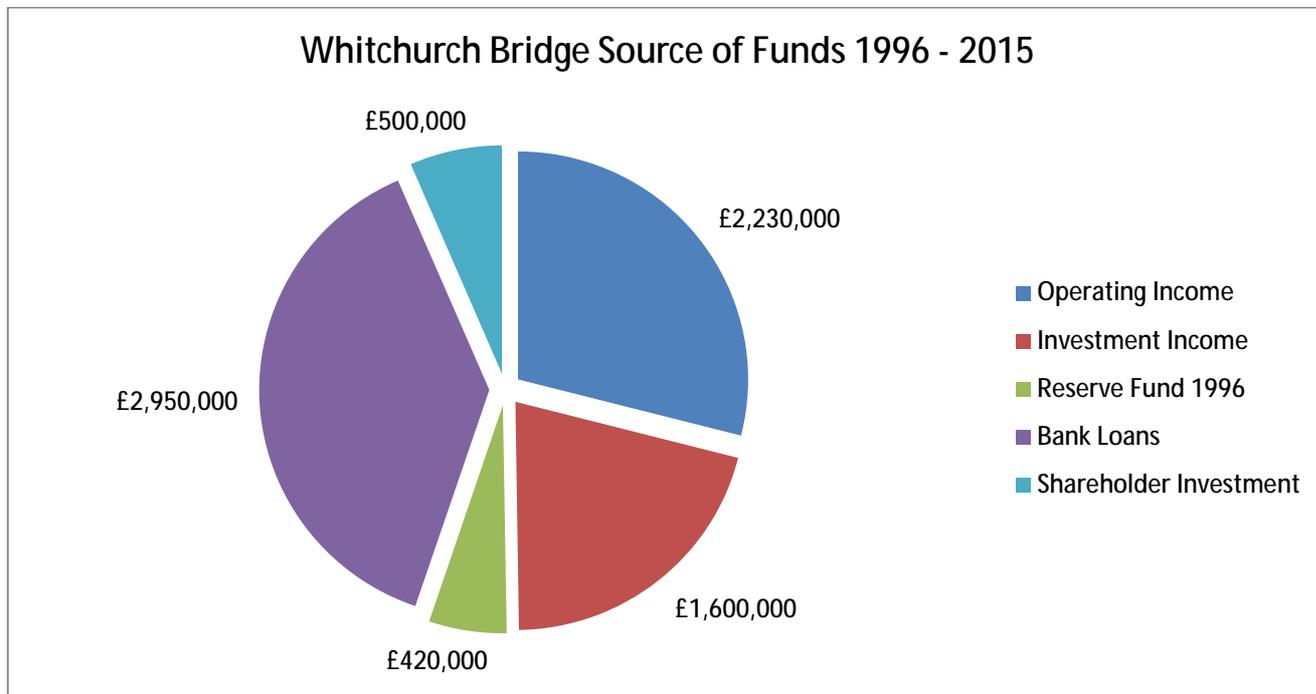
### Whitchurch Bridge Reserves and Funding - 60p toll level



- b) Toll Applications were made in 1997 – effective 1998 – for a 10p cash toll, 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), and in 2008 (effective 2009) for a 40p cash toll..
- c) During this 17 year period:-
- The average toll increased from 9.5p to 27.8p per crossing – an increase of 6.5% per year compared with inflation of 3% per year for the same period..
  - These increases have been entirely driven by the increase in construction costs, as operating costs rose from £79k to £137k – an increase of just 3.3% p.a. Cost efficiencies have been maximised during this period. Operating costs as a percentage of revenue have decreased from 60% to 33%.
  - Dividends have remained at less than 2.3% of net assets – a lower percentage than that for comparable regulated businesses.
  - The Reserve Fund increased from £750k to £3.0m net of capital expenditure during the period of some £400k.
  - Total assets showed a commensurate increase from £1m to £3.3m largely as a result of the increase in the Reserve Fund where toll operating profits have regularly been transferred to the Fund.

#### 4) Sources and Use of Funds 1996 - 2015

- a) The analysis of sources and use of funds over the relevant period shows a balance between operating revenue and revenue from investments, most of which was allocated to reserve funds, and loan finance from banks and shareholders in order to meet the investment requirements of the bridge reconstruction



