

10.00 am, Thursday, 19 November 2015

Edinburgh Tram Extension - Next Steps

Item number	8.5(b)
Report number	
Executive/routine	
Wards	11 – City Centre and Leith

Executive summary

The City of Edinburgh Council Approved the recommendations presented in the report 'Edinburgh Tram Extension – Draft Outline Business Case Preliminary Findings' on 25 June 2015, noting that further work was required to finalise the Outline Business Case, including a formal market consultation process, audit of the financial model and identification of funding options. This report summarises the conclusions from the June report and sets out recommendations in relation to moving the project to the next stage of project development.

The Outline Business Case concludes that extending the existing tram line to Newhaven yields a net economic benefit to the city and a range of wider benefits in relation to employment, population growth, social inclusion and economic regeneration. As the city continues to develop, tram can provide a high capacity public transport spine from the Airport to Newhaven that will support sustainable growth while also serving the most densely populated corridor in Edinburgh along Leith Walk.

While the Council will need to identify additional resources to fund the borrowing costs required for the project, these can be funded from wider Public Transport revenues with no impact on Council revenue budgets in the short, medium and long term.

Links

Coalition pledges	P18 , P19 , P45 , P46 , P50
Council outcomes	CO7 , CO8 , CO22
Single Outcome Agreement	SO1

Edinburgh Tram Extension – Next Steps

Recommendations

- 1.1 It is recommended that the Council:
 - 1.1.1 notes the findings of the Outline Business Case (OBC);
 - 1.1.2 approves in principle the selection of Option 1 (Newhaven) as the Council's preferred option;
 - 1.1.3 agrees to the commencement of all Stage 1 activities as set out in the OBC, including the commencement of procurement processes for external support (project management, commercial, legal and technical) and site investigation;
 - 1.1.4 delegates authority to the Chief Executive or such other officer to whom the Chief Executive may sub-delegate to award the external support contracts and site investigation contract(s), subject to:
 - 1.1.4.1 consultation with the convener of the Finance and Resources Committee; and
 - 1.1.4.2 the summary of the procurement processes being reported at the end of Stage 1.
 - 1.1.5 notes that, at the conclusion of Stage 1, the project financials will be further refined to take account of the new Government guidance on Local Authority borrowing, taxation advice and any revision in assumptions, particularly patronage and capital costs.
 - 1.1.6 notes that a report will be brought back to Council at the end of Stage 1 recommending a way forward;
 - 1.1.7 agree the high level governance structure as set out in the OBC and authorise the immediate implementation of the same;
 - 1.1.8 note that legal advice is being sought on the Council's options to acquire the remaining 67 plots of land for Phase 1b and the options will be reported to Council in December 2015;
 - 1.1.9 notes that the Council is assisting and fully cooperating with the Edinburgh Tram Inquiry, chaired by Lord Hardie;

1.1.10 notes that a timetable for the oral hearings in the Inquiry has not yet been set; and

1.1.11 notes that a number of lessons learned by the Council arising from the first phase of the Edinburgh Tram Project have been taken into account in developing the Outline Business Case.

Background

- 2.1 The challenges and difficulties encountered by the first phase of the Edinburgh Tram Project have been well documented. However, following the settlement of the dispute with the Infraco consortium in September 2011, the Council focused on the completion of the project and achieved successful commencement of passenger services from the Airport to York Place in May 2014.
- 2.2 After a successful first year of operations, the tram system has seen a sustained growth in ridership with year to date figures ahead of forecasts. During August 2015, the half a million passengers barrier was broken in a single four week period. The service reliability has consistently been above 99% of planned vs completed journeys, and in the latest UK Transport Focus tram passenger survey published in March 2015, Edinburgh Trams received excellent endorsements from its customers, scoring a 95% overall satisfaction rating. This is an excellent result when set against other, more mature tram systems in the UK.
- 2.3 The proposals set out in the Tram Extension OBC and summarised in this paper should be viewed in the context of ongoing investment in Edinburgh's wider public transport system. For example, Lothian Buses recently invested significantly in upgrading the bus fleet, to the tune of more than £20 million over the past two years. Over the next three years the expectation is that an additional investment approaching £30 million will be made in cleaner, more efficient buses to maintain Lothian Buses position as market leader in the industry.
- 2.4 The Edinburgh Tram Inquiry (the "Inquiry") was announced by Scottish Ministers in June 2014. The Inquiry "aims to establish why the Edinburgh Trams project incurred delays, cost more than originally budgeted for and through reductions in scope delivered significantly less than projected".
- 2.5 Since its establishment in June 2014, the Inquiry has been carrying out its preliminary investigations and has been gathering material. The Council began providing documentation to the Inquiry in early August 2014 and since then has worked with the Inquiry team to facilitate the provision of requested information and documentation.

- 2.6 Following the preliminary hearing in the Inquiry on 6 October 2015, a timetable for the oral hearings in the Inquiry has not yet been set.
- 2.7 The Council has learned a number of lessons from the first phase of the Edinburgh Tram Project which have been taken into account in the development of the Outline Business Case and these are set out later in this report. This report sets out a way for the next phase of the Edinburgh Tram Project to move forward, in light of the lessons learned from phase one.
- 2.8 The report 'Edinburgh Tram Extension – Outline Business Case' presented to Council on 25 June 2015, set out the route options under consideration, the transport economic case for a tram extension, a proposed future construction strategy, estimated capital, lifecycle costs and risk, considered a procurement strategy and concluded that additional work was required on the funding strategy and that a formal market consultation should be undertaken to test some assumptions underpinning the Outline Business Case.
- 2.9 The four options considered in the 25 June report were to extend the tram line from York Place to:
- Option 1** – Newhaven;
 - Option 2** – Ocean Terminal;
 - Option 3** – Foot of the Walk; and
 - Option 4** – MacDonald Road.
- 2.10 In line with the recommendations from the 25 June, this report builds on the findings of the preliminary OBC work and presents the following:
- Summary of options, benefits of the tram extension and recommended preferred option;
 - Updated land valuations for those identified plots of land required to deliver Phase 1b between Roseburn and Granton Square at some point in the future;
 - Lessons learned from the first phase of tram;
 - Market consultation outcome;
 - Financial analysis; and
 - Contingency proposals.
- The report then sets out a recommended way forward including proposed governance arrangements, based on lessons learned from the first phase of tram and the next stages of the project development, together with estimated costs and programme.

- 2.11 The Outline Business Case, together with supporting appendices and documents has been made available for members to review in a confidential data room from 15 October 2015.

