

Edinburgh Tram

The City of Edinburgh Council

26 January 2006

1 Purpose of report

- 1.1 This report provides an update on and makes recommendations for funding and phasing of the Edinburgh Tram.

2 Summary

- 2.1 Proposals for a tram network for Edinburgh have been under development since 2001. Feasibility studies developed the original concept of a line (Line 1) serving north Edinburgh to a connection to and beyond Edinburgh Airport (Line 2), with a third line through south-east Edinburgh. This latter line (Line 3) is already safeguarded while Lines 1 and 2 are nearing completion of the Parliamentary process and a decision on Royal Assent is expected in the near future.
- 2.2 **tie** have adopted a strategy for the development and procurement of the tram which brings to bear the experience of the most successful tram operator in the UK and includes unique features to minimise risks, and encourage keen tenders from works contractors.
- 2.3 The Scottish Executive has expressed a willingness to consider indexation of its "in principle" commitment to £375m to take account of normal construction price inflation. This consideration would take place urgently following receipt of a confirmed scheme from the Council and a robust business case.
- 2.4 This increased funding would be conditional upon the Council committing to contribute £45m from a range of sources.
- 2.5 The total possible funding currently available from both the Council and the Scottish Executive would enable a first phase to be constructed from Edinburgh Airport to Leith Waterfront via Haymarket and Princes Street.

3 Main Report

The Edinburgh Tram

- 3.1 Tram Lines 1 and 2 represent key infrastructure for the centre of the city region. A map showing the routes of Tram Lines 1 and 2 is included as Appendix 1 to this report. The Edinburgh city region is at the centre of the Scottish economy and is key to attracting of population, investment and development. Core to the continued strength of the city region is the ability to move freely within the city itself and between key employment and development areas.
- 3.2 The Edinburgh Tram can deliver the quality transport system which an expanding and prosperous Edinburgh needs. It provides an opportunity to cope with the increasing demand for movement and an alternative to the private car beyond that which can be provided by buses. The current proposals can also be extended in the medium and longer term, both within the city and beyond. A tram can eventually link East Lothian, West Lothian and Midlothian with each other and with Edinburgh. The linkages with longer distance transport, especially an improving and extended rail network, provide opportunities to increase access to employment across the wider area which is so important to the city economy.
- 3.3 This link with the economy and to employment is a key benefit. Surveys of and engagement with major business sectors repeatedly state their main concerns as being access to a skilled workforce and ease of movement. This is recognised both for existing business and for development of key areas of growth.
- 3.4 Edinburgh Waterfront is the largest brownfield development in Scotland, equivalent to a new town in scale and would be served by Line 1. Lines 1 and 2 together would connect the Waterfront, city centre, West Edinburgh and the Airport. The city centre and West Edinburgh represent the second and fourth largest concentrations of employment in Scotland and West Edinburgh in particular is forecast to grow considerably. At the core of this growth is the West Edinburgh Planning Framework area, south of the Airport and identified by the Scottish Executive as a national growth point. Tram Line 2 will be core infrastructure for this development area; without the new transport investment it is unlikely that this major national opportunity can be realised. It will be particularly vital in combating the expected growth in travel demand arising from the development. Without this development, major greenfield and greenbelt releases would be required. This not only has planning implications but would result in a settlement pattern that would be more difficult to serve by public transport.
- 3.5 The tram will provide a step change in transport which will greatly improve the choice of public over private transport, increasingly important in the context of the demands of a growing city. Experience elsewhere shows the potential for trams to draw patronage from private cars, especially where they are serving new development areas where travel habits can be formed from the start.
- 3.6 Trams are an attractive option for motorists. In the UK, 20% of peak hour and 50% of weekend tram passengers traditionally travelled by car. Trams allow more people to travel to city centres and retail areas. For example, Dublin has seen an increase of 35% in footfall at an end of line mall and a general increase in city centre pedestrian traffic since the recent introduction of its trams.