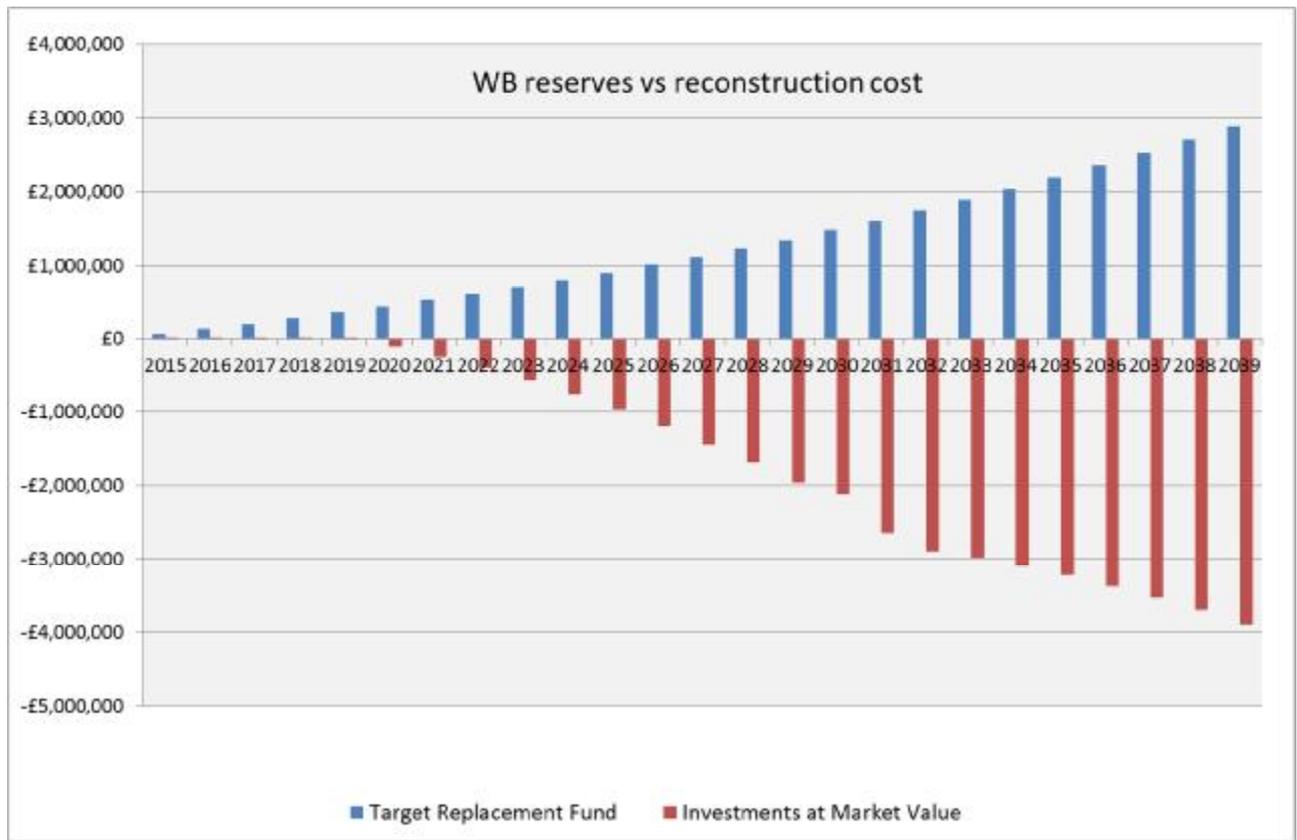
- b) Over this period of 20 years the operation has had outgoings of £7.7m, including the reconstruction costs, and this has been funded by a combination of internally generated funds (£4.3m or 56% of total funds generated) and loan finance (£3.4m or 44%)
- c) 92% of the funds raised have been used to fund the Bridge, including the reconstruction costs. During this time £0.6m has been paid to shareholders, but these same shareholders have contributed £0.5m in funds for the reconstruction

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- d) The Whitchurch Bridge Company is therefore a small organisation managing effectively a significant responsibility for managing and reconstructing the Bridge at Whitchurch, managing both operating income and income from investments to optimise use of funds, and with shareholders receiving modest dividends well below those in comparable regulated businesses. However the continuing escalation of reconstruction costs has meant that the Company has had to borrow substantial funds in order to complete the work. It has been able to do so due to its track record of prudent management and its statutory position as a regulated utility governed by Act of Parliament.

### **5) Forecasts for the period 2015 – 2039**

- a) The requirements of the operation over the next 15 years are entirely different from those of the last 20. During this period
  - i) There is no investment income available until the end of the period, as all reserve funds have been expended on the reconstruction
  - ii) There is a necessary commitment to repay the loan funds, with interest, over this period
  - iii) It is necessary to account for an expected continuing slow decline in traffic volume, in line with the trends consistently observed over the last 10 years
  - iv) There is a requirement for some further expenditure on the bridge, in particular a proposal to upgrade the footpath on the Pangbourne side
  - v) There is a requirement enshrined in statute for funds to continue to be put aside for future replacement of the reconstructed bridge at the end of its useful life. This funding should be at least equal to the depreciation provision on a replacement cost basis, amortised over 100 years, as noted above
  - vi) There is a requirement to pay a reasonable return on the investment of the Proprietors in the assets of the Bridge, as with any other regulated utility
- b) The basis of the Toll Application to increase the cash toll to 60p is the minimum level of toll charges required in order to fund these requirements.
- c) The toll application document clearly shows that at the present level of tolls this funding is not feasible. The chart below shows a shortfall in funds rising to £4m over this period, compared with a requirement as noted above to build up reserves as a new Reserve and Replacement Fund of £2m over the same period