Main report

Options Analysis Overview

- 3.1 A summary of the comparative assessment of the options as presented in the June report is set out in Table 1 below:

Table 1 : Option Comparison

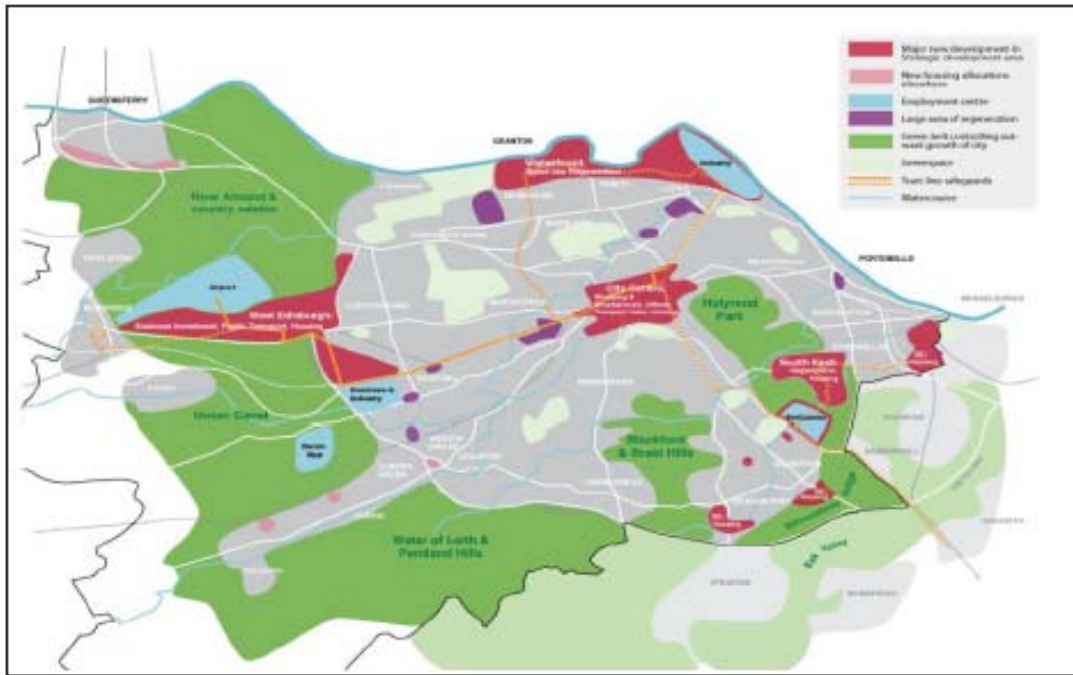
	Option 1 to Newhaven	Option 2 to Ocean Terminal	Option 3 to Foot of the Walk	Option 4 to MacDonald Road
Length (km)	4.7	3.9	1.9	0.8
Outturn Estimate Inc Risk £(m)	144.7	126.6	78.7	47.3
Cost per km £(m)	30.9	32.8	40.6	62.2
Benefit to Cost Ratio	1.52:1	1.63:1	1.29:1	0.56:1

- 3.2 The work undertaken in developing the Outline Business Case has confirmed that there is a positive economic case for the Newhaven, Ocean Terminal and Foot of the Walk Options and that the MacDonald Road Option is not economically viable as it has a benefit to cost (BCR) ratio of less than 1.
- 3.3 Significant increases in tram patronage are forecast for the Newhaven, Ocean Terminal and Foot of the Walk options, this against the background of a demonstrable growing public transport market in Edinburgh.

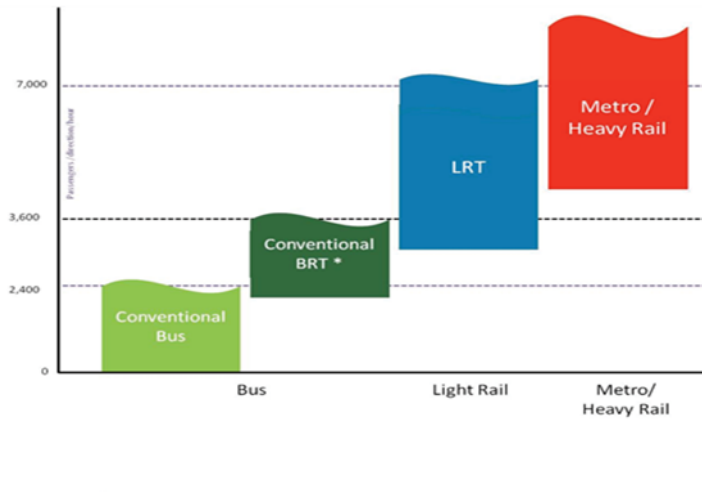
Benefits of the Tram Extension

- 3.4 As well as the monetised benefits set out above there are a number of wider benefits derived, and strategic objectives met, as a consequence of extending the tram line. These are set out in the OBC and are summarised below and in the diagram at Appendix B.

- 3.5 The purpose of considering Edinburgh Tram extensions is to support the overall level of economic growth of Edinburgh through enhancing the viability and attractiveness of major housing and employment sites identified in the Local Development Plans. The tram extensions can help support a level of economic activity (jobs, development, and housing) at a greater level than would otherwise be the case.
- 3.6 Extending the Edinburgh tram system to Newhaven or Ocean Terminal will **support the bringing forward of employment related development in the Leith Waterfront area. It will also increase the attractiveness of the employment locations in the city centre and West Edinburgh** by expanding the effective labour market catchment. It will also help to bring forward major residential development in Leith Waterfront for the Newhaven and Ocean Terminal Options.
- 3.7 Enhanced connectivity will better link existing and new jobs with existing and new residents, ensuring that labour market accessibility is enhanced (businesses will find it easier to recruit, and workers have access to more jobs), this will allow **economic growth to be delivered in a sustainable manner, through integrated transport and land use planning.**
- 3.8 **Over the next decade Edinburgh is expected to be home to a faster growing population than anywhere else in Scotland.** The National Records of Scotland 2012 based projections suggest that the city should be planning for an additional 54,400 people up to 2022 and an additional 136,400 by 2037, taking the total population from 482,600 to 619,000 over the 25 year period.
- 3.9 The spatial planning context sets out a policy framework for where this growth should be planned for and accommodated. The Local Development Plan sets out the spatial strategy for how this growth should be planned for and accommodated.
- 3.10 **The spatial strategies adopted by the Council direct most of the planned growth of the city to four strategic development areas. These are all connected by a network of potential tram lines.** This can be seen from the Spatial Strategy summary diagram set out in the Local Development Plan (in the context of Leith red denotes major housing development opportunities and blue major employment development opportunities).