- 3.7 It has been demonstrated that property values and rental prices increase along tram lines. Dublin reports an increase of up to 15%, while in Strasbourg real estate agents report that 50% of enquirers seek access to the tram.
- 3.8 Trams can also improve accessibility and mobility for people with disabilities. Croydon reports that its tram is more popular with those with impaired mobility than its "dial a ride" service, because of its wheel chair accessible vehicles running reliably to schedules.
- 3.9 The Bills for powers to construct and operate Tram Lines 1 and 2 are now in the final stages of consideration by the Scottish Parliament. It is envisaged that final stage debates will take place early in 2006. If approved, Royal Assent will be given shortly thereafter.

Costs of the Tram

- 3.10 The total cost of the full Line 1 and Line 2 Tram Network is estimated at £634m at projected inflated prices. Extensive work has been done to support the robustness of the underlying cost estimates, which include a contingency sum. This does not include the additional contingency known as optimism bias. **tie** have adopted a procurement strategy to minimise costs and the risks associated with them. Two unique approaches have been introduced by **tie**. Firstly the early involvement of Transdev as the operator of the Edinburgh Tram Network will ensure an efficient system design. Transdev are a major worldwide tram operator with extensive experience. Secondly the preparation of a separate framework contract for utilities diversions removes much of the risk associated with the works contracts and will encourage keener tender prices from infrastructure contractors. The cost estimates are set out in Table 1.

Table 1 Capital Cost Estimates

Costs in £m	Line 1 A	Line 2 B	Lines 1+2 C
Total Base Cost in Q2 2003 Prices	219.3	253.2	440.0
Specified Contingency	23.7	25.3	44.0
Total Cost Estimate in Q2 2003 Prices	243.0	278.5	484.0*
Estimated Inflation	75.3	86.3	150.0
Total Inflated Cost Estimate	318.3	364.8	634.0
Incremental Optimism Bias (Inflated to 2010)	40.2	46.4	80.7

* Line 1+2 costs do not total the costs of Line 1 and Line 2 in aggregate due to the elimination of the costs of the common running section from the Line 2 costs and to minor additional costs in relation to the effective operation of the two lines as a network.

Funding

- 3.11 As the Parliamentary process has progressed, discussions have taken place involving officials of the Council (the Promoter), senior civil servants in the Scottish Executive, on behalf of the Transport Minister (the principal funder), and **tie** Ltd (the project manager). These discussions have focused on the

capital funding currently available and which sections of the tram network can realistically be afforded as a first phase of the network.

- 3.12 From the inception of the tram development scheme, both the Council and the Scottish Executive have ensured that value for money and cost control are priorities. Investment has been made in carefully controlled stages to reduce the risk of future cost escalation and delivery plans are now well advanced.
- 3.13 In March 2003, Iain Gray MSP, then Transport Minister, in response to a written question stated "*We have already part-funded the work of the City of Edinburgh Council in developing its Integrated Transport Initiative and committed £15 million for the development work on three tram-lines. We are now able to guarantee the availability of £375 million of central Government funding which the preliminary business case for the Integrated Transport Initiative requires*".
- 3.14 During the recent discussions, civil servants have welcomed the Council's identification of a phased approach and indicated a willingness to consider indexation of the original £375m provided that a substantial capital contribution is made by the Council. This indexation will be linked to the year on year rise in the cost of construction, currently estimated by ~~tie~~ at 6% for schemes of this nature (compared with under 2.5% for the Retail Price Index). This indexation applies to many other national transport capital projects.
- 3.15 Applying this estimate of inflation to the grant award would result in aggregate grant funding, on a cash basis, of £490m. While this represents a shortfall in funding of £144m on the estimated capital cost of £634m, it is recognised that this estimate will vary and will, of course, be the subject of close scrutiny in the period through to final contractual commitment, which is currently scheduled for mid-2007. Forward estimates of capital cost utilise the same indexation measure and would similarly change depending upon actual inflation.