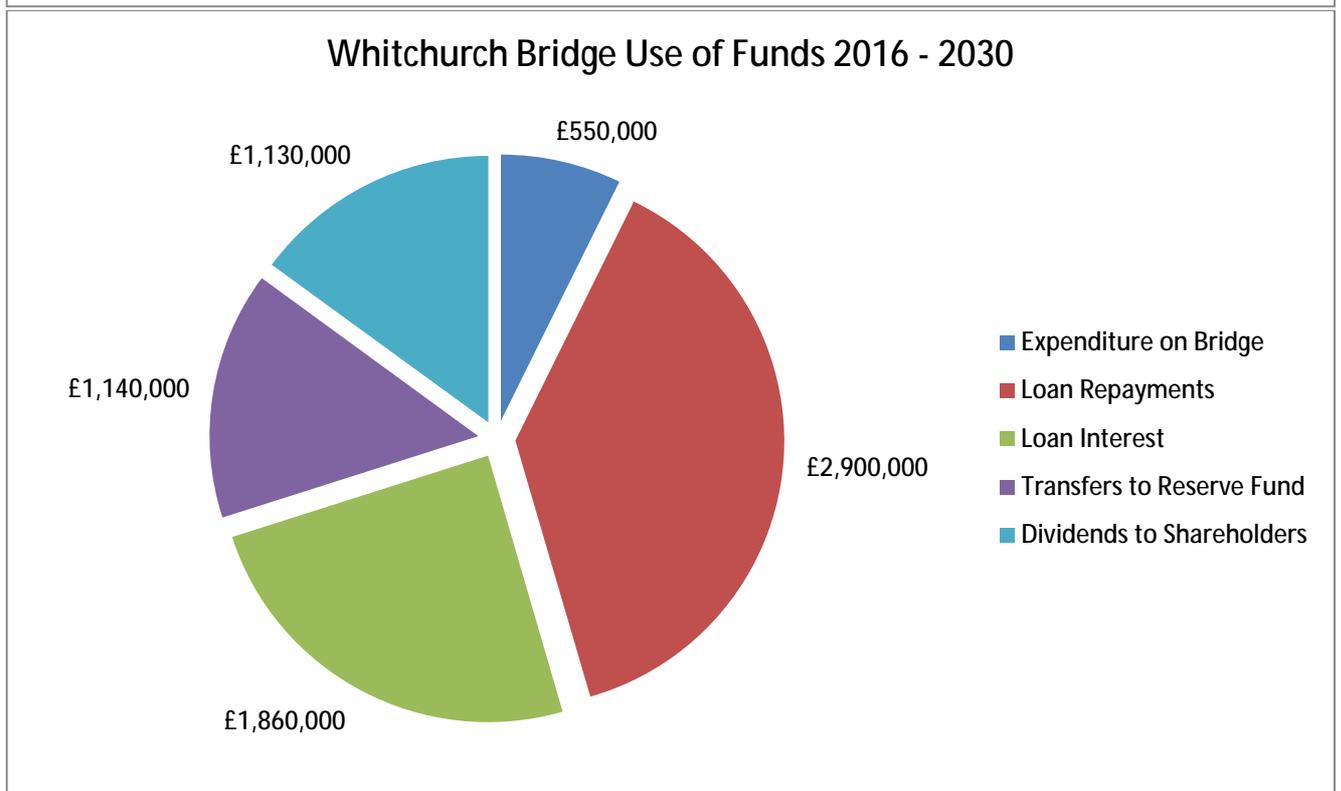
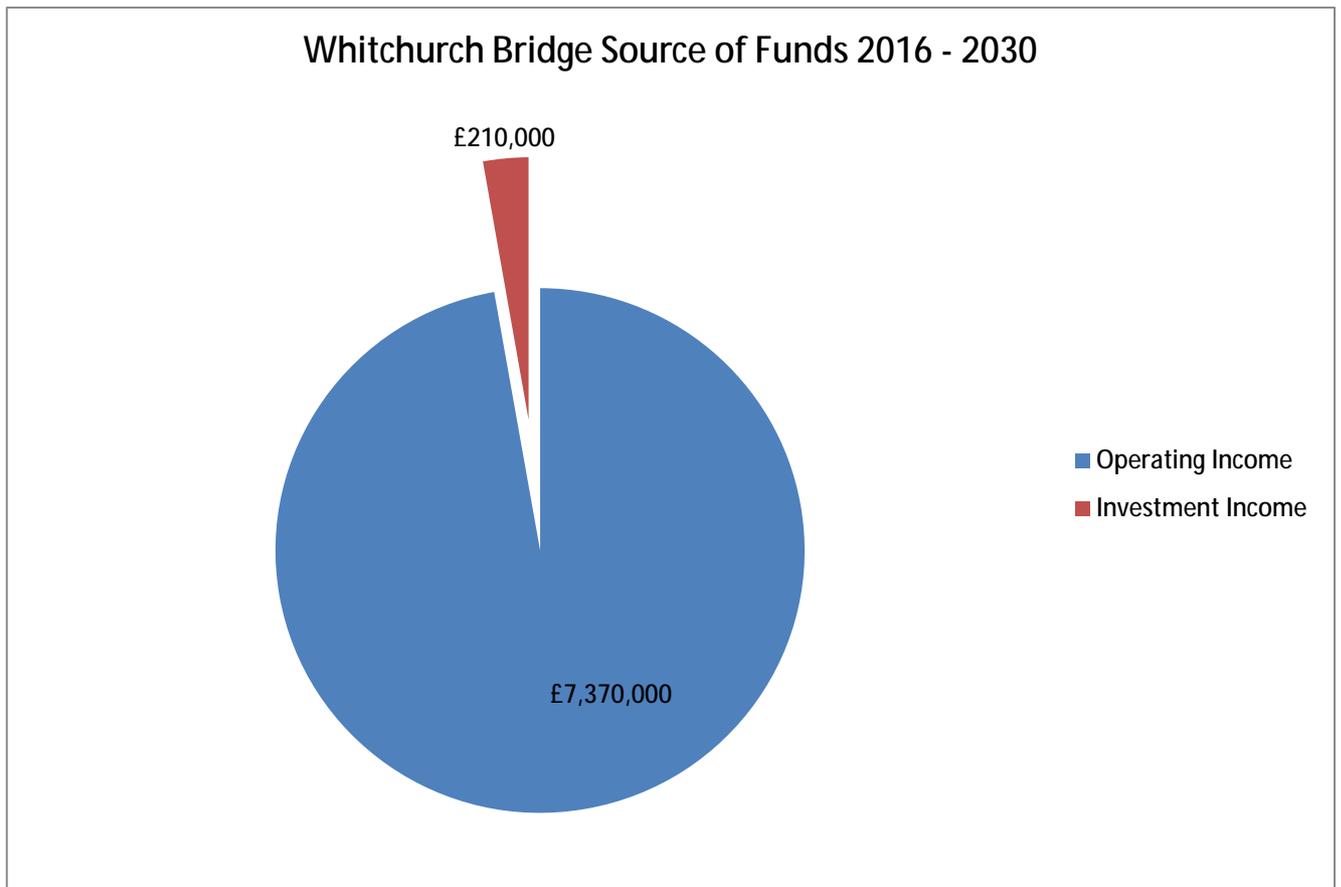