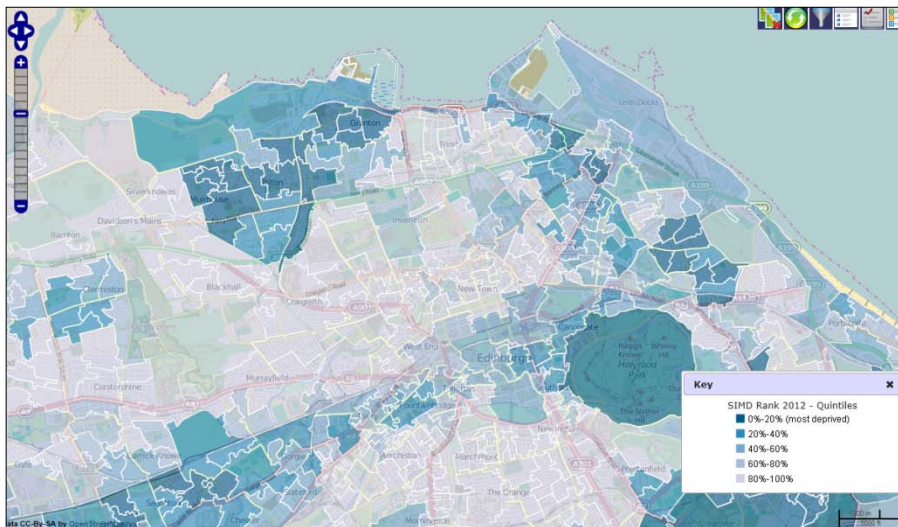


- 3.11 An extension to the current tram line will deliver high capacity public transport where it is needed. ***Leith Walk is one of the most densely populated corridors in the UK, with 124 residents per hectare compared to the Edinburgh average of 18.***
- 3.12 ***With over 50% of households in Leith not owning a car compared to 39% Edinburgh average,*** there is already a mature public transport market in North Edinburgh, which will benefit from the provision of a high capacity public transport system linking places where people live, with employment and other opportunities along the current tram line.
- 3.13 To support the long term strategic development aspirations of the Council, and align with the Local Development Plan, ***it is not feasible to service the future demand for transport in this part of the City by bus alone, which reaches capacity at around 2,400 passengers per direction per hour (ppdph).***
- 3.14 The forecasting to extend the tramway into Leith anticipates demand to exceed 4,000 pph over the next 10 years.
- 3.15 The following diagram is adapted from the UITP (International Association of Public Transport) Paper “Public Transport: making the right mobility choices”, Vienna 2009 and shows the relative capacity limits of public transport modes.



3.16 The results of the patronage forecasting, presented in the OBC, indicate that the further the line extends into north Edinburgh, the greater the prospect of releasing the public transport market potential.

3.17 ***The tram extension options serve a corridor of comparatively high unemployment and deprivation***, as shown in the figure below (this shows the Index of Deprivation, from the Scottish Index of Multiple Deprivation Interactive Map). The tram extension will provide improved accessibility to residents along the corridor to the range of job opportunities in the city centre and along the existing route.



3.18 The tram extension will enhance accessibility between these residents and major existing and planned employment locations, in particular the City Centre and West Edinburgh.

- 3.19 Option 1 (Newhaven) and Option 2 (Ocean Terminal) have similar BCR's although the cost per km for Newhaven is less given economies of scale. The cost of extending the line from Ocean Terminal to Newhaven in the future would also be prohibitively expensive as there would be additional mobilisation costs and some economies of scale would be lost. It is also worth noting that some of the infrastructure between the two stops, the Lindsay Road retaining wall, is already constructed.
- 3.20 On this basis it is recommended that the Newhaven option is selected and taken forward to the next stage of project development.

Availability of Parliamentary Powers & Land Assembly Update

- 3.21 The Council retains powers under the Tram Acts to acquire land under compulsory purchase powers and to commence construction on new sections of tramway. The expiry of these powers are set out in Table 1 below:

Table 1: Expiry of Tram Act Powers

Edinburgh Tram Acts (2006)	Powers to Acquire Land Expiry Date under Section 40(1)	Powers to Commence Construction Expiry Date under Section 74
Line One	7 May 2016	March 2021
Line Two	26 April 2021	March 2026

- 3.22 Under the provisions of the Edinburgh Tram (Line One) Act, the Council has already acquired, or has agreements in place to acquire sufficient land to deliver each of the four options under consideration in the OBC.
- 3.23 The Council has not exercised its compulsory purchase powers to acquire land between Roseburn Delta to Granton Square (Phase 1b) or between Granton and Newhaven (Phase 1c). These powers expire on 7 May 2016.
- 3.24 Of the 164 plots of land identified in the Edinburgh Tram (Line One) Act for Phase 1b (Roseburn to Granton), 97 of these are already under sole Council ownership. The remaining 67 plots of land (67,350 sqm) are not in Council ownership.
- 3.25 The Council will need to acquire the remaining 67 plots of land should it wish to proceed in the future with Phase 1b. The Council's powers to acquire these plots are going to expire imminently. There is no mechanism under the Edinburgh Tram (Line One) Act for the Council to apply for an extension of these powers. The Council is currently seeking legal advice on the Council's options to acquire the land and will report back to Council in December 2015.

Lessons Learned

- 3.26 In developing the Outline Business Case valuable knowledge gained by the Council in relation to the first phase of tram has been taken into account. This includes:

Traffic Management & Project Phasing - Following mediation in 2011, a successful approach was adopted by the Council in relation to project phasing and traffic management. Permissions were granted by the City to occupy significant street space and thus decrease the number of phases required to construct the works. This approach has been adopted in planning for the extension.

Utility Diversion Works - The OBC makes provision for these through the delivery strategy and risk allowances for utility diversions.

Project Governance - Following mediation, revised governance structures were put in place that served the project well through to passenger service. It is essential that similar arrangements are put in place from the outset for any future extensions and the OBC recommends strong governance arrangements from the outset.

Interfaces with 3rd Parties - There are a number of 3rd parties that will have a significant stake in the project and the strategy will need to take account of how these 3rd parties engage with the project. These include the Tram Operator; Lothian Buses; Edinburgh St James; Forth Ports; utility companies as the works relate to their existing assets; residents; local businesses and Historic Scotland. The Council will take a lead role in assisting the Contractor with 3rd party management and this has been factored into the delivery strategy.

Construction Contract - Any Contract for the Edinburgh Tram Extension will need to make provision for changes during the term through robust change control provisions. Based on the recent market consultation, the OBC recommends a Form of Contract reflecting industry norms.

Formal Market Consultation

- 3.27 A Prior Information Notice (PIN) was placed on the Public Contracts Scotland website on 1 July 2015 seeking market views on the tram extension.
- 3.28 This notice invited interested parties to complete a series of 16 questions seeking the market's views and approach to a number of areas including; prior experience, preferred form of contract, partnering, utility risk, integration with the existing systems, cost review, programme and willingness to participate in a formal bid process.

The market consultation closed on 12 August 2015, and during the process 12 organisations participated; these ranging from designers, specialist contractors, systems providers to international multi-disciplinary construction contractors.