Proposed Council Funding Contribution

- 3.16 In response to the Scottish Executive's position, the Council, as Promoter, would also make a contribution towards the capital cost of its tram project, to be structured in a manner which minimises financial risk. The Council has already committed £1m for the current financial year as a contribution towards development and implementation and could allocate a further £1.5m but not earlier than financial year 2008-09.
- 3.17 The Council must, however, balance its desire to support the project with its fiduciary responsibility and limited resources. The Council's contribution would, therefore, comprise only such amounts as could reasonably be expected to be funded from future tram related development income and receipts, rather than from general funds or from Council Tax. The anticipated sources of such receipts include:
- a land contributions by the Council;
 - b anticipated development gains accruing to the Council on Council owned sites;
 - c Section 75 planning agreements already negotiated and anticipated future agreements;
 - d third party developments around the tram routes; and
 - e anticipated capital receipts from tram related Council owned sites.
- 3.18 The total Council contribution which would be associated with the complete tram network is currently estimated at £45m. To enable the capital funding of the project, it is assumed that the sums shown in Table 2 below would be borrowed, where necessary, against the anticipated receipts. The Council's contribution would not be committed until the completion of a satisfactory final prudent business case.

3.19 This gives a potential capital funding availability of £535m for the first phase of the network.

Table 2 Capital Funding Availability

Indexed Scottish Executive Grant (estimate)	£490m
Council cash contribution	£2.5m
Council land contribution(at out-turn prices)	£6.5m
Anticipated development gains on Council sites	£5.0m
Current S75 planning agreements	£3.2m
Imminent S75 planning agreements	£7.9m
Anticipated future S75 planning agreements	£7.0m
Anticipated Capital Receipts from Council Sites	£13.0m
Total Council contribution	£45m
Total funding available allowing for inflation	£535m

Note that current and imminent S75 agreements are reasonably certain sources of funds. Future S75 agreements and anticipated returns from the sale of Council sites are, however, only estimates at this stage.

Phasing of the Tram

3.20 With total costs of £634m (excluding optimism bias) and possible funding of £535m, phasing of the tram network will be necessary. Taking a prudent view on capital cost estimates and funding sources, an examination has been undertaken by **tie** into which sections of Tram Lines 1 and 2 should be progressed as a first phase, assuming that Royal Assent is granted for both Bills.

3.21 This work has been carried out under the umbrella of the Council's new transport company, Transport Edinburgh Limited (TEL) and has involved extensive discussions with **tie** Limited, Transdev Edinburgh Tram Limited, the proposed operator of the tram network and Lothian Buses plc. It has always been a critical element of the planning for the tram system that the operations of bus and tram (and other modes) should be as fully integrated as possible and significant progress has already been made towards such an integrated system by Transport Edinburgh Limited. The early involvement of Transdev, who also operate the very successful Nottingham tram system, is an important innovation by **tie**. The combined planning work by **tie**, Lothian Buses and Transdev has provided a unique opportunity to establish an effective integrated public transport system. This has proved successful in Nottingham where already revenue is above planning estimates and demonstrates the absolute importance of this linkage.

3.22 **tie** has given consideration to a range of options for first phase network construction and to the pattern of construction of subsequent phases. This work indicates that the line from Edinburgh Airport to Leith Waterfront, via Haymarket and Princes Street, gives the greatest benefits and is, therefore, the optimum first phase. As an option, this first phase of the tram development could be extended to include the section of Line 1 from Haymarket to Granton Square via Roseburn. This option is discussed further below.

3.23 This proposed first phase would provide the core support for the city economy (as set out in 3.1 to 3.4) and would directly link the major growth centres at the Airport/Gogarburn/West Edinburgh and Leith Waterfront with the city centre. It would provide access to the major housing and commercial developments

under construction and planned and would underpin the role of these developments in sustaining the Edinburgh's role as a growing successful capital city. It is estimated that some 13 million passengers would use this first phase of the Edinburgh Tram Network during its first full year of operation.