- d) Assuming an increase in the cash toll to 60p from mid-2015 - 16 as proposed in the toll application:-
- i) The **average toll in** pence is forecast to increase from 33p to **49.6p** with the discounted toll for Bridge Card users changing from 30p to 45p.
  - ii) The commitment to loan interest plus repayments of £294,000 per year can be met
  - iii) Dividends remain at 1.3 % of total net assets.
  - iv) Operating costs are controlled at below-inflation increase for each of the forecast years.
  - v) A summary of the accounts for the initial years of the period is shown below

Company of Proprietors of Whitchurch Bridge

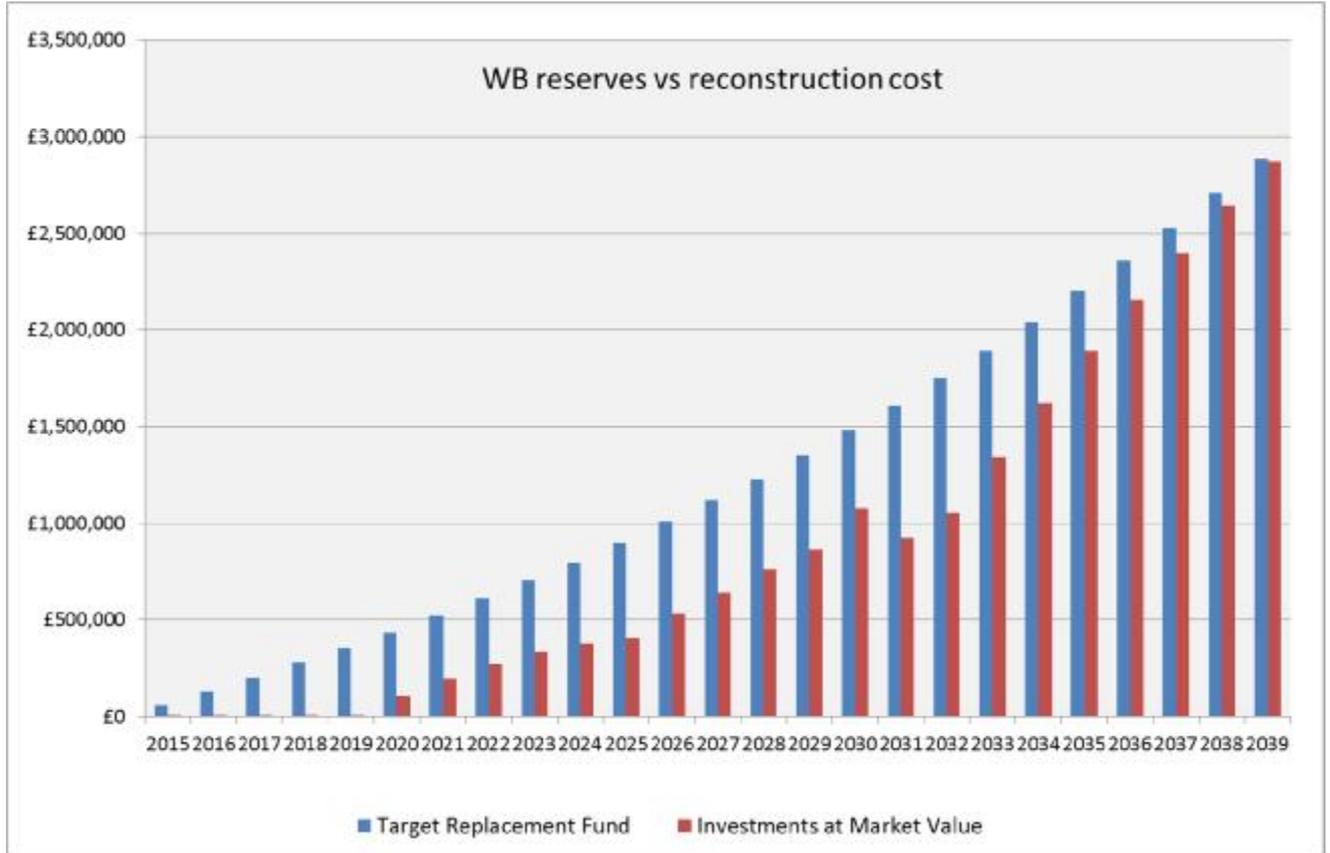
Company of Proprietors of Whitchurch Bridge - Accounts 2014 - 2025										
Year to 30 June	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<b>P&amp;L</b>										
Turnover	£119,958	£392,000	£754,000	£747,000	£739,000	£732,000	£725,000	£717,000	£710,000	£703,000
Cost of Sales	£72,219	£155,945	£183,068	£190,320	£196,519	£200,248	£207,133	£211,533	£214,642	£219,321
Gross Profit	£47,739	£236,055	£570,932	£556,680	£542,481	£531,752	£517,867	£505,467	£495,358	£483,679
Administrative Expenses	£72,033	£64,897	£70,270	£73,544	£76,089	£77,600	£79,200	£80,800	£82,400	£84,100
Operating Profit	-£24,294	£171,158	£500,662	£483,137	£466,392	£454,152	£438,667	£424,667	£412,958	£399,579
Add Investment Income	£124,585	£96	£0	£0	£0	£0	£0	£5,499	£10,417	£14,768
Less Bank Loan Interest payable	£0	£83,273	£161,161	£153,614	£145,600	£137,093	£128,060	£118,471	£108,290	£97,481
Less Loan Notes interest payable		£0	£29,205	£29,205	£29,205	£29,205	£29,205	£29,205	£29,205	£29,205