- 3.29 The responses from the market consultation were broadly in line with the approach set out in the OBC, particularly in relation to supporting the use of a standard form of contract (NEC or FIDIC).
- 3.30 A number of respondents suggested adopting an “early contractor involvement” approach and it is proposed that this will be explored further at the next stage of project development.
- 3.31 As identified in the Outline Construction Delivery Strategy there is a requirement to procure advanced packages of work ahead of the main tram works. These include the demolition and reconstruction of the Constitution Street Church wall, archaeological investigations and further ground investigation to support the emerging contracting strategy. This approach was generally supported by the participants involved in the consultation.
- 3.32 On the basis of the market consultation, it is concluded that there is an appetite to participate in a formal process to extend the current tram line in Edinburgh, although the risk allocation under any contract will be a key consideration for participants.

Finance

- 3.33 In order to assess whether a tram extension is affordable to the Council, costs and income have been assessed in terms of:
- financial impact of the project on the combined bus and tram business; and
 - affordability to the Council in the short, medium and long-term.
- 3.34 A detailed financial model has been developed, building on the capital cost estimates, and the forecast patronage and revenues derived from the transport modelling undertaken as part of the transport economic evaluation. The financial modelling is further refined by using actual costs and revenue data provided by TfE and projected forward to 2051. It also takes account of inflation forecasts from the Office for Budget Responsibility and current tax rates.
- 3.35 The model provides detailed annual cashflow forecasts and incorporates bus and tram data for all four extension scenarios plus a no extension scenario.

3.36 The financial model is based on a large number of detailed assumptions. These are included in the OBC and the OBC appendices. Key assumptions have been signed off by appropriate officers in the Council and Transport for Edinburgh to ensure the robustness of financial projections. An independent check of the financial model was carried out by PWC, which found it to be fit for purpose.

The model considers a number of inputs for the TfE businesses including:

- Passenger revenues;
- Operational costs;
- Capital replacement costs; and
- Taxation.

3.37 In addition, sensitivity analysis has been carried out on the Newhaven option to determine the financial risk to the Council should costs and incomes change. The appropriateness of the sensitivity testing has also been reviewed by PWC.

3.38 The Council's draft budget framework assumes a continuing annual contribution of £6.5m from bus and tram. This comprises the existing £3m dividend from Lothian buses which helps fund the current tram line, an additional £3m dividend payment and £0.5m from tram advertising income as approved by Council in October 15'. For the purposes of this business case, it is assumed that this money is not available for the tram extension. However, it is assumed that the dividend will increase in line with inflation, and these increases are assumed to be available for the extension.

3.39 In order to extend the tram the Council needs to find capital funding up to £144.7m, depending on the option chosen. In the absence of other funding sources, the annual cost of borrowing this amount is significant.

3.40 The capital costs for each option are stated in Table 3 below, together with the annual 30 year borrowing requirement based on the an estimated borrowing rate.

Table 3: Annual Borrowing Costs

Description	Option 1 – York Place to Newhaven	Option 2 – York Place to Ocean Terminal	Option 3 – York Place Foot of the Walk	Option 4 – York Place to MacDonald Road
Capital Cost Estimate (£m)	144.7	126.6	78.7	47.3
Annual borrowing cost (£m)	9.5	8.3	5.2	3.1

3.41 The following capital funding options have been considered in order to meet the cost of the extension:

- Borrowing from either Public Works Loans Board (PWLB) or a commercial lender, and
- A Government Grant.

3.42 At this stage of project development no detailed assessment of a project finance/PPP solution has been carried out. Given the history of Edinburgh Tram and the relatively short length of the extension it is unlikely the Council would be able to realise the necessary level of risk transfer in any contractual framework to off-set the additional cost of project finance. The procurement strategy set out in the OBC however does not preclude a project finance/PPP solution and this could be explored further at the next stage of project development if necessary.

3.43 While detailed consideration has not been given to sourcing funds from the City Deal this will be explored further at the next stage of project development.

- 3.44 Prudential borrowing using PWLB loans is how the majority of Council Capital expenditure is funded and its interest rates are currently viewed as being competitive. Funding is advanced from the Council's loans pool and is repaid in equal annual instalments over the period of the loan. Although this option is estimated to have the lowest overall cost, the requirement to pay in equal instalments makes it difficult to meet financing costs during the construction phase and in the early years of tram operations, where loan charges of £9.5m per annum will be incurred.
- 3.45 In order to reduce financing costs in the early years, discussions have taken place with commercial lenders. Lenders have proposed loans options with reduced repayments in the early years of operations, increasing in later years when the tram becomes more profitable. Loan proposals at this stage are only indicative as lenders will need to undertake proper due diligence before providing any funding. This approach is more expensive in overall terms, but may make the project more affordable in the short-term.
- 3.46 The Scottish Government intends to issue new guidance on local authority borrowing, lending and loans fund administration. This will be the subject of consultation, but initial discussions have included giving Councils more flexibility in the use of PWLB borrowing with a repayment structure similar to that proposed by commercial lenders. However, there is a risk that proposed accounting changes in the guidance would have a negative impact on the business case should the start of the project be delayed.
- 3.47 Until more detail is available on the private sector offering and the new Scottish Government guidance, modelling undertaken is based on PWLB borrowing, using a marginal interest rate of 4.1%, with repayment of principal starting two years post construction, in line with the increase in public transport revenues. In order to assess whether the Council can afford to extend the tram, the Council cash flows during the construction period and the early years of operation have been modelled separately for each of the four options, as well as the 'do nothing'.
- 3.48 As capital financing costs need to be repaid from the construction period onwards, but revenues increase over a longer period, all options present challenges in terms of initial years affordability.
- 3.49 In all scenarios there is likely to be a funding gap in the early years of the project, which the Council will need to finance from its revenue budget. The revenue requirement to close this gap for each option is set out in the following table. Further discussions will take place with commercial lenders with a view to firming up proposals and exploring ways to reduce the funding gap, but revenue funding will be required to meet interest payments.

3.50 The early years funding gap for each of the four options is as follows:

Table 4: Funding Gap by Option

Option	Initial Funding Gap £(m)
MacDonald Road	£11 m
Foot of the Walk	£13 m
Ocean Terminal	£21 m
Newhaven	£25 m

3.51 The Council currently has approximately £5m of revenue reserves available, which have been retained from previous years' dividends from Lothian Bus. In addition, Lothian Buses has been asked to consider an extraordinary dividend request of £20m over the period 2017 – 2020 . If the Council receives this extraordinary dividend, then there would be sufficient funding to meet the initial funding gap for all extension options.

3.52 A number of sensitivities have been carried out and the results show that changes in tram patronage assumptions and capital costs have little impact on the financial benefits provided by the combined bus and tram network. This is because (even with the extension), tram accounts for a small percentage of overall TfE patronage. The model is slightly more sensitive to inflation, as funding costs would remain constant. In order to manage this risk, TfE will have to monitor its fare policy to take account of changes in its cost base.

3.53 These sensitivities were also used to test the affordability of the Newhaven extension to the Council. This analysis shows that small changes in inflation assumptions have little impact on the Council's ability to fund the project. However, if patronage estimates prove to be overly optimistic or if capital costs increase, then the Council will have to find additional resources to fund the project.