3.24 The advantages to the Council in achieving its vision for the city and in securing transport infrastructure stemming from this proposed first phase of the tram are that:

- the tram would be a world class gateway to the city for visitors arriving at the Airport, providing access to all modes of transport;
- the first phase line would give direct access to the major shopping destinations of the Gyle, Ocean Terminal and the city centre;
- the line would provide access for existing communities to employment, leisure, shopping and other opportunities;
- the line would link with existing transport hubs at Edinburgh Park, Haymarket and Waverley Railway Stations and at the Bus Station in St Andrew Square to give first class interchange for local and long distance trips;
- the line would serve an expanded 'Park and Ride' at Ingliston increasing the catchment area of the tram and further reducing the demand for car travel in the city;
- the Roseburn Street tram stop would serve Murrayfield and Tynecastle stadia, giving access to international and national sporting and other events;
- this first phase would provide the core infrastructure on which expansion of the network would be built and could include the proposed Line 3 linking the city centre with the new Royal Infirmary and the key development areas in South Edinburgh.

3.25 The development of this core section of Lines 1 and 2, as a first phase, is fully supported by Neil Renilson, in his capacities both as Chief Executive of Lothian Buses plc and as Chief Executive of Transport Edinburgh Limited (TEL).

3.26 Transdev, the proposed tram operator, has also given considerable attention to what a first phase should comprise and supports the concept of an initial tram system running between the Airport and Leith Waterfront.

Development of Phase 1

3.27 The total cost of the Airport/Leith Waterfront system is estimated at £429m. The additional contingency for Optimism Bias requested by the Scottish Executive would take the estimate for construction to £484m - comfortably within the anticipated funding of £535m. It has, however made great efforts to manage the risks associated with the project. Its robust cost control may well present the opportunity to extend the first phase of the project still further within the anticipated funding of £535m and most obvious affordable addition to the network, in the event of the Optimism Bias not being called in, is the addition of the western flank of Line 1 from Haymarket to Granton Square via Roseburn. The cost of this element is estimated at £75m and would bring the total cost to £504m which is still within the total anticipated funding.

3.28 This section planned from Haymarket to Granton Square via Roseburn would serve major employment and residential areas around Crewe Toll, the new housing and office developments at Granton and the new Telford College. This section remains an important priority in social inclusion and economic development terms and will be constructed as part of phase 1, if prudent levels of contingency prove not to be required and subject to the normal business case.

Further Phases

- 3.29 The future expansion of the network will include extensions from Leith Waterfront to Granton on Line 1, Newbridge on Line 2 and the New Royal Infirmary on Line 3 drawing in the remaining key development areas in South Edinburgh
- 3.30 The Council remains committed to seeking the funding for subsequent phases. These can be summarised as:
- a the Roseburn to Granton section, which provides much needed access to North Edinburgh and the Waterfront area (if this cannot be accommodated within phase 1);
 - b the Granton to Leith section along the waterfront, enabling through running of trams past Ocean Terminal and onto central Leith; and
 - c the Ingliston to Newbridge section which opens development opportunities in west Edinburgh under the West Edinburgh Planning Framework.
- Future funding will be closely linked with the continued expansion of the city and the associated opportunities for private sector contributions.