Profit for the Year	£100,291	£87,981	£310,296	£300,318	£291,587	£287,854	£281,401	£282,491	£285,880	£287,661
Dividends	£0	£24,962	£53,677	£60,876	£67,474	£73,902	£80,351	£86,673	£92,982	£99,315
Retained Profit for loan repayment and reinvestment	£100,291	£63,019	£256,619	£239,442	£224,113	£213,952	£201,050	£195,818	£192,898	£188,346
<b>Capital Expenditure</b>										
Total	£4,730,046	£1,275,518	£173,000	£5,000	£5,100	£305,200	£5,300	£5,400	£5,500	£5,600
<b>Balance Sheet</b>										
Bridge	£4,963,482	£6,376,535	£6,680,196	£6,813,800	£6,950,076	£7,346,577	£7,493,509	£7,643,379	£7,796,247	£7,952,172
Toll House	£473,110	£468,610	£495,500	£491,000	£486,500	£532,000	£527,500	£523,000	£518,500	£514,000
Other fixed assets	£86,982	£79,732	£74,482	£72,032	£69,182	£66,434	£63,267	£59,669	£57,061	£54,002
Tangible Assets	£5,523,574	£6,924,877	£7,250,178	£7,376,832	£7,505,758	£7,945,012	£8,084,275	£8,226,048	£8,371,807	£8,520,174
Investments	£2,142	£0	£0	£0	£0	£0	£122,208	£231,494	£328,188	£411,501
Total Assets	£5,525,716	£6,924,877	£7,250,178	£7,376,832	£7,505,758	£7,945,012	£8,206,484	£8,457,542	£8,699,996	£8,931,675
Net Current Assets	-£859,336	-£118,156	-£85,897	£97,375	£259,040	£103,298	£107,798	£112,298	£116,798	£121,298
Long term loans	£1,338,103	£3,228,255	£3,105,881	£2,975,958	£2,838,023	£2,691,579	£2,536,104	£2,371,039	£2,195,793	£2,009,739
Total Assets less liabilities	£3,328,277	£3,578,466	£4,058,400	£4,498,248	£4,926,775	£5,356,730	£5,778,177	£6,198,801	£6,621,000	£7,043,234
Shareholders Funds	£3,328,277	£3,578,466	£4,058,400	£4,498,248	£4,926,775	£5,356,730	£5,778,177	£6,198,801	£6,621,000	£7,043,234