3.54 In the event that tram patronage was 10% lower than forecast then the Council would need to fund an additional initial shortfall, over and above the £25m set out above, of £11m. If tram premium fares dropped by 10% this shortfall would be £7m, and in the event that capital costs increased by 25% the shortfall would be £6m.

- 3.55 This demonstrates that although an extension to Newhaven may be affordable with the extraordinary dividend from Lothian Buses and £5m of existing reserves, additional capital costs or reduced patronage would present a material financial challenge to the Council. If one or more of the sensitivities were to occur simultaneously the impact would be compounded.
- 3.56 In order to increase confidence in financial projections and improve the affordability of the project, the financials will continue to be refined at the next stage of the project. Key activities will include:
- Ongoing review of modelling assumptions, including life cycle costs for the existing line;
 - Refining capital costs, based on design development and market engagement;
 - Working with lenders (public and commercial) and the Council's treasury team to determine the optimum funding solution and reduce the affordability gap;
 - Obtaining tax and legal advice to confirm tax and distribution assumptions and explore ways to improve tax efficiency; and
 - Integrating the project into the Council's budget planning process to determine whether any funding gap can be accommodated.
- 3.57 The current financial analysis supports the following conclusions:
- Over the life time of the project, financial benefits are similar for all options (including the no extension option);
 - In the short to medium-term the Council will need to identify additional resources to fund the borrowing costs required for the project;
 - Different capital payment structures may be available to better match borrowing costs to bus and tram revenues, but there will still be a funding gap, which the Council would have to fund from other resources;
 - A £20m extraordinary dividend from wider public transport revenues utilising Lothian Buses, plus use of £5m from reserves, would fund the initial funding gap for an extension to Newhaven;
 - In the longer term, Public Transport revenues can fund the extension and provide additional revenues to the Council;

- Sensitivity testing has shown that should Capital costs be higher than anticipated or patronage less than forecast, the affordability gap would be considerably greater; and
- Additional work is planned to increase further, confidence in financial projections and improve the early years' affordability gap of the project.

Contingency Proposals

- 3.58 The OBC sets out estimated risk adjusted capital costs associated with the four options. These costs have been provided by Turner and Townsend and have been independently audited by Faithfull & Gould.
- 3.59 The economic and financial analysis set out in the OBC is therefore based on these estimates.
- 3.60 The Tram Extension Project Board however is minded to include a contingency allowance of £15m which equates to approximately 10% of the estimated costs.
- 3.61 An example of a potential cost increase would relate to construction inflation over and above that allowed for in the OBC risk analysis. Since the report was submitted to Council in June this year the capital costs set out in the business case are likely to have increased due to inflation. While the impact of this cannot be calculated accurately until the overall programme is better understood, Turner & Townsend has been asked to estimate a likely impact based on current programme projections and the impact could be up to £2.5m.
- 3.62 Other potential costs increases could relate to increased contractor preliminaries in the event of a substantial delay to the construction and while some of this would be accounted for in the current risk estimates it would seem prudent to make further provision through the use of a contingency allowance.
- 3.63 The respondents to the Market Consultation exercise carried out in Summer 2015 provided a range of possible construction timescales of between 30 and 54 months. The 40 month construction programme in the OBC is based on the mid range and any contingency would be held to cover possible downside risks.

The Way Forward

- 3.64 There is a significant amount of work involved in taking the project further if the Council chooses to do so. The following section sets out the next phase of project development and breaks this down into two stages.
- 3.65 The following also sets out proposed governance arrangements for the project between any decision being taken to proceed and award of the main works tram contract.

- 3.66 In developing the staged delivery plan, it has been assumed that the procurement of an entity for the main tram works will not include early contractor involvement (ECI) at this stage. Feedback from the market consultation suggested there is an appetite for this and a form of ECI is currently being explored and may be adopted during the initial project establishment stage.
- 3.67 It is concluded however that ECI will only be adopted if it is likely to reduce the overall cost of the project to the Council and/or reduce the overall project delivery programme.
- 3.68 There is a significant amount of work required at the next phase of the project and a programme has been developed that splits the next phase into two stages. The first stage, which is scheduled to take approximately nine months, is Project Establishment. This will involve putting in place project governance arrangements; establishing the project team including the procurement of external advisors; furthering discussions with finance providers; commencing risk analysis and contract risk apportionment (including the review of possible Early Contractor Involvement); commencing stakeholder engagement; carrying out a preliminary review of Phase 1 contract documentation and third party agreements; commencing main works contract drafting; preparing all enabling works tender documentation and commencing site investigation and Leith Programme enabling works.
- 3.69 The second stage, which is scheduled to take approximately 21 months, is Project Development & Procurement. This will involve completing the site investigation works and working with the Council's advisors in procuring and carrying out enabling works. In preparation for procurement of the main tram works, the detailed Works Information will be finalised together with the contract risk apportionment and all other tender documentation including the invitation to tender. During this phase, a formal OJEU prequalification will be conducted and a tender shortlist drawn up. This will be followed by a formal tender process; evaluation of tenders; the finalisation of financing; and contract award.
- 3.70 The current programme estimates that the above two stage process will take approximately 30 months to complete. This timescale is comparable with other similar schemes both in the UK and other jurisdictions.
- 3.71 The tables in Appendix A set out the activities to be carried out during the two stages; provide an overview of each activity; and list the outcomes at the end of each stage.

Estimated Costs for Next Phases

3.72 Turner & Townsend were asked to provide an estimate of costs for each stage of the project up to the award of the main contract based on the Newhaven option. This estimate is broken down into three elements, the first relates to resource costs (internal staff and consultancy); the second relates to tram enabling works to be carried out by the current Leith Programme; and the third relates to other capital enabling works to be carried out in advance of the main contract for tram being awarded.

3.73 The tables below sets out the total estimated costs for Stages 1 and 2.

Stage 1

Description	Estimate (£k)
Project & Technical Management Resource	1,338
Tram Enabling Works	176
Leith Programme Enabling Works	123
Total for Stage 1	1,637

Stage 2

Description	Estimate (£k)
Project & Technical Management Resource	5,136
Tram Enabling Works	1,832
Leith Programme Enabling Works	1,342
Total for Stage 2	8,310

Total for Stage 1 & Stage 2

Description	Estimate (£k)
Stage 1 total estimated cost	1,637
Stage 2 total estimated cost	8,310
Total cost for project development and enabling works	9,947

3.74 Management costs include a 10% contingency and construction costs include a 17% contingency. The above costs can be accommodated within the allowances for these elements in the estimates set out in the OBC.

3.75 The above costs would be financed in line with the financing proposals set out above and would not require additional Council funding.