Public Transport Integration

- 3.31 In his report to the Council in June 2005, the Chief Executive described the progress being made in establishing and developing Transport Edinburgh Ltd. He emphasised that Transport Edinburgh Ltd. should be structured to ensure that the bus and tram networks, both owned by the City of Edinburgh Council, would work closely together. Considerable progress has been made towards achieving this objective.
- 3.32 In 2005, the Tram Project Board structure was introduced, which enabled all key parties to participate in the decision-making process. Since then, Transport Edinburgh Ltd has developed its presence with the appointment of its Board of Directors including two independent non-executives
- 3.33 The governance structure is currently being amended to reflect Transport Edinburgh Ltd's developing role, while continuing to ensure that the responsibilities of all parties are clear and that full accountability to the Council is sustained. The revised structure is expected to be operational before the end of this financial year.
- 3.34 The process of developing a fully integrated service plan has accelerated in recent months. Work to produce updated patronage and revenue modelling is now well underway and preparation of a full-scale business plan for the combined bus and tram business has commenced.
- 3.35 Transport Edinburgh Ltd (TEL), with the assistance of **tie** and Transdev, has conducted a review of the financial and operating viability of a Leith Waterfront to Airport tram line, integrated with bus services. The objective was to assess the financial performance of the TEL bus and tram business in the first full year of tram operations, based upon current demand, costs and revenues, with projected future growth and resource requirements.
- 3.36 The findings of this review are scheduled to be presented shortly to the TEL Board. The review has concludes that the integrated bus and tram business can sustain at least the level of dividend currently payable by Lothian Buses to the Council, without subsidy. In addition, a number of action plans have been identified, whereby the risks of an operating loss could be mitigated and potential additional revenues realised.
- 3.37 This initial and prudent analysis demonstrates the benefits of the Edinburgh Tram and Lothian Buses working as a single economic entity and will inform the

preparation a more detailed TEL Business Plan in the period between now and autumn of 2006. The TEL Business Plan will incorporate the output from the updated transport modelling being prepared under the Joint Revenue Committee contract and will provide a more detailed analysis of service integration plans and projected costs and revenues for bus and tram over a 30 year planning horizon. The first version of the TEL Business plan will form the basis of the Final Business Case for the tram.

4 Financial Implications

- 4.1 The total estimated cost of Tram Lines 1 and 2 is £634m. Civil servants in the Scottish Executive will seek Scottish Ministers' approval to increase, in line with indexation, the funding originally offered in March 2003 from £375m to an estimated £490m, subject to, in terms of normal practice, final business case and cost approval. Indexation is the step that the Scottish Executive has taken with other transport capital projects.
- 4.2 If an offer of increased funding is made by the Executive, this would be conditional upon a commitment from the Council to provide funding from a range of sources, totalling £45m.
- 4.3 The combined Council and Scottish Executive funding would be sufficient to fund a first phase network comprised of sections from both Tram Lines and running from Edinburgh Airport to Leith Waterfront. There may also be sufficient funds to extend the first phase of Tram Line 1 from Haymarket to Granton via Roseburn.

5 Conclusions

- 5.1 The construction of a first phase of the Edinburgh Tram Network, running from Edinburgh Airport to Leith Waterfront via Princes Street and Leith Walk, is achievable and capable of being funded with the substantial grant support from the Scottish Executive. The optional extension of Line 1 to include the western flank from Haymarket to Granton Square may still be affordable, as described above, within the anticipated funding.

6 Recommendations

- 6.1 It is recommended that the Council:
 - (i) approves the development of the Airport to Leith Waterfront sections of Lines 1 and 2 as the first phase of the Edinburgh Tram Network, with the optional extension of Line 1 from Haymarket to Granton Square, provided that funding and works costs permit;
 - (ii) notes that further recommendations will be reported in late summer 2006 in respect of the:
 - Roseburn to Granton (if not included in phase 1);
 - Granton to Leith; and
 - Ingliston to Newbridge sections;
 - (iii) notes the benefits of the Edinburgh Tram and Lothian Buses plc working as a single economic entity under Transport Edinburgh Ltd;
 - (iv) approves, in principle, a Council contribution of £45m, as detailed above and subject to a satisfactory final business case; and

(v) notes that the Scottish Executive has indicated its willingness to take account of construction price inflation by indexing its existing, in principle, commitment of £375m for the Edinburgh Tram Network.



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19.1.06.

Appendices	Appendix 1	Map of Tram Lines 1 and 2
Contact/tel	Ewan Kennedy Lex Harrison	0131 [redacted] 0131 [redacted]
Wards affected	All	
Background Papers	None	

Appendix 1 Map of Tram Lines 1 and 2