- e) The analysis of source and use of funds therefore shows that the increase in tolls is necessary to enable the requirements of the operation to be fully met from operating income



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- f) The 60p cash toll will be required to both meet the essential annual operating and funding costs and to build up future funds.



- g) The table below shows the build up of the funding requirement in cash terms and as unitised per crossing. It can be seen that the average charge of 50p is the minimum required to fund the operations of the Company

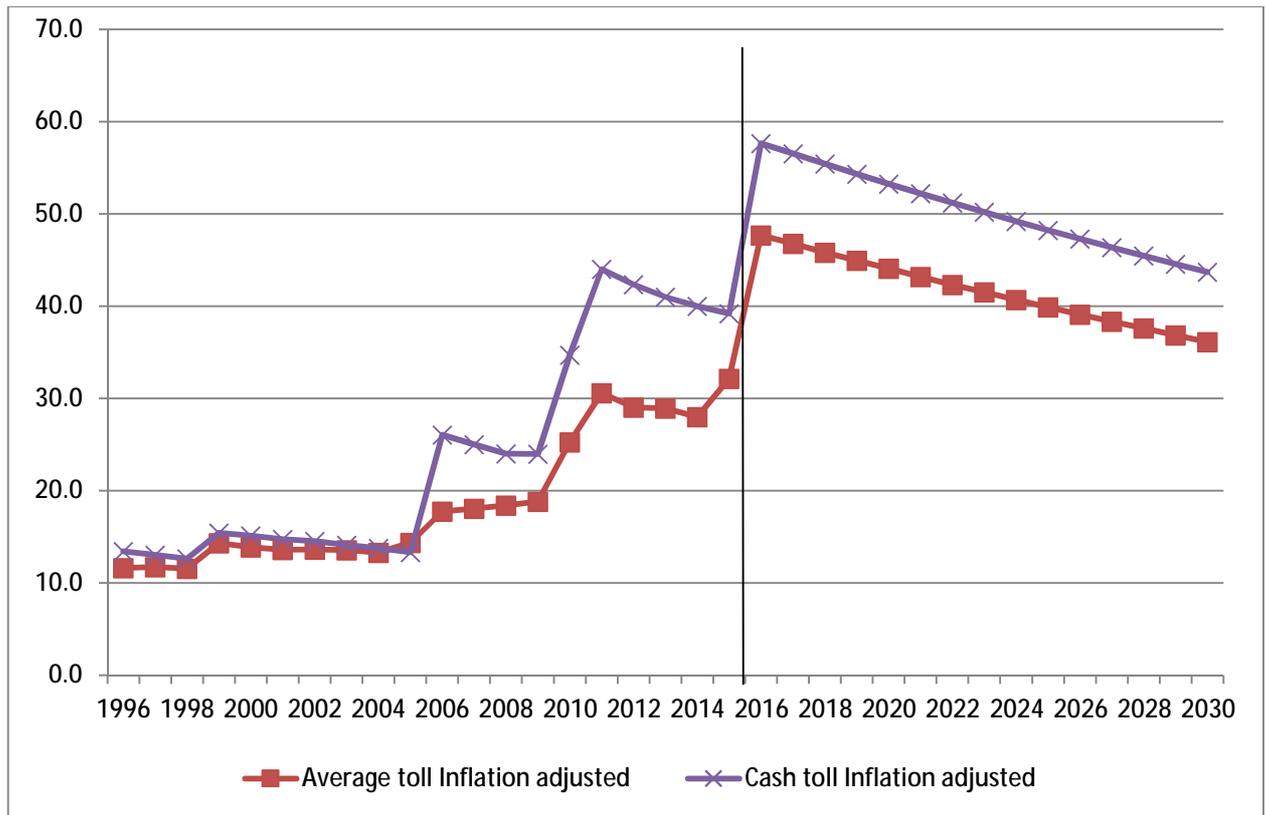
Cost element	Average annual cost £ over 15 years	Average cost per crossing (pence) (1.4m crossings per year)
Operating costs, (salaries, maintenance & admin)	<b>£210,000</b>	<b>15p</b>
Loan interest	<b>£125,000</b>	<b>9p</b>
Loan repayments	<b>£195,000</b>	<b>14p</b>
Reinvestment, including improvements to the Pangbourne approach road and contribution to reserves	<b>£110,000</b>	<b>8p</b>
Shareholder return on investment (1.4%)	<b>£ 75,000</b>	<b>5p</b>
<b>Total cost of operation</b>	<b>£715,000</b>	<b>50p</b>
<i>(Operating Income</i>	<i>£505,000</i>	<i>35p)</i>