- 3.76 It should be noted that the resource costs and future Leith Programme enabling works costs will remain broadly the same irrespective of which option is selected. The significant difference should option 3 or 4 be selected, would be a reduction in costs for the tram enabling works which would reduce by approximately £2million (including the reduction in resource costs) as works beyond Foot to the Walk would not be required.
- 3.77 The purpose of breaking project development into two stages is to provide a checkpoint at the end of Stage 1. Should a decision be taken at that stage not to proceed further with the project, then consultancy contracts would need to be terminated and the team stood down. Costs expended up to that point would be sunk costs, with little or no residual value to the Council.
- 3.78 Should the project progress to the end of Stage 2 some value would be retained by the Council in relation to the enabling works and site investigation. This is estimated to be in the order of £3.5m.

Project Governance

- 3.79 In the event that the Council elects to proceed with an extension to the existing tramway there would be a requirement to develop a detailed Project Initiation Document (PID) setting out the governance arrangements for the project, authority levels and project management procedures.
- 3.80 In parallel the Council would need to appoint a Senior Responsible Officer (SRO) to commence the process of developing the team and PID.
- 3.81 The day to responsibility for the project would reside with the SRO with core decisions being taken within the project, by the Project Board and/or by the Council's Corporate Leadership Group (CLG). Political oversight would reside with an all party oversight group, similar to that in place on tram post mediation, together with quarterly updates to the Governance, Risk and Best Value Committee. Consideration could be given to retaining the existing Future Transport Working Group, chaired by the Transport & Environment Convenor, as the body responsible for oversight.

Measures of success

- 4.1 The findings of the draft OBC indicate that that an economic case for extending the current tram line would accrue positive benefits to the City.

4.2 Transport investment can increase effective density between places of residence and employment by reducing transport costs and thereby improving accessibility around and between jobs and people. Edinburgh Tram system extension options will reduce the transport costs between a number of key employment locations including:

- Around Leith Waterfront including the Scottish Government at Victoria Quay (for Newhaven and Ocean Terminal Options only);
- The city centre via the five stops between Picardy Place and Haymarket (inclusive);
- A reduction in travel time via a direct tram connection to major employment locations on the existing line, notably Edinburgh Park and Edinburgh Airport; and
- A reduction in travel times to a range of locations within the city and beyond, via interchange with rail at Waverley Station, Haymarket Station and Edinburgh Gateway, and local and intercity bus services (city centre).

4.3 Extending the Edinburgh tram system will also support the change in scale and location of jobs through:

- Directly supporting the bringing forward of employment related development in the Leith Waterfront area (for Newhaven and Ocean Terminal Options only); and
- Increasing the attractiveness of the employment locations in the city centre and West Edinburgh by expanding the effective labour market catchment through reduced travel costs (all options), and through helping bring forward major residential development in Leith Waterfront (for Newhaven and Ocean Terminal Options only).

4.4 The extension options will also deliver labour supply benefits. The Leith extension options will connect major existing and planned employment destinations (City Centre, West Edinburgh) with the Leith corridor, which has the highest population density in the city (and amongst the highest densities in the UK) and major planned areas for new residential developments in Leith towards Newhaven.

4.5 Enhanced connectivity will better link existing and new jobs with existing and new residents, ensuring that labour market accessibility is increased (businesses will find it easier to recruit, and workers have access to more jobs), and that the economic growth that this will support will be delivered in a sustainable manner, through integrated transport and land use planning.

- 4.6 The purpose of considering Edinburgh Tram extensions is to support the overall level of economic growth of Edinburgh through enhancing the viability and attractiveness of major housing and employment sites identified in the Local Development Plans. The tram extensions can help support a level of economic activity (jobs, development, and housing) at a greater level that would otherwise be the case.

Financial impact

- 5.1 If the Council were to proceed with extending the tram system at this time and pursue the recommendation to extend the tramway to Newhaven, there would be a requirement to find capital funding of £144.7m for the project, plus an additional £15m to provide a contingency.
- 5.2 Over the life time of the project, financial benefits are similar for all options (including the no extension option).
- 5.3 In the short to medium-term the Council will need to identify additional resources to fund the borrowing costs required for the project.
- 5.4 Different capital payment structures may be available to better match borrowing costs to bus and tram revenues, but there will still be a funding gap, which the Council would have to fund from other resources.
- 5.5 A £20m extraordinary dividend from Lothian Buses, plus use of £5m from reserves, would make an extension to Newhaven affordable to the Council.
- 5.6 In the longer term Public Transport revenues can fund the extension and provide additional revenues to the Council.
- 5.7 The Council's draft budget framework for the period 2016-20 assumes an additional budget contribution of £3.5m per annum from bus and tram is required to assist in balancing the Council's revenue budget. For the purposes of the Outline Business Case, it is assumed that this money is not available for the tram extension project.
- 5.8 Sensitivity testing detailed above shows that should Capital costs be higher than anticipated or patronage less than forecast the affordability gap could be considerably greater.
- 5.9 The costs associated with the next phases of the project total £9.9m, comprising £1.6m for stage 1 and £8.3m for stage 2. This can be contained within the overall capital funding requirement of £144.7m for the project. However, should the project not go ahead, then the Council would have to meet these costs from the extraordinary dividend being sought from Lothian Buses.

Risk, policy, compliance and governance impact

- 6.1 The recommendations set out in this report are in alignment with the LTS and the Local Development Plan and reflect the broader Council policy objectives of promoting development and stimulating economic activity in the city.
- 6.2 Although there are a number of risks which require careful management through the delivery phase of the project, including risks associated with traffic management and design, the capital cost estimate represents a fair assessment of the current market condition.
- 6.3 The cost plan and economic appraisal and patronage forecasts have been independently audited by Atkins and Faithful & Gould and are thus considered robust at this stage of project development
- 6.4 The market consultation that was undertaken during the Summer of 2015 has indicated and provided comfort that the scheme could be delivered within the cost parameters established during this stage.
- 6.5 Robust governance arrangements will be required if the project were to proceed. A key lesson learned from the first phase of tram delivery related to the project governance and contract management structures. Following mediation, revised governance structures were put in place that served the project well through to passenger service.
- 6.6 It is essential that similar arrangements are put in place from the outset for any future extensions. The key principles underpinning any project governance structure are:
 - Strong leadership from the top of the client body, key stakeholders and the Contractor(s) selected to carry out the works;
 - Strong political support and regular reporting by officers on risks, issues and costs;
 - Clearly defined roles and responsibilities within the client organisation with clear reporting lines;
 - Clear management information used to report through all project levels; and
 - Professional project management support within the client organisation.
- 6.7 There are proposals set out in this report regarding additional contingency allowances to deal with risks not identified in the capital cost estimate.

Equalities impact

- 7.1 The proposals and recommendations described in this report could contribute to the public sector general equality duty to: (i) advance equality of opportunity. There is no distinct relevance in respect of the general duties to; (ii) eliminate unlawful discrimination, harassment and victimisation, or; (iii) foster good relations.
- 7.2 An Equalities and Rights Impact Assessment has been prepared and is available as background reference. There are no direct negative equalities or human rights impacts anticipated.

Sustainability impact

- 8.1 The proposed work packages will be undertaken in consideration of the three elements of the Climate Change (Scotland) Act 2009 Public Bodies Duties. This aligns with the requirements of the Local Transport Strategy. The potential to extend the tram network aligns with and is cognisant of the requirement to reduce carbon emissions and the need to travel. In doing so, this will promote a shift to more sustainable modes of transport that will bring reduced carbon dioxide and nitrogen oxide emissions.
- 8.2 The promotion of a high capacity, high quality public transport system aligns with the LTS and draft Local Development Plan and will help achieve a sustainable Edinburgh, as both documents' actions include improving the extent of the public transport offered in Edinburgh, thus enhancing social inclusion and equality of opportunity.
- 8.3 The proposals to integrate with the St James Quarter redevelopment and Leith Programme initiatives aim to improve facilities for cyclists and pedestrians, thus promoting personal wellbeing.

Consultation and engagement

- 9.1 The recommendations set out in this report have been discussed with representatives of the Capital Coalition, Opposition Groups, Transport for Edinburgh, Sustrans, as well as between relevant services within the Council including Transport, Economic Development, Finance and Planning.

Background reading/external references

A Strategy for Jobs: The City of Edinburgh Council's Economic Strategy 2012-2017

http://www.edinburgh.gov.uk/download/downloads/id/501/a_strategy_for_jobs_2012-17

Edinburgh City Local Plans

http://www.edinburgh.gov.uk/downloads/download/229/edinburgh_city_local_plan

Edinburgh Local Development Plan – Proposed Plan March 2013

http://www.edinburgh.gov.uk/download/downloads/id/122/proposed_local_development_plan_march_2013

Local Transport Strategy 2014-2019

http://www.edinburgh.gov.uk/info/20221/roads_and_transport/341/transport_policy

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Links

Coalition pledges	P18 – Complete the Tram in accordance with current plans. P19 – Keep Lothian Buses in public hands and encourage the improvement of routes and times. P45 – Spend five per cent of the transport budget on provision for cyclists. P46 – Consult with a view to extending current 20mph zones. P50 – Meet greenhouse gas targets, including the national target of a 42 per cent reduction by 2020.
Council outcomes	CO7 – Edinburgh draws new investment in developing regeneration CO8 – Edinburgh’s economy creates and sustains job opportunities CO22 – Moving efficiently – Edinburgh has a transport system that improves connectivity and is green, healthy and accessible.
Single Outcome Agreement	SO1 – Edinburgh’s Economy Delivers increased investment, jobs and opportunities for all.
Appendices	Appendix A – Activities at Next Stage of Project Delivery Appendix B – Wider Benefits

Appendix A
Activities at Next Stage of Project Delivery
Stages 1 & 2

Stage 1 - Project Establishment – 9 Months

1st November 2015 – 31st July 2016

Activity	Overview
Establish project governance structures	<p>There are a number of lessons learned from previous Council projects that have been taken into account in developing the recommended governance structures. In particular experience has been drawn from arrangements put in place following mediation on the first phase of tram and the lessons learned from the Water of Leith Flood Prevention Scheme Phase 1. Details of proposed governance arrangements are set out later in this chapter.</p>
Establish project team	<p>There is a requirement to immediately establish a project team to oversee the project. It is important that this team retains a balance between in-house knowledge and capability and industry expertise.</p> <p>The Council will need to take the following steps in order to establish an appropriately balanced project team:</p> <p><u>External Support</u></p> <ol style="list-style-type: none"> 1. Scope out requirements for external consultancy support. At present it is envisaged that this will include Technical; Legal and Project Management/Commercial resource 2. Draft Terms of Reference for each consultancy package including a staged gateway approach to delivery 3. Publish OJEU Notices for each discipline or establish if existing Frameworks will suffice 4. Conduct procurement and make recommendations to award 5. Appoint consultancy support <p><u>Internal Support</u></p> <ol style="list-style-type: none"> 1. Scope out requirements for internal support and establish which roles are full time and which can be supported from functional departments. Immediate support will be required in the following areas: <ol style="list-style-type: none"> a. Finance (part time) b. Procurement (part time) c. Legal (part time) d. Property (part time) e. Transport & Engineering (part and full time) f. Project Management (full time) g. Planning (part time) h. Communications (part time) 2. Draft job descriptions, grade roles internally and

Activity	Overview
	<p>externally</p> <ol style="list-style-type: none"> 3. Interview potential candidates and finalise offers 4. Allow for notice periods (up to 3 months) 5. Appoint Council team to the project
Develop financing solution further and commence preliminary lender due diligence	There are a number of possible options in relation to funding that will be explored in more detail at the project establishment stage. Once the options have been evaluated more fully there will be requirement for any lender to carry out an appraisal of the project, the European Investment Bank for example has very strict appraisal rules in relation to technical viability, socio-economic benefits and financial robustness. This process will then continue into Stage 2.
Commence detailed risk analysis and apportionment	While this activity cannot commence in full until the technical and legal advisors are appointed a preliminary internal exercise can be carried out that will build on the risk work done at outline business case stage. Further work can also be carried out in relation to exploring the use of Early Contractor Involvement. At the back end of Stage 1 more detailed analysis will commence.
Commence formal consultation on proposals with key stakeholders	Good stakeholder management at an early stage in project development is crucial to a successful outcome. It is recommended that a Stakeholder Engagement group is established as early as possible following any decision to proceed. This will form the basis for community engagement although significant wider engagement will also take place as the project develops.
Review of phase 1 contract documentation	While this activity cannot commence in full until the technical and legal advisors are appointed a preliminary internal exercise can be carried out in relation to the works requirements. At the back end of Stage 1 more detailed analysis will commence.
Review of technical and prior approvals	The original phase 1 tram design process was 'frozen' in 2011. At that stage, technical approvals (roads and structures) were still underway. There will be a requirement given the changes in scope resulting from details of the Leith Programme and Edinburgh St James interfaces which will need to be incorporated in any updated tram design, and to revisit the technical approval process and complete this. Similarly, the prior approvals (from the Planning Authority) have now lapsed and will need to be applied for again. Ultimately these activities will be completed by the successful tenderer on the lead in to commencement of