- h) 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

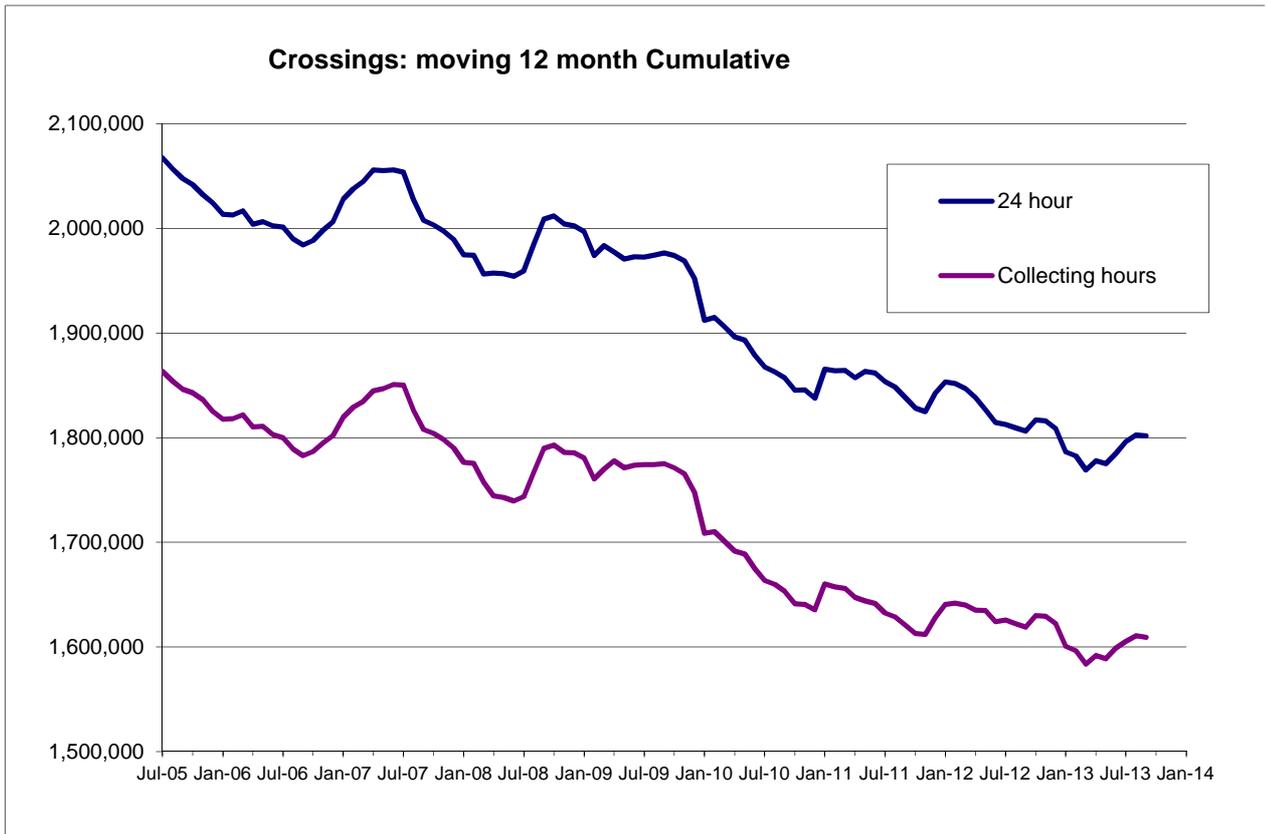
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repayments. These reserves should at least match the depreciation on replacement cost basis of the valuation of the bridge (see 15 - Dividend Management and the cost of capital)

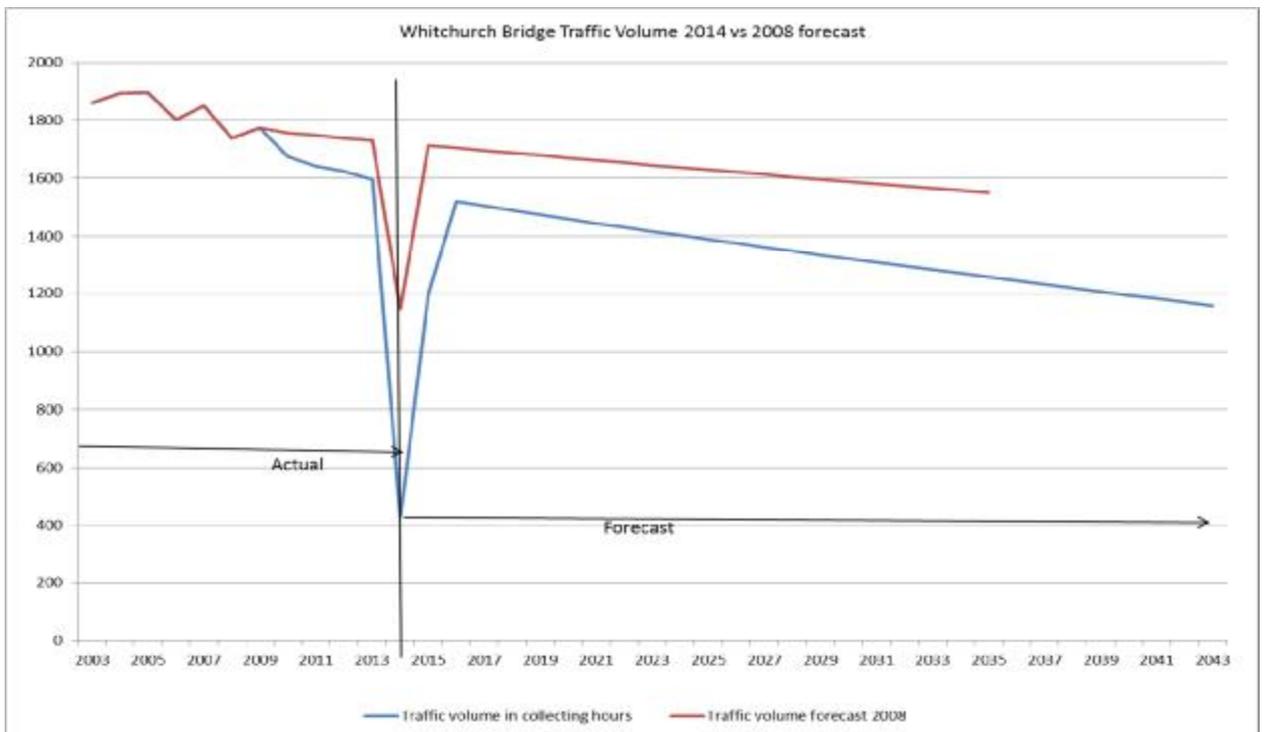
- i) During the 15 years after reconstruction the only income for the Company will be its operating income, as the investment funds will by definition have been used up by the reconstruction project. The operating income therefore has to cover the interest and repayments on the loans as well as the normal operating costs of the business and the return on assets to shareholders and the build-up of reserves.
- j) The chart below shows the average projected toll per vehicle at actual and inflation adjusted rates over the entire period from 1997 to 2030. As indicated, it is expected that the proposed toll of 60p will remain valid for the whole of this period, despite an assumed inflation rate of 2% per year.



- k) As noted above, the forecast included here is dependent on a number of key assumptions.
  - i) Traffic volumes – the current trend over the last 8 years as measured by the traffic counters and toll revenues shows a decrease of 2.2% per year measured both over a 24 hour period and over the period during which tolls are collected, as shown in the chart below. This decrease is thought to be due to multiple cultural and economic factors, and is forecast to continue at an estimated decrease of 1% per year through this period. It is a critical assumption, but one which cannot be controlled or accurately forecast



A comparison of the trends expected at the time of the last toll increase and the current situation shows that volume is significantly lower than previously forecast – this is equivalent to a drop in income of 10% over the forecast period:



- ii) % of vehicles using cards – the current bridge card scheme offers a discount of 25% on the cash toll, and is taken up by 54% of bridge users on average. With an increase in the cash toll to 60p, but the discounted toll being constrained to give an average projected toll level of 50p in order to sustain the required income level, there may be a higher take up of bridge cards with a higher level of perceived discount. It will be the policy of the

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company to manage the discount structure in order to maintain the projected required average toll level of 50p, all other assumptions being equal

- iii) General inflation – the average rate assumed of 2% reflects experience over the last 10 years, which is consistent with most long term economic forecasts and the directions to the Bank of England to maintain an inflation rate of between 2% and 3% over the long term.

## **6) 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) The Company's financial management policy and the level of tolls required to fulfil its statutory obligations are therefore dominated by the impact of the requirement for periodically renewing or reconstructing this single asset, at intervals of approximately 100 years. Probably no other small public company in the country has such a difficult problem of controlling this one per 100 year investment which is equivalent to more than 10 times the gross revenue of the business, and which is subject to all the uncertainties of managing a major reconstruction project across a navigable river.
- c) Since the last toll application in 2009 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 10 years by 300% or more than £4m compared with previous estimates, and by more than £2m compared with the anticipated cost at the start of the project.
- d) An immediate increase is required in the cash toll to **60p**, 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 2015 – 2030 of **50 pence** per crossing. At this stage the reconstruction is complete and the funds are committed. There can be no argument with the facts of the situation, which clearly and unequivocally compel this increase.
- e) The Company will retaining that level of tolls as a sustainable rate for the long term through 2030, enabling the Company to repay borrowings of £3.2m and to cover normal operating expenses and investment for the future, including a very low return to shareholders..
- f) 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”

Company of Proprietors of Whitchurch Bridge

April 2015