Activity	Overview
	construction. It is considered prudent however to carry out a preliminary review of technical and prior approvals during Stage 1 to establish the extent of work required. This will then be used to inform the contract documentation at Stage 2.
Additional Site Investigation	A recommendation in the outline business case is to carry out additional site investigation to inform all parties in relation to ground condition risk. An activity that can be carried out during the project establishment phase will be to procure and commence this additional site investigation.
Enabling works tender documentation	Other potential enabling works, including archaeological investigations and wall realignment are identified in the outline business case. A further activity that can be carried out during the project establishment phase will be to fully scope any enabling works and prepare the tender documents ready to commence procurement at the next stage.
Commence Leith Walk enabling works	The OBC assumes the current Leith Programme Phases 4 & 5 (between Pilrig and London Road) will carry out tram enabling works and capital works. The intention is that the footways and kerbs realigned and surfaced by the Leith Programme will be future proofed for the Tram project. This will allow the footways to largely remain undisturbed during the Tram works in this area. In addition the Leith Programme will carry out key enabling works for tram including site investigation and utility diversions while works are carried out to the carriage way in this area. Subject to completion of the current TRO process these works can commence during Stage 1.
Review and refresh MUDFA	The Council and its' (then) agent Tie Ltd, entered into a series of agreements with each of the Statutory Utility Companies (SUCs). These agreements set out the principles of co-operative working to design and enable the multi-apparatus utilities diversions required to accommodate a tramway under the powers set out in the Tram Acts. Given that the full scope of the Edinburgh Tram (Line One) Act, 2006 is yet to be delivered between the City Centre and Leith, there is scope to revisit these agreements and set up Joint Utilities Group (JUG) to facilitate the diversion of any outstanding utilities which may be required.

Activity	Overview
Review 3 rd party agreements	The Council entered into a series of Third Party Agreements with more than 90 stakeholders through the approval process for the Edinburgh Tram (Line One) and (Line Two) Acts. There is a requirement for the Council to meet any obligations set out in these agreements as they relate the proposed extension works. It will therefore be necessary to undertake a review of the agreement database to determine any residual obligations that either the Council, or it's contractor may have to discharge in respect of the proposed tramway extension.

Outputs from Stage 1

Outputs from Stage 1	
1.	Project governance structures in place and signed off.
2.	Project team established including the appointment of Technical, Project Management, Commercial and Legal advisors.
3.	Agree financing heads of terms with prospective lender(s).
4.	Preliminary risk analysis and apportionment complete.
5.	Preliminary stakeholder analysis complete which will inform on project development at Stage 2.
6.	Preliminary review of Tram phase 1 contract documentation
7.	Complete review of technical and prior approvals which will inform on project development at Stage 2.
8.	Commence additional site investigation and Leith Programme enabling works
9.	Scope of works and tender documentation for enabling works complete.
10.	MUDFA and 3 rd Party agreements reviewed and Joint Utilities Group established

STAGE 2 - Project Development – 21 Months

1st August 2016 – 30th April 2018

Activity	Overview
Complete Site Investigation	Site investigation works will be finalised and the results used to inform on the contract documentation. As the Leith

Activity	Overview
and Leith Programme enabling works	Programme progresses further enabling works will be carried out. Consideration may be given to merging the tow projects as some point in the future although this OBC assumes they will remain separate.
Procure and commence enabling works	Following the exercise carried out during the project establishment stage, procurement can be undertaken to appoint enabling works contractor(s). Works can then commence to ensure they are completed in good time for the main tram works commencing.
Prepare Works Information for main tram works	This will follow on from the review of the phase 1 documentation and will require a significant restructure to bring it in line with any contractual provisions set out in the form of contract selected. A similar exercise has recently been carried out by the Council in relation to the Water of Leith FPS Phase 2 and this took over six months to complete.
Finalise risk apportionment with legal and commence contract drafting	The outline business case recommends that a standard form of contract is adopted for any extension. There will however be a requirement to draft supplementary clauses to any standard form and prior to this a comprehensive risk analysis and apportionment exercise will be carried out with the project technical and legal advisors. Following this the first draft of any supplemental clauses can be drafted.
Final review of tender documentation	Upon completion of the technical and legal documentation a thorough “claims” review will be carried out wherein the documentation will reviewed for potential contractual claims. This can only be done once all documentation is complete and will be done by a body/person independent of the team that drafted the documentation.
Draft ITT	In parallel with the above activities an invitation to tender (ITT) will also be developed setting out the rules of the procurement and the submission requirements.
Carry out PQQ	In parallel with the preparation of tender documents, including the ITT, the project will run a prequalification process in accordance with the OJEU rules. This prequalification will need to be completed and bidders selected prior to tenders being released.
ITT & Tender	A tender period of 6 months has been assumed in developing the programme. This has been confirmed as

Activity	Overview
	reasonable through the Markey consultation stage.
Tender Evaluation	A period of 6 months has been assumed in developing the programme. This could be bettered but will depend on the quality of tenders received.
Finalise funding arrangements	Work will conclude with prospective lenders during this stage with facilities being put in place contract award stage.
Award contract	Award of contract to successful tenderer.
Continue stakeholder consultation process	The stakeholder consultation process will run continuously throughout the life of the project. At this stage in project development the requirements of key stakeholders will be assessed and where appropriate fed into the contract documentation.

Outputs from Stage 2

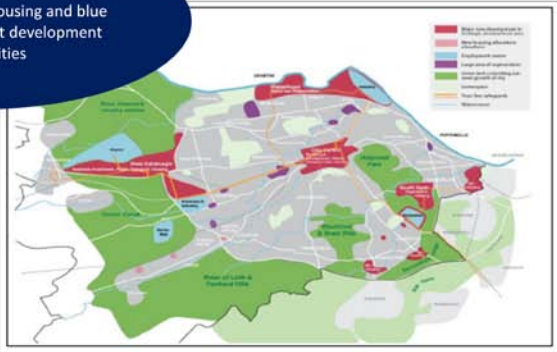
Outputs from Stage 2	
1.	Site Investigation works will be complete early in this phase to inform the Contract documentation.
2.	Enabling works will be complete during Stage 2.
3.	A prequalification exercise will be completed and the tender list finalised during Stage 2.
4.	Contract documents will be completed during Stage 2 taking account of ongoing stakeholder engagement. This will include all technical, legal and procurement documentation. Due diligence will also be carried out prior to any invitation to tender being issued.
5.	Tender process will be completed and a recommendation prepared for Committee sign off.
6.	Financing arrangements finalised and a recommendation prepared for Committee sign off.
7.	Award of main works contract and execute financing agreements.

Appendix B

Supporting Sustainable Population Growth
 2012 – 2037
 136,000 projected increase

In line with LDP
 Red denotes major housing and blue denotes employment development opportunities

Delivering high capacity PT where it is needed
 Leith Walk 124 residents per hectare compared to Edinburgh average of 18



Delivering high capacity PT where it is needed
 Over 50% of households in Leith do not own cars compared to 39% Edinburgh average

Network Vision
Newhaven
 <20% additional expenditure for 87% increase in passengers

Supporting Employment Growth
 Employment set to grow by over 7% by 2022 – manage growth by linking key nodes



Increases capacity on the corridor
 Capable of carrying up to 5,000 ppdp which cannot be achieved with Bus

Socially Inclusive
 Serves some of the most deprived areas of the city opening up employment opportunities